9-22-16

Weather 6 Mph wind S, SW
Sunny 60-80 F

0630 START Setting out equipment
0730 All equipment is out and Running properly. All trucks on Site Ready for Load out.
0811 Dust truck exceeded PEL Due to ERRS truck driving in close proximity to the Dust trak station.
0900 City Storm water is on site walking with START, ERRS, EPA to Locate storm drains that need/have covered.

0945 Site walk with Stormwater Complete and row of trucks are being Loaded.

1021 Last truck being Loaded out workers are working up on cleaning debris from pile 2
1040 OSC confirmed Large truck to use as dust control

1115 ERRS hand shoveling out debris from the side of the structure foundation at pile 2.
1400 workers are working on getting debris out of pile 6 but the basement keeps caving in

1500 trucks will be arriving and poly lined shortly

1630 All trucks are Loaded START gathering equipment
1730 All equipment gathered All equipment has been shut down for the day.

9-22-16

Rite in the Rain.

9-23-16

Weather high 78°F wind speed 0-5 mph N, NE

0630 START on site setting out equipment for the day.

0700 Trucks are onsite

0730 Trucks being lined with poly

0800 workers are tidying up the area which are had pile two and working around the edges w pile 1.

0900 ERRS working on stock piling ~~[illegible]~~ from pile 3. START working area to ensure no debris is leaving the site due to wind.

1200 A1

Rite in the Rain

9-26-16 Morning shower high 67°F
winds W at 25-15 MPH

0630 START on site setting out dust trucks. Air cans will not be set out until its clear of Rain.

0700 Trucks on Site

0730 Trucks being lined with poly for load out

0800 Plan for the day is to finish pile 6 basement and then backfill due to unstable walls. it is unsafe for a person to go down into the basement.

0900 Dust truck Line 2 has went off reasons unknown wind gust picked up but due to rain dust should be minimal

0910 workers are using skidster and hand shovels to remove any debris around the building of pile 2.

0934 START and ERRS checking out pile 6 basement. Nothing was observed to be Acm Okay to backfill.

9-26-16

0935 2nd round of trucks arriving

1000 Rain has stopped no further rain is expected START setting out Air cans

1043 3 drums were found in the pile 9 back fill TOTAL (4)

1100 Line 2 has stopped Recording on viper START powered down then back on again made sure everything was plugged in and still no signal from the dust trak.

1148 3rd round of trucks coming on site. workers prepping poly.

1153 Line 2 now back online.

1230 Due to drums backfill on site will be now taken out as non-hazadous waste

14:00 START taking [illegible]/crushed concrete back fill samples to FEDEX for drop off.

1530 workers are finished with the last set of trucks and are now prepping for [illegible]

Kite in the Rain

09/27/16

0630 START ON Site setting out dust Trucks and Aircans determined by wind direction.

0700 While setting up Air Cans 005 was not working properly. Trucks are on Site. ~~0837~~

0839 Line 2 is at an exceedence START went to see what possible causes: A wind shift and high volume of road traffic might have caused the Alarm.

0930 Workers are pulling debris out of the "organic pit" near pile 6.

1115 START walked Area with PDR as Trucks and wind picked up the PEL was exceeded

1200 Air Can 005 will be sent back to wave house and replaced

1600 START walked Around South Side of Site no SACM was noticed except on the South East Side. Some debris will need to be picked up

1310 high gust come on to Site bringin dust on to the Site previously EMSL Analyst stated that the cassettes have a lot of background dust possibly Lowering volume would help.

1350 workers are working cleaning up edges around pile 9 and seeing if any more drums can be found. Chris is using the mini excavator to remove the structural rebar from Pile 2

1400 Last trucks are onsite for prep.

1500 Exceedences ~~and~~ are due to high gusts blowing dust from outside work zones and from the other side of the work zone both cannot be controlled.

1600 START will collect Samples now to cut down on Dust interference for cassett analyst

1630 All Samples have been collected

Rite in the Rain.

9-27-16

1700 START collecting dust tracks before leaving site for the day

1730 Everything has been shut down for the day START and ERRS headed off site.

Conclue

9-28-16

0630 weather 52°-63°F wind N NE 5-10 mph 60% precip - Airc will not be set up until rain passes

0700 All dust tracks are set trucks are on site for Lining and Load out

0800 workers are taking the top level off of pile 9 to see if more drums are buried

0830 START setting out Air cans Dust tracks have exceeded PEL due to what has been determined as heavy track traffic at the gravel storage on the other side of the site South East Corner.

0900 Rain started Tetratech Cover Samples until rain stops

1000 trucks on site. Rain is too hard START Pulling Samples.

1048 Starting Samples Again

1132 Alarm crew skidster working in close prox of meter

Rite in the Ra

9-28-16

exhaust is most likely the issue

12:00 Trucks are being prepped for removal

~~11:30~~ START calibrated and walking out to drums burned aside. No reading of any kind was picked up by multi rae pro.

~~2:00~~ Trucks are down to 2 only for load out

2:00 workers are taking soil from the back fill pile 9' and filling pile 6 location to ground level. All soil has come back clean. Soil being used has no drums in proximity broken and leaking.

3:00 workers are back filling at pile 6 basement and jack hammering the pipe chase at pile 2

4:15 START gathering sampling equipment before storm comes through

9-28-16

5:00 ERRS is stopping for the day START gathering dust trucks.

5:30 All equipment is brought in and charging START and ERRS off site

Rite in the Rain

9-29-16

0630 Temp 58°-65° cloudy 80%
chance of rain, Air cons will not
be set out until weather clears.
Wind North/variable 1 mph
0700 Trucks on site workers are
lining and loading.
0800 ERRS hammering out pipe chase
in pile 2. Air cons will not
be set up due to rain
Saying rain is likely
0900 Troubles with Viper SRT
Re Registering TOCW
0930 ERRS has finished backfilling
pile 6 and left room for
crushed concrete. START
inspected pipe chase, it looks
to go around the perimeter
of the solid slab.
1100 Workers still hammering up
the pile 2 chase run and
Re organizing Load out pile.
1200 Started backfill of basement of
pile 2.
1400 Trucks have returned for load.
backfill from pile 9 is now being move

9-29-16

to pile 2 basement. A truck
had a hose leakout will
not be returning for the last
Load out, Should be fixed by
tomorrow.
1630 START collecting equipment
for the day No Air Samples
taken due to ~~[illegible]~~ Rainfall
off and on throughout the day

Rite in the Rain

9-30-16

0630 50-60°F wind North 0-2 mph misting Rain START Setting out equipment for the day.

0700 Trucks on site for poly and load out.

0800 workers are finishing up pipe chase and then will begin cleaning around the edges of the building.

1000 Drums that were found in backfill are Land on poly and wrapped up.

1200 Workers are touching up any debris areas inside the pipe chase and filling in basement with backfill

1500 down pour of rain damage cassettes!

1630 Crews are preparing the site for Monday. START collecting dust tracks.

9-30-16

ERRS is done for the day START and ERRS off site.

Rite in the Rain

10-4-16

0630 START on Site deploying Dust Tracks and Air Cons

0730 62-74°F Partly cloudy wind South East.

7:30 Trucks (1) will be finished Loading by 9:00 time.

11:00 START inspecting site Some 9x9 Floor tiles and mastic must be removed.

1200 Last Truck Load is off Site ERRS is filling basement of pile 2 Still and picking up any debris that may have been missed and double bagging the material

1200 workers are working on backfilling and spot checking areas for missed debris

1500 START walking site to inspect for any missed PACM. START noticed Black mastic and pieces of floor tile. ERRS will try and scrape or bust the concrete to remove the mastic

1630 No other areas of PACM were noticed. The mastic is still present and couldn't be scrapped off. tommorrow ERRS will try and bust the concrete. START is collecting equipment for the day as ERRS starts to wrap up the activities on site.

1730 All workers are out of the work area and heading off site. Work will begin later at 7:00am.

Rite in the Rain

 10-5-12

0760 START and ERRS on Site
Today ERRS will try busting
concrete with black mastic.
START setting AIR Cans and
Dust trucks out on site.

0900 workers are switching out the
bucket on the little excavator
to put on the jack hammer
to bust up 2 sections on
concrete.

1200 workers are finishing up
the concrete with mastic.
START walking around inspecting
the area.

1230 The mastic area looks
good and the material is
in a lined metal drum
for disposal.

1430 workers are picking up
any debris seen around the
buildings and loading basement
with backfill.

1630 workers are continuing to
fill basement with backfill
That was on site. Crushed
cement will be used and
has been cleared from
any elevated levels.

1700 START collecting Air
Sampling equipment

1730 All work has been
shut down for the
day.

1800 off Site

Rite in the Rain.

10-6-16

0730 All workers on Site. Today The Left over Concrete will be placed In The basement of pile 1 and covered with Dirt. There is random debris in The South East area from dumping pervious to fence will be crushed and loaded tomorrow.

0930 START walking Area noticed 3 pits with debris that has been missed

1030 Pits will be dug out and inspected for ACM workers continue piling Random debris for Loadout

1230 workers digging Ats out. No ACM was seen and The debris will be Loaded out as normal waste.

1530 workers are putting Last Concrete blocks into pile 2 basement and Loading basement with Dirt from onsite

1630 workers are starting to wrap up Site activities decoming equipment and moving back Still

1730 All work complete for the day

1800 START and ERRS off Site

[signature]
10-6-16

Rite in the Rain

10-7-16

0730 START and ERRS onsite. weather 68-80°F wind west 10 mph. Trucks onsite for general debris Loadout.

0800 workers Loading truck with debris from previous dumping Also crushing water filling tanks Left onsite.

10:00 workers are wetting down areas to control dust from backfill. Some equipment will be leaving offsite shortly.

1200 workers continue to wet down pile 7 debris while excavator crushes the debris for Loadout

1300 Backfill truck continue to backfill various basements and ERRS crew spread evenly throughout area

10-10-16 Holiday

1500 crew is Leveling off the area where the backfill pile #9 used to be.

1530 water truck for Area near pile 6 will be onsite 10/11/16

Rite in the Rain

10-11-16

0700 weather Sunny 58-72°F
wind north 0-5mph
0730 truck on site for general
waste. Also backfill trucks
have started dumping into
Areas of the pits/basements.
09:00 3 truck Rotation for
backfill has returned.
1000 water truck for a water
filled pit is on site capacity
is 5,000 gallons and pit estimated
17,000 gallons
1040 START upped the Adams
to half the PEL for dust
Due to asbestos containing
material no Longer on site.
1230 Lunch Break
1300 Continue backfilling
1400 dust tracks keep going
off ERRS will apply more
water to control dust
better but due to shifting
winds not all dust is from
The Site.

10-11-16

1500 ERRS over packing drums
on the back East corner
of The Site All workers
are wearing proper PPE
while over packing.

1600 Backfill trucks are on
the Last Load for
the day due to traffic
1700 workers are moving the
over packed drums to
one Location.
1730 workers are finished for
the day

10-12-16

[signature]

Rite in the Rain

10-12-16

0730 ERRS and START onsite
Dump trucks will be set out
weather: wind variable
10 mph 60-75° High sun
rain possible

0800 Trucks will continue to
backfill Some equipment
will be taken off site.

0900 Water truck arrived onsite
ERRS will start capping
the storm drains with
Cement

1100 Workers have finished
capping the sewers. Trucks
are running the last backfill
before Lunch.

1300 workers are working on
Leveling and Compacting
the crushed cement backfill.

1630 backfill trucks done for
the day. workers are doing
various demobing activities

1630 Heavy Rain and wind pelting
Dust trucks

10-12-16

1700 Hard Rain Storm + lightning
has come through workers
are packing up for the day.

10-12-16

Rite in the Rain

10-13-16

0730 START and ERRS onsite
No Air monitoring due to
START will be going to
New Castle unknown
how long that will take.
Trucks onsite for backfill
Loading docks and random
pits.

0900 As trucks fill up loading
docks ERRS spreads and
compacts backfill.

0945 water truck full will
be returning tomorrow for
last run and START May
sample remaining water

1000 START headed to New
Castle

10-13-16

10-14-16

0730 START onsite with ERRS
finishing backfill and
demobing today

0900 water truck onsite
to see what will happen
to the "pool pit"

1000 "pool pit" has no been
Drained enough to see
the bottom. START and
ERRS checking for any
asbestos containing material
before filling the pit
with backfill

1200 continuing with backfill
almost complete with the
demobing activities

Rite in the Rain

APPENDIX E

ANALYTICAL DATA VALIDATION REPORT

MEC^X
8864 Interchange Dr., Houston, TX 77054-2512
Phone (713) 585-7000 ● Fax (713) 585-7049

December 22, 2016

Mr. Andrew Maguire
On-Scene Coordinator
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: **Data Validation Report – Analytical Report 16091057**
TOCON Asbestos Removal
EPA Contract No. EP-S5-13-01
Technical Direction Document No. 0001\S05-0001-1607-008
Document Tracking No. 1388

Dear Mr. Maguire:
Tetra Tech Inc. (Tetra Tech) is submitting this Data Validation Report for one water sample and one trip blank sample collected at the TOCON Asbestos Removal site. The samples were collected on September 19, 2016, and were analyzed for volatiles, herbicides, pesticides, PCBs, semivolatiles and metals by CT Laboratories. The laboratory data package was received on September 28, 2016.

Analytical data were evaluated in general accordance with the EPA ***National Functional Guidelines (NFG) for Superfund Inorganic Methods Data Review*** **(September 2016) and** ***NFG for Superfund Organic Methods Data Review*** **(September 2016)*.***

No data were rejected based on this validation. The results may be used as qualified.

If you have any questions regarding this data validation report, please call me at (713) 585-7000 ext. 7020.

Sincerely,

Senior Chemist

Enclosure
cc: Kevin Scott, Tetra Tech Program Manager
Chris Burns, Tetra Tech Project Manager
TDD File

ATTACHMENT 1

DATA VALIDATION REPORT
SAMPLES COLLECTED SEPTEMBER 19, 2016

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	TOCON Asbestos Removal		**TDD No.**	0001\S05-0001-1607-008
Document Tracking No.	1388			
Data Reviewer (signature and date)	December 22, 2016		**Technical Reviewer (signature and date)**	December 22, 2016
Laboratory Report No.	16091057		**Laboratory**	CT Laboratories
Analyses	Volatiles-SW8260B, Pesticides-SW8081, PCBs-SW8082, Herbicides -SW8151, semivolatiles-SW8270D, Metals – SW6020A, Mercury – SW7470A			
Samples and Matrix	One surface water sample and one trip blank			
Field Duplicate Pairs	N/A			
Field Blanks	Trip Blank			

INTRODUCTION

This checklist summarizes the Stage 2A validation performed by MEC^X, Inc. on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Inorganic Methods Data Review* (September 2016) and *CLP NFG for Superfund Organic Methods Data Review* (September 2016).

OVERALL EVALUATION

No results required rejection. Data were qualified as indicated below due to surrogate and laboratory duplicate outliers. The data can be used as qualified.

Data completeness:

Within Criteria	Exceedance/Notes
Y	

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	The cooler temperature was within control limits. The time of sample collection and the time of relinquishment of the samples to the laboratory were missing from the COC. No qualifications were made to the data for these omissions as they did not impact data quality. No holding times were impacted as all holding time were calculated from the data of collection and no holding times were exceeded.

Method blanks:

Within Criteria	Exceedance/Notes
Y	Target analytes were not detected in the method blanks.

Field blanks/Trip Blanks:

Within Criteria	Exceedance/Notes
Y	Sample "Trip Blank" was identified as the trip blank associated with the sample and was shipped with the site sample and analyzed for volatile organic compounds. The trip blank was free from target compound contamination and no qualifications were required.

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	The surrogate, DCAA, for the herbicide analysis was recovered below the QAPP QC limits of 70-130% at 37.4%. The results for the herbicide analysis, both nondetects, were qualified as estimated nondetects with a potential low bias (UJ). The surrogates, DCB and TCMX, for the PCB analysis exceeded the laboratory control limits of 40-110% recovery at 182% and 304%, respectively. PCB detects in sample TPA-Pile 6- 091916 were qualified as estimated with a potential positive bias (J+).

MS/MSD:

Within Criteria	Exceedance/Notes
N	Matrix spikes were analyzed on the site sample for Method 8151 and the 200X dilution of Method 8260B for acetone and 2-butanone. Matrix spike results are not evaluated when the parent sample concentration is > 4x the spike concentration. All matrix spike recoveries were within the control limits listed in the QAPP or lab limits for those compounds without a QAPP criterion except for acetone in the MS only which was recovered at 55.3% (QC limits of 60-160%). No qualification was applied for the single outlier.

Laboratory duplicates:

Within Criteria	Exceedance/Notes
N	A laboratory duplicate was performed on the site sample for SVOCs in lieu of a MSD although the MS was not performed on the site sample. All RPDs were within the laboratory control limits of ≤30%s for results above the RL and ± the RL for results less than the RL with the exception of acetophenone (83.9%), dibenzo(a,h)anthracene (30.7%) and di-n-octyl phthalate (33.8%). These compounds were qualified as estimated (J) without bias.

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	All LCS recoveries were within the control limits listed in the QAPP or lab limits for those compounds without a QAPP criterion.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	Several target analyte results were reported from diluted analyses; all pesticides were reported from a 10X dilution, calcium was reported from a 10X dilution, isophorone was reported from a 5X dilution and all VOCs were reported at a 10X dilution or a 200X dilution for acetone and 2-butanone. Detection limits were adjusted appropriately.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
Y	Samples were re-prepped and/or reanalyzed at multiple dilutions to bring individual target compounds into the linear range of the respective instrument.

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Results reported below the RL were flagged as estimated (J).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
N/A	TICs were not reported for the site sample.

Other [specify]:

Within Criteria	Exceedance/Notes
N/A	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

Validated Sample Result Forms: 16091057

Analysis Method SW6020A

Sample Name TPA-Pile 6 - 091916

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
Aluminum	2.3	0.01	0.0042	mg/L		2.3	
Antimony	0.028	0.005	0.00017	mg/L		0.028	
Arsenic	0.011	0.005	0.00087	mg/L		0.011	
Barium	0.32	0.005	0.0022	mg/L		0.32	
Beryllium	0.00012	0.002	0.00012	mg/L	U	0.00012	U
Cadmium	0.011	0.002	0.00005	mg/L		0.011	
Calcium	240	5	0.086	mg/L		240	
Chromium	0.016	0.005	0.00065	mg/L		0.016	
Cobalt	0.0054	0.005	0.00014	mg/L		0.0054	
Copper	0.12	0.005	0.00028	mg/L		0.12	
Iron	11	0.08	0.0046	mg/L		11	
Lead	0.091	0.005	0.00033	mg/L		0.091	
Magnesium	22	0.2	0.0068	mg/L		22	
Manganese	0.52	0.005	0.00051	mg/L		0.52	
Nickel	0.016	0.005	0.00041	mg/L		0.016	
Potassium	30	0.2	0.017	mg/L		30	
Selenium	0.0009	0.005	0.0009	mg/L	U	0.0009	U
Silver	0.0041	0.005	0.00005	mg/L	J	0.0041	J
Sodium	40	0.2	0.034	mg/L		40	
Thallium	0.00016	0.005	0.00016	mg/L	U	0.00016	U
Vanadium	0.012	0.005	0.00098	mg/L		0.012	
Zinc	1.2	0.01	0.0014	mg/L		1.2	

Analysis Method SW7470A

Sample Name TPA-Pile 6 - 091916

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
Mercury	0.00069	0.0002	0.000019	mg/L		0.00069	

Analysis Method SW8081

Sample Name TPA-Pile 6 - 091916

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
4,4┤-DDD	0.012	0.2	0.0012	ug/L	U	0.012	U
4,4┤-DDE	0.012	0.2	0.0012	ug/L	U	0.012	U
4,4┤-DDT	0.017	0.2	0.0017	ug/L	U	0.017	U
Aldrin	0.015	0.1	0.0015	ug/L	U	0.015	U

Analysis Method SW8081

alpha-BHC	0.025	0.1	0.0025	ug/L	U	0.025	U
alpha-Chlordane	0.017	0.2	0.0017	ug/L	U	0.017	U
beta-BHC	0.044	0.1	0.0044	ug/L	U	0.044	U
Chlordane, Technical	0.34	5	0.034	ug/L	U	0.34	U
delta-BHC	0.015	0.1	0.0015	ug/L	U	0.015	U
Dieldrin	0.017	0.2	0.0017	ug/L	U	0.017	U
Endosulfan I	0.017	0.2	0.0017	ug/L	U	0.017	U
Endosulfan II	0.012	0.2	0.0012	ug/L	U	0.012	U
Endosulfan sulfate	0.012	0.2	0.0012	ug/L	U	0.012	U
Endrin	0.012	0.2	0.0012	ug/L	U	0.012	U
Endrin aldehyde	0.03	0.2	0.003	ug/L	U	0.03	U
Endrin ketone	0.012	0.2	0.0012	ug/L	U	0.012	U
gamma-BHC (Lindane)	0.012	0.1	0.0012	ug/L	U	0.012	U
gamma-Chlordane	0.012	0.2	0.0012	ug/L	U	0.012	U
Heptachlor	0.017	0.1	0.0017	ug/L	U	0.017	U
Heptachlor epoxide	0.017	0.1	0.0017	ug/L	U	0.017	U
Methoxychlor	0.015	0.4	0.0015	ug/L	U	0.015	U
Toxaphene	1.1	20	0.11	ug/L	U	1.1	U

Analysis Method SW8082

Sample Name TPA-Pile 6 - 091916

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
Aroclor 1016	0.051	0.21	0.048	ug/L	U	0.051	U
Aroclor 1221	0.051	0.21	0.048	ug/L	U	0.051	U
Aroclor 1232	0.051	0.21	0.048	ug/L	U	0.051	U
Aroclor 1242	4.3	0.21	0.048	ug/L		4.3	J+
Aroclor 1248	0.051	0.21	0.048	ug/L	U	0.051	U
Aroclor 1254	1.5	0.21	0.031	ug/L		1.5	J+
Aroclor 1260	0.033	0.21	0.031	ug/L	U	0.033	U
PCBs, Total	5.8	0.21	0.048	ug/L		5.8	J+

Analysis Method SW8151

Sample Name TPA-Pile 6 - 091916

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
2,4,5-TP (Silvex)	0.025	2	0.025	ug/L	U	0.025	UJ
2,4-D	0.035	2	0.035	ug/L	U	0.035	UJ

Analysis Method SW8260B

Sample Name TPA-Pile 6 - 091916

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
1,1,1-Trichloroethane	3.6	10	0.36	ug/L	U	3.6	U
1,1,2,2-Tetrachloroethane	1.9	10	0.19	ug/L	U	1.9	U
1,1,2-Trichloroethane	4	10	0.4	ug/L	U	4	U
1,1,2-Trichlorotrifluoroethane	4.2	10	0.42	ug/L	U	4.2	U
1,1-Dichloroethane	3.1	10	0.31	ug/L	U	3.1	U
1,1-Dichloroethene	2.8	10	0.28	ug/L	U	2.8	U
1,2,4-Trichlorobenzene	2.1	10	0.21	ug/L	U	2.1	U
1,2-Dibromo-3-chloropropane	9.7	10	0.97	ug/L	U	9.7	U
1,2-Dibromoethane	9.8	10	0.98	ug/L	U	9.8	U
1,2-Dichlorobenzene	2.2	10	0.22	ug/L	U	2.2	U
1,2-Dichloroethane	1.7	10	0.17	ug/L	U	1.7	U
1,2-Dichloropropane	2.5	10	0.25	ug/L	U	2.5	U
1,3-Dichlorobenzene	2.9	10	0.29	ug/L	U	2.9	U
1,4-Dichlorobenzene	2.1	10	0.21	ug/L	U	2.1	U
2-Butanone	2500	1000	0.58	ug/L		2500	
2-Hexanone	1.3	50	0.13	ug/L	U	1.3	U
4-Methyl-2-pentanone	28	10	0.11	ug/L		28	
Acetone	13000	2000	0.92	ug/L		13000	
Benzene	3	10	0.3	ug/L	U	3	U
Bromodichloromethane	2.3	10	0.23	ug/L	U	2.3	U
Bromoform	7.7	10	0.77	ug/L	U	7.7	U
Bromomethane	3.8	10	0.38	ug/L	U	3.8	U
Carbon disulfide	2.3	10	0.23	ug/L	U	2.3	U
Carbon tetrachloride	3.1	10	0.31	ug/L	U	3.1	U
Chlorobenzene	2.7	10	0.27	ug/L	U	2.7	U
Chloroethane	2.9	10	0.29	ug/L	U	2.9	U
Chloroform	2.6	10	0.26	ug/L	U	2.6	U
Chloromethane	1.7	10	0.17	ug/L	U	1.7	U
cis-1,2-Dichloroethene	2.5	10	0.25	ug/L	U	2.5	U
cis-1,3-Dichloropropene	3.9	10	0.39	ug/L	U	3.9	U
Cyclohexane	2.2	10	0.22	ug/L	U	2.2	U
Dibromochloromethane	3.8	10	0.38	ug/L	U	3.8	U
Dichlorodifluoromethane	1.3	10	0.13	ug/L	U	1.3	U
Ethylbenzene	6	10	0.4	ug/L	J	6	J
Isopropylbenzene	3.1	10	0.31	ug/L	U	3.1	U
Methyl acetate	2.3	20	0.23	ug/L	U	2.3	U
Methyl tert-butyl ether	1.2	10	0.12	ug/L	U	1.2	U
Methylcyclohexane	2.7	10	0.27	ug/L	U	2.7	U
Methylene chloride	5.6	50	0.56	ug/L	U	5.6	U

Analysis Method SW8260B

Styrene	2.4	10	0.24	ug/L	U	2.4	U
Tetrachloroethene	2.7	10	0.27	ug/L	U	2.7	U
Toluene	620	10	0.37	ug/L		620	
trans-1,2-Dichloroethene	2.8	10	0.28	ug/L	U	2.8	U
trans-1,3-Dichloropropene	8.2	10	0.82	ug/L	U	8.2	U
Trichloroethene	3	10	0.3	ug/L	U	3	U
Trichlorofluoromethane	2	10	0.2	ug/L	U	2	U
Vinyl chloride	2	10	0.2	ug/L	U	2	U
Xylenes, Total	13	30	1.3	ug/L	U	13	U

Sample Name Trip Blank

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
1,1,1-Trichloroethane	0.36	1	0.36	ug/L	U	0.36	U
1,1,2,2-Tetrachloroethane	0.19	1	0.19	ug/L	U	0.19	U
1,1,2-Trichloroethane	0.4	1	0.4	ug/L	U	0.4	U
1,1,2-Trichlorotrifluoroethane	0.42	1	0.42	ug/L	U	0.42	U
1,1-Dichloroethane	0.31	1	0.31	ug/L	U	0.31	U
1,1-Dichloroethene	0.28	1	0.28	ug/L	U	0.28	U
1,2,4-Trichlorobenzene	0.21	1	0.21	ug/L	U	0.21	U
1,2-Dibromo-3-chloropropane	0.97	1	0.97	ug/L	U	0.97	U
1,2-Dibromoethane	0.98	1	0.98	ug/L	U	0.98	U
1,2-Dichlorobenzene	0.22	1	0.22	ug/L	U	0.22	U
1,2-Dichloroethane	0.17	1	0.17	ug/L	U	0.17	U
1,2-Dichloropropane	0.25	1	0.25	ug/L	U	0.25	U
1,3-Dichlorobenzene	0.29	1	0.29	ug/L	U	0.29	U
1,4-Dichlorobenzene	0.21	1	0.21	ug/L	U	0.21	U
2-Butanone	0.58	5	0.58	ug/L	U	0.58	U
2-Hexanone	0.13	5	0.13	ug/L	U	0.13	U
4-Methyl-2-pentanone	0.11	1	0.11	ug/L	U	0.11	U
Acetone	0.92	10	0.92	ug/L	U	0.92	U
Benzene	0.3	1	0.3	ug/L	U	0.3	U
Bromodichloromethane	0.23	1	0.23	ug/L	U	0.23	U
Bromoform	0.77	1	0.77	ug/L	U	0.77	U
Bromomethane	0.38	1	0.38	ug/L	U	0.38	U
Carbon disulfide	0.23	1	0.23	ug/L	U	0.23	U
Carbon tetrachloride	0.31	1	0.31	ug/L	U	0.31	U
Chlorobenzene	0.27	1	0.27	ug/L	U	0.27	U
Chloroethane	0.29	1	0.29	ug/L	U	0.29	U
Chloroform	0.26	1	0.26	ug/L	U	0.26	U
Chloromethane	0.17	1	0.17	ug/L	U	0.17	U
cis-1,2-Dichloroethene	0.25	1	0.25	ug/L	U	0.25	U
cis-1,3-Dichloropropene	0.39	1	0.39	ug/L	U	0.39	U

Analysis Method SW8260B

Cyclohexane	0.22	1	0.22	ug/L	U	0.22	U
Dibromochloromethane	0.38	1	0.38	ug/L	U	0.38	U
Dichlorodifluoromethane	0.13	1	0.13	ug/L	U	0.13	U
Ethylbenzene	0.4	1	0.4	ug/L	U	0.4	U
Isopropylbenzene	0.31	1	0.31	ug/L	U	0.31	U
Methyl acetate	0.23	2	0.23	ug/L	U	0.23	U
Methyl tert-butyl ether	0.12	1	0.12	ug/L	U	0.12	U
Methylcyclohexane	0.27	1	0.27	ug/L	U	0.27	U
Methylene chloride	0.56	5	0.56	ug/L	U	0.56	U
Styrene	0.24	1	0.24	ug/L	U	0.24	U
Tetrachloroethene	0.27	1	0.27	ug/L	U	0.27	U
Toluene	0.37	1	0.37	ug/L	U	0.37	U
trans-1,2-Dichloroethene	0.28	1	0.28	ug/L	U	0.28	U
trans-1,3-Dichloropropene	0.82	1	0.82	ug/L	U	0.82	U
Trichloroethene	0.3	1	0.3	ug/L	U	0.3	U
Trichlorofluoromethane	0.2	1	0.2	ug/L	U	0.2	U
Vinyl chloride	0.2	1	0.2	ug/L	U	0.2	U
Xylenes, Total	1.3	3	1.3	ug/L	U	1.3	U

Analysis Method SW846 8270D

Sample Name TPA-Pile 6 - 091916

Analyte	Result Value	RL	MDL	Units	Lab Qualifier	Validation Result	Validation Qualifier
1,1`-Biphenyl	0.45	1.1	0.42	ug/L	U	0.45	U
2,4,5-Trichlorophenol	0.18	1.1	0.17	ug/L	U	0.18	U
2,4,6-Trichlorophenol	0.27	1.1	0.25	ug/L	U	0.27	U
2,4-Dichlorophenol	0.37	1.1	0.35	ug/L	U	0.37	U
2,4-Dimethylphenol	0.38	1.1	0.36	ug/L	U	0.38	U
2,4-Dinitrophenol	0.43	5.3	0.4	ug/L	U	0.43	U
2,4-Dinitrotoluene	0.45	1.1	0.42	ug/L	U	0.45	U
2,6-Dinitrotoluene	0.35	1.1	0.33	ug/L	U	0.35	U
2-Chloronaphthalene	0.08	0.11	0.075	ug/L	U	0.08	U
2-Chlorophenol	0.24	1.1	0.23	ug/L	U	0.24	U
2-Methylnaphthalene	0.48	0.11	0.065	ug/L		0.48	
2-Methylphenol	4.6	1.1	0.25	ug/L		4.6	
2-Nitroaniline	0.22	1.1	0.21	ug/L	U	0.22	U
2-Nitrophenol	0.36	1.1	0.34	ug/L	U	0.36	U
3&4-Methylphenol	7.2	1.1	0.21	ug/L		7.2	
3,3┤-Dichlorobenzidine	1.7	5.3	1.6	ug/L	U	1.7	U
3-Nitroaniline	0.68	1.1	0.64	ug/L	U	0.68	U
4,6-Dinitro-2-methylphenol	0.29	1.1	0.27	ug/L	U	0.29	U
4-Bromophenyl phenyl ether	0.35	1.1	0.33	ug/L	U	0.35	U
4-Chloro-3-methylphenol	0.28	1.1	0.26	ug/L	U	0.28	U

Analysis Method SW846 8270D

4-Chloroaniline	0.36	1.1	0.34	ug/L	U	0.36	U
4-Chlorophenyl phenyl ether	0.33	1.1	0.31	ug/L	U	0.33	U
4-Nitroaniline	0.61	1.1	0.57	ug/L	U	0.61	U
4-Nitrophenol	0.26	5.3	0.24	ug/L	U	0.26	U
Acenaphthene	0.88	0.11	0.081	ug/L		0.88	
Acenaphthylene	0.08	0.11	0.075	ug/L	U	0.08	U
Acetophenone	4.5	1.1	0.37	ug/L		4.5	J
Anthracene	1.6	0.11	0.028	ug/L		1.6	
Benzaldehyde	2.2	1.1	0.52	ug/L		2.2	
Benzidine	2.1	5.3	2	ug/L	U	2.1	U
Benzo(a)anthracene	2.3	0.11	0.022	ug/L		2.3	
Benzo(a)pyrene	2.8	0.11	0.044	ug/L		2.8	
Benzo(b)fluoranthene	3.6	0.11	0.051	ug/L		3.6	
Benzo(g,h,i)perylene	1.7	0.11	0.03	ug/L		1.7	
Benzo(k)fluoranthene	1.6	0.11	0.048	ug/L		1.6	
Bis(2-chloroethoxy)methane	0.31	1.1	0.29	ug/L	U	0.31	U
Bis(2-chloroethyl)ether	0.39	1.1	0.37	ug/L	U	0.39	U
Bis(2-chloroisopropyl)ether	0.24	1.1	0.23	ug/L	U	0.24	U
Bis(2-ethylhexyl)phthalate	36	1.1	0.4	ug/L		36	
Butyl benzyl phthalate	0.32	1.1	0.3	ug/L	U	0.32	U
Caprolactam	1	5.3	0.96	ug/L	U	1	U
Carbazole	1.6	1.1	0.1	ug/L		1.6	
Chrysene	2.3	0.11	0.048	ug/L		2.3	
Dibenzo(a,h)anthracene	0.5	0.11	0.03	ug/L		0.5	J
Dibenzofuran	0.69	1.1	0.23	ug/L	J	0.69	J
Diethyl phthalate	0.22	1.1	0.17	ug/L	J	0.22	J
Dimethyl phthalate	0.19	1.1	0.18	ug/L	U	0.19	U
Di-n-butyl phthalate	0.7	1.1	0.21	ug/L	J	0.7	J
Di-n-octyl phthalate	24	1.1	0.15	ug/L		24	J
Fluoranthene	3.1	0.11	0.038	ug/L		3.1	
Fluorene	1.5	0.11	0.051	ug/L		1.5	
Hexachlorobenzene	0.47	1.1	0.44	ug/L	U	0.47	U
Hexachlorobutadiene	0.3	1.1	0.28	ug/L	U	0.3	U
Hexachlorocyclopentadiene	1.2	5.3	1.1	ug/L	U	1.2	U
Hexachloroethane	0.22	1.1	0.21	ug/L	U	0.22	U
Indeno(1,2,3-cd)pyrene	2.5	0.11	0.067	ug/L		2.5	
Isophorone	180	27	0.34	ug/L		180	
Naphthalene	2.4	0.11	0.067	ug/L		2.4	
Nitrobenzene	0.28	1.1	0.26	ug/L	U	0.28	U
N-Nitrosodi-n-propylamine	0.37	1.1	0.35	ug/L	U	0.37	U
N-Nitrosodiphenylamine	0.24	1.1	0.23	ug/L	U	0.24	U
Pentachlorophenol	1	5.3	0.97	ug/L	U	1	U
Phenanthrene	3.7	0.11	0.03	ug/L		3.7	

Analysis Method SW846 8270D

Phenol	0.84	1.1	0.21	ug/L	J	0.84	**J**
Pyrene	5	0.11	0.036	ug/L		5	

APPENDIX F

DAILY PERIMETER AIR SAMPLING LOGS

TDD #: 0 **0001/S05-0001-1602-002**
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 08/22/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
005	TPA-W2-001-082216	7:03	15:30	507.00	10.23	9.57	9.900	5019.30	W2 (Trailor)
001	TPA-S3-004-082216	7:03	14:00	417.00	10.79	9.93	10.360	4320.12	S 3
002	TPA-N1-003-082216	7:12	15:36	504.00	10.84	9.46	10.150	5115.60	N 1
004	TPA-N2-002-082216	7:12	15:38	506.00	10.40	7.83	9.115	4612.19	N 2
	Field Blank005								
	LAB Blank006								

Comments/Observations: See attached COC. Wind Direction: North/Northwest
Wind Speed: 3 MPH

TDD #: 0 **0001/S05-0001-1602-002**
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 08/23/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
005	TPA-W2-007-082216	7:30	15:00	450.00	10.32	9.81	10.065	4529.25	W2 (Trailor)
001	TPA-S2-008-082216	7:14	15:12	478.00	10.31	6.53	8.420	4024.76	S 3
002	TPA-N1-009-082216	7:12	15:36	504.00	10.16	13.12	11.639	5865.80	N 1
004	TPA-N2-010-082216	7:33	15:16	463.00	10.40	7.83	9.115	4220.25	N 2
	Field Blank011								
	LAB Blank012								

Comments/Observations: See attached COC. Wind Direction: South/Southeast
Wind Spee 4 mph

TDD #: 0 **0001/S05-0001-1602-002**
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 08/24/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-013-082416	7:13	11:54	281.00	10.31	4.32	7.315	2055.52	N2
004	TPA-SW-014-082416	7:47	11:50	243.00	10.34	7.18	8.760	2128.68	S W
002	Battery Issue	7:12	15:36	504.00	10.16	13.12	11.639	5865.80	N 1
004	Battery Issue	7:33	15:16	463.00	10.40	7.83	9.115	4220.25	N 2
	Field Blank015								
	LAB Blank016								

Comments/Observations: See attached COC. Wind Direction: South
Wind Speed: 10 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 08/29/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
004	TPA-W2-026-082916	7:47	13:56	369.00	9.95	6.22	8.085	2983.37	W2 Trailer
001	TPA-W1-027-082916	7:36	15:56	500.00	10.23	6.22	8.225	4112.50	W 1
002	TPA-SW-028-082916	7:02	16:16	554.00	10.06	9.13	9.595	5315.63	S W
005	TPA-N1-029-082916	7:20	15:59	519.00	9.91	4.71	7.310	3793.89	N 1
	Field Blank 030								

Comments/Observations: See attached COC. Wind Direction: East/Northeast
Wind Spee 1 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 08/30/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-SW-031-083016	7:31	16:11	520.00	10.27	9.64	9.955	5176.60	S W
004	TPA-W1-032-083016	7:09	16:07	538.00	10.09	6.56	8.325	4478.85	W 1
002	TPA-N1-033-083016	7:00	16:00	540.00	9.86	9.14	9.500	5130.00	N 1
005	TPA-W2-034-083016	7:20	16:14	534.00	10.03	5.01	7.520	4015.68	W 2
	FB-035								Field Blank

Comments/Observations: See attached COC. Wind Direction: South South East 4 MPH
Wind Speed 4 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 08/31/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-036-083116	6:49	14:40	471.00	10.37	10.03	10.200	4804.20	N 2
002	TPA-W2-037-083116	7:00	14:43	463.00	9.98	5.19	7.585	3511.86	W 2
004	TPA-S2-038-083116	7:07	14:45	458.00	10.04	4.81	7.425	3400.65	S 2
005	TPA-SW-039-083116	6:46	14:51	485.00	10.59	8.15	9.370	4544.45	S W
	FB-040								Field Blank

Comments/Observations: See attached COC. Wind Direction: North 4 MPH

Stop early due to rain

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 09/1/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-041-090116	7:25	15:29	484.00	10.07	9.31	9.690	4689.96	N 2
002	TPA-W2-042-090116	7:12	16:11	539.00	9.92	6.89	8.405	4530.30	W 2
004	TPA-S2-043-090116	6:47	15:56	549.00	10.26	5.20	7.730	4243.77	S 2
005	TPA-SW-044-090116	7:04	15:41	517.00	10.47	7.23	8.850	4575.45	S W
	FB-045								Field Blank

Comments/Observations: See attached COC. Wind Direction: North East
Wind Speed: 8 MPH

Stop early due to rain

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker and Don Newton
Date: 09/2/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-046-090216	7:14	15:06	472.00	10.16	7.69	8.925	4212.60	N 2
002	TPA-W2-047-090216	7:35	15:14	459.00	10.04	6.23	8.135	3733.97	W 2
004	TPA-S2-048-090216	6:53	15:21	508.00	10.10	6.34	8.220	4175.76	S 2
005	TPA-SW-049-090216	7:05	15:40	515.00	10.02	7.87	8.945	4606.68	S W
	FB-050								Field Blank

Comments/Observations: See attached COC. Wind Direction: North East 2 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 09/06/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-051-090616	7:38	16:03	505.00	10.12	8.12	9.122	4606.61	N 2
002	TPA-S2-052-090616	7:43	16:15	512.00	10.37	7.18	8.777	4493.57	S 2
003	TPA-SW-053-090616	7:56	16:08	492.00	9.87	6.96	8.415	4140.18	S W
004	TPA-W2-054-090616	8:05	15:49	464.00	9.65	7.91	8.780	4073.92	W 2
	FB-055								Field Blank

Comments/Observations: See attached COC. Wind Direction: North
Wind Spee 4 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 09/07/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-056-090716	6:49	16:00	551.00	10.66	0.00	5.329	2936.00	N2
002	TPA-S2-057-090716	6:34	16:11	577.00	10.25	8.39	9.319	5376.77	S2
003	TPA-SW-058-090716	6:39	16:05	566.00	10.15	9.39	9.768	5528.41	SW
004	TPA-W2-059-090716	6:56	16:15	559.00	10.17	9.56	9.867	5515.40	W2
	FB-060								Field Blank

Comments/Observations: See attached COC. Wind Direction: North 10 MPH
Wind Speed: 10 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 09/09/16
Primary Calibration: Bios Calibrator Defender 530

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-061-090916	6:51	16:01	550.00	10.55	0.00	5.277	2902.08	N2
002	TPA-S2-062-090916	6:37	15:57	560.00	10.14	8.23	9.186	5144.16	S2
003	TPA-SW-063-090916	6:44	15:55	551.00	10.21	9.65	9.928	5470.05	SW
004	TPA-W2-064-090916	6:58	15:50	532.00	10.36	9.31	9.835	5232.22	W2
	FB-065								Field Blank

Comments/Observations: See attached COC. Wind Direction: North 4 MPH
Wind Speed: 4 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 91216
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 66

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-066-091216	6:38	16:27	589.00	10.21	8.52	9.363	5514.51	N2
002	TPA-S1-067-091216	6:41	16:31	590.00	10.18	8.12	9.149	5397.62	S1
003	TPA-SW-068-091216	6:55	16:35	580.00	10.51	9.74	10.123	5871.05	SW
004	TPA-W2-069-091216	6:58	16:40	582.00	10.05	8.63	9.339	5435.30	W2
	FB-070								Field Blank

Comments/Observations: See attached COC. Wind Direction: North 4 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 91316
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 71

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-071-091316	6:35	16:27	592.00	10.21	7.92	9.065	5366.48	N2
002	TPA-S1-072-091316	6:50	16:32	582.00	10.18	7.85	9.015	5246.73	S1
003	TPA-SW-073-091316	6:52	16:40	588.00	9.98	6.15	8.065	4742.22	SW
004	TPA-W2-074-091316	6:55	16:51	596.00	10.05	6.88	8.465	5045.14	W2
	FB-075								Field Blank

Comments/Observations: See attached COC. Wind Direction: North 5 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 91416
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 76

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-076-091416	6:45	15:33	528.00	10.08	7.81	8.945	4722.96	N2
002	TPA-S1-077-091416	6:38	15:39	541.00	10.25	6.99	8.620	4663.42	S1
003	TPA-SW-078-091416	6:55	15:45	530.00	10.11	7.02	8.565	4539.45	SW
004	TPA-W2-079-091416	6:50	15:25	515.00	10.28	8.15	9.215	4745.73	W2
	FB-080								Field Blank

Comments/Observations: See attached COC. Wind Direction: North Northeast
Wind Speed:7 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 91516
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 81

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-081-091516	6:38	16:20	582.00	10.12	5.88	8.000	4656.00	N2
002	TPA-S1-082-091516	6:42	16:27	585.00	10.32	6.98	8.650	5060.25	S1
003	TPA-SW-083-091516	6:49	16:24	575.00	10.22	8.19	9.205	5292.88	SW
004	TPA-W2-084-091516	6:53	16:10	557.00	9.98	7.95	8.965	4993.51	W2
	FB-085								Field Blank

Comments/Observations: See attached COC. Wind Direction: East 5 MPH
Wind Speed:5 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 91616
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 86

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-086-091616	6:38	15:15	517.00	9.91	7.88	8.895	4598.72	N2
002	TPA-S1-087-091616	6:45	15:30	525.00	10.02	6.98	8.500	4462.50	S1
003	TPA-SW-088-091616	6:42	15:26	524.00	10.11	5.61	7.860	4118.64	SW
004	TPA-W2-089-091616	6:55	15:10	495.00	10.03	8.01	9.020	4464.90	W2
	FB-090								Field Blank

Comments/Observations: See attached COC. Wind Direction: South/Southeast
Wind Speed: 7 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 9/19/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 91

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N1-091-042632	6:58	13:00	362.00	10.54	10.59	10.565	3824.53	N1
002	TPA-N2-092-042632	7:07	13:05	358.00	10.46	10.68	10.570	3784.06	N2
003	FB-93								Field Blank

Comments/Observations: See attached COC. Wind Direction: South
Wind Speed:2 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 92016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 94

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N2-094-092016	6:50	16:30	580.00	10.02	9.67	9.845	5710.10	N2
002	TPA-N1-095-092016	6:53	16:35	582.00	10.28	9.77	10.025	5834.55	N1
003	TPA-SW-096-092016	6:57	16:25	568.00	10.21	9.57	9.890	5617.52	SW
004	TPA-W2-097-092016	7:00	16:15	555.00	10.54	10.54	10.540	5849.70	W2
	FB-098								Field Blank

Comments/Observations: See attached COC. Wind Direction: East/Northeast 3 MPH
Wind Speed:3 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker
Date: 9/21/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 99

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N1-099-092116	6:49	16:22	573.00	10.02	10.32	10.170	5827.41	N1
002	TPA-N2-100-092116	7:07	16:32	565.00	10.28	7.99	9.135	5161.28	N2
003	TPA-w1-101-092116	7:12	16:26	554.00	10.21	9.57	9.890	5479.06	W1
004	TPA-W2-102-092116	7:15	16:35	560.00	10.54	8.50	9.520	5331.20	W2
	FB-103								Field Blank

Comments/Observations: See attached COC. Wind Direction: South
Wind Speed:South 3 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Jason Cashmere
Date: 9/22/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 104

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
001	TPA-N1-104-092116	6:49	16:30	581.00	10.02	9.92	9.970	5792.57	N1
002	TPA-NE-105-092116	7:07	16:22	555.00	10.28	9.88	10.080	5594.40	NE
003	TPA-W1-106-092116	7:12	16:18	546.00	10.21	10.02	10.117	5523.61	W1
004	TPA-W2-107-092116	7:15	16:15	540.00	10.54	8.74	9.640	5205.60	W2
	FB-108								Field Blank

Comments/Observations: See attached COC. Wind Direction: South/Southeast
Wind Speed:4 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker
Date: 9/23/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 94

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
002	TPA-S1-109-092316	6:48	15:31	523.00	10.66	9.75	10.205	5337.22	S1
005	TPA-S2-110-092316	6:42	15:20	518.00	10.48	10.07	10.275	5322.45	S2
003	TPA-SW-111-092316	7:00	15:23	503.00	10.31	11.04	10.675	5369.53	SW
001	TPA-W2-112-092316	7:07	15:20	493.00	10.46	10.13	10.295	5075.44	W2
	FB-113								Field Blank

Comments/Observations: See attached COC. Wind Direction: North North East
Wind Speed:0-5 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker
Date: 9/26/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 114

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
003	TPA-N1-115-092616	10:16	16:11	355.00	10.66	5.29	7.975	2831.13	N1
005	TPA-NE-116-092616	10:09	16:16	367.00	10.48	7.25	8.865	3253.46	NE
002	TPA-W1-117-092616	10:05	16:26	381.00	10.31	9.57	9.940	3787.14	W1
001	TPA-W2-118-092616	10:00	16:30	390.00	10.46	9.92	10.190	3974.10	W2
	FB-119								Field Blank

Comments/Observations: See attached COC.
Late start due to rain

Wind Direction: West/South West 12-15 MPH
Wind Speed: 11 MPH *Gust 30 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker
Date: 42640
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 120

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
003	TPA-W1-120-092716	7:00	16:03	543	10.12	7.765	8.943	4855.7775	N1
001	TPA-N2-121-092716	7:11	16:10	539	10.53	7.75	9.140	4926.46	NE
002	TPA-W2-122-092716	7:16	15:56	520	10.27	10.31	10.290	5350.8	W1
005	Not sampled due to pump failure	10:00	16:30	390	10.46	9.92	10.190	3974.1	W2
	FB-123								Field Blank

Comments/Observations: See attached COC. Wind Direction: West South West 1
Wind Speed:12-15 MPH *Gust 30 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker
Date: 9/28/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 124

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
003	TPA-S1-124-092816	8:39	16:03	444.00	10.12	7.77	8.943	3970.47	S1
001	TPA-S2-125-092816	7:11	16:10	539.00	10.53	7.75	9.140	4926.46	S2
002	TPA-W2-126-092816	8:30	15:56	446.00	10.27	10.31	10.290	4589.34	W2
005	Not sampled due to pump failure								
	FB-127								Field Blank

Comments/Observations: See attached COC. Wind Direction: NE
Wind Speed:6 MPH * Gust up 20 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker
Date: 10/3/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 128

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
003	TPA-N1-128-100316	7:20	16:10	530.00	10.02	9.43	9.725	5154.25	N1
002	TPA-S1-129-100316	7:23	16:13	530.00	10.33	8.57	9.450	5008.50	S1
001	TPA-W2-130-100316	7:16	16:06	530.00	10.43	9.93	10.180	5395.40	W2
005	Not sampled due to pump failure	7:16	16:30	554.00	10.46	9.92	10.190	5645.26	
	FB-131								Field Blank

Comments/Observations: See attached COC. Wind Direction: Variable 0-5 MPH
Wind Speed:0-5 MPH

TDD #: 0001/S05-0001-1607-008
Site: Tocon Property Asbestos RV
Method: NIOSH 7400 and NIOSH 7402
Air Sampling Technician: Andre Baker
Date: 10/4/2016
Primary Calibration: Bios Calibrator Defender 530
Starting Sample No: 132

Pump ID	Sample I.D.	Start Time	Stop Time	Total Min.	Start Flow Rate (L/min)	Stop Flow Rate (L/min)	Corrected Flow Rate	Total Volume (liters)	Location
003	TPA-W1-132-100416	7:13	16:27	554.00	10.37	7.34	8.855	4905.67	N1
002	TPA-N2-133-100416	7:10	16:31	561.00	10.24	9.07	9.655	5416.46	N2
001	TPA-W2-134-100516	7:15	16:24	549.00	10.37	7.32	8.845	4855.91	W2
005	Not sampled due to pump failure	7:16	16:30	554.00	10.46	9.92	10.190	5645.26	
	FB-135								Field Blank

Comments/Observations: See attached COC. Wind Direction: Variable
Wind Speed:0-5 MPH

Appendix G

ENVIRONMENTALLY PREFERRED PRACTICES

TDD #: S05-0001-1607-008

Site Name: TOCON Property Asbestos Site

Site City, State: 1302 East Monroe, Street, Goshen, Elkhart County, Indiana 46528

Site Project Manager: Chris Burns

EPA OSC: Andy Maguire

Environmentally Preferred **General Office** Practices				
If a general category is not applicable, then check N/A for the category box, not for each subcategory.	N= Not Used	N/A= Not Applicable	Y = Yes Implemented	**Comments Section** Justify in the comments for each BMP field as to why the practice was not used, not applicable, or implemented.
Energy				Comments
Use of Energy Efficient Equipment				
Programmable Thermostats			X	Only used in the cold morning or on hot days
CFL or LED lights on Equipment		X		U.S. Environmental Protection Agency (EPA) Emergency and Rapid Response Services (ERRS) contractor responsible for office equipment.
Heating, Cooling, & Fans (FEMP/Energy Star)		X		EPA ERRS contractor responsible for office equipment.
Computer Equipment (FEMP/Energy Star)			X	Viper work laptops
Reduce Carbon Emissions from Transportation				
Use Internet Based Meetings/Conferences			X	
Maximize Carpooling/Public Transportation	X			Tetra Tech employees were from different offices and due to high volume of equipment carpooling was not an option
Use of Local Labor/Suppliers (50 mile radius)		X		EPA ERRS contractor responsible for labor and supplies.
Email Small Files (less than 8 MB)			X	
Reusable Electronic Storage Media or the Cloud			X	Tetra Tech shared drive
Water				
Use of Eco Friendly Toilets and Faucets		X		EPA ERRS contractor responsible for providing portable toilets used onsite.
Waste				
Reusable/Recyclable Packaging			X	Reusable packaging
Minimize Packaging Material			X	
Recycle CFL and LED lights		X		EPA ERRS contractor responsible for supplies.
Use of Local Recycling Programs			X	Recycled metal from the site
Use of Rechargeable Batteries			X	All equipment
Materials				
Printing when Required				
Double-sided Printing			X	

100% post-consumer recycled paper	X			Used the paper that was available on hand, which may have included some recycled content
Use of Bio-Based Materials				
Bio-Based Ink		X		
Bio-Degradable Cleaning Products		X		EPA ERRS contractor responsible for cleaning products
Environmentally Preferred				
Green Procurement				
Environmentally Preferred Vendors	X			Was not aware of environmental preferred vendors in the area
Purchase Supplies in Bulk	X			Did not need bulk material
Liquids in Concentrated Form		X		EPA ERRS contractor responsible for liquids in concentrated forms

TDD #: S05-0001-1607-008

Site Name: TOCON Property Asbestos Site

Site City, State: 1302 East Monroe, Street, Goshen, Elkhart County, Indiana 46528

Site Project Manager: Chris Burns

EPA OSC: Andy Maguire

Environmentally Preferred **General Field** Practices				
If a general category is not applicable, then check N/A for the category box, not for each subcategory.	N= Not Used	N/A= Not Applicable	Y = Yes Implemented	**Comments Section** Justify in the comments for each BMP field as to why the practice was not used, not applicable, or implemented.
Energy				
Use of Energy Efficient Equipment				
Computer Equipment (FEMP/Energy Star)			X	Energy Star Laptops were used
Installation of Electric Service			X	Installed electric service from grid, eliminating office trailer generator.
Reduce Carbon Emissions from Transportation				
Use Internet Based Meetings/Conferences			X	Communicated through emails or phone conferences while on site or in the office
Maximize Carpooling	X			Tetra Tech employees were from different offices and due to high volume of equipment carpooling was not an option
Use of Local Labor/Suppliers/Waste Disposal Facilities (50 mile radius)		X		U.S. Environmental Protection Agency (EPA) Emergency and Rapid Response Services (ERRS) contractor responsible for labor, supplies, and waste disposal.
No idling, except for extreme weather conditions			X	
Use of Alternative Fuels, if available within 10 miles	X			Gas stations in the area did not have any alternative fuels and even the nearest diesel was in the next town over
Properly Inflated Tires			X	
Email Small Files (less than 8MB)			X	
Reusable Electronic Storage Media or the Cloud			X	
Water				
Use of Low Flow Sampling Pumps		X		
Waste				
Use of Local Recycling Programs		X		
Use of Rechargeable Batteries			X	
Recycling - Other		X		
Plastic Reduction		X		
Reuse of Resources		X		
Direct Push Boring		X		

Materials				
Printing when Required				
Double-sided Printing			X	
100% post-consumer recycled paper	X			Used the paper that was available on hand, which may have included some recycled content
Land & Ecosystems				
Minimize Disruption to Natural Vegetation		X		
Use of Non-invasive Investigation Techniques		X		
Environmentally Preferred				
Green Procurement				
Environmentally Preferred Vendors		X		
Green Lodging/Hotels			X	Holiday Inn
Use of Green Laboratories			X	CT Laboratories LLC recycles 90-95% of plastic, paper, boxes, and packaging; reduced sample volume for analyses in the metals, wet chemistry, and semi-volatile laboratories, which downscaled solvent volumes, bottle size and disposal of non-hazardous soils and solid materials; utilizes energy efficient lighting throughout laboratory

TDD #: S05-0001-1607-008

Site Name: TOCON Property Asbestos Site

Site City, State: 1302 East Monroe, Street, Goshen, Elkhart County, Indiana 46528

Site Project Manager: Chris Burns

EPA OSC: Andy Maguire

Green Metrics		
Metric	**Amount**	**Unit of Measure**
Diesel Fuel Used		gallons
Distance Traveled[1]	1,984.00	Miles
Unleaded Fuel Used[2]	75.44	gallons
Alternative/E-85 Fuel Used		gallons
Electricity from Coal		kW
Electricity from Natural Gas		kW
Electricity from solar/wind		kW
Electricity from grid/mix		kW
Solid waste reused		lbs
Solid waste recycled		lbs
Water Used		gallons

Greenhouse Gas Emissions (Site Specific)					
Source	**Amount Used**	**Unit of Measure**	**Methane (CH4) (Grams)[3]**	**Nitrous Oxide (N_2O) (Grams)[3]**	**Carbon Dioxide (CO2) (Kilograms)[3]**
Gasoline	75.44	X gallons	13.09	32.34	672.15
Diesel		X gallons			
E-85		X gallons			
Electricity Office		X Kilowatts			
Natural Gas		X Therms			
Solid Waste		X lbs			
Other		X Unit of Measure			

Note:

[1] Distance traveled based on number of trips between the TOCON site in Goshen, Indiana, and Tetra Tech's Chicago Office (124 miles) in a large sport utility vehicle, which was required for cargo space. A total of 16 trips were made by 1 Tetra Tech personnel totaling 1,984 miles.

[2] Fuel consumption based on distance traveled in a large sport utility vehicle. An average fuel efficiency of 26.3 miles per gallon was assumed based on 2014 light duty truck fuel efficiency from "Average Fuel Efficiency of U.S. Light Duty Vehicles," U.S. Department of Transportation, Bureau of Statistics Table 4-23 (Accessed online at http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_04_23.html on December 9, 2016).

[3] Methane and nitrous oxide emissions based on emission factors of 0.0066 and 0.0163 grams per mile for EPA Tier 2 light duty gasoline trucks from "Voluntary Reporting of Greenhouse Gases Program, Fuel Emission Coefficients, Table 5" (Accessed online at http://205.254.135.7/oiaf/1605/coefficients.html on December 9, 2016)

[4] Carbon dioxide emissions based on emission factors of 8.91 kilograms carbon dioxide per gallon of gasoline and 10.15 kilograms carbon dioxide per gallon of diesel fuel from "Voluntary Reporting of Greenhouse Gases Program, Fuel Emission Coefficients, Table 2" (Accessed online at http://205.254.135.7/oiaf/1605/coefficients.html on November 14, 2016).

Number of Trips	Distance (miles)	Miles Traveled
16	124	1984

Miles Traveled	Fuel Efficiency (mpg)	Gallons of Gas Used
1984	26.3	75.44

START implemented environmentally preferred practices to maximize sustainability; reduce energy, water use, and toxic air emissions; promote carbon neutrality; and encourage industrial material reuse and recycling. In accordance with contract requirements, U.S. Environmental Protection Agency (EPA) policies, and relevant guidance, START documented project-specific environmentally preferred practices and available metrics in the Environmental Field Practices Checklist, Environmental Office Practices Checklist, and Green Metrics Table (ASTM International 2016; EPA 2012a, 2012b, and 2016).

References:

ASTM International (ASTM). 2016. "Standard Guide for Greener Cleanups." E2893-16. April 1.

EPA. 2012a. "Methodology for Understanding and Reducing a Project's Environmental Footprint." Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation. EPA 542-R-12-002. February.

EPA. 2012b. "U.S. EPA Region 5 Superfund Greener Cleanup Implementation Strategy." March 16.

EPA. 2016. Memorandum Regarding Consideration of Greener Cleanup Activities in the Superfund Cleanup Process. From Woolford, James, Director, *et. al*. To Regional Superfund National Program Managers and Regional Counsels, Regions 1 – 10. August 2.

ATTATCHMENT A

PERIMETER DAILY AMBIENT AIR DATA

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

Friday - 8/22/2016

Site Activities
• Site activities from 7:00 to 17:00 • Building debris removal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	61°F to 80°F	Precipitation:	.55
Wind:	5-10 mph	Conditions:	Partly cloudy/Rainy
Wind Direction:	Variable		

Screening Criteria	Action Levels†	North 1	North 2	W2 (Trailer)
Particulate Monitoring (DataRAM4)		Dustrak 004	Dustrak 002	DataRAM 005
Run Time	--	0953 to 1606	0952 to 1606	0952 to 1606
TOTAL TWA. (mg/m^3)	.1 mg/m3	.008	.011	.009
High (mg/m^3)	.1 mg/m3	31013	28523	23519

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

Friday - 8/23/2016

Site Activities
• Site activities from 7:00 to 17:00 • Building debris removal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	61°F to 80°F	Precipitation:	.55
Wind:	5-10 mph	Conditions:	Partly cloudy/Rainy
Wind Direction:	Variable		

Screening Criteria	Action Levels†	North 1	North 2	W2 (Trailer)
Particulate Monitoring (DataRAM4)		Dustrak 004	Dustrak 002	DataRAM 005
Run Time	--	0803 to 1600	0803 to 1600	0803 to 1600
TOTAL TWA. (mg/m^3)	.1 mg/m3	.009	.017	.016
High (mg/m^3)	.1 mg/m3	31013	28523	23519

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

Friday - 8/23/2016

Site Activities
• Site activities from 7:00 to 16:00 • Building debris removal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	70°F to 80°F	Precipitation:	.55
Wind:	6 mph	Conditions:	Partly cloudy/Rainy
Wind Direction:	WSW		

Screening Criteria	Action Levels†	North 1	North 2	W2 (Trailer)
Particulate Monitoring (Dusttrak)		Dustrak 004	Dustrak 002	DataRAM 005
Run Time	--	0818 to 1608	0818 to 1608	0818 to 1608
TOTAL TWA. (mg/m^3)	.1 mg/m3	.012	.005	.009
High PM2 (mg/m^3)	.1 mg/m3	30310	19143	29942

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

Monday - 8/29/2016

Site Activities
• Site activities from 07:00 to 17:00 • Debris removal Transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	75°F to 87°F	Precipitation:	None
Wind:	0-5 mph	Conditions:	Partly cloudy/fog
Wind Direction:	calm		

Screening Criteria	Action Levels†	North 1	West 2	West 1
Particulate Monitoring (Dusttrak)		Dustrak 004	Dustrak 002	DataRAM 005
Run Time	--	0801 to 1643	0801 to 1643	0801 to 1643
TOTAL TWA. (mg/m^3)	0.1	.022	.001	.023

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/30/16

Site Activities

- Site activities from 0630 to 1700
- Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal
- Air monitoring and sampling

Weather Report (Weather Underground)

Temperature: 62°F to 68°F
Wind: 10 mph
Wind Direction: NE
Precipitation: None
Conditions: Fog light Rain

Screening Criteria	Action Levels†	S2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0706-1554	0706-1554	0706-1554
TOTAL TWA (mg/m^3)	.1	.012	.004	.006

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

Wednesday - 8/31/2016

Site Activities
• Site activities from 07:00 to 17:00 • Loading out debris. Transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	63°F to 82°F	Precipitation:	None
Wind:	0-5 mph	Conditions:	Partly cloudy/Rain in pm
Wind Direction:	Variable - N		

Screening Criteria	Action Levels†	W2	S2	N2
Particulate Monitoring (Dusttrak)		Dustrak 002	Dustrak 004	DataRAM 005
Run Time	--	0729 to 1555	0729 to 1555	0729 to 1555
TOTAL TWA. (mg/m^3)	0.1	.014	.017	.027

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

Thursday - 9/1/2016

Site Activities
• Site activities from 07:00 to 17:00 • RACM Pile 3 and Pile 4 load out. Transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	64°F to 73°F	Precipitation:	None
Wind:	8 mph	Conditions:	Sunny
Wind Direction:	Variable - NNE		

Screening Criteria	Action Levels†	W2	S2	N2
Particulate Monitoring (Dusttrak)		Dustrak 002	Dustrak 004	DataRAM 005
Run Time	--	0729 to 1552	0729 to 1552	0729 to 1552
TOTAL TWA. (mg/m^3)	0.1	0.006	0.005	0.007

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

Friday - 9/2/2016

Site Activities
• Site activities from 07:00 to 17:00 • RACM Pile 3 and Pile 4 load out. Transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	64°F to 75°F	Precipitation:	None
Wind:	7 mph	Conditions:	Sunny
Wind Direction:	Variable - NE		

Screening Criteria	Action Levels†	W2	S2	N2
Particulate Monitoring (Dusttrak)		Dustrak 004	Dustrak 004	Dustak 005
Run Time	--	0744 to	0744 to	0744 to
TOTAL TWA. (mg/m^3)	0.1	0.007	0.004	0.008

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/6/2016

Site Activities
• Site activities from 07:00 to 17:00 • Stockpile load out, cleanup up debris eastern portion of site, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	70°F to 89°F	Precipitation:	None
Wind:	5 mph	Conditions:	Sunny
Wind Direction:	S		

Screening Criteria	Action Levels†	N1	S2	W2
Particulate Monitoring (Dusttrak)		Dustrak 005	Dustrak 002 (No Name)	Dustak 004
Run Time	--	0738 - 1603	0743 - 1615	0805 - 1549
TOTAL TWA (mg/m^3)	0.1	0.027	0.008	0.029

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/7/2016

Site Activities
• Site activities from 0600 to 1700 • Stockpile load out, cleanup up debris eastern portion of site, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	73°F to 89°F	Precipitation:	None
Wind:	9 mph	Conditions:	Sunny
Wind Direction:	SW		

Screening Criteria	Action Levels†	N2	S2	W2
Particulate Monitoring (Dusttrak)		Dustrak 004	Dustrak 002	Dustak 005
Run Time	--	0710 - 1558	0634 - 1608	0701 - 1615
TOTAL TWA. (mg/m^3)	0.1	0.008	0.005	0.006

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/8/2016

Site Activities
• Site activities from 0600 to 1700 • Stockpile load out, cleanup up debris eastern portion of site, clean up debris from pits, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	70°F to 85°F	Precipitation:	Rain
Wind:	6 mph	Conditions:	Light rain
Wind Direction:	SW		

Screening Criteria	Action Levels†	N2	S2	W2
Particulate Monitoring (Dusttrak)		Dustrak 004	Dustrak 002	Dustak 005
Run Time	--	0616 - 1701	0620 - 1705	0634 - 1710
TOTAL TWA. (mg/m^3)	0.1	0.008	0.005	0.006

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

12/28/16

Site Activities

- Site activities from 0600 to 1600
- Stockpile load out, cleanup up debris in pits, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal
- Air monitoring and sampling

Weather Report (Weather Underground)

Temperature:	71°F to 83°F	Precipitation:	None
Wind:	4 mph	Conditions:	Partly cloudy/Rain
Wind Direction:	SSE		

Screening Criteria	Action Levels†	N2	W2	S1
Particulate Monitoring (Dust Trak)		Dustrak 004	Dustrak 002	Dustak 005
Run Time	--	0651 - 1542	0658 - 1544	0636 - 1550
TOTAL TWA (mg/m^3)	0.1	0.032	0.011	0.028

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/12/16

Site Activities
• Site activities from 0600 to 1700 • Stockpile load out, cleanup up debris in pits near former debris Pile #5, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	62°F to 77°F	Precipitation:	None
Wind:	8 mph	Conditions:	Clear
Wind Direction:	SSE		

Screening Criteria	Action Levels†	N2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0638 - 1626	0641 - 1626	0658 - 1626
TOTAL TWA (mg/m^3)	0.1	0.008	0.002	0.009

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

12/28/16

Site Activities
• Site activities from 0600 to 1700 • Stockpile load out, cleanup up debris in basement & pits in former debris Pile #1, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	54°F to 81°F	Precipitation:	None
Wind:	0 mph	Conditions:	Clear
Wind Direction:	Variable		

Screening Criteria	Action Levels†	N2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0635 - 1539	0650 - 1538	0655 - 1539
TOTAL TWA (mg/m^3)	0.1	0.02	0.01	0.019

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/14/16

Site Activities

- Site activities from 0600 to 1700
- Stockpile load out, cleanup up debris in basement & pits in former debris Pile #1, break up concrete in Pile #2 area, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal
- Air monitoring and sampling

Weather Report (Weather Underground)

Temperature:	62°F to 75°F	Precipitation:	None
Wind:	6 mph	Conditions:	Patchy fog
Wind Direction:	North		

Screening Criteria	Action Levels†	N2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0645 - 1521	0638 - 1521	0650 - 1521
TOTAL TWA (mg/m^3)	0.1	0.013	0.008	0.02

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/15/16

Site Activities
• Site activities from 0600 to 1700 • Stockpile load out, cleanup up debris in basement & pits in former debris Pile #1, break up concrete and load debris in Pile #2 area, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	61°F to 76°F	Precipitation:	None
Wind:	7 mph	Conditions:	Clear
Wind Direction:	East		

Screening Criteria	Action Levels†	N2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0708 - 1529	0708 - 1529	0708 - 1529
TOTAL TWA (mg/m^3)	0.1	0.005	0.001	0.014

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/16/16

Site Activities
• Site activities from 0600 to 1700 • Stockpile load out, cleanup up debris in basement & pits in former debris Pile #1, break up concrete and load debris in Pile #2 area, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	55°F to 79°F	Precipitation:	None
Wind:	6 mph	Conditions:	Clear
Wind Direction:	Southeast		

Screening Criteria	Action Levels†	N2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0646 -	0646 -	0646 -
TOTAL TWA (mg/m^3)	0.1	.017	.007	.012

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/19/16

Site Activities
• Site activities from 0600 to 1700 • Stockpile load out, cleanup up debris in basement & pits in former debris Pile #1, break up concrete and load debris in Pile #2 area, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	55°F to 79°F	Precipitation:	None
Wind:	6 mph	Conditions:	Clear
Wind Direction:	South		

Screening Criteria	Action Levels†	N2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0746-	0746-	0746-
TOTAL TWA (mg/m^3)	.1	.012	.009	.013

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/20/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris from pile 1, 2 and pile 6, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	60°F to 80°F	Precipitation:	None
Wind:	3 mph	Conditions:	
Wind Direction:	East North East		

Screening Criteria	Action Levels†	SW	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 004
Run Time	--	0747-1654	0747-1654	0747-1654
TOTAL TWA (mg/m^3)	.1	.014	.014	.017

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/21/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris from pile 1, 2 and pile 6, consolidate material to stockpile, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	60°F to 72°F	Precipitation:	None
Wind:	3 mph	Conditions:	Clear
Wind Direction:	South		

Screening Criteria	Action Levels†	N2	TESTED in Trailor	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0738-1658	0738-1658	0738-1658
TOTAL TWA (mg/m^3)	.1	.04	.005	.032

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/22/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris from pile 1, 2 and pile 6, consolidate material to stockpile, picking up any material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	60°F to 72°F	Precipitation:	None
Wind:	3 mph	Conditions:	Clear
Wind Direction:	South South East		

Screening Criteria	Action Levels†	N2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0740-1707	0740-1707	0740-1707
TOTAL TWA (mg/m^3)	.1	.034	.012	.028

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/23/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris from pile 1, 2 and pile 6, consolidate material to stockpile, picking up any material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	64°F to 78°F	Precipitation:	None
Wind:	3 mph	Conditions:	Mostly Clear
Wind Direction:	North North East		

Screening Criteria	Action Levels†	SW	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0733-1515	0733-1515	0733-1515
TOTAL TWA (mg/m^3)	.1	.039	.016	.036

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/26/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris from pile 1, 2 and pile 6, consolidate material to stockpile, picking up any material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	64°F to 78°F	Precipitation:	None
Wind:	3 mph	Conditions:	Mostly Clear
Wind Direction:	North North East		

Screening Criteria	Action Levels†	SW	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0733-1515	0733-1515	0733-1515
TOTAL TWA (mg/m^3)	.1	.039	.016	.036

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/27/16

Site Activities

- Site activities from 0630 to 1700
- Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal
- Air monitoring and sampling

Weather Report (Weather Underground)

Temperature:	50°F to 70°F	Precipitation:	None
Wind:	12 mph	Conditions:	Mostly Clear
Wind Direction:	WSW		

Screening Criteria	Action Levels†	N2	W1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0733-1644	0733-1644	0733-1644
TOTAL TWA (mg/m^3)	.1	.008	.013	.006

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/28/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris material transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)	
Temperature: 56°F to 63°F	Precipitation: None
Wind: 6 mph	Conditions: Mostly Cloudy
Wind Direction: NE	

Screening Criteria	Action Levels†	S1	S2	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0714-1654	0733-1654	0733-1654
TOTAL TWA (mg/m^3)	.1	.014	.011	.013

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

9/29/16

Site Activities

- Site activities from 0630 to 1700
- Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal
- Air monitoring and sampling

Weather Report (Weather Underground)

Temperature:	55°F to 70°F	Precipitation:	None
Wind:	9 mph	Conditions:	light Rain
Wind Direction:	NNE		

Screening Criteria	Action Levels†	S2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0705-1622	0705-1622	0705-1622
TOTAL TWA (mg/m^3)	.1	.005	.002	.006

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/03/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)	
Temperature: 58°F to 66°F	Precipitation: None
Wind: 1 mph	Conditions: light Rain
Wind Direction: ESE	

Screening Criteria	Action Levels†	S1	N2	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0733-1632	0733-1632	0733-1632
TOTAL TWA (mg/m^3)	.1	.015	.006	.013

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/04/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)	
Temperature: 58°F to 66°F	Precipitation: None
Wind: 1 mph	Conditions: light Rain
Wind Direction: ESE	

Screening Criteria	Action Levels†	N1	W1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0726-1656	0726-1656	0726-1656
TOTAL TWA (mg/m^3)	.1	.031	.014	.026

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)

AVG	Mathematical average over the noted time period
µm	micrograms per meter
$\mu g/m^3$	micrograms per cubic meter
TWA	Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/05/16

Site Activities
• Site activities from 0630 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	60 °F to 82°F	Precipitation:	None
Wind:	10 mph	Conditions:	Rain
Wind Direction:	SSW		

Screening Criteria	Action Levels†	N2	N1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0802-1717	0802-1717	0802-1717
TOTAL TWA (mg/m^3)	.1	.031	.011	.024

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/06/16

Site Activities
• Site activities from 0700 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	60 °F to 82°F	Precipitation:	None
Wind:	5 mph	Conditions:	Rain
Wind Direction:	SSE		

Screening Criteria	Action Levels†	N2	N1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0743-1724	0743-1724	0743-1724
TOTAL TWA (mg/m^3)	.1	.048	.017	.042

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/11/16

Site Activities
• Site activities from 0700 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	60 °F to 82°F	Precipitation:	None
Wind:	8 mph	Conditions:	clear
Wind Direction:	SSE		

Screening Criteria	Action Levels†	S2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0752-1657	0752-1657	0752-1657
TOTAL TWA (mg/m^3)	.1	.012	.008	.011

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/11/16

Site Activities
• Site activities from 0700 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)	
Temperature: 64 °F to 77°F	Precipitation: None
Wind: 8 mph	Conditions: clear
Wind Direction: WSW	

Screening Criteria	Action Levels†	S2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0752-1657	0752-1657	0752-1657
TOTAL TWA (mg/m^3)	.1	.012	.008	.011

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/12/16

Site Activities

- Site activities from 0700 to 1700
- Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal
- Air monitoring and sampling

Weather Report (Weather Underground)

Temperature:	64 °F to 77°F	Precipitation:	None
Wind:	8 mph	Conditions:	clear
Wind Direction:	WSW		

Screening Criteria	Action Levels†	S2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0748-1636	0748-1636	0748-1636
TOTAL TWA (mg/m^3)	.1	.023	.01	.022

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/14/16

Site Activities
• Site activities from 0730 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	50°F to 64°F	Precipitation:	None
Wind:	4 mph	Conditions:	clear
Wind Direction:	Calm- SE		

Screening Criteria	Action Levels†	S2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0800-1506	0800-1506	0800-1506
TOTAL TWA (mg/m^3)	.1	.012	.006	.011

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

Air Monitoring Summary

Tocon Property – 1302 East Monroe Street, Goshen, Elkhart Indiana 46528

10/14/16

Site Activities
• Site activities from 0730 to 1700 • Loading out debris material that has been scattered around, transport to Prairieview Landfill in Wyatt, IN for disposal • Air monitoring and sampling

Weather Report (Weather Underground)			
Temperature:	50°F to 64°F	Precipitation:	None
Wind:	4 mph	Conditions:	clear
Wind Direction:	Calm- SE		

Screening Criteria	Action Levels†	S2	S1	W2
Particulate Monitoring (Dust Trak)		Dust trak 004	Dust trak 002	Dust trak 005
Run Time	--	0800-1506	0800-1506	0800-1506
TOTAL TWA (mg/m^3)	.1	.012	.006	.011

Notes:
† = Action levels provided in Air Monitoring Plan (Tetra Tech, 2015)
AVG Mathematical average over the noted time period
µm micrograms per meter
$\mu g/m^3$ micrograms per cubic meter
TWA Time Weighted Average

ATTACHMENT B

EPA POLUTION SITUATION (POLREP) NO. 1 THROUGH 6

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #1**
Initial/Final Polrep
Former TOCON Holdings Asbestos Site
C5AM
Goshen, IN
Latitude: 41.5804330 Longitude: -85.8161640

To:
Sam Borries, U.S. EPA
Mark Durno, U.S. EPA
Jason El-Zein, U.S. EPA
Charlie Gebien, U.S. EPA
Mike Ribordy, U.S. EPA
Brian Schlieger, U.S. EPA
Jeremy Stutsman, City of Goshen
Becky Hershberger, City of Goshen
Mark Jaworski, IDEM
Harry Atkinson, IDEM
Max Michael, IDEM
Rex Osborn, IDEM
Lindy Nelson, U.S. DOI
Carolyn Bohlen, U.S. EPA
Yolanda Bouchee-Cureton, U.S. EPA
Mindy Clements, U.S. EPA
HQ EOC, U.S. EPA
John Glover, U.S. EPA
Matt Mankowski, U.S. EPA
Cecilia Moore, U.S. EPA
Carol Ropski, U.S. EPA

From: Andrew Maguire, On-Scene Coordinator
Date: 3/23/2016
Reporting Period: 3/1/2016 - 7/14/2016

1. Introduction

1.1 Background

Site Number:	C5AM	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Assessment
NPL Status:		**Operable Unit:**	
Mobilization Date:	3/1/2016	**Start Date:**	3/1/2016
Demob Date:		**Completion Date:**	7/14/2016
CERCLIS ID:	INN000506236	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response/Time Critical Removal

1.1.2 Site Description

The TOCON Property Asbestos site is located in Goshen, Elkhart County, Indiana. The site originally operated by Johnson Controls as a manufacturing plant for heating systems, as well as a research and development facility. In 2006, before buildings on site were demolished, the main plant building was utilized as an assembly plant for component equipment, tooling machinery, and stamp equipment, all used in building heating systems. Many of the building structures have been previously demolished. The only remnants of the former TOCON buildings are a grouping of foundations. Piles of bricks, wood, metal, and other debris, including asbestos containing materials, are located around the Site.

1.1.2.1 Location

1302 East Monroe Street, Goshen, Elkhart County, IN

1.1.2.2 Description of Threat

Bulk samples collected from debris piles at the site by KERAMIDA in Feb 2016 contain as high as 70% asbestos (chrysotile). In Feb 2016, Tetra Tech START collected nineteen bulk demolition debris samples and 1 water sample in the area around the former TOCON building, results showed friable asbestos up to 15%. Goshen High school and residential areas are located next to or near the site. In addition, the Site has a history of visitors and trespassing continues to occur.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Friable asbestos has been verified unsecured on site with open access and active trespassing on site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

From 3/1/2016 to 3/9/2016, EPA's ERRS contractor completed the following tasks to stabilize the site in order to limit public exposure to asbestos fibers.

- Erect a temporary fence to limit access to the property
- Cover debris piles containing asbestos to limit off site migration due to weather conditions
- Post no trespassing signs and warning signs (in English and Spanish) to warn people of the asbestos contamination

From 7/11/2016 - 7/14/2016, EPA's ERRS contractor remobilized to fix the pile covers that had been damaged by the wind and weather.

The ER phase completed on 7/14/2016.

2.1.2 Response Actions to Date

Temporary fence has been erected with warning signs posted.

All debris piles containing asbestos have been covered

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The current property owner is going through bankruptcy and access has been granted by the bankruptcy trustee.

General notice letters and information requests will be sent soon to identify any PRPs.

2.1.4 Progress Metrics

This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	N/A
	Cubic yards of contaminated sediments removed and/or capped	N/A
	Gallons of oil/water recovered	N/A
	Acres of soil/sediment cleaned up in floodplains and riverbanks	N/A
Stand Alone Assessment	Number of contaminated residential yards cleaned up	N/A
	Number of workers on site	6
Contaminant(s) of Concern	Asbestos	
Oil Response Tracking		
Estimated volume	Initial amount released	N/A
	Final amount collected	N/A
CANAPS Info	FPN Ceiling Amount	N/A
	FPN Number	N/A
	Body of Water affected	N/A

Administrative and Logistical Factors (Place X where applicable)

x	Precedent-Setting HQ Consultations (e.g., fracking, asbestos)		Community challenges or high involvement		Radiological
x	More than one PRP		Endangered Species Act / Essential Fish Habitat issues		Explosives
	AOC		Historic preservation issues		Residential impacts
	UAO		NPL site		Relocation
	DOJ involved		Remote location		Drinking water impacted
	Criminal Investigation Division involved	x	Extreme weather or abnormal field season		Environmental justice
	Tribal consultation or coordination or other issues		Congressional involvement		High media interest
	Statutory Exemption for $2 Million		Statutory Exemption for 1 Year		Active fire present
x	Hazmat Entry Conducted – Level A, B or C		Incident or Unified Command established		Actual air release (not threatened)

Green Metrics

Metric	**Amount**	**Units**	***Directions (Delete in report)***
Diesel Fuel Used	100	gallons	ERRS fuel use. If possible, can also include estimate of fuel used in trucking subcontracts - estimate via # loads over # miles.
Unleaded Fuel Used	300	gallons	ERRS fuel use. Don't include GOV fuel - tracked elsewhere.
Alternative/E-85 Fuel Used		gallons	ERRS fuel use. Don't include GOV fuel - tracked elsewhere.
Electricity from electric company		kWh	Total used on site
Electric Company Name and Account #			Helps us calculate sources of power and emissions
Electricity from sources other than the electric company		kWh	Onsite energy generation (solar, wind, other)
Solid waste reused		enter	Material reused onsite. Examples include reusing excavated material for fill, using flyash to treat for metals, using corn cob to dry waste. Feel free to add as many lines as necessary to capture your materials. Use units most applicable.

Solid waste recycled	enter	Material sent off site such as typical recyclables, as well as scrap metal, pallets for cogen, etc. Feel free to add as many lines as necessary to capture your materials. Use units most applicable.
Water Used	gallons	

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

An Action Memo to authorize a Time-Critical Removal Action is currently being drafted.

2.2.1.1 Planned Response Activities

Continue to monitor covers on the piles and fix as necessary.

2.2.1.2 Next Steps

Perform Time-Critical Removal Action

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

See cost tracking info below:

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$50,000.00	$43,000.00	$7,000.00	14.00%
TAT/START	$20,000.00	$12,000.00	$8,000.00	40.00%
Intramural Costs				
Total Site Costs	$70,000.00	$55,000.00	$15,000.00	21.43%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

EPA

3.2 Cooperating Agencies

Indiana Department of Environmental Management, City of Goshen

4. Personnel On Site

1 EPA

4 ERRS

1 START

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/toconasbestos

6.2 Reporting Schedule

As needed

7. Situational Reference Materials

No information available at this time.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #2**
Initial TIme-Critical Removal Action POLREP
Former TOCON Holdings Asbestos Site
C5AM
Goshen, IN
Latitude: 41.5804330 Longitude: -85.8161640

To:
Sam Borries, U.S. EPA
Mark Durno, U.S. EPA
Jason El-Zein, U.S. EPA
Charlie Gebien, U.S. EPA
Mike Ribordy, U.S. EPA
Brian Schlieger, U.S. EPA
Jeremy Stutsman, City of Goshen
Becky Hershberger, City of Goshen
Mark Jaworski, IDEM
Harry Atkinson, IDEM
Max Michael, IDEM
Rex Osborn, IDEM
Lindy Nelson, U.S. DOI
Carolyn Bohlen, U.S. EPA
Yolanda Bouchee-Cureton, U.S. EPA
Mindy Clements, U.S. EPA
HQ EOC, U.S. EPA
John Glover, U.S. EPA
Matt Mankowski, U.S. EPA
Cecilia Moore, U.S. EPA
Carol Ropski, U.S. EPA

From: Andrew Maguire, On-Scene Coordinator
Date: 9/2/2016
Reporting Period: 8/15/16 - 8/26/16

1. Introduction

1.1 Background

Site Number:	C5AM	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/15/2016	**Start Date:**	8/15/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	INN000506236	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Time Critical Removal

1.1.2 Site Description

The TOCON Property Asbestos site is located in Goshen, Elkhart County, Indiana. The site originally operated by Johnson Controls as a manufacturing plant for heating systems, as well as a research and development facility. In 2006, before buildings on site were demolished, the main plant building was utilized as an assembly plant for component equipment, tooling machinery, and stamp equipment, all used in building heating systems. Many of the building structures have been previously demolished. The only remnants of the former TOCON buildings are a grouping of foundations. Piles of bricks, wood, metal, and other debris, including asbestos containing materials, are located around the Site.

1.1.2.1 Location

1302 East Monroe Street, Goshen, Elkhart County, IN

1.1.2.2 Description of Threat

Bulk samples collected from debris piles at the site by KERAMIDA in Feb 2016 contain as high as 70% asbestos (chrysotile). In Feb 2016, Tetra Tech START collected nineteen bulk demolition debris samples and 1 water sample in the area around the former TOCON building, results showed friable asbestos up to 15%. Goshen High school and residential areas are located next to or near the site. In addition, the Site has a history of visitors and trespassing continues to occur.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Friable asbestos has been verified unsecured on site with open access and active trespassing on site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

From 3/1/2016 to 3/9/2016, EPA's ERRS contractor completed the following tasks to stabilize the site in order to limit public exposure to asbestos fibers.

- Erect a temporary fence to limit access to the property
- Cover debris piles containing asbestos to limit off site migration due to weather conditions
- Post no trespassing signs and warning signs (in English and Spanish) to warn people of the asbestos contamination

From 7/11/2016 to 7/13/2016 EPA's ERRS contractor remobilized to the site to re-stabilize the site by fixing the debris pile covers.

From 8/15/2016 to 8/19/2016 EPA's START and ERRS contractors mobilized to site and began prepping the site for the removal stage beginning 8/19/2016.

From 8/22/2016 to 9/9/2016 EPA's START and ERRS contractors have been on site moving forward with Air sampling/ monitoring (START) and removal of the asbestos containing material (ERRS).

2.1.2 Response Actions to Date

Temporary fence has been erected with warning signs posted.

All debris piles containing asbestos have been covered

Site setup and preparation for shipping waste

Loaded out trucks filled with debris to the landfill

Air monitoring of work zones and perimeter of Site

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Access has been granted by the property owner.

Information requests have been sent out, as information is received, PRPs will be identified.

2.1.4 Progress Metrics

From August 22 to August 26, 2016 a total of 37 trucks were loaded with ACM Debris and transported and disposed of at Prairieview Landfill in Wyatt, Indiana. This resulted in 606.37 Tons of ACM Debris removed from the Site for the week.

Air sampling results from the week of August 22 to August 26, 2016 indicated no asbestos fibers were detected in any of the samples collected at the Site.

From August 29 to September 2, 2016 a total of 58 trucks were loaded with ACM Debris and transported and disposed of at Prairieview Landfill in Wyatt, Indiana.

Air sampling results from the week of August 29 to September 2, 2016 indicated no asbestos fibers were detected in any of the samples collected at the Site.

From September 6 to September 9, 2016 a total of 28 trucks were loaded with ACM Debris and transported and disposed of at Prairieview Landfill in Wyatt, Indiana.

Air monitoring results have indicated no exceedances of air quality action levels at any of any of the work areas or perimeter monitoring locations at the Site.

The table below shows the quantity of ACM and RACM Debris removed from the Site to date.

Waste Stream	***Medium***	***Quantity***	***Treatment***	***Disposal***
ACM	Debris	1,056.65 tons	None	Prairieview Landfill - Wyatt, IN
RACM	Debris	2,148.7 tons	Burrito Wrap	Prairieview Landfill - Wyatt, IN

The table below shows the PCM and TEM analytical results collected from 8/29/16 through 9/2/16.

Sample ID	Sample Location	Sample Count	Date Collected	Date Analyzed (TEM)	Analytical Method Result - PCM (fibers/cc)	Analytical Method Result - TEM (fibers/cc)	Total Asbestos %
TPA-W2-026-082916	W2	26	082916	090716	<0.001	<0.001	0
TPA-W1-027-082916	W1	27			<0.001	<0.001	0
TPA-SW-028-082916	SW	28			<0.001	<0.001	0
TPA-N1-029-082916	N1	29			<0.001	<0.001	0
TPA-SW-031-083016	SW	31	083016	090716	<0.001	<0.001	0
TPA-W1-032-083016	W1	32			<0.001	<0.001	0
TPA-N1-033-083016	N1	33			<0.001	<0.001	0
TPA-W2-034-083016	W2	34			<0.001	<0.001	0

TPA-N2-036-083116	N2	36	083116	NR	<0.001	<0.001	0
TPA-W2-037-083116	W2	37			<0.001	<0.001	0
TPA-S2-038-083116	S2	38			Damaged filter		
TPA-SW-039-083116	SW	39			<0.001	<0.001	0
TPA-N2-041-090116	N2	41	090116	NR	0.001	<0.001	0
TPA-W2-042-090116	W2	42			0.001	<0.001	0
TPA-S2-043-090116	S2	43			0.001	<0.001	0
TPA-SW-044-090116	SW	44			<0.001	<0.001	0
TPA-N2-046-090216	N2	46	090216	NR	<0.001	NR	
TPA-W2-047-090216	W2	47			<0.001	NR	
TPA-S2-048-090216	S2	48			0.001	NR	
TPA-SW-049-090216	SW	49			<0.001	NR	

2.2 Planning Section

2.2.1 Anticipated Activities

Shipment of ACM to Prairieview Landfill, Wyatt, IN.

Daily Air Monitoring and sampling for Asbestos and nuisance dust.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

See cost tracking info below:

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$500,000.00	$100,000.00	$400,000.00	80.00%
TAT/START	$50,000.00	$0.00	$50,000.00	100.00%
Intramural Costs				
Total Site Costs	$550,000.00	$100,000.00	$450,000.00	81.82%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

EPA

3.2 Cooperating Agencies

Indiana Department of Environmental Management, City of Goshen

4. Personnel On Site

1 EPA

7 ERRS

2 START

5. Definition of Terms

ACM - Asbestos Containing Material. Material containing more than 1% asbestos.

RACM - Regulated Asbestos Containing Material. This is a friable manufactured asbestos material OR a Category I nonfriable ACM that has become friable OR Category I Nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading OR a Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. RACM should be removed prior to demolition or renovation.

Category I - Category I Nonfriable ACM - refers to asbestos containing packing, gaskets, resilient floor covering, Galbestos, and asphalt roofing products containing more than 1% asbestos.

Category II - Category II ACM is any material that is not Category I that contains more than 1% asbestos.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/toconasbestos

6.2 Reporting Schedule

weekly

7. Situational Reference Materials

No information available at this time.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #3**
Progress
Former TOCON Holdings Asbestos Site
C5AM
Goshen, IN
Latitude: 41.5804330 Longitude: -85.8161640

To:
Sam Borries, U.S. EPA
Mark Durno, U.S. EPA
Jason El-Zein, U.S. EPA
Charlie Gebien, U.S. EPA
Mike Ribordy, U.S. EPA
Brian Schlieger, U.S. EPA
Jeremy Stutsman, City of Goshen
Becky Hershberger, City of Goshen
Mark Jaworski, IDEM
Harry Atkinson, IDEM
Max Michael, IDEM
Rex Osborn, IDEM
Lindy Nelson, U.S. DOI
Carolyn Bohlen, U.S. EPA
Yolanda Bouchee-Cureton, U.S. EPA
Mindy Clements, U.S. EPA
HQ EOC, U.S. EPA
John Glover, U.S. EPA
Matt Mankowski, U.S. EPA
Cecilia Moore, U.S. EPA
Carol Ropski, U.S. EPA

From: Andrew Maguire, On-Scene Coordinator
Date: 9/15/2016
Reporting Period: 9/6/16-9/9/16

1. Introduction

1.1 Background

Site Number:	C5AM	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/15/2016	**Start Date:**	8/15/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	INN000506236	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response/Time Critical Removal

1.1.2 Site Description

The TOCON Property Asbestos site is located in Goshen, Elkhart County, Indiana. The site originally operated by Johnson Controls as a manufacturing plant for heating systems, as well as a research and development facility. In 2006, before buildings on site were demolished, the main plant building was utilized as an assembly plant for component equipment, tooling machinery, and stamp equipment, all used in building heating systems. Many of the building structures have been previously demolished. The only remnants of the former TOCON buildings are a grouping of foundations. Piles of bricks, wood, metal, and other debris, including asbestos containing materials, are located around the Site.

1.1.2.1 Location

1302 East Monroe Street, Goshen, Elkhart County, IN

1.1.2.2 Description of Threat

Bulk samples collected from debris piles at the site by KERAMIDA in Feb 2016 contain as high as 70% asbestos (chrysotile). In Feb 2016, Tetra Tech START collected nineteen bulk demolition debris samples and 1 water sample in the area around the former TOCON building, results showed friable asbestos up to 15%. Goshen High school and residential areas are located next to or near the site. In addition, the Site has a history of visitors and trespassing continues to occur.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Friable asbestos has been verified unsecured on site with open access and active trespassing on site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Please see POLREPS 1-2 for further information on prior reporting periods

From 9/6/2016 to 9/9/2016 EPA's START and ERRS contractors have been on site compiling, loading and transporting ACM to Prairieview Landfill in Wyatt, IN and providing air monitoring and sampling for worker and citizen health and safety.

2.1.2 Response Actions to Date

Temporary fence has been erected with warning signs posted.

All debris piles containing asbestos have been covered

Site setup and preparation for shipping waste

Loaded out trucks filled with debris to the landfill

Air monitoring of work zones and perimeter of Site

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Access has been granted by the property owner.

Information requests have been sent out, as information is received, PRPs will be identified.

2.1.4 Progress Metrics

From September 12 to September 15, 2016, a total of 37 trucks were loaded 878.19 tons of RACM Debris and transported and disposed of at Prairieview Landfill in Wyatt, Indiana. An accumulative total of 3346.56 Tons of ACM and RACM Debris have been removed from the Site to date.

Air monitoring results have indicated no exceedences of air quality action levels at any of any of the work areas or perimeter monitoring locations at the Site.

Air sampling results from August 22 to September 14, 2016 indicated no asbestos fibers were detected in any of the samples collected at the Site.

The table below shows the quantity of RACM Debris removed from the Site to date:

Waste Stream	***Medium***	***Quantity***	***Treatment***	***Disposal***
RACM	Debris	3346.56 Tons	Burrito Wrap	Prairieview Landfill - Wyatt, IN

The table below shows the analytical results from the week of September 12 to September 16, 2016:

Sample ID	Sample Location	Sample Count	Date Collected	Date Analyzed (PCM)	Analytical Method Result - PCM (fibers/cc)	Analytical Method Result - TEM (fibers/cc)	Total Asbestos %
TPA-N2-066-091216	N2	66	091216	091416	<0.0005	NA	0
TPA-S1-067-091216	S1	67			<0.0005	NA	0
TPA-SW-068-091216	SW	68			<0.0005	NA	0
TPA-W2-069-091216	W2	69			<0.0005	NA	0
TPA-N2-071-091316	N2	71	091316	091416	<0.0005	NA	0
TPA-S1-072-091316	S1	72			<0.001	NA	0
TPA-SW-073-091316	SW	73			0.001	NA	0
TPA-W2-074-091316	W2	74			<0.001	NA	0
TPA-N2-076-091416	N2	76	091416	091416	<0.001	NA	0
TPA-S1-077-091416	S1	77			<0.001	NA	0
TPA-SW-078-091416	SW	78			<0.001	NA	0
TPA-W2-079-091416	W2	79			<0.001	NA	0
TPA-N2-081-091416	N2	81	091516	NR	NR	NA	NR
TPA-S1-082-091416	S1	82			NR	NA	NR
TPA-SW-083-091416	SW	83			NR	NA	NR
TPA-W2-084-091416	W2	84			NR	NA	NR
TPA-N2-086-091416	N2	86	091616	NR	NR	NA	NR
TPA-S1-087-091416	S1	87			NR	NA	NR
TPA-SW-088-091416	SW	88			NR	NA	NR
TPA-W2-089-091416	W2	89			NR	NA	NR

2.2 Planning Section

2.2.1 Anticipated Activities

Consolidate ACM from site to load pile.

Ship RACM to Prairieview Landfill, Wyatt, IN.

Daily Air Monitoring and sampling for Asbestos and nuisance dust.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

See cost tracking info below:

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$750,000.00	$330,000.00	$420,000.00	56.00%
TAT/START	$50,000.00	$25,000.00	$25,000.00	50.00%
Intramural Costs				
Total Site Costs	$800,000.00	$355,000.00	$445,000.00	55.63%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the

government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

EPA

3.2 Cooperating Agencies

Indiana Department of Environmental Management, City of Goshen

4. Personnel On Site

1 EPA

10 ERRS

2 START

5. Definition of Terms

ACM - Asbestos Containing Material. Material containing more than 1% asbestos.

RACM - Regulated Asbestos Containing Material. This is a friable manufactured asbestos material OR a Category I nonfriable ACM that has become friable OR Category I Nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading OR a Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. RACM should be removed prior to demolition or renovation.

Category I - Category I Nonfriable ACM - refers to asbestos containing packing, gaskets, resilient floor covering, Galbestos, and asphalt roofing products containing more than 1% asbestos.

Category II - Category II ACM is any material that is not Category I that contains more than 1% asbestos.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/toconasbestos

6.2 Reporting Schedule

weekly

7. Situational Reference Materials

No information available at this time.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #4**
Progress
Former TOCON Holdings Asbestos Site
C5AM
Goshen, IN
Latitude: 41.5804330 Longitude: -85.8161640

To:
Sam Borries, U.S. EPA
Mark Durno, U.S. EPA
Jason El-Zein, U.S. EPA
Charlie Gebien, U.S. EPA
Mike Ribordy, U.S. EPA
Brian Schlieger, U.S. EPA
Jeremy Stutsman, City of Goshen
Becky Hershberger, City of Goshen
Mark Jaworski, IDEM
Harry Atkinson, IDEM
Max Michael, IDEM
Rex Osborn, IDEM
Lindy Nelson, U.S. DOI
Carolyn Bohlen, U.S. EPA
Yolanda Bouchee-Cureton, U.S. EPA
Mindy Clements, U.S. EPA
HQ EOC, U.S. EPA
John Glover, U.S. EPA
Matt Mankowski, U.S. EPA
Cecilia Moore, U.S. EPA
Carol Ropski, U.S. EPA

From: Andrew Maguire, On-Scene Coordinator
Date: 9/21/2016
Reporting Period: 9/12/16-9/16/16

1. Introduction

1.1 Background

Site Number:	C5AM	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/15/2016	**Start Date:**	8/15/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	INN000506236	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response/Time Critical Removal

1.1.2 Site Description

The TOCON Property Asbestos site is located in Goshen, Elkhart County, Indiana. The site originally operated by Johnson Controls as a manufacturing plant for heating systems, as well as a research and development facility. In 2006, before buildings on site were demolished, the main plant building was utilized as an assembly plant for component equipment, tooling machinery, and stamp equipment, all used in building heating systems. Many of the building structures have been previously demolished. The only remnants of the former TOCON buildings are a grouping of foundations. Piles of bricks, wood, metal, and other debris, including asbestos containing materials, are located around the Site.

1.1.2.1 Location

1302 East Monroe Street, Goshen, Elkhart County, IN

1.1.2.2 Description of Threat

Bulk samples collected from debris piles at the site by KERAMIDA in Feb 2016 contain as high as 70% asbestos (chrysotile). In Feb 2016, Tetra Tech START collected nineteen bulk demolition debris samples and 1 water sample in the area around the former TOCON building, results showed friable asbestos up to 15%. Goshen High school and residential areas are located next to or near the site. In addition, the Site has a history of visitors and trespassing continues to occur.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Friable asbestos has been verified unsecured on site with open access and active trespassing on site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Please see POLREPS 1-3 for further information on prior reporting periods

From 9/12/2016 to 9/16/2016 EPA's START and ERRS contractors have been on site compiling, loading and transporting ACM to Prairieview Landfill in Wyatt, IN and providing air monitoring and sampling for worker and citizen health and safety.

2.1.2 Response Actions to Date

Temporary fence has been erected with warning signs posted.

All debris piles containing asbestos have been covered

Site setup and preparation for shipping waste

Loaded out trucks filled with debris to the landfill

Air monitoring of work zones and perimeter of Site

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Access has been granted by the property owner.

Information requests have been sent out, as information is received, PRPs will be identified.

2.1.4 Progress Metrics

From September 12 to September 16, 2016, a total of 48 trucks were loaded 1,139.25 tons of RACM Debris and transported and disposed of at Prairieview Landfill in Wyatt, Indiana. An accumulative total of 3607.62 Tons of ACM and RACM Debris have been removed from the Site to date.

Air monitoring results have indicated no exceedences of air quality action levels at any of any of the work areas or perimeter monitoring locations at the Site.

Air sampling results from September 12 to September 16, 2016 indicated no asbestos fibers were detected in any of the samples collected at the Site.

The table below shows the quantity of RACM Debris removed from the Site to date:

Waste Stream	***Medium***	***Quantity***	***Treatment***	***Disposal***
RACM	Debris	3607.62Tons	Burrito Wrap	Prairieview Landfill - Wyatt, IN

The table below shows the analytical results from the week of September 12 to September 16, 2016:

Sample ID	Sample Location	Sample Count	Date Collected	Date Analyzed (PCM)	Analytical Method Result - PCM (fibers/cc)	Analytical Method Result - TEM (fibers/cc)	Total Asbestos %
TPA-N2-066-091216	N2	66	091216	091416	<0.0005	NA	0
TPA-S1-067-091216	S1	67			<0.0005	NA	0
TPA-SW-068-091216	SW	68			<0.0005	NA	0
TPA-W2-069-091216	W2	69			<0.0005	NA	0
TPA-N2-071-091316	N2	71	091316	091416	<0.0005	NA	0
TPA-S1-072-091316	S1	72			<0.001	NA	0
TPA-SW-073-091316	SW	73			0.001	NA	0
TPA-W2-074-091316	W2	74			<0.001	NA	0
TPA-N2-076-091416	N2	76	091416	091416	<0.001	NA	0
TPA-S1-077-091416	S1	77			<0.001	NA	0
TPA-SW-078-091416	SW	78			<0.001	NA	0
TPA-W2-079-091416	W2	79			<0.001	NA	0
TPA-N2-081-091516	N2	81	091516	091916	<0.001	NA	NR
TPA-S1-082-091516	S1	82			<0.001	NA	NR
TPA-SW-083-091516	SW	83			<0.001	NA	NR
TPA-W2-084-091516	W2	84			<0.001	NA	NR
TPA-N2-086-091616	N2	86			<0.001	NA	NR

TPA-S1-087-091616	S1	87			<0.001	NA	NR
TPA-SW-088-091616	SW	88	091616	091916	<0.001	NA	NR
TPA-W2-089-091616	W2	89			<0.001	NA	NR

2.2 Planning Section

2.2.1 Anticipated Activities

Consolidate ACM from site to load pile.

Ship RACM to Prairieview Landfill, Wyatt, IN.

Daily Air Monitoring and sampling for Asbestos and nuisance dust.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

See cost tracking info below:

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				

ERRS - Cleanup Contractor	$750,000.00	$420,000.00	$330,000.00	44.00%
TAT/START	$85,000.00	$30,000.00	$55,000.00	64.71%
Intramural Costs				
Total Site Costs	$835,000.00	$450,000.00	$385,000.00	46.11%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

EPA

3.2 Cooperating Agencies

Indiana Department of Environmental Management, City of Goshen

4. Personnel On Site

1 EPA

10 ERRS

1 START

5. Definition of Terms

ACM - Asbestos Containing Material. Material containing more than 1% asbestos.

RACM - Regulated Asbestos Containing Material. This is a friable manufactured asbestos material OR a Category I nonfriable ACM that has become friable OR Category I Nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading OR a Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. RACM should be removed prior to demolition or renovation.

Category I - Category I Nonfriable ACM - refers to asbestos containing packing, gaskets, resilient floor covering, Galbestos, and asphalt roofing products containing more than 1% asbestos.

Category II - Category II ACM is any material that is not Category I that contains more than 1% asbestos.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/toconasbestos

6.2 Reporting Schedule

weekly

7. Situational Reference Materials

No information available at this time.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #5**
Progress
Former TOCON Holdings Asbestos Site
C5AM
Goshen, IN
Latitude: 41.5804330 Longitude: -85.8161640

To:
Sam Borries, U.S. EPA
Mark Durno, U.S. EPA
Jason El-Zein, U.S. EPA
Charlie Gebien, U.S. EPA
Mike Ribordy, U.S. EPA
Brian Schlieger, U.S. EPA
Jeremy Stutsman, City of Goshen
Becky Hershberger, City of Goshen
Mark Jaworski, IDEM
Harry Atkinson, IDEM
Max Michael, IDEM
Rex Osborn, IDEM
Lindy Nelson, U.S. DOI
Carolyn Bohlen, U.S. EPA
Yolanda Bouchee-Cureton, U.S. EPA
Mindy Clements, U.S. EPA
HQ EOC, U.S. EPA
John Glover, U.S. EPA
Matt Mankowski, U.S. EPA
Cecilia Moore, U.S. EPA
Carol Ropski, U.S. EPA

From: Andrew Maguire, On-Scene Coordinator
Date: 9/23/2016
Reporting Period: 9/19/16-9/23/16

1. Introduction

1.1 Background

Site Number:	C5AM	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/15/2016	**Start Date:**	8/15/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	INN000506236	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response/Time Critical Removal

1.1.2 Site Description

The TOCON Property Asbestos site is located in Goshen, Elkhart County, Indiana. The site originally operated by Johnson Controls as a manufacturing plant for heating systems, as well as a research and development facility. In 2006, before buildings on site were demolished, the main plant building was utilized as an assembly plant for component equipment, tooling machinery, and stamp equipment, all used in building heating systems. Many of the building structures have been previously demolished. The only remnants of the former TOCON buildings are a grouping of foundations. Piles of bricks, wood, metal, and other debris, including asbestos containing materials, are located around the Site.

1.1.2.1 Location

1302 East Monroe Street, Goshen, Elkhart County, IN

1.1.2.2 Description of Threat

Bulk samples collected from debris piles at the site by KERAMIDA in Feb 2016 contain as high as 70% asbestos (chrysotile). In Feb 2016, Tetra Tech START collected nineteen bulk demolition debris samples and 1 water sample in the area around the former TOCON building, results showed friable asbestos up to 15%. Goshen High school and residential areas are located next to or near the site. In addition, the Site has a history of visitors and trespassing continues to occur.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Friable asbestos has been verified unsecured on site with open access and active trespassing on site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Please see POLREPS 1-4 for further information on prior reporting periods

From 9/19/2016 to 9/23/2016 EPA's START and ERRS contractors have been on site compiling, loading and transporting ACM to Prairieview Landfill in Wyatt, IN and providing air monitoring and sampling for worker and citizen health and safety.

2.1.2 Response Actions to Date

Temporary fence has been erected with warning signs posted.

All debris piles containing asbestos have been covered

Site setup and preparation for shipping waste

Loaded out trucks filled with debris to the landfill

Air monitoring of work zones and perimeter of Site

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Access has been granted by the property owner.

Information requests have been sent out, as information is received, PRPs will be identified.

2.1.4 Progress Metrics

From September 19 to September 23, 2016, a total of 53 trucks were loaded 1306.11 tons of RACM Debris and transported and disposed of at Prairieview Landfill in Wyatt, Indiana. An accumulative total of 4913.73 Tons of ACM and RACM Debris have been removed from the Site to date.

Air monitoring results have indicated no exceedences of air quality action levels at any of any of the work areas or perimeter monitoring locations at the Site.

Air sampling results from September 19 to September 23, 2016 indicated no asbestos fibers were detected in any of the samples collected at the Site.

The table below shows the quantity of RACM Debris removed from the Site to date:

Waste Stream	***Medium***	***Quantity***	***Treatment***	***Disposal***
RACM	Debris	4913.72 Tons	Burrito Wrap	Prairieview Landfill - Wyatt, IN

The table below shows the analytical results from the week of September 19 to September 23, 2016:

94

Sample ID	Sample Location	Sample Count	Date Collected	Date Analyzed (PCM)	Analytical Method Result - PCM (fibers/cc)	Analytical Method Result - TEM (fibers/cc)	Total Asbestos %
TPA-N1-091-091916	N1	91			<0.001	<0.0005	0
TPA-N2-092-091916	N2	92	091916	092016	<0.001	<0.0005	0
TPA-N2-094-092016	N2	94			0.001	NA	0
TPA-S1-095-092016	N1	95	092016	0922116	0.001	NA	0
TPA-SW-096-092016	SW	96			0.001	NA	0
TPA-W2-097-092016	W2	97			0.005	NA	0
TPA-N2-076-092116	N2	99			NA	NA	0
TPA-S1-077-092116	S1	100	092116		NA	NA	0
TPA-SW-078-092116	SW	101			NA	NA	0
TPA-W2-079-092116	W2	102			NA	NA	0
TPA-N1-104-092216	N1	104			0.0005	NA	NR
TPA-NE-105-092216	NE	105	092216	092616	NA	NA	NR
TPA-W1-106-092216	W1	106			0.0005	NA	NR
TPA-W2-107-092216	W2	107			0.0005	NA	NR
TPA-N2-1-092316	N2	109			<0.001	NA	NR
TPA-S1-087-092316	S1	110			<0.001	NA	NR

TPA-SW-088-092316	SW	111	092316	092616	<0.001	NA	NR
TPA-W2-089-092316	W2	112			<0.001	NA	NR

2.2 Planning Section

2.2.1 Anticipated Activities

Consolidate ACM from site to load pile.

Ship RACM to Prairieview Landfill, Wyatt, IN.

Daily Air Monitoring and sampling for Asbestos and nuisance dust.

2.2.1.1 Planned Response Activities

Bring in clean fill to backfill basements and pits to grade

2.2.1.2 Next Steps

Plan for Demobilization

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

See cost tracking info below:

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining

Extramural Costs				
ERRS - Cleanup Contractor	$750,000.00	$581,000.00	$169,000.00	22.53%
TAT/START	$85,000.00	$25,000.00	$60,000.00	70.59%
Intramural Costs				
Total Site Costs	$835,000.00	$606,000.00	$229,000.00	27.43%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

EPA

3.2 Cooperating Agencies

Indiana Department of Environmental Management, City of Goshen

4. Personnel On Site

1 EPA

9 ERRS

1 START

5. Definition of Terms

ACM - Asbestos Containing Material. Material containing more than 1% asbestos.

RACM - Regulated Asbestos Containing Material. This is a friable manufactured asbestos material OR a Category I nonfriable ACM that has become friable OR Category I Nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading OR a Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. RACM should be removed prior to demolition or renovation.

Category I - Category I Nonfriable ACM - refers to asbestos containing packing, gaskets, resilient floor covering, Galbestos, and asphalt roofing products containing more than 1% asbestos.

Category II - Category II ACM is any material that is not Category I that contains more than 1% asbestos.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/toconasbestos

6.2 Reporting Schedule

weekly

7. Situational Reference Materials

No information available at this time.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #6**
Progress
Former TOCON Holdings Asbestos Site
C5AM
Goshen, IN
Latitude: 41.5804330 Longitude: -85.8161640

To:
Sam Borries, U.S. EPA
Mark Durno, U.S. EPA
Jason El-Zein, U.S. EPA
Charlie Gebien, U.S. EPA
Mike Ribordy, U.S. EPA
Brian Schlieger, U.S. EPA
Jeremy Stutsman, City of Goshen
Becky Hershberger, City of Goshen
Mark Jaworski, IDEM
Harry Atkinson, IDEM
Max Michael, IDEM
Rex Osborn, IDEM
Lindy Nelson, U.S. DOI
Carolyn Bohlen, U.S. EPA
Yolanda Bouchee-Cureton, U.S. EPA
Mindy Clements, U.S. EPA
HQ EOC, U.S. EPA
John Glover, U.S. EPA
Matt Mankowski, U.S. EPA
Cecilia Moore, U.S. EPA
Carol Ropski, U.S. EPA

From: Andrew Maguire, On-Scene Coordinator
Date: 10/4/2016
Reporting Period: 9/26/2016-9/30/2016

1. Introduction

1.1 Background

Site Number:	C5AM	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/15/2016	**Start Date:**	8/15/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	INN000506236	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response/Time Critical Removal

1.1.2 Site Description

The TOCON Property Asbestos site is located in Goshen, Elkhart County, Indiana. The site originally operated by Johnson Controls as a manufacturing plant for heating systems, as well as a research and development facility. In 2006, before buildings on site were demolished, the main plant building was utilized as an assembly plant for component equipment, tooling machinery, and stamp equipment, all used in building heating systems. Many of the building structures have been previously demolished. The only remnants of the former TOCON buildings are a grouping of foundations. Piles of bricks, wood, metal, and other debris, including asbestos containing materials, are located around the Site.

1.1.2.1 Location

1302 East Monroe Street, Goshen, Elkhart County, IN

1.1.2.2 Description of Threat

Bulk samples collected from debris piles at the site by KERAMIDA in Feb 2016 contain as high as 70% asbestos (chrysotile). In Feb 2016, Tetra Tech START collected nineteen bulk demolition debris samples and 1 water sample in the area around the former TOCON building, results showed friable asbestos up to 15%. Goshen High school and residential areas are located next to or near the site. In addition, the Site has a history of visitors and trespassing continues to occur.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Friable asbestos has been verified unsecured on site with open access and active trespassing on site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Please see POLREPS 1-5 for further information on prior reporting periods

From 9/26/2016 to 9/30/2016 EPA's START and ERRS contractors have been on site compiling, loading and transporting ACM to Prairieview Landfill in Wyatt, IN and providing air monitoring and sampling for worker and citizen health and safety.

2.1.2 Response Actions to Date

Temporary fence has been erected with warning signs posted.

All debris piles containing asbestos have been covered

Site setup and preparation for shipping waste

Loaded out trucks filled with debris to the landfill

Air monitoring of work zones and perimeter of Site

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Access has been granted by the property owner.

Information requests have been sent out, as information is received, PRPs will be identified.

2.1.4 Progress Metrics

From September 26 to September 30, 2016, a total of 39 trucks were loaded 923.7 tons of RACM Debris and transported and disposed of at Prairieview Landfill in Wyatt, Indiana. An accumulative total of 5837.43 Tons of ACM and RACM Debris have been removed from the Site to date.

Air monitoring results have indicated no exceedences of air quality action levels at any of any of the work areas or perimeter monitoring locations at the Site.

Due to previous air samples having NO Asbestos fibers START is only sending in 1 sample set a week.

The table below shows the quantity of RACM Debris removed from the Site to date:

Waste Stream	***Medium***	***Quantity***	***Treatment***	***Disposal***
RACM	Debris	5837.7 Tons	Burrito Wrap	Prairieview Landfill - Wyatt, IN

The table below shows the analytical results from the week of September 26 to September 30, 2016:

94 116117119

Sample ID	Sample Location	Sample Count	Date Collected	Date Analyzed (PCM)	Analytical Method Result - PCM (fibers/cc)	Analytical Method Result - TEM (fibers/cc)	Total Asbestos %
TPA-W2-118-092616	W2	118	092616	100616	0.001	NA	0
TPA-N1-116-092616	N1	116			0.001	NA	0
TPA-W1-117-092616	W1	117			0.001	NA	0
TPA-NE-0119-092616	NE	119			0.001	NA	0

2.2 Planning Section

2.2.1 Anticipated Activities

Consolidate ACM from site to load pile.

Ship RACM to Prairieview Landfill, Wyatt, IN.

Daily Air Monitoring and sampling for Asbestos and nuisance dust.

2.2.1.1 Planned Response Activities

Bring in clean fill to backfill basements and pits to grade

2.2.1.2 Next Steps

Plan for Demobilization

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

See cost tracking info below:

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$750,000.00	$581,000.00	$169,000.00	22.53%
TAT/START	$85,000.00	$25,000.00	$60,000.00	70.59%

Intramural Costs				
Total Site Costs	$835,000.00	$606,000.00	$229,000.00	27.43%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

EPA

3.2 Cooperating Agencies

Indiana Department of Environmental Management, City of Goshen

4. Personnel On Site

1 EPA

9 ERRS

1 START

5. Definition of Terms

ACM - Asbestos Containing Material. Material containing more than 1% asbestos.

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6. Additional sources of information

6.1 Internet location of additional information/report

www.epaosc.org/toconasbestos

6.2 Reporting Schedule

weekly

7. Situational Reference Materials

No information available at this time.

ATTACHMENT C

MICRO BAC, CT AND ALS LABORTORY REPORTS

September 22, 2016

Environmental Restoration
16660 South Canal Street
South Holland, IL 60437-

Work Order No.: 16I0721

Re: 1234NL/5678 FL

Dear Toby Viehweg:

Microbac Laboratories, Inc. - Chicagoland Division received 2 sample(s) on 9/13/2016 3:30:00PM for the analyses presented in the following report as Work Order 16I0721.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Managing Director, at robert.crookston@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Kevin Falvey
Account Manager

MICROBAC®

WORK ORDER SAMPLE SUMMARY

Date: *Thursday, September 22, 2016*

Client: Environmental Restoration
Project: 1234NL/5678 FL
Lab Order: 16I0721

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
16I0721-01	1234 NL		09/08/2016 17:00	9/13/2016 3:30:00PM
16I0721-02	5678 FL		09/08/2016 17:00	9/13/2016 3:30:00PM

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Field Results

Date: *Thursday, September 22, 2016*

Client:	Environmental Restoration	**Work Order:**	16I0721
Client Project:	1234NL/5678 FL		
Client Sample ID:	1234 NL	**Work Order/ID:**	16I0721-01
Sample Description:		**Sampled:**	09/08/2016 17:00
Matrix:	Aqueous	**Received:**	09/13/2016 15:30

Analyses	Result	Units
pH	6.75	pH Units

CASE NARRATIVE

Date: *Thursday, September 22, 2016*

Client: Environmental Restoration
Project: 1234NL/5678 FL
Lab Order: 16I0721

Microbac LIMS has logged in Sample #2 (strong solvent) as a solid matrix for laboratory purposes.

The following sample required dilution for the 8270 analysis due to matrix interference. Reporting limits have been adjusted to reflect the dilution level.

Laboratory ID	Sample Name
16I0721-02	5678 FL

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Analytical Results

Date: *Thursday, September 22, 2016*

Client: Environmental Restoration
Client Project: 1234NL/5678 FL
Client Sample ID: 1234 NL
Sample Description:
Matrix: Aqueous

Work Order/ID: 16I0721-01
Sampled: 09/08/2016 17:00
Received: 09/13/2016 15:30

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Semivolatile Organic Compounds			Method: **SW-846 8270C** Prep Method: **40CFR136**				Analyst: **CLR** Prep Date/Time: **09/15/2016 09:23**	
2,4,5-Trichlorophenol	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
2,4,6-Trichlorophenol	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
2,4-Dinitrotoluene	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
2-Methylphenol	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
3/4-Methylphenol	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
Hexachlorobenzene	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
Hexachlorobutadiene	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
Hexachloroethane	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
Nitrobenzene	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
Pentachlorophenol	dil	A	***ND***	500		µg/L	1	09/15/2016 17:56
Pyridine	dil	A	***ND***	100		µg/L	1	09/15/2016 17:56
Total Cresol	dil	M	***ND***	100		µg/L	1	09/15/2016 17:56
Surr: 2,4,6-Tribromophenol		S	92.4	47.8-138		%REC	1	09/15/2016 17:56
Surr: 2-Fluorobiphenyl		S	51.6	10-110		%REC	1	09/15/2016 17:56
Surr: 2-Fluorophenol		S	45.3	10-110		%REC	1	09/15/2016 17:56
Surr: Nitrobenzene-d5		S	64.3	10-110		%REC	1	09/15/2016 17:56
Surr: Phenol-d5		S	34.9	10-60.8		%REC	1	09/15/2016 17:56
Surr: Terphenyl-d14		S	67.7	16.8-110		%REC	1	09/15/2016 17:56
Volatile Organic Compounds			Method: **SW-846 8260B**				Analyst: **jln** Prep Date/Time: **09/19/2016 09:48**	
1,1-Dichloroethene	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
1,2-Dichloroethane	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
2-Butanone	dil	A	***15***	10		µg/L	1	09/19/2016 16:07
Benzene	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
Carbon tetrachloride	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
Chlorobenzene	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
Chloroform	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
Tetrachloroethene	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
Trichloroethene	dil	A	***ND***	5.0		µg/L	1	09/19/2016 16:07
Vinyl chloride	dil	A	***ND***	2.0		µg/L	1	09/19/2016 16:07
1,4-Dichlorobenzene	dil	B	***ND***	10		µg/L	1	09/19/2016 16:07
Surr: 1,2-Dichloroethane-d4		S	98.5	74.5-132		%REC	1	09/19/2016 16:07
Surr: 4-Bromofluorobenzene		S	104	80-120		%REC	1	09/19/2016 16:07
Surr: Dibromofluoromethane		S	98.6	80-120		%REC	1	09/19/2016 16:07
Surr: Toluene-d8		S	99.5	80-120		%REC	1	09/19/2016 16:07
Total Metals by ICP			Method: **SW-846 6010C** Prep Method: **SW846 3005A**				Analyst: **SE** Prep Date/Time: **09/15/2016 09:30**	
Arsenic	dil	A	***ND***	0.010		mg/L	1	09/16/2016 15:48
Barium	dil	A	***0.028***	0.0020		mg/L	1	09/16/2016 15:48
Cadmium	dil	A	***ND***	0.0020		mg/L	1	09/16/2016 15:48
Chromium	dil	A	***ND***	0.0030		mg/L	1	09/16/2016 15:48

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Analytical Results

Date: *Thursday, September 22, 2016*

Client: Environmental Restoration
Client Project: 1234NL/5678 FL
Client Sample ID: 1234 NL
Sample Description:
Matrix: Aqueous

Work Order/ID: 16I0721-01
Sampled: 09/08/2016 17:00
Received: 09/13/2016 15:30

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP			Method: **SW-846 6010C** Prep Method: **SW846 3005A**					Analyst: **SE** Prep Date/Time: **09/15/2016 09:30**
Lead	dil	A	***ND***	0.0075		mg/L	1	09/16/2016 15:48
Selenium	dil	A	***ND***	0.030		mg/L	1	09/16/2016 15:48
Silver	dil	A	***ND***	0.010		mg/L	1	09/16/2016 15:48
Total Mercury by CVAA			Method: **SW-846 7470A** Prep Method: **SW-846 7470**					Analyst: **RM** Prep Date/Time: **09/15/2016 09:15**
Mercury	dil	A	***ND***	0.00020		mg/L	1	09/15/2016 14:47
Ignitability (Closed Cup)			Method: **SW-846 1010A**					Analyst: **EB** Prep Date/Time: **09/14/2016 14:50**
Ignitability	dil	A	***> 170***	30		°F	1	09/14/2016 14:50

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Analytical Results

Date: *Thursday, September 22, 2016*

Client: Environmental Restoration
Client Project: 1234NL/5678 FL
Client Sample ID: 5678 FL
Sample Description:
Matrix: Solid

Work Order/ID: 16I0721-02
Sampled: 09/08/2016 17:00
Received: 09/13/2016 15:30

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Semivolatile Organic Compounds			Method: **SW-846 8270C** Prep Method: **SW846 3550A**				Analyst: **CLR** Prep Date/Time: **09/16/2016 14:33**	
2,4,5-Trichlorophenol	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
2,4,6-Trichlorophenol	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
2,4-Dinitrotoluene	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
2-Methylphenol	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
3/4-Methylphenol	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
Hexachlorobenzene	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
Hexachlorobutadiene	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
Hexachloroethane	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
Nitrobenzene	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
Pentachlorophenol	**dil**	A	***ND***	53000		µg/Kg	5	09/19/2016 14:15
Pyridine	**dil**	A	***ND***	11000		µg/Kg	5	09/19/2016 14:15
Total Cresol	**dil**	M	***ND***	11000		µg/Kg	5	09/19/2016 14:15
Surr: 2,4,6-Tribromophenol		S	59.6	13.9-145		%REC	5	09/19/2016 14:15
Surr: 2-Fluorobiphenyl		S	38.6	28.1-110		%REC	5	09/19/2016 14:15
Surr: 2-Fluorophenol		S	48.8	24.5-110		%REC	5	09/19/2016 14:15
Surr: Nitrobenzene-d5		S	51.3	33.6-110		%REC	5	09/19/2016 14:15
Surr: Phenol-d5		S	51.8	29.6-110		%REC	5	09/19/2016 14:15
Surr: Terphenyl-d14		S	43.5	35.8-121		%REC	5	09/19/2016 14:15
Volatile Organic Compounds			Method: **SW-846 8260B**				Analyst: **jln** Prep Date/Time: **09/20/2016 07:32**	
1,1-Dichloroethene	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
1,2-Dichloroethane	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
2-Butanone	**ild**	A	***14000***	990		mg/Kg	100000	09/20/2016 16:31
Benzene	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
Carbon tetrachloride	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
Chlorobenzene	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
Chloroform	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
Tetrachloroethene	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
Trichloroethene	**ild**	A	***ND***	500		mg/Kg	100000	09/20/2016 16:31
Vinyl chloride	**ild**	A	***ND***	990		mg/Kg	100000	09/20/2016 16:31
1,4-Dichlorobenzene	**ild**	B	***ND***	990		mg/Kg	100000	09/20/2016 16:31
Surr: 1,2-Dichloroethane-d4		S	112	66-154		%REC	100000	09/20/2016 16:31
Surr: 4-Bromofluorobenzene		S	97.8	48.2-167		%REC	100000	09/20/2016 16:31
Surr: Dibromofluoromethane		S	98.5	74.1-124		%REC	100000	09/20/2016 16:31
Surr: Toluene-d8		S	102	82.7-122		%REC	100000	09/20/2016 16:31
Total Metals by ICP			Method: **SW-846 6010C** Prep Method: **SW846 3050B**				Analyst: **RM** Prep Date/Time: **09/16/2016 10:19**	
Arsenic	**dil**	A	***ND***	0.25		mg/Kg	1	09/19/2016 12:00
Barium	**dil**	A	***0.99***	0.098		mg/Kg	1	09/19/2016 12:00
Cadmium	**dil**	A	***ND***	0.098		mg/Kg	1	09/19/2016 12:00
Chromium	**dil**	A	***ND***	0.098		mg/Kg	1	09/19/2016 12:00

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Analytical Results

Date: *Thursday, September 22, 2016*

Client: Environmental Restoration
Client Project: 1234NL/5678 FL
Client Sample ID: 5678 FL
Sample Description:
Matrix: Solid

Work Order/ID: 16I0721-02
Sampled: 09/08/2016 17:00
Received: 09/13/2016 15:30

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP — Method: **SW-846 6010C**; Prep Method: **SW846 3050B**; Analyst: **RM**; Prep Date/Time: **09/16/2016 10:19**								
Lead	dil	A	***ND***	0.18		mg/Kg	1	09/19/2016 12:00
Selenium	dil	A	***ND***	0.74		mg/Kg	1	09/19/2016 12:00
Silver	dil	A	***ND***	0.25		mg/Kg	1	09/19/2016 12:00
Total Mercury by CVAA — Method: **SW-846 7471B**; Prep Method: **SW-846 7471**; Analyst: **RM**; Prep Date/Time: **09/16/2016 10:11**								
Mercury	dil	A	***1.4***	0.38		mg/Kg	10	09/16/2016 13:02
Heat Content, BTU — Method: **ASTM D240**; Analyst: **RJC**; Prep Date/Time: **09/14/2016 09:55**								
BTU		A	***11000***	2300		BTU/lb	1	09/14/2016 9:55
Chlorine by Bomb/Titration — Method: **ASTM D808**; Analyst: **RJC**; Prep Date/Time: **09/14/2016 09:55**								
Chlorine by Bomb (Total Halogens)		A	***98***	98		mg/Kg	1	09/14/2016 9:55
Ignitability (Closed Cup) — Method: **SW-846 1010A**; Analyst: **EB**; Prep Date/Time: **09/19/2016 14:10**								
Ignitability	dil	A	***< 31***	30		°F	1	09/19/2016 14:10
pH — Method: **SW-846 9045D**; Analyst: **EB**; Prep Date/Time: **09/16/2016 13:55**								
pH	dil	A	***5.47***	2.00		pH at 25°C	1	09/16/2016 13:55

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[d] Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

[i] Kansas Dept Health & Env. NELAP (#E-10397)

[l] North Carolina DENR NPDES effluent, surface water (#597)

MICROBAC®

COOLER INSPECTION

Date: Thursday, September 22, 2016

Client Name: Environmental Restoration

Date/Time Received: 09/13/2016 15:30

Work Order Number: 16I0721

Received by: Nicole Rainwater

Checklist completed by: 9/13/2016 5:45:00PM | Nicole Rainwater

Reviewed by: 9/14/2016 | KGF

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 3.0° C

After-Hour Arrival?	Yes		No	✓		
Shipping container/cooler in good condition?	Yes	✓	No		Not Present	
Custody seals intact on shipping container/cooler?	Yes		No		Not Present	✓
Custody seals intact on sample containers?	Yes		No		Not Present	✓
COC present?	Yes	✓	No			
COC included sufficient client identification?	Yes	✓	No			
COC included sufficient sample collector information?	Yes	✓	No			
COC included a sample description?	Yes	✓	No			
COC agrees with sample labels?	Yes	✓	No			
COC identified the appropriate matrix?	Yes		No	✓		
COC included date of collection?	Yes	✓	No			
COC included time of collection?	Yes	✓	No			
COC identified the appropriate number of containers?	Yes	✓	No			
Samples in proper container/bottle?	Yes	✓	No			
Sample containers intact?	Yes	✓	No			
Sufficient sample volume for indicated test?	Yes	✓	No			
All samples received within holding time?	Yes	✓	No			
If the samples are preserved, are the preservatives identified?	Yes	✓	No			

If No, adjusted by? _____

COC included the requested analyses?	Yes	✓	No			
COC signed when relinquished and received?	Yes	✓	No			
Samples received on ice?	Yes	✓	No			
Samples properly preserved?	Yes	✓	No			
Voa vials for aqueous samples have zero headspace?	Yes		No		No VOA vials submitted	✓

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
16I0721-01	1234 NL	
16I0721-02	5678 FL	Caution: High odor and possibly Flammable

Environmental Restoration

Environmental Restoration L.L.C.

1666 Fabick
Fabick MO 63026
(636) 227-7477
Fax (636) 227-6447

South Holland

Alternate billing information:

Report to: T Viehweg
Email to: t.viehweg@erllc.com

Project Description:
City/State Collected: Goshen IN

Phone: 324466325
Fax:
Client Project #: FOX TO5-01
ESC Key:

Collected by: T Viehweg
Site/Facility ID#:
P.O. #: TO5-01

Collected by (signature):
Packed on Ice N (Y)

Rush (Lab MUST Be Notified)
Same Day
Next Day
Two Day

Date Results Needed:
Email? ___ No ___ Yes
Fax? ___ No ___ Yes

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by: T Viehweg

CoCode (lab use only)
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Containers	Total RCRA Metals	Total RCRA VOC, SVOC	pH (FLD)	Flash point	% ft Halogen	BTU			Remarks/Containment	Sample # (lab only)
1234 NL				9-8-16	1700	1	X	X	X	X						16I0721-01
5678 FL				9/8/16	1700	1	X	X	X	X	X	X				1 -02

* Samples split off at laboratory — KSF
* Samples pH — neutral 6.5 to 7 / KSF

*Matrix SS - Soil/Solic GW - GroundWater WW - WasteWater DW - Drinking Water OT - Other ___

pH = ___ Temp ___
Flow ___ Other ___

Remarks:

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
[signature]	9.13.16	14:30	[signature]
[signature]	9.13.16	15:30	
			Received for lab by: (Signature) [signature]

Samples returned via: ___ UPS ___ Fed Ex ___ Courier
Temp: 9-19=3°C
Date: 9/13/16
Bottles Received:
Time: 1530

Condition: (lab) GW Tee
pH Checked: NCF:

Kevin Falvey
Environmental Restoration - South Holland
1234NL/5678 FL
09/13/2016
16I0721

WO	Sample ID	Sampled On	Client ID	Description	Test Description	Method
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Ignitability (Closed Cup)	SW-846 1010A
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Mercury by CVAA	SW-846 7470A
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Metals by ICP	SW-846 6010C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Metals by ICP	SW-846 6010C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Metals by ICP	SW-846 6010C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Metals by ICP	SW-846 6010C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Metals by ICP	SW-846 6010C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Metals by ICP	SW-846 6010C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Total Metals by ICP	SW-846 6010C
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	09/08/2016 17:00	1234 NL		Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-01	9/8/2016 5:00:00 PM	1234 NL		pH	4500-H B_18Ed
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Chlorine by Bomb/Titration	ASTM D808
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Heat Content, BTU	ASTM D240
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Ignitability (Closed Cup)	SW-846 1010A
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		pH	SW-846 9045D
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL		Semivolatile Organic Compounds	SW-846 8270C

16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Mercury by CVAA	SW-846 7471B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Metals by ICP	SW-846 6010C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Metals by ICP	SW-846 6010C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Metals by ICP	SW-846 6010C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Metals by ICP	SW-846 6010C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Metals by ICP	SW-846 6010C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Metals by ICP	SW-846 6010C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Total Metals by ICP	SW-846 6010C
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B
16I0721	16I0721-02	09/08/2016 17:00	5678 FL	Volatile Organic Compounds	SW-846 8260B

Analyte	Results	RLimit	Units	Quals	Matrix	Analyst
Ignitability	>	30	°F		Oil	EB
2,4,5-Trichlorophenol	ND	100	µg/L		Aqueous	CLR
2,4,6-Tribromophenol	92.4	47.8-138	µg/L		Aqueous	CLR
2,4,6-Trichlorophenol	ND	100	µg/L		Aqueous	CLR
2,4-Dinitrotoluene	ND	100	µg/L		Aqueous	CLR
2-Fluorobiphenyl	51.6	10-110	µg/L		Aqueous	CLR
2-Fluorophenol	45.3	10-110	µg/L		Aqueous	CLR
2-Methylphenol	ND	100	µg/L		Aqueous	CLR
3/4-Methylphenol	ND	100	µg/L		Aqueous	CLR
Hexachlorobenzene	ND	100	µg/L		Aqueous	CLR
Hexachlorobutadiene	ND	100	µg/L		Aqueous	CLR
Hexachloroethane	ND	100	µg/L		Aqueous	CLR
Nitrobenzene	ND	100	µg/L		Aqueous	CLR
Nitrobenzene-d5	64.3	10-110	µg/L		Aqueous	CLR
Pentachlorophenol	ND	500	µg/L		Aqueous	CLR
Phenol-d5	34.9	10-60.8	µg/L		Aqueous	CLR
Pyridine	ND	100	µg/L		Aqueous	CLR
Terphenyl-d14	67.7	16.8-110	µg/L		Aqueous	CLR
Total Cresol	ND	100	µg/L		Aqueous	CLR
Mercury	ND	0.00020	mg/L		Aqueous	RM
Arsenic	ND	0.010	mg/L		Aqueous	SE
Barium	0.028	0.0020	mg/L		Aqueous	SE
Cadmium	ND	0.0020	mg/L		Aqueous	SE
Chromium	ND	0.0030	mg/L		Aqueous	SE
Lead	ND	0.0075	mg/L		Aqueous	SE
Selenium	ND	0.030	mg/L		Aqueous	SE
Silver	ND	0.010	mg/L		Aqueous	SE
1,1-Dichloroethene	ND	5.0	µg/L		Aqueous	jln
1,2-Dichloroethane	ND	5.0	µg/L		Aqueous	jln
1,2-Dichloroethane-d4	98.5	74.5-132	µg/L		Aqueous	jln
1,4-Dichlorobenzene	ND	10	µg/L		Aqueous	jln
2-Butanone	15	10	µg/L		Aqueous	jln
4-Bromofluorobenzene	104	80-120	µg/L		Aqueous	jln
Benzene	ND	5.0	µg/L		Aqueous	jln
Carbon tetrachloride	ND	5.0	µg/L		Aqueous	jln
Chlorobenzene	ND	5.0	µg/L		Aqueous	jln
Chloroform	ND	5.0	µg/L		Aqueous	jln
Dibromofluoromethane	98.6	80-120	µg/L		Aqueous	jln
Tetrachloroethene	ND	5.0	µg/L		Aqueous	jln
Toluene-d8	99.5	80-120	µg/L		Aqueous	jln
Trichloroethene	ND	5.0	µg/L		Aqueous	jln
Vinyl chloride	ND	2.0	µg/L		Aqueous	jln
pH	6.75	0.1	pH Units		Aqueous	
Chlorine by Bomb (Total Halogens)	98	98	mg/Kg		Oil	RJC
BTU	11000	2300	BTU/lb		Oil	RJC
Ignitability	<	30	°F		Oil	EB
pH	5.47	2.00	pH at 25°C		Solid	EB
2,4,5-Trichlorophenol	ND	11000	µg/Kg		Solid	CLR
2,4,6-Tribromophenol	59.6	13.9-145	µg/Kg		Solid	CLR
2,4,6-Trichlorophenol	ND	11000	µg/Kg		Solid	CLR
2,4-Dinitrotoluene	ND	11000	µg/Kg		Solid	CLR
2-Fluorobiphenyl	38.6	28.1-110	µg/Kg		Solid	CLR
2-Fluorophenol	48.8	24.5-110	µg/Kg		Solid	CLR
2-Methylphenol	ND	11000	µg/Kg		Solid	CLR
3/4-Methylphenol	ND	11000	µg/Kg		Solid	CLR
Hexachlorobenzene	ND	11000	µg/Kg		Solid	CLR
Hexachlorobutadiene	ND	11000	µg/Kg		Solid	CLR
Hexachloroethane	ND	11000	µg/Kg		Solid	CLR
Nitrobenzene	ND	11000	µg/Kg		Solid	CLR
Nitrobenzene-d5	51.3	33.6-110	µg/Kg		Solid	CLR
Pentachlorophenol	ND	53000	µg/Kg		Solid	CLR
Phenol-d5	51.8	29.6-110	µg/Kg		Solid	CLR
Pyridine	ND	11000	µg/Kg		Solid	CLR
Terphenyl-d14	43.5	35.8-121	µg/Kg		Solid	CLR
Total Cresol	ND	11000	µg/Kg		Solid	CLR

Mercury	1.4	0.38	mg/Kg	Solid	RM
Arsenic	ND	0.25	mg/Kg	Solid	RM
Barium	0.99	0.098	mg/Kg	Solid	RM
Cadmium	ND	0.098	mg/Kg	Solid	RM
Chromium	ND	0.098	mg/Kg	Solid	RM
Lead	ND	0.18	mg/Kg	Solid	RM
Selenium	ND	0.74	mg/Kg	Solid	RM
Silver	ND	0.25	mg/Kg	Solid	RM
1,1-Dichloroethene	ND	500	mg/Kg	Oil	jln
1,2-Dichloroethane	ND	500	mg/Kg	Oil	jln
1,2-Dichloroethane-d4	112	66-154	µg/L	Oil	jln
1,4-Dichlorobenzene	ND	990	mg/Kg	Oil	jln
2-Butanone	14000	990	mg/Kg	Oil	jln
4-Bromofluorobenzene	97.8	48.2-167	µg/L	Oil	jln
Benzene	ND	500	mg/Kg	Oil	jln
Carbon tetrachloride	ND	500	mg/Kg	Oil	jln
Chlorobenzene	ND	500	mg/Kg	Oil	jln
Chloroform	ND	500	mg/Kg	Oil	jln
Dibromofluoromethane	98.5	74.1-124	µg/L	Oil	jln
Tetrachloroethene	ND	500	mg/Kg	Oil	jln
Toluene-d8	102	82.7-122	µg/L	Oil	jln
Trichloroethene	ND	500	mg/Kg	Oil	jln
Vinyl chloride	ND	990	mg/Kg	Oil	jln

20-Sep-2016

Dennis Linley
CT Laboratories
1230 Lange Court
Baraboo, WI 53913

Re: **TOCON** Work Order: **1609751**

Dear Dennis,

ALS Environmental received 1 sample on 14-Sep-2016 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 42.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Joseph Ribar

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: WI: 399084510

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Group USA, Corp

Date: 20-Sep-16

Client: CT Laboratories
Project: TOCON
Work Order: **1609751**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1609751-01	769518	Soil		9/12/2016 15:30	9/14/2016 09:30	☐

ALS Group USA, Corp

Date: 20-Sep-16

Client: CT Laboratories
Project: TOCON
Work Order: 1609751

Case Narrative

Samples for the above noted Work Order were received on 09/14/2016. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch 91440, Method 8260, Sample LCS-91440: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte. 1,2-Dibromoethane, Methyl Iodide
No other deviations or anomalies were noted.

Extractable Organics:
Batch 91425, Method 8081, Sample 1609751-01D: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

No other deviations or anomalies were noted.

Metals:
Batch 91534, Method 6010, Sample 1609751-01C: The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Sb

No other deviations or anomalies were noted.

Wet Chemistry:
No other deviations or anomalies were noted.

ALS Group USA, Corp

Date: *20-Sep-16*

Client: CT Laboratories
Project: TOCON
Sample ID: 769518
Collection Date: 9/12/2016 03:30 PM

Work Order: 1609751
Lab ID: 1609751-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
HERBICIDES		Method:	**SW8151**		Prep: SW8151M / 9/16/16		Analyst: **KYM**
2,4,5-T	U		0.25	1.1	µg/Kg-dry	1	9/20/2016 03:36
2,4-D	U		0.25	1.1	µg/Kg-dry	1	9/20/2016 03:36
Surr: DCAA	*102*			*10-150*	*%REC*	1	9/20/2016 03:36
PCBS		Method:	**SW8082**				Analyst: **EB**
Aroclor 1016	U		15	92	µg/Kg-dry	1	9/16/2016 00:31
Aroclor 1221	U		15	92	µg/Kg-dry	1	9/16/2016 00:31
Aroclor 1232	U		15	92	µg/Kg-dry	1	9/16/2016 00:31
Aroclor 1242	U		15	92	µg/Kg-dry	1	9/16/2016 00:31
Aroclor 1248	U		15	92	µg/Kg-dry	1	9/16/2016 00:31
Aroclor 1254	U		25	92	µg/Kg-dry	1	9/16/2016 00:31
Aroclor 1260	U		25	92	µg/Kg-dry	1	9/16/2016 00:31
Surr: Decachlorobiphenyl	*77.1*			*40-140*	*%REC*	1	9/16/2016 00:31
Surr: Tetrachloro-m-xylene	*79.1*			*45-124*	*%REC*	1	9/16/2016 00:31
PESTICIDES		Method:	**SW8081**		Prep: SW3546 / 9/16/16		Analyst: **BLM**
4,4´-DDD	U		17	55	µg/Kg-dry	5	9/16/2016 23:44
4,4´-DDE	U		11	55	µg/Kg-dry	5	9/16/2016 23:44
4,4´-DDT	U		13	55	µg/Kg-dry	5	9/16/2016 23:44
Aldrin	U		4.9	55	µg/Kg-dry	5	9/16/2016 23:44
alpha-BHC	U		18	55	µg/Kg-dry	5	9/16/2016 23:44
alpha-Chlordane	U		15	55	µg/Kg-dry	5	9/16/2016 23:44
beta-BHC	U		21	55	µg/Kg-dry	5	9/16/2016 23:44
Chlordane, Technical	U		54	140	µg/Kg-dry	5	9/16/2016 23:44
delta-BHC	U		20	55	µg/Kg-dry	5	9/16/2016 23:44
Dieldrin	U		4.6	55	µg/Kg-dry	5	9/16/2016 23:44
Endosulfan I	U		7.1	55	µg/Kg-dry	5	9/16/2016 23:44
Endosulfan II	U		6.0	55	µg/Kg-dry	5	9/16/2016 23:44
Endosulfan sulfate	U		6.7	55	µg/Kg-dry	5	9/16/2016 23:44
Endrin	U		16	55	µg/Kg-dry	5	9/16/2016 23:44
Endrin aldehyde	U		13	55	µg/Kg-dry	5	9/16/2016 23:44
Endrin ketone	U		21	55	µg/Kg-dry	5	9/16/2016 23:44
gamma-BHC (Lindane)	U		25	55	µg/Kg-dry	5	9/16/2016 23:44
gamma-Chlordane	U		9.1	55	µg/Kg-dry	5	9/16/2016 23:44
Heptachlor	U		28	55	µg/Kg-dry	5	9/16/2016 23:44
Heptachlor epoxide	U		8.6	55	µg/Kg-dry	5	9/16/2016 23:44
Methoxychlor	U		13	55	µg/Kg-dry	5	9/16/2016 23:44
Toxaphene	U		59	330	µg/Kg-dry	5	9/16/2016 23:44
Surr: Decachlorobiphenyl	*95.1*			*45-135*	*%REC*	5	9/16/2016 23:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *20-Sep-16*

Client: CT Laboratories
Project: TOCON
Sample ID: 769518
Collection Date: 9/12/2016 03:30 PM

Work Order: 1609751
Lab ID: 1609751-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Tetrachloro-m-xylene	*75.1*			*45-124*	*%REC*	5	9/16/2016 23:44
MERCURY BY CVAA			Method: **SW7471B**		Prep: SW7471 / 9/20/16		Analyst: **LR**
Mercury	**0.025**		**0.0023**	**0.014**	**mg/Kg-dry**	1	9/20/2016 17:07
METALS ANALYSIS BY ICP			Method: **SW846 6010C**		Prep: SW3050B / 9/16/16		Analyst: **JEC**
Aluminum	**9,500**		**0.12**	**0.79**	**mg/Kg-dry**	1	9/18/2016 21:49
Antimony	U		1.3	4.0	mg/Kg-dry	10	9/19/2016 12:54
Arsenic	**6.7**		**0.10**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Barium	**54**		**0.16**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Beryllium	**0.36**		**0.013**	**0.16**	**mg/Kg-dry**	1	9/18/2016 21:49
Cadmium	U		0.038	0.79	mg/Kg-dry	1	9/18/2016 21:49
Calcium	**44,000**		**26**	**400**	**mg/Kg-dry**	10	9/19/2016 12:54
Chromium	**16**		**0.022**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Cobalt	**10**		**0.032**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Copper	**12**		**0.17**	**0.79**	**mg/Kg-dry**	1	9/18/2016 21:49
Iron	**16,000**		**0.48**	**6.3**	**mg/Kg-dry**	1	9/18/2016 21:49
Lead	**8.4**		**0.084**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Magnesium	**12,000**		**1.4**	**16**	**mg/Kg-dry**	1	9/18/2016 21:49
Manganese	**430**		**0.024**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Nickel	**22**		**0.16**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Potassium	**1,500**		**2.9**	**16**	**mg/Kg-dry**	1	9/18/2016 21:49
Selenium	U		0.22	0.79	mg/Kg-dry	1	9/18/2016 21:49
Silver	U		0.049	0.40	mg/Kg-dry	1	9/18/2016 21:49
Sodium	**77**		**1.6**	**16**	**mg/Kg-dry**	1	9/18/2016 21:49
Thallium	U		0.33	0.79	mg/Kg-dry	1	9/18/2016 21:49
Vanadium	**20**		**0.041**	**0.40**	**mg/Kg-dry**	1	9/18/2016 21:49
Zinc	**44**		**0.63**	**7.9**	**mg/Kg-dry**	10	9/19/2016 12:54
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: **SW846 8270D**		Prep: SW3546 / 9/15/16		Analyst: **JF**
1,1`-Biphenyl	U		12	72	µg/Kg-dry	1	9/16/2016 05:43
2,4,5-Trichlorophenol	U		20	72	µg/Kg-dry	1	9/16/2016 05:43
2,4,6-Trichlorophenol	U		19	72	µg/Kg-dry	1	9/16/2016 05:43
2,4-Dichlorophenol	U		15	72	µg/Kg-dry	1	9/16/2016 05:43
2,4-Dimethylphenol	U		15	72	µg/Kg-dry	1	9/16/2016 05:43
2,4-Dinitrophenol	U		40	72	µg/Kg-dry	1	9/16/2016 05:43
2,4-Dinitrotoluene	U		19	72	µg/Kg-dry	1	9/16/2016 05:43
2,6-Dinitrotoluene	U		12	72	µg/Kg-dry	1	9/16/2016 05:43
2-Chloronaphthalene	U		10	15	µg/Kg-dry	1	9/16/2016 05:43
2-Chlorophenol	U		23	72	µg/Kg-dry	1	9/16/2016 05:43
2-Methylnaphthalene	U		7.4	15	µg/Kg-dry	1	9/16/2016 05:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *20-Sep-16*

Client: CT Laboratories
Project: TOCON
Sample ID: 769518
Collection Date: 9/12/2016 03:30 PM

Work Order: 1609751
Lab ID: 1609751-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Methylphenol	U		20	72	µg/Kg-dry	1	9/16/2016 05:43
2-Nitroaniline	U		17	72	µg/Kg-dry	1	9/16/2016 05:43
2-Nitrophenol	U		21	72	µg/Kg-dry	1	9/16/2016 05:43
3&4-Methylphenol	U		15	72	µg/Kg-dry	1	9/16/2016 05:43
3,3´-Dichlorobenzidine	U		11	370	µg/Kg-dry	1	9/16/2016 05:43
3-Nitroaniline	U		17	72	µg/Kg-dry	1	9/16/2016 05:43
4,6-Dinitro-2-methylphenol	U		18	72	µg/Kg-dry	1	9/16/2016 05:43
4-Bromophenyl phenyl ether	U		20	72	µg/Kg-dry	1	9/16/2016 05:43
4-Chloro-3-methylphenol	U		21	72	µg/Kg-dry	1	9/16/2016 05:43
4-Chloroaniline	U		12	150	µg/Kg-dry	1	9/16/2016 05:43
4-Chlorophenyl phenyl ether	U		20	72	µg/Kg-dry	1	9/16/2016 05:43
4-Nitroaniline	U		110	370	µg/Kg-dry	1	9/16/2016 05:43
4-Nitrophenol	U		65	72	µg/Kg-dry	1	9/16/2016 05:43
Acenaphthene	U		11	15	µg/Kg-dry	1	9/16/2016 05:43
Acenaphthylene	U		13	15	µg/Kg-dry	1	9/16/2016 05:43
Acetophenone	U		11	72	µg/Kg-dry	1	9/16/2016 05:43
Anthracene	U		10	15	µg/Kg-dry	1	9/16/2016 05:43
Atrazine	U		12	72	µg/Kg-dry	1	9/16/2016 05:43
Benzaldehyde	U		110	150	µg/Kg-dry	1	9/16/2016 05:43
Benzo(a)anthracene	U		13	15	µg/Kg-dry	1	9/16/2016 05:43
Benzo(a)pyrene	U		9.0	15	µg/Kg-dry	1	9/16/2016 05:43
Benzo(b)fluoranthene	U		11	15	µg/Kg-dry	1	9/16/2016 05:43
Benzo(g,h,i)perylene	U		11	15	µg/Kg-dry	1	9/16/2016 05:43
Benzo(k)fluoranthene	U		11	15	µg/Kg-dry	1	9/16/2016 05:43
Bis(2-chloroethoxy)methane	U		7.0	72	µg/Kg-dry	1	9/16/2016 05:43
Bis(2-chloroethyl)ether	U		21	72	µg/Kg-dry	1	9/16/2016 05:43
Bis(2-chloroisopropyl)ether	U		17	72	µg/Kg-dry	1	9/16/2016 05:43
Bis(2-ethylhexyl)phthalate	U		13	72	µg/Kg-dry	1	9/16/2016 05:43
Butyl benzyl phthalate	U		12	72	µg/Kg-dry	1	9/16/2016 05:43
Caprolactam	U		25	72	µg/Kg-dry	1	9/16/2016 05:43
Carbazole	U		7.9	72	µg/Kg-dry	1	9/16/2016 05:43
Chrysene	U		12	15	µg/Kg-dry	1	9/16/2016 05:43
Dibenzo(a,h)anthracene	U		7.9	15	µg/Kg-dry	1	9/16/2016 05:43
Dibenzofuran	U		11	72	µg/Kg-dry	1	9/16/2016 05:43
Diethyl phthalate	U		11	72	µg/Kg-dry	1	9/16/2016 05:43
Dimethyl phthalate	U		14	72	µg/Kg-dry	1	9/16/2016 05:43
Di-n-butyl phthalate	U		13	72	µg/Kg-dry	1	9/16/2016 05:43
Di-n-octyl phthalate	U		14	72	µg/Kg-dry	1	9/16/2016 05:43
Fluoranthene	**20**		**7.0**	**15**	**µg/Kg-dry**	1	9/16/2016 05:43
Fluorene	U		11	15	µg/Kg-dry	1	9/16/2016 05:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *20-Sep-16*

Client: CT Laboratories
Project: TOCON
Sample ID: 769518
Collection Date: 9/12/2016 03:30 PM

Work Order: 1609751
Lab ID: 1609751-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachlorobenzene	U		21	72	µg/Kg-dry	1	9/16/2016 05:43
Hexachlorobutadiene	U		40	72	µg/Kg-dry	1	9/16/2016 05:43
Hexachlorocyclopentadiene	U		25	72	µg/Kg-dry	1	9/16/2016 05:43
Hexachloroethane	U		30	72	µg/Kg-dry	1	9/16/2016 05:43
Indeno(1,2,3-cd)pyrene	U		10	15	µg/Kg-dry	1	9/16/2016 05:43
Isophorone	U		14	370	µg/Kg-dry	1	9/16/2016 05:43
Naphthalene	U		9.4	15	µg/Kg-dry	1	9/16/2016 05:43
Nitrobenzene	U		25	370	µg/Kg-dry	1	9/16/2016 05:43
N-Nitrosodi-n-propylamine	U		12	72	µg/Kg-dry	1	9/16/2016 05:43
N-Nitrosodiphenylamine	U		7.0	72	µg/Kg-dry	1	9/16/2016 05:43
Pentachlorophenol	U		27	72	µg/Kg-dry	1	9/16/2016 05:43
Phenanthrene	U		6.8	15	µg/Kg-dry	1	9/16/2016 05:43
Phenol	U		18	72	µg/Kg-dry	1	9/16/2016 05:43
Pyrene	**21**		**2.7**	**15**	**µg/Kg-dry**	1	9/16/2016 05:43
Surr: 2,4,6-Tribromophenol	*90.2*			*34-140*	*%REC*	1	9/16/2016 05:43
Surr: 2-Fluorobiphenyl	*87.8*			*12-100*	*%REC*	1	9/16/2016 05:43
Surr: 2-Fluorophenol	*95.6*			*33-117*	*%REC*	1	9/16/2016 05:43
Surr: 4-Terphenyl-d14	*99.6*			*25-137*	*%REC*	1	9/16/2016 05:43
Surr: Nitrobenzene-d5	*90.1*			*37-107*	*%REC*	1	9/16/2016 05:43
Surr: Phenol-d6	*105*			*40-106*	*%REC*	1	9/16/2016 05:43
VOLATILE ORGANIC COMPOUNDS		Method:	**SW8260B**		Prep: SW5035 / 9/15/16		Analyst: **BG**
1,1,1-Trichloroethane	U		11	37	µg/Kg-dry	1	9/15/2016 15:12
1,1,2,2-Tetrachloroethane	U		9.0	37	µg/Kg-dry	1	9/15/2016 15:12
1,1,2-Trichloroethane	U		11	37	µg/Kg-dry	1	9/15/2016 15:12
1,1,2-Trichlorotrifluoroethane	U		8.4	37	µg/Kg-dry	1	9/15/2016 15:12
1,1-Dichloroethane	U		9.5	37	µg/Kg-dry	1	9/15/2016 15:12
1,1-Dichloroethene	U		10	37	µg/Kg-dry	1	9/15/2016 15:12
1,2,4-Trichlorobenzene	U		28	37	µg/Kg-dry	1	9/15/2016 15:12
1,2-Dibromo-3-chloropropane	U		15	37	µg/Kg-dry	1	9/15/2016 15:12
1,2-Dibromoethane	U		12	37	µg/Kg-dry	1	9/15/2016 15:12
1,2-Dichlorobenzene	U		11	37	µg/Kg-dry	1	9/15/2016 15:12
1,2-Dichloroethane	U		10	37	µg/Kg-dry	1	9/15/2016 15:12
1,2-Dichloropropane	U		10	37	µg/Kg-dry	1	9/15/2016 15:12
1,3-Dichlorobenzene	U		12	37	µg/Kg-dry	1	9/15/2016 15:12
1,4-Dichlorobenzene	U		9.8	37	µg/Kg-dry	1	9/15/2016 15:12
2-Butanone	U		50	250	µg/Kg-dry	1	9/15/2016 15:12
2-Hexanone	U		25	37	µg/Kg-dry	1	9/15/2016 15:12
4-Methyl-2-pentanone	U		27	37	µg/Kg-dry	1	9/15/2016 15:12
Acetone	U		68	120	µg/Kg-dry	1	9/15/2016 15:12

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *20-Sep-16*

Client: CT Laboratories
Project: TOCON
Sample ID: 769518
Collection Date: 9/12/2016 03:30 PM

Work Order: 1609751
Lab ID: 1609751-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	U		8.5	37	µg/Kg-dry	1	9/15/2016 15:12
Bromodichloromethane	U		10	37	µg/Kg-dry	1	9/15/2016 15:12
Bromoform	U		13	37	µg/Kg-dry	1	9/15/2016 15:12
Bromomethane	U		16	94	µg/Kg-dry	1	9/15/2016 15:12
Carbon disulfide	U		13	37	µg/Kg-dry	1	9/15/2016 15:12
Carbon tetrachloride	U		6.6	37	µg/Kg-dry	1	9/15/2016 15:12
Chlorobenzene	U		11	37	µg/Kg-dry	1	9/15/2016 15:12
Chloroethane	U		24	120	µg/Kg-dry	1	9/15/2016 15:12
Chloroform	U		13	37	µg/Kg-dry	1	9/15/2016 15:12
Chloromethane	U		15	120	µg/Kg-dry	1	9/15/2016 15:12
cis-1,2-Dichloroethene	U		11	37	µg/Kg-dry	1	9/15/2016 15:12
cis-1,3-Dichloropropene	U		14	37	µg/Kg-dry	1	9/15/2016 15:12
Cyclohexane	U		19	37	µg/Kg-dry	1	9/15/2016 15:12
Dibromochloromethane	U		8.5	37	µg/Kg-dry	1	9/15/2016 15:12
Dichlorodifluoromethane	U		17	37	µg/Kg-dry	1	9/15/2016 15:12
Ethylbenzene	U		8.7	37	µg/Kg-dry	1	9/15/2016 15:12
Isopropylbenzene	U		15	37	µg/Kg-dry	1	9/15/2016 15:12
Methyl acetate	**160**	J	**77**	**250**	**µg/Kg-dry**	1	9/15/2016 15:12
Methyl tert-butyl ether	U		12	37	µg/Kg-dry	1	9/15/2016 15:12
Methylcyclohexane	U		16	37	µg/Kg-dry	1	9/15/2016 15:12
Methylene chloride	U		17	37	µg/Kg-dry	1	9/15/2016 15:12
Styrene	**34**	J	**26**	**37**	**µg/Kg-dry**	1	9/15/2016 15:12
Tetrachloroethene	U		18	37	µg/Kg-dry	1	9/15/2016 15:12
Toluene	U		12	37	µg/Kg-dry	1	9/15/2016 15:12
trans-1,2-Dichloroethene	U		11	37	µg/Kg-dry	1	9/15/2016 15:12
trans-1,3-Dichloropropene	U		6.7	37	µg/Kg-dry	1	9/15/2016 15:12
Trichloroethene	U		10	37	µg/Kg-dry	1	9/15/2016 15:12
Trichlorofluoromethane	U		7.2	37	µg/Kg-dry	1	9/15/2016 15:12
Vinyl chloride	U		12	37	µg/Kg-dry	1	9/15/2016 15:12
Xylenes, Total	U		29	110	µg/Kg-dry	1	9/15/2016 15:12
Surr: 1,2-Dichloroethane-d4	*97.5*			*70-130*	*%REC*	1	9/15/2016 15:12
Surr: 4-Bromofluorobenzene	*96.8*			*70-130*	*%REC*	1	9/15/2016 15:12
Surr: Dibromofluoromethane	*97.6*			*70-130*	*%REC*	1	9/15/2016 15:12
Surr: Toluene-d8	*90.8*			*70-130*	*%REC*	1	9/15/2016 15:12

MOISTURE Method: **SW3550C** Analyst: **EDL**

Moisture	**11**		**0.025**	**0.050**	**% of sample**	1	9/16/2016 00:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 20-Sep-16

Client: CT Laboratories
Project: TOCON
WorkOrder: **1609751**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg	Micrograms per Kilogram
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

Date: 20-Sep-16

QC BATCH REPORT

Batch ID: **91414B** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-91414-91414B** Units: **µg/Kg** Analysis Date: **9/15/2016 07:50 PM**

Client ID: Run ID: **GC14_160915A** SeqNo: **4030302** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	83								
Aroclor 1221	U	83								
Aroclor 1232	U	83								
Aroclor 1242	U	83								
Aroclor 1248	U	83								
Aroclor 1254	U	83								
Aroclor 1260	U	83								
Surr: Decachlorobiphenyl	*31*	0	*33.3*	0	*93.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*29.33*	0	*33.3*	0	*88.1*	*45-124*	0			

LCS Sample ID: **PLCSS1-91414-91414B** Units: **µg/Kg** Analysis Date: **9/15/2016 08:08 PM**

Client ID: Run ID: **GC14_160915A** SeqNo: **4030303** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	817.3	83	833	0	98.1	50-130	0			
Aroclor 1260	825.7	83	833	0	99.1	50-130	0			
Surr: Decachlorobiphenyl	*30.67*	0	*33.3*	0	*92.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*28*	0	*33.3*	0	*84.1*	*45-124*	0			

MS Sample ID: **1609758-01A MS** Units: **µg/Kg** Analysis Date: **9/15/2016 08:43 PM**

Client ID: Run ID: **GC14_160915A** SeqNo: **4030305** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	825.1	83	832.1	0	99.2	40-140	0			
Aroclor 1260	815.7	83	832.1	0	98	40-140	0			
Surr: Decachlorobiphenyl	*29.97*	0	*33.26*	0	*90.1*	*40-140*	0			
Surr: Tetrachloro-m-xylene	*27.97*	0	*33.26*	0	*84.1*	*45-124*	0			

MSD Sample ID: **1609758-01A MSD** Units: **µg/Kg** Analysis Date: **9/15/2016 09:00 PM**

Client ID: Run ID: **GC14_160915A** SeqNo: **4030306** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	780.8	80	795.2	0	98.2	40-140	825.1	5.51	50	
Aroclor 1260	781.5	80	795.2	0	98.3	40-140	815.7	4.29	50	
Surr: Decachlorobiphenyl	*28.32*	0	*31.79*	0	*89.1*	*40-140*	29.97	*5.65*	*50*	
Surr: Tetrachloro-m-xylene	*25.77*	0	*31.79*	0	*81.1*	*45-124*	27.97	*8.17*	*50*	

The following samples were analyzed in this batch: 1609751-01D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91425** Instrument ID **GC12** Method: **SW8081**

MBLK Sample ID: **PBLKS1-91425-91425** Units: **µg/Kg** Analysis Date: **9/16/2016 03:48 PM**

Client ID: Run ID: **GC12_160916B** SeqNo: **4034802** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	10								
4,4´-DDE	U	10								
4,4´-DDT	U	10								
Aldrin	U	10								
alpha-BHC	U	10								
alpha-Chlordane	U	10								
beta-BHC	U	10								
Chlordane, Technical	U	25								
delta-BHC	U	10								
Dieldrin	U	10								
Endosulfan I	U	10								
Endosulfan II	U	10								
Endosulfan sulfate	U	10								
Endrin	U	10								
Endrin aldehyde	U	10								
Endrin ketone	U	10								
gamma-BHC (Lindane)	U	10								
gamma-Chlordane	U	10								
Heptachlor	U	10								
Heptachlor epoxide	U	10								
Methoxychlor	U	10								
Toxaphene	U	60								
Surr: Decachlorobiphenyl	*30.33*	0	*33.3*	0	*91.1*	*45-135*	0			
Surr: Tetrachloro-m-xylene	*23.33*	0	*33.3*	0	*70.1*	*45-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91425** Instrument ID **GC12** Method: **SW8081**

LCS Sample ID: **PLCSS1-91425-91425** Units: **µg/Kg** Analysis Date: **9/16/2016 04:06 PM**

Client ID: Run ID: **GC12_160916B** SeqNo: **4034803** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	26.67	10	33.33	0	80	30-135	0			
4,4´-DDE	26	10	33.33	0	78	70-125	0			
4,4´-DDT	26	10	33.33	0	78	45-140	0			
Aldrin	25.67	10	33.33	0	77	45-140	0			
alpha-BHC	25	10	33.33	0	75	60-125	0			
alpha-Chlordane	26	10	33.33	0	78	50-150	0			
beta-BHC	25.67	10	33.33	0	77	60-125	0			
delta-BHC	26.33	10	33.33	0	79	55-130	0			
Dieldrin	26.33	10	33.33	0	79	65-125	0			
Endosulfan I	27	10	33.33	0	81	15-135	0			
Endosulfan II	26.67	10	33.33	0	80	35-140	0			
Endosulfan sulfate	27	10	33.33	0	81	60-135	0			
Endrin	24.67	10	33.33	0	74	60-135	0			
Endrin aldehyde	29	10	33.33	0	87	35-145	0			
Endrin ketone	28.67	10	33.33	0	86	50-150	0			
gamma-BHC (Lindane)	25.33	10	33.33	0	76	60-125	0			
gamma-Chlordane	27	10	33.33	0	81	50-150	0			
Heptachlor	25.33	10	33.33	0	76	50-140	0			
Heptachlor epoxide	26.67	10	33.33	0	80	65-130	0			
Methoxychlor	27.33	10	33.33	0	82	55-145	0			
Surr: Decachlorobiphenyl	*30*	0	*33.3*	0	*90.1*	*45-135*	0			
Surr: Tetrachloro-m-xylene	*26*	0	*33.3*	0	*78.1*	*45-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91425** Instrument ID **GC12** Method: **SW8081**

MS Sample ID: **1609747-04A MS** Units: **µg/Kg** Analysis Date: **9/19/2016 12:42 PM**

Client ID: Run ID: **GC12_160916B** SeqNo: **4034819** Prep Date: **9/16/2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	74.19	48	32.25	26.2	149	30-135	0			S
4,4´-DDE	61.29	48	32.25	18.02	134	70-125	0			S
4,4´-DDT	145.2	48	32.25	99.9	140	45-140	0			S
Aldrin	56.45	48	32.25	81.89	-78.9	45-140	0			S
alpha-BHC	29.03	48	32.25	0	90	60-125	0			J
alpha-Chlordane	185.5	48	32.25	137.6	149	50-150	0			O
beta-BHC	32.26	48	32.25	0	100	60-125	0			J
delta-BHC	29.03	48	32.25	0	90	55-130	0			J
Dieldrin	477.4	48	32.25	455.3	68.6	65-125	0			O
Endosulfan I	38.71	48	32.25	0	120	15-135	0			J
Endosulfan II	37.1	48	32.25	0	115	35-140	0			J
Endosulfan sulfate	30.65	48	32.25	0	95	60-135	0			J
Endrin	29.03	48	32.25	0	90	60-135	0			J
Endrin aldehyde	27.42	48	32.25	0	85	35-145	0			J
Endrin ketone	50	48	32.25	13.1	114	50-150	0			
gamma-BHC (Lindane)	27.42	48	32.25	0	85	60-125	0			J
gamma-Chlordane	593.5	48	32.25	589.6	12.3	50-150	0			SO
Heptachlor	72.58	48	32.25	26.2	144	50-140	0			S
Heptachlor epoxide	64.52	48	32.25	22.93	129	65-130	0			
Methoxychlor	29.03	48	32.25	0	90	55-145	0			J
Surr: Decachlorobiphenyl	*37.1*	0	*32.23*	0	*115*	*45-135*	0			
Surr: Tetrachloro-m-xylene	*32.26*	0	*32.23*	0	*100*	*45-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91425** Instrument ID **GC12** Method: **SW8081**

MSD Sample ID: **1609747-04A MSD** Units: **µg/Kg** Analysis Date: **9/19/2016 12:59 PM**

Client ID: Run ID: **GC12_160916B** SeqNo: **4034820** Prep Date: **9/16/2016** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	51.45	48	32.15	26.2	78.5	30-135	74.19	36.2	35	R
4,4´-DDE	41.8	48	32.15	18.02	74	70-125	61.29	0	35	J
4,4´-DDT	114.1	48	32.15	99.9	44.3	45-140	145.2	23.9	35	S
Aldrin	51.45	48	32.15	81.89	-94.7	45-140	56.45	9.28	35	S
alpha-BHC	24.12	48	32.15	0	75	60-125	29.03	0	35	J
alpha-Chlordane	102.9	48	32.15	137.6	-108	50-150	185.5	57.3	35	SRO
beta-BHC	27.33	48	32.15	0	85	60-125	32.26	0	35	J
delta-BHC	24.12	48	32.15	0	75	55-130	29.03	0	35	J
Dieldrin	300.6	48	32.15	455.3	-481	65-125	477.4	45.4	35	SRO
Endosulfan I	30.55	48	32.15	0	95	15-135	38.71	0	35	J
Endosulfan II	30.55	48	32.15	0	95	35-140	37.1	0	35	J
Endosulfan sulfate	25.72	48	32.15	0	80	60-135	30.65	0	35	J
Endrin	24.12	48	32.15	0	75	60-135	29.03	0	35	J
Endrin aldehyde	20.9	48	32.15	0	65	35-145	27.42	0	35	J
Endrin ketone	41.8	48	32.15	13.1	89.3	50-150	50	0	35	J
gamma-BHC (Lindane)	U	48	32.15	0	0	60-125	27.42	0	35	S
gamma-Chlordane	414.8	48	32.15	589.6	-544	50-150	593.5	35.5	35	SRO
Heptachlor	30.55	48	32.15	26.2	13.5	50-140	72.58	0	35	JS
Heptachlor epoxide	38.59	48	32.15	22.93	48.7	65-130	64.52	0	35	JS
Methoxychlor	25.72	48	32.15	0	80	55-145	29.03	0	35	J
Surr: Decachlorobiphenyl	*35.37*	0	*32.12*	0	*110*	*45-135*	37.1	*4.77*	*35*	
Surr: Tetrachloro-m-xylene	*27.33*	0	*32.12*	0	*85.1*	*45-124*	32.26	*16.5*	*35*	

The following samples were analyzed in this batch: 1609751-01D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91453** Instrument ID **GC7** Method: **SW8151**

MBLK Sample ID: **HBLKS1-91453-91453** Units: **µg/Kg** Analysis Date: **9/19/2016 06:58 PM**
Client ID: Run ID: **GC7_160919A** SeqNo: **4035378** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-T	U	1.0								
2,4-D	U	1.0								
Surr: DCAA	*16.4*	0	*50*	0	*32.8*	*10-150*	0			

LCS Sample ID: **HLCSS1-91453-91453** Units: **µg/Kg** Analysis Date: **9/19/2016 07:17 PM**
Client ID: Run ID: **GC7_160919A** SeqNo: **4035379** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-T	1	1.0	5	0	20	10-150	0			
2,4-D	9.9	1.0	50	0	19.8	10-130	0			
Surr: DCAA	*46.6*	0	*50*	0	*93.2*	*10-150*	0			

MS Sample ID: **1609747-01A MS** Units: **µg/Kg** Analysis Date: **9/19/2016 07:36 PM**
Client ID: Run ID: **GC7_160919A** SeqNo: **4035380** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-T	1.087	0.99	4.943	0	22	10-150	0			
2,4-D	18.19	0.99	49.43	0	36.8	10-130	0			
Surr: DCAA	*43.3*	0	*49.43*	0	*87.6*	*10-150*	0			

MSD Sample ID: **1609747-01A MSD** Units: **µg/Kg** Analysis Date: **9/19/2016 07:55 PM**
Client ID: Run ID: **GC7_160919A** SeqNo: **4035381** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-T	0.8986	1.0	4.992	0	18	10-150	1.087	0	50	J
2,4-D	11.08	1.0	49.92	0	22.2	10-130	18.19	48.6	50	
Surr: DCAA	*44.23*	0	*49.92*	0	*88.6*	*10-150*	43.3	*2.13*	*50*	

The following samples were analyzed in this batch: 1609751-01D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91625** Instrument ID **HG1** Method: **SW7471B**

MBLK Sample ID: **MBLK-91625-91625** Units: **mg/Kg** Analysis Date: **9/20/2016 04:54 PM**

Client ID: Run ID: **HG1_160920A** SeqNo: **4036739** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.020								

LCS Sample ID: **LCS-91625-91625** Units: **mg/Kg** Analysis Date: **9/20/2016 04:57 PM**

Client ID: Run ID: **HG1_160920A** SeqNo: **4036740** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.18	0.020	0.1665	0	108	80-120		0		

MS Sample ID: **1609751-01CMS** Units: **mg/Kg** Analysis Date: **9/20/2016 05:09 PM**

Client ID: **769518** Run ID: **HG1_160920A** SeqNo: **4036745** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1382	0.013	0.1054	0.0225	110	75-125		0		

MSD Sample ID: **1609751-01CMSD** Units: **mg/Kg** Analysis Date: **9/20/2016 05:12 PM**

Client ID: **769518** Run ID: **HG1_160920A** SeqNo: **4036746** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1396	0.013	0.1061	0.0225	110	75-125	0.1382	1.02	35	

The following samples were analyzed in this batch: 1609751-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91534** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK Sample ID: **MBLK-91534-91534** Units: **mg/Kg** Analysis Date: **9/18/2016 06:59 PM**

Client ID: Run ID: **ICP2_160918A** SeqNo: **4032842** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	U	0.50								
Antimony	U	0.25								
Arsenic	U	0.25								
Barium	U	0.25								
Beryllium	U	0.10								
Cadmium	0.02709	0.50								J
Calcium	U	25								
Chromium	0.02772	0.25								J
Cobalt	U	0.25								
Copper	U	0.50								
Iron	0.4523	4.0								J
Lead	U	0.25								
Magnesium	U	10								
Manganese	U	0.25								
Nickel	U	0.25								
Potassium	3.63	10								J
Selenium	U	0.50								
Silver	U	0.25								
Sodium	U	10								
Thallium	U	0.50								
Vanadium	U	0.25								
Zinc	0.05411	0.50								J

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91534** Instrument ID **ICP2** Method: **SW846 6010C**

LCS Sample ID: **LCS-91534-91534** Units: **mg/Kg** Analysis Date: **9/18/2016 07:05 PM**

Client ID: Run ID: **ICP2_160918A** SeqNo: **4032843** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	5.32	0.50	5	0	106	80-120	0			
Antimony	5.119	0.25	5	0	102	80-120	0			
Arsenic	5.15	0.25	5	0	103	80-120	0			
Barium	5.12	0.25	5	0	102	80-120	0			
Beryllium	4.85	0.10	5	0	97	80-120	0			
Cadmium	5.172	0.50	5	0	103	80-120	0			
Calcium	495.8	25	500	0	99.2	80-120	0			
Chromium	5.364	0.25	5	0	107	80-120	0			
Cobalt	5.346	0.25	5	0	107	80-120	0			
Copper	5.126	0.50	5	0	103	80-120	0			
Iron	509.9	4.0	500	0	102	80-120	0			
Lead	4.991	0.25	5	0	99.8	80-120	0			
Magnesium	515.9	10	500	0	103	80-120	0			
Manganese	4.969	0.25	5	0	99.4	80-120	0			
Nickel	5.056	0.25	5	0	101	80-120	0			
Potassium	500	10	500	0	100	80-120	0			
Selenium	4.842	0.50	5	0	96.8	80-120	0			
Silver	5.007	0.25	5	0	100	80-120	0			
Sodium	512.7	10	500	0	103	80-120	0			
Thallium	5.179	0.50	5	0	104	80-120	0			
Vanadium	4.984	0.25	5	0	99.7	80-120	0			
Zinc	5.157	0.50	5	0	103	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91534** Instrument ID **ICP2** Method: **SW846 6010C**

MS Sample ID: **1609644-01BMS** Units: **mg/Kg** Analysis Date: **9/18/2016 07:44 PM**

Client ID: Run ID: **ICP2_160918A** SeqNo: **4032850** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	2496	0.70	7.032	1979	7350	75-125	0			SO
Antimony	6.724	0.35	7.032	-0.3127	100	75-125	0			
Arsenic	11.07	0.35	7.032	5.588	77.9	75-125	0			
Barium	15.58	0.35	7.032	8.651	98.5	75-125	0			
Beryllium	6.816	0.14	7.032	0.0863	95.7	75-125	0			
Cadmium	7.463	0.70	7.032	0.03301	106	75-125	0			
Calcium	1248	35	703.2	700	77.9	75-125	0			
Chromium	11.95	0.35	7.032	5.118	97.2	75-125	0			
Cobalt	11.3	0.35	7.032	4.331	99.2	75-125	0			
Copper	11.88	0.70	7.032	7.199	66.6	75-125	0			S
Iron	4779	5.6	703.2	4836	-8.18	75-125	0			SO
Lead	10.85	0.35	7.032	5.278	79.3	75-125	0			
Magnesium	1503	14	703.2	713.1	112	75-125	0			
Manganese	61.86	0.35	7.032	70.06	-117	75-125	0			SO
Nickel	13.12	0.35	7.032	6.6	92.8	75-125	0			
Potassium	1188	14	703.2	292.1	127	75-125	0			S
Selenium	7.085	0.70	7.032	0.01806	100	75-125	0			
Silver	7.07	0.35	7.032	-0.03156	101	75-125	0			
Sodium	782.6	14	703.2	52.18	104	75-125	0			
Thallium	6.972	0.70	7.032	-0.1611	101	75-125	0			
Vanadium	14.69	0.35	7.032	7.549	102	75-125	0			
Zinc	28.45	0.70	7.032	18.3	144	75-125	0			S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91534** Instrument ID **ICP2** Method: **SW846 6010C**

MSD Sample ID: **1609644-01BMSD** Units: **mg/Kg** Analysis Date: **9/18/2016 07:49 PM**

Client ID: Run ID: **ICP2_160918A** SeqNo: **4032851** Prep Date: **9/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	3529	0.70	7.022	1979	22100	75-125	2496	34.3	20	SRO
Antimony	6.42	0.35	7.022	-0.3127	95.9	75-125	6.724	4.62	20	
Arsenic	12.32	0.35	7.022	5.588	95.9	75-125	11.07	10.7	20	
Barium	18.78	0.35	7.022	8.651	144	75-125	15.58	18.6	20	S
Beryllium	6.787	0.14	7.022	0.0863	95.4	75-125	6.816	0.439	20	
Cadmium	7.421	0.70	7.022	0.03301	105	75-125	7.463	0.559	20	
Calcium	1561	35	702.2	700	123	75-125	1248	22.3	20	R
Chromium	14.96	0.35	7.022	5.118	140	75-125	11.95	22.4	20	SR
Cobalt	12.85	0.35	7.022	4.331	121	75-125	11.3	12.8	20	
Copper	17.72	0.70	7.022	7.199	150	75-125	11.88	39.5	20	SR
Iron	6353	5.6	702.2	4836	216	75-125	4779	28.3	20	SRO
Lead	14.3	0.35	7.022	5.278	128	75-125	10.85	27.4	20	SR
Magnesium	1854	14	702.2	713.1	162	75-125	1503	20.9	20	SR
Manganese	84.6	0.35	7.022	70.06	207	75-125	61.86	31	20	SRO
Nickel	16.38	0.35	7.022	6.6	139	75-125	13.12	22.1	20	SR
Potassium	1381	14	702.2	292.1	155	75-125	1188	15	20	S
Selenium	6.978	0.70	7.022	0.01806	99.1	75-125	7.085	1.53	20	
Silver	6.964	0.35	7.022	-0.03156	99.6	75-125	7.07	1.52	20	
Sodium	775	14	702.2	52.18	103	75-125	782.6	0.978	20	
Thallium	6.795	0.70	7.022	-0.1611	99.1	75-125	6.972	2.56	20	
Vanadium	18.68	0.35	7.022	7.549	158	75-125	14.69	23.9	20	SR
Zinc	38.15	0.70	7.022	18.3	283	75-125	28.45	29.1	20	SR

The following samples were analyzed in this batch: 1609751-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK Sample ID: **SBLKS1-91418-91418** Units: **µg/Kg** Analysis Date: **9/15/2016 07:55 PM**

Client ID: Run ID: **SVMS4_160915B** SeqNo: **4031494** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	66								
2,4,5-Trichlorophenol	U	66								
2,4,6-Trichlorophenol	U	66								
2,4-Dichlorophenol	U	66								
2,4-Dimethylphenol	U	66								
2,4-Dinitrophenol	U	66								
2,4-Dinitrotoluene	U	66								
2,6-Dinitrotoluene	U	66								
2-Chloronaphthalene	U	13								
2-Chlorophenol	U	66								
2-Methylnaphthalene	U	13								
2-Methylphenol	U	66								
2-Nitroaniline	U	66								
2-Nitrophenol	U	66								
3&4-Methylphenol	U	66								
3,3´-Dichlorobenzidine	U	330								
3-Nitroaniline	U	66								
4,6-Dinitro-2-methylphenol	U	66								
4-Bromophenyl phenyl ether	U	66								
4-Chloro-3-methylphenol	U	66								
4-Chloroaniline	U	130								
4-Chlorophenyl phenyl ether	U	66								
4-Nitroaniline	U	330								
4-Nitrophenol	U	66								
Acenaphthene	U	13								
Acenaphthylene	U	13								
Acetophenone	U	66								
Anthracene	U	13								
Atrazine	U	66								
Benzaldehyde	U	130								
Benzo(a)anthracene	U	13								
Benzo(a)pyrene	U	13								
Benzo(b)fluoranthene	U	13								
Benzo(g,h,i)perylene	U	13								
Benzo(k)fluoranthene	U	13								
Bis(2-chloroethoxy)methane	U	66								
Bis(2-chloroethyl)ether	U	66								
Bis(2-chloroisopropyl)ether	U	66								
Bis(2-ethylhexyl)phthalate	U	66								
Butyl benzyl phthalate	U	66								
Caprolactam	U	66								
Carbazole	U	66								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

Chrysene	U	13					
Dibenzo(a,h)anthracene	U	13					
Dibenzofuran	U	66					
Diethyl phthalate	U	66					
Dimethyl phthalate	U	66					
Di-n-butyl phthalate	U	66					
Di-n-octyl phthalate	U	66					
Fluoranthene	U	13					
Fluorene	U	13					
Hexachlorobenzene	U	66					
Hexachlorobutadiene	U	66					
Hexachlorocyclopentadiene	U	66					
Hexachloroethane	U	66					
Indeno(1,2,3-cd)pyrene	U	13					
Isophorone	U	330					
Naphthalene	U	13					
Nitrobenzene	U	330					
N-Nitrosodi-n-propylamine	U	66					
N-Nitrosodiphenylamine	U	66					
Pentachlorophenol	U	66					
Phenanthrene	U	13					
Phenol	U	66					
Pyrene	U	13					
Surr: 2,4,6-Tribromophenol	*2497*	0	*3333*	0	*74.9*	*34-140*	0
Surr: 2-Fluorobiphenyl	*2827*	0	*3333*	0	*84.8*	*12-100*	0
Surr: 2-Fluorophenol	*2817*	0	*3333*	0	*84.5*	*33-117*	0
Surr: 4-Terphenyl-d14	*3074*	0	*3333*	0	*92.2*	*25-137*	0
Surr: Nitrobenzene-d5	*2612*	0	*3333*	0	*78.4*	*37-107*	0
Surr: Phenol-d6	*2942*	0	*3333*	0	*88.3*	*40-106*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-91418-91418** Units: **µg/Kg** Analysis Date: **9/15/2016 08:22 PM**

Client ID: Run ID: **SVMS4_160915B** SeqNo: **4031495** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1138	66	1333	0	85.3	30-120	0			
2,4,5-Trichlorophenol	1171	66	1333	0	87.8	50-110	0			
2,4,6-Trichlorophenol	1176	66	1333	0	88.2	45-110	0			
2,4-Dichlorophenol	1120	66	1333	0	84	45-110	0			
2,4-Dimethylphenol	1129	66	1333	0	84.6	30-105	0			
2,4-Dinitrophenol	665.3	66	1333	0	49.9	15-130	0			
2,4-Dinitrotoluene	1175	66	1333	0	88.1	50-115	0			
2,6-Dinitrotoluene	1106	66	1333	0	82.9	50-110	0			
2-Chloronaphthalene	1089	13	1333	0	81.7	45-105	0			
2-Chlorophenol	1045	66	1333	0	78.3	45-105	0			
2-Methylnaphthalene	1099	13	1333	0	82.4	45-105	0			
2-Methylphenol	1076	66	1333	0	80.7	40-105	0			
2-Nitroaniline	1181	66	1333	0	88.5	45-120	0			
2-Nitrophenol	1197	66	1333	0	89.7	40-110	0			
3&4-Methylphenol	1083	66	1333	0	81.2	40-105	0			
3,3´-Dichlorobenzidine	1125	330	1333	0	84.3	30-120	0			
3-Nitroaniline	1181	66	1333	0	88.6	25-150	0			
4,6-Dinitro-2-methylphenol	1050	66	1333	0	78.7	40-130	0			
4-Bromophenyl phenyl ether	1169	66	1333	0	87.6	45-115	0			
4-Chloro-3-methylphenol	1209	66	1333	0	90.6	45-115	0			
4-Chloroaniline	1236	130	1333	0	92.7	15-110	0			
4-Chlorophenyl phenyl ether	1154	66	1333	0	86.5	45-110	0			
4-Nitroaniline	660.7	330	1333	0	49.5	35-150	0			
4-Nitrophenol	1077	66	1333	0	80.7	15-140	0			
Acenaphthene	1171	13	1333	0	87.8	45-110	0			
Acenaphthylene	1328	13	1333	0	99.6	45-105	0			
Acetophenone	964	66	1333	0	72.3	30-120	0			
Anthracene	1309	13	1333	0	98.2	55-105	0			
Atrazine	1879	66	1333	0	141	30-120	0			S
Benzaldehyde	326.7	130	1333	0	24.5	30-120	0			S
Benzo(a)anthracene	1211	13	1333	0	90.8	50-110	0			
Benzo(a)pyrene	1208	13	1333	0	90.6	50-110	0			
Benzo(b)fluoranthene	1175	13	1333	0	88.1	45-115	0			
Benzo(g,h,i)perylene	1292	13	1333	0	96.9	40-125	0			
Benzo(k)fluoranthene	1182	13	1333	0	88.6	45-115	0			
Bis(2-chloroethoxy)methane	1073	66	1333	0	80.4	45-110	0			
Bis(2-chloroethyl)ether	994.7	66	1333	0	74.6	40-105	0			
Bis(2-ethylhexyl)phthalate	1140	66	1333	0	85.5	45-125	0			
Butyl benzyl phthalate	1164	66	1333	0	87.3	50-125	0			
Caprolactam	1236	66	1333	0	92.7	30-120	0			
Carbazole	1240	66	1333	0	93	50-150	0			
Chrysene	1253	13	1333	0	93.9	55-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	1287	13	1333	0	96.5	40-125	0
Dibenzofuran	1177	66	1333	0	88.3	50-105	0
Diethyl phthalate	1185	66	1333	0	88.8	50-115	0
Dimethyl phthalate	1145	66	1333	0	85.9	50-110	0
Di-n-butyl phthalate	1330	66	1333	0	99.7	55-110	0
Di-n-octyl phthalate	1187	66	1333	0	89	40-130	0
Fluoranthene	1253	13	1333	0	93.9	55-115	0
Fluorene	1182	13	1333	0	88.6	50-110	0
Hexachlorobenzene	1140	66	1333	0	85.5	45-120	0
Hexachlorobutadiene	1054	66	1333	0	79	40-115	0
Hexachlorocyclopentadiene	1447	66	1333	0	109	40-115	0
Hexachloroethane	1065	66	1333	0	79.9	35-110	0
Indeno(1,2,3-cd)pyrene	1379	13	1333	0	103	40-120	0
Isophorone	1164	330	1333	0	87.3	45-110	0
Naphthalene	1090	13	1333	0	81.7	40-105	0
Nitrobenzene	1091	330	1333	0	81.8	40-115	0
N-Nitrosodi-n-propylamine	1105	66	1333	0	82.9	40-115	0
N-Nitrosodiphenylamine	1205	66	1333	0	90.3	50-115	0
Pentachlorophenol	1030	66	1333	0	77.2	25-120	0
Phenanthrene	1134	13	1333	0	85	50-110	0
Phenol	1098	66	1333	0	82.3	40-100	0
Pyrene	1295	13	1333	0	97.1	45-125	0
Surr: 2,4,6-Tribromophenol	*2791*	0	*3333*	0	*83.7*	*34-140*	0
Surr: 2-Fluorobiphenyl	*2757*	0	*3333*	0	*82.7*	*12-100*	0
Surr: 2-Fluorophenol	*2688*	0	*3333*	0	*80.6*	*33-117*	0
Surr: 4-Terphenyl-d14	*2960*	0	*3333*	0	*88.8*	*25-137*	0
Surr: Nitrobenzene-d5	*2639*	0	*3333*	0	*79.2*	*37-107*	0
Surr: Phenol-d6	*2861*	0	*3333*	0	*85.8*	*40-106*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

LCS Sample ID: **SLCSS1-91418-91418** Units: **µg/Kg** Analysis Date: **9/18/2016 04:42 PM**

Client ID: Run ID: **SVMS5_160918A** SeqNo: **4032960** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	1073	66	1333	0	80.4	30-120	0			
2,4,5-Trichlorophenol	1035	66	1333	0	77.6	50-110	0			
2,4,6-Trichlorophenol	1069	66	1333	0	80.1	45-110	0			
2,4-Dichlorophenol	1029	66	1333	0	77.1	45-110	0			
2,4-Dimethylphenol	977.3	66	1333	0	73.3	30-105	0			
2,4-Dinitrophenol	704.7	66	1333	0	52.8	15-130	0			
2,4-Dinitrotoluene	1125	66	1333	0	84.3	50-115	0			
2,6-Dinitrotoluene	1125	66	1333	0	84.3	50-110	0			
2-Chloronaphthalene	1107	13	1333	0	83	45-105	0			
2-Chlorophenol	1083	66	1333	0	81.2	45-105	0			
2-Methylnaphthalene	1075	13	1333	0	80.6	45-105	0			
2-Methylphenol	1085	66	1333	0	81.4	40-105	0			
2-Nitroaniline	1100	66	1333	0	82.5	45-120	0			
2-Nitrophenol	1031	66	1333	0	77.3	40-110	0			
3&4-Methylphenol	1139	66	1333	0	85.4	40-105	0			
3,3´-Dichlorobenzidine	1264	330	1333	0	94.8	30-120	0			
3-Nitroaniline	717.3	66	1333	0	53.8	25-150	0			
4,6-Dinitro-2-methylphenol	958	66	1333	0	71.8	40-130	0			
4-Bromophenyl phenyl ether	1139	66	1333	0	85.4	45-115	0			
4-Chloro-3-methylphenol	1056	66	1333	0	79.2	45-115	0			
4-Chloroaniline	1222	130	1333	0	91.6	15-110	0			
4-Chlorophenyl phenyl ether	1099	66	1333	0	82.4	45-110	0			
4-Nitroaniline	639.3	330	1333	0	47.9	35-150	0			
4-Nitrophenol	1062	66	1333	0	79.6	15-140	0			
Acenaphthene	1083	13	1333	0	81.2	45-110	0			
Acenaphthylene	1260	13	1333	0	94.5	45-105	0			
Acetophenone	1169	66	1333	0	87.7	30-120	0			
Anthracene	1197	13	1333	0	89.8	55-105	0			
Atrazine	1303	66	1333	0	97.7	30-120	0			
Benzaldehyde	502.7	130	1333	0	37.7	30-120	0			
Benzo(a)anthracene	1179	13	1333	0	88.4	50-110	0			
Benzo(a)pyrene	1090	13	1333	0	81.7	50-110	0			
Benzo(b)fluoranthene	1104	13	1333	0	82.8	45-115	0			
Benzo(g,h,i)perylene	1179	13	1333	0	88.4	40-125	0			
Benzo(k)fluoranthene	1148	13	1333	0	86.1	45-115	0			
Bis(2-chloroethoxy)methane	1104	66	1333	0	82.8	45-110	0			
Bis(2-chloroethyl)ether	1121	66	1333	0	84.1	40-105	0			
Bis(2-ethylhexyl)phthalate	1215	66	1333	0	91.1	45-125	0			
Butyl benzyl phthalate	1147	66	1333	0	86	50-125	0			
Caprolactam	1012	66	1333	0	75.9	30-120	0			
Carbazole	1182	66	1333	0	88.6	50-150	0			
Chrysene	1199	13	1333	0	89.9	55-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	1202	13	1333	0	90.1	40-125	0
Dibenzofuran	1111	66	1333	0	83.3	50-105	0
Diethyl phthalate	1169	66	1333	0	87.7	50-115	0
Dimethyl phthalate	1150	66	1333	0	86.2	50-110	0
Di-n-butyl phthalate	1240	66	1333	0	93	55-110	0
Di-n-octyl phthalate	1087	66	1333	0	81.5	40-130	0
Fluoranthene	1170	13	1333	0	87.7	55-115	0
Fluorene	1107	13	1333	0	83	50-110	0
Hexachlorobenzene	1153	66	1333	0	86.4	45-120	0
Hexachlorobutadiene	1054	66	1333	0	79	40-115	0
Hexachlorocyclopentadiene	1439	66	1333	0	108	40-115	0
Hexachloroethane	1075	66	1333	0	80.6	35-110	0
Indeno(1,2,3-cd)pyrene	1005	13	1333	0	75.3	40-120	0
Isophorone	1138	330	1333	0	85.3	45-110	0
Naphthalene	1067	13	1333	0	80	40-105	0
Nitrobenzene	1085	330	1333	0	81.3	40-115	0
N-Nitrosodi-n-propylamine	1143	66	1333	0	85.7	40-115	0
N-Nitrosodiphenylamine	1185	66	1333	0	88.8	50-115	0
Pentachlorophenol	986.7	66	1333	0	74	25-120	0
Phenanthrene	1168	13	1333	0	87.6	50-110	0
Phenol	1107	66	1333	0	83	40-100	0
Pyrene	1217	13	1333	0	91.2	45-125	0
Surr: 2,4,6-Tribromophenol	*2965*	0	*3333*	0	*88.9*	*34-140*	0
Surr: 2-Fluorobiphenyl	*2704*	0	*3333*	0	*81.1*	*12-100*	0
Surr: 2-Fluorophenol	*2712*	0	*3333*	0	*81.4*	*33-117*	0
Surr: 4-Terphenyl-d14	*2848*	0	*3333*	0	*85.4*	*25-137*	0
Surr: Nitrobenzene-d5	*2469*	0	*3333*	0	*74.1*	*37-107*	0
Surr: Phenol-d6	*2684*	0	*3333*	0	*80.5*	*40-106*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

MS Sample ID: **1609617-11B MS** Units: **µg/Kg** Analysis Date: **9/15/2016 10:46 PM**

Client ID: Run ID: **SVMS4_160915B** SeqNo: **4031499** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	2559	64	1295	1293	97.8	30-120	0			
2,4,5-Trichlorophenol	1061	64	1295	0	81.9	50-110	0			
2,4,6-Trichlorophenol	1043	64	1295	0	80.5	45-110	0			
2,4-Dichlorophenol	1544	64	1295	0	119	45-110	0			S
2,4-Dimethylphenol	1792	64	1295	0	138	30-105	0			S
2,4-Dinitrophenol	267.5	64	1295	0	20.6	15-130	0			
2,4-Dinitrotoluene	1258	64	1295	0	97.1	50-115	0			
2,6-Dinitrotoluene	863.9	64	1295	0	66.7	50-110	0			
2-Chloronaphthalene	1103	13	1295	0	85.1	45-105	0			
2-Chlorophenol	940.3	64	1295	0	72.6	45-105	0			
2-Methylnaphthalene	17770	13	1295	17430	25.6	45-105	0			SEO
2-Methylphenol	734.4	64	1295	0	56.7	40-105	0			
2-Nitroaniline	1078	64	1295	0	83.2	45-120	0			
2-Nitrophenol	2022	64	1295	0	156	40-110	0			S
3&4-Methylphenol	1280	64	1295	0	98.8	40-105	0			
3,3´-Dichlorobenzidine	1133	320	1295	0	87.4	30-120	0			
3-Nitroaniline	915	64	1295	0	70.6	25-150	0			
4,6-Dinitro-2-methylphenol	817.9	64	1295	0	63.1	40-130	0			
4-Bromophenyl phenyl ether	1110	64	1295	0	85.7	45-115	0			
4-Chloro-3-methylphenol	1605	64	1295	0	124	45-115	0			S
4-Chloroaniline	19150	130	1295	0	1480	15-110	0			SE
4-Chlorophenyl phenyl ether	1052	64	1295	0	81.2	45-110	0			
4-Nitroaniline	621	320	1295	0	47.9	35-150	0			
4-Nitrophenol	676.1	64	1295	0	52.2	15-140	0			
Acenaphthene	1248	13	1295	197.4	81.1	45-110	0			
Acenaphthylene	1328	13	1295	0	102	45-105	0			
Acetophenone	U	64	1295	0	0	30-120	0			S
Anthracene	1287	13	1295	177.1	85.7	55-105	0			
Atrazine	1571	64	1295	0	121	30-120	0			S
Benzaldehyde	U	130	1295	0	0	30-120	0			S
Benzo(a)anthracene	1132	13	1295	0	87.4	50-110	0			
Benzo(a)pyrene	1153	13	1295	20.99	87.4	50-110	0			
Benzo(b)fluoranthene	1076	13	1295	15.09	81.9	45-115	0			
Benzo(g,h,i)perylene	1332	13	1295	30.17	101	40-125	0			
Benzo(k)fluoranthene	1047	13	1295	8.527	80.2	45-115	0			
Bis(2-chloroethoxy)methane	2087	64	1295	0	161	45-110	0			S
Bis(2-chloroethyl)ether	1526	64	1295	0	118	40-105	0			S
Bis(2-ethylhexyl)phthalate	1131	64	1295	0	87.3	45-125	0			
Butyl benzyl phthalate	1084	64	1295	0	83.7	50-125	0			
Caprolactam	1088	64	1295	0	84	30-120	0			
Carbazole	1113	64	1295	0	85.9	50-150	0			
Chrysene	1150	13	1295	0	88.8	55-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	1328	13	1295	0	103	40-125	0	
Dibenzofuran	1076	64	1295	0	83	50-105	0	
Diethyl phthalate	1013	64	1295	0	78.2	50-115	0	
Dimethyl phthalate	997.9	64	1295	0	77	50-110	0	
Di-n-butyl phthalate	1223	64	1295	0	94.4	55-110	0	
Di-n-octyl phthalate	1152	64	1295	0	88.9	40-130	0	
Fluoranthene	1150	13	1295	60.35	84.1	55-115	0	
Fluorene	1252	13	1295	210.6	80.4	50-110	0	
Hexachlorobenzene	1061	64	1295	0	81.9	45-120	0	
Hexachlorobutadiene	1548	64	1295	0	119	40-115	0	S
Hexachlorocyclopentadiene	1442	64	1295	0	111	40-115	0	
Hexachloroethane	34250	64	1295	0	2640	35-110	0	SE
Indeno(1,2,3-cd)pyrene	1438	13	1295	0	111	40-120	0	
Isophorone	1563	320	1295	0	121	45-110	0	S
Naphthalene	13170	13	1295	0	1020	40-105	0	SE
Nitrobenzene	1649	320	1295	0	127	40-115	0	S
N-Nitrosodi-n-propylamine	1546	64	1295	0	119	40-115	0	S
N-Nitrosodiphenylamine	1501	64	1295	0	116	50-115	0	S
Pentachlorophenol	843.2	64	1295	0	65.1	25-120	0	
Phenanthrene	1331	13	1295	286.7	80.7	50-110	0	
Phenol	219.5	64	1295	0	16.9	40-100	0	S
Pyrene	1253	13	1295	99.7	89	45-125	0	
Surr: 2,4,6-Tribromophenol	*2625*	0	*3238*	0	*81.1*	*34-140*	0	
Surr: 2-Fluorobiphenyl	*2871*	0	*3238*	0	*88.7*	*12-100*	0	
Surr: 2-Fluorophenol	*2175*	0	*3238*	0	*67.2*	*33-117*	0	
Surr: 4-Terphenyl-d14	*2714*	0	*3238*	0	*83.8*	*25-137*	0	
Surr: Nitrobenzene-d5	*2646*	0	*3238*	0	*81.7*	*37-107*	0	
Surr: Phenol-d6	*449.4*	0	*3238*	0	*13.9*	*40-106*	0	*S*

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

MSD Sample ID: **1609617-11B MSD** Units: **µg/Kg** Analysis Date: **9/15/2016 11:13 PM**

Client ID: Run ID: **SVMS4_160915B** SeqNo: **4031500** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	2292	66	1327	1293	75.3	30-120	2559	11	30	
2,4,5-Trichlorophenol	1063	66	1327	0	80.1	50-110	1061	0.135	30	
2,4,6-Trichlorophenol	1073	66	1327	0	80.8	45-110	1043	2.79	30	
2,4-Dichlorophenol	1364	66	1327	0	103	45-110	1544	12.4	30	
2,4-Dimethylphenol	1562	66	1327	0	118	30-105	1792	13.7	30	S
2,4-Dinitrophenol	380.8	66	1327	0	28.7	15-130	267.5	35	30	R
2,4-Dinitrotoluene	1268	66	1327	0	95.6	50-115	1258	0.862	30	
2,6-Dinitrotoluene	859.8	66	1327	0	64.8	50-110	863.9	0.471	30	
2-Chloronaphthalene	1095	13	1327	0	82.5	45-105	1103	0.743	30	
2-Chlorophenol	917.5	66	1327	0	69.1	45-105	940.3	2.45	30	
2-Methylnaphthalene	16280	13	1327	17430	-87.2	45-105	17770	8.74	30	SEO
2-Methylphenol	786.8	66	1327	0	59.3	40-105	734.4	6.9	30	
2-Nitroaniline	1072	66	1327	0	80.8	45-120	1078	0.569	30	
2-Nitrophenol	1531	66	1327	0	115	40-110	2022	27.6	30	S
3&4-Methylphenol	1027	66	1327	0	77.4	40-105	1280	22	30	
3,3´-Dichlorobenzidine	1152	330	1327	0	86.8	30-120	1133	1.67	30	
3-Nitroaniline	928.1	66	1327	0	69.9	25-110	915	1.42	30	
4,6-Dinitro-2-methylphenol	784.2	66	1327	0	59.1	40-130	817.9	4.21	30	
4-Bromophenyl phenyl ether	1129	66	1327	0	85	45-115	1110	1.66	30	
4-Chloro-3-methylphenol	1392	66	1327	0	105	45-115	1605	14.2	30	
4-Chloroaniline	18220	130	1327	0	1370	15-110	19150	4.95	30	SE
4-Chlorophenyl phenyl ether	1076	66	1327	0	81.1	45-110	1052	2.23	30	
4-Nitroaniline	611	330	1327	0	46	35-150	621	1.62	30	
4-Nitrophenol	709.2	66	1327	0	53.4	15-140	676.1	4.78	30	
Acenaphthene	1272	13	1327	197.4	81	45-110	1248	1.95	30	
Acenaphthylene	1336	13	1327	0	101	45-105	1328	0.647	30	
Acetophenone	U	66	1327	0	0	30-120	0	0	30	S
Anthracene	1404	13	1327	177.1	92.4	55-105	1287	8.7	30	
Atrazine	1618	66	1327	0	122	30-120	1571	2.95	30	S
Benzaldehyde	U	130	1327	0	0	30-120	0	0	30	S
Benzo(a)anthracene	1161	13	1327	0	87.5	50-110	1132	2.53	30	
Benzo(a)pyrene	1178	13	1327	20.99	87.2	50-110	1153	2.14	30	
Benzo(b)fluoranthene	1117	13	1327	15.09	83.1	45-115	1076	3.73	30	
Benzo(g,h,i)perylene	1364	13	1327	30.17	101	40-125	1332	2.37	30	
Benzo(k)fluoranthene	1065	13	1327	8.527	79.6	45-115	1047	1.67	30	
Bis(2-chloroethoxy)methane	1895	66	1327	0	143	45-110	2087	9.63	30	S
Bis(2-chloroethyl)ether	969.3	66	1327	0	73	40-105	1526	44.6	30	R
Bis(2-ethylhexyl)phthalate	1165	66	1327	0	87.8	45-125	1131	2.93	30	
Butyl benzyl phthalate	1105	66	1327	0	83.3	50-125	1084	1.94	30	
Caprolactam	5820	66	1327	0	439	30-120	1088	137	30	SRE
Carbazole	1165	66	1327	0	87.8	50-150	1113	4.55	30	
Chrysene	1179	13	1327	0	88.8	55-110	1150	2.47	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91418** Instrument ID **SVMS4** Method: **SW846 8270D**

Dibenzo(a,h)anthracene	1360	13	1327	0	102	40-125	1328	2.37	30	
Dibenzofuran	1112	66	1327	0	83.8	50-105	1076	3.32	30	
Diethyl phthalate	1040	66	1327	0	78.3	50-115	1013	2.61	30	
Dimethyl phthalate	1024	66	1327	0	77.2	50-110	997.9	2.61	30	
Di-n-butyl phthalate	1257	66	1327	0	94.7	55-110	1223	2.68	30	
Di-n-octyl phthalate	1164	66	1327	0	87.7	40-130	1152	1.06	30	
Fluoranthene	1190	13	1327	60.35	85.1	55-115	1150	3.43	30	
Fluorene	1293	13	1327	210.6	81.6	50-110	1252	3.24	30	
Hexachlorobenzene	1076	66	1327	0	81.1	45-120	1061	1.44	30	
Hexachlorobutadiene	1374	66	1327	0	104	40-115	1548	11.9	30	
Hexachlorocyclopentadiene	1407	66	1327	0	106	40-115	1442	2.41	30	
Hexachloroethane	38480	66	1327	0	2900	35-110	34250	11.6	30	SE
Indeno(1,2,3-cd)pyrene	1468	13	1327	0	111	40-120	1438	2.06	30	
Isophorone	1468	330	1327	0	111	45-110	1563	6.27	30	S
Naphthalene	11700	13	1327	0	882	40-105	13170	11.8	30	SE
Nitrobenzene	1508	330	1327	0	114	40-115	1649	8.92	30	
N-Nitrosodi-n-propylamine	1267	66	1327	0	95.4	40-115	1546	19.9	30	
N-Nitrosodiphenylamine	1444	66	1327	0	109	50-115	1501	3.9	30	
Pentachlorophenol	875.1	66	1327	0	65.9	25-120	843.2	3.72	30	
Phenanthrene	1352	13	1327	286.7	80.3	50-110	1331	1.54	30	
Phenol	307.2	66	1327	0	23.1	40-100	219.5	33.3	30	SR
Pyrene	1257	13	1327	99.7	87.2	45-125	1253	0.277	30	
Surr: 2,4,6-Tribromophenol	*2650*	0	*3317*	0	*79.9*	*34-140*	2625	*0.952*	*40*	
Surr: 2-Fluorobiphenyl	*2912*	0	*3317*	0	*87.8*	*12-100*	2871	*1.42*	*40*	
Surr: 2-Fluorophenol	*2206*	0	*3317*	0	*66.5*	*33-117*	2175	*1.43*	*40*	
Surr: 4-Terphenyl-d14	*2743*	0	*3317*	0	*82.7*	*25-137*	2714	*1.05*	*40*	
Surr: Nitrobenzene-d5	*2451*	0	*3317*	0	*73.9*	*37-107*	2646	*7.64*	*40*	
Surr: Phenol-d6	*829.3*	0	*3317*	0	*25*	*40-106*	449.4	*59.4*	*40*	*SR*

The following samples were analyzed in this batch: 1609751-01D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

MBLK	Sample ID: **MBLK-91440-91440**	Units: **µg/Kg-dry**	Analysis Date: **9/15/2016 02:46 PM**
Client ID:	Run ID: **VMS5_160915A**	SeqNo: **4029796** Prep Date: **9/15/2016**	DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	30								
1,1,2,2-Tetrachloroethane	U	30								
1,1,2-Trichloroethane	U	30								
1,1,2-Trichlorotrifluoroethane	U	30								
1,1-Dichloroethane	U	30								
1,1-Dichloroethene	U	30								
1,2,4-Trichlorobenzene	U	30								
1,2-Dibromo-3-chloropropane	U	30								
1,2-Dibromoethane	U	30								
1,2-Dichlorobenzene	U	30								
1,2-Dichloroethane	U	30								
1,2-Dichloropropane	U	30								
1,3-Dichlorobenzene	U	30								
1,4-Dichlorobenzene	U	30								
2-Butanone	U	200								
2-Hexanone	U	30								
4-Methyl-2-pentanone	U	30								
Acetone	U	100								
Benzene	U	30								
Bromodichloromethane	U	30								
Bromoform	U	30								
Bromomethane	U	75								
Carbon disulfide	U	30								
Carbon tetrachloride	U	30								
Chlorobenzene	U	30								
Chloroethane	U	100								
Chloroform	U	30								
Chloromethane	U	100								
cis-1,2-Dichloroethene	U	30								
cis-1,3-Dichloropropene	U	30								
Cyclohexane	U	30								
Dibromochloromethane	U	30								
Dichlorodifluoromethane	U	30								
Ethylbenzene	U	30								
Isopropylbenzene	U	30								
Methyl acetate	U	200								
Methyl tert-butyl ether	U	30								
Methylcyclohexane	U	30								
Methylene chloride	U	30								
Styrene	U	30								
Tetrachloroethene	U	30								
Toluene	U	30								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

trans-1,2-Dichloroethene	U	30					
trans-1,3-Dichloropropene	U	30					
Trichloroethene	U	30					
Trichlorofluoromethane	U	30					
Vinyl chloride	U	30					
Xylenes, Total	U	90					
Surr: 1,2-Dichloroethane-d4	*976.5*	0	*1000*	0	*97.6*	*70-130*	0
Surr: 4-Bromofluorobenzene	*994.5*	0	*1000*	0	*99.4*	*70-130*	0
Surr: Dibromofluoromethane	*976.5*	0	*1000*	0	*97.6*	*70-130*	0
Surr: Toluene-d8	*927*	0	*1000*	0	*92.7*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

LCS Sample ID: **LCS-91440-91440** Units: **µg/Kg-dry** Analysis Date: **9/15/2016 01:28 PM**

Client ID: Run ID: **VMS5_160915A** SeqNo: **4029795** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1126	30	1000	0	113	70-135	0			
1,1,2,2-Tetrachloroethane	955.5	30	1000	0	95.6	55-130	0			
1,1,2-Trichloroethane	1000	30	1000	0	100	60-125	0			
1,1-Dichloroethane	1076	30	1000	0	108	75-125	0			
1,1-Dichloroethene	1128	30	1000	0	113	65-135	0			
1,2,4-Trichlorobenzene	1042	30	1000	0	104	65-130	0			
1,2-Dibromo-3-chloropropane	863.5	30	1000	0	86.4	40-135	0			
1,2-Dibromoethane	1320	30	1000	0	132	75-125	0			S
1,2-Dichlorobenzene	960	30	1000	0	96	75-120	0			
1,2-Dichloroethane	1048	30	1000	0	105	70-135	0			
1,2-Dichloropropane	1035	30	1000	0	104	70-120	0			
1,3-Dichlorobenzene	971	30	1000	0	97.1	70-125	0			
1,4-Dichlorobenzene	950.5	30	1000	0	95	70-125	0			
2-Butanone	1076	200	1000	0	108	30-160	0			
2-Hexanone	1014	30	1000	0	101	45-145	0			
4-Methyl-2-pentanone	1435	30	1000	0	144	74-176	0			
Acetone	1060	100	1000	0	106	20-160	0			
Benzene	1112	30	1000	0	111	75-125	0			
Bromodichloromethane	1088	30	1000	0	109	70-130	0			
Bromoform	924	30	1000	0	92.4	55-135	0			
Bromomethane	1590	75	1000	0	159	30-160	0			
Carbon disulfide	1142	30	1000	0	114	45-160	0			
Carbon tetrachloride	1020	30	1000	0	102	65-135	0			
Chlorobenzene	1030	30	1000	0	103	75-125	0			
Chloroethane	1090	100	1000	0	109	40-155	0			
Chloroform	1066	30	1000	0	107	70-125	0			
Chloromethane	1284	100	1000	0	128	50-130	0			
cis-1,2-Dichloroethene	1075	30	1000	0	108	65-125	0			
cis-1,3-Dichloropropene	1077	30	1000	0	108	70-125	0			
Dibromochloromethane	966.5	30	1000	0	96.6	65-135	0			
Dichlorodifluoromethane	934.5	30	1000	0	93.4	35-135	0			
Ethylbenzene	1102	30	1000	0	110	75-125	0			
Isopropylbenzene	1146	30	1000	0	115	75-130	0			
Methyl tert-butyl ether	1072	30	1000	0	107	75-125	0			
Methylene chloride	1084	30	1000	0	108	55-145	0			
Styrene	1130	30	1000	0	113	75-125	0			
Tetrachloroethene	1049	30	1000	0	105	64-140	0			
Toluene	1076	30	1000	0	108	70-125	0			
trans-1,2-Dichloroethene	1094	30	1000	0	109	65-135	0			
trans-1,3-Dichloropropene	1004	30	1000	0	100	65-125	0			
Trichloroethene	1095	30	1000	0	110	75-125	0			
Trichlorofluoromethane	1091	30	1000	0	109	25-185	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

Vinyl chloride	1203	30	1000	0	120	60-125	0
Xylenes, Total	3348	90	3000	0	112	75-125	0
Surr: 1,2-Dichloroethane-d4	*927*	0	*1000*	0	*92.7*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1032*	0	*1000*	0	*103*	*70-130*	0
Surr: Dibromofluoromethane	*942*	0	*1000*	0	*94.2*	*70-130*	0
Surr: Toluene-d8	*944.5*	0	*1000*	0	*94.4*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

MS Sample ID: **1609745-03A MS** Units: **µg/Kg-dry** Analysis Date: **9/15/2016 10:39 PM**

Client ID: Run ID: **VMS5_160915A** SeqNo: **4029799** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1424	40	1326	0	107	70-135	0			
1,1,2,2-Tetrachloroethane	1131	40	1326	0	85.3	55-130	0			
1,1,2-Trichloroethane	1249	40	1326	0	94.2	60-125	0			
1,1-Dichloroethane	1345	40	1326	0	102	75-125	0			
1,1-Dichloroethene	1438	40	1326	0	108	65-135	0			
1,2,4-Trichlorobenzene	1302	40	1326	0	98.2	65-130	0			
1,2-Dibromo-3-chloropropane	1019	40	1326	0	76.8	40-135	0			
1,2-Dibromoethane	1613	40	1326	0	122	75-125	0			
1,2-Dichlorobenzene	1234	40	1326	0	93.1	75-120	0			
1,2-Dichloroethane	1310	40	1326	0	98.8	70-135	0			
1,2-Dichloropropane	1313	40	1326	0	99	70-120	0			
1,3-Dichlorobenzene	1229	40	1326	0	92.8	70-125	0			
1,4-Dichlorobenzene	1200	40	1326	0	90.6	70-125	0			
2-Butanone	1730	270	1326	0	130	30-160	0			
2-Hexanone	1394	40	1326	0	105	45-145	0			
4-Methyl-2-pentanone	1708	40	1326	0	129	74-176	0			
Acetone	2127	130	1326	0	160	20-160	0			S
Benzene	1430	40	1326	0	108	75-125	0			
Bromodichloromethane	1334	40	1326	0	101	70-130	0			
Bromoform	1135	40	1326	0	85.6	55-135	0			
Bromomethane	851	99	1326	0	64.2	30-160	0			
Carbon disulfide	1387	40	1326	0	105	45-160	0			
Carbon tetrachloride	1448	40	1326	0	109	65-135	0			
Chlorobenzene	1281	40	1326	0	96.6	75-125	0			
Chloroethane	1361	130	1326	0	103	40-155	0			
Chloroform	1312	40	1326	0	99	70-125	0			
Chloromethane	1581	130	1326	0	119	50-130	0			
cis-1,2-Dichloroethene	1304	40	1326	0	98.4	65-125	0			
cis-1,3-Dichloropropene	1307	40	1326	0	98.6	70-125	0			
Dibromochloromethane	1172	40	1326	0	88.4	65-135	0			
Dichlorodifluoromethane	1282	40	1326	0	96.8	35-135	0			
Ethylbenzene	1405	40	1326	13.26	105	75-125	0			
Isopropylbenzene	1455	40	1326	0	110	75-130	0			
Methyl tert-butyl ether	1306	40	1326	0	98.5	75-125	0			
Methylene chloride	1396	40	1326	0	105	55-145	0			
Styrene	1425	40	1326	0	108	75-125	0			
Tetrachloroethene	1543	40	1326	0	116	64-140	0			
Toluene	1507	40	1326	255.8	94.4	70-125	0			
trans-1,2-Dichloroethene	1365	40	1326	0	103	65-135	0			
trans-1,3-Dichloropropene	1194	40	1326	0	90	65-125	0			
Trichloroethene	1396	40	1326	0	105	75-125	0			
Trichlorofluoromethane	1444	40	1326	0	109	25-185	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

Vinyl chloride	1591	40	1326	0	120	60-125	0
Xylenes, Total	4272	120	3977	40	106	75-125	0
Surr: 1,2-Dichloroethane-d4	*1220*	0	*1326*	0	*92*	*70-130*	0
Surr: 4-Bromofluorobenzene	*1365*	0	*1326*	0	*103*	*70-130*	0
Surr: Dibromofluoromethane	*1266*	0	*1326*	0	*95.5*	*70-130*	0
Surr: Toluene-d8	*1259*	0	*1326*	0	*95*	*70-130*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

MSD Sample ID: **1609745-03A MSD** Units: **µg/Kg-dry** Analysis Date: **9/15/2016 11:05 PM**

Client ID: Run ID: **VMS5_160915A** SeqNo: **4029800** Prep Date: **9/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1426	40	1326	0	108	70-135	1424	0.186	30	
1,1,2,2-Tetrachloroethane	1110	40	1326	0	83.8	55-130	1131	1.83	30	
1,1,2-Trichloroethane	1210	40	1326	0	91.3	60-125	1249	3.13	30	
1,1-Dichloroethane	1299	40	1326	0	98	75-125	1345	3.51	30	
1,1-Dichloroethene	1417	40	1326	0	107	65-135	1438	1.44	30	
1,2,4-Trichlorobenzene	1474	40	1326	0	111	65-130	1302	12.4	30	
1,2-Dibromo-3-chloropropane	992.2	40	1326	0	74.8	40-135	1019	2.64	30	
1,2-Dibromoethane	1585	40	1326	0	120	75-125	1613	1.78	30	
1,2-Dichlorobenzene	1252	40	1326	0	94.4	75-120	1234	1.44	30	
1,2-Dichloroethane	1266	40	1326	0	95.5	70-135	1310	3.4	30	
1,2-Dichloropropane	1286	40	1326	0	97	70-120	1313	2.04	30	
1,3-Dichlorobenzene	1243	40	1326	0	93.8	70-125	1229	1.13	30	
1,4-Dichlorobenzene	1212	40	1326	0	91.4	70-125	1200	0.934	30	
2-Butanone	1997	270	1326	0	151	30-160	1730	14.3	30	
2-Hexanone	1556	40	1326	0	117	45-145	1394	11	30	
4-Methyl-2-pentanone	1633	40	1326	0	123	74-176	1708	4.48	30	
Acetone	2621	130	1326	0	198	20-160	2127	20.8	30	S
Benzene	1415	40	1326	0	107	75-125	1430	1.07	30	
Bromodichloromethane	1320	40	1326	0	99.6	70-130	1334	1.05	30	
Bromoform	1063	40	1326	0	80.2	55-135	1135	6.57	30	
Bromomethane	1104	99	1326	0	83.3	30-160	851	25.9	30	
Carbon disulfide	1368	40	1326	0	103	45-160	1387	1.35	30	
Carbon tetrachloride	1438	40	1326	0	108	65-135	1448	0.689	30	
Chlorobenzene	1251	40	1326	0	94.4	75-125	1281	2.41	30	
Chloroethane	1371	130	1326	0	103	40-155	1361	0.728	30	
Chloroform	1290	40	1326	0	97.4	70-125	1312	1.63	30	
Chloromethane	1552	130	1326	0	117	50-130	1581	1.86	30	
cis-1,2-Dichloroethene	1286	40	1326	0	97	65-125	1304	1.38	30	
cis-1,3-Dichloropropene	1306	40	1326	0	98.6	70-125	1307	0.0507	30	
Dibromochloromethane	1141	40	1326	0	86.1	65-135	1172	2.69	30	
Dichlorodifluoromethane	1226	40	1326	0	92.5	35-135	1282	4.49	30	
Ethylbenzene	1383	40	1326	13.26	103	75-125	1405	1.62	30	
Isopropylbenzene	1461	40	1326	0	110	75-130	1455	0.455	30	
Methyl tert-butyl ether	1281	40	1326	0	96.6	75-125	1306	1.95	30	
Methylene chloride	1384	40	1326	0	104	55-145	1396	0.906	30	
Styrene	1378	40	1326	0	104	75-125	1425	3.36	30	
Tetrachloroethene	1812	40	1326	0	137	64-140	1543	16	30	
Toluene	1550	40	1326	255.8	97.6	70-125	1507	2.86	30	
trans-1,2-Dichloroethene	1347	40	1326	0	102	65-135	1365	1.37	30	
trans-1,3-Dichloropropene	1147	40	1326	0	86.5	65-125	1194	4.02	30	
Trichloroethene	1394	40	1326	0	105	75-125	1396	0.19	30	
Trichlorofluoromethane	1398	40	1326	0	106	25-185	1444	3.17	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **91440** Instrument ID **VMS5** Method: **SW8260B**

Vinyl chloride	1561	40	1326	0	118	60-125	1591	1.93	30
Xylenes, Total	4213	120	3977	40	105	75-125	4272	1.37	30
Surr: 1,2-Dichloroethane-d4	*1251*	0	*1326*	0	*94.4*	*70-130*	1220	*2.52*	*30*
Surr: 4-Bromofluorobenzene	*1381*	0	*1326*	0	*104*	*70-130*	1365	*1.11*	*30*
Surr: Dibromofluoromethane	*1289*	0	*1326*	0	*97.2*	*70-130*	1266	*1.82*	*30*
Surr: Toluene-d8	*1237*	0	*1326*	0	*93.4*	*70-130*	1259	*1.7*	*30*

The following samples were analyzed in this batch: 1609751-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 1609751
Project: TOCON

QC BATCH REPORT

Batch ID: **R195872** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R195872** Units: **% of sample** Analysis Date: **9/16/2016 12:01 AM**

Client ID: Run ID: **MOIST_160916A** SeqNo: **4030075** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.050								

LCS Sample ID: **LCS-R195872** Units: **% of sample** Analysis Date: **9/16/2016 12:01 AM**

Client ID: Run ID: **MOIST_160916A** SeqNo: **4030074** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1609640-01B DUP** Units: **% of sample** Analysis Date: **9/16/2016 12:01 AM**

Client ID: Run ID: **MOIST_160916A** SeqNo: **4030060** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.33	0.050	0	0	0		13.31	0.15	20	

DUP Sample ID: **1609643-01B DUP** Units: **% of sample** Analysis Date: **9/16/2016 12:01 AM**

Client ID: Run ID: **MOIST_160916A** SeqNo: **4030062** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	18.62	0.050	0	0	0		19.95	6.9	20	

The following samples were analyzed in this batch: 1609751-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

160901

CT LABORATORIES
delivering more than data from your environmental analyses

1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.ctlaboratories.com

Sub-Contract Laboratory Chain-of-Custody and Purchase Order

PURCHASE ORDER # 121997 ALSMI

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: **ALS - MI**
3352 128th AVE
Holland, MI 49424

Return Invoice and Results to: **bszymanski@ctlaboratories.com**

CTLaboratories
Brett M Szymanski
1230 Lange Court
Baraboo WI 53913

Date Due: 5-Day TAT ***RUSH TURNAROUND NEEDED?*** (Y) ***or N (Circle One)***

Project Name: TOCON **Project State:** IN

Analytical/QC Criteria: NONE INDICATED STATE DOD QSM NELAP (Circle one) (OTHER) EPA

Report results as EDD? N (Y) (Circle one and indicate type: Excel - START) Data Deliverable Package LEVEL: IV

CTLabs ID#	Sample Date/Time	Matrix	Sample Description	Analyses / Method	Cost
769518	09/12/2016 1530	SOIL	TPA-PILE9-091216	HERBICIDES	SW8151
769518	09/12/2016 1530	SOIL	TPA-PILE9-091216	TAL METALS	SW6010C/7471B
769518	09/12/2016 1530	SOIL	TPA-PILE9-091216	PCB	SW8082A
769518	09/12/2016 1530	SOIL	TPA-PILE9-091216	PESTICIDES	SW8081B
769518	09/12/2016 1530	SOIL	TPA-PILE9-091216	SVOC	SW8270D
769518	09/12/2016 1530	SOIL	TPA-PILE9-091216	VOC	SW8260C

Relinquished by: Brett Szymanski Date/Time: 09/13/2016 13:20

Received by: Date/Time: 9/14/16 0930 Receipt Temperature (C) 2.4°C

COMMENTS:

REPORT ALL SOLIDS ON A DRY WEIGHT BASIS UNLESS OTHERWISE INDICATED

SHIPPING DEPT
(608) 356 – 2760
CT LABS
1230 LANGE CT
BARABOO WI 53913

18 LBS

DWT: 13.0.9

SHIP TO:
SAMPLE RECEIVING
ALS
3352 128TH AVE
HOLLAND MI 49424

MI 495 9 – 04

UPS NEXT DAY AIR

TRACKING #: 1Z 1A4 A85 01 4017 5227

1

BILLING: P/P

WS 19.0.24 Zebra ZP 450 78.0A 07/2010

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DATE
SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **CTLABORATORIES** Date/Time Received: **14-Sep-16 09:30**

Work Order: **1609751** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 14-Sep-16 (Date) Reviewed by: Joseph Ribar (eSignature) 14-Sep-16 (Date)

Matrices: Soil
Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.4/2.4 C	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/14/2016 4:13:40 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

22-Sep-2016

Dennis Linley
CT Laboratories
1230 Lange Court
Baraboo, WI 53913

Re: **TOCON - TPA-Pile 6 - 091916** Work Order: **16091057**

Dear Dennis,

ALS Environmental received 2 samples on 19-Sep-2016 03:30 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 44.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Joseph Ribar

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: WI: 399084510

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
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ALS Group USA, Corp

Date: 22-Sep-16

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Work Order: **16091057**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
16091057-01	TPA-Pile 6 - 091916	Surface Water		9/19/2016	9/19/2016 15:30	☐
16091057-02	Trip Blank	Surface Water		9/19/2016	9/19/2016 15:30	☐

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Work Order: 16091057

Case Narrative

Samples for the above noted Work Order were received on 09/19/2016. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R196101a, Method 8260, Sample 16091057-01A: The reporting limit is elevated due to dilution for high concentrations of target analytes.

Batch R196197A, Method 8260, Sample 16091057-01A MS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: trans-1,3-dichloropropene, Acetone, and 1,1,1,2-Tetrachloroethane

Batch R196197A, Method 8260, Sample 16091057-01A MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: trans-1,3-dichloropropene

No other deviations or anomalies were noted.

Extractable Organics:
Batch 91630, Method 8270, Sample 16091057-01B DUP: The RPD between the sample and its duplicate was out of control. The corresponding sample result should be considered estimated for this analyte: Acetophenone, Di-n-octyl phthalate, and Dibenzo(a,h)anthracene

Batch 91634A, Method 8082, Sample 16091057-01B: Surrogate high due to matrix interference.

Batch 91636, Method 8081, Sample 16091057-01B: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

No other deviations or anomalies were noted.

Metals:
No other deviations or anomalies were noted.

Wet Chemistry:
No other deviations or anomalies were noted.

ALS Group USA, Corp

Date: *22-Sep-16*

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Sample ID: TPA-Pile 6 - 091916
Collection Date: 9/19/2016

Work Order: 16091057
Lab ID: 16091057-01
Matrix: SURFACE WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
HERBICIDES		Method:	**SW8151**		Prep: SW8151M / 9/20/16		Analyst: **KYM**
2,4,5-TP (Silvex)	U		0.025	2.0	µg/L	1	9/22/2016 05:30
2,4-D	U		0.035	2.0	µg/L	1	9/22/2016 05:30
Surr: DCAA	*37.4*			*23-142*	*%REC*	1	9/22/2016 05:30
PCBS		Method:	**SW8082**				Analyst: **EB**
Aroclor 1016	U		0.051	0.21	µg/L	1	9/21/2016 16:51
Aroclor 1221	U		0.051	0.21	µg/L	1	9/21/2016 16:51
Aroclor 1232	U		0.051	0.21	µg/L	1	9/21/2016 16:51
Aroclor 1242	**4.3**		**0.051**	**0.21**	**µg/L**	1	9/21/2016 16:51
Aroclor 1248	U		0.051	0.21	µg/L	1	9/21/2016 16:51
Aroclor 1254	**1.5**		**0.033**	**0.21**	**µg/L**	1	9/21/2016 16:51
Aroclor 1260	U		0.033	0.21	µg/L	1	9/21/2016 16:51
PCBs, Total	**5.8**		**0.051**	**0.21**	**µg/L**	1	9/21/2016 16:51
Surr: Decachlorobiphenyl	*182*	S		*40-110*	*%REC*	1	9/21/2016 16:51
Surr: Tetrachloro-m-xylene	*304*	S		*40-110*	*%REC*	1	9/21/2016 16:51
PESTICIDES		Method:	**SW8081**		Prep: SW3510 / 9/20/16		Analyst: **BLM**
4,4´-DDD	U		0.012	0.20	µg/L	10	9/21/2016 13:54
4,4´-DDE	U		0.012	0.20	µg/L	10	9/21/2016 13:54
4,4´-DDT	U		0.017	0.20	µg/L	10	9/21/2016 13:54
Aldrin	U		0.015	0.10	µg/L	10	9/21/2016 13:54
alpha-BHC	U		0.025	0.10	µg/L	10	9/21/2016 13:54
alpha-Chlordane	U		0.017	0.20	µg/L	10	9/21/2016 13:54
beta-BHC	U		0.044	0.10	µg/L	10	9/21/2016 13:54
Chlordane, Technical	U		0.34	5.0	µg/L	10	9/21/2016 13:54
delta-BHC	U		0.015	0.10	µg/L	10	9/21/2016 13:54
Dieldrin	U		0.017	0.20	µg/L	10	9/21/2016 13:54
Endosulfan I	U		0.017	0.20	µg/L	10	9/21/2016 13:54
Endosulfan II	U		0.012	0.20	µg/L	10	9/21/2016 13:54
Endosulfan sulfate	U		0.012	0.20	µg/L	10	9/21/2016 13:54
Endrin	U		0.012	0.20	µg/L	10	9/21/2016 13:54
Endrin aldehyde	U		0.030	0.20	µg/L	10	9/21/2016 13:54
Endrin ketone	U		0.012	0.20	µg/L	10	9/21/2016 13:54
gamma-BHC (Lindane)	U		0.012	0.10	µg/L	10	9/21/2016 13:54
gamma-Chlordane	U		0.012	0.20	µg/L	10	9/21/2016 13:54
Heptachlor	U		0.017	0.10	µg/L	10	9/21/2016 13:54
Heptachlor epoxide	U		0.017	0.10	µg/L	10	9/21/2016 13:54
Methoxychlor	U		0.015	0.40	µg/L	10	9/21/2016 13:54
Toxaphene	U		1.1	20	µg/L	10	9/21/2016 13:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *22-Sep-16*

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Sample ID: TPA-Pile 6 - 091916
Collection Date: 9/19/2016

Work Order: 16091057
Lab ID: 16091057-01
Matrix: SURFACE WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Decachlorobiphenyl	*60.0*			*42-119*	*%REC*	10	9/21/2016 13:54
Surr: Tetrachloro-m-xylene	*80.0*			*32-104*	*%REC*	10	9/21/2016 13:54
MERCURY BY CVAA			Method: **SW7470A**		Prep: SW7470 / 9/20/16		Analyst: **LR**
Mercury	**0.00069**		**0.000019**	**0.00020**	**mg/L**	1	9/20/2016 17:49
METALS BY ICP-MS			Method: **SW6020A**		Prep: SW3005A / 9/20/16		Analyst: **RH**
Aluminum	**2.3**		**0.0042**	**0.010**	**mg/L**	1	9/21/2016 11:54
Antimony	**0.028**		**0.00017**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Arsenic	**0.011**		**0.00087**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Barium	**0.32**		**0.0022**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Beryllium	U		0.00012	0.0020	mg/L	1	9/21/2016 11:54
Cadmium	**0.011**		**0.000050**	**0.0020**	**mg/L**	1	9/21/2016 11:54
Calcium	**240**		**0.86**	**5.0**	**mg/L**	10	9/21/2016 11:48
Chromium	**0.016**		**0.00065**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Cobalt	**0.0054**		**0.00014**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Copper	**0.12**		**0.00028**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Iron	**11**		**0.0046**	**0.080**	**mg/L**	1	9/21/2016 11:54
Lead	**0.091**		**0.00033**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Magnesium	**22**		**0.0068**	**0.20**	**mg/L**	1	9/21/2016 11:54
Manganese	**0.52**		**0.00051**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Nickel	**0.016**		**0.00041**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Potassium	**30**		**0.017**	**0.20**	**mg/L**	1	9/21/2016 11:54
Selenium	U		0.00090	0.0050	mg/L	1	9/21/2016 11:54
Silver	**0.0041**	J	**0.000050**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Sodium	**40**		**0.034**	**0.20**	**mg/L**	1	9/21/2016 11:54
Thallium	U		0.00016	0.0050	mg/L	1	9/21/2016 11:54
Vanadium	**0.012**		**0.00098**	**0.0050**	**mg/L**	1	9/21/2016 11:54
Zinc	**1.2**		**0.0014**	**0.010**	**mg/L**	1	9/21/2016 11:54
SEMI-VOLATILE ORGANIC COMPOUNDS			Method: **SW846 8270D**		Prep: SW3510 / 9/20/16		Analyst: **JF**
1,1`-Biphenyl	U		0.45	1.1	µg/L	1	9/21/2016 14:19
2,4,5-Trichlorophenol	U		0.18	1.1	µg/L	1	9/21/2016 14:19
2,4,6-Trichlorophenol	U		0.27	1.1	µg/L	1	9/21/2016 14:19
2,4-Dichlorophenol	U		0.37	1.1	µg/L	1	9/21/2016 14:19
2,4-Dimethylphenol	U		0.38	1.1	µg/L	1	9/21/2016 14:19
2,4-Dinitrophenol	U		0.43	5.3	µg/L	1	9/21/2016 14:19
2,4-Dinitrotoluene	U		0.45	1.1	µg/L	1	9/21/2016 14:19
2,6-Dinitrotoluene	U		0.35	1.1	µg/L	1	9/21/2016 14:19
2-Chloronaphthalene	U		0.080	0.11	µg/L	1	9/21/2016 14:19
2-Chlorophenol	U		0.24	1.1	µg/L	1	9/21/2016 14:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *22-Sep-16*

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Sample ID: TPA-Pile 6 - 091916
Collection Date: 9/19/2016

Work Order: 16091057
Lab ID: 16091057-01
Matrix: SURFACE WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Methylnaphthalene	**0.48**		**0.069**	**0.11**	**µg/L**	1	9/21/2016 14:19
2-Methylphenol	**4.6**		**0.27**	**1.1**	**µg/L**	1	9/21/2016 14:19
2-Nitroaniline	U		0.22	1.1	µg/L	1	9/21/2016 14:19
2-Nitrophenol	U		0.36	1.1	µg/L	1	9/21/2016 14:19
3&4-Methylphenol	**7.2**		**0.22**	**1.1**	**µg/L**	1	9/21/2016 14:19
3,3´-Dichlorobenzidine	U		1.7	5.3	µg/L	1	9/21/2016 14:19
3-Nitroaniline	U		0.68	1.1	µg/L	1	9/21/2016 14:19
4,6-Dinitro-2-methylphenol	U		0.29	1.1	µg/L	1	9/21/2016 14:19
4-Bromophenyl phenyl ether	U		0.35	1.1	µg/L	1	9/21/2016 14:19
4-Chloro-3-methylphenol	U		0.28	1.1	µg/L	1	9/21/2016 14:19
4-Chloroaniline	U		0.36	1.1	µg/L	1	9/21/2016 14:19
4-Chlorophenyl phenyl ether	U		0.33	1.1	µg/L	1	9/21/2016 14:19
4-Nitroaniline	U		0.61	1.1	µg/L	1	9/21/2016 14:19
4-Nitrophenol	U		0.26	5.3	µg/L	1	9/21/2016 14:19
Acenaphthene	**0.88**		**0.086**	**0.11**	**µg/L**	1	9/21/2016 14:19
Acenaphthylene	U		0.080	0.11	µg/L	1	9/21/2016 14:19
Acetophenone	**4.5**		**0.39**	**1.1**	**µg/L**	1	9/21/2016 14:19
Anthracene	**1.6**		**0.030**	**0.11**	**µg/L**	1	9/21/2016 14:19
Benzaldehyde	**2.2**		**0.55**	**1.1**	**µg/L**	1	9/21/2016 14:19
Benzidine	U		2.1	5.3	µg/L	1	9/21/2016 14:19
Benzo(a)anthracene	**2.3**		**0.023**	**0.11**	**µg/L**	1	9/21/2016 14:19
Benzo(a)pyrene	**2.8**		**0.047**	**0.11**	**µg/L**	1	9/21/2016 14:19
Benzo(b)fluoranthene	**3.6**		**0.054**	**0.11**	**µg/L**	1	9/21/2016 14:19
Benzo(g,h,i)perylene	**1.7**		**0.032**	**0.11**	**µg/L**	1	9/21/2016 14:19
Benzo(k)fluoranthene	**1.6**		**0.051**	**0.11**	**µg/L**	1	9/21/2016 14:19
Bis(2-chloroethoxy)methane	U		0.31	1.1	µg/L	1	9/21/2016 14:19
Bis(2-chloroethyl)ether	U		0.39	1.1	µg/L	1	9/21/2016 14:19
Bis(2-chloroisopropyl)ether	U		0.24	1.1	µg/L	1	9/21/2016 14:19
Bis(2-ethylhexyl)phthalate	**36**		**0.43**	**1.1**	**µg/L**	1	9/21/2016 14:19
Butyl benzyl phthalate	U		0.32	1.1	µg/L	1	9/21/2016 14:19
Caprolactam	U		1.0	5.3	µg/L	1	9/21/2016 14:19
Carbazole	**1.6**		**0.11**	**1.1**	**µg/L**	1	9/21/2016 14:19
Chrysene	**2.3**		**0.051**	**0.11**	**µg/L**	1	9/21/2016 14:19
Dibenzo(a,h)anthracene	**0.50**		**0.032**	**0.11**	**µg/L**	1	9/21/2016 14:19
Dibenzofuran	**0.69**	J	**0.24**	**1.1**	**µg/L**	1	9/21/2016 14:19
Diethyl phthalate	**0.22**	J	**0.18**	**1.1**	**µg/L**	1	9/21/2016 14:19
Dimethyl phthalate	U		0.19	1.1	µg/L	1	9/21/2016 14:19
Di-n-butyl phthalate	**0.70**	J	**0.22**	**1.1**	**µg/L**	1	9/21/2016 14:19
Di-n-octyl phthalate	**24**		**0.16**	**1.1**	**µg/L**	1	9/21/2016 14:19
Fluoranthene	**3.1**		**0.040**	**0.11**	**µg/L**	1	9/21/2016 14:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *22-Sep-16*

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Sample ID: TPA-Pile 6 - 091916
Collection Date: 9/19/2016

Work Order: 16091057
Lab ID: 16091057-01
Matrix: SURFACE WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	**1.5**		**0.054**	**0.11**	**µg/L**	1	9/21/2016 14:19
Hexachlorobenzene	U		0.47	1.1	µg/L	1	9/21/2016 14:19
Hexachlorobutadiene	U		0.30	1.1	µg/L	1	9/21/2016 14:19
Hexachlorocyclopentadiene	U		1.2	5.3	µg/L	1	9/21/2016 14:19
Hexachloroethane	U		0.22	1.1	µg/L	1	9/21/2016 14:19
Indeno(1,2,3-cd)pyrene	**2.5**		**0.071**	**0.11**	**µg/L**	1	9/21/2016 14:19
Isophorone	**180**		**1.8**	**27**	**µg/L**	5	9/22/2016 12:02
Naphthalene	**2.4**		**0.071**	**0.11**	**µg/L**	1	9/21/2016 14:19
Nitrobenzene	U		0.28	1.1	µg/L	1	9/21/2016 14:19
N-Nitrosodi-n-propylamine	U		0.37	1.1	µg/L	1	9/21/2016 14:19
N-Nitrosodiphenylamine	U		0.24	1.1	µg/L	1	9/21/2016 14:19
Pentachlorophenol	U		1.0	5.3	µg/L	1	9/21/2016 14:19
Phenanthrene	**3.7**		**0.032**	**0.11**	**µg/L**	1	9/21/2016 14:19
Phenol	**0.84**	J	**0.22**	**1.1**	**µg/L**	1	9/21/2016 14:19
Pyrene	**5.0**		**0.038**	**0.11**	**µg/L**	1	9/21/2016 14:19
Surr: 2,4,6-Tribromophenol	*75.4*			*38-115*	*%REC*	1	9/21/2016 14:19
Surr: 2-Fluorobiphenyl	*67.5*			*32-100*	*%REC*	1	9/21/2016 14:19
Surr: 2-Fluorophenol	*33.5*			*22-59*	*%REC*	1	9/21/2016 14:19
Surr: 4-Terphenyl-d14	*81.8*			*23-112*	*%REC*	1	9/21/2016 14:19
Surr: Nitrobenzene-d5	*53.3*			*31-93*	*%REC*	1	9/21/2016 14:19
Surr: Phenol-d6	*20.6*			*13-36*	*%REC*	1	9/21/2016 14:19
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260B**					Analyst: **BG**
1,1,1-Trichloroethane	U		3.6	10	µg/L	10	9/20/2016 14:32
1,1,2,2-Tetrachloroethane	U		1.9	10	µg/L	10	9/20/2016 14:32
1,1,2-Trichloroethane	U		4.0	10	µg/L	10	9/20/2016 14:32
1,1,2-Trichlorotrifluoroethane	U		4.2	10	µg/L	10	9/20/2016 14:32
1,1-Dichloroethane	U		3.1	10	µg/L	10	9/20/2016 14:32
1,1-Dichloroethene	U		2.8	10	µg/L	10	9/20/2016 14:32
1,2,4-Trichlorobenzene	U		2.1	10	µg/L	10	9/20/2016 14:32
1,2-Dibromo-3-chloropropane	U		9.7	10	µg/L	10	9/20/2016 14:32
1,2-Dibromoethane	U		9.8	10	µg/L	10	9/20/2016 14:32
1,2-Dichlorobenzene	U		2.2	10	µg/L	10	9/20/2016 14:32
1,2-Dichloroethane	U		1.7	10	µg/L	10	9/20/2016 14:32
1,2-Dichloropropane	U		2.5	10	µg/L	10	9/20/2016 14:32
1,3-Dichlorobenzene	U		2.9	10	µg/L	10	9/20/2016 14:32
1,4-Dichlorobenzene	U		2.1	10	µg/L	10	9/20/2016 14:32
2-Butanone	**2,500**		**120**	**1,000**	**µg/L**	200	9/21/2016 15:16
2-Hexanone	U		1.3	50	µg/L	10	9/20/2016 14:32
4-Methyl-2-pentanone	**28**		**1.1**	**10**	**µg/L**	10	9/20/2016 14:32

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *22-Sep-16*

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Sample ID: TPA-Pile 6 - 091916
Collection Date: 9/19/2016

Work Order: 16091057
Lab ID: 16091057-01
Matrix: SURFACE WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	**13,000**		**180**	**2,000**	**µg/L**	200	9/21/2016 15:16
Benzene	U		3.0	10	µg/L	10	9/20/2016 14:32
Bromodichloromethane	U		2.3	10	µg/L	10	9/20/2016 14:32
Bromoform	U		7.7	10	µg/L	10	9/20/2016 14:32
Bromomethane	U		3.8	10	µg/L	10	9/20/2016 14:32
Carbon disulfide	U		2.3	10	µg/L	10	9/20/2016 14:32
Carbon tetrachloride	U		3.1	10	µg/L	10	9/20/2016 14:32
Chlorobenzene	U		2.7	10	µg/L	10	9/20/2016 14:32
Chloroethane	U		2.9	10	µg/L	10	9/20/2016 14:32
Chloroform	U		2.6	10	µg/L	10	9/20/2016 14:32
Chloromethane	U		1.7	10	µg/L	10	9/20/2016 14:32
cis-1,2-Dichloroethene	U		2.5	10	µg/L	10	9/20/2016 14:32
cis-1,3-Dichloropropene	U		3.9	10	µg/L	10	9/20/2016 14:32
Cyclohexane	U		2.2	10	µg/L	10	9/20/2016 14:32
Dibromochloromethane	U		3.8	10	µg/L	10	9/20/2016 14:32
Dichlorodifluoromethane	U		1.3	10	µg/L	10	9/20/2016 14:32
Ethylbenzene	**6.0**	J	**4.0**	**10**	**µg/L**	10	9/20/2016 14:32
Isopropylbenzene	U		3.1	10	µg/L	10	9/20/2016 14:32
Methyl acetate	U		2.3	20	µg/L	10	9/20/2016 14:32
Methyl tert-butyl ether	U		1.2	10	µg/L	10	9/20/2016 14:32
Methylcyclohexane	U		2.7	10	µg/L	10	9/20/2016 14:32
Methylene chloride	U		5.6	50	µg/L	10	9/20/2016 14:32
Styrene	U		2.4	10	µg/L	10	9/20/2016 14:32
Tetrachloroethene	U		2.7	10	µg/L	10	9/20/2016 14:32
Toluene	**620**		**3.7**	**10**	**µg/L**	10	9/20/2016 14:32
trans-1,2-Dichloroethene	U		2.8	10	µg/L	10	9/20/2016 14:32
trans-1,3-Dichloropropene	U		8.2	10	µg/L	10	9/20/2016 14:32
Trichloroethene	U		3.0	10	µg/L	10	9/20/2016 14:32
Trichlorofluoromethane	U		2.0	10	µg/L	10	9/20/2016 14:32
Vinyl chloride	U		2.0	10	µg/L	10	9/20/2016 14:32
Xylenes, Total	U		13	30	µg/L	10	9/20/2016 14:32
Surr: 1,2-Dichloroethane-d4	*100*			*75-120*	*%REC*	10	9/20/2016 14:32
Surr: 1,2-Dichloroethane-d4	*97.6*			*75-120*	*%REC*	200	9/21/2016 15:16
Surr: 4-Bromofluorobenzene	*96.8*			*80-110*	*%REC*	10	9/20/2016 14:32
Surr: 4-Bromofluorobenzene	*94.0*			*80-110*	*%REC*	200	9/21/2016 15:16
Surr: Dibromofluoromethane	*94.2*			*85-115*	*%REC*	10	9/20/2016 14:32
Surr: Dibromofluoromethane	*90.7*			*85-115*	*%REC*	200	9/21/2016 15:16
Surr: Toluene-d8	*98.7*			*85-110*	*%REC*	10	9/20/2016 14:32
Surr: Toluene-d8	*99.2*			*85-110*	*%REC*	200	9/21/2016 15:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *22-Sep-16*

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Sample ID: Trip Blank
Collection Date: 9/19/2016

Work Order: 16091057
Lab ID: 16091057-02
Matrix: SURFACE WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260B**					Analyst: **BG**
1,1,1-Trichloroethane	U		0.36	1.0	µg/L	1	9/20/2016 14:06
1,1,2,2-Tetrachloroethane	U		0.19	1.0	µg/L	1	9/20/2016 14:06
1,1,2-Trichloroethane	U		0.40	1.0	µg/L	1	9/20/2016 14:06
1,1,2-Trichlorotrifluoroethane	U		0.42	1.0	µg/L	1	9/20/2016 14:06
1,1-Dichloroethane	U		0.31	1.0	µg/L	1	9/20/2016 14:06
1,1-Dichloroethene	U		0.28	1.0	µg/L	1	9/20/2016 14:06
1,2,4-Trichlorobenzene	U		0.21	1.0	µg/L	1	9/20/2016 14:06
1,2-Dibromo-3-chloropropane	U		0.97	1.0	µg/L	1	9/20/2016 14:06
1,2-Dibromoethane	U		0.98	1.0	µg/L	1	9/20/2016 14:06
1,2-Dichlorobenzene	U		0.22	1.0	µg/L	1	9/20/2016 14:06
1,2-Dichloroethane	U		0.17	1.0	µg/L	1	9/20/2016 14:06
1,2-Dichloropropane	U		0.25	1.0	µg/L	1	9/20/2016 14:06
1,3-Dichlorobenzene	U		0.29	1.0	µg/L	1	9/20/2016 14:06
1,4-Dichlorobenzene	U		0.21	1.0	µg/L	1	9/20/2016 14:06
2-Butanone	U		0.58	5.0	µg/L	1	9/20/2016 14:06
2-Hexanone	U		0.13	5.0	µg/L	1	9/20/2016 14:06
4-Methyl-2-pentanone	U		0.11	1.0	µg/L	1	9/20/2016 14:06
Acetone	U		0.92	10	µg/L	1	9/20/2016 14:06
Benzene	U		0.30	1.0	µg/L	1	9/20/2016 14:06
Bromodichloromethane	U		0.23	1.0	µg/L	1	9/20/2016 14:06
Bromoform	U		0.77	1.0	µg/L	1	9/20/2016 14:06
Bromomethane	U		0.38	1.0	µg/L	1	9/20/2016 14:06
Carbon disulfide	U		0.23	1.0	µg/L	1	9/20/2016 14:06
Carbon tetrachloride	U		0.31	1.0	µg/L	1	9/20/2016 14:06
Chlorobenzene	U		0.27	1.0	µg/L	1	9/20/2016 14:06
Chloroethane	U		0.29	1.0	µg/L	1	9/20/2016 14:06
Chloroform	U		0.26	1.0	µg/L	1	9/20/2016 14:06
Chloromethane	U		0.17	1.0	µg/L	1	9/20/2016 14:06
cis-1,2-Dichloroethene	U		0.25	1.0	µg/L	1	9/20/2016 14:06
cis-1,3-Dichloropropene	U		0.39	1.0	µg/L	1	9/20/2016 14:06
Cyclohexane	U		0.22	1.0	µg/L	1	9/20/2016 14:06
Dibromochloromethane	U		0.38	1.0	µg/L	1	9/20/2016 14:06
Dichlorodifluoromethane	U		0.13	1.0	µg/L	1	9/20/2016 14:06
Ethylbenzene	U		0.40	1.0	µg/L	1	9/20/2016 14:06
Isopropylbenzene	U		0.31	1.0	µg/L	1	9/20/2016 14:06
Methyl acetate	U		0.23	2.0	µg/L	1	9/20/2016 14:06
Methyl tert-butyl ether	U		0.12	1.0	µg/L	1	9/20/2016 14:06
Methylcyclohexane	U		0.27	1.0	µg/L	1	9/20/2016 14:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *22-Sep-16*

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Sample ID: Trip Blank
Collection Date: 9/19/2016

Work Order: 16091057
Lab ID: 16091057-02
Matrix: SURFACE WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	U		0.56	5.0	µg/L	1	9/20/2016 14:06
Styrene	U		0.24	1.0	µg/L	1	9/20/2016 14:06
Tetrachloroethene	U		0.27	1.0	µg/L	1	9/20/2016 14:06
Toluene	U		0.37	1.0	µg/L	1	9/20/2016 14:06
trans-1,2-Dichloroethene	U		0.28	1.0	µg/L	1	9/20/2016 14:06
trans-1,3-Dichloropropene	U		0.82	1.0	µg/L	1	9/20/2016 14:06
Trichloroethene	U		0.30	1.0	µg/L	1	9/20/2016 14:06
Trichlorofluoromethane	U		0.20	1.0	µg/L	1	9/20/2016 14:06
Vinyl chloride	U		0.20	1.0	µg/L	1	9/20/2016 14:06
Xylenes, Total	U		1.3	3.0	µg/L	1	9/20/2016 14:06
Surr: 1,2-Dichloroethane-d4	*96.4*			*75-120*	*%REC*	1	9/20/2016 14:06
Surr: 4-Bromofluorobenzene	*96.8*			*80-110*	*%REC*	1	9/20/2016 14:06
Surr: Dibromofluoromethane	*92.4*			*85-115*	*%REC*	1	9/20/2016 14:06
Surr: Toluene-d8	*100*			*85-110*	*%REC*	1	9/20/2016 14:06

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 22-Sep-16

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
WorkOrder: **16091057**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: 22-Sep-16

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91633** Instrument ID **GC7** Method: **SW8151**

MBLK Sample ID: **HBLKW1-91633-91633** Units: **µg/L** Analysis Date: **9/21/2016 06:59 PM**

Client ID: Run ID: **GC7_160921A** SeqNo: **4040267** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	U	2.0								
2,4-D	U	2.0								
Surr: DCAA	*15*	0	*50*	0	*30*	*23-142*	0			

LCS Sample ID: **HLCSW1-91633-91633** Units: **µg/L** Analysis Date: **9/21/2016 07:18 PM**

Client ID: Run ID: **GC7_160921A** SeqNo: **4040268** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	9	2.0	10	0	90	28-147	0			
2,4-D	94.6	2.0	100	0	94.6	24-154	0			
Surr: DCAA	*16.2*	0	*50*	0	*32.4*	*23-142*	0			

MS Sample ID: **16091057-01B MS** Units: **µg/L** Analysis Date: **9/22/2016 04:52 AM**

Client ID: **TPA-Pile 6 - 091916** Run ID: **GC7_160921A** SeqNo: **4040269** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	9.7	2.0	10	0	97	28-147	0			
2,4-D	97	2.0	100	0	97	24-154	0			
Surr: DCAA	*17.1*	0	*50*	0	*34.2*	*23-142*	0			

MSD Sample ID: **16091057-01B MSD** Units: **µg/L** Analysis Date: **9/22/2016 05:11 AM**

Client ID: **TPA-Pile 6 - 091916** Run ID: **GC7_160921A** SeqNo: **4040270** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	9.4	2.0	10	0	94	28-147	9.7	3.14	30	
2,4-D	96.4	2.0	100	0	96.4	24-154	97	0.62	30	
Surr: DCAA	*19.7*	0	*50*	0	*39.4*	*23-142*	17.1	*14.1*	*30*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91634A** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKW1-91634-91634A** Units: **µg/L** Analysis Date: **9/21/2016 04:15 PM**

Client ID: Run ID: **GC14_160921A** SeqNo: **4039477** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20								
Aroclor 1221	U	0.20								
Aroclor 1232	U	0.20								
Aroclor 1242	U	0.20								
Aroclor 1248	U	0.20								
Aroclor 1254	U	0.20								
Aroclor 1260	U	0.20								
PCBs, Total	U	0.20								
Surr: Decachlorobiphenyl	*0.073*	0	*0.1*	0	*73*	*40-110*	0			
Surr: Tetrachloro-m-xylene	*0.07*	0	*0.1*	0	*70*	*40-110*	0			

LCS Sample ID: **PLCSW1-91634-91634A** Units: **µg/L** Analysis Date: **9/21/2016 04:33 PM**

Client ID: Run ID: **GC14_160921A** SeqNo: **4039478** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.861	0.20	2.5	0	74.4	50-130	0			
Aroclor 1260	1.973	0.20	2.5	0	78.9	50-130	0			
Surr: Decachlorobiphenyl	*0.073*	0	*0.1*	0	*73*	*40-110*	0			
Surr: Tetrachloro-m-xylene	*0.067*	0	*0.1*	0	*67*	*40-110*	0			

MS Sample ID: **1609826-01A MS** Units: **µg/L** Analysis Date: **9/21/2016 05:44 PM**

Client ID: Run ID: **GC14_160921A** SeqNo: **4040589** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.845	0.20	2.5	0	73.8	40-140	0			
Aroclor 1260	2.245	0.20	2.5	0	89.8	40-140	0			
Surr: Decachlorobiphenyl	*0.075*	0	*0.1*	0	*75*	*40-110*	0			
Surr: Tetrachloro-m-xylene	*0.062*	0	*0.1*	0	*62*	*40-110*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91634A** Instrument ID **GC14** Method: **SW8082**

DUP Sample ID: **1609826-02A DUP** Units: **µg/L** Analysis Date: **9/21/2016 06:20 PM**

Client ID: Run ID: **GC14_160921A** SeqNo: **4040591** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1221	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1232	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1242	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1248	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1254	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1260	0.783	0.20	0	0	0	0-0	0.772	1.41	50	
PCBs, Total	0.783	0.20	0	0	0		0.772	1.41	50	
Surr: Decachlorobiphenyl	*0.058*	0	*0.1*	0	*58*	*40-110*	0.07	*18.8*	*50*	
Surr: Tetrachloro-m-xylene	*0.043*	0	*0.1*	0	*43*	*40-110*	0.051	*17*	*50*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91636** Instrument ID **GC12** Method: **SW8081**

MBLK Sample ID: **PBLKW1-91636-91636** Units: **µg/L** Analysis Date: **9/21/2016 01:19 PM**

Client ID: Run ID: **GC12_160921A** SeqNo: **4039274** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	U	0.020								
4,4´-DDE	U	0.020								
4,4´-DDT	U	0.020								
Aldrin	U	0.010								
alpha-BHC	U	0.010								
alpha-Chlordane	U	0.020								
beta-BHC	U	0.010								
Chlordane, Technical	U	0.50								
delta-BHC	U	0.010								
Dieldrin	U	0.020								
Endosulfan I	U	0.020								
Endosulfan II	U	0.020								
Endosulfan sulfate	U	0.020								
Endrin	U	0.020								
Endrin aldehyde	U	0.020								
Endrin ketone	U	0.020								
gamma-BHC (Lindane)	U	0.010								
gamma-Chlordane	U	0.020								
Heptachlor	U	0.010								
Heptachlor epoxide	U	0.010								
Methoxychlor	U	0.040								
Toxaphene	U	2.0								
Surr: Decachlorobiphenyl	*0.076*	0	*0.1*	0	*76*	*42-119*	0			
Surr: Tetrachloro-m-xylene	*0.059*	0	*0.1*	0	*59*	*32-104*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91636** Instrument ID **GC12** Method: **SW8081**

LCS Sample ID: **PLCSW1-91636-91636** Units: **µg/L** Analysis Date: **9/21/2016 01:37 PM**

Client ID: Run ID: **GC12_160921A** SeqNo: **4039275** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	0.075	0.020	0.1	0	75	33-126	0			
4,4´-DDE	0.063	0.020	0.1	0	63	34-112	0			
4,4´-DDT	0.068	0.020	0.1	0	68	41-122	0			
Aldrin	0.053	0.010	0.1	0	53	18-110	0			
alpha-BHC	0.063	0.010	0.1	0	63	31-109	0			
alpha-Chlordane	0.064	0.020	0.1	0	64	34-108	0			
beta-BHC	0.07	0.010	0.1	0	70	38-108	0			
delta-BHC	0.07	0.010	0.1	0	70	36-114	0			
Dieldrin	0.069	0.020	0.1	0	69	35-114	0			
Endosulfan I	0.068	0.020	0.1	0	68	32-114	0			
Endosulfan II	0.075	0.020	0.1	0	75	40-119	0			
Endosulfan sulfate	0.08	0.020	0.1	0	80	42-120	0			
Endrin	0.074	0.020	0.1	0	74	39-123	0			
Endrin aldehyde	0.079	0.020	0.1	0	79	29-116	0			
Endrin ketone	0.079	0.020	0.1	0	79	36-117	0			
gamma-BHC (Lindane)	0.064	0.010	0.1	0	64	32-114	0			
gamma-Chlordane	0.07	0.020	0.1	0	70	32-109	0			
Heptachlor	0.062	0.010	0.1	0	62	34-112	0			
Heptachlor epoxide	0.067	0.010	0.1	0	67	36-109	0			
Methoxychlor	0.078	0.040	0.1	0	78	44-133	0			
Surr: Decachlorobiphenyl	*0.063*	0	*0.1*	0	*63*	*42-119*	0			
Surr: Tetrachloro-m-xylene	*0.068*	0	*0.1*	0	*68*	*32-104*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91636** Instrument ID **GC12** Method: **SW8081**

MS Sample ID: **1609913-01A MS** Units: **µg/L** Analysis Date: **9/21/2016 03:04 PM**

Client ID: Run ID: **GC12_160921A** SeqNo: **4039278** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	0.35	0.10	0.5	0	70	33-126	0			H
4,4´-DDE	0.315	0.10	0.5	0	63	34-112	0			H
4,4´-DDT	0.345	0.10	0.5	0	69	41-122	0			H
Aldrin	0.26	0.050	0.5	0	52	18-110	0			H
alpha-BHC	0.295	0.050	0.5	0	59	31-109	0			H
alpha-Chlordane	0.305	0.10	0.5	0	61	34-108	0			H
beta-BHC	0.335	0.050	0.5	0	67	38-108	0			H
delta-BHC	0.33	0.050	0.5	0	66	36-114	0			H
Dieldrin	0.325	0.10	0.5	0	65	35-114	0			H
Endosulfan I	0.31	0.10	0.5	0	62	32-114	0			H
Endosulfan II	0.345	0.10	0.5	0	69	40-119	0			H
Endosulfan sulfate	0.37	0.10	0.5	0	74	42-120	0			H
Endrin	0.34	0.10	0.5	0	68	39-123	0			H
Endrin aldehyde	0.355	0.10	0.5	0	71	29-116	0			H
Endrin ketone	0.36	0.10	0.5	0	72	36-117	0			H
gamma-BHC (Lindane)	0.305	0.050	0.5	0	61	32-114	0			H
gamma-Chlordane	0.34	0.10	0.5	0	68	32-109	0			H
Heptachlor	0.3	0.050	0.5	0	60	34-112	0			H
Heptachlor epoxide	0.3	0.050	0.5	0	60	36-109	0			H
Methoxychlor	0.365	0.20	0.5	0	73	44-133	0			H
Surr: Decachlorobiphenyl	*0.41*	0	*0.5*	0	*82*	*42-119*	0			
Surr: Tetrachloro-m-xylene	*0.305*	0	*0.5*	0	*61*	*32-104*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91636** Instrument ID **GC12** Method: **SW8081**

MSD Sample ID: **1609913-01A MSD** Units: **µg/L** Analysis Date: **9/21/2016 04:14 PM**

Client ID: Run ID: **GC12_160921A** SeqNo: **4039300** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4´-DDD	0.29	0.10	0.5	0	58	33-126	0.35	18.8	50	H
4,4´-DDE	0.25	0.10	0.5	0	50	34-112	0.315	23	50	H
4,4´-DDT	0.285	0.10	0.5	0	57	41-122	0.345	19	50	H
Aldrin	0.2	0.050	0.5	0	40	18-110	0.26	26.1	50	H
alpha-BHC	0.23	0.050	0.5	0	46	31-109	0.295	24.8	50	H
alpha-Chlordane	0.25	0.10	0.5	0	50	34-108	0.305	19.8	50	H
beta-BHC	0.27	0.050	0.5	0	54	38-108	0.335	21.5	50	H
delta-BHC	0.265	0.050	0.5	0	53	36-114	0.33	21.8	50	H
Dieldrin	0.265	0.10	0.5	0	53	35-114	0.325	20.3	50	H
Endosulfan I	0.255	0.10	0.5	0	51	32-114	0.31	19.5	50	H
Endosulfan II	0.29	0.10	0.5	0	58	40-119	0.345	17.3	50	H
Endosulfan sulfate	0.305	0.10	0.5	0	61	42-120	0.37	19.3	50	H
Endrin	0.275	0.10	0.5	0	55	39-123	0.34	21.1	50	H
Endrin aldehyde	0.295	0.10	0.5	0	59	29-116	0.355	18.5	50	H
Endrin ketone	0.3	0.10	0.5	0	60	36-117	0.36	18.2	50	H
gamma-BHC (Lindane)	0.235	0.050	0.5	0	47	32-114	0.305	25.9	50	H
gamma-Chlordane	0.285	0.10	0.5	0	57	32-109	0.34	17.6	50	H
Heptachlor	0.235	0.050	0.5	0	47	34-112	0.3	24.3	50	H
Heptachlor epoxide	0.24	0.050	0.5	0	48	36-109	0.3	22.2	50	H
Methoxychlor	0.305	0.20	0.5	0	61	44-133	0.365	17.9	50	H
Surr: Decachlorobiphenyl	*0.35*	0	*0.5*	0	*70*	*42-119*	0.41	*15.8*	*50*	
Surr: Tetrachloro-m-xylene	*0.24*	0	*0.5*	0	*48*	*32-104*	0.305	*23.9*	*50*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91678** Instrument ID **HG1** Method: **SW7470A**

MBLK Sample ID: **MBLK-91678-91678** Units: **mg/L** Analysis Date: **9/20/2016 05:22 PM**
Client ID: Run ID: **HG1_160920A** SeqNo: **4036863** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.00020								

LCS Sample ID: **LCS-91678-91678** Units: **mg/L** Analysis Date: **9/20/2016 05:26 PM**
Client ID: Run ID: **HG1_160920A** SeqNo: **4036864** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.002	0.00020	0.002	0	100	80-120		0		

MS Sample ID: **16091037-02AMS** Units: **mg/L** Analysis Date: **9/20/2016 05:31 PM**
Client ID: Run ID: **HG1_160920A** SeqNo: **4036866** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0211	0.0020	0.02	-0.00028	107	75-125		0		

MSD Sample ID: **16091037-02AMSD** Units: **mg/L** Analysis Date: **9/20/2016 05:33 PM**
Client ID: Run ID: **HG1_160920A** SeqNo: **4036867** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0211	0.0020	0.02	-0.00028	107	75-125	0.0211	0	20	

The following samples were analyzed in this batch: 16091057-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91654** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK Sample ID: **MBLK-91654-91654** Units: **mg/L** Analysis Date: **9/21/2016 12:18 AM**

Client ID: Run ID: **ICPMS2_160920A** SeqNo: **4037169** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	U	0.010								
Antimony	U	0.0050								
Arsenic	U	0.0050								
Barium	U	0.0050								
Beryllium	U	0.0020								
Cadmium	U	0.0020								
Calcium	U	0.50								
Chromium	U	0.0050								
Cobalt	U	0.0050								
Copper	U	0.0050								
Iron	U	0.080								
Lead	U	0.0050								
Magnesium	U	0.20								
Manganese	U	0.0050								
Nickel	U	0.0050								
Potassium	U	0.20								
Selenium	U	0.0050								
Silver	U	0.0050								
Sodium	U	0.20								
Thallium	U	0.0050								
Vanadium	U	0.0050								
Zinc	U	0.010								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91654** Instrument ID **ICPMS2** Method: **SW6020A**

LCS Sample ID: **LCS-91654-91654** Units: **mg/L** Analysis Date: **9/21/2016 12:24 AM**

Client ID: Run ID: **ICPMS2_160920A** SeqNo: **4037170** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09035	0.010	0.1	0	90.4	80-120	0			
Antimony	0.09115	0.0050	0.1	0	91.2	80-120	0			
Arsenic	0.09447	0.0050	0.1	0	94.5	80-120	0			
Barium	0.08944	0.0050	0.1	0	89.4	80-120	0			
Beryllium	0.0888	0.0020	0.1	0	88.8	80-120	0			
Cadmium	0.0888	0.0020	0.1	0	88.8	80-120	0			
Calcium	9.136	0.50	10	0	91.4	80-120	0			
Chromium	0.08927	0.0050	0.1	0	89.3	80-120	0			
Cobalt	0.0883	0.0050	0.1	0	88.3	80-120	0			
Copper	0.09104	0.0050	0.1	0	91	80-120	0			
Iron	9.131	0.080	10	0	91.3	80-120	0			
Lead	0.08896	0.0050	0.1	0	89	80-120	0			
Magnesium	8.988	0.20	10	0	89.9	80-120	0			
Manganese	0.08635	0.0050	0.1	0	86.4	80-120	0			
Nickel	0.0889	0.0050	0.1	0	88.9	80-120	0			
Potassium	8.85	0.20	10	0	88.5	80-120	0			
Selenium	0.08611	0.0050	0.1	0	86.1	80-120	0			
Silver	0.08722	0.0050	0.1	0	87.2	80-120	0			
Sodium	8.982	0.20	10	0	89.8	80-120	0			
Thallium	0.08683	0.0050	0.1	0	86.8	80-120	0			
Vanadium	0.08898	0.0050	0.1	0	89	80-120	0			
Zinc	0.093	0.010	0.1	0	93	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91654** Instrument ID **ICPMS2** Method: **SW6020A**

MS Sample ID: **1609970-02AMS** Units: **mg/L** Analysis Date: **9/21/2016 04:08 AM**

Client ID: Run ID: **ICPMS2_160920A** SeqNo: **4037209** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09349	0.010	0.1	0.001396	92.1	75-125	0			
Antimony	0.09316	0.0050	0.1	0.001006	92.2	75-125	0			
Arsenic	0.09862	0.0050	0.1	0.0009894	97.6	75-125	0			
Barium	0.1145	0.0050	0.1	0.02269	91.8	75-125	0			
Beryllium	0.08651	0.0020	0.1	6.265E-06	86.5	75-125	0			
Cadmium	0.09087	0.0020	0.1	0.00003261	90.8	75-125	0			
Calcium	89.11	0.50	10	85.11	40	75-125	0			SO
Chromium	0.09231	0.0050	0.1	0.00006639	92.2	75-125	0			
Cobalt	0.09084	0.0050	0.1	0.001256	89.6	75-125	0			
Copper	0.0927	0.0050	0.1	0.003907	88.8	75-125	0			
Iron	9.325	0.080	10	0.004176	93.2	75-125	0			
Lead	0.09416	0.0050	0.1	0.00002821	94.1	75-125	0			
Magnesium	29.58	0.20	10	21.81	77.7	75-125	0			
Manganese	0.2076	0.0050	0.1	0.1246	83	75-125	0			
Nickel	0.09267	0.0050	0.1	0.004077	88.6	75-125	0			
Potassium	18.24	0.20	10	9.684	85.6	75-125	0			
Selenium	0.09939	0.0050	0.1	0.00358	95.8	75-125	0			
Silver	0.08547	0.0050	0.1	-1.554E-05	85.5	75-125	0			
Sodium	38.63	0.20	10	31.36	72.7	75-125	0			S
Thallium	0.09337	0.0050	0.1	0.00005306	93.3	75-125	0			
Vanadium	0.09507	0.0050	0.1	0.0002926	94.8	75-125	0			
Zinc	0.09197	0.010	0.1	0.002144	89.8	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91654** Instrument ID **ICPMS2** Method: **SW6020A**

MSD Sample ID: **1609970-02AMSD** Units: **mg/L** Analysis Date: **9/21/2016 04:13 AM**

Client ID: Run ID: **ICPMS2_160920A** SeqNo: **4037210** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09312	0.010	0.1	0.001396	91.7	75-125	0.09349	0.397	20	
Antimony	0.0938	0.0050	0.1	0.001006	92.8	75-125	0.09316	0.685	20	
Arsenic	0.09789	0.0050	0.1	0.0009894	96.9	75-125	0.09862	0.743	20	
Barium	0.1145	0.0050	0.1	0.02269	91.8	75-125	0.1145	0	20	
Beryllium	0.08808	0.0020	0.1	6.265E-06	88.1	75-125	0.08651	1.8	20	
Cadmium	0.09208	0.0020	0.1	0.00003261	92	75-125	0.09087	1.32	20	
Calcium	86.44	0.50	10	85.11	13.3	75-125	89.11	3.04	20	SO
Chromium	0.0919	0.0050	0.1	0.00006639	91.8	75-125	0.09231	0.445	20	
Cobalt	0.09168	0.0050	0.1	0.001256	90.4	75-125	0.09084	0.92	20	
Copper	0.09389	0.0050	0.1	0.003907	90	75-125	0.0927	1.28	20	
Iron	9.357	0.080	10	0.004176	93.5	75-125	9.325	0.343	20	
Lead	0.09504	0.0050	0.1	0.00002821	95	75-125	0.09416	0.93	20	
Magnesium	28.85	0.20	10	21.81	70.4	75-125	29.58	2.5	20	S
Manganese	0.2036	0.0050	0.1	0.1246	79	75-125	0.2076	1.95	20	
Nickel	0.09359	0.0050	0.1	0.004077	89.5	75-125	0.09267	0.988	20	
Potassium	17.92	0.20	10	9.684	82.4	75-125	18.24	1.77	20	
Selenium	0.09709	0.0050	0.1	0.00358	93.5	75-125	0.09939	2.34	20	
Silver	0.08612	0.0050	0.1	-1.554E-05	86.1	75-125	0.08547	0.758	20	
Sodium	37.58	0.20	10	31.36	62.2	75-125	38.63	2.76	20	S
Thallium	0.09483	0.0050	0.1	0.00005306	94.8	75-125	0.09337	1.55	20	
Vanadium	0.09591	0.0050	0.1	0.0002926	95.6	75-125	0.09507	0.88	20	
Zinc	0.09284	0.010	0.1	0.002144	90.7	75-125	0.09197	0.942	20	

The following samples were analyzed in this batch: 16091057-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK Sample ID: **SBLKW1-91630-91630** Units: **µg/L** Analysis Date: **9/21/2016 10:15 AM**

Client ID: Run ID: **SVMS5_160921A** SeqNo: **4038570** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dichlorophenol	U	5.0								
2,4-Dimethylphenol	U	5.0								
2,4-Dinitrophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
2,6-Dinitrotoluene	U	5.0								
2-Chloronaphthalene	U	5.0								
2-Chlorophenol	U	5.0								
2-Methylnaphthalene	U	5.0								
2-Methylphenol	U	5.0								
2-Nitroaniline	U	5.0								
2-Nitrophenol	U	5.0								
3&4-Methylphenol	U	5.0								
3,3´-Dichlorobenzidine	U	5.0								
3-Nitroaniline	U	5.0								
4,6-Dinitro-2-methylphenol	U	5.0								
4-Bromophenyl phenyl ether	U	5.0								
4-Chloro-3-methylphenol	U	5.0								
4-Chloroaniline	U	5.0								
4-Chlorophenyl phenyl ether	U	5.0								
4-Nitroaniline	U	5.0								
4-Nitrophenol	U	5.0								
Acenaphthene	U	5.0								
Acenaphthylene	U	5.0								
Acetophenone	U	1.0								
Anthracene	U	5.0								
Benzaldehyde	U	1.0								
Benzidine	U	10								
Benzo(a)anthracene	U	5.0								
Benzo(a)pyrene	U	5.0								
Benzo(b)fluoranthene	U	5.0								
Benzo(g,h,i)perylene	U	5.0								
Benzo(k)fluoranthene	U	5.0								
Bis(2-chloroethoxy)methane	U	5.0								
Bis(2-chloroethyl)ether	U	5.0								
Bis(2-chloroisopropyl)ether	U	5.0								
Bis(2-ethylhexyl)phthalate	U	5.0								
Butyl benzyl phthalate	U	5.0								
Caprolactam	U	10								
Carbazole	U	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Chrysene	U	5.0					
Dibenzo(a,h)anthracene	U	5.0					
Dibenzofuran	U	5.0					
Diethyl phthalate	U	5.0					
Dimethyl phthalate	U	5.0					
Di-n-butyl phthalate	U	5.0					
Di-n-octyl phthalate	U	5.0					
Fluoranthene	U	5.0					
Fluorene	U	5.0					
Hexachlorobenzene	U	5.0					
Hexachlorobutadiene	U	5.0					
Hexachlorocyclopentadiene	U	5.0					
Hexachloroethane	U	5.0					
Indeno(1,2,3-cd)pyrene	U	5.0					
Isophorone	U	5.0					
Naphthalene	U	5.0					
Nitrobenzene	U	5.0					
N-Nitrosodi-n-propylamine	U	5.0					
N-Nitrosodiphenylamine	U	5.0					
Pentachlorophenol	U	5.0					
Phenanthrene	U	5.0					
Phenol	U	5.0					
Pyrene	U	5.0					
Surr: 2,4,6-Tribromophenol	*32.61*	0	*50*	0	*65.2*	*38-115*	0
Surr: 2-Fluorobiphenyl	*37*	0	*50*	0	*74*	*32-100*	0
Surr: 2-Fluorophenol	*22.23*	0	*50*	0	*44.5*	*22-59*	0
Surr: 4-Terphenyl-d14	*39.52*	0	*50*	0	*79*	*23-112*	0
Surr: Nitrobenzene-d5	*31.88*	0	*50*	0	*63.8*	*31-93*	0
Surr: Phenol-d6	*11.37*	0	*50*	0	*22.7*	*13-36*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

LCS Sample ID: **SLCSW1-91630-91630** Units: **µg/L** Analysis Date: **9/21/2016 10:38 AM**

Client ID: Run ID: **SVMS5_160921A** SeqNo: **4038571** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	14.68	5.0	20	0	73.4	30-120	0			
2,4,5-Trichlorophenol	14.99	5.0	20	0	75	50-110	0			
2,4,6-Trichlorophenol	13.35	5.0	20	0	66.8	50-115	0			
2,4-Dichlorophenol	13.23	5.0	20	0	66.2	50-105	0			
2,4-Dimethylphenol	11.62	5.0	20	0	58.1	30-110	0			
2,4-Dinitrophenol	14.04	5.0	20	0	70.2	15-140	0			
2,4-Dinitrotoluene	15.92	5.0	20	0	79.6	50-120	0			
2,6-Dinitrotoluene	15.92	5.0	20	0	79.6	50-115	0			
2-Chloronaphthalene	15.33	5.0	20	0	76.6	50-105	0			
2-Chlorophenol	14.18	5.0	20	0	70.9	35-105	0			
2-Methylnaphthalene	14.75	5.0	20	0	73.8	45-105	0			
2-Methylphenol	11.93	5.0	20	0	59.6	40-110	0			
2-Nitroaniline	14.48	5.0	20	0	72.4	50-115	0			
2-Nitrophenol	13.64	5.0	20	0	68.2	40-115	0			
3&4-Methylphenol	11.56	5.0	20	0	57.8	30-110	0			
3,3´-Dichlorobenzidine	15	5.0	20	0	75	30-120	0			
3-Nitroaniline	15.35	5.0	20	0	76.8	20-125	0			
4,6-Dinitro-2-methylphenol	15.35	5.0	20	0	76.8	40-130	0			
4-Bromophenyl phenyl ether	14.37	5.0	20	0	71.8	50-115	0			
4-Chloro-3-methylphenol	13.17	5.0	20	0	65.8	45-110	0			
4-Chloroaniline	14.63	5.0	20	0	73.2	15-110	0			
4-Chlorophenyl phenyl ether	15.61	5.0	20	0	78	50-110	0			
4-Nitroaniline	16.88	5.0	20	0	84.4	35-150	0			
4-Nitrophenol	5.82	5.0	20	0	29.1	10-58	0			
Acenaphthene	15.66	5.0	20	0	78.3	45-110	0			
Acenaphthylene	17.3	5.0	20	0	86.5	50-105	0			
Acetophenone	15.85	1.0	20	0	79.2	30-120	0			
Anthracene	16.93	5.0	20	0	84.6	55-110	0			
Benzaldehyde	17.45	1.0	20	0	87.2	30-120	0			
Benzo(a)anthracene	16.18	5.0	20	0	80.9	55-110	0			
Benzo(a)pyrene	16.19	5.0	20	0	81	55-110	0			
Benzo(b)fluoranthene	14.28	5.0	20	0	71.4	45-120	0			
Benzo(g,h,i)perylene	16.61	5.0	20	0	83	40-125	0			
Benzo(k)fluoranthene	18.36	5.0	20	0	91.8	45-125	0			
Bis(2-chloroethoxy)methane	15.5	5.0	20	0	77.5	45-105	0			
Bis(2-chloroethyl)ether	14.77	5.0	20	0	73.8	35-110	0			
Bis(2-ethylhexyl)phthalate	16.93	5.0	20	0	84.6	40-125	0			
Butyl benzyl phthalate	15.45	5.0	20	0	77.2	45-115	0			
Carbazole	16.44	5.0	20	0	82.2	50-150	0			
Chrysene	17.67	5.0	20	0	88.4	55-110	0			
Dibenzo(a,h)anthracene	17.01	5.0	20	0	85	40-125	0			
Dibenzofuran	15.3	5.0	20	0	76.5	55-105	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Diethyl phthalate	17.55	5.0	20	0	87.8	40-120	0
Dimethyl phthalate	16.7	5.0	20	0	83.5	25-125	0
Di-n-butyl phthalate	17.56	5.0	20	0	87.8	55-115	0
Di-n-octyl phthalate	14.93	5.0	20	0	74.6	35-135	0
Fluoranthene	16.5	5.0	20	0	82.5	55-115	0
Fluorene	15.91	5.0	20	0	79.6	50-110	0
Hexachlorobenzene	15.08	5.0	20	0	75.4	50-110	0
Hexachlorobutadiene	13.31	5.0	20	0	66.6	25-105	0
Hexachlorocyclopentadiene	14.53	5.0	20	0	72.6	25-105	0
Hexachloroethane	14.1	5.0	20	0	70.5	30-95	0
Indeno(1,2,3-cd)pyrene	19.08	5.0	20	0	95.4	45-125	0
Isophorone	15.53	5.0	20	0	77.6	50-110	0
Naphthalene	14.4	5.0	20	0	72	40-100	0
Nitrobenzene	14.48	5.0	20	0	72.4	45-110	0
N-Nitrosodi-n-propylamine	15.8	5.0	20	0	79	35-130	0
N-Nitrosodiphenylamine	14.98	5.0	20	0	74.9	50-110	0
Pentachlorophenol	13.73	5.0	20	0	68.6	40-115	0
Phenanthrene	15.84	5.0	20	0	79.2	50-115	0
Phenol	6.55	5.0	20	0	32.8	12-43	0
Pyrene	16.73	5.0	20	0	83.6	50-130	0
Surr: 2,4,6-Tribromophenol	*36.61*	0	*50*	0	*73.2*	*38-115*	0
Surr: 2-Fluorobiphenyl	*36.14*	0	*50*	0	*72.3*	*32-100*	0
Surr: 2-Fluorophenol	*21.09*	0	*50*	0	*42.2*	*22-59*	0
Surr: 4-Terphenyl-d14	*38.49*	0	*50*	0	*77*	*23-112*	0
Surr: Nitrobenzene-d5	*32.52*	0	*50*	0	*65*	*31-93*	0
Surr: Phenol-d6	*12.81*	0	*50*	0	*25.6*	*13-36*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

MS Sample ID: **1609912-01B MS** Units: **µg/L** Analysis Date: **9/21/2016 01:33 PM**

Client ID: Run ID: **SVMS5_160921A** SeqNo: **4039218** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	15.58	5.0	20	0	77.9	30-120	0			
2,4,5-Trichlorophenol	21.03	5.0	20	0	105	50-110	0			
2,4,6-Trichlorophenol	17.76	5.0	20	0	88.8	50-115	0			
2,4-Dichlorophenol	16.29	5.0	20	0	81.4	50-105	0			
2,4-Dimethylphenol	13.05	5.0	20	0	65.2	30-110	0			
2,4-Dinitrophenol	25.66	5.0	20	0	128	15-140	0			
2,4-Dinitrotoluene	19.24	5.0	20	0	96.2	50-120	0			
2,6-Dinitrotoluene	19.24	5.0	20	0	96.2	50-115	0			
2-Chloronaphthalene	16.43	5.0	20	0	82.2	50-105	0			
2-Chlorophenol	14.64	5.0	20	0	73.2	35-105	0			
2-Methylnaphthalene	15.3	5.0	20	0	76.5	45-105	0			
2-Methylphenol	12.86	5.0	20	0	64.3	40-110	0			
2-Nitroaniline	13.61	5.0	20	0	68	50-115	0			
2-Nitrophenol	15.19	5.0	20	0	76	40-115	0			
3&4-Methylphenol	13.29	5.0	20	0	66.4	30-110	0			
3,3´-Dichlorobenzidine	1.98	5.0	20	0	9.9	30-120	0			JS
3-Nitroaniline	4.64	5.0	20	0	23.2	20-125	0			J
4,6-Dinitro-2-methylphenol	18.72	5.0	20	0	93.6	40-130	0			
4-Bromophenyl phenyl ether	16.28	5.0	20	0	81.4	50-115	0			
4-Chloro-3-methylphenol	18.19	5.0	20	0	91	45-110	0			
4-Chloroaniline	8.85	5.0	20	0	44.2	15-110	0			
4-Chlorophenyl phenyl ether	17.53	5.0	20	0	87.6	50-110	0			
4-Nitroaniline	3.57	5.0	20	0	17.8	35-150	0			JS
4-Nitrophenol	9.09	5.0	20	0	45.4	1-58	0			
Acenaphthene	17.31	5.0	20	0	86.6	45-110	0			
Acenaphthylene	24.16	5.0	20	3.85	102	50-105	0			
Acetophenone	16.2	1.0	20	0	81	30-120	0			
Anthracene	21.64	5.0	20	0	108	55-110	0			
Benzaldehyde	18.49	1.0	20	0	92.4	30-120	0			
Benzo(a)anthracene	22.37	5.0	20	2.84	97.6	55-110	0			
Benzo(a)pyrene	23.77	5.0	20	4.61	95.8	55-110	0			
Benzo(b)fluoranthene	25.37	5.0	20	5.47	99.5	45-120	0			
Benzo(g,h,i)perylene	20.43	5.0	20	2.94	87.4	40-125	0			
Benzo(k)fluoranthene	23.28	5.0	20	2.73	103	45-125	0			
Bis(2-chloroethoxy)methane	15.9	5.0	20	0	79.5	45-105	0			
Bis(2-chloroethyl)ether	14.58	5.0	20	0	72.9	35-110	0			
Bis(2-ethylhexyl)phthalate	20.82	5.0	20	1.39	97.2	40-125	0			
Butyl benzyl phthalate	19.27	5.0	20	0	96.4	45-115	0			
Carbazole	20.56	5.0	20	0	103	50-150	0			
Chrysene	22.24	5.0	20	2.37	99.4	55-110	0			
Dibenzo(a,h)anthracene	19.07	5.0	20	0.85	91.1	40-125	0			
Dibenzofuran	17.2	5.0	20	0	86	55-105	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Diethyl phthalate	20.09	5.0	20	0	100	40-120	0
Dimethyl phthalate	18.79	5.0	20	0	94	25-125	0
Di-n-butyl phthalate	20.42	5.0	20	0	102	55-115	0
Di-n-octyl phthalate	22.88	5.0	20	0	114	35-135	0
Fluoranthene	21.8	5.0	20	2.17	98.2	55-115	0
Fluorene	18.36	5.0	20	0	91.8	50-110	0
Hexachlorobenzene	16.41	5.0	20	0	82	50-110	0
Hexachlorobutadiene	14.04	5.0	20	0	70.2	25-105	0
Hexachlorocyclopentadiene	11.35	5.0	20	0	56.8	25-105	0
Hexachloroethane	14.78	5.0	20	0	73.9	30-95	0
Indeno(1,2,3-cd)pyrene	18.13	5.0	20	3.76	71.8	45-125	0
Isophorone	15.76	5.0	20	0	78.8	50-110	0
Naphthalene	15.18	5.0	20	0	75.9	40-100	0
Nitrobenzene	17.2	5.0	20	0	86	45-110	0
N-Nitrosodi-n-propylamine	15.87	5.0	20	0	79.4	35-130	0
N-Nitrosodiphenylamine	18.52	5.0	20	0	92.6	50-110	0
Pentachlorophenol	20.68	5.0	20	0	103	40-115	0
Phenanthrene	18.15	5.0	20	0	90.8	50-115	0
Phenol	5.76	5.0	20	0	28.8	12-43	0
Pyrene	20.85	5.0	20	2.1	93.8	50-130	0
Surr: 2,4,6-Tribromophenol	*44.24*	0	*50*	0	*88.5*	*38-115*	0
Surr: 2-Fluorobiphenyl	*36.63*	0	*50*	0	*73.3*	*32-100*	0
Surr: 2-Fluorophenol	*21.29*	0	*50*	0	*42.6*	*22-59*	0
Surr: 4-Terphenyl-d14	*36.05*	0	*50*	0	*72.1*	*23-112*	0
Surr: Nitrobenzene-d5	*33.59*	0	*50*	0	*67.2*	*31-93*	0
Surr: Phenol-d6	*13.21*	0	*50*	0	*26.4*	*13-36*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

DUP Sample ID: **16091057-01B DUP** Units: **µg/L** Analysis Date: **9/21/2016 02:43 PM**

Client ID: **TPA-Pile 6 - 091916** Run ID: **SVMS5_160921A** SeqNo: **4039259** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	1.1	0	0	0		0	0	30	
2,4,5-Trichlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2,4,6-Trichlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2,4-Dichlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2,4-Dimethylphenol	U	1.1	0	0	0	0-0	0	0	30	
2,4-Dinitrophenol	U	5.6	0	0	0	0-0	0	0	30	
2,4-Dinitrotoluene	U	1.1	0	0	0	0-0	0	0	30	
2,6-Dinitrotoluene	U	1.1	0	0	0	0-0	0	0	30	
2-Chloronaphthalene	U	0.11	0	0	0	0-0	0	0	30	
2-Chlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2-Methylnaphthalene	0.6034	0.11	0	0	0	0-0	0.4787	23	30	
2-Methylphenol	4.559	1.1	0	0	0	0-0	4.617	1.27	30	
2-Nitroaniline	U	1.1	0	0	0	0-0	0	0	30	
2-Nitrophenol	U	1.1	0	0	0	0-0	0	0	30	
3&4-Methylphenol	6.168	1.1	0	0	0		7.191	15.3	30	
3,3´-Dichlorobenzidine	U	5.6	0	0	0	0-0	0	0	30	
3-Nitroaniline	U	1.1	0	0	0	0-0	0	0	30	
4,6-Dinitro-2-methylphenol	U	1.1	0	0	0	0-0	0	0	30	
4-Bromophenyl phenyl ether	U	1.1	0	0	0	0-0	0	0	30	
4-Chloro-3-methylphenol	U	1.1	0	0	0	0-0	0	0	30	
4-Chloroaniline	U	1.1	0	0	0	0-0	0	0	30	
4-Chlorophenyl phenyl ether	U	1.1	0	0	0	0-0	0	0	30	
4-Nitroaniline	U	1.1	0	0	0	0-0	0	0	30	
4-Nitrophenol	U	5.6	0	0	0	0-0	0	0	30	
Acenaphthene	0.9609	0.11	0	0	0	0-0	0.883	8.45	30	
Acenaphthylene	U	0.11	0	0	0	0-0	0	0	30	
Acetophenone	11.11	1.1	0	0	0	0-0	4.543	83.9	30	R
Anthracene	1.363	0.11	0	0	0	0-0	1.574	14.4	30	
Benzaldehyde	2.514	1.1	0	0	0		2.16	15.2	30	
Benzidine	U	5.6	0	0	0	0-0	0	0	30	
Benzo(a)anthracene	1.978	0.11	0	0	0	0-0	2.298	15	30	
Benzo(a)pyrene	2.57	0.11	0	0	0	0-0	2.777	7.73	30	
Benzo(b)fluoranthene	3.218	0.11	0	0	0	0-0	3.553	9.9	30	
Benzo(g,h,i)perylene	1.508	0.11	0	0	0	0-0	1.67	10.2	30	
Benzo(k)fluoranthene	1.441	0.11	0	0	0	0-0	1.606	10.8	30	
Bis(2-chloroethoxy)methane	U	1.1	0	0	0	0-0	0	0	30	
Bis(2-chloroethyl)ether	U	1.1	0	0	0	0-0	0	0	30	
Bis(2-chloroisopropyl)ether	U	1.1	0	0	0	0-0	0	0	30	
Bis(2-ethylhexyl)phthalate	43.84	1.1	0	0	0	0-0	35.74	20.4	30	
Butyl benzyl phthalate	U	1.1	0	0	0	0-0	0	0	30	
Caprolactam	U	5.6	0	0	0		0	0	30	
Carbazole	1.587	1.1	0	0	0	0-0	1.585	0.0937	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Chrysene	2	0.11	0	0	0	0-0	2.298	13.9	30	
Dibenzo(a,h)anthracene	0.6816	0.11	0	0	0	0-0	0.5	30.7	30	R
Dibenzofuran	0.7486	1.1	0	0	0	0-0	0.6915	0	30	J
Diethyl phthalate	0.1899	1.1	0	0	0	0-0	0.2234	0	30	J
Dimethyl phthalate	U	1.1	0	0	0	0-0	0	0	30	
Di-n-butyl phthalate	0.8939	1.1	0	0	0	0-0	0.7021	0	30	J
Di-n-octyl phthalate	33.34	1.1	0	0	0	0-0	23.7	33.8	30	R
Fluoranthene	2.592	0.11	0	0	0	0-0	3.149	19.4	30	
Fluorene	1.765	0.11	0	0	0	0-0	1.521	14.9	30	
Hexachlorobenzene	U	1.1	0	0	0	0-0	0	0	30	
Hexachlorobutadiene	U	1.1	0	0	0	0-0	0	0	30	
Hexachlorocyclopentadiene	U	5.6	0	0	0	0-0	0	0	30	
Hexachloroethane	U	1.1	0	0	0	0-0	0	0	30	
Indeno(1,2,3-cd)pyrene	2.76	0.11	0	0	0	0-0	2.479	10.7	30	
Isophorone	140	5.6	0	0	0	0-0	138.4	1.16	30	E
Naphthalene	2.793	0.11	0	0	0	0-0	2.362	16.7	30	
Nitrobenzene	U	1.1	0	0	0	0-0	0	0	30	
N-Nitrosodi-n-propylamine	U	1.1	0	0	0	0-0	0	0	30	
N-Nitrosodiphenylamine	U	1.1	0	0	0	0-0	0	0	30	
Pentachlorophenol	U	5.6	0	0	0	0-0	0	0	30	
Phenanthrene	3.52	0.11	0	0	0	0-0	3.734	5.91	30	
Phenol	0.9497	1.1	0	0	0	0-0	0.8404	0	30	J
Pyrene	3.911	0.11	0	0	0	0-0	4.979	24	30	
Surr: 2,4,6-Tribromophenol	*36.39*	0	*55.87*	0	*65.1*	*38-115*	40.11	*9.71*	*40*	
Surr: 2-Fluorobiphenyl	*34.89*	0	*55.87*	0	*62.5*	*32-100*	35.88	*2.8*	*40*	
Surr: 2-Fluorophenol	*17.91*	0	*55.87*	0	*32.1*	*22-59*	17.82	*0.512*	*40*	
Surr: 4-Terphenyl-d14	*39.06*	0	*55.87*	0	*69.9*	*23-112*	43.53	*10.8*	*40*	
Surr: Nitrobenzene-d5	*29.06*	0	*55.87*	0	*52*	*31-93*	28.35	*2.47*	*40*	
Surr: Phenol-d6	*11.31*	0	*55.87*	0	*20.2*	*13-36*	10.96	*3.14*	*40*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **VBLKW1-160920-R196101a** Units: **µg/L** Analysis Date: **9/20/2016 01:14 PM**

Client ID: Run ID: **VMS6_160920A** SeqNo: **4037509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	1.0								
1,1,2,2-Tetrachloroethane	U	1.0								
1,1,2-Trichloroethane	U	1.0								
1,1,2-Trichlorotrifluoroethane	U	1.0								
1,1-Dichloroethane	U	1.0								
1,1-Dichloroethene	U	1.0								
1,2,4-Trichlorobenzene	U	1.0								
1,2-Dibromo-3-chloropropane	U	1.0								
1,2-Dibromoethane	U	1.0								
1,2-Dichlorobenzene	U	1.0								
1,2-Dichloroethane	U	1.0								
1,2-Dichloropropane	U	1.0								
1,3-Dichlorobenzene	U	1.0								
1,4-Dichlorobenzene	U	1.0								
2-Butanone	U	5.0								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	1.0								
Acetone	U	10								
Benzene	U	1.0								
Bromodichloromethane	U	1.0								
Bromoform	U	1.0								
Bromomethane	U	1.0								
Carbon disulfide	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroethane	U	1.0								
Chloroform	U	1.0								
Chloromethane	U	1.0								
cis-1,2-Dichloroethene	U	1.0								
cis-1,3-Dichloropropene	U	1.0								
Cyclohexane	U	1.0								
Dibromochloromethane	U	1.0								
Dichlorodifluoromethane	U	1.0								
Ethylbenzene	U	1.0								
Isopropylbenzene	U	1.0								
Methyl acetate	U	2.0								
Methyl tert-butyl ether	U	1.0								
Methylcyclohexane	U	1.0								
Methylene chloride	U	5.0								
Styrene	U	1.0								
Tetrachloroethene	U	1.0								
Toluene	U	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

trans-1,2-Dichloroethene	U	1.0					
trans-1,3-Dichloropropene	U	1.0					
Trichloroethene	U	1.0					
Trichlorofluoromethane	U	1.0					
Vinyl chloride	U	1.0					
Xylenes, Total	U	3.0					
Surr: 1,2-Dichloroethane-d4	*19.56*	0	*20*	0	*97.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.52*	0	*20*	0	*97.6*	*80-110*	0
Surr: Dibromofluoromethane	*19.29*	0	*20*	0	*96.4*	*85-115*	0
Surr: Toluene-d8	*19.72*	0	*20*	0	*98.6*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

LCS Sample ID: **VLCSW1-160920-R196101a** Units: **µg/L** Analysis Date: **9/20/2016 11:56 AM**

Client ID: Run ID: **VMS6_160920A** SeqNo: **4037508** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.19	1.0	20	0	101	75-130	0			
1,1,2,2-Tetrachloroethane	18.61	1.0	20	0	93	75-130	0			
1,1,2-Trichloroethane	18.57	1.0	20	0	92.8	75-125	0			
1,1-Dichloroethane	19.33	1.0	20	0	96.6	75-133	0			
1,1-Dichloroethene	20.9	1.0	20	0	104	70-145	0			
1,2,4-Trichlorobenzene	18.8	1.0	20	0	94	70-135	0			
1,2-Dibromo-3-chloropropane	13.06	1.0	20	0	65.3	60-130	0			
1,2-Dibromoethane	17.1	1.0	20	0	85.5	80-150	0			
1,2-Dichlorobenzene	18.4	1.0	20	0	92	70-130	0			
1,2-Dichloroethane	17.45	1.0	20	0	87.2	78-125	0			
1,2-Dichloropropane	18.13	1.0	20	0	90.6	75-125	0			
1,3-Dichlorobenzene	18.53	1.0	20	0	92.6	75-130	0			
1,4-Dichlorobenzene	17.83	1.0	20	0	89.2	75-130	0			
2-Butanone	14.22	5.0	20	0	71.1	55-150	0			
2-Hexanone	14.66	5.0	20	0	73.3	60-135	0			
4-Methyl-2-pentanone	18.33	1.0	20	0	91.6	77-178	0			
Acetone	14.46	10	20	0	72.3	60-160	0			
Benzene	19.39	1.0	20	0	97	85-125	0			
Bromodichloromethane	16.12	1.0	20	0	80.6	75-125	0			
Bromoform	14.29	1.0	20	0	71.4	60-125	0			
Bromomethane	21.84	1.0	20	0	109	30-185	0			
Carbon disulfide	21.59	1.0	20	0	108	60-165	0			
Carbon tetrachloride	18.03	1.0	20	0	90.2	65-140	0			
Chlorobenzene	18.36	1.0	20	0	91.8	80-120	0			
Chloroethane	15.83	1.0	20	0	79.2	50-140	0			
Chloroform	18.33	1.0	20	0	91.6	80-130	0			
Chloromethane	16.23	1.0	20	0	81.2	50-130	0			
cis-1,2-Dichloroethene	18.53	1.0	20	0	92.6	75-134	0			
cis-1,3-Dichloropropene	15.63	1.0	20	0	78.2	70-130	0			
Dibromochloromethane	13.97	1.0	20	0	69.8	60-115	0			
Dichlorodifluoromethane	11.78	1.0	20	0	58.9	20-120	0			
Ethylbenzene	17.54	1.0	20	0	87.7	85-125	0			
Isopropylbenzene	19.12	1.0	20	0	95.6	80-127	0			
Methyl tert-butyl ether	16.21	1.0	20	0	81	80-130	0			
Methylene chloride	18.01	5.0	20	0	90	75-140	0			
Styrene	17.14	1.0	20	0	85.7	85-125	0			
Tetrachloroethene	19.01	1.0	20	0	95	77-138	0			
Toluene	19.18	1.0	20	0	95.9	85-125	0			
trans-1,2-Dichloroethene	19.98	1.0	20	0	99.9	80-140	0			
trans-1,3-Dichloropropene	14.85	1.0	20	0	74.2	72-120	0			
Trichloroethene	19.33	1.0	20	0	96.6	84-130	0			
Trichlorofluoromethane	17.21	1.0	20	0	86	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

Vinyl chloride	16.85	1.0	20	0	84.2	50-136	0
Xylenes, Total	52.02	3.0	60	0	86.7	80-126	0
Surr: 1,2-Dichloroethane-d4	*19.94*	0	*20*	0	*99.7*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.86*	0	*20*	0	*99.3*	*80-110*	0
Surr: Dibromofluoromethane	*20.65*	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*20.21*	0	*20*	0	*101*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

MS Sample ID: **1609923-01A MS** Units: **µg/L** Analysis Date: **9/20/2016 09:02 PM**

Client ID: Run ID: **VMS6_160920A** SeqNo: **4037522** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	204.2	10	200	0	102	75-130	0			
1,1,2,2-Tetrachloroethane	187.7	10	200	0	93.8	75-130	0			
1,1,2-Trichloroethane	187.8	10	200	0	93.9	75-125	0			
1,1-Dichloroethane	201.3	10	200	0	101	75-133	0			
1,1-Dichloroethene	225.9	10	200	0	113	70-145	0			
1,2,4-Trichlorobenzene	172.7	10	200	0	86.4	70-135	0			
1,2-Dibromo-3-chloropropane	120.8	10	200	0	60.4	60-130	0			
1,2-Dibromoethane	173.1	10	200	0	86.6	80-150	0			
1,2-Dichlorobenzene	188.3	10	200	0	94.2	70-130	0			
1,2-Dichloroethane	179.4	10	200	0	89.7	78-125	0			
1,2-Dichloropropane	185.6	10	200	0	92.8	75-125	0			
1,3-Dichlorobenzene	191.8	10	200	0	95.9	75-130	0			
1,4-Dichlorobenzene	181.7	10	200	0	90.8	75-130	0			
2-Butanone	164.1	50	200	0	82	55-150	0			
2-Hexanone	157	50	200	0	78.5	60-135	0			
4-Methyl-2-pentanone	196.7	10	200	0	98.4	77-178	0			
Acetone	165.9	100	200	0	83	60-160	0			
Benzene	199.4	10	200	1.12	99.1	85-125	0			
Bromodichloromethane	156.5	10	200	0	78.2	75-125	0			
Bromoform	130.7	10	200	0	65.4	60-125	0			
Bromomethane	194	10	200	0	97	30-185	0			
Carbon disulfide	208.5	10	200	0	104	60-165	0			
Carbon tetrachloride	183.5	10	200	0	91.8	65-140	0			
Chlorobenzene	191	10	200	0	95.5	80-120	0			
Chloroethane	172	10	200	0	86	50-140	0			
Chloroform	191.9	10	200	0	96	80-130	0			
Chloromethane	143.6	10	200	0	71.8	50-130	0			
cis-1,2-Dichloroethene	197.6	10	200	7.51	95	75-134	0			
cis-1,3-Dichloropropene	149.8	10	200	0	74.9	70-130	0			
Dibromochloromethane	130.8	10	200	0	65.4	60-115	0			
Dichlorodifluoromethane	135.8	10	200	0	67.9	20-120	0			
Ethylbenzene	189	10	200	0	94.5	85-125	0			
Isopropylbenzene	210	10	200	0	105	80-127	0			
Methyl tert-butyl ether	169	10	200	0	84.5	80-130	0			
Methylene chloride	204	50	200	0	102	75-140	0			
Styrene	182.5	10	200	0	91.2	85-125	0			
Tetrachloroethene	232.4	10	200	27.77	102	77-138	0			
Toluene	199.1	10	200	0	99.6	85-125	0			
trans-1,2-Dichloroethene	209.9	10	200	0	105	80-140	0			
trans-1,3-Dichloropropene	136	10	200	0	68	72-120	0			S
Trichloroethene	212.3	10	200	11.62	100	84-130	0			
Trichlorofluoromethane	187.7	10	200	0	93.8	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

Vinyl chloride	178	10	200	0	89	50-136	0
Xylenes, Total	558.4	30	600	0	93.1	80-126	0
Surr: 1,2-Dichloroethane-d4	*196.2*	0	*200*	0	*98.1*	*75-120*	0
Surr: 4-Bromofluorobenzene	*200.1*	0	*200*	0	*100*	*80-110*	0
Surr: Dibromofluoromethane	*201.1*	0	*200*	0	*101*	*85-115*	0
Surr: Toluene-d8	*198*	0	*200*	0	*99*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

MSD Sample ID: **1609923-01A MSD** Units: **µg/L** Analysis Date: **9/20/2016 09:28 PM**

Client ID: Run ID: **VMS6_160920A** SeqNo: **4037523** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	214.7	10	200	0	107	75-130	204.2	5.01	30	
1,1,2,2-Tetrachloroethane	197.9	10	200	0	99	75-130	187.7	5.29	30	
1,1,2-Trichloroethane	195.4	10	200	0	97.7	75-125	187.8	3.97	30	
1,1-Dichloroethane	211.6	10	200	0	106	75-133	201.3	4.99	30	
1,1-Dichloroethene	229.9	10	200	0	115	70-145	225.9	1.76	30	
1,2,4-Trichlorobenzene	185.6	10	200	0	92.8	70-135	172.7	7.2	30	
1,2-Dibromo-3-chloropropane	129.5	10	200	0	64.8	60-130	120.8	6.95	30	
1,2-Dibromoethane	181.6	10	200	0	90.8	80-150	173.1	4.79	30	
1,2-Dichlorobenzene	197.4	10	200	0	98.7	70-130	188.3	4.72	30	
1,2-Dichloroethane	193	10	200	0	96.5	78-125	179.4	7.3	30	
1,2-Dichloropropane	195.9	10	200	0	98	75-125	185.6	5.4	30	
1,3-Dichlorobenzene	201.8	10	200	0	101	75-130	191.8	5.08	30	
1,4-Dichlorobenzene	192.9	10	200	0	96.4	75-130	181.7	5.98	30	
2-Butanone	176.3	50	200	0	88.2	55-150	164.1	7.17	30	
2-Hexanone	158.1	50	200	0	79	60-135	157	0.698	30	
4-Methyl-2-pentanone	194.8	10	200	0	97.4	77-178	196.7	0.971	30	
Acetone	182.3	100	200	0	91.2	60-160	165.9	9.42	30	
Benzene	211.2	10	200	1.12	105	85-125	199.4	5.75	30	
Bromodichloromethane	166.1	10	200	0	83	75-125	156.5	5.95	30	
Bromoform	139.8	10	200	0	69.9	60-125	130.7	6.73	30	
Bromomethane	214	10	200	0	107	30-185	194	9.8	30	
Carbon disulfide	218.3	10	200	0	109	60-165	208.5	4.59	30	
Carbon tetrachloride	192.6	10	200	0	96.3	65-140	183.5	4.84	30	
Chlorobenzene	201.9	10	200	0	101	80-120	191	5.55	30	
Chloroethane	174.5	10	200	0	87.2	50-140	172	1.44	30	
Chloroform	200.1	10	200	0	100	80-130	191.9	4.18	30	
Chloromethane	167.7	10	200	0	83.8	50-130	143.6	15.5	30	
cis-1,2-Dichloroethene	206.2	10	200	7.51	99.3	75-134	197.6	4.26	30	
cis-1,3-Dichloropropene	161.7	10	200	0	80.8	70-130	149.8	7.64	30	
Dibromochloromethane	140.8	10	200	0	70.4	60-115	130.8	7.36	30	
Dichlorodifluoromethane	138.7	10	200	0	69.4	20-120	135.8	2.11	30	
Ethylbenzene	199.4	10	200	0	99.7	85-125	189	5.36	30	
Isopropylbenzene	219.6	10	200	0	110	80-127	210	4.47	30	
Methyl tert-butyl ether	175.5	10	200	0	87.8	80-130	169	3.77	30	
Methylene chloride	205.7	50	200	0	103	75-140	204	0.83	30	
Styrene	190.7	10	200	0	95.4	85-125	182.5	4.39	30	
Tetrachloroethene	245	10	200	27.77	109	77-138	232.4	5.28	30	
Toluene	210.1	10	200	0	105	85-125	199.1	5.38	30	
trans-1,2-Dichloroethene	212.6	10	200	0	106	80-140	209.9	1.28	30	
trans-1,3-Dichloropropene	144.8	10	200	0	72.4	72-120	136	6.27	30	
Trichloroethene	220.9	10	200	11.62	105	84-130	212.3	3.97	30	
Trichlorofluoromethane	195.3	10	200	0	97.6	60-140	187.7	3.97	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

Vinyl chloride	186.1	10	200	0	93	50-136	178	4.45	30
Xylenes, Total	584.9	30	600	0	97.5	80-126	558.4	4.64	30
Surr: 1,2-Dichloroethane-d4	*198.6*	0	*200*	0	*99.3*	*75-120*	196.2	*1.22*	*30*
Surr: 4-Bromofluorobenzene	*202.5*	0	*200*	0	*101*	*80-110*	200.1	*1.19*	*30*
Surr: Dibromofluoromethane	*201.9*	0	*200*	0	*101*	*85-115*	201.1	*0.397*	*30*
Surr: Toluene-d8	*198.1*	0	*200*	0	*99*	*85-110*	198	*0.0505*	*30*

The following samples were analyzed in this batch:

16091057-01A	16091057-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196197A** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **VBLKW1-160921-R196197A** Units: **µg/L** Analysis Date: **9/21/2016 02:24 PM**

Client ID: Run ID: **VMS6_160921A** SeqNo: **4039170** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	U	5.0								
Acetone	U	10								
Surr: 1,2-Dichloroethane-d4	*19.31*	0	*20*	0	*96.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.97*	0	*20*	0	*94.8*	*80-110*	0			
Surr: Dibromofluoromethane	*19*	0	*20*	0	*95*	*85-115*	0			
Surr: Toluene-d8	*19.59*	0	*20*	0	*98*	*85-110*	0			

LCS Sample ID: **VLCSW1-160921-R196197A** Units: **µg/L** Analysis Date: **9/21/2016 01:31 PM**

Client ID: Run ID: **VMS6_160921A** SeqNo: **4039169** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	18.05	5.0	20	0	90.2	55-150	0			
Acetone	19.29	10	20	0	96.4	60-160	0			
Surr: 1,2-Dichloroethane-d4	*19.4*	0	*20*	0	*97*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.78*	0	*20*	0	*98.9*	*80-110*	0			
Surr: Dibromofluoromethane	*20.03*	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*19.95*	0	*20*	0	*99.8*	*85-110*	0			

MS Sample ID: **16091057-01A MS** Units: **µg/L** Analysis Date: **9/21/2016 11:05 PM**

Client ID: **TPA-Pile 6 - 091916** Run ID: **VMS6_160921A** SeqNo: **4040256** Prep Date: DF: **200**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	5834	1,000	4000	2458	84.4	55-150	0			
Acetone	15680	2,000	4000	13470	55.3	60-160	0			S
Surr: 1,2-Dichloroethane-d4	*3916*	0	*4000*	0	*97.9*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*4030*	0	*4000*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*3960*	0	*4000*	0	*99*	*85-115*	0			
Surr: Toluene-d8	*3988*	0	*4000*	0	*99.7*	*85-110*	0			

MSD Sample ID: **16091057-01A MSD** Units: **µg/L** Analysis Date: **9/21/2016 11:32 PM**

Client ID: **TPA-Pile 6 - 091916** Run ID: **VMS6_160921A** SeqNo: **4040257** Prep Date: DF: **200**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	6230	1,000	4000	2458	94.3	55-150	5834	6.56	30	
Acetone	16020	2,000	4000	13470	63.8	60-160	15680	2.13	30	
Surr: 1,2-Dichloroethane-d4	*3942*	0	*4000*	0	*98.6*	*75-120*	3916	*0.662*	*30*	
Surr: 4-Bromofluorobenzene	*3974*	0	*4000*	0	*99.4*	*80-110*	4030	*1.4*	*30*	
Surr: Dibromofluoromethane	*4018*	0	*4000*	0	*100*	*85-115*	3960	*1.45*	*30*	
Surr: Toluene-d8	*4008*	0	*4000*	0	*100*	*85-110*	3988	*0.5*	*30*	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196197A** Instrument ID **VMS6** Method: **SW8260B**

The following samples were analyzed in this batch:

16091057-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

16091057

Rev. 4/2010

CHAIN OF CUSTODY

Page 1 of 1

Company: Tetra Tech
Project Contact: Andre Baker
Telephone: 630.379.3749
Project Name: TOCON
Project #: 163x902600015051607008
Location: Goshen, IN
Sampled By: AB

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Andre.Baker@TetraTech.com
EMAIL: Chris.Burns@TetraTech.com
Company: Tetra Tech
Address: 1 South Wacker Dr Chicago IL 60606
Invoice To:* Dennis Linley
EMAIL: dlinley@ctlaboratories.com
Company: CT Laboratories
Address: 1230 Lange Ct, Baraboo WI 53913

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

48hr TAT

Matrix:
GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: 9/21/16
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/Comp	Sample ID Description	Filtered? Y/N	8260 VOCs	8270 SVOCs	TAL Metals	Pesticides	Herbicides	PCB's								Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
9/14/16		SW	Grab	TPA-Pile 6-091916	N	X	X	X	X	X	X								8		
				Trip Blank		X													1		

Fill in Spaces with Bottles per Test

Relinquished By:	Date/Time	Received By:	Date/Time	Lab Use Only
[signature]	9/14/16	[signature]	9/19/16 1530	Ice Present Yes No
Received by:	Date/Time	Received for Laboratory by:	Date/Time	Temperature 4.0°C
				Cooler # _____

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **CTLABORATORIES** Date/Time Received: **19-Sep-16 15:30**

Work Order: **16091057** Received by: **MBB**

Checklist completed by Diane Shaw (eSignature) 19-Sep-16 (Date) Reviewed by: Joseph Ribar (eSignature) 20-Sep-16 (Date)

Matrices: Surface Water
Carrier name: Client

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Sample(s) received on ice?	☑	☐	

Temperature(s)/Thermometer(s): 4.0/4.0 c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 9/19/2016 4:27:22 PM

	Yes	No		
Water - VOA vials have zero headspace?	☑	☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	☑	☐	N/A	☐
pH adjusted?	☐	☑	N/A	☐

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Environmental

Work Order: 16091057

Project Name:

TOCON - TPA-Pile 6 - 091916

CT Laboratories

Dennis Linley
1230 Lange Court
Baraboo, WI 53913
(608) 356-2760

28-Sep-2016

Certificate No: WI: 399084510

Contents

Section I: Case Narrative

Section II: Sample Receipt

Section III: Miscellaneous

Section IV: Sample Results

Section V: QC Summary

Section VI: Raw Data

Section VII: Attachments

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Section I

CASE NARRATIVE

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Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Work Order: 16091057

Case Narrative

Samples for the above noted Work Order were received on 09/19/2016. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
Batch R196101a, Method 8260, Sample 16091057-01A: The reporting limit is elevated due to dilution for high concentrations of target analytes.

Batch R196197A, Method 8260, Sample 16091057-01A MS: The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: trans-1,3-dichloropropene, Acetone, and 1,1,1,2-Tetrachloroethane

Batch R196197A, Method 8260, Sample 16091057-01A MSD: The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: trans-1,3-dichloropropene

No other deviations or anomalies were noted.

Extractable Organics:
Batch 91630, Method 8270, Sample 16091057-01B DUP: The RPD between the sample and its duplicate was out of control. The corresponding sample result should be considered estimated for this analyte: Acetophenone, Di-n-octyl phthalate, and Dibenzo(a,h)anthracene

Batch 91634A, Method 8082, Sample 16091057-01B: Surrogate high due to matrix interference.

Batch 91636, Method 8081, Sample 16091057-01B: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

No other deviations or anomalies were noted.

Metals:
No other deviations or anomalies were noted.

Wet Chemistry:
No other deviations or anomalies were noted.

Section II

SAMPLE RECEIPT

-Sample Summary

-Shipping Documents*

-Chain of Custody

-Receipt Checklist

(* = As applicable)

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ALS Group USA, Corp

Date: 28-Sep-16

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
Work Order: **16091057**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
16091057-01	TPA-Pile 6 - 091916	Surface Wate		9/19/2016	9/19/2016 15:30	☐
16091057-02	Trip Blank	Surface Wate		9/19/2016	9/19/2016 15:30	☐

16041057

Rev. 4/2010

CHAIN OF CUSTODY

Page 1 of 1

Company: Tetra Tech
Project Contact: Andre Baker
Telephone: 630.379.3745
Project Name: TOCON
Project #: 167x902600015051607008
Location: Goshen, IN
Sampled By: AB

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Andre.Baker@TetraTech.com
EMAIL: Chris.Burns@TetraTech.com
Company: Tetra Tech
Address: 1 South Wacker Dr Chicago IL 60606
Invoice To:* Dennis Linky
EMAIL: dlinky@ctlaboratories.com
Company: CT Laboratories
Address: 1230 Lange Ct, Baraboo WI 53913

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

48hr TAT

Matrix:
GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: 9/21/16
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

ANALYSES REQUESTED

Collection Date	Collection Time	Matrix	Grab/Comp	Sample ID Description	Filtered? Y/N	8260 VOC's	8270 SVOC's	TAL Metals	Pesticides	Herbicides	PCB's								Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
9/14/16		SW	Grab	TPA-Pile 6-091916	N	X	X	X	X	X	X								8		
				Trip Blank		X													1		

Fill in Spaces with Bottles per Test

Relinquished By:	Date/Time	Received By:	Date/Time	Lab Use Only
[signature]	9/14/16	[signature]	9/19/16 1530	Ice Present Yes No
Received by:	Date/Time	Received for Laboratory by:	Date/Time	Temperature 4.0°C
				Cooler # _____

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **CTLABORATORIES** Date/Time Received: **19-Sep-16 15:30**

Work Order: **16091057** Received by: **MBB**

Checklist completed by Diane Shaw (eSignature) 19-Sep-16 (Date) Reviewed by: Joseph Ribar (eSignature) 20-Sep-16 (Date)

Matrices: Surface Water
Carrier name: Client

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Sample(s) received on ice?	☑	☐	

Temperature(s)/Thermometer(s): 4.0/4.0 c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 9/19/2016 4:27:22 PM

	Yes	No		
Water - VOA vials have zero headspace?	☑	☐	No VOA vials submitted	☐
Water - pH acceptable upon receipt?	☑	☐	N/A	☐
pH adjusted?	☐	☑	N/A	☐

pH adjusted by:

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Section III

MISCELLANEOUS

-Qualifiers, Acronyms, Units

-Accreditations

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ALS Group USA, Corp

Date: 28-Sep-16

Client: CT Laboratories
Project: TOCON - TPA-Pile 6 - 091916
WorkOrder: **16091057**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

Accreditations

Laboratory	Authority	Type	Certification #	Expires
ALS-Holland,MI	USDA	Soil Import	P330-13-00161	5/28/2016
ALS-Holland,MI	Kansas	Secondary NELAP	E-10411	5/31/2016
ALS-Holland,MI	Florida	Secondary NELAP	E871106	6/30/2016
ALS-Holland,MI	Pennsylvania	Secondary NELAP	010-001	7/31/2016
ALS-Holland,MI	West Virginia	State	355	8/31/2016
ALS-Holland,MI	Wisconsin	State	399084510	8/31/2016
ALS-Holland,MI	Minnesota	Primary NELAP	998501	12/31/2016
ALS-Holland,MI	Kentucky	State-Waste Water	98004	12/31/2016
ALS-Holland,MI	Kentucky	State-UST	87	12/31/2016
ALS-Holland,MI	Illinois	Secondary NELAP	003775	12/31/2016
ALS-Holland,MI	North Dakota	Secondary NELAP	R-192	12/31/2016
ALS-Holland,MI	Ohio	State/VAP	CL-103	12/23/2017
ALS-Holland,MI	Texas	Secondary NELAP	T104704494-16-7	1/31/2017
ALS-Holland,MI	Iowa	State & UST	403	9/1/2017
ALS-Holland,MI	Michigan	State/Drinking Water	0022	9/4/2017
ALS-Holland,MI	Indiana	State/Drinking Water	C-MI-08	9/4/2017

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Section IV

SAMPLE RESULTS

-Analysis Data Sheet

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GC/MS
Volatile Organics

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ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

1A

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TPA-Pile 6 - 091916DL

Lab Name: ALS Group USA, Corp

Lab Code: MI01262 Case No.: SAS No.: SDG No. 16091057

Matrix: Water Lab Sample ID: 16091057-01A

Sample wt/vol: 5.00 (g/mL) mL Lab File ID:

Level: (low/med) low Date Received: 9/19/2016

% Moisture: not dec. 0 Date Analyzed: 9/20/2016

GC Column: DB624 ID: 0.18 (mm) Dilution Factor: 10.00

Soil Extract Volume: _____ (mL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
71-55-6	1,1,1-Trichloroethane	10	UD
79-34-5	1,1,2,2-Tetrachloroethane	10	UD
79-00-5	1,1,2-Trichloroethane	10	UD
76-13-1	1,1,2-Trichlorotrifluoroeth	10	UD
75-34-3	1,1-Dichloroethane	10	UD
75-35-4	1,1-Dichloroethene	10	UD
120-82-1	1,2,4-Trichlorobenzene	10	UD
96-12-8	1,2-Dibromo-3-chloropropane	10	UD
106-93-4	1,2-Dibromoethane	10	UD
95-50-1	1,2-Dichlorobenzene	10	UD
107-06-2	1,2-Dichloroethane	10	UD
78-87-5	1,2-Dichloropropane	10	UD
541-73-1	1,3-Dichlorobenzene	10	UD
106-46-7	1,4-Dichlorobenzene	10	UD
591-78-6	2-Hexanone	50	UD
108-10-1	4-Methyl-2-pentanone	28	D
71-43-2	Benzene	10	UD
75-27-4	Bromodichloromethane	10	UD
75-25-2	Bromoform	10	UD
74-83-9	Bromomethane	10	UD
75-15-0	Carbon disulfide	10	UD
56-23-5	Carbon tetrachloride	10	UD
108-90-7	Chlorobenzene	10	UD
75-00-3	Chloroethane	10	UD
67-66-3	Chloroform	10	UD
74-87-3	Chloromethane	10	UD
156-59-2	cis-1,2-Dichloroethene	10	UD
10061-01-5	cis-1,3-Dichloropropene	10	UD
110-82-7	Cyclohexane	10	UD
124-48-1	Dibromochloromethane	10	UD
75-71-8	Dichlorodifluoromethane	10	UD
100-41-4	Ethylbenzene	6.0	JD

1A

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TPA-Pile 6 - 091916DL

Lab Name: ALS Group USA, Corp

Lab Code: MI01262 Case No.: SAS No.: SDG No. 16091057

Matrix: Water Lab Sample ID: 16091057-01A

Sample wt/vol: 5.00 (g/mL) mL Lab File ID:

Level: (low/med) low Date Received: 9/19/2016

% Moisture: not dec. 0 Date Analyzed: 9/20/2016

GC Column: DB624 ID: 0.18 (mm) Dilution Factor: 10.00

Soil Extract Volume: _____ (mL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
98-82-8	Isopropylbenzene	10	UD
79-20-9	Methyl acetate	20	UD
1634-04-4	Methyl tert-butyl ether	10	UD
108-87-2	Methylcyclohexane	10	UD
75-09-2	Methylene chloride	50	UD
100-42-5	Styrene	10	UD
127-18-4	Tetrachloroethene	10	UD
108-88-3	Toluene	620	D
156-60-5	trans-1,2-Dichloroethene	10	UD
10061-02-6	trans-1,3-Dichloropropene	10	UD
79-01-6	Trichloroethene	10	UD
75-69-4	Trichlorofluoromethane	10	UD
75-01-4	Vinyl chloride	10	UD
1330-20-7	Xylenes, Total	30	UD

1A

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TPA-Pile 6 - 091916DL

Lab Name: ALS Group USA, Corp

Lab Code: MI01262 Case No.: SAS No.: SDG No. 16091057

Matrix: Water Lab Sample ID: 16091057-01A

Sample wt/vol: 5.00 (g/mL) mL Lab File ID:

Level: (low/med) low Date Received: 9/19/2016

% Moisture: not dec. 0 Date Analyzed: 9/21/2016

GC Column: DB624 ID: 0.18 (mm) Dilution Factor: 200.00

Soil Extract Volume: _____ (mL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
78-93-3	2-Butanone	2,500	D
67-64-1	Acetone	13,000	D

1A

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: ALS Group USA, Corp

Lab Code: MI01262 Case No.: SAS No.: SDG No. 16091057

Matrix: Water Lab Sample ID: 16091057-02A

Sample wt/vol: 5.00 (g/mL) mL Lab File ID:

Level: (low/med) low Date Received: 9/19/2016

% Moisture: not dec. 0 Date Analyzed: 9/20/2016

GC Column: DB624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (mL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
71-55-6	1,1,1-Trichloroethane	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroeth	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
75-35-4	1,1-Dichloroethene	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
106-93-4	1,2-Dibromoethane	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
78-93-3	2-Butanone	5.0	U
591-78-6	2-Hexanone	5.0	U
108-10-1	4-Methyl-2-pentanone	1.0	U
67-64-1	Acetone	10	U
71-43-2	Benzene	1.0	U
75-27-4	Bromodichloromethane	1.0	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
75-15-0	Carbon disulfide	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
108-90-7	Chlorobenzene	1.0	U
75-00-3	Chloroethane	1.0	U
67-66-3	Chloroform	1.0	U
74-87-3	Chloromethane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
110-82-7	Cyclohexane	1.0	U
124-48-1	Dibromochloromethane	1.0	U

1A

CLIENT SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Trip Blank

Lab Name: ALS Group USA, Corp

Lab Code: MI01262 Case No.: SAS No.: SDG No. 16091057

Matrix: Water Lab Sample ID: 16091057-02A

Sample wt/vol: 5.00 (g/mL) mL Lab File ID:

Level: (low/med) low Date Received: 9/19/2016

% Moisture: not dec. 0 Date Analyzed: 9/20/2016

GC Column: DB624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (mL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
100-41-4	Ethylbenzene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-20-9	Methyl acetate	2.0	U
1634-04-4	Methyl tert-butyl ether	1.0	U
108-87-2	Methylcyclohexane	1.0	U
75-09-2	Methylene chloride	5.0	U
100-42-5	Styrene	1.0	U
127-18-4	Tetrachloroethene	1.0	U
108-88-3	Toluene	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-01-6	Trichloroethene	1.0	U
75-69-4	Trichlorofluoromethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
1330-20-7	Xylenes, Total	3.0	U

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1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TPA-Pile 6 - 091916

Lab Name: ALS Group USA, Corp

Lab Code: MI01262

SDG No. 16091057

Matrix: Water

Lab Sample ID: 16091057-01B

Sample wt/vol: 940.00 (g/mL) mL

Lab File ID:

Level: (low/med) low

Date Received: 9/19/2016

% Moisture: not dec. 0

Date Extracted 9/20/2016

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 9/21/2016

Injection Volume: 1 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH 0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
92-52-4	1,1`-Biphenyl	1.1	U
95-95-4	2,4,5-Trichlorophenol	1.1	U
88-06-2	2,4,6-Trichlorophenol	1.1	U
120-83-2	2,4-Dichlorophenol	1.1	U
105-67-9	2,4-Dimethylphenol	1.1	U
51-28-5	2,4-Dinitrophenol	5.3	U
121-14-2	2,4-Dinitrotoluene	1.1	U
606-20-2	2,6-Dinitrotoluene	1.1	U
91-58-7	2-Chloronaphthalene	0.11	U
95-57-8	2-Chlorophenol	1.1	U
91-57-6	2-Methylnaphthalene	0.48	
95-48-7	2-Methylphenol	4.6	
88-74-4	2-Nitroaniline	1.1	U
88-75-5	2-Nitrophenol	1.1	U
34METPH	3&4-Methylphenol	7.2	
91-94-1	3,3´-Dichlorobenzidine	5.3	U
99-09-2	3-Nitroaniline	1.1	U
534-52-1	4,6-Dinitro-2-methylphenol	1.1	U
101-55-3	4-Bromophenyl phenyl ether	1.1	U
59-50-7	4-Chloro-3-methylphenol	1.1	U
106-47-8	4-Chloroaniline	1.1	U
7005-72-3	4-Chlorophenyl phenyl ether	1.1	U
100-01-6	4-Nitroaniline	1.1	U
100-02-7	4-Nitrophenol	5.3	U
83-32-9	Acenaphthene	0.88	
208-96-8	Acenaphthylene	0.11	U
98-86-2	Acetophenone	4.5	
120-12-7	Anthracene	1.6	
100-52-7	Benzaldehyde	2.2	
92-87-5	Benzidine	5.3	U
56-55-3	Benzo(a)anthracene	2.3	

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TPA-Pile 6 - 091916

Lab Name: ALS Group USA, Corp

Lab Code: MI01262

SDG No. 16091057

Matrix: Water

Lab Sample ID: 16091057-01B

Sample wt/vol: 940.00 (g/mL) mL

Lab File ID:

Level: (low/med) low

Date Received: 9/19/2016

% Moisture: not dec. 0

Date Extracted 9/20/2016

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 9/21/2016

Injection Volume: 1 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N)_N_ pH 0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
50-32-8	Benzo(a)pyrene	2.8	
205-99-2	Benzo(b)fluoranthene	3.6	
191-24-2	Benzo(g,h,i)perylene	1.7	
207-08-9	Benzo(k)fluoranthene	1.6	
111-91-1	Bis(2-chloroethoxy)methane	1.1	U
111-44-4	Bis(2-chloroethyl)ether	1.1	U
108-60-1	Bis(2-chloroisopropyl)ether	1.1	U
117-81-7	Bis(2-ethylhexyl)phthalate	36	
85-68-7	Butyl benzyl phthalate	1.1	U
105-60-2	Caprolactam	5.3	U
86-74-8	Carbazole	1.6	
218-01-9	Chrysene	2.3	
53-70-3	Dibenzo(a,h)anthracene	0.50	
132-64-9	Dibenzofuran	0.69	J
84-66-2	Diethyl phthalate	0.22	J
131-11-3	Dimethyl phthalate	1.1	U
84-74-2	Di-n-butyl phthalate	0.70	J
117-84-0	Di-n-octyl phthalate	24	
206-44-0	Fluoranthene	3.1	
86-73-7	Fluorene	1.5	
118-74-1	Hexachlorobenzene	1.1	U
87-68-3	Hexachlorobutadiene	1.1	U
77-47-4	Hexachlorocyclopentadiene	5.3	U
67-72-1	Hexachloroethane	1.1	U
193-39-5	Indeno(1,2,3-cd)pyrene	2.5	
91-20-3	Naphthalene	2.4	
98-95-3	Nitrobenzene	1.1	U
621-64-7	N-Nitrosodi-n-propylamine	1.1	U
86-30-6	N-Nitrosodiphenylamine	1.1	U
87-86-5	Pentachlorophenol	5.3	U
85-01-8	Phenanthrene	3.7	

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TPA-Pile 6 - 091916

Lab Name: ALS Group USA, Corp

Lab Code: MI01262

SDG No. 16091057

Matrix: Water

Lab Sample ID: 16091057-01B

Sample wt/vol: 940.00 (g/mL) mL

Lab File ID:

Level: (low/med) low

Date Received: 9/19/2016

% Moisture: not dec. 0

Date Extracted 9/20/2016

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 9/21/2016

Injection Volume: 1 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH 0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
108-95-2	Phenol	0.84	J
129-00-0	Pyrene	5.0	

1B

CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TPA-Pile 6 - 091916DL

Lab Name: ALS Group USA, Corp

Lab Code: MI01262

SDG No. 16091057

Matrix: Water

Lab Sample ID: 16091057-01B

Sample wt/vol: 940.00 (g/mL) mL

Lab File ID:

Level: (low/med) low

Date Received: 9/19/2016

% Moisture: not dec. 0

Date Extracted 9/20/2016

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 9/22/2016

Injection Volume: 1 (uL)

Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH 0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	µg/L	Q
78-59-1	Isophorone	180	D

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PCBs

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1D

PCBS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TPA-Pile 6 - 091916

Lab Name: ALS Group USA, Corp

Lab Code: MI01262

SDG No. 16091057

Matrix: Water

Lab Sample ID: 16091057-01B

Sample wt/vol: 5.00 (g/mL) mL

Lab File ID:

% Moisture: not dec. 0

Date Received: 9/19/2016

Extraction Type:

Date Extracted 9/20/2016

Concentrated Extract Volume: (uL)

Date Analyzed: 9/21/2016

Injection Volume: 1 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N)_N_ pH: 0

CONCENTRATION UNITS: µg/L

CAS NO.	COMPOUND		Q
12674-11-2	Aroclor 1016	0.21	U
11104-28-2	Aroclor 1221	0.21	U
11141-16-5	Aroclor 1232	0.21	U
53469-21-9	Aroclor 1242	4.3	
12672-29-6	Aroclor 1248	0.21	U
11097-69-1	Aroclor 1254	1.5	
11096-82-5	Aroclor 1260	0.21	U
PCBs, Total	PCBs, Total	5.8	

Pesticides

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1D

CLIENT SAMPLE NO.

PESTICIDES ANALYSIS DATA SHEET

TPA-Pile 6 - 091916DL

Lab Name: ALS Group USA, Corp

Lab Code: MI01262

SDG No. 16091057

Matrix: Water

Lab Sample ID: 16091057-01B

Sample wt/vol: 1,000.00 (g/mL) mL

Lab File ID:

% Moisture: not dec. 0

Date Received: 9/19/2016

Extraction Type:

Date Extracted 9/20/2016

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 9/21/2016

Injection Volume: 1 (uL)

Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: 0

CONCENTRATION UNITS: µg/L

CAS NO.	COMPOUND		Q
72-54-8	4,4´-DDD	0.20	UD
72-55-9	4,4´-DDE	0.20	UD
50-29-3	4,4´-DDT	0.20	UD
309-00-2	Aldrin	0.10	UD
319-84-6	alpha-BHC	0.10	UD
5103-71-9	alpha-Chlordane	0.20	UD
319-85-7	beta-BHC	0.10	UD
57-74-9	Chlordane, Technical	5.0	UD
319-86-8	delta-BHC	0.10	UD
60-57-1	Dieldrin	0.20	UD
959-98-8	Endosulfan I	0.20	UD
33213-65-9	Endosulfan II	0.20	UD
1031-07-8	Endosulfan sulfate	0.20	UD
72-20-8	Endrin	0.20	UD
7421-93-4	Endrin aldehyde	0.20	UD
53494-70-5	Endrin ketone	0.20	UD
58-89-9	gamma-BHC (Lindane)	0.10	UD
5103-74-2	gamma-Chlordane	0.20	UD
76-44-8	Heptachlor	0.10	UD
1024-57-3	Heptachlor epoxide	0.10	UD
72-43-5	Methoxychlor	0.40	UD
8001-35-2	Toxaphene	20	UD

Herbicides

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1D

CLIENT SAMPLE NO.

HERBICIDES ANALYSIS DATA SHEET

TPA-Pile 6 - 091916

Lab Name: ALS Group USA, Corp

Lab Code: MI01262

SDG No. 16091057

Matrix: Water

Lab Sample ID: 16091057-01B

Sample wt/vol: 20.00 (g/mL) mL

Lab File ID:

% Moisture: not dec. 0

Date Received: 9/19/2016

Extraction Type:

Date Extracted 9/20/2016

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 9/22/2016

Injection Volume: 1 (uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 0

CONCENTRATION UNITS: µg/L

CAS NO.	COMPOUND		Q
93-72-1	2,4,5-TP (Silvex)	2.0	U
94-75-7	2,4-D	2.0	U

Metals

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1

CLIENT SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

TPA-Pile 6 - 091916

Lab Name: ALS Group USA, Corp

Lab Code: MI01262 Case No. SAS No SDG No. 16091057

Matrix: Water Lab Sample ID: 16091057-01C

Level (low/med): LOW Date Received: 9/19/2016

% Moisture: not dec. 0 Date Prep: 9/20/2016

CONCENTRATION UNITS: mg/L

CAS NO.	COMPOUND	CONCENTRATION	C	Q	M
7429-90-5	Aluminum	2.3			MS
7440-36-0	Antimony	0.028			MS
7440-38-2	Arsenic	0.011			MS
7440-39-3	Barium	0.32			MS
7440-41-7	Beryllium	0.0020	U		MS
7440-43-9	Cadmium	0.011			MS
7440-70-2	Calcium	240			MS
7440-47-3	Chromium	0.016			MS
7440-48-4	Cobalt	0.0054			MS
7440-50-8	Copper	0.12			MS
7439-89-6	Iron	11			MS
7439-92-1	Lead	0.091			MS
7439-95-4	Magnesium	22			MS
7439-96-5	Manganese	0.52			MS
7440-02-0	Nickel	0.016			MS
7440-09-7	Potassium	30			MS
7782-49-2	Selenium	0.0050	U		MS
7440-22-4	Silver	0.0041	J		MS
7440-23-5	Sodium	40			MS
7440-28-0	Thallium	0.0050	U		MS
7440-62-2	Vanadium	0.012			MS
7440-66-6	Zinc	1.2			MS

Cold Vapor

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CLIENT SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

TPA-Pile 6 - 091916

Lab Name: ALS Group USA, Corp

Lab Code: MI01262 Case No. SAS No SDG No. 16091057

Matrix: Water Lab Sample ID: 16091057-01C

Level (low/med): LOW Date Received: 9/19/2016

% Moisture: not dec. 0 Date Prep: 9/20/2016

CONCENTRATION UNITS: mg/L

CAS NO.	COMPOUND	CONCENTRATION	C	Q	M
7439-97-6	Mercury	0.00069			CV

Section V

QC SUMMARY

-Summary Forms*

-QC Batch Report

(* = As applicable)

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2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

	EPA SAMPLE NO.	SMC1 BFB #	SMC2 DCE #	SMC3 TOL #	SMC4 BFB #	TOT OUT
01	BLK SPIKE1	103	100	101	99	0
02	M-BLANK1	96	98	99	98	0
03	TRIP BLANK	92	96	100	97	0
04	TPA-PILE 6-091	94	100	99	97	0
05	XXXXX-01 MS	101	98	99	100	0
06	XXXXX-01 MSD	101	99	99	101	0
07	BLK SPIKE2	100	97	100	99	0
08	M-BLANK2	95	97	98	95	0
09	TPA-PILE 6-091	91	98	99	94	0
10	TPA-PILE 6-091	100	99	100	99	0
11	TPA-PILE 6-090	90	99	100	97	0

QC LIMITS

SMC1	BFB	=	Dibromofluoromethane	(85-115)
SMC2	DCE	=	1,2-Dichloroethane-d4	(75-120)
SMC3	TOL	=	Toluene-d8	(85-110)
SMC4	BFB	=	Bromofluorobenzene	(80-110)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

M-Blank1

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID: 20SEP07.D Lab Sample ID: VBLKW1-160920

Date Analyzed: 9/20/2016 Time Analyzed: 13:14

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VMS6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLK SPIKE1	VLCSW1-160920	20SEP04.D	11:56
02	TRIP BLANK	16091057-02A	20SEP09.D	14:06
03	TPA-PILE 6-091916	16091057-01A DF10	20SEP10.D	14:32
04	XXXXX-01 MS	1609923-01A MS DF10	20SEP25.D	21:02
05	XXXXX-01 MSD	1609923-01A MS DF10	20SEP26.D	21:28

COMMENTS

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

M-Blank2

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID: 21SEP08.D Lab Sample ID: VBLKW1-160921

Date Analyzed: 9/21/2016 Time Analyzed: 14:24

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: VMS6

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLK SPIKE2	VLCSW1-160921	21SEP06.D	13:31
02	TPA-PILE 6-091916	16091057-01A DF200	21SEP10.D	15:16
03	TPA-PILE 6-091916	16091057-01A MSD DF2	21SEP29.D	23:32
04	TPA-PILE 6-090916	16091057-01A MSD DF2	21SEP30.D	23:58

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID: 20SEP01.D BFB Injection Date: 9/20/2016

Instrument ID: VMS6 BFB Injection Time: 9:54

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.0
75	30.0 - 66.0% of mass 95	46.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	50.0 - 120.0% of mass 95	77.2
175	4.0 - 9.0% of mass 174	5.6 (7.2)1
176	93.0 - 101.0% of mass 174	76.5 (99.0)1
177	5.0 - 9.0% of mass 176	5.1 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD01	VCCV2-160920	20SEP03.D	9/20/2016	11:19
02	BLK SPIKE1	VLCSW1-160920	20SEP04.D	9/20/2016	11:56
03	M-BLANK1	VBLKW1-160920	20SEP07.D	9/20/2016	13:14
04	TRIP BLANK	16091057-02A	20SEP09.D	9/20/2016	14:06
05	TPA-PILE 6-09191	16091057-01A DF10	20SEP10.D	9/20/2016	14:32
06	XXXXX-01 MS	1609923-01A MS DF10	20SEP25.D	9/20/2016	21:02
07	XXXXX-01 MSD	1609923-01A MS DF10	20SEP26.D	9/20/2016	21:28

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID: 21SEP03.D BFB Injection Date: 9/21/2016

Instrument ID: VMS6 BFB Injection Time: 12:03

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.0
75	30.0 - 66.0% of mass 95	43.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.7
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	77.5
175	4.0 - 9.0% of mass 174	5.8 (7.5)1
176	93.0 - 101.0% of mass 174	74.0 (95.5)1
177	5.0 - 9.0% of mass 176	5.6 (7.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD02	VCCV1-160921	21SEP04.D	9/21/2016	12:24
02	BLK SPIKE2	VLCSW1-160921	21SEP06.D	9/21/2016	13:31
03	M-BLANK2	VBLKW1-160921	21SEP08.D	9/21/2016	14:24
04	TPA-PILE 6-09191	16091057-01A DF200	21SEP10.D	9/21/2016	15:16
05	TPA-PILE 6-09191	16091057-01A MSD DF	21SEP29.D	9/21/2016	23:32
06	TPA-PILE 6-09091	16091057-01A MSD DF	21SEP30.D	9/21/2016	23:58

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract:

Lab Code: MI00028 Case No.: SAS No.: SDG No.: 16091057

Lab File ID (Standard): 20SEP03.D Date Analyzed: 9/20/2016

Instrument ID: VMS6 Time Analyzed: 11:19

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge (Y/N): N

		IS1PFB AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	223484	5.05	343177	6.36	317998	10.13
	UPPER LIMIT	446968	5.55	686354	6.86	635996	10.63
	LOWER LIMIT	111742	4.55	171589	5.86	158999	9.63
	EPA SAMPLE NO.						
01	BLK SPIKE1	222995	5.05	334799	6.35	311081	10.14
02	M-BLANK1	216578	5.06	334511	6.36	303122	10.14
03	TRIP BLANK	210125	5.07	328239	6.36	297383	10.14
04	TPA-PILE 6-0	215158	5.06	332424	6.36	308745	10.14
05	XXXXX-01 MS	212013	5.06	328374	6.36	305591	10.14
06	XXXXX-01 MS	216824	5.06	328568	6.36	308206	10.14

IS1 PFB = Pentafluorobenzene
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5
IS4 DCB = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID (Standard): 20SEP03.D Date Analyzed: 9/20/2016

Instrument ID: VMS6 Time Analyzed: 11:19

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge (Y/N): Y

		IS4DCB AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	149946	12.66				
	UPPER LIMIT	299892	12.16				
	LOWER LIMIT	74973	13.16				
	EPA SAMPLE NO.						
01	BLK SPIKE1	145772	12.66				
02	M-BLANK1	140617	12.66				
03	TRIP BLANK	137408	12.66				
04	TPA-PILE 6-0	143812	12.66				
05	XXXXX-01 MS	147357	12.66				
06	XXXXX-01 MS	148027	12.66				

IS1 PFB = Pentafluorobenzene
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5
IS4 DCB = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract:

Lab Code: MI00028 Case No.: SAS No.: SDG No.: 16091057

Lab File ID (Standard): 21SEP04.D Date Analyzed: 9/21/2016

Instrument ID: VMS6 Time Analyzed: 12:24

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge (Y/N): N

		IS1PFB AREA #	RT #	IS2DFB AREA #	RT #	IS3CBZ AREA #	RT #
	12 HOUR STD	210589	5.05	319961	6.35	296381	10.13
	UPPER LIMIT	421178	5.55	639922	6.85	592762	10.63
	LOWER LIMIT	105295	4.55	159981	5.85	148191	9.63
	EPA SAMPLE NO.						
01	BLK SPIKE2	204763	5.06	314569	6.36	292891	10.14
02	M-BLANK2	201567	5.06	309406	6.36	284142	10.14
03	TPA-PILE 6-0	202540	5.06	312465	6.36	287563	10.14
04	TPA-PILE 6-0	206673	5.06	311897	6.36	293220	10.14
05	TPA-PILE 6-0	196271	5.06	304223	6.36	280137	10.14

IS1 PFB = Pentafluorobenzene
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5
IS4 DCB = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract:

Lab Code: MI00028 Case No.: SAS No.: SDG No.: 16091057

Lab File ID (Standard): 21SEP04.D Date Analyzed: 9/21/2016

Instrument ID: VMS6 Time Analyzed: 12:24

GC Column: RXI-624 ID: 0.18 (mm) Heated Purge (Y/N): Y

		IS4DCB AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	137906	12.65				
	UPPER LIMIT	275812	12.15				
	LOWER LIMIT	68953	13.15				
	EPA SAMPLE NO.						
01	BLK SPIKE2	136792	12.66				
02	M-BLANK2	128361	12.66				
03	TPA-PILE 6-0	127284	12.66				
04	TPA-PILE 6-0	137820	12.66				
05	TPA-PILE 6-0	130698	12.66				

IS1 PFB = Pentafluorobenzene
IS2 DFB = 1,4-Difluorobenzene
IS3 CBZ = Chlorobenzene-d5
IS4 DCB = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

ALS Group USA, Corp

Date: 28-Sep-16

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **VBLKW1-160920-R196101a** Units: **µg/L** Analysis Date: **9/20/2016 01:14 PM**

Client ID: Run ID: **VMS6_160920A** SeqNo: **4037509** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	1.0								
1,1,2,2-Tetrachloroethane	U	1.0								
1,1,2-Trichloroethane	U	1.0								
1,1,2-Trichlorotrifluoroethane	U	1.0								
1,1-Dichloroethane	U	1.0								
1,1-Dichloroethene	U	1.0								
1,2,4-Trichlorobenzene	U	1.0								
1,2-Dibromo-3-chloropropane	U	1.0								
1,2-Dibromoethane	U	1.0								
1,2-Dichlorobenzene	U	1.0								
1,2-Dichloroethane	U	1.0								
1,2-Dichloropropane	U	1.0								
1,3-Dichlorobenzene	U	1.0								
1,4-Dichlorobenzene	U	1.0								
2-Butanone	U	5.0								
2-Hexanone	U	5.0								
4-Methyl-2-pentanone	U	1.0								
Acetone	U	10								
Benzene	U	1.0								
Bromodichloromethane	U	1.0								
Bromoform	U	1.0								
Bromomethane	U	1.0								
Carbon disulfide	U	1.0								
Carbon tetrachloride	U	1.0								
Chlorobenzene	U	1.0								
Chloroethane	U	1.0								
Chloroform	U	1.0								
Chloromethane	U	1.0								
cis-1,2-Dichloroethene	U	1.0								
cis-1,3-Dichloropropene	U	1.0								
Cyclohexane	U	1.0								
Dibromochloromethane	U	1.0								
Dichlorodifluoromethane	U	1.0								
Ethylbenzene	U	1.0								
Isopropylbenzene	U	1.0								
Methyl acetate	U	2.0								
Methyl tert-butyl ether	U	1.0								
Methylcyclohexane	U	1.0								
Methylene chloride	U	5.0								
Styrene	U	1.0								
Tetrachloroethene	U	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

Toluene	U	1.0					
trans-1,2-Dichloroethene	U	1.0					
trans-1,3-Dichloropropene	U	1.0					
Trichloroethene	U	1.0					
Trichlorofluoromethane	U	1.0					
Vinyl chloride	U	1.0					
Xylenes, Total	U	3.0					
Surr: 1,2-Dichloroethane-d4	*19.56*	0	*20*	0	*97.8*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.52*	0	*20*	0	*97.6*	*80-110*	0
Surr: Dibromofluoromethane	*19.29*	0	*20*	0	*96.4*	*85-115*	0
Surr: Toluene-d8	*19.72*	0	*20*	0	*98.6*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

LCS Sample ID: **VLCSW1-160920-R196101a** Units: µg/L Analysis Date: **9/20/2016 11:56 AM**
Client ID: Run ID: **VMS6_160920A** SeqNo: **4037508** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.19	1.0	20	0	101	75-130	0			
1,1,2,2-Tetrachloroethane	18.61	1.0	20	0	93	75-130	0			
1,1,2-Trichloroethane	18.57	1.0	20	0	92.8	75-125	0			
1,1-Dichloroethane	19.33	1.0	20	0	96.6	75-133	0			
1,1-Dichloroethene	20.9	1.0	20	0	104	70-145	0			
1,2,4-Trichlorobenzene	18.8	1.0	20	0	94	70-135	0			
1,2-Dibromo-3-chloropropane	13.06	1.0	20	0	65.3	60-130	0			
1,2-Dibromoethane	17.1	1.0	20	0	85.5	80-150	0			
1,2-Dichlorobenzene	18.4	1.0	20	0	92	70-130	0			
1,2-Dichloroethane	17.45	1.0	20	0	87.2	78-125	0			
1,2-Dichloropropane	18.13	1.0	20	0	90.6	75-125	0			
1,3-Dichlorobenzene	18.53	1.0	20	0	92.6	75-130	0			
1,4-Dichlorobenzene	17.83	1.0	20	0	89.2	75-130	0			
2-Butanone	14.22	5.0	20	0	71.1	55-150	0			
2-Hexanone	14.66	5.0	20	0	73.3	60-135	0			
4-Methyl-2-pentanone	18.33	1.0	20	0	91.6	77-178	0			
Acetone	14.46	10	20	0	72.3	60-160	0			
Benzene	19.39	1.0	20	0	97	85-125	0			
Bromodichloromethane	16.12	1.0	20	0	80.6	75-125	0			
Bromoform	14.29	1.0	20	0	71.4	80-125	0			
Bromomethane	21.84	1.0	20	0	109	30-185	0			
Carbon disulfide	21.59	1.0	20	0	108	60-165	0			
Carbon tetrachloride	18.03	1.0	20	0	90.2	65-140	0			
Chlorobenzene	18.36	1.0	20	0	91.8	80-120	0			
Chloroethane	15.83	1.0	20	0	79.2	50-140	0			
Chloroform	18.33	1.0	20	0	91.6	80-130	0			
Chloromethane	16.23	1.0	20	0	81.2	50-130	0			
cis-1,2-Dichloroethene	18.53	1.0	20	0	92.6	75-134	0			
cis-1,3-Dichloropropene	15.63	1.0	20	0	78.2	70-130	0			
Dibromochloromethane	13.97	1.0	20	0	69.8	60-115	0			
Dichlorodifluoromethane	11.78	1.0	20	0	58.9	20-120	0			
Ethylbenzene	17.54	1.0	20	0	87.7	85-125	0			
Isopropylbenzene	19.12	1.0	20	0	95.6	80-127	0			
Methyl tert-butyl ether	16.21	1.0	20	0	81	80-130	0			
Methylene chloride	18.01	5.0	20	0	90	75-140	0			
Styrene	17.14	1.0	20	0	85.7	85-125	0			
Tetrachloroethene	19.01	1.0	20	0	95	77-138	0			
Toluene	19.18	1.0	20	0	95.9	85-125	0			
trans-1,2-Dichloroethene	19.98	1.0	20	0	99.9	80-140	0			
trans-1,3-Dichloropropene	14.85	1.0	20	0	74.2	72-120	0			
Trichloroethene	19.33	1.0	20	0	96.6	84-130	0			
Trichlorofluoromethane	17.21	1.0	20	0	86	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

Vinyl chloride	16.85	1.0	20	0	84.2	50-136	0
Xylenes, Total	52.02	3.0	60	0	86.7	80-126	0
Surr: 1,2-Dichloroethane-d4	*19.94*	0	*20*	0	*99.7*	*75-120*	0
Surr: 4-Bromofluorobenzene	*19.86*	0	*20*	0	*99.3*	*80-110*	0
Surr: Dibromofluoromethane	*20.65*	0	*20*	0	*103*	*85-115*	0
Surr: Toluene-d8	*20.21*	0	*20*	0	*101*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

MS Sample ID: **1609923-01A MS** Units: µg/L Analysis Date: **9/20/2016 09:02 PM**
Client ID: Run ID: **VMS6_160920A** SeqNo: **4037522** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	204.2	10	200	0	102	75-130	0			
1,1,2,2-Tetrachloroethane	187.7	10	200	0	93.8	75-130	0			
1,1,2-Trichloroethane	187.8	10	200	0	93.9	75-125	0			
1,1-Dichloroethane	201.3	10	200	0	101	75-133	0			
1,1-Dichloroethene	225.9	10	200	0	113	70-145	0			
1,2,4-Trichlorobenzene	172.7	10	200	0	86.4	70-135	0			
1,2-Dibromo-3-chloropropane	120.8	10	200	0	60.4	60-130	0			
1,2-Dibromoethane	173.1	10	200	0	86.6	80-150	0			
1,2-Dichlorobenzene	188.3	10	200	0	94.2	70-130	0			
1,2-Dichloroethane	179.4	10	200	0	89.7	78-125	0			
1,2-Dichloropropane	185.6	10	200	0	92.8	75-125	0			
1,3-Dichlorobenzene	191.8	10	200	0	95.9	75-130	0			
1,4-Dichlorobenzene	181.7	10	200	0	90.8	75-130	0			
2-Butanone	164.1	50	200	0	82	55-150	0			
2-Hexanone	157	50	200	0	78.5	60-135	0			
4-Methyl-2-pentanone	196.7	10	200	0	98.4	77-178	0			
Acetone	165.9	100	200	0	83	60-160	0			
Benzene	199.4	10	200	1.12	99.1	85-125	0			
Bromodichloromethane	156.5	10	200	0	78.2	75-125	0			
Bromoform	130.7	10	200	0	65.4	60-125	0			
Bromomethane	194	10	200	0	97	30-165	0			
Carbon disulfide	208.5	10	200	0	104	60-165	0			
Carbon tetrachloride	183.5	10	200	0	91.8	65-140	0			
Chlorobenzene	191	10	200	0	95.5	80-120	0			
Chloroethane	172	10	200	0	86	50-140	0			
Chloroform	191.9	10	200	0	96	80-130	0			
Chloromethane	143.6	10	200	0	71.8	50-130	0			
cis-1,2-Dichloroethene	197.6	10	200	7.51	95	75-134	0			
cis-1,3-Dichloropropene	149.8	10	200	0	74.9	70-130	0			
Dibromochloromethane	130.8	10	200	0	65.4	60-115	0			
Dichlorodifluoromethane	135.8	10	200	0	67.9	20-120	0			
Ethylbenzene	189	10	200	0	94.5	85-125	0			
Isopropylbenzene	210	10	200	0	105	80-127	0			
Methyl tert-butyl ether	169	10	200	0	84.5	80-130	0			
Methylene chloride	204	50	200	0	102	75-140	0			
Styrene	182.5	10	200	0	91.2	85-125	0			
Tetrachloroethene	232.4	10	200	27.77	102	77-138	0			
Toluene	199.1	10	200	0	99.6	85-125	0			
trans-1,2-Dichloroethene	209.9	10	200	0	105	80-140	0			
trans-1,3-Dichloropropene	136	10	200	0	68	72-120	0			S
Trichloroethene	212.3	10	200	11.62	100	84-130	0			
Trichlorofluoromethane	187.7	10	200	0	93.8	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

Vinyl chloride	178	10	200	0	89	50-136	0
Xylenes, Total	558.4	30	600	0	93.1	80-126	0
Surr: 1,2-Dichloroethane-d4	*196.2*	0	*200*	0	*98.1*	*75-120*	0
Surr: 4-Bromofluorobenzene	*200.1*	0	*200*	0	*100*	*80-110*	0
Surr: Dibromofluoromethane	*201.1*	0	*200*	0	*101*	*85-115*	0
Surr: Toluene-d8	*198*	0	*200*	0	*99*	*85-110*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: R196101a Instrument ID VMS6 Method: SW8260B

MSD Sample ID: 1609923-01A MSD Units: µg/L Analysis Date: 9/20/2016 09:28 PM
Client ID: Run ID: VMS6_160920A SeqNo: 4037523 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	214.7	10	200	0	107	75-130	204.2	5.01	30	
1,1,2,2-Tetrachloroethane	197.9	10	200	0	99	75-130	187.7	5.29	30	
1,1,2-Trichloroethane	195.4	10	200	0	97.7	75-125	187.8	3.97	30	
1,1-Dichloroethane	211.6	10	200	0	106	75-133	201.3	4.99	30	
1,1-Dichloroethene	229.9	10	200	0	115	70-145	225.9	1.76	30	
1,2,4-Trichlorobenzene	185.6	10	200	0	92.8	70-135	172.7	7.2	30	
1,2-Dibromo-3-chloropropane	129.5	10	200	0	64.8	60-130	120.8	6.95	30	
1,2-Dibromoethane	181.6	10	200	0	90.8	80-150	173.1	4.79	30	
1,2-Dichlorobenzene	197.4	10	200	0	96.7	70-130	188.3	4.72	30	
1,2-Dichloroethane	193	10	200	0	96.5	78-125	179.4	7.3	30	
1,2-Dichloropropane	195.9	10	200	0	98	75-125	185.6	5.4	30	
1,3-Dichlorobenzene	201.8	10	200	0	101	75-130	191.8	5.08	30	
1,4-Dichlorobenzene	192.9	10	200	0	96.4	75-130	181.7	5.98	30	
2-Butanone	176.3	50	200	0	88.2	55-150	164.1	7.17	30	
2-Hexanone	158.1	50	200	0	79	60-135	157	0.698	30	
4-Methyl-2-pentanone	194.8	10	200	0	97.4	77-178	196.7	0.971	30	
Acetone	182.3	100	200	0	91.2	60-160	165.9	9.42	30	
Benzene	211.2	10	200	1.12	105	85-125	199.4	5.75	30	
Bromodichloromethane	166.1	10	200	0	83	75-125	156.5	5.95	30	
Bromoform	139.8	10	200	0	69.9	60-125	130.7	6.73	30	
Bromomethane	214	10	200	0	107	30-185	194	9.8	30	
Carbon disulfide	218.3	10	200	0	109	60-165	208.5	4.59	30	
Carbon tetrachloride	192.6	10	200	0	96.3	65-140	183.5	4.84	30	
Chlorobenzene	201.9	10	200	0	101	80-120	191	5.55	30	
Chloroethane	174.5	10	200	0	87.2	50-140	172	1.44	30	
Chloroform	200.1	10	200	0	100	80-130	191.9	4.18	30	
Chloromethane	167.7	10	200	0	83.8	50-130	143.6	15.5	30	
cis-1,2-Dichloroethene	206.2	10	200	7.51	99.3	75-134	197.6	4.26	30	
cis-1,3-Dichloropropene	161.7	10	200	0	80.6	70-130	149.8	7.64	30	
Dibromochloromethane	140.8	10	200	0	70.4	60-115	130.8	7.36	30	
Dichlorodifluoromethane	138.7	10	200	0	69.4	20-120	135.8	2.11	30	
Ethylbenzene	199.4	10	200	0	99.7	85-125	189	5.36	30	
Isopropylbenzene	219.6	10	200	0	110	80-127	210	4.47	30	
Methyl tert-butyl ether	175.5	10	200	0	87.8	80-130	169	3.77	30	
Methylene chloride	205.7	50	200	0	103	75-140	204	0.83	30	
Styrene	190.7	10	200	0	95.4	85-125	182.5	4.39	30	
Tetrachloroethene	245	10	200	27.77	109	77-138	232.4	5.28	30	
Toluene	210.1	10	200	0	105	85-125	199.1	5.38	30	
trans-1,2-Dichloroethene	212.6	10	200	0	106	80-140	209.9	1.28	30	
trans-1,3-Dichloropropene	144.8	10	200	0	72.4	72-120	136	6.27	30	
Trichloroethene	220.9	10	200	11.62	105	84-130	212.3	3.97	30	
Trichlorofluoromethane	195.3	10	200	0	97.6	60-140	187.7	3.97	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196101a** Instrument ID **VMS6** Method: **SW8260B**

Vinyl chloride	186.1	10	200	0	93	50-136	178	4.45	30
Xylenes, Total	584.9	30	600	0	97.5	80-126	558.4	4.64	30
Surr: 1,2-Dichloroethane-d4	*198.6*	0	*200*	0	*99.3*	*75-120*	196.2	*1.22*	*30*
Surr: 4-Bromofluorobenzene	*202.5*	0	*200*	0	*101*	*80-110*	200.1	*1.19*	*30*
Surr: Dibromofluoromethane	*201.9*	0	*200*	0	*101*	*85-115*	201.1	*0.397*	*30*
Surr: Toluene-d8	*198.1*	0	*200*	0	*99*	*85-110*	198	*0.0505*	*30*

The following samples were analyzed in this batch: 16091057-01A 16091057-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **R196197A** Instrument ID **VMS6** Method: **SW8260B**

MBLK Sample ID: **VBLKW1-160921-R196197A** Units: µg/L Analysis Date: **9/21/2016 02:24 PM**
Client ID: Run ID: **VMS6_160921A** SeqNo: **4039170** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	U	5.0								
Acetone	U	10								
Surr: 1,2-Dichloroethane-d4	*19.31*	0	*20*	0	*96.6*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*18.97*	0	*20*	0	*94.8*	*80-110*	0			
Surr: Dibromofluoromethane	*19*	0	*20*	0	*95*	*85-115*	0			
Surr: Toluene-d8	*19.59*	0	*20*	0	*98*	*85-110*	0			

LCS Sample ID: **VLCSW1-160921-R196197A** Units: µg/L Analysis Date: **9/21/2016 01:31 PM**
Client ID: Run ID: **VMS6_160921A** SeqNo: **4039169** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	18.05	5.0	20	0	90.2	55-150	0			
Acetone	19.29	10	20	0	96.4	60-160	0			
Surr: 1,2-Dichloroethane-d4	*19.4*	0	*20*	0	*97*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*19.78*	0	*20*	0	*98.9*	*80-110*	0			
Surr: Dibromofluoromethane	*20.03*	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*19.95*	0	*20*	0	*99.8*	*85-110*	0			

MS Sample ID: **16091057-01A MS** Units: µg/L Analysis Date: **9/21/2016 11:05 PM**
Client ID: **TPA-Pile 6 - 091916** Run ID: **VMS6_160921A** SeqNo: **4040256** Prep Date: DF: **200**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	5834	1,000	4000	2458	84.4	55-150	0			
Acetone	15680	2,000	4000	13470	55.3	60-160	0			S
Surr: 1,2-Dichloroethane-d4	*3916*	0	*4000*	0	*97.9*	*75-120*	0			
Surr: 4-Bromofluorobenzene	*4030*	0	*4000*	0	*101*	*80-110*	0			
Surr: Dibromofluoromethane	*3960*	0	*4000*	0	*99*	*85-115*	0			
Surr: Toluene-d8	*3988*	0	*4000*	0	*99.7*	*85-110*	0			

MSD Sample ID: **16091057-01A MSD** Units: µg/L Analysis Date: **9/21/2016 11:32 PM**
Client ID: **TPA-Pile 6 - 091916** Run ID: **VMS6_160921A** SeqNo: **4040257** Prep Date: DF: **200**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	6230	1,000	4000	2458	94.3	55-150	5834	6.56	30	
Acetone	16020	2,000	4000	13470	63.8	60-160	15680	2.13	30	
Surr: 1,2-Dichloroethane-d4	*3942*	0	*4000*	0	*98.6*	*75-120*	3916	*0.662*	*30*	
Surr: 4-Bromofluorobenzene	*3974*	0	*4000*	0	*99.4*	*80-110*	4030	*1.4*	*30*	
Surr: Dibromofluoromethane	*4018*	0	*4000*	0	*100*	*85-115*	3960	*1.45*	*30*	
Surr: Toluene-d8	*4008*	0	*4000*	0	*100*	*85-110*	3988	*0.5*	*30*	

The following samples were analyzed in this batch: 16091057-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

GC/MS
Semi-Volatile Organics

ADDRESS 3352 128th Avenue, Holland Michigan 49424-9236 USA | PHONE +1 616 399 6070 | FAX +1 616 399 6185
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	TOT OUT
01	M-BLANK	44	23	64	74	65	79	0
02	BLK SPIKE	42	26	65	72	73	77	0
03	XXXXX-01 MS	43	26	67	73	88	72	0
04	TPA-PILE 6-091	34	21	53	67	75	82	0
05	TPA-PILE 6-091	32	20	52	62	65	70	0
06	TPA-PILE 6-091	7*	4*	12*	14*	14*	19*	6

QC LIMITS

S1	(2FP)	=	2-Fluorophenol	(22-59)
S2	(PHL)	=	Phenol-d6	(13-36)
S3	(NBZ)	=	Nitrobenzene-d5	(31-93)
S4	(FBP)	=	2-Fluorobiphenyl	(32-100)
S5	(TBP)	=	2,4,6-Tribromophenol	(38-115)
S6	(TPH)	=	4-Terphenyl-d14	(23-112)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

M-Blank

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID: 09211604.D Lab Sample ID: SBLKW1-91630

Instrument ID: SMS5 Date Extracted: _____

Matrix: (soil/water) WATER Date Analyzed: 9/21/2016

Level: (low/med) LOW Time Analyzed: 10:15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BLK SPIKE	SLCSW1-91630	09211605.D	9/21/2016
02	XXXXX-01 MS	1609912-01B MS	09211613.D	9/21/2016
03	TPA-PILE 6-091916	16091057-01B	09211615.D	9/21/2016
04	TPA-PILE 6-091916	16091057-01B DUP	09211616.D	9/21/2016
05	TPA-PILE 6-091916	16091057-01B DF5	09211640.D	9/22/2016

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID: 09211602.D DFTPP Injection Date: 9/21/2016

Instrument ID: SMS5 DFTPP Injection Time: 9:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	34.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	41.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	50.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	24.4
365	Greater than 0.75% of mass 198	2.5
441	Present, but less than mass 443	12.5
442	40.0 - 110.0% of mass 198	81.8
443	15.0 - 24.0% of mass 442	16.8 (20.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD01	20 UG/ML BNA	09211603.D	9/21/2016	9:47
02	M-BLANK	SBLKW1-91630	09211604.D	9/21/2016	10:15
03	BLK SPIKE	SLCSW1-91630	09211605.D	9/21/2016	10:38

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID: 09211611.D DFTPP Injection Date: 9/21/2016

Instrument ID: SMS5 DFTPP Injection Time: 12:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	30.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 Relative abundance	36.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	47.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	26.8
365	Greater than 0.75% of mass 198	3.0
441	Present, but less than mass 443	13.6
442	40.0 - 110.0% of mass 198	93.8
443	15.0 - 24.0% of mass 442	18.6 (19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD02	20 UG/ML BNA	09211612.D	9/21/2016	13:10
02	XXXXX-01 MS	1609912-01B MS	09211613.D	9/21/2016	13:33
03	TPA-PILE 6-09191	16091057-01B	09211615.D	9/21/2016	14:19
04	TPA-PILE 6-09191	16091057-01B DUP	09211616.D	9/21/2016	14:43
05	TPA-PILE 6-09191	16091057-01B DF5	09211640.D	9/22/2016	0:02

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract:

Lab Code: MI00028 Case No.: SAS No.: SDG No.: 16091057

Lab File ID (Standard): 09211603.D Date Analyzed: 9/21/2016

Instrument ID: SMS5 Time Analyzed: 9:47

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ACE) AREA #	RT #
	12 HOUR STD	349625	3.27	999804	4.01	724248	5.15
	UPPER LIMIT	699250	3.77	1999608	4.51	1448496	5.65
	LOWER LIMIT	174813	2.77	499902	3.51	362124	4.65
	EPA SAMPLE NO.						
01	M-BLANK	331851	3.27	929901	4.02	620074	5.18
02	BLK SPIKE	376891	3.27	1052680	4.01	734218	5.15

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ACE) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract:

Lab Code: MI00028 Case No.: SAS No.: SDG No.: 16091057

Lab File ID (Standard): 09211603.D Date Analyzed: 9/21/2016

Instrument ID: SMS5 Time Analyzed: 9:47

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1489231	6.24	2114150	8.85	2322807	11.31
	UPPER LIMIT	2978462	5.74	4228300	8.35	4645614	10.81
	LOWER LIMIT	744616	6.74	1057075	9.35	1161404	11.81
	EPA SAMPLE NO.						
01	M-BLANK	1285581	6.31	1743763	8.94	1796700	11.38
02	BLK SPIKE	1498325	6.22	1978210	8.82	2002707	11.29

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ACE) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID (Standard): 09211612.D Date Analyzed: 9/21/2016

Instrument ID: SMS5 Time Analyzed: 13:10

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ACE) AREA #	RT #
	12 HOUR STD	586408	3.27	1554633	4.01	1053492	5.16
	UPPER LIMIT	1172816	3.77	3109266	4.51	2106984	5.66
	LOWER LIMIT	293204	2.77	777317	3.51	526746	4.66
	EPA SAMPLE NO.						
01	XXXXX-01 MS	416952	3.27	1131670	4.02	773380	5.15
02	TPA-PILE 6-0	523849	3.27	1441082	4.02	1026988	5.14
03	TPA-PILE 6-0	529444	3.27	1418627	4.01	967186	5.14
04	TPA-PILE 6-0	484398	3.27	1343353	4.01	954629	5.13

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ACE) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ALS Environmental Contract: _____

Lab Code: MI00028 Case No.: _____ SAS No.: _____ SDG No.: 16091057

Lab File ID (Standard): 09211612.D Date Analyzed: 9/21/2016

Instrument ID: SMS5 Time Analyzed: 13:10

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	2004089	6.25	2502365	8.87	2317589	11.32
	UPPER LIMIT	4008178	5.75	5004730	8.37	4635178	10.82
	LOWER LIMIT	1002045	6.75	1251183	9.37	1158795	11.82
	EPA SAMPLE NO.						
01	XXXXX-01 MS	1567834	6.22	2202795	8.82	1934076	11.28
02	TPA-PILE 6-0	1852520	6.21	1447672	8.81	1362879	11.29
03	TPA-PILE 6-0	1686532	6.22	1345612	8.83	1296700	11.30
04	TPA-PILE 6-0	1918511	6.17	1655017	8.74	1434145	11.24

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ACE) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

ALS Group USA, Corp

Date: 28-Sep-16

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91630 Instrument ID SVMS5 Method: SW846 8270D

MBLK	Sample ID: SBLKW1-91630-91630	Units: µg/L	Analysis Date: 9/21/2016 10:15 AM
Client ID:	Run ID: SVMS5_160921A	SeqNo: 4038570	Prep Date: 9/20/2016 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	5.0								
2,4,5-Trichlorophenol	U	5.0								
2,4,6-Trichlorophenol	U	5.0								
2,4-Dichlorophenol	U	5.0								
2,4-Dimethylphenol	U	5.0								
2,4-Dinitrophenol	U	5.0								
2,4-Dinitrotoluene	U	5.0								
2,6-Dinitrotoluene	U	5.0								
2-Chloronaphthalene	U	5.0								
2-Chlorophenol	U	5.0								
2-Methylnaphthalene	U	5.0								
2-Methylphenol	U	5.0								
2-Nitroaniline	U	5.0								
2-Nitrophenol	U	5.0								
3&4-Methylphenol	U	5.0								
3,3'-Dichlorobenzidine	U	5.0								
3-Nitroaniline	U	5.0								
4,6-Dinitro-2-methylphenol	U	5.0								
4-Bromophenyl phenyl ether	U	5.0								
4-Chloro-3-methylphenol	U	5.0								
4-Chloroaniline	U	5.0								
4-Chlorophenyl phenyl ether	U	5.0								
4-Nitroaniline	U	5.0								
4-Nitrophenol	U	5.0								
Acenaphthene	U	5.0								
Acenaphthylene	U	5.0								
Acetophenone	U	1.0								
Anthracene	U	5.0								
Benzaldehyde	U	1.0								
Benzidine	U	10								
Benzo(a)anthracene	U	5.0								
Benzo(a)pyrene	U	5.0								
Benzo(b)fluoranthene	U	5.0								
Benzo(g,h,i)perylene	U	5.0								
Benzo(k)fluoranthene	U	5.0								
Bis(2-chloroethoxy)methane	U	5.0								
Bis(2-chloroethyl)ether	U	5.0								
Bis(2-chloroisopropyl)ether	U	5.0								
Bis(2-ethylhexyl)phthalate	U	5.0								
Butyl benzyl phthalate	U	5.0								
Caprolactam	U	10								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Carbazole	U	5.0					
Chrysene	U	5.0					
Dibenzo(a,h)anthracene	U	5.0					
Dibenzofuran	U	5.0					
Diethyl phthalate	U	5.0					
Dimethyl phthalate	U	5.0					
Di-n-butyl phthalate	U	5.0					
Di-n-octyl phthalate	U	5.0					
Fluoranthene	U	5.0					
Fluorene	U	5.0					
Hexachlorobenzene	U	5.0					
Hexachlorobutadiene	U	5.0					
Hexachlorocyclopentadiene	U	5.0					
Hexachloroethane	U	5.0					
Indeno(1,2,3-cd)pyrene	U	5.0					
Isophorone	U	5.0					
Naphthalene	U	5.0					
Nitrobenzene	U	5.0					
N-Nitrosodi-n-propylamine	U	5.0					
N-Nitrosodiphenylamine	U	5.0					
Pentachlorophenol	U	5.0					
Phenanthrene	U	5.0					
Phenol	U	5.0					
Pyrene	U	5.0					
Surr: 2,4,6-Tribromophenol	*32.61*	0	*50*	0	*65.2*	*38-115*	0
Surr: 2-Fluorobiphenyl	*37*	0	*50*	0	*74*	*32-100*	0
Surr: 2-Fluorophenol	*22.23*	0	*50*	0	*44.5*	*22-59*	0
Surr: 4-Terphenyl-d14	*39.52*	0	*50*	0	*79*	*23-112*	0
Surr: Nitrobenzene-d5	*31.88*	0	*50*	0	*63.8*	*31-93*	0
Surr: Phenol-d6	*11.37*	0	*50*	0	*22.7*	*13-36*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91630 Instrument ID SVMS5 Method: SW846 8270D

LCS Sample ID: SLCSW1-91630-91630 Units: µg/L Analysis Date: 9/21/2016 10:38 AM
Client ID: Run ID: SVMS5_160921A SeqNo: 4038571 Prep Date: 9/20/2016 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	14.68	5.0	20	0	73.4	30-120	0			
2,4,5-Trichlorophenol	14.99	5.0	20	0	75	50-110	0			
2,4,6-Trichlorophenol	13.35	5.0	20	0	66.8	50-115	0			
2,4-Dichlorophenol	13.23	5.0	20	0	66.2	50-105	0			
2,4-Dimethylphenol	11.62	5.0	20	0	58.1	30-110	0			
2,4-Dinitrophenol	14.04	5.0	20	0	70.2	15-140	0			
2,4-Dinitrotoluene	15.92	5.0	20	0	79.6	50-120	0			
2,6-Dinitrotoluene	15.92	5.0	20	0	79.6	50-115	0			
2-Chloronaphthalene	15.33	5.0	20	0	76.6	50-105	0			
2-Chlorophenol	14.18	5.0	20	0	70.9	35-105	0			
2-Methylnaphthalene	14.75	5.0	20	0	73.8	45-105	0			
2-Methylphenol	11.93	5.0	20	0	59.6	40-110	0			
2-Nitroaniline	14.48	5.0	20	0	72.4	50-115	0			
2-Nitrophenol	13.64	5.0	20	0	68.2	40-115	0			
3&4-Methylphenol	11.56	5.0	20	0	57.8	30-110	0			
3,3'-Dichlorobenzidine	15	5.0	20	0	75	30-120	0			
3-Nitroaniline	15.35	5.0	20	0	76.8	20-125	0			
4,6-Dinitro-2-methylphenol	15.35	5.0	20	0	76.8	40-130	0			
4-Bromophenyl phenyl ether	14.37	5.0	20	0	71.8	50-115	0			
4-Chloro-3-methylphenol	13.17	5.0	20	0	65.8	45-110	0			
4-Chloroaniline	14.63	5.0	20	0	73.2	15-110	0			
4-Chlorophenyl phenyl ether	15.61	5.0	20	0	78	50-110	0			
4-Nitroaniline	16.88	5.0	20	0	84.4	35-150	0			
4-Nitrophenol	5.82	5.0	20	0	29.1	10-58	0			
Acenaphthene	15.66	5.0	20	0	78.3	45-110	0			
Acenaphthylene	17.3	5.0	20	0	86.5	50-105	0			
Acetophenone	15.85	1.0	20	0	79.2	30-120	0			
Anthracene	16.93	5.0	20	0	84.6	55-110	0			
Benzaldehyde	17.45	1.0	20	0	87.2	30-120	0			
Benzo(a)anthracene	16.18	5.0	20	0	80.9	55-110	0			
Benzo(a)pyrene	16.19	5.0	20	0	81	55-110	0			
Benzo(b)fluoranthene	14.28	5.0	20	0	71.4	45-120	0			
Benzo(g,h,i)perylene	16.61	5.0	20	0	83	40-125	0			
Benzo(k)fluoranthene	18.36	5.0	20	0	91.8	45-125	0			
Bis(2-chloroethoxy)methane	15.5	5.0	20	0	77.5	45-105	0			
Bis(2-chloroethyl)ether	14.77	5.0	20	0	73.8	35-110	0			
Bis(2-ethylhexyl)phthalate	16.93	5.0	20	0	84.6	40-125	0			
Butyl benzyl phthalate	15.45	5.0	20	0	77.2	45-115	0			
Carbazole	16.44	5.0	20	0	82.2	50-150	0			
Chrysene	17.67	5.0	20	0	88.4	55-110	0			
Dibenzo(a,h)anthracene	17.01	5.0	20	0	85	40-125	0			
Dibenzofuran	15.3	5.0	20	0	76.5	55-105	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Diethyl phthalate	17.55	5.0	20	0	87.8	40-120	0
Dimethyl phthalate	16.7	5.0	20	0	83.5	25-125	0
Di-n-butyl phthalate	17.56	5.0	20	0	87.8	55-115	0
Di-n-octyl phthalate	14.93	5.0	20	0	74.6	35-135	0
Fluoranthene	16.5	5.0	20	0	82.5	55-115	0
Fluorene	15.91	5.0	20	0	79.6	50-110	0
Hexachlorobenzene	15.08	5.0	20	0	75.4	50-110	0
Hexachlorobutadiene	13.31	5.0	20	0	66.6	25-105	0
Hexachlorocyclopentadiene	14.53	5.0	20	0	72.6	25-105	0
Hexachloroethane	14.1	5.0	20	0	70.5	30-95	0
Indeno(1,2,3-cd)pyrene	19.08	5.0	20	0	95.4	45-125	0
Isophorone	15.53	5.0	20	0	77.6	50-110	0
Naphthalene	14.4	5.0	20	0	72	40-100	0
Nitrobenzene	14.48	5.0	20	0	72.4	45-110	0
N-Nitrosodi-n-propylamine	15.8	5.0	20	0	79	35-130	0
N-Nitrosodiphenylamine	14.98	5.0	20	0	74.9	50-110	0
Pentachlorophenol	13.73	5.0	20	0	68.6	40-115	0
Phenanthrene	15.84	5.0	20	0	79.2	50-115	0
Phenol	6.55	5.0	20	0	32.8	12-43	0
Pyrene	16.73	5.0	20	0	83.6	50-130	0
Surr: 2,4,6-Tribromophenol	*36.61*	0	*50*	0	*73.2*	*38-115*	0
Surr: 2-Fluorobiphenyl	*36.14*	0	*50*	0	*72.3*	*32-100*	0
Surr: 2-Fluorophenol	*21.09*	0	*50*	0	*42.2*	*22-59*	0
Surr: 4-Terphenyl-d14	*38.49*	0	*50*	0	*77*	*23-112*	0
Surr: Nitrobenzene-d5	*32.52*	0	*50*	0	*65*	*31-93*	0
Surr: Phenol-d6	*12.81*	0	*50*	0	*25.6*	*13-36*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91630 Instrument ID SVMS5 Method: SW846 8270D

MS Sample ID: 1609912-01B MS Units: µg/L Analysis Date: 9/21/2016 01:33 PM
Client ID: Run ID: SVMS5_160921A SeqNo:4039218 Prep Date: 9/20/2016 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	15.58	5.0	20	0	77.9	30-120	0			
2,4,5-Trichlorophenol	21.03	5.0	20	0	105	50-110	0			
2,4,6-Trichlorophenol	17.76	5.0	20	0	88.8	50-115	0			
2,4-Dichlorophenol	16.29	5.0	20	0	81.4	50-105	0			
2,4-Dimethylphenol	13.05	5.0	20	0	65.2	30-110	0			
2,4-Dinitrophenol	25.66	5.0	20	0	128	15-140	0			
2,4-Dinitrotoluene	19.24	5.0	20	0	96.2	50-120	0			
2,6-Dinitrotoluene	19.24	5.0	20	0	96.2	50-115	0			
2-Chloronaphthalene	18.43	5.0	20	0	82.2	50-105	0			
2-Chlorophenol	14.64	5.0	20	0	73.2	35-105	0			
2-Methylnaphthalene	15.3	5.0	20	0	76.5	45-105	0			
2-Methylphenol	12.86	5.0	20	0	64.3	40-110	0			
2-Nitroaniline	13.81	5.0	20	0	68	50-115	0			
2-Nitrophenol	15.19	5.0	20	0	76	40-115	0			
3&4-Methylphenol	13.29	5.0	20	0	66.4	30-110	0			
3,3'-Dichlorobenzidine	1.98	5.0	20	0	9.9	30-120	0			JS
3-Nitroaniline	4.64	5.0	20	0	23.2	20-125	0			J
4,6-Dinitro-2-methylphenol	18.72	5.0	20	0	93.6	40-130	0			
4-Bromophenyl phenyl ether	18.28	5.0	20	0	81.4	50-115	0			
4-Chloro-3-methylphenol	18.19	5.0	20	0	91	45-110	0			
4-Chloroaniline	8.85	5.0	20	0	44.2	15-110	0			
4-Chlorophenyl phenyl ether	17.53	5.0	20	0	87.6	50-110	0			
4-Nitroaniline	3.57	5.0	20	0	17.8	35-150	0			JS
4-Nitrophenol	9.09	5.0	20	0	45.4	1-58	0			
Acenaphthene	17.31	5.0	20	0	86.6	45-110	0			
Acenaphthylene	24.16	5.0	20	3.85	102	50-105	0			
Acetophenone	16.2	1.0	20	0	81	30-120	0			
Anthracene	21.64	5.0	20	0	108	55-110	0			
Benzaldehyde	18.49	1.0	20	0	92.4	30-120	0			
Benzo(a)anthracene	22.37	5.0	20	2.84	97.6	55-110	0			
Benzo(a)pyrene	23.77	5.0	20	4.61	95.8	55-110	0			
Benzo(b)fluoranthene	25.37	5.0	20	5.47	99.5	45-120	0			
Benzo(g,h,i)perylene	20.43	5.0	20	2.94	87.4	40-125	0			
Benzo(k)fluoranthene	23.28	5.0	20	2.73	103	45-125	0			
Bis(2-chloroethoxy)methane	15.9	5.0	20	0	79.5	45-105	0			
Bis(2-chloroethyl)ether	14.58	5.0	20	0	72.9	35-110	0			
Bis(2-ethylhexyl)phthalate	20.82	5.0	20	1.39	97.2	40-125	0			
Butyl benzyl phthalate	19.27	5.0	20	0	96.4	45-115	0			
Carbazole	20.56	5.0	20	0	103	50-150	0			
Chrysene	22.24	5.0	20	2.37	99.4	55-110	0			
Dibenzo(a,h)anthracene	19.07	5.0	20	0.85	91.1	40-125	0			
Dibenzofuran	17.2	5.0	20	0	86	55-105	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Diethyl phthalate	20.09	5.0	20	0	100	40-120	0
Dimethyl phthalate	18.79	5.0	20	0	94	25-125	0
Di-n-butyl phthalate	20.42	5.0	20	0	102	55-115	0
Di-n-octyl phthalate	22.88	5.0	20	0	114	35-135	0
Fluoranthene	21.8	5.0	20	2.17	98.2	55-115	0
Fluorene	18.36	5.0	20	0	91.8	50-110	0
Hexachlorobenzene	16.41	5.0	20	0	82	50-110	0
Hexachlorobutadiene	14.04	5.0	20	0	70.2	25-105	0
Hexachlorocyclopentadiene	11.35	5.0	20	0	56.8	25-105	0
Hexachloroethane	14.78	5.0	20	0	73.9	30-95	0
Indeno(1,2,3-cd)pyrene	18.13	5.0	20	3.76	71.8	45-125	0
Isophorone	15.76	5.0	20	0	78.8	50-110	0
Naphthalene	15.18	5.0	20	0	75.9	40-100	0
Nitrobenzene	17.2	5.0	20	0	86	45-110	0
N-Nitrosodi-n-propylamine	15.87	5.0	20	0	79.4	35-130	0
N-Nitrosodiphenylamine	18.52	5.0	20	0	92.6	50-110	0
Pentachlorophenol	20.68	5.0	20	0	103	40-115	0
Phenanthrene	18.15	5.0	20	0	90.8	50-115	0
Phenol	5.76	5.0	20	0	28.8	12-43	0
Pyrene	20.85	5.0	20	2.1	93.8	50-130	0
Surr: 2,4,6-Tribromophenol	*44.24*	0	*50*	0	*88.5*	*38-115*	0
Surr: 2-Fluorobiphenyl	*36.63*	0	*50*	0	*73.3*	*32-100*	0
Surr: 2-Fluorophenol	*21.29*	0	*50*	0	*42.6*	*22-59*	0
Surr: 4-Terphenyl-d14	*36.05*	0	*50*	0	*72.1*	*23-112*	0
Surr: Nitrobenzene-d5	*33.59*	0	*50*	0	*67.2*	*31-93*	0
Surr: Phenol-d6	*13.21*	0	*50*	0	*26.4*	*13-36*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91630 Instrument ID SVMS5 Method: SW846 8270D

DUP Sample ID: 16091057-01B DUP Units: µg/L Analysis Date: 9/21/2016 02:43 PM
Client ID: TPA-Pile 6 - 091916 Run ID: SVMS5_160921A SeqNo: 4039259 Prep Date: 9/20/2016 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	1.1	0	0	0		0	0	30	
2,4,5-Trichlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2,4,6-Trichlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2,4-Dichlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2,4-Dimethylphenol	U	1.1	0	0	0	0-0	0	0	30	
2,4-Dinitrophenol	U	5.6	0	0	0	0-0	0	0	30	
2,4-Dinitrotoluene	U	1.1	0	0	0	0-0	0	0	30	
2,6-Dinitrotoluene	U	1.1	0	0	0	0-0	0	0	30	
2-Chloronaphthalene	U	0.11	0	0	0	0-0	0	0	30	
2-Chlorophenol	U	1.1	0	0	0	0-0	0	0	30	
2-Methylnaphthalene	0.6034	0.11	0	0	0	0-0	0.4787	23	30	
2-Methylphenol	4.559	1.1	0	0	0	0-0	4.617	1.27	30	
2-Nitroaniline	U	1.1	0	0	0	0-0	0	0	30	
2-Nitrophenol	U	1.1	0	0	0	0-0	0	0	30	
3&4-Methylphenol	6.168	1.1	0	0	0		7.191	15.3	30	
3,3'-Dichlorobenzidine	U	5.6	0	0	0	0-0	0	0	30	
3-Nitroaniline	U	1.1	0	0	0	0-0	0	0	30	
4,6-Dinitro-2-methylphenol	U	1.1	0	0	0	0-0	0	0	30	
4-Bromophenyl phenyl ether	U	1.1	0	0	0	0-0	0	0	30	
4-Chloro-3-methylphenol	U	1.1	0	0	0	0-0	0	0	30	
4-Chloroaniline	U	1.1	0	0	0	0-0	0	0	30	
4-Chlorophenyl phenyl ether	U	1.1	0	0	0	0-0	0	0	30	
4-Nitroaniline	U	1.1	0	0	0	0-0	0	0	30	
4-Nitrophenol	U	5.6	0	0	0	0-0	0	0	30	
Acenaphthene	0.9809	0.11	0	0	0	0-0	0.883	8.45	30	
Acenaphthylene	U	0.11	0	0	0	0-0	0	0	30	
Acetophenone	11.11	1.1	0	0	0	0-0	4.543	83.9	30	R
Anthracene	1.363	0.11	0	0	0	0-0	1.574	14.4	30	
Benzaldehyde	2.514	1.1	0	0	0		2.16	15.2	30	
Benzidine	U	5.6	0	0	0	0-0	0	0	30	
Benzo(a)anthracene	1.978	0.11	0	0	0	0-0	2.298	15	30	
Benzo(a)pyrene	2.57	0.11	0	0	0	0-0	2.777	7.73	30	
Benzo(b)fluoranthene	3.218	0.11	0	0	0	0-0	3.553	9.9	30	
Benzo(g,h,i)perylene	1.508	0.11	0	0	0	0-0	1.67	10.2	30	
Benzo(k)fluoranthene	1.441	0.11	0	0	0	0-0	1.606	10.8	30	
Bis(2-chloroethoxy)methane	U	1.1	0	0	0	0-0	0	0	30	
Bis(2-chloroethyl)ether	U	1.1	0	0	0	0-0	0	0	30	
Bis(2-chloroisopropyl)ether	U	1.1	0	0	0	0-0	0	0	30	
Bis(2-ethylhexyl)phthalate	43.84	1.1	0	0	0	0-0	35.74	20.4	30	
Butyl benzyl phthalate	U	1.1	0	0	0	0-0	0	0	30	
Caprolactam	U	5.6	0	0	0		0	0	30	
Carbazole	1.587	1.1	0	0	0	0-0	1.585	0.0937	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91630** Instrument ID **SVMS5** Method: **SW846 8270D**

Chrysene	2	0.11	0	0	0	0-0	2.298	13.9	30	
Dibenzo(a,h)anthracene	0.6816	0.11	0	0	0	0-0	0.5	30.7	30	R
Dibenzofuran	0.7486	1.1	0	0	0	0-0	0.6915	0	30	J
Diethyl phthalate	0.1899	1.1	0	0	0	0-0	0.2234	0	30	J
Dimethyl phthalate	U	1.1	0	0	0	0-0	0	0	30	
Di-n-butyl phthalate	0.8939	1.1	0	0	0	0-0	0.7021	0	30	J
Di-n-octyl phthalate	33.34	1.1	0	0	0	0-0	23.7	33.8	30	R
Fluoranthene	2.592	0.11	0	0	0	0-0	3.149	19.4	30	
Fluorene	1.765	0.11	0	0	0	0-0	1.521	14.9	30	
Hexachlorobenzene	U	1.1	0	0	0	0-0	0	0	30	
Hexachlorobutadiene	U	1.1	0	0	0	0-0	0	0	30	
Hexachlorocyclopentadiene	U	5.6	0	0	0	0-0	0	0	30	
Hexachloroethane	U	1.1	0	0	0	0-0	0	0	30	
Indeno(1,2,3-cd)pyrene	2.76	0.11	0	0	0	0-0	2.479	10.7	30	
Isophorone	140	5.6	0	0	0	0-0	138.4	1.16	30	E
Naphthalene	2.793	0.11	0	0	0	0-0	2.362	16.7	30	
Nitrobenzene	U	1.1	0	0	0	0-0	0	0	30	
N-Nitrosodi-n-propylamine	U	1.1	0	0	0	0-0	0	0	30	
N-Nitrosodiphenylamine	U	1.1	0	0	0	0-0	0	0	30	
Pentachlorophenol	U	5.6	0	0	0	0-0	0	0	30	
Phenanthrene	3.52	0.11	0	0	0	0-0	3.734	5.91	30	
Phenol	0.9497	1.1	0	0	0	0-0	0.8404	0	30	J
Pyrene	3.911	0.11	0	0	0	0-0	4.979	24	30	
Surr: 2,4,6-Tribromophenol	*36.39*	0	*55.87*	0	*65.1*	*38-115*	40.11	*9.71*	*40*	
Surr: 2-Fluorobiphenyl	*34.89*	0	*55.87*	0	*62.5*	*32-100*	35.88	*2.8*	*40*	
Surr: 2-Fluorophenol	*17.91*	0	*55.87*	0	*32.1*	*22-59*	17.82	*0.512*	*40*	
Surr: 4-Terphenyl-d14	*39.06*	0	*55.87*	0	*69.9*	*23-112*	43.53	*10.8*	*40*	
Surr: Nitrobenzene-d5	*29.06*	0	*55.87*	0	*52*	*31-93*	28.35	*2.47*	*40*	
Surr: Phenol-d6	*11.31*	0	*55.87*	0	*20.2*	*13-36*	10.96	*3.14*	*40*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

GC
Semi-Volatile Organics

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PCBs

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Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91634A** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKW1-91634-91634A** Units: µg/L Analysis Date: **9/21/2016 04:15 PM**
Client ID: Run ID: **GC14_160921A** SeqNo: **4039477** Prep Date: **9/20/2016** DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20								
Aroclor 1221	U	0.20								
Aroclor 1232	U	0.20								
Aroclor 1242	U	0.20								
Aroclor 1248	U	0.20								
Aroclor 1254	U	0.20								
Aroclor 1260	U	0.20								
PCBs, Total	U	0.20								
Surr: Decachlorobiphenyl	*0.073*	0	*0.1*	0	*73*	*40-110*		0		
Surr: Tetrachloro-m-xylene	*0.07*	0	*0.1*	0	*70*	*40-110*		0		

LCS Sample ID: **PLCSW1-91634-91634A** Units: µg/L Analysis Date: **9/21/2016 04:33 PM**
Client ID: Run ID: **GC14_160921A** SeqNo: **4039478** Prep Date: **9/20/2016** DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.861	0.20	2.5	0	74.4	50-130		0		
Aroclor 1260	1.973	0.20	2.5	0	78.9	50-130		0		
Surr: Decachlorobiphenyl	*0.073*	0	*0.1*	0	*73*	*40-110*		0		
Surr: Tetrachloro-m-xylene	*0.067*	0	*0.1*	0	*67*	*40-110*		0		

MS Sample ID: **1609826-01A MS** Units: µg/L Analysis Date: **9/21/2016 05:44 PM**
Client ID: Run ID: **GC14_160921A** SeqNo: **4040589** Prep Date: **9/20/2016** DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1.845	0.20	2.5	0	73.8	40-140		0		
Aroclor 1260	2.245	0.20	2.5	0	89.8	40-140		0		
Surr: Decachlorobiphenyl	*0.075*	0	*0.1*	0	*75*	*40-110*		0		
Surr: Tetrachloro-m-xylene	*0.062*	0	*0.1*	0	*62*	*40-110*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91634A** Instrument ID **GC14** Method: **SW8082**

DUP	Sample ID: 1609826-02A DUP				Units: µg/L			Analysis Date: 9/21/2016 06:20 PM		
Client ID:		Run ID: GC14_160921A			SeqNo: 4040591		Prep Date: 9/20/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1221	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1232	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1242	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1248	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1254	U	0.20	0	0	0	0-0	0	0	50	
Aroclor 1260	0.783	0.20	0	0	0	0-0	0.772	1.41	50	
PCBs, Total	0.783	0.20	0	0	0		0.772	1.41	50	
Surr: Decachlorobiphenyl	*0.058*	0	*0.1*	0	*58*	*40-110*	0.07	*18.8*	*50*	
Surr: Tetrachloro-m-xylene	*0.043*	0	*0.1*	0	*43*	*40-110*	0.051	*17*	*50*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Pesticides

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Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91636** Instrument ID **GC12** Method: **SW8081**

MBLK Sample ID: **PBLKW1-91636-91636** Units: **µg/L** Analysis Date: **9/21/2016 01:19 PM**
Client ID: Run ID: **GC12_160921A** SeqNo: **4039274** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	U	0.020								
4,4'-DDE	U	0.020								
4,4'-DDT	U	0.020								
Aldrin	U	0.010								
alpha-BHC	U	0.010								
alpha-Chlordane	U	0.020								
beta-BHC	U	0.010								
Chlordane, Technical	U	0.50								
delta-BHC	U	0.010								
Dieldrin	U	0.020								
Endosulfan I	U	0.020								
Endosulfan II	U	0.020								
Endosulfan sulfate	U	0.020								
Endrin	U	0.020								
Endrin aldehyde	U	0.020								
Endrin ketone	U	0.020								
gamma-BHC (Lindane)	U	0.010								
gamma-Chlordane	U	0.020								
Heptachlor	U	0.010								
Heptachlor epoxide	U	0.010								
Methoxychlor	U	0.040								
Toxaphene	U	2.0								
Surr: Decachlorobiphenyl	*0.076*	0	*0.1*	0	*76*	*42-119*		0		
Surr: Tetrachloro-m-xylene	*0.059*	0	*0.1*	0	*59*	*32-104*		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91636 Instrument ID GC12 Method: SW8081

LCS	Sample ID: PLCSW1-91636-91636				Units: µg/L			Analysis Date: 9/21/2016 01:37 PM		
Client ID:	Run ID: GC12_160921A				SeqNo: 4039275			Prep Date: 9/20/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	0.075	0.020	0.1	0	75	33-126	0			
4,4'-DDE	0.063	0.020	0.1	0	63	34-112	0			
4,4'-DDT	0.068	0.020	0.1	0	68	41-122	0			
Aldrin	0.053	0.010	0.1	0	53	18-110	0			
alpha-BHC	0.063	0.010	0.1	0	63	31-109	0			
alpha-Chlordane	0.064	0.020	0.1	0	64	34-108	0			
beta-BHC	0.07	0.010	0.1	0	70	38-108	0			
delta-BHC	0.07	0.010	0.1	0	70	36-114	0			
Dieldrin	0.069	0.020	0.1	0	69	35-114	0			
Endosulfan I	0.068	0.020	0.1	0	68	32-114	0			
Endosulfan II	0.075	0.020	0.1	0	75	40-119	0			
Endosulfan sulfate	0.08	0.020	0.1	0	80	42-120	0			
Endrin	0.074	0.020	0.1	0	74	39-123	0			
Endrin aldehyde	0.079	0.020	0.1	0	79	29-116	0			
Endrin ketone	0.079	0.020	0.1	0	79	36-117	0			
gamma-BHC (Lindane)	0.064	0.010	0.1	0	64	32-114	0			
gamma-Chlordane	0.07	0.020	0.1	0	70	32-109	0			
Heptachlor	0.062	0.010	0.1	0	62	34-112	0			
Heptachlor epoxide	0.067	0.010	0.1	0	67	36-109	0			
Methoxychlor	0.078	0.040	0.1	0	78	44-133	0			
Surr: Decachlorobiphenyl	*0.063*	0	*0.1*	0	*63*	*42-119*	0			
Surr: Tetrachloro-m-xylene	*0.068*	0	*0.1*	0	*68*	*32-104*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91636** Instrument ID **GC12** Method: **SW8081**

MS	Sample ID: 1609913-01A MS				Units: µg/L				Analysis Date: 9/21/2016 03:04 PM
Client ID:	Run ID: GC12_160921A			SeqNo: 4039278		Prep Date: 9/20/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	0.35	0.10	0.5	0	70	33-126	0			H
4,4'-DDE	0.315	0.10	0.5	0	63	34-112	0			H
4,4'-DDT	0.345	0.10	0.5	0	69	41-122	0			H
Aldrin	0.26	0.050	0.5	0	52	18-110	0			H
alpha-BHC	0.295	0.050	0.5	0	59	31-109	0			H
alpha-Chlordane	0.305	0.10	0.5	0	61	34-108	0			H
beta-BHC	0.335	0.050	0.5	0	67	38-108	0			H
delta-BHC	0.33	0.050	0.5	0	66	36-114	0			H
Dieldrin	0.325	0.10	0.5	0	65	35-114	0			H
Endosulfan I	0.31	0.10	0.5	0	62	32-114	0			H
Endosulfan II	0.345	0.10	0.5	0	69	40-119	0			H
Endosulfan sulfate	0.37	0.10	0.5	0	74	42-120	0			H
Endrin	0.34	0.10	0.5	0	68	39-123	0			H
Endrin aldehyde	0.355	0.10	0.5	0	71	29-116	0			H
Endrin ketone	0.36	0.10	0.5	0	72	36-117	0			H
gamma-BHC (Lindane)	0.305	0.050	0.5	0	61	32-114	0			H
gamma-Chlordane	0.34	0.10	0.5	0	68	32-109	0			H
Heptachlor	0.3	0.050	0.5	0	60	34-112	0			H
Heptachlor epoxide	0.3	0.050	0.5	0	60	36-109	0			H
Methoxychlor	0.365	0.20	0.5	0	73	44-133	0			H
Surr: Decachlorobiphenyl	*0.41*	0	*0.5*	0	*82*	*42-119*	0			
Surr: Tetrachloro-m-xylene	*0.305*	0	*0.5*	0	*61*	*32-104*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91636** Instrument ID **GC12** Method: **SW8081**

MSD Sample ID: **1609913-01A MSD** Units: **µg/L** Analysis Date: **9/21/2016 04:14 PM**
Client ID: Run ID: **GC12_160921A** SeqNo: **4039300** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4'-DDD	0.29	0.10	0.5	0	58	33-126	0.35	18.8	50	H
4,4'-DDE	0.25	0.10	0.5	0	50	34-112	0.315	23	50	H
4,4'-DDT	0.285	0.10	0.5	0	57	41-122	0.345	19	50	H
Aldrin	0.2	0.050	0.5	0	40	18-110	0.28	26.1	50	H
alpha-BHC	0.23	0.050	0.5	0	46	31-109	0.295	24.8	50	H
alpha-Chlordane	0.25	0.10	0.5	0	50	34-108	0.305	19.8	50	H
beta-BHC	0.27	0.050	0.5	0	54	38-108	0.335	21.5	50	H
delta-BHC	0.265	0.050	0.5	0	53	36-114	0.33	21.8	50	H
Dieldrin	0.265	0.10	0.5	0	53	35-114	0.325	20.3	50	H
Endosulfan I	0.255	0.10	0.5	0	51	32-114	0.31	19.5	50	H
Endosulfan II	0.29	0.10	0.5	0	58	40-119	0.345	17.3	50	H
Endosulfan sulfate	0.305	0.10	0.5	0	61	42-120	0.37	19.3	50	H
Endrin	0.275	0.10	0.5	0	55	39-123	0.34	21.1	50	H
Endrin aldehyde	0.295	0.10	0.5	0	59	29-116	0.355	18.5	50	H
Endrin ketone	0.3	0.10	0.5	0	60	36-117	0.36	18.2	50	H
gamma-BHC (Lindane)	0.235	0.050	0.5	0	47	32-114	0.305	25.9	50	H
gamma-Chlordane	0.285	0.10	0.5	0	57	32-109	0.34	17.6	50	H
Heptachlor	0.235	0.050	0.5	0	47	34-112	0.3	24.3	50	H
Heptachlor epoxide	0.24	0.050	0.5	0	48	36-109	0.3	22.2	50	H
Methoxychlor	0.305	0.20	0.5	0	61	44-133	0.365	17.9	50	H
Surr: Decachlorobiphenyl	*0.35*	0	*0.5*	0	*70*	*42-119*	0.41	*15.8*	*50*	
Surr: Tetrachloro-m-xylene	*0.24*	0	*0.5*	0	*48*	*32-104*	0.305	*23.9*	*50*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Herbicides

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ALS Group USA, Corp

Date: 28-Sep-16

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91633 Instrument ID **GC7** Method: **SW8151**

MBLK Sample ID: **HBLKW1-91633-91633** Units: µg/L Analysis Date: **9/21/2016 06:59 PM**
Client ID: Run ID: **GC7_160921A** SeqNo: **4040267** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	U	2.0								
2,4-D	U	2.0								
Surr: DCAA	*15*	0	*50*	0	*30*	*23-142*	0			

LCS Sample ID: **HLCSW1-91633-91633** Units: µg/L Analysis Date: **9/21/2016 07:18 PM**
Client ID: Run ID: **GC7_160921A** SeqNo: **4040268** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	9	2.0	10	0	90	28-147	0			
2,4-D	94.6	2.0	100	0	94.6	24-154	0			
Surr: DCAA	*16.2*	0	*50*	0	*32.4*	*23-142*	0			

MS Sample ID: **16091057-01B MS** Units: µg/L Analysis Date: **9/22/2016 04:52 AM**
Client ID: **TPA-Pile 6 - 091916** Run ID: **GC7_160921A** SeqNo: **4040269** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	9.7	2.0	10	0	97	28-147	0			
2,4-D	97	2.0	100	0	97	24-154	0			
Surr: DCAA	*17.1*	0	*50*	0	*34.2*	*23-142*	0			

MSD Sample ID: **16091057-01B MSD** Units: µg/L Analysis Date: **9/22/2016 05:11 AM**
Client ID: **TPA-Pile 6 - 091916** Run ID: **GC7_160921A** SeqNo: **4040270** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-TP (Silvex)	9.4	2.0	10	0	94	28-147	9.7	3.14	30	
2,4-D	96.4	2.0	100	0	96.4	24-154	97	0.62	30	
Surr: DCAA	*19.7*	0	*50*	0	*39.4*	*23-142*	17.1	*14.1*	*30*	

The following samples were analyzed in this batch: 16091057-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Metals

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 1 and 2 True	Continuing Calibration 1 and 2 Found	Continuing Calibration 1 and 2 %R(1)	Continuing Calibration 1 and 2 Found	Continuing Calibration 1 and 2 %R(1)	M
Aluminum	80.0	77.53	97	100.0	111.70	112	105.60	106	MS
Antimony	80.0	80.41	101	100.0	97.68	98	96.87	97	MS
Arsenic	80.0	80.45	101	100.0	96.25	96	95.67	96	MS
Barium	80.0	79.50	99	100.0	98.73	99	102.10	102	MS
Beryllium	80.0	80.17	100	100.0	96.06	96	98.62	99	MS
Cadmium	80.0	79.10	99	100.0	97.85	98	100.60	101	MS
Calcium	8000.0	8295.00	104	10000.0	9852.00	99	10230.00	102	MS
Chromium	80.0	80.24	100	100.0	97.35	97	98.12	98	MS
Cobalt	80.0	78.50	98	100.0	96.25	96	99.57	100	MS
Copper	80.0	81.05	101	100.0	99.06	99	102.70	103	MS
Iron	8000.0	8245.00	103	10000.0	9829.00	98	9834.00	98	MS
Lead	80.0	79.77	100	100.0	98.60	99	100.70	101	MS
Magnesium	8000.0	8268.00	103	10000.0	9630.00	96	10010.00	100	MS
Manganese	80.0	79.47	99	100.0	96.90	97	99.80	100	MS
Nickel	80.0	81.90	102	100.0	98.32	98	102.50	102	MS
Potassium	8000.0	8132.00	102	10000.0	9661.00	97	9992.00	100	MS
Selenium	80.0	80.41	101	100.0	96.43	96	95.89	96	MS
Silver	80.0	79.53	99	100.0	95.98	96	95.66	96	MS
Sodium	8000.0	8177.00	102	10000.0	9590.00	96	9891.00	99	MS
Vanadium	80.0	79.67	100	100.0	96.72	97	101.10	101	MS
Zinc	80.0	80.62	101	100.0	96.72	97	100.80	101	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 3 and 4 True	Continuing Calibration 3 and 4 Found	Continuing Calibration 3 and 4 %R(1)	Continuing Calibration 3 and 4 Found	Continuing Calibration 3 and 4 %R(1)	M
Aluminum	80.0	77.53	97	100.0	104.70	105	102.00	102	MS
Antimony	80.0	80.41	101	100.0	96.83	97	98.65	99	MS
Arsenic	80.0	80.45	101	100.0	96.50	96	93.09	93	MS
Barium	80.0	79.50	99	100.0	100.60	101	101.30	101	MS
Beryllium	80.0	80.17	100	100.0	97.82	98	99.79	100	MS
Cadmium	80.0	79.10	99	100.0	99.65	100	100.90	101	MS
Calcium	8000.0	8295.00	104	10000.0	10130.00	101	9919.00	99	MS
Chromium	80.0	80.24	100	100.0	96.75	97	93.06	93	MS
Cobalt	80.0	78.50	98	100.0	99.39	99	97.17	97	MS
Copper	80.0	81.05	101	100.0	102.00	102	99.92	100	MS
Iron	8000.0	8245.00	103	10000.0	9753.00	98	9533.00	95	MS
Lead	80.0	79.77	100	100.0	100.80	101	101.40	101	MS
Magnesium	8000.0	8268.00	103	10000.0	9916.00	99	9645.00	96	MS
Manganese	80.0	79.47	99	100.0	100.20	100	97.77	98	MS
Nickel	80.0	81.90	102	100.0	102.30	102	99.90	100	MS
Potassium	8000.0	8132.00	102	10000.0	9917.00	99	9704.00	97	MS
Selenium	80.0	80.41	101	100.0	97.61	98	93.24	93	MS
Silver	80.0	79.53	99	100.0	95.60	96	94.47	94	MS
Sodium	8000.0	8177.00	102	10000.0	9810.00	98	9558.00	96	MS
Vanadium	80.0	79.67	100	100.0	100.00	100	97.51	98	MS
Zinc	80.0	80.62	101	100.0	99.90	100	98.44	98	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 5 and 6 True	Continuing Calibration 5 and 6 Found	Continuing Calibration 5 and 6 %R(1)	Continuing Calibration 5 and 6 Found	Continuing Calibration 5 and 6 %R(1)	M
Aluminum	80.0	77.53	97	100.0	99.06	99	96.98	97	MS
Antimony	80.0	80.41	101	100.0	97.42	97	96.38	96	MS
Arsenic	80.0	80.45	101	100.0	94.27	94	98.09	98	MS
Barium	80.0	79.50	99	100.0	100.70	101	96.95	97	MS
Beryllium	80.0	80.17	100	100.0	98.82	99	94.02	94	MS
Cadmium	80.0	79.10	99	100.0	99.56	100	97.59	98	MS
Calcium	8000.0	8295.00	104	10000.0	9900.00	99	9985.00	100	MS
Chromium	80.0	80.24	100	100.0	93.68	94	98.06	98	MS
Cobalt	80.0	78.50	98	100.0	96.55	97	97.55	98	MS
Copper	80.0	81.05	101	100.0	99.38	99	99.54	100	MS
Iron	8000.0	8245.00	103	10000.0	9497.00	95	9883.00	99	MS
Lead	80.0	79.77	100	100.0	100.20	100	95.93	96	MS
Magnesium	8000.0	8268.00	103	10000.0	9667.00	97	9869.00	99	MS
Manganese	80.0	79.47	99	100.0	97.40	97	97.81	98	MS
Nickel	80.0	81.90	102	100.0	99.43	99	99.78	100	MS
Potassium	8000.0	8132.00	102	10000.0	9690.00	97	9849.00	98	MS
Selenium	80.0	80.41	101	100.0	91.36	91	98.10	98	MS
Silver	80.0	79.53	99	100.0	94.51	95	95.53	96	MS
Sodium	8000.0	8177.00	102	10000.0	9627.00	96	9869.00	99	MS
Vanadium	80.0	79.67	100	100.0	97.17	97	96.42	96	MS
Zinc	80.0	80.62	101	100.0	96.55	97	98.01	98	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 7 and 8 True	Continuing Calibration 7 and 8 Found	Continuing Calibration 7 and 8 %R(1)	Continuing Calibration 7 and 8 Found	Continuing Calibration 7 and 8 %R(1)	M
Aluminum	80.0	77.53	97	100.0	100.20	100	93.22	93	MS
Antimony	80.0	80.41	101	100.0	96.06	96	96.84	97	MS
Arsenic	80.0	80.45	101	100.0	98.07	98	96.21	96	MS
Barium	80.0	79.50	99	100.0	102.00	102	98.03	98	MS
Beryllium	80.0	80.17	100	100.0	97.08	97	93.02	93	MS
Cadmium	80.0	79.10	99	100.0	101.90	102	97.76	98	MS
Calcium	8000.0	8295.00	104	10000.0	10320.00	103	9742.00	97	MS
Chromium	80.0	80.24	100	100.0	98.22	98	94.77	95	MS
Cobalt	80.0	78.50	98	100.0	100.40	100	93.99	94	MS
Copper	80.0	81.05	101	100.0	102.40	102	96.82	97	MS
Iron	8000.0	8245.00	103	10000.0	9882.00	99	9602.00	96	MS
Lead	80.0	79.77	100	100.0	99.03	99	96.11	96	MS
Magnesium	8000.0	8268.00	103	10000.0	10180.00	102	9491.00	95	MS
Manganese	80.0	79.47	99	100.0	100.70	101	94.14	94	MS
Nickel	80.0	81.90	102	100.0	102.80	103	96.75	97	MS
Potassium	8000.0	8132.00	102	10000.0	10120.00	101	9510.00	95	MS
Selenium	80.0	80.41	101	100.0	95.34	95	99.97	100	MS
Silver	80.0	79.53	99	100.0	95.04	95	93.99	94	MS
Sodium	8000.0	8177.00	102	10000.0	10230.00	102	9489.00	95	MS
Vanadium	80.0	79.67	100	100.0	99.04	99	92.76	93	MS
Zinc	80.0	80.62	101	100.0	101.00	101	95.64	96	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2_160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 9 and 10 True	Continuing Calibration 9 and 10 Found	Continuing Calibration 9 and 10 %R(1)	Found	%R(1)	M
Aluminum	80.0	77.53	97	100.0	93.76	94	96.14	96	MS
Antimony	80.0	80.41	101	100.0	96.32	96	96.40	96	MS
Arsenic	80.0	80.45	101	100.0	91.92	92	96.15	96	MS
Barium	80.0	79.50	99	100.0	98.34	98	94.82	95	MS
Beryllium	80.0	80.17	100	100.0	93.52	94	92.51	93	MS
Cadmium	80.0	79.10	99	100.0	96.68	97	94.37	94	MS
Calcium	8000.0	8295.00	104	10000.0	9687.00	97	9698.00	97	MS
Chromium	80.0	80.24	100	100.0	93.86	94	99.22	99	MS
Cobalt	80.0	78.50	98	100.0	94.87	95	96.13	96	MS
Copper	80.0	81.05	101	100.0	97.23	97	96.07	96	MS
Iron	8000.0	8245.00	103	10000.0	9533.00	95	9925.00	99	MS
Lead	80.0	79.77	100	100.0	96.66	97	94.75	95	MS
Magnesium	8000.0	8268.00	103	10000.0	9548.00	95	9557.00	96	MS
Manganese	80.0	79.47	99	100.0	95.00	95	94.33	94	MS
Nickel	80.0	81.90	102	100.0	97.27	97	95.80	96	MS
Potassium	8000.0	8132.00	102	10000.0	9529.00	95	9544.00	95	MS
Selenium	80.0	80.41	101	100.0	93.16	93	95.73	96	MS
Silver	80.0	79.53	99	100.0	93.88	94	96.41	96	MS
Sodium	8000.0	8177.00	102	10000.0	9600.00	96	9618.00	96	MS
Vanadium	80.0	79.67	100	100.0	93.45	93	95.27	95	MS
Zinc	80.0	80.62	101	100.0	95.97	96	95.11	95	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 11 and 12 True	Continuing Calibration 11 and 12 Found	Continuing Calibration 11 and 12 %R(1)	Continuing Calibration 11 and 12 Found	Continuing Calibration 11 and 12 %R(1)	M
Aluminum	80.0	77.53	97	100.0	96.20	96	96.61	97	MS
Antimony	80.0	80.41	101	100.0	97.23	97	97.94	98	MS
Arsenic	80.0	80.45	101	100.0	97.26	97	95.80	96	MS
Barium	80.0	79.50	99	100.0	96.46	96	95.66	96	MS
Beryllium	80.0	80.17	100	100.0	94.18	94	93.84	94	MS
Cadmium	80.0	79.10	99	100.0	95.73	96	95.65	96	MS
Calcium	8000.0	8295.00	104	10000.0	9631.00	96	9649.00	96	MS
Chromium	80.0	80.24	100	100.0	98.85	99	97.50	98	MS
Cobalt	80.0	78.50	98	100.0	95.12	95	94.14	94	MS
Copper	80.0	81.05	101	100.0	95.60	96	94.46	94	MS
Iron	8000.0	8245.00	103	10000.0	9965.00	100	9897.00	99	MS
Lead	80.0	79.77	100	100.0	96.17	96	96.36	96	MS
Magnesium	8000.0	8268.00	103	10000.0	9504.00	95	9554.00	96	MS
Manganese	80.0	79.47	99	100.0	93.91	94	93.58	94	MS
Nickel	80.0	81.90	102	100.0	95.91	96	94.40	94	MS
Potassium	8000.0	8132.00	102	10000.0	9546.00	95	9479.00	95	MS
Selenium	80.0	80.41	101	100.0	97.70	98	99.53	100	MS
Silver	80.0	79.53	99	100.0	96.80	97	97.75	98	MS
Sodium	8000.0	8177.00	102	10000.0	9556.00	96	9627.00	96	MS
Vanadium	80.0	79.67	100	100.0	94.24	94	93.36	93	MS
Zinc	80.0	80.62	101	100.0	95.00	95	93.93	94	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2_160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 13 and 14 True	Continuing Calibration 13 and 14 Found	Continuing Calibration 13 and 14 %R(1)	Found	%R(1)	M
Aluminum	80.0	77.53	97	100.0	98.31	98	99.88	100	MS
Antimony	80.0	80.41	101	100.0	97.34	97	98.39	98	MS
Arsenic	80.0	80.45	101	100.0	98.67	99	96.73	97	MS
Barium	80.0	79.50	99	100.0	97.10	97	97.96	98	MS
Beryllium	80.0	80.17	100	100.0	95.79	96	96.25	96	MS
Cadmium	80.0	79.10	99	100.0	97.23	97	97.65	98	MS
Calcium	8000.0	8295.00	104	10000.0	9835.00	98	9850.00	98	MS
Chromium	80.0	80.24	100	100.0	97.88	98	98.76	99	MS
Cobalt	80.0	78.50	98	100.0	96.57	97	96.93	97	MS
Copper	80.0	81.05	101	100.0	96.99	97	97.63	98	MS
Iron	8000.0	8245.00	103	10000.0	9853.00	99	9926.00	99	MS
Lead	80.0	79.77	100	100.0	98.12	98	97.68	98	MS
Magnesium	8000.0	8268.00	103	10000.0	9743.00	97	9727.00	97	MS
Manganese	80.0	79.47	99	100.0	95.60	96	95.58	96	MS
Nickel	80.0	81.90	102	100.0	96.92	97	96.95	97	MS
Potassium	8000.0	8132.00	102	10000.0	9708.00	97	9723.00	97	MS
Selenium	80.0	80.41	101	100.0	94.18	94	101.80	102	MS
Silver	80.0	79.53	99	100.0	97.10	97	97.32	97	MS
Sodium	8000.0	8177.00	102	10000.0	9754.00	98	9756.00	98	MS
Vanadium	80.0	79.67	100	100.0	95.80	96	95.56	96	MS
Zinc	80.0	80.62	101	100.0	96.05	96	96.35	96	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 15 and 16 True	Continuing Calibration 15 and 16 Found	Continuing Calibration 15 and 16 %R(1)	Found	%R(1)	M
Aluminum	80.0	77.53	97	100.0	93.89	94	102.50	102	MS
Antimony	80.0	80.41	101	100.0	98.52	99	98.10	98	MS
Arsenic	80.0	80.45	101	100.0	98.28	98	96.58	97	MS
Barium	80.0	79.50	99	100.0	92.35	92	96.25	96	MS
Beryllium	80.0	80.17	100	100.0	91.00	91	93.19	93	MS
Cadmium	80.0	79.10	99	100.0	92.05	92	96.86	97	MS
Calcium	8000.0	8295.00	104	10000.0	9327.00	93	9899.00	99	MS
Chromium	80.0	80.24	100	100.0	100.40	100	98.41	98	MS
Cobalt	80.0	78.50	98	100.0	92.32	92	95.00	95	MS
Copper	80.0	81.05	101	100.0	92.60	93	95.36	95	MS
Iron	8000.0	8245.00	103	10000.0	10040.00	100	9867.00	99	MS
Lead	80.0	79.77	100	100.0	92.61	93	97.05	97	MS
Magnesium	8000.0	8268.00	103	10000.0	9224.00	92	9817.00	98	MS
Manganese	80.0	79.47	99	100.0	90.70	91	95.43	95	MS
Nickel	80.0	81.90	102	100.0	92.21	92	95.03	95	MS
Potassium	8000.0	8132.00	102	10000.0	9257.00	93	9783.00	98	MS
Selenium	80.0	80.41	101	100.0	97.61	98	92.77	93	MS
Silver	80.0	79.53	99	100.0	98.22	98	98.98	99	MS
Sodium	8000.0	8177.00	102	10000.0	9287.00	93	9910.00	99	MS
Vanadium	80.0	79.67	100	100.0	91.36	91	95.31	95	MS
Zinc	80.0	80.62	101	100.0	92.16	92	95.06	95	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 17 and 18 True	Continuing Calibration 17 and 18 Found	Continuing Calibration 17 and 18 %R(1)	Continuing Calibration 17 and 18 Found	Continuing Calibration 17 and 18 %R(1)	M
Aluminum	80.0	77.53	97	100.0	102.40	102	98.56	99	MS
Antimony	80.0	80.41	101	100.0	98.32	98	98.67	99	MS
Arsenic	80.0	80.45	101	100.0	96.16	96	98.51	99	MS
Barium	80.0	79.50	99	100.0	98.23	98	94.95	95	MS
Beryllium	80.0	80.17	100	100.0	94.60	95	95.52	96	MS
Cadmium	80.0	79.10	99	100.0	96.94	97	95.41	95	MS
Calcium	8000.0	8295.00	104	10000.0	9978.00	100	9911.00	99	MS
Chromium	80.0	80.24	100	100.0	99.13	99	98.30	98	MS
Cobalt	80.0	78.50	98	100.0	96.38	96	97.35	97	MS
Copper	80.0	81.05	101	100.0	96.66	97	98.04	98	MS
Iron	8000.0	8245.00	103	10000.0	9854.00	99	9904.00	99	MS
Lead	80.0	79.77	100	100.0	98.12	98	97.20	97	MS
Magnesium	8000.0	8268.00	103	10000.0	9947.00	99	9717.00	97	MS
Manganese	80.0	79.47	99	100.0	96.42	96	95.16	95	MS
Nickel	80.0	81.90	102	100.0	96.53	97	97.07	97	MS
Potassium	8000.0	8132.00	102	10000.0	9889.00	99	9729.00	97	MS
Selenium	80.0	80.41	101	100.0	95.26	95	95.12	95	MS
Silver	80.0	79.53	99	100.0	99.04	99	97.73	98	MS
Sodium	8000.0	8177.00	102	10000.0	9986.00	100	9691.00	97	MS
Vanadium	80.0	79.67	100	100.0	96.10	96	96.98	97	MS
Zinc	80.0	80.62	101	100.0	96.78	97	97.32	97	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 19 and 20 True	Continuing Calibration 19 and 20 Found	Continuing Calibration 19 and 20 %R(1)	Continuing Calibration 19 and 20 Found	Continuing Calibration 19 and 20 %R(1)	M
Aluminum	80.0	77.53	97	100.0	99.08	99	97.87	98	MS
Antimony	80.0	80.41	101	100.0	99.06	99	98.84	99	MS
Arsenic	80.0	80.45	101	100.0	96.70	97	96.64	97	MS
Barium	80.0	79.50	99	100.0	96.40	96	94.38	94	MS
Beryllium	80.0	80.17	100	100.0	96.13	96	96.00	96	MS
Cadmium	80.0	79.10	99	100.0	96.14	96	96.22	96	MS
Calcium	8000.0	8295.00	104	10000.0	9732.00	97	9659.00	97	MS
Chromium	80.0	80.24	100	100.0	96.89	97	97.58	98	MS
Cobalt	80.0	78.50	98	100.0	96.24	96	95.40	95	MS
Copper	80.0	81.05	101	100.0	96.64	97	96.42	96	MS
Iron	8000.0	8245.00	103	10000.0	9805.00	98	9808.00	98	MS
Lead	80.0	79.77	100	100.0	97.71	98	97.63	98	MS
Magnesium	8000.0	8268.00	103	10000.0	9426.00	94	9447.00	94	MS
Manganese	80.0	79.47	99	100.0	93.50	94	93.66	94	MS
Nickel	80.0	81.90	102	100.0	96.24	96	95.27	95	MS
Potassium	8000.0	8132.00	102	10000.0	9579.00	96	9540.00	95	MS
Selenium	80.0	80.41	101	100.0	95.86	96	93.37	93	MS
Silver	80.0	79.53	99	100.0	96.64	97	97.47	97	MS
Sodium	8000.0	8177.00	102	10000.0	9572.00	96	9521.00	95	MS
Vanadium	80.0	79.67	100	100.0	95.18	95	95.28	95	MS
Zinc	80.0	80.62	101	100.0	96.59	97	95.50	96	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 21 and 22 True	Continuing Calibration 21 and 22 Found	Continuing Calibration 21 and 22 %R(1)	Continuing Calibration 21 and 22 Found	Continuing Calibration 21 and 22 %R(1)		M
Aluminum	80.0	77.53	97	100.0	102.60	103	90.69	91		MS
Antimony	80.0	80.41	101	100.0	101.50	102	100.50	100		MS
Arsenic	80.0	80.45	101	100.0	91.46	91	94.03	94		MS
Barium	80.0	79.50	99	100.0	98.75	99	97.07	97		MS
Beryllium	80.0	80.17	100	100.0	95.54	96	95.54	96		MS
Cadmium	80.0	79.10	99	100.0	95.73	96	95.91	96		MS
Calcium	8000.0	8295.00	104	10000.0	8884.00	89	8979.00	90		MS
Chromium	80.0	80.24	100	100.0	90.84	91	90.81	91		MS
Cobalt	80.0	78.50	98	100.0	91.26	91	92.01	92		MS
Copper	80.0	81.05	101	100.0	93.09	93	94.24	94		MS
Iron	8000.0	8245.00	103	10000.0	9364.00	94	9298.00	93		MS
Lead	80.0	79.77	100	100.0	97.32	97	97.42	97		MS
Magnesium	8000.0	8268.00	103	10000.0	8614.00	86	8757.00	88		MS
Manganese	80.0	79.47	99	100.0	88.53	89	89.40	89		MS
Nickel	80.0	81.90	102	100.0	92.15	92	92.27	92		MS
Potassium	8000.0	8132.00	102	10000.0	8905.00	89	9055.00	91		MS
Selenium	80.0	80.41	101	100.0	92.76	93	90.91	91		MS
Silver	80.0	79.53	99	100.0	95.24	95	94.72	95		MS
Sodium	8000.0	8177.00	102	10000.0	8668.00	87	8787.00	88		MS
Vanadium	80.0	79.67	100	100.0	90.24	90	90.48	90		MS
Zinc	80.0	80.62	101	100.0	90.19	90	91.63	92		MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 23 and 24 True	Continuing Calibration 23 and 24 Found	Continuing Calibration 23 and 24 %R(1)	Continuing Calibration 23 and 24 Found	Continuing Calibration 23 and 24 %R(1)	M
Aluminum	80.0	77.53	97	100.0	99.63	100	99.14	99	MS
Antimony	80.0	80.41	101	100.0	95.56	96	95.98	96	MS
Arsenic	80.0	80.45	101	100.0	97.58	98	95.02	95	MS
Barium	80.0	79.50	99	100.0	97.06	97	94.46	94	MS
Beryllium	80.0	80.17	100	100.0	96.79	97	94.50	94	MS
Cadmium	80.0	79.10	99	100.0	96.70	97	94.17	94	MS
Calcium	8000.0	8295.00	104	10000.0	9510.00	95	9442.00	94	MS
Chromium	80.0	80.24	100	100.0	97.23	97	97.34	97	MS
Cobalt	80.0	78.50	98	100.0	96.65	97	95.53	96	MS
Copper	80.0	81.05	101	100.0	97.55	98	95.05	95	MS
Iron	8000.0	8245.00	103	10000.0	9735.00	97	9817.00	98	MS
Lead	80.0	79.77	100	100.0	98.38	98	97.14	97	MS
Magnesium	8000.0	8268.00	103	10000.0	9692.00	97	9607.00	96	MS
Manganese	80.0	79.47	99	100.0	96.57	97	94.77	95	MS
Nickel	80.0	81.90	102	100.0	96.96	97	95.40	95	MS
Potassium	8000.0	8132.00	102	10000.0	9627.00	96	9519.00	95	MS
Selenium	80.0	80.41	101	100.0	97.04	97	91.39	91	MS
Silver	80.0	79.53	99	100.0	95.43	95	95.19	95	MS
Sodium	8000.0	8177.00	102	10000.0	9598.00	96	9557.00	96	MS
Vanadium	80.0	79.67	100	100.0	98.79	99	96.74	97	MS
Zinc	80.0	80.62	101	100.0	95.45	95	92.83	93	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 25 and 26 True	Continuing Calibration 25 and 26 Found	Continuing Calibration 25 and 26 %R(1)	Continuing Calibration 25 and 26 Found	Continuing Calibration 25 and 26 %R(1)	M
Aluminum	80.0	77.53	97	100.0	97.81	98	98.26	98	MS
Antimony	80.0	80.41	101	100.0	95.97	96	95.86	96	MS
Arsenic	80.0	80.45	101	100.0	94.05	94	96.05	96	MS
Barium	80.0	79.50	99	100.0	94.20	94	95.75	96	MS
Beryllium	80.0	80.17	100	100.0	94.91	95	95.58	96	MS
Cadmium	80.0	79.10	99	100.0	95.20	95	96.61	97	MS
Calcium	8000.0	8295.00	104	10000.0	9415.00	94	9387.00	94	MS
Chromium	80.0	80.24	100	100.0	95.03	95	95.91	96	MS
Cobalt	80.0	78.50	98	100.0	94.94	95	94.70	95	MS
Copper	80.0	81.05	101	100.0	94.95	95	95.04	95	MS
Iron	8000.0	8245.00	103	10000.0	9774.00	98	9708.00	97	MS
Lead	80.0	79.77	100	100.0	96.95	97	98.49	98	MS
Magnesium	8000.0	8268.00	103	10000.0	9444.00	94	9553.00	96	MS
Manganese	80.0	79.47	99	100.0	95.12	95	94.95	95	MS
Nickel	80.0	81.90	102	100.0	95.24	95	95.38	95	MS
Potassium	8000.0	8132.00	102	10000.0	9419.00	94	9546.00	95	MS
Selenium	80.0	80.41	101	100.0	91.50	92	96.32	96	MS
Silver	80.0	79.53	99	100.0	95.03	95	95.52	96	MS
Sodium	8000.0	8177.00	102	10000.0	9342.00	93	9505.00	95	MS
Vanadium	80.0	79.67	100	100.0	96.27	96	97.25	97	MS
Zinc	80.0	80.62	101	100.0	92.42	92	92.73	93	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 27 and 28 True	Continuing Calibration 27 and 28 Found	Continuing Calibration 27 and 28 %R(1)	Continuing Calibration 27 and 28 Found	Continuing Calibration 27 and 28 %R(1)		M
Aluminum	80.0	77.53	97	100.0	98.38	98	96.57	97		MS
Antimony	80.0	80.41	101	100.0	95.99	96	96.25	96		MS
Arsenic	80.0	80.45	101	100.0	91.29	91	91.95	92		MS
Barium	80.0	79.50	99	100.0	96.03	96	96.99	97		MS
Beryllium	80.0	80.17	100	100.0	95.92	96	95.41	95		MS
Cadmium	80.0	79.10	99	100.0	96.74	97	95.80	96		MS
Calcium	8000.0	8295.00	104	10000.0	9401.00	94	9289.00	93		MS
Chromium	80.0	80.24	100	100.0	94.27	94	94.37	94		MS
Cobalt	80.0	78.50	98	100.0	95.30	95	94.00	94		MS
Copper	80.0	81.05	101	100.0	95.02	95	94.02	94		MS
Iron	8000.0	8245.00	103	10000.0	9687.00	97	9701.00	97		MS
Lead	80.0	79.77	100	100.0	99.43	99	97.14	97		MS
Magnesium	8000.0	8268.00	103	10000.0	9515.00	95	9440.00	94		MS
Manganese	80.0	79.47	99	100.0	95.20	95	93.23	93		MS
Nickel	80.0	81.90	102	100.0	94.93	95	93.89	94		MS
Potassium	8000.0	8132.00	102	10000.0	9465.00	95	9335.00	93		MS
Selenium	80.0	80.41	101	100.0	100.10	100	92.60	93		MS
Silver	80.0	79.53	99	100.0	95.49	95	95.05	95		MS
Sodium	8000.0	8177.00	102	10000.0	9362.00	94	9273.00	93		MS
Vanadium	80.0	79.67	100	100.0	97.21	97	95.81	96		MS
Zinc	80.0	80.62	101	100.0	92.89	93	92.79	93		MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2_160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 1 and 2 True	Continuing Calibration 1 and 2 Found	Continuing Calibration 1 and 2 %R(1)	Found	%R(1)	M
Aluminum	80.0	80.46	101	100.0	112.10	112	104.90	105	MS
Antimony	80.0	80.89	101	100.0	104.20	104	101.60	102	MS
Arsenic	80.0	80.36	100	100.0	98.56	99	96.72	97	MS
Barium	80.0	79.15	99	100.0	96.05	96	94.72	95	MS
Beryllium	80.0	81.44	102	100.0	93.93	94	92.62	93	MS
Cadmium	80.0	78.83	99	100.0	95.11	95	94.71	95	MS
Calcium	8000.0	8364.00	105	10000.0	9716.00	97	9852.00	99	MS
Chromium	80.0	80.57	101	100.0	101.30	101	98.10	98	MS
Cobalt	80.0	77.64	97	100.0	89.40	89	89.75	90	MS
Copper	80.0	79.95	100	100.0	91.98	92	90.89	91	MS
Iron	8000.0	8333.00	104	10000.0	10040.00	100	9810.00	98	MS
Lead	80.0	79.82	100	100.0	97.89	98	96.93	97	MS
Magnesium	8000.0	8349.00	104	10000.0	10000.00	100	10180.00	102	MS
Manganese	80.0	78.85	99	100.0	97.89	98	98.18	98	MS
Nickel	80.0	81.72	102	100.0	92.16	92	91.70	92	MS
Potassium	8000.0	8259.00	103	10000.0	9753.00	98	9879.00	99	MS
Selenium	80.0	78.49	98	100.0	98.49	98	98.05	98	MS
Silver	80.0	79.02	99	100.0	100.90	101	98.92	99	MS
Sodium	8000.0	8283.00	104	10000.0	10050.00	100	10200.00	102	MS
Vanadium	80.0	81.36	102	100.0	94.23	94	94.82	95	MS
Zinc	80.0	80.69	101	100.0	95.63	96	95.14	95	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 3 and 4 True	Continuing Calibration 3 and 4 Found	Continuing Calibration 3 and 4 %R(1)	Continuing Calibration 3 and 4 Found	Continuing Calibration 3 and 4 %R(1)	M
Aluminum	80.0	80.46	101	100.0	104.80	105	100.30	100	MS
Antimony	80.0	80.89	101	100.0	100.60	101	101.00	101	MS
Arsenic	80.0	80.36	100	100.0	94.88	95	95.04	95	MS
Barium	80.0	79.15	99	100.0	97.10	97	94.62	95	MS
Beryllium	80.0	81.44	102	100.0	91.46	91	90.97	91	MS
Cadmium	80.0	78.83	99	100.0	96.88	97	94.06	94	MS
Calcium	8000.0	8364.00	105	10000.0	9951.00	100	9633.00	96	MS
Chromium	80.0	80.57	101	100.0	95.94	96	96.36	96	MS
Cobalt	80.0	77.64	97	100.0	89.92	90	88.87	89	MS
Copper	80.0	79.95	100	100.0	92.35	92	91.44	91	MS
Iron	8000.0	8333.00	104	10000.0	9644.00	96	9637.00	96	MS
Lead	80.0	79.82	100	100.0	99.19	99	97.15	97	MS
Magnesium	8000.0	8349.00	104	10000.0	10100.00	101	9678.00	97	MS
Manganese	80.0	78.85	99	100.0	99.01	99	95.99	96	MS
Nickel	80.0	81.72	102	100.0	92.36	92	91.29	91	MS
Potassium	8000.0	8259.00	103	10000.0	9948.00	99	9713.00	97	MS
Selenium	80.0	78.49	98	100.0	97.33	97	99.24	99	MS
Silver	80.0	79.02	99	100.0	96.07	96	95.87	96	MS
Sodium	8000.0	8283.00	104	10000.0	10190.00	102	9755.00	98	MS
Vanadium	80.0	81.36	102	100.0	95.72	96	93.99	94	MS
Zinc	80.0	80.69	101	100.0	95.33	95	93.46	93	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 5 and 6 True	Continuing Calibration 5 and 6 Found	Continuing Calibration 5 and 6 %R(1)	Continuing Calibration 5 and 6 Found	Continuing Calibration 5 and 6 %R(1)	M
Aluminum	80.0	80.46	101	100.0	104.30	104	104.80	105	MS
Antimony	80.0	80.89	101	100.0	104.20	104	101.20	101	MS
Arsenic	80.0	80.36	100	100.0	95.43	95	95.11	95	MS
Barium	80.0	79.15	99	100.0	97.44	97	96.93	97	MS
Beryllium	80.0	81.44	102	100.0	90.06	90	90.62	91	MS
Cadmium	80.0	78.83	99	100.0	95.44	95	95.19	95	MS
Calcium	8000.0	8364.00	105	10000.0	9921.00	99	9862.00	99	MS
Chromium	80.0	80.57	101	100.0	96.13	96	96.09	96	MS
Cobalt	80.0	77.64	97	100.0	89.23	89	89.60	90	MS
Copper	80.0	79.95	100	100.0	91.02	91	91.24	91	MS
Iron	8000.0	8333.00	104	10000.0	9621.00	96	9662.00	97	MS
Lead	80.0	79.82	100	100.0	98.63	99	98.41	98	MS
Magnesium	8000.0	8349.00	104	10000.0	10040.00	100	10110.00	101	MS
Manganese	80.0	78.85	99	100.0	97.92	98	98.58	99	MS
Nickel	80.0	81.72	102	100.0	91.36	91	91.37	91	MS
Potassium	8000.0	8259.00	103	10000.0	10060.00	101	10080.00	101	MS
Selenium	80.0	78.49	98	100.0	96.54	97	97.25	97	MS
Silver	80.0	79.02	99	100.0	95.59	96	95.36	95	MS
Sodium	8000.0	8283.00	104	10000.0	10120.00	101	10270.00	103	MS
Vanadium	80.0	81.36	102	100.0	94.79	95	95.76	96	MS
Zinc	80.0	80.69	101	100.0	93.92	94	93.54	94	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2_160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 7 and 8 True	Continuing Calibration 7 and 8 Found	Continuing Calibration 7 and 8 %R(1)	Continuing Calibration 7 and 8 Found	Continuing Calibration 7 and 8 %R(1)	M
Aluminum	80.0	80.46	101	100.0	106.50	106	107.20	107	MS
Antimony	80.0	80.89	101	100.0	101.00	101	100.90	101	MS
Arsenic	80.0	80.36	100	100.0	94.76	95	94.12	94	MS
Barium	80.0	79.15	99	100.0	96.91	97	100.20	100	MS
Beryllium	80.0	81.44	102	100.0	90.06	90	90.86	91	MS
Cadmium	80.0	78.83	99	100.0	95.77	96	96.74	97	MS
Calcium	8000.0	8364.00	105	10000.0	10140.00	101	10280.00	103	MS
Chromium	80.0	80.57	101	100.0	95.03	95	94.84	95	MS
Cobalt	80.0	77.64	97	100.0	88.77	89	90.06	90	MS
Copper	80.0	79.95	100	100.0	89.79	90	91.29	91	MS
Iron	8000.0	8333.00	104	10000.0	9536.00	95	9523.00	95	MS
Lead	80.0	79.82	100	100.0	99.25	99	100.80	101	MS
Magnesium	8000.0	8349.00	104	10000.0	10260.00	103	10380.00	104	MS
Manganese	80.0	78.85	99	100.0	99.16	99	100.70	101	MS
Nickel	80.0	81.72	102	100.0	90.72	91	92.23	92	MS
Potassium	8000.0	8259.00	103	10000.0	10240.00	102	10370.00	104	MS
Selenium	80.0	78.49	98	100.0	95.77	96	92.16	92	MS
Silver	80.0	79.02	99	100.0	94.90	95	94.45	94	MS
Sodium	8000.0	8283.00	104	10000.0	10410.00	104	10570.00	106	MS
Vanadium	80.0	81.36	102	100.0	95.75	96	97.04	97	MS
Zinc	80.0	80.69	101	100.0	92.75	93	95.32	95	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 9 and 10 True	Continuing Calibration 9 and 10 Found	Continuing Calibration 9 and 10 %R(1)	Continuing Calibration 9 and 10 Found	Continuing Calibration 9 and 10 %R(1)	M
Aluminum	80.0	80.46	101	100.0	108.70	109	104.10	104	MS
Antimony	80.0	80.89	101	100.0	100.00	100	101.00	101	MS
Arsenic	80.0	80.36	100	100.0	94.27	94	93.42	93	MS
Barium	80.0	79.15	99	100.0	100.10	100	97.20	97	MS
Beryllium	80.0	81.44	102	100.0	93.61	94	93.02	93	MS
Cadmium	80.0	78.83	99	100.0	97.22	97	95.52	96	MS
Calcium	8000.0	8364.00	105	10000.0	10290.00	103	9972.00	100	MS
Chromium	80.0	80.57	101	100.0	94.60	95	94.61	95	MS
Cobalt	80.0	77.64	97	100.0	89.89	90	88.27	88	MS
Copper	80.0	79.95	100	100.0	91.53	92	89.40	89	MS
Iron	8000.0	8333.00	104	10000.0	9474.00	95	9504.00	95	MS
Lead	80.0	79.82	100	100.0	100.70	101	98.57	99	MS
Magnesium	8000.0	8349.00	104	10000.0	10420.00	104	10110.00	101	MS
Manganese	80.0	78.85	99	100.0	100.20	100	97.71	98	MS
Nickel	80.0	81.72	102	100.0	92.31	92	90.00	90	MS
Potassium	8000.0	8259.00	103	10000.0	10430.00	104	10140.00	101	MS
Selenium	80.0	78.49	98	100.0	93.74	94	91.90	92	MS
Silver	80.0	79.02	99	100.0	94.48	94	94.19	94	MS
Sodium	8000.0	8283.00	104	10000.0	10500.00	105	10200.00	102	MS
Vanadium	80.0	81.36	102	100.0	97.85	98	95.71	96	MS
Zinc	80.0	80.69	101	100.0	95.37	95	91.84	92	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 11 and 12 True	Continuing Calibration 11 and 12 Found	Continuing Calibration 11 and 12 %R(1)	Continuing Calibration 11 and 12 Found	Continuing Calibration 11 and 12 %R(1)	M
Aluminum	80.0	80.46	101	100.0	97.58	98	100.30	100	MS
Antimony	80.0	80.89	101	100.0	98.44	98	98.75	99	MS
Arsenic	80.0	80.36	100	100.0	97.84	98	95.64	96	MS
Barium	80.0	79.15	99	100.0	98.44	98	97.96	98	MS
Beryllium	80.0	81.44	102	100.0	95.20	95	95.42	95	MS
Cadmium	80.0	78.83	99	100.0	97.98	98	97.85	98	MS
Calcium	8000.0	8364.00	105	10000.0	9903.00	99	10090.00	101	MS
Chromium	80.0	80.57	101	100.0	98.63	99	98.07	98	MS
Cobalt	80.0	77.64	97	100.0	93.39	93	93.45	93	MS
Copper	80.0	79.95	100	100.0	98.14	98	98.23	98	MS
Iron	8000.0	8333.00	104	10000.0	9946.00	99	9941.00	99	MS
Lead	80.0	79.82	100	100.0	97.18	97	97.78	98	MS
Magnesium	8000.0	8349.00	104	10000.0	9815.00	98	10140.00	101	MS
Manganese	80.0	78.85	99	100.0	98.20	98	99.52	100	MS
Nickel	80.0	81.72	102	100.0	98.33	98	97.61	98	MS
Potassium	8000.0	8259.00	103	10000.0	9684.00	97	9841.00	98	MS
Selenium	80.0	78.49	98	100.0	97.27	97	95.45	95	MS
Silver	80.0	79.02	99	100.0	98.90	99	99.30	99	MS
Sodium	8000.0	8283.00	104	10000.0	9796.00	98	10090.00	101	MS
Vanadium	80.0	81.36	102	100.0	97.92	98	98.05	98	MS
Zinc	80.0	80.69	101	100.0	98.04	98	97.63	98	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 13 and 14 True	Continuing Calibration 13 and 14 Found	Continuing Calibration 13 and 14 %R(1)	Continuing Calibration 13 and 14 Found	Continuing Calibration 13 and 14 %R(1)	M
Aluminum	80.0	80.46	101	100.0	100.40	100	93.87	94	MS
Antimony	80.0	80.89	101	100.0	98.10	98	96.37	96	MS
Arsenic	80.0	80.36	100	100.0	96.77	97	95.87	96	MS
Barium	80.0	79.15	99	100.0	98.50	98	98.44	98	MS
Beryllium	80.0	81.44	102	100.0	96.39	96	94.76	95	MS
Cadmium	80.0	78.83	99	100.0	97.73	98	97.75	98	MS
Calcium	8000.0	8364.00	105	10000.0	10100.00	101	9841.00	98	MS
Chromium	80.0	80.57	101	100.0	97.65	98	93.68	94	MS
Cobalt	80.0	77.64	97	100.0	94.63	95	93.81	94	MS
Copper	80.0	79.95	100	100.0	99.49	99	100.20	100	MS
Iron	8000.0	8333.00	104	10000.0	9880.00	99	9594.00	96	MS
Lead	80.0	79.82	100	100.0	97.47	97	96.85	97	MS
Magnesium	8000.0	8349.00	104	10000.0	9990.00	100	9300.00	93	MS
Manganese	80.0	78.85	99	100.0	98.82	99	93.32	93	MS
Nickel	80.0	81.72	102	100.0	99.46	99	99.89	100	MS
Potassium	8000.0	8259.00	103	10000.0	9898.00	99	9711.00	97	MS
Selenium	80.0	78.49	98	100.0	95.49	95	94.99	95	MS
Silver	80.0	79.02	99	100.0	97.76	98	94.21	94	MS
Sodium	8000.0	8283.00	104	10000.0	9995.00	100	9357.00	94	MS
Vanadium	80.0	81.36	102	100.0	99.45	99	95.28	95	MS
Zinc	80.0	80.69	101	100.0	98.04	98	95.33	95	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 15 and 16 True	Continuing Calibration 15 and 16 Found	Continuing Calibration 15 and 16 %R(1)	Continuing Calibration 15 and 16 Found	Continuing Calibration 15 and 16 %R(1)	M
Aluminum	80.0	80.46	101	100.0	95.39	95	100.00	100	MS
Antimony	80.0	80.89	101	100.0	96.35	96	98.22	98	MS
Arsenic	80.0	80.36	100	100.0	96.24	96	97.07	97	MS
Barium	80.0	79.15	99	100.0	98.66	99	98.58	99	MS
Beryllium	80.0	81.44	102	100.0	94.60	95	96.12	96	MS
Cadmium	80.0	78.83	99	100.0	96.44	96	99.48	99	MS
Calcium	8000.0	8364.00	105	10000.0	9877.00	99	10240.00	102	MS
Chromium	80.0	80.57	101	100.0	93.95	94	98.86	99	MS
Cobalt	80.0	77.64	97	100.0	93.62	94	96.71	97	MS
Copper	80.0	79.95	100	100.0	99.63	100	101.40	101	MS
Iron	8000.0	8333.00	104	10000.0	9604.00	96	9944.00	99	MS
Lead	80.0	79.82	100	100.0	96.77	97	97.81	98	MS
Magnesium	8000.0	8349.00	104	10000.0	9489.00	95	10100.00	101	MS
Manganese	80.0	78.85	99	100.0	94.63	95	99.46	99	MS
Nickel	80.0	81.72	102	100.0	99.04	99	101.40	101	MS
Potassium	8000.0	8259.00	103	10000.0	9723.00	97	10060.00	101	MS
Selenium	80.0	78.49	98	100.0	96.98	97	97.84	98	MS
Silver	80.0	79.02	99	100.0	95.37	95	97.88	98	MS
Sodium	8000.0	8283.00	104	10000.0	9488.00	95	10100.00	101	MS
Vanadium	80.0	81.36	102	100.0	94.79	95	101.30	101	MS
Zinc	80.0	80.69	101	100.0	95.78	96	99.31	99	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2_160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 17 and 18 True	Continuing Calibration 17 and 18 Found	Continuing Calibration 17 and 18 %R(1)	Continuing Calibration 17 and 18 Found	Continuing Calibration 17 and 18 %R(1)	M
Aluminum	80.0	80.46	101	100.0	97.15	97	88.56	89	MS
Antimony	80.0	80.89	101	100.0	96.91	97	99.11	99	MS
Arsenic	80.0	80.36	100	100.0	95.98	96	91.49	91	MS
Barium	80.0	79.15	99	100.0	97.16	97	100.00	100	MS
Beryllium	80.0	81.44	102	100.0	93.45	93	96.44	96	MS
Cadmium	80.0	78.83	99	100.0	96.29	96	99.31	99	MS
Calcium	8000.0	8364.00	105	10000.0	9983.00	100	9839.00	98	MS
Chromium	80.0	80.57	101	100.0	96.91	97	90.55	91	MS
Cobalt	80.0	77.64	97	100.0	94.16	94	92.30	92	MS
Copper	80.0	79.95	100	100.0	99.33	99	97.49	97	MS
Iron	8000.0	8333.00	104	10000.0	9748.00	97	9257.00	93	MS
Lead	80.0	79.82	100	100.0	95.81	96	97.32	97	MS
Magnesium	8000.0	8349.00	104	10000.0	9721.00	97	9408.00	94	MS
Manganese	80.0	78.85	99	100.0	95.45	95	93.73	94	MS
Nickel	80.0	81.72	102	100.0	99.29	99	96.72	97	MS
Potassium	8000.0	8259.00	103	10000.0	9748.00	97	9562.00	96	MS
Selenium	80.0	78.49	98	100.0	97.71	98	96.04	96	MS
Silver	80.0	79.02	99	100.0	95.71	96	94.44	94	MS
Sodium	8000.0	8283.00	104	10000.0	9815.00	98	9498.00	95	MS
Vanadium	80.0	81.36	102	100.0	96.73	97	91.48	91	MS
Zinc	80.0	80.69	101	100.0	96.08	96	95.81	96	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 19 and 20 True	Continuing Calibration 19 and 20 Found	Continuing Calibration 19 and 20 %R(1)	Found	%R(1)	M
Aluminum	80.0	80.46	101	100.0	87.79	88	97.66	98	MS
Antimony	80.0	80.89	101	100.0	98.35	98	98.13	98	MS
Arsenic	80.0	80.36	100	100.0	92.44	92	97.26	97	MS
Barium	80.0	79.15	99	100.0	98.46	98	94.82	95	MS
Beryllium	80.0	81.44	102	100.0	95.41	95	94.93	95	MS
Cadmium	80.0	78.83	99	100.0	98.82	99	94.43	94	MS
Calcium	8000.0	8364.00	105	10000.0	9717.00	97	9705.00	97	MS
Chromium	80.0	80.57	101	100.0	91.73	92	97.52	98	MS
Cobalt	80.0	77.64	97	100.0	91.34	91	91.57	92	MS
Copper	80.0	79.95	100	100.0	96.51	97	96.18	96	MS
Iron	8000.0	8333.00	104	10000.0	9302.00	93	9786.00	98	MS
Lead	80.0	79.82	100	100.0	97.10	97	97.39	97	MS
Magnesium	8000.0	8349.00	104	10000.0	9331.00	93	9617.00	96	MS
Manganese	80.0	78.85	99	100.0	93.02	93	92.74	93	MS
Nickel	80.0	81.72	102	100.0	95.90	96	96.10	96	MS
Potassium	8000.0	8259.00	103	10000.0	9507.00	95	9555.00	96	MS
Selenium	80.0	78.49	98	100.0	95.23	95	97.43	97	MS
Silver	80.0	79.02	99	100.0	94.82	95	97.61	98	MS
Sodium	8000.0	8283.00	104	10000.0	9411.00	94	9599.00	96	MS
Vanadium	80.0	81.36	102	100.0	91.37	91	96.37	96	MS
Zinc	80.0	80.69	101	100.0	94.91	95	94.58	95	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 21 and 22 True	Continuing Calibration 21 and 22 Found	Continuing Calibration 21 and 22 %R(1)	Found	%R(1)	M
Aluminum	80.0	80.46	101	100.0	97.99	98	96.94	97	MS
Antimony	80.0	80.89	101	100.0	97.15	97	97.95	98	MS
Arsenic	80.0	80.36	100	100.0	94.86	95	93.83	94	MS
Barium	80.0	79.15	99	100.0	95.92	96	95.18	95	MS
Beryllium	80.0	81.44	102	100.0	95.11	95	94.67	95	MS
Cadmium	80.0	78.83	99	100.0	95.22	95	94.67	95	MS
Calcium	8000.0	8364.00	105	10000.0	9744.00	97	9632.00	96	MS
Chromium	80.0	80.57	101	100.0	96.84	97	95.85	96	MS
Cobalt	80.0	77.64	97	100.0	91.30	91	90.34	90	MS
Copper	80.0	79.95	100	100.0	96.11	96	95.04	95	MS
Iron	8000.0	8333.00	104	10000.0	9824.00	98	9657.00	97	MS
Lead	80.0	79.82	100	100.0	97.74	98	97.47	97	MS
Magnesium	8000.0	8349.00	104	10000.0	9647.00	96	9486.00	95	MS
Manganese	80.0	78.85	99	100.0	92.69	93	92.16	92	MS
Nickel	80.0	81.72	102	100.0	95.45	95	94.77	95	MS
Potassium	8000.0	8259.00	103	10000.0	9601.00	96	9514.00	95	MS
Selenium	80.0	78.49	98	100.0	99.15	99	95.45	95	MS
Silver	80.0	79.02	99	100.0	96.63	97	96.50	96	MS
Sodium	8000.0	8283.00	104	10000.0	9553.00	96	9478.00	95	MS
Vanadium	80.0	81.36	102	100.0	96.73	97	95.65	96	MS
Zinc	80.0	80.69	101	100.0	93.18	93	92.43	92	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 23 and 24 True	Continuing Calibration 23 and 24 Found	Continuing Calibration 23 and 24 %R(1)	Continuing Calibration 23 and 24 Found	Continuing Calibration 23 and 24 %R(1)	M
Aluminum	80.0	80.46	101	100.0	96.72	97	97.36	97	MS
Antimony	80.0	80.89	101	100.0	98.19	98	98.17	98	MS
Arsenic	80.0	80.36	100	100.0	94.48	94	95.66	96	MS
Barium	80.0	79.15	99	100.0	95.99	96	96.75	97	MS
Beryllium	80.0	81.44	102	100.0	94.92	95	94.00	94	MS
Cadmium	80.0	78.83	99	100.0	94.30	94	95.05	95	MS
Calcium	8000.0	8364.00	105	10000.0	9617.00	96	9678.00	97	MS
Chromium	80.0	80.57	101	100.0	94.82	95	95.19	95	MS
Cobalt	80.0	77.64	97	100.0	89.74	90	89.88	90	MS
Copper	80.0	79.95	100	100.0	94.61	95	95.06	95	MS
Iron	8000.0	8333.00	104	10000.0	9684.00	97	9625.00	96	MS
Lead	80.0	79.82	100	100.0	97.53	98	97.79	98	MS
Magnesium	8000.0	8349.00	104	10000.0	9465.00	95	9515.00	95	MS
Manganese	80.0	78.85	99	100.0	91.20	91	92.18	92	MS
Nickel	80.0	81.72	102	100.0	94.18	94	94.55	95	MS
Potassium	8000.0	8259.00	103	10000.0	9486.00	95	9510.00	95	MS
Selenium	80.0	78.49	98	100.0	95.53	96	98.94	99	MS
Silver	80.0	79.02	99	100.0	97.09	97	96.91	97	MS
Sodium	8000.0	8283.00	104	10000.0	9478.00	95	9538.00	95	MS
Vanadium	80.0	81.36	102	100.0	94.78	95	94.92	95	MS
Zinc	80.0	80.69	101	100.0	92.60	93	93.83	94	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: ICPMS2 160921A

Continuing Calibration Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 25 and 26 True	Continuing Calibration 25 and 26 Found	Continuing Calibration 25 and 26 %R(1)	Found	%R(1)	M
Aluminum	80.0	80.46	101	100.0	97.81	98	99.79	100	MS
Antimony	80.0	80.89	101	100.0	98.15	98	98.02	98	MS
Arsenic	80.0	80.36	100	100.0	93.30	93	94.25	94	MS
Barium	80.0	79.15	99	100.0	96.97	97	98.32	98	MS
Beryllium	80.0	81.44	102	100.0	95.91	96	97.68	98	MS
Cadmium	80.0	78.83	99	100.0	95.42	95	97.87	98	MS
Calcium	8000.0	8364.00	105	10000.0	9695.00	97	9889.00	99	MS
Chromium	80.0	80.57	101	100.0	96.13	96	94.96	95	MS
Cobalt	80.0	77.64	97	100.0	90.02	90	91.93	92	MS
Copper	80.0	79.95	100	100.0	95.15	95	97.17	97	MS
Iron	8000.0	8333.00	104	10000.0	9687.00	97	9635.00	96	MS
Lead	80.0	79.82	100	100.0	97.70	98	100.20	100	MS
Magnesium	8000.0	8349.00	104	10000.0	9563.00	96	9772.00	98	MS
Manganese	80.0	78.85	99	100.0	91.96	92	93.63	94	MS
Nickel	80.0	81.72	102	100.0	94.69	95	96.95	97	MS
Potassium	8000.0	8259.00	103	10000.0	9549.00	95	9734.00	97	MS
Selenium	80.0	78.49	98	100.0	96.27	96	95.56	96	MS
Silver	80.0	79.02	99	100.0	96.77	97	96.74	97	MS
Sodium	8000.0	8283.00	104	10000.0	9554.00	96	9779.00	98	MS
Vanadium	80.0	81.36	102	100.0	95.46	95	97.34	97	MS
Zinc	80.0	80.69	101	100.0	93.59	94	94.77	95	MS

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	10.37	104	10.0	10.37	104	11.74	117
Antimony	5.0	4.43	89	5.0	4.43	89	4.64	93
Arsenic	5.0	4.81	96	5.0	4.81	96	4.45	89
Barium	5.0	4.83	97	5.0	4.83	97	5.07	101
Beryllium	2.0	2.16	108	2.0	2.16	108	2.32	116
Cadmium	2.0	1.95	97	2.0	1.95	97	2.04	102
Calcium	500.0	530.20	106	500.0	530.20	106	555.90	111
Chromium	5.0	4.88	98	5.0	4.88	98	4.86	97
Cobalt	5.0	4.92	98	5.0	4.92	98	5.26	105
Copper	5.0	5.14	103	5.0	5.14	103	5.44	109
Iron	80.0	88.53	111	80.0	88.53	111	86.95	109
Lead	5.0	4.86	97	5.0	4.86	97	5.15	103
Magnesium	200.0	213.50	107	200.0	213.50	107	220.90	110
Manganese	5.0	4.89	98	5.0	4.89	98	5.22	104
Nickel	5.0	5.15	103	5.0	5.15	103	5.44	109
Potassium	200.0	211.00	106	200.0	211.00	106	226.80	113
Selenium	5.0	5.29	106	5.0	5.29	106	4.58	92
Silver	5.0	5.05	101	5.0	5.05	101	5.07	101
Sodium	200.0	207.70	104	200.0	207.70	104	216.90	108
Vanadium	5.0	4.88	98	5.0	4.88	98	5.28	106
Zinc	10.0	10.05	100	10.0	10.05	100	11.08	111

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.62	116	10.0	11.62	116	11.13	111
Antimony	5.0	4.53	91	5.0	4.53	91	4.59	92
Arsenic	5.0	4.99	100	5.0	4.99	100	4.05	81
Barium	5.0	5.15	103	5.0	5.15	103	4.95	99
Beryllium	2.0	2.26	113	2.0	2.26	113	2.27	114
Cadmium	2.0	2.08	104	2.0	2.08	104	2.08	104
Calcium	500.0	553.10	111	500.0	553.10	111	534.80	107
Chromium	5.0	4.94	99	5.0	4.94	99	4.79	96
Cobalt	5.0	5.15	103	5.0	5.15	103	5.06	101
Copper	5.0	5.44	109	5.0	5.44	109	5.39	108
Iron	80.0	86.30	108	80.0	86.30	108	84.36	105
Lead	5.0	5.10	102	5.0	5.10	102	5.03	101
Magnesium	200.0	218.20	109	200.0	218.20	109	214.90	107
Manganese	5.0	5.31	106	5.0	5.31	106	5.13	103
Nickel	5.0	5.50	110	5.0	5.50	110	5.31	106
Potassium	200.0	221.40	111	200.0	221.40	111	220.80	110
Selenium	5.0	5.31	106	5.0	5.31	106	5.38	108
Silver	5.0	5.11	102	5.0	5.11	102	4.99	100
Sodium	200.0	211.80	106	200.0	211.80	106	216.70	108
Vanadium	5.0	5.14	103	5.0	5.14	103	5.02	100
Zinc	10.0	10.92	109	10.0	10.92	109	10.48	105

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.39	114	10.0	11.39	114	11.66	117
Antimony	5.0	4.31	86	5.0	4.31	86	4.33	86
Arsenic	5.0	4.88	98	5.0	4.88	98	4.75	95
Barium	5.0	5.28	106	5.0	5.28	106	5.07	101
Beryllium	2.0	2.22	111	2.0	2.22	111	2.25	112
Cadmium	2.0	2.19	109	2.0	2.19	109	2.08	104
Calcium	500.0	550.30	110	500.0	550.30	110	550.90	110
Chromium	5.0	5.00	100	5.0	5.00	100	5.12	102
Cobalt	5.0	5.21	104	5.0	5.21	104	5.24	105
Copper	5.0	5.54	111	5.0	5.54	111	5.56	111
Iron	80.0	86.68	108	80.0	86.68	108	88.03	110
Lead	5.0	4.94	99	5.0	4.94	99	5.02	100
Magnesium	200.0	223.00	112	200.0	223.00	112	227.20	114
Manganese	5.0	5.09	102	5.0	5.09	102	5.12	102
Nickel	5.0	5.27	105	5.0	5.27	105	5.44	109
Potassium	200.0	208.30	104	200.0	208.30	104	216.10	108
Selenium	5.0	4.47	89	5.0	4.47	89	4.90	98
Silver	5.0	5.06	101	5.0	5.06	101	5.02	100
Sodium	200.0	212.30	106	200.0	212.30	106	223.00	112
Vanadium	5.0	5.02	100	5.0	5.02	100	5.09	102
Zinc	10.0	10.47	105	10.0	10.47	105	10.85	108

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.25	112	10.0	11.25	112	11.00	110
Antimony	5.0	4.41	88	5.0	4.41	88	4.38	88
Arsenic	5.0	4.75	95	5.0	4.75	95	5.09	102
Barium	5.0	5.01	100	5.0	5.01	100	4.84	97
Beryllium	2.0	2.18	109	2.0	2.18	109	2.17	108
Cadmium	2.0	2.07	103	2.0	2.07	103	2.12	106
Calcium	500.0	536.60	107	500.0	536.60	107	523.50	105
Chromium	5.0	4.62	92	5.0	4.62	92	5.05	101
Cobalt	5.0	5.03	101	5.0	5.03	101	5.10	102
Copper	5.0	5.35	107	5.0	5.35	107	5.34	107
Iron	80.0	85.85	107	80.0	85.85	107	89.14	111
Lead	5.0	4.93	99	5.0	4.93	99	4.85	97
Magnesium	200.0	221.20	111	200.0	221.20	111	213.00	106
Manganese	5.0	5.08	102	5.0	5.08	102	4.88	98
Nickel	5.0	5.30	106	5.0	5.30	106	5.02	100
Potassium	200.0	209.10	105	200.0	209.10	105	197.50	99
Selenium	5.0	4.42	88	5.0	4.42	88	4.63	92
Silver	5.0	5.02	100	5.0	5.02	100	5.13	103
Sodium	200.0	218.20	109	200.0	218.20	109	205.30	103
Vanadium	5.0	4.78	96	5.0	4.78	96	4.69	94
Zinc	10.0	10.48	105	10.0	10.48	105	10.31	103

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.53	115	10.0	11.53	115	11.09	111
Antimony	5.0	4.40	88	5.0	4.40	88	4.60	92
Arsenic	5.0	4.53	90	5.0	4.53	90	5.23	105
Barium	5.0	4.83	97	5.0	4.83	97	5.06	101
Beryllium	2.0	2.18	109	2.0	2.18	109	2.22	111
Cadmium	2.0	2.00	100	2.0	2.00	100	2.01	100
Calcium	500.0	521.20	104	500.0	521.20	104	523.30	105
Chromium	5.0	4.92	98	5.0	4.92	98	5.19	104
Cobalt	5.0	5.08	102	5.0	5.08	102	5.10	102
Copper	5.0	5.17	103	5.0	5.17	103	5.16	103
Iron	80.0	86.52	108	80.0	86.52	108	87.56	109
Lead	5.0	4.96	99	5.0	4.96	99	4.93	99
Magnesium	200.0	213.70	107	200.0	213.70	107	215.70	108
Manganese	5.0	4.87	97	5.0	4.87	97	4.74	95
Nickel	5.0	5.04	101	5.0	5.04	101	5.06	101
Potassium	200.0	200.90	100	200.0	200.90	100	203.60	102
Selenium	5.0	4.63	93	5.0	4.63	93	4.47	89
Silver	5.0	5.11	102	5.0	5.11	102	5.14	103
Sodium	200.0	215.40	108	200.0	215.40	108	214.90	107
Vanadium	5.0	4.94	99	5.0	4.94	99	4.74	95
Zinc	10.0	10.34	103	10.0	10.34	103	10.01	100

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.66	117	10.0	11.66	117	13.24	132
Antimony	5.0	4.57	91	5.0	4.57	91	4.55	91
Arsenic	5.0	4.88	98	5.0	4.88	98	4.69	94
Barium	5.0	4.71	94	5.0	4.71	94	4.88	98
Beryllium	2.0	2.16	108	2.0	2.16	108	2.17	108
Cadmium	2.0	1.97	98	2.0	1.97	98	1.97	99
Calcium	500.0	520.20	104	500.0	520.20	104	537.60	108
Chromium	5.0	5.01	100	5.0	5.01	100	5.04	101
Cobalt	5.0	5.08	102	5.0	5.08	102	5.11	102
Copper	5.0	5.21	104	5.0	5.21	104	5.07	101
Iron	80.0	88.38	110	80.0	88.38	110	89.22	112
Lead	5.0	4.85	97	5.0	4.85	97	4.97	99
Magnesium	200.0	211.10	106	200.0	211.10	106	224.00	112
Manganese	5.0	4.88	98	5.0	4.88	98	5.08	102
Nickel	5.0	5.04	101	5.0	5.04	101	5.06	101
Potassium	200.0	199.60	100	200.0	199.60	100	215.20	108
Selenium	5.0	4.87	97	5.0	4.87	97	4.30	86
Silver	5.0	5.17	103	5.0	5.17	103	5.36	107
Sodium	200.0	205.00	102	200.0	205.00	102	244.80	122
Vanadium	5.0	4.61	92	5.0	4.61	92	5.19	104
Zinc	10.0	10.37	104	10.0	10.37	104	10.65	106

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.94	119	10.0	11.94	119	12.61	126
Antimony	5.0	4.57	91	5.0	4.57	91	4.49	90
Arsenic	5.0	5.72	114	5.0	5.72	114	4.98	100
Barium	5.0	5.27	105	5.0	5.27	105	5.09	102
Beryllium	2.0	2.25	112	2.0	2.25	112	2.16	108
Cadmium	2.0	2.10	105	2.0	2.10	105	1.94	97
Calcium	500.0	535.60	107	500.0	535.60	107	524.80	105
Chromium	5.0	5.15	103	5.0	5.15	103	5.01	100
Cobalt	5.0	5.15	103	5.0	5.15	103	5.09	102
Copper	5.0	5.35	107	5.0	5.35	107	5.36	107
Iron	80.0	88.21	110	80.0	88.21	110	89.44	112
Lead	5.0	5.04	101	5.0	5.04	101	4.97	99
Magnesium	200.0	220.30	110	200.0	220.30	110	214.60	107
Manganese	5.0	5.01	100	5.0	5.01	100	5.00	100
Nickel	5.0	5.35	107	5.0	5.35	107	5.13	103
Potassium	200.0	208.90	104	200.0	208.90	104	202.00	101
Selenium	5.0	5.20	104	5.0	5.20	104	5.00	100
Silver	5.0	5.19	104	5.0	5.19	104	5.17	103
Sodium	200.0	204.60	102	200.0	204.60	102	212.00	106
Vanadium	5.0	5.13	103	5.0	5.13	103	4.98	100
Zinc	10.0	10.68	107	10.0	10.68	107	10.24	102

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.21	112	10.0	11.21	112	12.09	121
Antimony	5.0	4.59	92	5.0	4.59	92	4.42	88
Arsenic	5.0	4.53	91	5.0	4.53	91	4.99	100
Barium	5.0	5.06	101	5.0	5.06	101	4.74	95
Beryllium	2.0	2.27	114	2.0	2.27	114	2.29	114
Cadmium	2.0	1.98	99	2.0	1.98	99	1.97	98
Calcium	500.0	505.90	101	500.0	505.90	101	529.40	106
Chromium	5.0	4.75	95	5.0	4.75	95	5.14	103
Cobalt	5.0	4.94	99	5.0	4.94	99	5.19	104
Copper	5.0	5.51	110	5.0	5.51	110	5.12	102
Iron	80.0	84.28	105	80.0	84.28	105	88.21	110
Lead	5.0	5.12	102	5.0	5.12	102	4.96	99
Magnesium	200.0	196.00	98	200.0	196.00	98	213.00	106
Manganese	5.0	4.73	95	5.0	4.73	95	5.07	101
Nickel	5.0	4.92	98	5.0	4.92	98	5.20	104
Potassium	200.0	193.70	97	200.0	193.70	97	215.60	108
Selenium	5.0	4.98	100	5.0	4.98	100	5.55	111
Silver	5.0	5.09	102	5.0	5.09	102	5.07	101
Sodium	200.0	228.80	114	200.0	228.80	114	200.50	100
Vanadium	5.0	4.79	96	5.0	4.79	96	4.77	95
Zinc	10.0	10.31	103	10.0	10.31	103	10.14	101

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.85	118	10.0	11.85	118	11.67	117
Antimony	5.0	4.35	87	5.0	4.35	87	4.45	89
Arsenic	5.0	5.28	106	5.0	5.28	106	5.03	101
Barium	5.0	4.94	99	5.0	4.94	99	4.77	95
Beryllium	2.0	2.25	113	2.0	2.25	113	2.23	111
Cadmium	2.0	2.11	106	2.0	2.11	106	1.98	99
Calcium	500.0	529.60	106	500.0	529.60	106	526.40	105
Chromium	5.0	5.08	102	5.0	5.08	102	4.89	98
Cobalt	5.0	5.18	104	5.0	5.18	104	4.95	99
Copper	5.0	5.28	106	5.0	5.28	106	5.09	102
Iron	80.0	88.36	110	80.0	88.36	110	86.34	108
Lead	5.0	5.07	101	5.0	5.07	101	4.95	99
Magnesium	200.0	213.00	106	200.0	213.00	106	210.10	105
Manganese	5.0	5.05	101	5.0	5.05	101	5.04	101
Nickel	5.0	5.26	105	5.0	5.26	105	5.10	102
Potassium	200.0	218.20	109	200.0	218.20	109	211.80	106
Selenium	5.0	4.17	83	5.0	4.17	83	5.00	100
Silver	5.0	5.12	102	5.0	5.12	102	5.10	102
Sodium	200.0	190.20	95	200.0	190.20	95	172.90	86
Vanadium	5.0	4.65	93	5.0	4.65	93	4.82	96
Zinc	10.0	9.87	99	10.0	9.87	99	10.61	106

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.47	115	10.0	11.47	115		
Antimony	5.0	4.65	93	5.0	4.65	93		
Arsenic	5.0	5.19	104	5.0	5.19	104		
Barium	5.0	4.45	89	5.0	4.45	89		
Beryllium	2.0	2.22	111	2.0	2.22	111		
Cadmium	2.0	1.99	100	2.0	1.99	100		
Calcium	500.0	503.80	101	500.0	503.80	101		
Chromium	5.0	4.79	96	5.0	4.79	96		
Cobalt	5.0	4.99	100	5.0	4.99	100		
Copper	5.0	4.84	97	5.0	4.84	97		
Iron	80.0	86.59	108	80.0	86.59	108		
Lead	5.0	5.02	100	5.0	5.02	100		
Magnesium	200.0	206.20	103	200.0	206.20	103		
Manganese	5.0	5.06	101	5.0	5.06	101		
Nickel	5.0	5.02	100	5.0	5.02	100		
Potassium	200.0	206.30	103	200.0	206.30	103		
Selenium	5.0	4.58	92	5.0	4.58	92		
Silver	5.0	5.00	100	5.0	5.00	100		
Sodium	200.0	162.20	81	200.0	162.20	81		
Vanadium	5.0	4.41	88	5.0	4.41	88		
Zinc	10.0	9.93	99	10.0	9.93	99		

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	8.47	85	10.0	8.47	85	8.34	83
Antimony	5.0	4.52	90	5.0	4.52	90	4.65	93
Arsenic	5.0	5.61	112	5.0	5.61	112	4.94	99
Barium	5.0	4.57	91	5.0	4.57	91	4.68	94
Beryllium	2.0	2.22	111	2.0	2.22	111	2.11	105
Cadmium	2.0	1.97	99	2.0	1.97	99	1.94	97
Calcium	500.0	459.50	92	500.0	459.50	92	406.90	81
Chromium	5.0	5.12	102	5.0	5.12	102	4.75	95
Cobalt	5.0	4.84	97	5.0	4.84	97	4.57	91
Copper	5.0	4.13	83	5.0	4.13	83	3.92	78
Iron	80.0	86.94	109	80.0	86.94	109	82.87	104
Lead	5.0	4.93	99	5.0	4.93	99	4.87	97
Magnesium	200.0	216.00	108	200.0	216.00	108	213.60	107
Manganese	5.0	4.85	97	5.0	4.85	97	4.75	95
Nickel	5.0	4.98	100	5.0	4.98	100	4.73	95
Potassium	200.0	221.40	111	200.0	221.40	111	209.90	105
Selenium	5.0	5.36	107	5.0	5.36	107	4.82	96
Silver	5.0	4.95	99	5.0	4.95	99	4.87	97
Sodium	200.0	206.60	103	200.0	206.60	103	203.30	102
Vanadium	5.0	4.65	93	5.0	4.65	93	4.61	92
Zinc	10.0	10.41	104	10.0	10.41	104	9.76	98

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	7.98	80	10.0	7.98	80	8.19	82
Antimony	5.0	4.54	91	5.0	4.54	91	5.16	103
Arsenic	5.0	4.72	94	5.0	4.72	94	4.97	99
Barium	5.0	4.61	92	5.0	4.61	92	4.83	97
Beryllium	2.0	2.13	106	2.0	2.13	106	2.07	103
Cadmium	2.0	1.85	93	2.0	1.85	93	1.93	96
Calcium	500.0	383.30	77	500.0	383.30	77	377.60	76
Chromium	5.0	4.83	97	5.0	4.83	97	4.77	95
Cobalt	5.0	4.56	91	5.0	4.56	91	4.59	92
Copper	5.0	3.74	75	5.0	3.74	75	3.62	72
Iron	80.0	81.18	101	80.0	81.18	101	82.60	103
Lead	5.0	4.81	96	5.0	4.81	96	4.79	96
Magnesium	200.0	209.70	105	200.0	209.70	105	215.40	108
Manganese	5.0	4.72	94	5.0	4.72	94	4.74	95
Nickel	5.0	4.74	95	5.0	4.74	95	4.67	93
Potassium	200.0	211.30	106	200.0	211.30	106	218.30	109
Selenium	5.0	4.61	92	5.0	4.61	92	5.04	101
Silver	5.0	4.74	95	5.0	4.74	95	4.85	97
Sodium	200.0	194.40	97	200.0	194.40	97	207.50	104
Vanadium	5.0	4.51	90	5.0	4.51	90	4.40	88
Zinc	10.0	9.90	99	10.0	9.90	99	9.76	98

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	8.29	83	10.0	8.29	83	8.32	83
Antimony	5.0	4.66	93	5.0	4.66	93	4.67	93
Arsenic	5.0	4.86	97	5.0	4.86	97	4.71	94
Barium	5.0	4.79	96	5.0	4.79	96	4.80	96
Beryllium	2.0	2.07	104	2.0	2.07	104	2.05	102
Cadmium	2.0	1.81	91	2.0	1.81	91	1.86	93
Calcium	500.0	367.60	74	500.0	367.60	74	365.40	73
Chromium	5.0	4.84	97	5.0	4.84	97	4.77	95
Cobalt	5.0	4.52	90	5.0	4.52	90	4.48	90
Copper	5.0	3.55	71	5.0	3.55	71	3.56	71
Iron	80.0	82.57	103	80.0	82.57	103	81.69	102
Lead	5.0	4.78	96	5.0	4.78	96	4.88	98
Magnesium	200.0	214.90	107	200.0	214.90	107	216.90	108
Manganese	5.0	4.74	95	5.0	4.74	95	4.76	95
Nickel	5.0	4.62	92	5.0	4.62	92	4.55	91
Potassium	200.0	216.00	108	200.0	216.00	108	220.70	110
Selenium	5.0	4.61	92	5.0	4.61	92	5.35	107
Silver	5.0	4.89	98	5.0	4.89	98	4.80	96
Sodium	200.0	205.80	103	200.0	205.80	103	250.20	125
Vanadium	5.0	4.46	89	5.0	4.46	89	4.51	90
Zinc	10.0	9.34	93	10.0	9.34	93	9.79	98

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	8.54	85	10.0	8.54	85	11.32	113
Antimony	5.0	4.58	92	5.0	4.58	92	4.47	89
Arsenic	5.0	5.16	103	5.0	5.16	103	4.86	97
Barium	5.0	4.73	95	5.0	4.73	95	5.03	101
Beryllium	2.0	2.11	105	2.0	2.11	105	2.16	108
Cadmium	2.0	1.98	99	2.0	1.98	99	1.97	98
Calcium	500.0	367.40	73	500.0	367.40	73	536.00	107
Chromium	5.0	4.64	93	5.0	4.64	93	4.92	98
Cobalt	5.0	4.49	90	5.0	4.49	90	4.93	99
Copper	5.0	3.56	71	5.0	3.56	71	5.43	109
Iron	80.0	80.12	100	80.0	80.12	100	84.55	106
Lead	5.0	4.87	97	5.0	4.87	97	5.00	100
Magnesium	200.0	219.90	110	200.0	219.90	110	220.30	110
Manganese	5.0	4.77	95	5.0	4.77	95	4.97	99
Nickel	5.0	4.59	92	5.0	4.59	92	5.23	105
Potassium	200.0	228.00	114	200.0	228.00	114	204.80	102
Selenium	5.0	4.20	84	5.0	4.20	84	4.94	99
Silver	5.0	4.78	96	5.0	4.78	96	5.05	101
Sodium	200.0	223.60	112	200.0	223.60	112	206.90	103
Vanadium	5.0	4.57	91	5.0	4.57	91	4.69	94
Zinc	10.0	10.13	101	10.0	10.13	101	10.76	108

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.20	112	10.0	11.20	112	11.11	111
Antimony	5.0	4.50	90	5.0	4.50	90	4.44	89
Arsenic	5.0	4.78	96	5.0	4.78	96	4.94	99
Barium	5.0	4.89	98	5.0	4.89	98	4.79	96
Beryllium	2.0	2.14	107	2.0	2.14	107	2.17	109
Cadmium	2.0	1.99	100	2.0	1.99	100	1.96	98
Calcium	500.0	520.70	104	500.0	520.70	104	518.90	104
Chromium	5.0	4.88	98	5.0	4.88	98	4.75	95
Cobalt	5.0	4.74	95	5.0	4.74	95	4.82	96
Copper	5.0	5.27	105	5.0	5.27	105	5.25	105
Iron	80.0	83.37	104	80.0	83.37	104	83.80	105
Lead	5.0	4.81	96	5.0	4.81	96	4.84	97
Magnesium	200.0	219.60	110	200.0	219.60	110	216.40	108
Manganese	5.0	4.87	97	5.0	4.87	97	4.83	97
Nickel	5.0	5.03	101	5.0	5.03	101	5.05	101
Potassium	200.0	195.80	98	200.0	195.80	98	197.20	99
Selenium	5.0	4.19	84	5.0	4.19	84	5.06	101
Silver	5.0	5.08	102	5.0	5.08	102	5.01	100
Sodium	200.0	215.10	108	200.0	215.10	108	217.30	109
Vanadium	5.0	4.80	96	5.0	4.80	96	4.62	92
Zinc	10.0	10.37	104	10.0	10.37	104	10.23	102

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	10.66	107	10.0	10.66	107	10.75	108
Antimony	5.0	4.39	88	5.0	4.39	88	4.39	88
Arsenic	5.0	4.50	90	5.0	4.50	90	4.64	93
Barium	5.0	4.84	97	5.0	4.84	97	4.85	97
Beryllium	2.0	2.15	107	2.0	2.15	107	2.11	106
Cadmium	2.0	1.98	99	2.0	1.98	99	2.00	100
Calcium	500.0	517.00	103	500.0	517.00	103	521.60	104
Chromium	5.0	4.63	93	5.0	4.63	93	4.88	98
Cobalt	5.0	4.72	94	5.0	4.72	94	4.89	98
Copper	5.0	5.24	105	5.0	5.24	105	5.24	105
Iron	80.0	81.10	101	80.0	81.10	101	83.60	104
Lead	5.0	4.81	96	5.0	4.81	96	4.76	95
Magnesium	200.0	208.30	104	200.0	208.30	104	214.30	107
Manganese	5.0	4.79	96	5.0	4.79	96	4.87	97
Nickel	5.0	5.07	101	5.0	5.07	101	5.16	103
Potassium	200.0	206.60	103	200.0	206.60	103	198.50	99
Selenium	5.0	4.49	90	5.0	4.49	90	4.24	85
Silver	5.0	4.84	97	5.0	4.84	97	4.94	99
Sodium	200.0	236.40	118	200.0	236.40	118	185.70	93
Vanadium	5.0	4.67	93	5.0	4.67	93	4.60	92
Zinc	10.0	9.97	100	10.0	9.97	100	10.36	104

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	10.96	110	10.0	10.96	110	10.45	104
Antimony	5.0	4.65	93	5.0	4.65	93	4.60	92
Arsenic	5.0	4.59	92	5.0	4.59	92	4.32	86
Barium	5.0	4.84	97	5.0	4.84	97	5.13	103
Beryllium	2.0	2.21	110	2.0	2.21	110	2.17	108
Cadmium	2.0	2.04	102	2.0	2.04	102	1.98	99
Calcium	500.0	532.90	107	500.0	532.90	107	508.00	102
Chromium	5.0	5.01	100	5.0	5.01	100	4.72	94
Cobalt	5.0	4.97	99	5.0	4.97	99	4.76	95
Copper	5.0	5.35	107	5.0	5.35	107	5.24	105
Iron	80.0	84.75	106	80.0	84.75	106	80.89	101
Lead	5.0	4.95	99	5.0	4.95	99	4.90	98
Magnesium	200.0	216.00	108	200.0	216.00	108	208.40	104
Manganese	5.0	5.06	101	5.0	5.06	101	4.88	98
Nickel	5.0	5.23	104	5.0	5.23	104	5.00	100
Potassium	200.0	205.30	103	200.0	205.30	103	197.30	99
Selenium	5.0	4.79	96	5.0	4.79	96	5.18	104
Silver	5.0	5.07	101	5.0	5.07	101	4.91	98
Sodium	200.0	204.20	102	200.0	204.20	102	197.70	99
Vanadium	5.0	4.99	100	5.0	4.99	100	4.66	93
Zinc	10.0	10.65	106	10.0	10.65	106	10.25	102

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.47	115	10.0	11.47	115	11.32	113
Antimony	5.0	4.53	91	5.0	4.53	91	4.48	90
Arsenic	5.0	5.39	108	5.0	5.39	108	4.78	96
Barium	5.0	4.77	95	5.0	4.77	95	4.65	93
Beryllium	2.0	2.10	105	2.0	2.10	105	2.14	107
Cadmium	2.0	1.82	91	2.0	1.82	91	1.95	98
Calcium	500.0	499.60	100	500.0	499.60	100	498.80	100
Chromium	5.0	4.81	96	5.0	4.81	96	4.83	97
Cobalt	5.0	4.65	93	5.0	4.65	93	4.63	93
Copper	5.0	5.09	102	5.0	5.09	102	5.08	102
Iron	80.0	83.07	104	80.0	83.07	104	82.63	103
Lead	5.0	4.81	96	5.0	4.81	96	4.84	97
Magnesium	200.0	210.30	105	200.0	210.30	105	209.00	104
Manganese	5.0	4.67	93	5.0	4.67	93	4.62	92
Nickel	5.0	4.89	98	5.0	4.89	98	4.83	97
Potassium	200.0	193.90	97	200.0	193.90	97	192.50	96
Selenium	5.0	5.44	109	5.0	5.44	109	4.86	97
Silver	5.0	4.98	100	5.0	4.98	100	5.00	100
Sodium	200.0	191.20	96	200.0	191.20	96	193.50	97
Vanadium	5.0	4.88	98	5.0	4.88	98	4.93	99
Zinc	10.0	10.18	102	10.0	10.18	102	9.94	99

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.36	114	10.0	11.36	114	11.46	115
Antimony	5.0	4.43	89	5.0	4.43	89	4.84	97
Arsenic	5.0	4.29	86	5.0	4.29	86	5.00	100
Barium	5.0	4.80	96	5.0	4.80	96	4.70	94
Beryllium	2.0	2.12	106	2.0	2.12	106	2.20	110
Cadmium	2.0	1.77	88	2.0	1.77	88	2.03	102
Calcium	500.0	491.30	98	500.0	491.30	98	501.30	100
Chromium	5.0	4.77	95	5.0	4.77	95	5.05	101
Cobalt	5.0	4.53	91	5.0	4.53	91	4.62	92
Copper	5.0	4.95	99	5.0	4.95	99	5.08	102
Iron	80.0	82.17	103	80.0	82.17	103	87.72	110
Lead	5.0	4.78	96	5.0	4.78	96	4.84	97
Magnesium	200.0	206.40	103	200.0	206.40	103	209.10	105
Manganese	5.0	4.63	93	5.0	4.63	93	4.64	93
Nickel	5.0	4.81	96	5.0	4.81	96	4.79	96
Potassium	200.0	184.40	92	200.0	184.40	92	194.10	97
Selenium	5.0	4.68	94	5.0	4.68	94	5.32	106
Silver	5.0	4.96	99	5.0	4.96	99	5.23	105
Sodium	200.0	182.60	91	200.0	182.60	91	183.20	92
Vanadium	5.0	4.77	95	5.0	4.77	95	4.79	96
Zinc	10.0	9.64	96	10.0	9.64	96	9.75	98

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: ICPMS2 160921A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum	10.0	11.48	115	10.0	11.48	115		
Antimony	5.0	4.57	91	5.0	4.57	91		
Arsenic	5.0	4.59	92	5.0	4.59	92		
Barium	5.0	4.97	99	5.0	4.97	99		
Beryllium	2.0	2.15	108	2.0	2.15	108		
Cadmium	2.0	1.94	97	2.0	1.94	97		
Calcium	500.0	500.20	100	500.0	500.20	100		
Chromium	5.0	4.72	94	5.0	4.72	94		
Cobalt	5.0	4.57	91	5.0	4.57	91		
Copper	5.0	4.99	100	5.0	4.99	100		
Iron	80.0	82.79	103	80.0	82.79	103		
Lead	5.0	4.80	96	5.0	4.80	96		
Magnesium	200.0	211.00	106	200.0	211.00	106		
Manganese	5.0	4.62	92	5.0	4.62	92		
Nickel	5.0	4.83	97	5.0	4.83	97		
Potassium	200.0	191.40	96	200.0	191.40	96		
Selenium	5.0	4.99	100	5.0	4.99	100		
Silver	5.0	5.02	100	5.0	5.02	100		
Sodium	200.0	182.50	91	200.0	182.50	91		
Vanadium	5.0	4.76	95	5.0	4.76	95		
Zinc	10.0	9.67	97	10.0	9.67	97		

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	7.300	J	10.000	U	10.000	U	10.000	U	MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Cadmium	2.000	U	0.056	J	2.000	U	0.057	J	2.000	U	MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	500.000	U	MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Copper	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Iron	80.000	U	8.600	J	7.200	J	6.500	J	80.000	U	MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Magnesium	200.000	U	8.900	J	200.000	U	200.000	U	200.000	U	MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Potassium	200.000	U	200.000	U	18.300	J	22.100	J	200.000	U	MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Silver	5.000	U	5.000	U	0.051	J	0.054	J	5.000	U	MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Thallium	5.000	U	0.390	J	5.000	U	5.000	U	5.000	U	MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2_160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 4	C	5	C	6	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Cadmium	2.000	U	0.067	J	0.065	J	0.080	J	2.000	U	MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	500.000	U	MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Copper	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Iron	80.000	U	7.000	J	7.100	J	6.600	J	80.000	U	MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Magnesium	200.000	U	7.200	J	200.000	U	8.100	J	200.000	U	MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Potassium	200.000	U	20.700	J	200.000	U	200.000	U	200.000	U	MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Silver	5.000	U	5.000	U	0.052	J	5.000	U	5.000	U	MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Thallium	5.000	U	0.280	J	0.350	J	0.310	J	5.000	U	MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2_160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 7	C	8	C	9	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Cadmium	2.000	U	0.077	J	0.073	J	0.075	J	2.000	U	MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	500.000	U	MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Copper	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Iron	80.000	U	6.900	J	7.600	J	7.100	J	80.000	U	MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Magnesium	200.000	U	9.600	J	200.000	U	200.000	U	200.000	U	MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Silver	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Thallium	5.000	U	0.340	J	0.390	J	0.300	J	5.000	U	MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2_160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 10	C	11	C	12	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Cadmium	2.000	U	2.000	U	0.074	J	0.100	J	2.000	U	MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	500.000	U	MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Copper	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Iron	80.000	U	7.300	J	7.400	J	7.600	J	80.000	U	MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Magnesium	200.000	U	200.000	U	200.000	U	6.800	J	200.000	U	MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Silver	5.000	U	5.000	U	5.000	U	0.051	J	5.000	U	MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Thallium	5.000	U	0.340	J	0.390	J	0.360	J	5.000	U	MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 13	C	14	C	15	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	2.000	U	MS
Cadmium	2.000	U	0.100	J	0.074	J	0.074	J	2.000	U	MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	500.000	U	MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Copper	5.000	U	5.000	U	5.000	U	0.350	J	5.000	U	MS
Iron	80.000	U	7.800	J	7.600	J	7.600	J	80.000	U	MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Magnesium	200.000	U	9.100	J	8.200	J	8.200	J	200.000	U	MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Silver	5.000	U	0.054	J	5.000	U	5.000	U	5.000	U	MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Thallium	5.000	U	0.510	J	0.350	J	0.350	J	5.000	U	MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2_160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 16	C	17	C	18	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Beryllium	2.000	U	0.140	J	2.000	U	2.000	U	2.000	U	MS
Cadmium	2.000	U	0.085	J	0.066	J	2.000	U	2.000	U	MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	500.000	U	MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Copper	5.000	U	5.000	U	0.300	J	5.000	U	5.000	U	MS
Iron	80.000	U	7.800	J	7.600	J	8.200	J	80.000	U	MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Magnesium	200.000	U	9.300	J	8.800	J	10.000	J	200.000	U	MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Silver	5.000	U	5.000	U	0.050	J	0.055	J	5.000	U	MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	200.000	U	MS
Thallium	5.000	U	0.520	J	0.410	J	0.350	J	5.000	U	MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	5.000	U	MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	10.000	U	MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 19	C	20	C	21	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U					10.000	U	MS
Antimony	5.000	U	5.000	U					5.000	U	MS
Arsenic	5.000	U	5.000	U					5.000	U	MS
Barium	5.000	U	5.000	U					5.000	U	MS
Beryllium	2.000	U	2.000	U					2.000	U	MS
Cadmium	2.000	U	0.081	J					2.000	U	MS
Calcium	500.000	U	500.000	U					500.000	U	MS
Chromium	5.000	U	5.000	U					5.000	U	MS
Cobalt	5.000	U	5.000	U					5.000	U	MS
Copper	5.000	U	5.000	U					5.000	U	MS
Iron	80.000	U	8.600	J					80.000	U	MS
Lead	5.000	U	5.000	U					5.000	U	MS
Magnesium	200.000	U	9.100	J					200.000	U	MS
Manganese	5.000	U	5.000	U					5.000	U	MS
Nickel	5.000	U	5.000	U					5.000	U	MS
Potassium	200.000	U	200.000	U					200.000	U	MS
Selenium	5.000	U	5.000	U					5.000	U	MS
Silver	5.000	U	5.000	U					5.000	U	MS
Sodium	200.000	U	-39.000						200.000	U	MS
Thallium	5.000	U	0.380	J					5.000	U	MS
Vanadium	5.000	U	5.000	U					5.000	U	MS
Zinc	10.000	U	10.000	U					10.000	U	MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2 160921A

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	0.000		MS
Cadmium	2.000	U	0.054	J	0.095	J	0.072	J	0.000		MS
Calcium	500.000	U	-93.000		-91.000		-100.000		0.000		MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Copper	-1.255		-1.000		-1.100		-0.860		0.000		MS
Iron	80.000	U	7.700	J	10.200	J	8.200	J	0.000		MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Magnesium	200.000	U	9.100	J	9.600	J	9.300	J	0.000		MS
Manganese	5.000	U	5.000	U	1.000	J	5.000	U	0.000		MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Silver	5.000	U	5.000	U	0.058	J	5.000	U	0.000		MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Thallium	5.000	U	0.320	J	0.270	J	0.280	J	0.000		MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2_160921A

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 4	C	5	C	6	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS
Antimony	5.000	U	5.000	U	0.640	J	5.000	U	0.000		MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	0.000		MS
Cadmium	2.000	U	0.072	J	0.077	J	0.066	J	0.000		MS
Calcium	500.000	U	-110.000		-130.000		-140.000		0.000		MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Copper	-1.255		-1.100		-1.100		-1.200		0.000		MS
Iron	80.000	U	8.700	J	6.900	J	8.900	J	0.000		MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Magnesium	200.000	U	200.000	U	10.500	J	9.200	J	0.000		MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Potassium	200.000	U	21.800	J	27.800	J	23.300	J	0.000		MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Silver	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Thallium	5.000	U	0.320	J	0.350	J	0.360	J	0.000		MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2 160921A

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 7	C	8	C	9	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	0.000		MS
Cadmium	2.000	U	0.070	J	0.089	J	0.091	J	0.000		MS
Calcium	500.000	U	-150.000		-150.000		500.000	U	0.000		MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Copper	-1.255		-1.100		-1.100		5.000	U	0.000		MS
Iron	80.000	U	8.100	J	8.400	J	9.900	J	0.000		MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Magnesium	200.000	U	10.600	J	12.000	J	11.400	J	0.000		MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Potassium	200.000	U	22.200	J	30.300	J	200.000	U	0.000		MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Silver	5.000	U	5.000	U	5.000	U	0.072	J	0.000		MS
Sodium	200.000	U	44.000	J	200.000	U	200.000	U	0.000		MS
Thallium	5.000	U	0.350	J	0.430	J	0.520	J	0.000		MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2_160921A

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 10	C	11	C	12	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Beryllium	2.000	U	2.000	U	2.000	U	2.000	U	0.000		MS
Cadmium	2.000	U	0.084	J	0.090	J	0.130	J	0.000		MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	0.000		MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Copper	-1.255		5.000	U	5.000	U	5.000	U	0.000		MS
Iron	80.000	U	10.800	J	9.100	J	9.400	J	0.000		MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Magnesium	200.000	U	14.700	J	14.500	J	13.400	J	0.000		MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Silver	5.000	U	0.081	J	0.060	J	0.064	J	0.000		MS
Sodium	200.000	U	200.000	U	200.000	U	47.100	J	0.000		MS
Thallium	5.000	U	0.480	J	0.430	J	0.470	J	0.000		MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2 160921A

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 13	C	14	C	15	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Beryllium	2.000	U	0.130	J	2.000	U	0.130	J	0.000		MS
Cadmium	2.000	U	0.082	J	0.085	J	0.120	J	0.000		MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	0.000		MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Copper	-1.255		5.000	U	5.000	U	5.000	U	0.000		MS
Iron	80.000	U	9.500	J	9.200	J	10.600	J	0.000		MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Magnesium	200.000	U	12.700	J	15.300	J	13.600	J	0.000		MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Silver	5.000	U	0.072	J	0.065	J	0.062	J	0.000		MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Thallium	5.000	U	0.530	J	0.440	J	0.400	J	0.000		MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2_160921A

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 16	C	17	C	18	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS
Antimony	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Arsenic	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Barium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Beryllium	2.000	U	0.140	J	2.000	U	2.000	U	0.000		MS
Cadmium	2.000	U	0.096	J	0.140	J	0.057	J	0.000		MS
Calcium	500.000	U	500.000	U	500.000	U	500.000	U	0.000		MS
Chromium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Cobalt	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Copper	-1.255		5.000	U	5.000	U	5.000	U	0.000		MS
Iron	80.000	U	11.600	J	11.500	J	11.400	J	0.000		MS
Lead	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Magnesium	200.000	U	13.800	J	14.100	J	13.500	J	0.000		MS
Manganese	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Nickel	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Potassium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Selenium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Silver	5.000	U	0.081	J	0.065	J	0.078	J	0.000		MS
Sodium	200.000	U	200.000	U	200.000	U	200.000	U	0.000		MS
Thallium	5.000	U	0.570	J	0.490	J	0.430	J	0.000		MS
Vanadium	5.000	U	5.000	U	5.000	U	5.000	U	0.000		MS
Zinc	10.000	U	10.000	U	10.000	U	10.000	U	0.000		MS

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: ICPMS2 160921A

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 19	C	20	C	21	C	Prepa-ration Blank	C	M
Aluminum	10.000	U	10.000	U	10.000	U			0.000		MS
Antimony	5.000	U	5.000	U	5.000	U			0.000		MS
Arsenic	5.000	U	5.000	U	5.000	U			0.000		MS
Barium	5.000	U	5.000	U	5.000	U			0.000		MS
Beryllium	2.000	U	0.140	J	0.130	J			0.000		MS
Cadmium	2.000	U	0.120	J	0.068	J			0.000		MS
Calcium	500.000	U	500.000	U	500.000	U			0.000		MS
Chromium	5.000	U	5.000	U	5.000	U			0.000		MS
Cobalt	5.000	U	5.000	U	5.000	U			0.000		MS
Copper	-1.255		5.000	U	5.000	U			0.000		MS
Iron	80.000	U	11.100	J	11.100	J			0.000		MS
Lead	5.000	U	5.000	U	5.000	U			0.000		MS
Magnesium	200.000	U	14.700	J	12.300	J			0.000		MS
Manganese	5.000	U	5.000	U	5.000	U			0.000		MS
Nickel	5.000	U	5.000	U	5.000	U			0.000		MS
Potassium	200.000	U	200.000	U	200.000	U			0.000		MS
Selenium	5.000	U	5.000	U	5.000	U			0.000		MS
Silver	5.000	U	0.069	J	0.066	J			0.000		MS
Sodium	200.000	U	200.000	U	200.000	U			0.000		MS
Thallium	5.000	U	0.500	J	0.420	J			0.000		MS
Vanadium	5.000	U	5.000	U	5.000	U			0.000		MS
Zinc	10.000	U	10.000	U	10.000	U			0.000		MS

Note: MDLs are used, not IDLs

ICP INTERFERENCE CHECK SAMPLE

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. SAS No.: SDG No.: 16091057

ICP ID Number: ICPMS2 Run: ICPMS2_160920A

ICS Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	50000	50100	45980	45880.0	92	46070	44930.0	90
Antimony		100	0	97.0	97	0	100.7	101
Arsenic		100	0	97.8	98	0	103.2	103
Barium		100	0	102.4	102	0	101.4	101
Beryllium		100	0	89.9	90	0	89.2	89
Cadmium		100	0	97.5	98	0	96.9	97
Calcium	50000	60000	47490	56960.0	95	47650	55950.0	93
Chromium		100	0	95.9	96	0	102.3	102
Cobalt		100	0	93.3	93	1	94.3	94
Copper		100	4	96.0	96	4	94.8	95
Iron	50000	60000	48360	57880.0	96	48660	61250.0	102
Lead		100	0	101.3	101	0	100.3	100
Magnesium	50000	60000	48040	56920.0	95	48680	56800.0	95
Manganese		100	2	97.9	98	2	96.2	96
Nickel		100	2	95.6	96	2	94.2	94
Potassium		60000	48400	57670.0	96	49150	57560.0	96
Selenium		100	0	98.5	99	0	102.3	102
Silver		100	0	90.3	90	0	94.6	95
Sodium	50000	60000	48240	57280.0	95	49650	57900.0	96
Vanadium		100	0	98.4	98	0	97.1	97
Zinc		100	3	96.3	96	3	94.4	94

ICP INTERFERENCE CHECK SAMPLE

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. SAS No.: SDG No.: 16091057

ICP ID Number: ICPMS2 Run: ICPMS2 160921A

ICS Source: Start: 9/21/2016

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	50000	50100	47470	47770.0	95	44060	45970.0	92
Antimony		100	0	99.8	100	0	97.9	98
Arsenic		100	0	98.5	99	0	99.5	99
Barium		100	0	98.6	99	0	105.3	105
Beryllium		100	0	91.1	91	0	91.5	92
Cadmium		100	0	96.6	97	0	101.5	102
Calcium	50000	60000	47850	57660.0	96	47970	60130.0	100
Chromium		100	0	96.2	96	0	96.4	96
Cobalt		100	0	88.3	88	0	94.2	94
Copper		100	2	89.5	89	4	99.1	99
Iron	50000	60000	48210	57570.0	96	48360	58590.0	98
Lead		100	0	101.7	102	0	104.0	104
Magnesium	50000	60000	48670	58780.0	98	48240	60450.0	101
Manganese		100	2	99.5	100	2	103.4	103
Nickel		100	1	90.0	90	2	98.6	99
Potassium		60000	48470	58130.0	97	48310	60040.0	100
Selenium		100	0	98.5	98	0	101.1	101
Silver		100	0	91.4	91	0	91.7	92
Sodium	50000	60000	49340	59890.0	100	48990	60950.0	102
Vanadium		100	0	96.9	97	0	104.3	104
Zinc		100	2	93.2	93	3	99.3	99

5A

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ALS Group USA, Corp Contract: _____

Lab Code: MI0126 Case No. CT Laboratories SAS No. ____ SDG No.: 16091057

Matrix Spike - Client SampID: ZZZZZZ Level:(low/med) LOW

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC #	QC. LIMITS REC.
Aluminum	100.0	1.396	93.49	92.1	75-125
Antimony	100.0	1.006	93.16	92.2	75-125
Arsenic	100.0	0.9894	98.62	97.6	75-125
Barium	100.0	22.69	114.5	91.8	75-125
Beryllium	100.0	0.006265	86.51	86.5	75-125
Cadmium	100.0	0.03261	90.87	90.8	75-125
Calcium	10000	85110	89110	40.0	75-125
Chromium	100.0	0.06639	92.31	92.2	75-125
Cobalt	100.0	1.256	90.84	89.6	75-125
Copper	100.0	3.907	92.70	88.8	75-125
Iron	10000	4.176	9325	93.2	75-125
Lead	100.0	0.02821	94.16	94.1	75-125
Magnesium	10000	21810	29580	77.7	75-125
Manganese	100.0	124.6	207.6	83.0	75-125
Nickel	100.0	4.077	92.67	88.6	75-125
Potassium	10000	9684	18240	85.6	75-125
Selenium	100.0	3.580	99.39	95.8	75-125
Silver	100.0	-0.01554	85.47	85.5	75-125
Sodium	10000	31360	38630	72.7	75-125
Thallium	100.0	0.05306	93.37	93.3	75-125
Vanadium	100.0	0.2926	95.07	94.8	75-125
Zinc	100.0	2.144	91.97	89.8	75-125

COMPOUND	SPIKE ADDED ug/L	MSD CONCENTRATION ug/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aluminum	100.0	93.12	91.7	0.397	20	75-125
Antimony	100.0	93.60	92.8	0.685	20	75-125
Arsenic	100.0	97.89	96.9	0.743	20	75-125
Barium	100.0	114.5	91.8	0	20	75-125
Beryllium	100.0	88.08	88.1	1.80	20	75-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 22 outside limits

Spike Recovery: 5 out of 44 outside limits

COMMENTS: _____

FORM V

5A

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ALS Group USA, Corp Contract: _____

Lab Code: MI0126 Case No. CT Laboratories SAS No. _____ SDG No.: 16091057

Matrix Spike - Client SampID: ZZZZZZ Level:(low/med) LOW

Cadmium	100.0	92.08	92.0	1.32	20	75-125
Calcium	10000	86440	13.3	3.04	20	75-125
Chromium	100.0	91.90	91.8	0.445	20	75-125
Cobalt	100.0	91.68	90.4	0.920	20	75-125
Copper	100.0	93.89	90.0	1.28	20	75-125
Iron	10000	9357	93.5	0.343	20	75-125
Lead	100.0	95.04	95.0	0.930	20	75-125
Magnesium	10000	28850	70.4	2.50	20	75-125
Manganese	100.0	203.6	79.0	1.95	20	75-125
Nickel	100.0	93.59	89.5	0.988	20	75-125
Potassium	10000	17920	82.4	1.77	20	75-125
Selenium	100.0	97.09	93.5	2.34	20	75-125
Silver	100.0	86.12	86.1	0.758	20	75-125
Sodium	10000	37580	62.2	2.76	20	75-125
Thallium	100.0	94.83	94.8	1.55	20	75-125
Vanadium	100.0	95.91	95.6	0.880	20	75-125
Zinc	100.0	92.84	90.7	0.942	20	75-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 22 outside limits

Spike Recovery: 5 out of 44 outside limits

COMMENTS: _____

FORM V

5B
POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMP ID

ZZZZZZ

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units (ug/L or mg/kg dry weight): ug/L Lab Sample ID: 1609970-02A

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Magnesium	80-120	32180.00		21810.00		10000.0	104		MS
Sodium	80-120	42030.00		31360.00		10000.0	107		MS

Comments:

LABORATORY CONTROL SAMPLE

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 1609105

Solid LCS Source:

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	100.0	90.35	90.4						
Antimony	100.0	91.15	91.2						
Arsenic	100.0	94.47	94.5						
Barium	100.0	89.44	89.4						
Beryllium	100.0	88.80	88.8						
Cadmium	100.0	88.80	88.8						
Calcium	10000.0	9136.00	91.4						
Chromium	100.0	89.27	89.3						
Cobalt	100.0	88.30	88.3						
Copper	100.0	91.04	91.0						
Iron	10000.0	9131.00	91.3						
Lead	100.0	88.96	89.0						
Magnesium	10000.0	8988.00	89.9						
Manganese	100.0	86.35	86.4						
Nickel	100.0	88.90	88.9						
Potassium	10000.0	8850.00	88.5						
Selenium	100.0	86.11	86.1						
Silver	100.0	87.22	87.2						
Sodium	10000.0	8982.00	89.8						
Thallium	100.0	86.83	86.8						
Vanadium	100.0	88.98	89.0						
Zinc	100.0	93.00	93.0						

8-IN

ICP SERIAL DILUTIONS

CLIENT SAMP ID

zzzzzz

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Matrix (soil/water): WATER Lab Sample ID: 1609970-02A Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	10.00	U	10.00	U			MS
Antimony	1.01	J	1.54	J	53		MS
Arsenic	0.99	J	5.00	U	100		MS
Barium	22.69		22.17	J	2		MS
Beryllium	2.00	U	2.00	U			MS
Cadmium	2.00	U	2.00	U			MS
Calcium	85110.00		85850.00		1		MS
Chromium	5.00	U	5.00	U			MS
Cobalt	1.26	J	1.03	J	18		MS
Copper	3.91	J	5.00	U	100		MS
Iron	80.00	U	80.00	U			MS
Lead	5.00	U	5.00	U			MS
Magnesium	21810.00		22280.00		2		MS
Manganese	124.60		122.70		2		MS
Nickel	4.08	J	2.69	J	34		MS
Potassium	9684.00		9540.00		1		MS
Selenium	3.58	J	5.00	U	100		MS
Silver	5.00	U	5.00	U			MS
Sodium	31360.00		32100.00		2		MS
Thallium	5.00	U	5.00	U			MS
Vanadium	5.00	U	5.00	U			MS
Zinc	2.14	J	10.00	U	100		MS

9-IN
METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratorie SAS No.: CT Labo SDG No.: 16091057

Instrument Type: ICPMS Instrument ID: ICPMS2 Date: 5/23/2016

Concentration Units (ug/L, mg/kg, or ug): ug/L

Analyte	Wave-length (nm)	Back-ground	PQL ug/L	MDL ug/L	M
Aluminum	0		10.00	4.2	MS
Antimony	0		5.00	0.17	MS
Arsenic	0		5.00	0.87	MS
Barium	0		5.00	2.19	MS
Beryllium	0		2.00	0.12	MS
Boron	0		20.00	1.84	MS
Cadmium	0		2.00	0.05	MS
Calcium	0		500.00	85.8	MS
Chromium	0		5.00	0.65	MS
Cobalt	0		5.00	0.14	MS
Copper	0		5.00	0.28	MS
Hardness (	0		2000.00	242	MS
Iron	0		80.00	4.65	MS
Lead	0		5.00	0.33	MS
Lithium	0		10.00	0.37	MS
Magnesium	0		200.00	6.76	MS
Manganese	0		5.00	0.51	MS
Molybdenum	0		5.00	0.31	MS
Nickel	0		5.00	0.41	MS
Phosphorus	0		0.00	0	MS
Potassium	0		200.00	17.3	MS
Selenium	0		5.00	0.9	MS
Silicon	0		1000.00	343	MS
Silver	0		5.00	0.05	MS
Sodium	0		200.00	34.2	MS
Strontium	0		5.00	0.06	MS
Sulfur	0		0.00	0	MS
Thallium	0		5.00	0.16	MS
Tin	0		2.00	0.11	MS
Titanium	0		5.00	0.39	MS
Vanadium	0		5.00	0.98	MS
Zinc	0		10.00	1.41	MS

Comments:

USEPA-CLP
11-IN
INTERNAL STANDARD ASSOCIATION

Lab Name: ALS GROUP USA, Corp Contract: N/A

Lab Code: MI01262 Case No: CTLabs_Mod. Ref. No: _ SDG No.: 16091057
ICP-MS Instrument ID: ICPMS2 Date: 9/20/16

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum	Y_{Ar}	
Antimony	Y_{He}	
Arsenic	Y_{He}	
Barium	In	
Beryllium	Sc	
Cadmium	In	
Calcium	Y_{Ar}	
Chromium	Y_{He}	
Cobalt	Y_{Ar}	
Copper	Y_{Ar}	
Iron	Y_{He}	
Lead	Bi	
Magnesium	Y_{Ar}	
Manganese	Y_{Ar}	
Nickel	Y_{Ar}	
Potassium	Y_{Ar}	
Selenium	Y_{He}	
Silver	Y_{He}	
Sodium	Y_{Ar}	
Thallium	Bi	
Vanadium	Y_{Ar}	
Zinc	Y_{Ar}	

USEPA-CLP
11-IN
INTERNAL STANDARD ASSOCIATION

Lab Name: ALS GROUP USA, Corp Contract: N/A

Lab Code: MI01262 Case No: CTLabs_Mod. Ref. No: _ SDG No.: 16091057
ICP-MS Instrument ID: ICPMS2 Date: 9/21/16

Analyte	Assoc. Internal Standard 1	Assoc. Internal Standard 2
Aluminum	Y_{Ar}	
Antimony	Y_{He}	
Arsenic	Y_{He}	
Barium	In	
Beryllium	Sc	
Cadmium	In	
Calcium	Y_{Ar}	
Chromium	Y_{He}	
Cobalt	Y_{Ar}	
Copper	Y_{Ar}	
Iron	Y_{He}	
Lead	Bi	
Magnesium	Y_{Ar}	
Manganese	Y_{Ar}	
Nickel	Y_{Ar}	
Potassium	Y_{Ar}	
Selenium	Y_{He}	
Silver	Y_{He}	
Sodium	Y_{Ar}	
Thallium	Bi	
Vanadium	Y_{Ar}	
Zinc	Y_{Ar}	

12-IN

PREPARATION LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Method: MP 6020 W Batch ID: 91654

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
LCSW	9/20/2016	50.00	50
PBW	9/20/2016	50.00	50
TPA-Pile 6 - 091916	9/20/2016	50.00	50
ZZZZZZ	9/20/2016	50.00	50
ZZZZZZ	9/20/2016	50.00	50

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: ICPMS2 Method: SW6020A

Start Date: 9/20/2016 End Date: 9/21/2016 Run: ICPMS2_160920A

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
ICV	1	0912	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X					X	X
ZZZZZZ	1	0917	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICB	1	0922	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSA	1	0927	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSAB	1	0933	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0938	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0943	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1041	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1046	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1051	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1135	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1141	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1147	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1246	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1306	0																											
CCB	1	1311	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1316	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1407	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1412	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1417	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1517	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1522	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1527	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1632	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1643	0																											
CCB	1	1648	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1653	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1740	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1745	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1750	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSA	1	1756	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSAB	1	1801	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1849	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1854	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1859	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: ICPMS2 Method: SW6020A

Start Date: 9/20/2016 End Date: 9/21/2016 Run: ICPMS2 160920A

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
CCV	1	1958	0																											
CCV	1	2008	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	2014	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	2019	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2118	0																											
CCV	1	2128	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	2133	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	2139	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2238	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2248	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	2253	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	2259	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2346	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	2351	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	2356	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
PBW	1	0018	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
LCSW	1	0024	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0055	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0106	0																											
CCB	1	0111	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0116	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
TPA-Pile 6 - 091916	1	0148	0																											
ICSA	1	0210	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSAB	1	0215	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0220	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0236	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0242	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0247	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0335	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0341	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0346	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0408	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0413	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0445	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0451	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: ICPMS2 Method: SW6020A

Start Date: 9/20/2016 End Date: 9/21/2016 Run: ICPMS2 160920A

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
ZZZZZZ	1	0456	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0556	0																											
CCV	1	0601	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0607	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0612	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0711	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0717	0																											
CCB	1	0722	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0728	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: ICPMS2 Method: SW6020A

Start Date: 9/21/2016 End Date: 9/22/2016 Run: ICPMS2_160921A

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
ICV	1	1101	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X					X	X
ZZZZZZ	1	1107	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICB	1	1112	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSA	1	1117	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSAB	1	1122	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1127	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1132	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1138	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1143	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
TPA-Pile 6 - 091916	10	1148	0							X																				
TPA-Pile 6 - 091916	1	1154	0	X	X	X	X	X	X		X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	5	1159	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1204	0													X								X						
CCV	1	1247	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1252	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1257	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1358	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1403	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1408	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1506	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1511	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1516	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1614	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1619	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1624	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1721	0																											
CCV	1	1732	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1737	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1742	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1840	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1851	0																											
CCB	1	1856	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	1901	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	1948	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	1953	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: ICPMS2 Method: SW6020A

Start Date: 9/21/2016 End Date: 9/22/2016 Run: ICPMS2 160921A

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
ZZZZZZ	1	1958	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSA	1	2003	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSAB	1	2009	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2056	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	2102	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	2107	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2205	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	2211	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	2216	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2314	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	2325	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	2330	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	2335	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0022	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0028	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0033	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0132	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0137	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0143	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0242	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0258	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0303	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0309	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0356	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0402	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0407	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSA	1	0418	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ICSAB	1	0423	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0507	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0512	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0517	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0616	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0622	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0627	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0727	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: ICPMS2 Method: SW6020A

Start Date: 9/21/2016 End Date: 9/22/2016 Run: ICPMS2 160921A

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
CCV	1	0732	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0737	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0743	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0805	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCV	1	0810	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
CCB	1	0815	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X
ZZZZZZ	1	0821	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X			X	X

USEPA - CLP
14-IN
ICP-MS TUNE

Lab Name: ALS Environmental
Contract: N/A
Lab Code: MI01262
SDG No:
ICP-MS Instrument ID: ICPMS2
Date: Sep 20 2016 08:17 am

Element-	Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	%RSD
Be	9	9.00	0.70	1.12
Mg	24	23.95	0.65	2.68
Mg	25	24.90	0.65	1.81
Mg	26	25.95	0.65	1.14
Co	59	58.95	0.65	0.49
In	113	113.00	0.65	0.80
In	115	115.00	0.65	0.88
Pb	206	205.95	0.60	0.65
Pb	207	206.90	0.00	2.11
Pb	208	207.90	0.55	0.37

Comments:

USEPA - CLP
14-IN
ICP-MS TUNE

Lab Name: ALS Environmental
Lab Code: MI01262
ICP-MS Instrument ID: ICPMS2

Contract: N/A
SDG No:
Date: Sep 21 2016 10:07 am

Element-	Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	%RSD
Be	9	9.00	0.70	0.30
Mg	24	23.90	0.65	1.49
Mg	25	24.90	0.65	0.89
Mg	26	25.95	0.65	0.65
Co	59	58.95	0.65	0.97
In	113	113.00	0.65	0.66
In	115	115.00	0.70	0.88
Pb	206	205.95	0.60	0.78
Pb	207	206.95	0.60	0.64
Pb	208	207.95	0.60	0.42

Comments: _____

USEPA-CLP
15-IN
ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: ALS GROUP USA, Corp Contract: N/A

Lab Code: MI01262 Case No: CT Labs Mod. Ref. No: _____ SDG No.: 16091057
ICP-MS Instrument ID: ICPMS2 Start Date 9/20/16 End Date: 9/21/16

EPA Sample No.	Time	Internal Standards %RI For:									
		Sc	Q	Y_{Ar}	Q	Y_{He}	Q	In	Q	Bi	Q
PBW	9/21/16 0:18	97.3		97.1		98.1		97.6		97.7	
LCSW	9/21/16 0:24	108.4		97.2		97.3		95.6		94.1	
TPA-Pile 6-091916	9/21/16 1:48	90.2		71.3		70.8		69.0	Q	65.5	Q
ZZZZZZ	9/21/16 4:02	107.2		97.9		98.2		97.2		93.9	
ZZZZZZMS	9/21/16 4:08	116.7		97.2		96.2		94.3		91.3	
ZZZZZZMSD	9/21/16 4:13	114.6		96.6		95.6		93.7		90.4	

USEPA-CLP
15-IN
ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: ALS GROUP USA, Corp Contract: N/A

Lab Code: MI01262 Case No: CT Labs Mod. Ref. No: _____ SDG No.: 16091057
ICP-MS Instrument ID: ICPMS2 Start Date 9/21/16 End Date: 9/22/16

EPA Sample No.	Time	Internal Standards %RI For:									
		Sc	Q	Y_{Ar}	Q	Y_{He}	Q	In	Q	Bi	Q
TPA-Pile 6-091916	9/21/16 11:48	95.6		92.8		93.6		93.4		96.6	
TPA-Pile 6-091916	9/21/16 11:54	123.5		92.3		90.9		90.1		90.1	
ZZZZZZSD	9/21/16 11:59	98.0		96.7		94.9		96.8		99.6	
ZZZZZZPDS	9/21/16 12:04	105.5		95.1		95.1		93.8		93.5	

FORM XV-IN ISM01.1

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91654 Instrument ID ICPMS2 Method: SW6020A

MBLK	Sample ID: MBLK-91654-91654				Units: mg/L				Analysis Date: 9/21/2016 12:18 AM
Client ID:		Run ID: ICPMS2_160920A			SeqNo: 4037169		Prep Date: 9/20/2016		DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	U	0.010								
Antimony	U	0.0050								
Arsenic	U	0.0050								
Barium	U	0.0050								
Beryllium	U	0.0020								
Cadmium	U	0.0020								
Calcium	U	0.50								
Chromium	U	0.0050								
Cobalt	U	0.0050								
Copper	U	0.0050								
Iron	U	0.080								
Lead	U	0.0050								
Magnesium	U	0.20								
Manganese	U	0.0050								
Nickel	U	0.0050								
Potassium	U	0.20								
Selenium	U	0.0050								
Silver	U	0.0050								
Sodium	U	0.20								
Thallium	U	0.0050								
Vanadium	U	0.0050								
Zinc	U	0.010								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91654** Instrument ID **ICPMS2** Method: **SW6020A**

LCS Sample ID: **LCS-91654-91654** Units: mg/L Analysis Date: **9/21/2016 12:24 AM**
Client ID: Run ID: **ICPMS2_160920A** SeqNo: **4037170** Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09035	0.010	0.1	0	90.4	80-120	0			
Antimony	0.09115	0.0050	0.1	0	91.2	80-120	0			
Arsenic	0.09447	0.0050	0.1	0	94.5	80-120	0			
Barium	0.08944	0.0050	0.1	0	89.4	80-120	0			
Beryllium	0.0888	0.0020	0.1	0	88.8	80-120	0			
Cadmium	0.0888	0.0020	0.1	0	88.8	80-120	0			
Calcium	9.136	0.50	10	0	91.4	80-120	0			
Chromium	0.08927	0.0050	0.1	0	89.3	80-120	0			
Cobalt	0.0883	0.0050	0.1	0	88.3	80-120	0			
Copper	0.09104	0.0050	0.1	0	91	80-120	0			
Iron	9.131	0.080	10	0	91.3	80-120	0			
Lead	0.08896	0.0050	0.1	0	89	80-120	0			
Magnesium	8.988	0.20	10	0	89.9	80-120	0			
Manganese	0.08635	0.0050	0.1	0	86.4	80-120	0			
Nickel	0.0889	0.0050	0.1	0	88.9	80-120	0			
Potassium	8.85	0.20	10	0	88.5	80-120	0			
Selenium	0.08611	0.0050	0.1	0	86.1	80-120	0			
Silver	0.08722	0.0050	0.1	0	87.2	80-120	0			
Sodium	8.982	0.20	10	0	89.8	80-120	0			
Thallium	0.08883	0.0050	0.1	0	88.8	80-120	0			
Vanadium	0.08898	0.0050	0.1	0	89	80-120	0			
Zinc	0.093	0.010	0.1	0	93	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: **91654** Instrument ID **ICPMS2** Method: **SW6020A**

MS	Sample ID: **1609970-02AMS**	Units: mg/L	Analysis Date: **9/21/2016 04:08 AM**
Client ID:	Run ID: **ICPMS2_160920A**	SeqNo: **4037209**	Prep Date: **9/20/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09349	0.010	0.1	0.001396	92.1	75-125	0			
Antimony	0.09316	0.0050	0.1	0.001006	92.2	75-125	0			
Arsenic	0.09862	0.0050	0.1	0.0009894	97.6	75-125	0			
Barium	0.1145	0.0050	0.1	0.02269	91.8	75-125	0			
Beryllium	0.08651	0.0020	0.1	0.000006265	86.5	75-125	0			
Cadmium	0.09087	0.0020	0.1	0.00003261	90.8	75-125	0			
Calcium	89.11	0.50	10	85.11	40	75-125	0			SO
Chromium	0.09231	0.0050	0.1	0.00006639	92.2	75-125	0			
Cobalt	0.09084	0.0050	0.1	0.001256	89.6	75-125	0			
Copper	0.0927	0.0050	0.1	0.003907	88.8	75-125	0			
Iron	9.325	0.080	10	0.004176	93.2	75-125	0			
Lead	0.09416	0.0050	0.1	0.00002821	94.1	75-125	0			
Magnesium	29.58	0.20	10	21.81	77.7	75-125	0			
Manganese	0.2076	0.0050	0.1	0.1246	83	75-125	0			
Nickel	0.09267	0.0050	0.1	0.004077	88.6	75-125	0			
Potassium	18.24	0.20	10	9.684	85.8	75-125	0			
Selenium	0.09939	0.0050	0.1	0.00358	95.8	75-125	0			
Silver	0.08547	0.0050	0.1	-0.00001554	85.5	75-125	0			
Sodium	38.63	0.20	10	31.36	72.7	75-125	0			S
Thallium	0.09337	0.0050	0.1	0.00005306	93.3	75-125	0			
Vanadium	0.09507	0.0050	0.1	0.0002926	94.8	75-125	0			
Zinc	0.09197	0.010	0.1	0.002144	89.8	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: CT Laboratories
Work Order: 16091057
Project: TOCON - TPA-Pile 6 - 091916

QC BATCH REPORT

Batch ID: 91654 Instrument ID ICPMS2 Method: SW6020A

MSD Sample ID: 1609970-02AMSD Units: mg/L Analysis Date: 9/21/2016 04:13 AM
Client ID: Run ID: ICPMS2_160920A SeqNo: 4037210 Prep Date: 9/20/2016 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09312	0.010	0.1	0.001396	91.7	75-125	0.09349	0.397	20	
Antimony	0.0938	0.0050	0.1	0.001006	92.8	75-125	0.09316	0.685	20	
Arsenic	0.09789	0.0050	0.1	0.0009894	96.9	75-125	0.09862	0.743	20	
Barium	0.1145	0.0050	0.1	0.02269	91.8	75-125	0.1145	0	20	
Beryllium	0.08808	0.0020	0.1	0.000006265	88.1	75-125	0.08651	1.8	20	
Cadmium	0.09208	0.0020	0.1	0.00003261	92	75-125	0.09087	1.32	20	
Calcium	86.44	0.50	10	85.11	13.3	75-125	89.11	3.04	20	SO
Chromium	0.0919	0.0050	0.1	0.00006639	91.8	75-125	0.09231	0.445	20	
Cobalt	0.09168	0.0050	0.1	0.001256	90.4	75-125	0.09084	0.92	20	
Copper	0.09389	0.0050	0.1	0.003907	90	75-125	0.0927	1.28	20	
Iron	9.357	0.080	10	0.004176	93.5	75-125	9.325	0.343	20	
Lead	0.09504	0.0050	0.1	0.00002821	95	75-125	0.09416	0.93	20	
Magnesium	28.85	0.20	10	21.81	70.4	75-125	29.58	2.5	20	S
Manganese	0.2036	0.0050	0.1	0.1246	79	75-125	0.2076	1.95	20	
Nickel	0.09359	0.0050	0.1	0.004077	89.5	75-125	0.09267	0.988	20	
Potassium	17.92	0.20	10	8.684	82.4	75-125	18.24	1.77	20	
Selenium	0.09709	0.0050	0.1	0.00358	93.5	75-125	0.09939	2.34	20	
Silver	0.08612	0.0050	0.1	-0.00001554	86.1	75-125	0.08547	0.758	20	
Sodium	37.58	0.20	10	31.36	62.2	75-125	38.63	2.76	20	S
Thallium	0.09483	0.0050	0.1	0.00005306	94.8	75-125	0.09337	1.55	20	
Vanadium	0.09591	0.0050	0.1	0.0002926	95.6	75-125	0.09507	0.88	20	
Zinc	0.09284	0.010	0.1	0.002144	90.7	75-125	0.09197	0.942	20	

The following samples were analyzed in this batch: 16091057-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Cold Vapor

ADDRESS 3352 128th Avenue, Holland Michigan 49424-9236 USA | PHONE +1 616 399 6070 | FAX +1 616 399 6185
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration 1 and 2						M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)		
Mercury	2.0	2.06	103	2.0	2.03	102	2.03	102		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 3 and 4 True	Continuing Calibration 3 and 4 Found	Continuing Calibration 3 and 4 %R(1)	Continuing Calibration 3 and 4 Found	Continuing Calibration 3 and 4 %R(1)	M
Mercury	2.0	2.06	103	2.0	2.01	100	2.03	102	CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration 5 and 6 True	Found	%R(1)	Found	%R(1)		M
Mercury	2.0	2.06	103	2.0	2.00	100	2.04	102		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1_160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration 7 and 8 True	Found	%R(1)	Found	%R(1)		M
Mercury	2.0	2.06	103	2.0	2.04	102	2.02	101		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration 9 and 10 True	Found	%R(1)	Found	%R(1)		M
Mercury	2.0	2.06	103	2.0	2.00	100	1.99	100		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration 11 and 12 True	Found	%R(1)	Found	%R(1)		M
Mercury	2.0	2.06	103	2.0	1.97	98	1.99	100		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration 13 and 14 True	Found	%R(1)	Found	%R(1)		M
Mercury	2.0	2.06	103	2.0	1.97	98	2.05	102		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1_160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 15 and 16 True	Continuing Calibration 15 and 16 Found	Continuing Calibration 15 and 16 %R(1)	Continuing Calibration 15 and 16 Found	Continuing Calibration 15 and 16 %R(1)		M
Mercury	2.0	2.06	103	2.0	2.01	100	2.01	100		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1 160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration 17 and 18 True	Found	%R(1)	Found	%R(1)		M
Mercury	2.0	2.06	103	2.0	2.00	100	1.98	99		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Initial Calibration Source: Run: HG1_160920A

Continuing Calibration Source: Start: 9/20/2016

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration 19 and 20 True	Continuing Calibration 19 and 20 Found	Continuing Calibration 19 and 20 %R(1)	Continuing Calibration 19 and 20 Found	Continuing Calibration 19 and 20 %R(1)		M
Mercury	2.0	2.06	103	2.0	1.95	98	1.95	98		CV

(1) Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 90-110

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	94					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	96					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	95					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	96					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	94					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	94					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	93					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	97					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.19	96					

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

AA CRDL Standard Source: Run: HG1 160920A

ICP CRDL Standard Source: Start:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.2	0.18	88					

3
BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: HG1 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury	-0.025		-0.022		-0.026		-0.024		0.200	U	CV

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: HG1 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 4	C	5	C	6	C	Prepa-ration Blank	C	M
Mercury	-0.025		-0.026		-0.023		-0.024		0.200	U	CV

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: HG1 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 7	C	8	C	9	C	Prepa-ration Blank	C	M
Mercury	-0.025		-0.024		-0.024		-0.027		0.200	U	CV

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: HG1 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 10	C	11	C	12	C	Prepa-ration Blank	C	M
Mercury	-0.025		-0.026		-0.027		-0.027		0.200	U	CV

Note: MDLs are used, not IDLs

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: HG1 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 13	C	14	C	15	C	Prepa-ration Blank	C	M
Mercury	-0.025		-0.024		-0.024		-0.025		0.200	U	CV

Note: MDLs are used, not IDLs

3
BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: HG1 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 16	C	17	C	18	C	Prepa-ration Blank	C	M
Mercury	-0.025		-0.027		-0.024		-0.021		0.200	U	CV

Note: MDLs are used, not IDLs

FORM III - IN

BLANKS

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Preparation Blank Matrix (soil/water): WATER Run: HG1 160920A

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 19	C	20	C	21	C	Prepa-ration Blank	C	M
Mercury	-0.025		-0.035		-0.031				0.200	U	CV

Note: MDLs are used, not IDLs

5A

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ALS Group USA, Corp Contract: _____

Lab Code: MI0126 Case No. CT Laboratories SAS No. SDG No.: 16091057

Matrix Spike - Client SampID: ZZZZZZ Level:(low/med) LOW

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC #	QC. LIMITS REC.
Mercury	20.00	-0.2800	21.10	107	75-125

COMPOUND	SPIKE ADDED ug/L	MSD CONCENTRATION ug/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Mercury	20.00	21.10	107	0	20	75-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

FORM V

LABORATORY CONTROL SAMPLE

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 1609105

Solid LCS Source:

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Mercury	2.0	2.00	100.0						

9-IN
METHOD DETECTION LIMITS (MDL) (ANNUALLY)

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratorie SAS No.: CT Labo SDG No.: 16091057

Instrument Type: HG Instrument ID: HG1 Date: 2/9/2015

Concentration Units (ug/L, mg/kg, or ug): ug/L

Analyte	Wave-length (nm)	Back-ground	PQL ug/L	MDL ug/L	M
Mercury	0		0.20	0.018	CV

Comments:

12-IN

PREPARATION LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Method: HGPR 7470 W Batch ID: 91678

EPA Sample No.	Preparation Date	Initial Weight/Volume (g) or (mL)	Final Volume (mL)
LCSW	9/20/2016	50.00	50
PBW	9/20/2016	50.00	50
TPA-Pile 6 - 091916	9/20/2016	50.00	50
ZZZZZZ	9/20/2016	5.00	50
ZZZZZZ	9/20/2016	5.00	50

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: HG1 Method: SW7470A

Start Date: 9/20/2016 End Date: 9/21/2016 Run: HG1 160920A

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
ICV	1	1509	0															X												
ICB	1	1511	0															X												
CCV	1	1514	0															X												
CRA	1	1516	0															X												
CCB	1	1519	0															X												
CCV	1	1646	0															X												
CRA	1	1649	0															X												
CCB	1	1651	0															X												
CCV	1	1714	0															X												
CRA	1	1717	0															X												
CCB	1	1720	0															X												
PBW	1	1722	0															X												
LCSW	1	1726	0															X												
ZZZZZZ	1	1731	0															X												
ZZZZZZ	1	1733	0															X												
CCV	1	1741	0															X												
CRA	1	1743	0															X												
CCB	1	1746	0															X												
TPA-Pile 6 - 091916	1	1749	0															X												
CCV	1	1756	0															X												
CRA	1	1759	0															X												
CCB	1	1801	0															X												
CCV	1	1829	0															X												
CRA	1	1832	0															X												
CCB	1	1835	0															X												
CCV	1	1855	0															X												
CRA	1	1858	0															X												
CCB	1	1900	0															X												
CCV	1	1921	0															X												
CRA	1	1923	0															X												
CCB	1	1926	0															X												
CCV	1	1954	0															X												
CRA	1	1956	0															X												
CCB	1	1959	0															X												
CCV	1	2027	0															X												

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: HG1 Method: SW7470A

Start Date: 9/20/2016 End Date: 9/21/2016 Run: HG1_160920A

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
CRA	1	2030	0															X												
CCB	1	2032	0															X												
CCV	1	2055	0															X												
CRA	1	2058	0															X												
CCB	1	2100	0															X												
CCV	1	2105	0															X												
CRA	1	2108	0															X												
CCB	1	2111	0															X												
CCV	1	2141	0															X												
CRA	1	2143	0															X												
CCB	1	2146	0															X												
CCV	1	2217	0															X												
CRA	1	2219	0															X												
CCB	1	2222	0															X												
CCV	1	2250	0															X												
CRA	1	2253	0															X												
CCB	1	2255	0															X												
CCV	1	2323	0															X												
CRA	1	2326	0															X												
CCB	1	2328	0															X												
CCV	1	2357	0															X												
CRA	1	2359	0															X												
CCB	1	0002	0															X												
CCV	1	0031	0															X												
CRA	1	0034	0															X												
CCB	1	0036	0															X												
CCV	1	0118	0															X												
CRA	1	0121	0															X												
CCB	1	0123	0															X												
CCV	1	0144	0															X												
CRA	1	0146	0															X												
CCB	1	0149	0															X												

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: HG1 Method: E245.1

Start Date: 9/20/2016 End Date: 9/21/2016 Run: HG1 160920A

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
ICV	1	1509	0															X												
ICB	1	1511	0															X												
CCV	1	1514	0															X												
CRA	1	1516	0															X												
CCB	1	1519	0															X												
CCV	1	1646	0															X												
CRA	1	1649	0															X												
CCB	1	1651	0															X												
CCV	1	1714	0															X												
CRA	1	1717	0															X												
CCB	1	1720	0															X												
PBW	1	1722	0															X												
LCSW	1	1726	0															X												
ZZZZZZ	1	1731	0															X												
ZZZZZZ	1	1733	0															X												
CCV	1	1741	0															X												
CRA	1	1743	0															X												
CCB	1	1746	0															X												
TPA-Pile 6 - 091916	1	1749	0															X												
CCV	1	1756	0															X												
CRA	1	1759	0															X												
CCB	1	1801	0															X												
CCV	1	1829	0															X												
CRA	1	1832	0															X												
CCB	1	1835	0															X												
CCV	1	1855	0															X												
CRA	1	1858	0															X												
CCB	1	1900	0															X												
CCV	1	1921	0															X												
CRA	1	1923	0															X												
CCB	1	1926	0															X												
CCV	1	1954	0															X												
CRA	1	1956	0															X												
CCB	1	1959	0															X												
CCV	1	2027	0															X												

13-IN

ANALYSIS RUN LOG

Lab Name: ALS Group USA, Corp Contract:

Lab Code: MI01262 Case No. CT Laboratories SAS No.: SDG No.: 16091057

Instrument ID Number: HG1 Method: E245.1

Start Date: 9/20/2016 End Date: 9/21/2016 Run: HG1_160920A

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	SN	TI	V	ZN
CRA	1	2030	0															X												
CCB	1	2032	0															X												
CCV	1	2055	0															X												
CRA	1	2058	0															X												
CCB	1	2100	0															X												
CCV	1	2105	0															X												
CRA	1	2108	0															X												
CCB	1	2111	0															X												
CCV	1	2141	0															X												
CRA	1	2143	0															X												
CCB	1	2146	0															X												
CCV	1	2217	0															X												
CRA	1	2219	0															X												
CCB	1	2222	0															X												
CCV	1	2250	0															X												
CRA	1	2253	0															X												
CCB	1	2255	0															X												
CCV	1	2323	0															X												
CRA	1	2326	0															X												
CCB	1	2328	0															X												
CCV	1	2357	0															X												
CRA	1	2359	0															X												
CCB	1	0002	0															X												
CCV	1	0031	0															X												
CRA	1	0034	0															X												
CCB	1	0036	0															X												
CCV	1	0118	0															X												
CRA	1	0121	0															X												
CCB	1	0123	0															X												
CCV	1	0144	0															X												
CRA	1	0146	0															X												
CCB	1	0149	0															X												