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Letter of Transmittal

Number: 362

April 7, 2014

Maggie Waldon
On-Scene Coordinator
US Environmental Protection Agency – Region IX
75 Hawthorne Street
San Francisco, California 94015

Project Name:
Petrochem Development I, LLC
USA Petrochem Facility
4777 Crooked Palm Road
Ventura, CA

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1	Apr 7, 2014	Trenching Report

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Trenching Report

**Former USA Petrochem Refinery
4777 Crooked Palm Road, Ventura, CA**


Prepared for: Petrochem Development I, LLC
6591 Collins Drive, #E11
Moorpark, CA 93021

Prepared by:

DUDEK

605 Third Street
Encinitas, CA 92024





Nicole Peacock, P.E., P.G.
Senior Engineer

April 2014

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1.0 Introduction

This Trenching Report discusses the field activities and observations made during the recent trenching conducted at the former USA Petrochem Refinery located at 4777 Crooked Palm Road in Ventura, California (the site; Figures 1 and 2). The trenching activities described herein were conducted on March 18 and 19, 2014 and were based on the March 2014 Investigative Trenching Work Plan prepared by Dudek and submitted to the Environmental Protection Agency (EPA).

Twelve trenches were excavated around the tank farm and loading rack areas of the site. The purpose of the trenching was to permit EPA personnel to conduct visual inspection of the shallow water table for the potential presence of free product, per their request.

While shallow petroleum-impacted soil was observed in four trenches (in the Tanks 3 and 4 area and at the loading rack), deeper soil impacts were not observed at the site. Additionally, Dudek did not observe free product or petroleum impacts at the water table.

2.0 Site Description

The site is an inactive former agricultural chemical plant and petroleum refinery. The former agricultural chemical plant was constructed at the site in 1953 and was operated by Shell Oil Company until the 1970s. The crude oil refining processing units and tank farm were constructed around 1975 and processing ceased in 1984. The former petroleum refinery and tank farm were the subject of an Administrative Order of Consent (AOC) submitted by EPA to Petrochem in January 2013.

3.0 Trenching Activities

Twelve trenches were excavated at the site; nine in the tank farm areas and three near the loading rack in the southwestern portion of the site (Figure 2). The trenching was conducted on March 18 and 19, 2014 and was observed by EPA, Destrier, and Dudek. Additionally, Ventura County Environmental Health observed the excavation of Trench EX-12 on March 19, 2014. ERSI was the excavation contractor.

This section describes the work completed and the observations made.

3.1 Trenching Planning

Dudek prepared a work plan and site map detailing the proposed trenching activities. The Investigative Trenching Work Plan was submitted to EPA on March 13, 2014. The map showing the proposed trenching areas in the tank farm was submitted to EPA on March 5, 2014.

Petrochem updated the site grading permit through the County on March 12, 2014 to cover the proposed trenching.

Prior to the start of trenching activities, ERSI, the excavation contractor, contacted Dig Alert to identify underground utilities at the site. Additionally, on March 17, 2014, Spectrum Geophysics marked out underground pipelines and utilities in the proposed trenching locations in the tank farm areas per the work plan. Upon the start of trenching activities on March 18, 2014, EPA identified three additional trenching areas in the loading rack area. Spectrum marked out underground pipelines and utilities in the loading rack area on March 18, 2014.

3.2 Trenching Activities and Findings

Twelve trenches were excavated on March 18 and 19, 2014. Six trenches (EX-1 through EX-6) were excavated in the western half of the tank farm areas on March 18, 2014. Six trenches (EX-7 through EX-9 in the loading rack area, EX-10 and EX-11 in the eastern portion of the tank farm, and EX-12 in the western portion of the tank farm) were excavated on March 19, 2014.

Trenches EX-1 through EX-4 were approximately 24 by 25 feet in area at the ground surface, tapering down in area to the total depth of each trench. Trenches EX-5 through EX-9 were approximately 6 by 18 feet in area throughout the depth of each trench. Trenches EX-10 and EX-11 were approximately 17 by 21 feet at the ground surface, tapering down in area to the total depth of each trench. Lastly, trench EX-12 was approximately 6 feet wide in the northern portion of the trench and approximately 12 feet wide in the southern three-quarters

of the trench. Trench EX-12 was approximately 25 feet long. The trench locations are shown on Figure 2.

- **Trench EX-1**

Trench EX-1 was excavated in the northwestern portion of the tank farm, west of Tank 19. The trench was excavated to approximately 20 feet below ground surface (bgs). The soil consisted of loose, brown silty soil, with areas of sand and pebbles/boulders below 10 feet bgs. No indications of impacted soil were observed (Appendix A, Photograph 1). Groundwater was not encountered at the total depth of the excavation. EPA indicated that the excavation did not need to be extended deeper. The EX-1 trench was partially backfilled with soil excavated from the trench on March 18, 2014. Backfill of the trench was completed on March 19, 2014.

- **Trench EX-2**

Trench EX-2 was excavated in the northwestern portion of the tank farm, west of Tanks 11 and 14. The trench was excavated to approximately 22 feet below ground surface. The soil consisted of loose, brown silty soil, with areas of sand and pebbles/boulders below approximately 10 feet bgs. No indications of impacted soil were observed. Groundwater was encountered at approximately 22 feet bgs. Free product was not observed in the trench and saturated soils brought to the surface in the excavator bucket showed no indications of petroleum impacts. A photo-ionization detector (PID) placed adjacent to saturated soil in the excavator bucket read 0.0 parts per million vapor (ppm). The EX-2 trench was partially backfilled with soil excavated from the trench on March 18, 2014. Backfill of the trench was completed on March 19, 2014.

- **Trenches EX-3 and EX-4**

Trenches EX-3 and EX-4 were located south of Trench EX-2 and west of Tank 10 (Trench EX-3) and Tank 9 (Trench EX-4). Brown silty sand was observed to a depth of approximately 15 to 18 feet bgs. A layer of grey clay was observed around 15 to 18 feet bgs, followed by brown silty sand and pebbles/boulders at 20 feet bgs (Appendix A, Photograph 2). Groundwater was encountered at approximately 20 to 22 feet bgs in each trench and no indications of petroleum impacts or free product were observed (Appendix A, Photograph 3). The PID measured 0.0 ppm when placed adjacent to the saturated soil in the excavator bucket. The trenches were partially backfilled with soil excavated from the trench on March 18, 2014. Backfill of the trenches was completed on March 19, 2014.

- **Trench EX-5**

Trench EX-5 was located south of Tank 4, in the western-most portion of the tank farm. Heavy hydrocarbon-impacted soil was observed in approximately the upper 2 feet of the northern three-quarters of the trench (Appendix A, Photograph 4). The headspace of a sample of the soil, when placed in a baggie and measured with the PID, contained 0.6 ppm volatiles. The impacted soil from the upper 2 feet of the trench was segregated and stockpiled on plastic and covered with plastic. Soil below approximately 2 feet bgs did not appear stained and screening of the headspace for a sample of soil from approximately 4 feet bgs measured 0.0 ppm using the PID. Groundwater was encountered around 8 to 9 feet bgs in the trench. The headspace of a sample of saturated soil measured 0.0 ppm using the PID. No indication of petroleum impacts or free product was observed. The trench was partially backfilled with excavated soil, excepting the impacted soil, on March 18, 2014. The trench was backfilled further on March 19, 2014.

- **Trench EX-6**

Trench EX-6 was located north of Tank 3 and west of monitoring well MW-21. Oil-stained soil was observed in the upper foot in Trench EX-6. The oil-stained soil was placed in a baggie, and the headspace contained 12.8 ppm volatiles, as measured by the PID. The oil-stained soil was stockpiled on plastic and covered with plastic. Grey silt/clay was observed below the oil-stained soil. The clay was placed in a baggie and the PID measured 0.0 ppm volatiles in the headspace. The hole extended to approximately 9 feet bgs; however, the hole was observed to be failing. Gravel located under the clay was sloughing off into the excavation, causing the clay above it to fail. Groundwater was not observed in this excavation. On March 18, 2014, the hole was filled back in with the soil from the trench, excepting the stockpiled oil-stained soil.

- **Trenches EX-7 and EX-8**

Trench EX-7 was excavated south of the former loading rack and Trench EX-8 was excavated southwest of the former loading rack.

At each trench, brown clayey/sandy silt was observed below the asphalt surface. Grey clay was observed around 1 foot bgs. River rocks and wood debris (branches) were observed in the trench (Appendix A, Photograph 5). No petroleum odor was observed; however, an organic odor was noted. Coarse sand was observed near the water table (approximately 16 feet at EX-7 and approximately 14 feet at EX-8). Saturated soil from each trench was placed in ziploc baggies. Headspace measurements indicated 1.8 ppm volatiles for each trench. The saturated soil did not appear to be impacted by petroleum

(no odor or staining), and no free product was observed. The trenches were backfilled on March 19, 2014.

- **Trench EX-9**

Trench EX-9 was located in the former loading rack area, between the former loading rack building and concrete pad. The concrete pavement was removed. The shallow soil encountered under the concrete pavement exhibited a hydrocarbon odor. The soil was a clayey sand. The headspace of a sample of the soil, as measured in a baggie using a PID, spiked at 85 ppm.

Some perched water was observed on top of the clayey soil at approximately 1 foot bgs. The headspace of the saturated soil, as measured in a baggie using the PID, was 0.5 ppm. The clayey soil was excavated to approximately 4.5 feet bgs (Appendix A, Photograph 6). The headspace of a sample of the soil at 4.5 feet bgs measured 3.0 ppm.

The excavated soil was placed back in the trench on March 19, 2014, but was re-excavated to approximately 3.5 feet bgs on March 20, 2014 and stockpiled on plastic and covered with plastic.

- **Trenches EX-10 and EX-11**

Trench EX-10 was located east of Tank 1 and Trench EX-11 was located east of Tank 2, both in the eastern portion of the tank farm.

Brown silty soil was observed in the EX-10 trench, as well as some grey clay (Appendix A, Photograph 7). River rock and sand were observed at 14 to 16 feet and groundwater was encountered at 16 feet bgs. Trench EX-11 consisted of brown silty soil to approximately 17 feet bgs, where grey clay and saturated gravelly sand were observed (Appendix A, Photograph 8).

No indications of petroleum impacts or free product were observed at depth in either trench. The headspace of a sample of saturated sand from Trench EX-10 measured 0.2 ppm using the PID. The trenches were backfilled on March 19, 2014.

- **Trench EX-12**

Trench EX-12 was excavated north of Tank 3 and east of monitoring well MW-21. Trench EX-12 was located just west of the B-3 remedial excavation.

The top 1 foot of soil was impacted with heavy hydrocarbons (Appendix A, Photograph 9). The soil was segregated and stockpiled on plastic and covered with plastic. Grey clay was observed below the oil-stained soil (Appendix A, Photograph 10). A concrete pipe was observed running diagonally through the trench around 3.5 feet bgs. The excavation was extended slightly to the south; however, a clay pipe was observed in this area of the trench. The excavation was then extended slightly to the west. Wood debris and brown sand with pebbles were observed in the trench around 4.5 feet bgs. Dark grey clayey sand was observed around 7-8 feet bgs. Groundwater was encountered at approximately 12.5 feet bgs. Saturated sand and clay, brought up by the excavator bucket, was placed in a baggie. The headspace of the sample measured 0.5 ppm using the PID. No indications of petroleum impacts or free product were observed at depth in the trench (Appendix A, Photograph 11). The trench was backfilled with excavated soil, excepting impacted soil, on March 19, 2014.

3.3 Waste Management

One soil sample from each of the four stockpiled soil piles (Samples EX-5-SS, EX-6-SS, EX-9-SS, and EX-12-SS) was collected for waste characterization (Appendix B). Based on the data characterization, the soil is classified as non-hazardous waste. The soil will be removed from the site and properly disposed of off-site within 90 days.

4.0 Further Excavation

The proposed excavation area west and southwest of Tank 3 was under water during the March 18 and 19, 2014 trenching activities due to flooding from recent rains. Per EPA's request, Dudek will revisit the site in April, weather permitting, to conduct trenching in this area with EPA oversight. An email update of the findings of that excavation will be sent to EPA following completion of the trenching.

5.0 Conclusions

Twelve trenches were excavated in the tank farm and loading rack areas of the site. No free product or impacts to groundwater were observed.

Shallow soil impacts were observed in 4 of the 12 trenches (3 trenches in the Tank 3 and 4 area and 1 trench in the loading rack area). This shallow soil will be remediated under the County of Ventura Environmental Health Division's Voluntary Cleanup Program. The impacts do not appear to extend beyond the shallow soil due to the properties of heavy hydrocarbons (not mobile) and due to the presence of a clay layer at the site (observed in the majority of the trenches).



DUDEK

7636

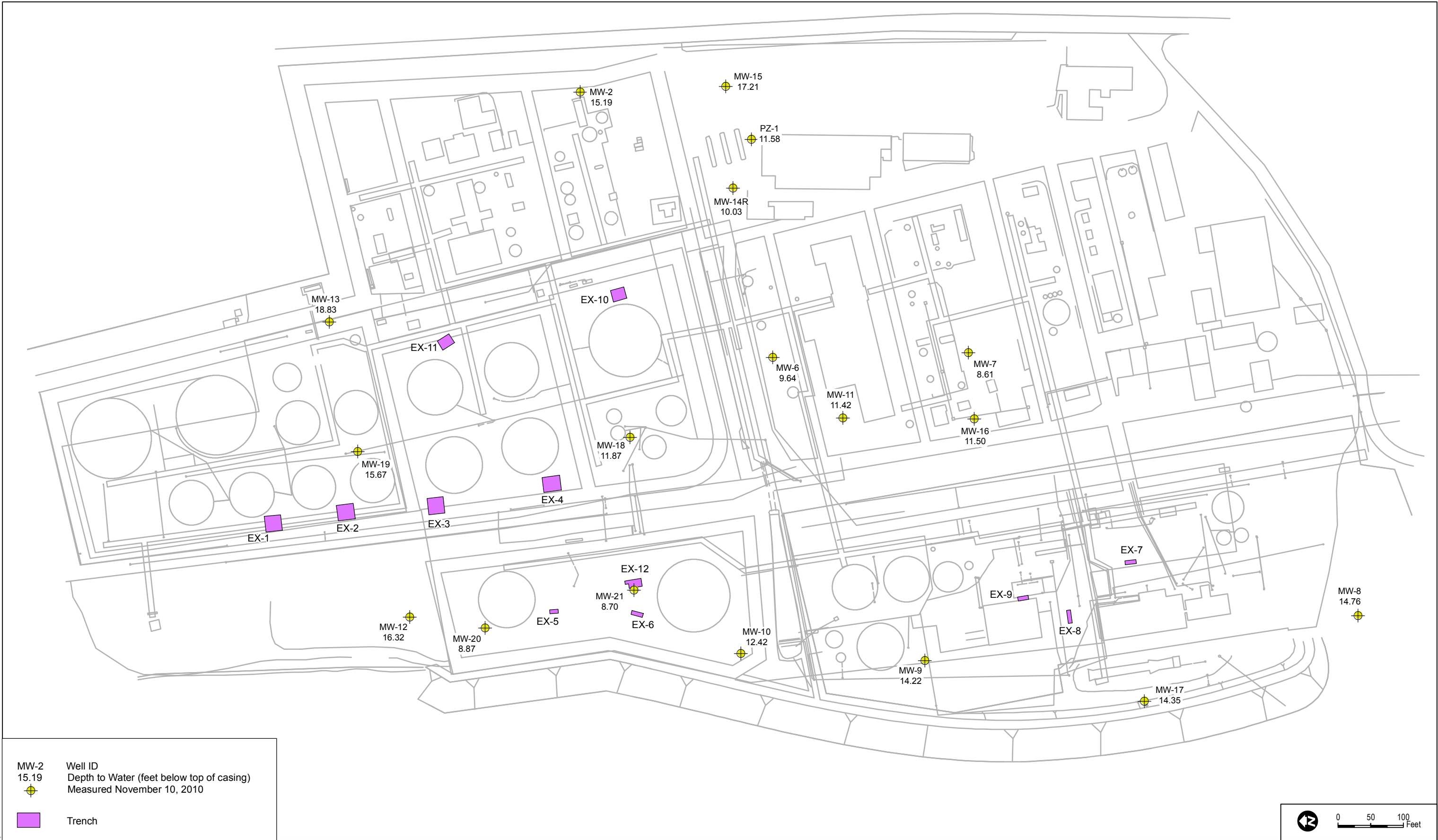
JULY 2013

SOURCE: Bing Maps

Former USA Petrochem Refinery - 4777 Crooked Palm Road, Ventura County, CA

FIGURE 1
Vicinity Map

Path: Z:\Hydro Projects\USA_Petrochem\IXD\FINAL_IXD\Trench Locations.mxd
Last Modified: 4/3/2014



APPENDIX A

Site Photographs



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



Photograph 9



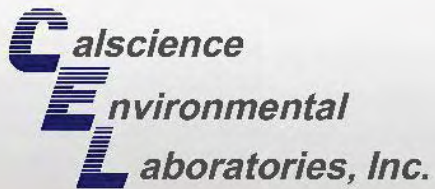
Photograph 10



Photograph 11

APPENDIX B

Stockpile Waste Laboratory Analytical



CALSCIENCE

WORK ORDER NUMBER: 14-03-1463

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: DUDEK

Client Project Name: USA Petrochem / 7636-1

Attention: Nicole Peacock
605 Third Street
Encinitas, CA 92024-3513

Approved for release on 04/01/2014 by:
Don Burley
Project Manager

ResultLink ▶

Email your PM ▶



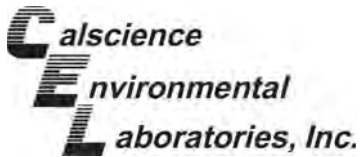
Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Work Order Number: 14-03-1463

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Work Order Narrative

Work Order: 14-03-1463

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 03/20/14. They were assigned to Work Order 14-03-1463.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

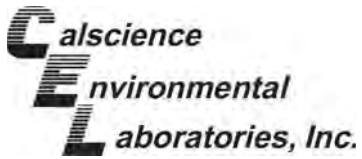
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

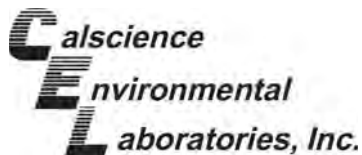
Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

Client: DUDEK	Work Order: 14-03-1463
605 Third Street	Project Name: USA Petrochem / 7636-1
Encinitas, CA 92024-3513	PO Number:
	Date/Time Received: 03/20/14 16:45
	Number of Containers: 38
Attn: Nicole Peacock	

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Additional samples from another portion of the site were included in this batch submitted to the laboratory.				
EX-5-SS	14-03-1463-34	03/20/14 11:00	1	Solid
EX-6-SS	14-03-1463-35	03/20/14 11:15	1	Solid
EX-12-SS	14-03-1463-36	03/20/14 11:30	1	Solid
EX-9-SS	14-03-1463-37	03/20/14 12:30	2	Solid



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: USA Petrochem / 7636-1

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-5-SS	14-03-1463-34-A	03/20/14 11:00	Solid	GC 48	03/25/14	03/25/14 21:49	140324B13

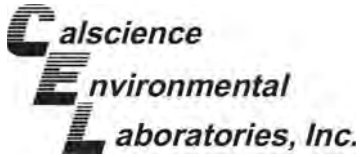
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	4.9	0.980	
C7	ND	4.9	0.980	
C8	ND	4.9	0.980	
C9-C10	ND	4.9	0.980	
C11-C12	ND	4.9	0.980	
C13-C14	ND	4.9	0.980	
C15-C16	ND	4.9	0.980	
C17-C18	ND	4.9	0.980	
C19-C20	ND	4.9	0.980	
C21-C22	ND	4.9	0.980	
C23-C24	ND	4.9	0.980	
C25-C28	ND	4.9	0.980	
C29-C32	10	4.9	0.980	
C33-C36	10	4.9	0.980	
C37-C40	9.3	4.9	0.980	
C41-C44	6.1	4.9	0.980	
C6-C44 Total	44	4.9	0.980	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-6-SS	14-03-1463-35-A	03/20/14 11:15	Solid	GC 48	03/25/14	03/25/14 22:05	140324B13

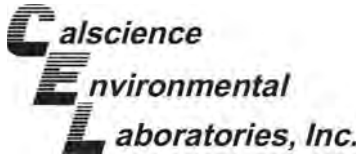
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	25	5.06	
C7	ND	25	5.06	
C8	ND	25	5.06	
C9-C10	ND	25	5.06	
C11-C12	ND	25	5.06	
C13-C14	ND	25	5.06	
C15-C16	ND	25	5.06	
C17-C18	ND	25	5.06	
C19-C20	ND	25	5.06	
C21-C22	ND	25	5.06	
C23-C24	34	25	5.06	
C25-C28	60	25	5.06	
C29-C32	98	25	5.06	
C33-C36	83	25	5.06	
C37-C40	79	25	5.06	
C41-C44	35	25	5.06	
C6-C44 Total	420	25	5.06	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	90	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-12-SS	14-03-1463-36-A	03/20/14 11:30	Solid	GC 48	03/25/14	03/25/14 22:21	140324B13

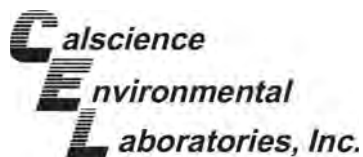
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	74	14.7	
C7	ND	74	14.7	
C8	ND	74	14.7	
C9-C10	ND	74	14.7	
C11-C12	130	74	14.7	
C13-C14	420	74	14.7	
C15-C16	670	74	14.7	
C17-C18	1100	74	14.7	
C19-C20	1900	74	14.7	
C21-C22	1600	74	14.7	
C23-C24	1400	74	14.7	
C25-C28	2100	74	14.7	
C29-C32	2700	74	14.7	
C33-C36	2200	74	14.7	
C37-C40	1700	74	14.7	
C41-C44	1100	74	14.7	
C6-C44 Total	17000	74	14.7	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	114	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: USA Petrochem / 7636-1

Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-9-SS	14-03-1463-37-A	03/20/14 12:30	Solid	GC 48	03/25/14	03/25/14 22:36	140324B13

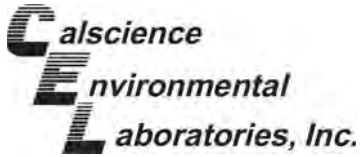
Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	5.0	0.990	
C7	ND	5.0	0.990	
C8	ND	5.0	0.990	
C9-C10	ND	5.0	0.990	
C11-C12	ND	5.0	0.990	
C13-C14	5.3	5.0	0.990	
C15-C16	6.7	5.0	0.990	
C17-C18	13	5.0	0.990	
C19-C20	15	5.0	0.990	
C21-C22	18	5.0	0.990	
C23-C24	25	5.0	0.990	
C25-C28	41	5.0	0.990	
C29-C32	65	5.0	0.990	
C33-C36	50	5.0	0.990	
C37-C40	61	5.0	0.990	
C41-C44	14	5.0	0.990	
C6-C44 Total	320	5.0	0.990	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	80	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: USA Petrochem / 7636-1

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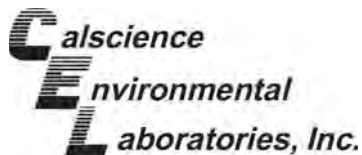
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-838	N/A	Solid	GC 48	03/24/14	03/25/14 12:00	140324B13

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: USA Petrochem / 7636-1

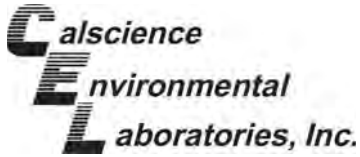
Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-5-SS	14-03-1463-34-A	03/20/14 11:00	Solid	ICP 7300	03/24/14	03/24/14 19:32	140324L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	4.07	0.739	0.985	
Barium	114	0.493	0.985	
Beryllium	0.388	0.246	0.985	
Cadmium	0.851	0.493	0.985	
Chromium	18.0	0.246	0.985	
Cobalt	6.14	0.246	0.985	
Copper	15.0	0.493	0.985	
Lead	7.23	0.493	0.985	
Molybdenum	2.65	0.246	0.985	
Nickel	34.6	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	26.2	0.246	0.985	
Zinc	47.3	0.985	0.985	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: USA Petrochem / 7636-1

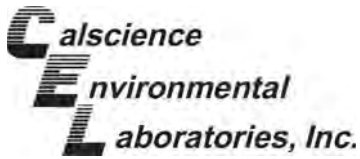
Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-6-SS	14-03-1463-35-A	03/20/14 11:15	Solid	ICP 7300	03/24/14	03/24/14 19:33	140324L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	4.03	0.758	1.01	
Barium	112	0.505	1.01	
Beryllium	0.328	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	23.4	0.253	1.01	
Cobalt	5.38	0.253	1.01	
Copper	17.1	0.505	1.01	
Lead	26.6	0.505	1.01	
Molybdenum	1.68	0.253	1.01	
Nickel	26.7	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	24.0	0.253	1.01	
Zinc	61.0	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: USA Petrochem / 7636-1

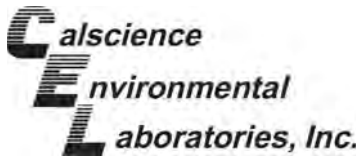
Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-12-SS	14-03-1463-36-A	03/20/14 11:30	Solid	ICP 7300	03/24/14	03/24/14 19:34	140324L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	3.99	0.735	0.980	
Barium	193	0.490	0.980	
Beryllium	0.340	0.245	0.980	
Cadmium	0.513	0.490	0.980	
Chromium	15.1	0.245	0.980	
Cobalt	5.13	0.245	0.980	
Copper	11.4	0.490	0.980	
Lead	8.45	0.490	0.980	
Molybdenum	1.47	0.245	0.980	
Nickel	28.3	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	24.0	0.245	0.980	
Zinc	40.5	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: USA Petrochem / 7636-1

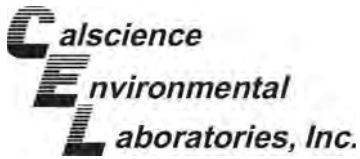
Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-9-SS	14-03-1463-37-A	03/20/14 12:30	Solid	ICP 7300	03/24/14	03/24/14 19:36	140324L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	2.30	0.714	0.952	
Barium	110	0.476	0.952	
Beryllium	0.305	0.238	0.952	
Cadmium	ND	0.476	0.952	
Chromium	14.9	0.238	0.952	
Cobalt	4.60	0.238	0.952	
Copper	11.5	0.476	0.952	
Lead	13.8	0.476	0.952	
Molybdenum	1.05	0.238	0.952	
Nickel	19.0	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	22.1	0.238	0.952	
Zinc	42.6	0.952	0.952	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: USA Petrochem / 7636-1

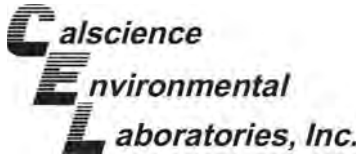
Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18194	N/A	Solid	ICP 5300	03/24/14	03/24/14 19:24	140324L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

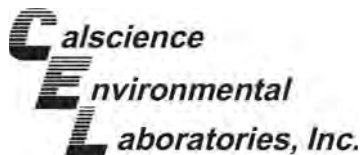
Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-5-SS	14-03-1463-34-A	03/20/14 11:00	Solid	Mercury	03/24/14	03/24/14 20:11	140324L07
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		ND		0.0862	1.00		
EX-6-SS	14-03-1463-35-A	03/20/14 11:15	Solid	Mercury	03/24/14	03/24/14 20:14	140324L07
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		ND		0.0847	1.00		
EX-12-SS	14-03-1463-36-A	03/20/14 11:30	Solid	Mercury	03/24/14	03/24/14 20:16	140324L07
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		ND		0.0847	1.00		
EX-9-SS	14-03-1463-37-A	03/20/14 12:30	Solid	Mercury	03/24/14	03/24/14 20:18	140324L07
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		ND		0.0833	1.00		
Method Blank	099-16-272-117	N/A	Solid	Mercury	03/24/14	03/24/14 19:49	140324L07
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		ND		0.0833	1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: USA Petrochem / 7636-1

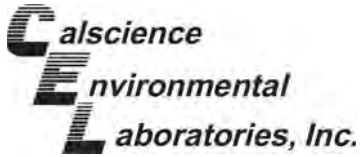
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
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This sample was from another area of the site unrelated to the waste stockpile characterization.

EX-5-SS	14-03-1463-34-A	03/20/14 11:00	Solid	GC 58	03/21/14	03/27/14 15:20	140321L22
Parameter	Result		RL	DF	Qualifiers		
Aroclor-1016	ND		50	1.00			
Aroclor-1221	ND		50	1.00			
Aroclor-1232	ND		50	1.00			
Aroclor-1242	ND		50	1.00			
Aroclor-1248	ND		50	1.00			
Aroclor-1254	ND		50	1.00			
Aroclor-1260	ND		50	1.00			
Aroclor-1262	ND		50	1.00			
Surrogate	Rec. (%)		Control Limits	Qualifiers			
Decachlorobiphenyl	122		24-168				
2,4,5,6-Tetrachloro-m-Xylene	110		25-145				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-6-SS	14-03-1463-35-A	03/20/14 11:15	Solid	GC 58	03/21/14	03/27/14 15:38	140321L22

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

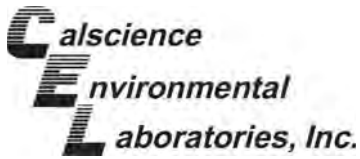
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	125	24-168	
2,4,5,6-Tetrachloro-m-Xylene	109	25-145	

EX-12-SS	14-03-1463-36-A	03/20/14 11:30	Solid	GC 58	03/21/14	03/27/14 15:56	140321L22
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	72	24-168	
2,4,5,6-Tetrachloro-m-Xylene	92	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-9-SS	14-03-1463-37-A	03/20/14 12:30	Solid	GC 58	03/21/14	03/27/14 16:14	140321L22

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

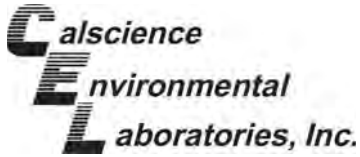
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	98	25-145	

Method Blank	099-12-535-2536	N/A	Solid	GC 58	03/21/14	03/26/14 16:54	140321L21
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	24-168	
2,4,5,6-Tetrachloro-m-Xylene	108	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082
Units: ug/kg

Project: USA Petrochem / 7636-1

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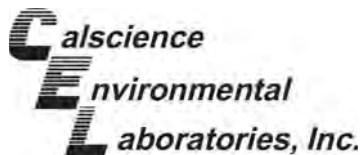
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-535-2537	N/A	Solid	GC 58	03/21/14	03/26/14 17:30	140321L22

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	122	24-168	
2,4,5,6-Tetrachloro-m-Xylene	117	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

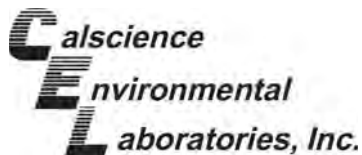
Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-5-SS	14-03-1463-34-A	03/20/14 11:00	Solid	GC/MS SS	03/31/14	03/31/14 19:19	140331L09

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.49	1.00	
Acenaphthylene	ND	0.49	1.00	
Aniline	ND	0.49	1.00	
Anthracene	ND	0.49	1.00	
Azobenzene	ND	0.49	1.00	
Benzidine	ND	9.8	1.00	
Benzo (a) Anthracene	ND	0.49	1.00	
Benzo (a) Pyrene	ND	0.49	1.00	
Benzo (b) Fluoranthene	ND	0.49	1.00	
Benzo (g,h,i) Perylene	ND	0.49	1.00	
Benzo (k) Fluoranthene	ND	0.49	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.49	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.49	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.49	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.49	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.49	1.00	
Butyl Benzyl Phthalate	ND	0.49	1.00	
4-Chloro-3-Methylphenol	ND	0.49	1.00	
4-Chloroaniline	ND	0.49	1.00	
2-Chloronaphthalene	ND	0.49	1.00	
2-Chlorophenol	ND	0.49	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.49	1.00	
Chrysene	ND	0.49	1.00	
Di-n-Butyl Phthalate	ND	0.49	1.00	
Di-n-Octyl Phthalate	ND	0.49	1.00	
Dibenz (a,h) Anthracene	ND	0.49	1.00	
Dibenzofuran	ND	0.49	1.00	
1,2-Dichlorobenzene	ND	0.49	1.00	
1,3-Dichlorobenzene	ND	0.49	1.00	
1,4-Dichlorobenzene	ND	0.49	1.00	
3,3'-Dichlorobenzidine	ND	9.8	1.00	
2,4-Dichlorophenol	ND	0.49	1.00	
Diethyl Phthalate	ND	0.49	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

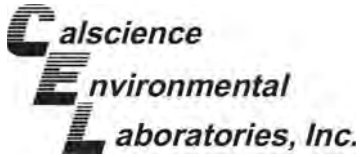
Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Dimethyl Phthalate	ND	0.49	1.00	
2,4-Dimethylphenol	ND	0.49	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.49	1.00	
2,6-Dinitrotoluene	ND	0.49	1.00	
Fluoranthene	ND	0.49	1.00	
Fluorene	ND	0.49	1.00	
Hexachloro-1,3-Butadiene	ND	0.49	1.00	
Hexachlorobenzene	ND	0.49	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.49	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.49	1.00	
Isophorone	ND	0.49	1.00	
2-Methylnaphthalene	ND	0.49	1.00	
1-Methylnaphthalene	ND	0.49	1.00	
2-Methylphenol	ND	0.49	1.00	
3/4-Methylphenol	ND	0.49	1.00	
N-Nitroso-di-n-propylamine	ND	0.49	1.00	
N-Nitrosodimethylamine	ND	0.49	1.00	
N-Nitrosodiphenylamine	ND	0.49	1.00	
Naphthalene	ND	0.49	1.00	
4-Nitroaniline	ND	0.49	1.00	
3-Nitroaniline	ND	0.49	1.00	
2-Nitroaniline	ND	0.49	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.49	1.00	
2-Nitrophenol	ND	0.49	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.49	1.00	
Phenol	ND	0.49	1.00	
Pyrene	ND	0.49	1.00	
Pyridine	ND	0.49	1.00	
1,2,4-Trichlorobenzene	ND	0.49	1.00	
2,4,6-Trichlorophenol	ND	0.49	1.00	
2,4,5-Trichlorophenol	ND	0.49	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	54	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

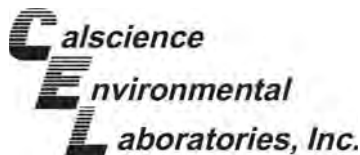
DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: USA Petrochem / 7636-1

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorophenol	86	25-120	
Nitrobenzene-d5	73	33-123	
p-Terphenyl-d14	71	27-159	
Phenol-d6	82	26-122	
2,4,6-Tribromophenol	105	18-138	



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: USA Petrochem / 7636-1

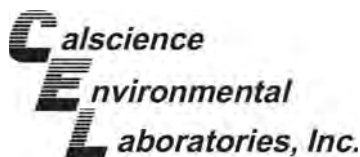
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-6-SS	14-03-1463-35-A	03/20/14 11:15	Solid	GC/MS SS	03/31/14	03/31/14 19:58	140331L09

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	5.0	10.0	
Acenaphthylene	ND	5.0	10.0	
Aniline	ND	5.0	10.0	
Anthracene	ND	5.0	10.0	
Azobenzene	ND	5.0	10.0	
Benzidine	ND	99	10.0	
Benzo (a) Anthracene	ND	5.0	10.0	
Benzo (a) Pyrene	ND	5.0	10.0	
Benzo (b) Fluoranthene	ND	5.0	10.0	
Benzo (g,h,i) Perylene	ND	5.0	10.0	
Benzo (k) Fluoranthene	ND	5.0	10.0	
Benzoic Acid	ND	25	10.0	
Benzyl Alcohol	ND	5.0	10.0	
Bis(2-Chloroethoxy) Methane	ND	5.0	10.0	
Bis(2-Chloroethyl) Ether	ND	25	10.0	
Bis(2-Chloroisopropyl) Ether	ND	5.0	10.0	
Bis(2-Ethylhexyl) Phthalate	ND	5.0	10.0	
4-Bromophenyl-Phenyl Ether	ND	5.0	10.0	
Butyl Benzyl Phthalate	ND	5.0	10.0	
4-Chloro-3-Methylphenol	ND	5.0	10.0	
4-Chloroaniline	ND	5.0	10.0	
2-Chloronaphthalene	ND	5.0	10.0	
2-Chlorophenol	ND	5.0	10.0	
4-Chlorophenyl-Phenyl Ether	ND	5.0	10.0	
Chrysene	ND	5.0	10.0	
Di-n-Butyl Phthalate	ND	5.0	10.0	
Di-n-Octyl Phthalate	ND	5.0	10.0	
Dibenz (a,h) Anthracene	ND	5.0	10.0	
Dibenzofuran	ND	5.0	10.0	
1,2-Dichlorobenzene	ND	5.0	10.0	
1,3-Dichlorobenzene	ND	5.0	10.0	
1,4-Dichlorobenzene	ND	5.0	10.0	
3,3'-Dichlorobenzidine	ND	99	10.0	
2,4-Dichlorophenol	ND	5.0	10.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

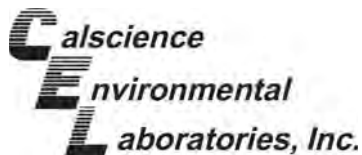
Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Diethyl Phthalate	ND	5.0	10.0	
Dimethyl Phthalate	ND	5.0	10.0	
2,4-Dimethylphenol	ND	5.0	10.0	
4,6-Dinitro-2-Methylphenol	ND	25	10.0	
2,4-Dinitrophenol	ND	25	10.0	
2,4-Dinitrotoluene	ND	5.0	10.0	
2,6-Dinitrotoluene	ND	5.0	10.0	
Fluoranthene	ND	5.0	10.0	
Fluorene	ND	5.0	10.0	
Hexachloro-1,3-Butadiene	ND	5.0	10.0	
Hexachlorobenzene	ND	5.0	10.0	
Hexachlorocyclopentadiene	ND	25	10.0	
Hexachloroethane	ND	5.0	10.0	
Indeno (1,2,3-c,d) Pyrene	ND	5.0	10.0	
Isophorone	ND	5.0	10.0	
2-Methylnaphthalene	ND	5.0	10.0	
1-Methylnaphthalene	ND	5.0	10.0	
2-Methylphenol	ND	5.0	10.0	
3/4-Methylphenol	ND	5.0	10.0	
N-Nitroso-di-n-propylamine	ND	5.0	10.0	
N-Nitrosodimethylamine	ND	5.0	10.0	
N-Nitrosodiphenylamine	ND	5.0	10.0	
Naphthalene	ND	5.0	10.0	
4-Nitroaniline	ND	5.0	10.0	
3-Nitroaniline	ND	5.0	10.0	
2-Nitroaniline	ND	5.0	10.0	
Nitrobenzene	ND	25	10.0	
4-Nitrophenol	ND	5.0	10.0	
2-Nitrophenol	ND	5.0	10.0	
Pentachlorophenol	ND	25	10.0	
Phenanthrene	ND	5.0	10.0	
Phenol	ND	5.0	10.0	
Pyrene	ND	5.0	10.0	
Pyridine	ND	5.0	10.0	
1,2,4-Trichlorobenzene	ND	5.0	10.0	
2,4,6-Trichlorophenol	ND	5.0	10.0	
2,4,5-Trichlorophenol	ND	5.0	10.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

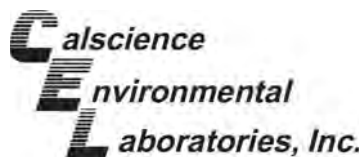
Project: USA Petrochem / 7636-1

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	99	27-120	
2-Fluorophenol	119	25-120	
Nitrobenzene-d5	93	33-123	
p-Terphenyl-d14	100	27-159	
Phenol-d6	116	26-122	
2,4,6-Tribromophenol	115	18-138	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: USA Petrochem / 7636-1

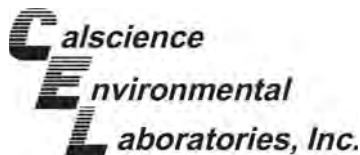
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-12-SS	14-03-1463-36-A	03/20/14 11:30	Solid	GC/MS SS	03/31/14	03/31/14 18:59	140331L09

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	20.0	
Acenaphthylene	ND	10	20.0	
Aniline	ND	10	20.0	
Anthracene	ND	10	20.0	
Azobenzene	ND	10	20.0	
Benzidine	ND	200	20.0	
Benzo (a) Anthracene	ND	10	20.0	
Benzo (a) Pyrene	ND	10	20.0	
Benzo (b) Fluoranthene	ND	10	20.0	
Benzo (g,h,i) Perylene	ND	10	20.0	
Benzo (k) Fluoranthene	ND	10	20.0	
Benzoic Acid	ND	51	20.0	
Benzyl Alcohol	ND	10	20.0	
Bis(2-Chloroethoxy) Methane	ND	10	20.0	
Bis(2-Chloroethyl) Ether	ND	51	20.0	
Bis(2-Chloroisopropyl) Ether	ND	10	20.0	
Bis(2-Ethylhexyl) Phthalate	ND	10	20.0	
4-Bromophenyl-Phenyl Ether	ND	10	20.0	
Butyl Benzyl Phthalate	ND	10	20.0	
4-Chloro-3-Methylphenol	ND	10	20.0	
4-Chloroaniline	ND	10	20.0	
2-Chloronaphthalene	ND	10	20.0	
2-Chlorophenol	ND	10	20.0	
4-Chlorophenyl-Phenyl Ether	ND	10	20.0	
Chrysene	ND	10	20.0	
Di-n-Butyl Phthalate	ND	10	20.0	
Di-n-Octyl Phthalate	ND	10	20.0	
Dibenz (a,h) Anthracene	ND	10	20.0	
Dibenzofuran	ND	10	20.0	
1,2-Dichlorobenzene	ND	10	20.0	
1,3-Dichlorobenzene	ND	10	20.0	
1,4-Dichlorobenzene	ND	10	20.0	
3,3'-Dichlorobenzidine	ND	200	20.0	
2,4-Dichlorophenol	ND	10	20.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

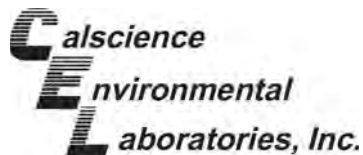
Project: USA Petrochem / 7636-1

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Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	20.0	
Dimethyl Phthalate	ND	10	20.0	
2,4-Dimethylphenol	ND	10	20.0	
4,6-Dinitro-2-Methylphenol	ND	51	20.0	
2,4-Dinitrophenol	ND	51	20.0	
2,4-Dinitrotoluene	ND	10	20.0	
2,6-Dinitrotoluene	ND	10	20.0	
Fluoranthene	ND	10	20.0	
Fluorene	ND	10	20.0	
Hexachloro-1,3-Butadiene	ND	10	20.0	
Hexachlorobenzene	ND	10	20.0	
Hexachlorocyclopentadiene	ND	51	20.0	
Hexachloroethane	ND	10	20.0	
Indeno (1,2,3-c,d) Pyrene	ND	10	20.0	
Isophorone	ND	10	20.0	
2-Methylnaphthalene	ND	10	20.0	
1-Methylnaphthalene	ND	10	20.0	
2-Methylphenol	ND	10	20.0	
3/4-Methylphenol	ND	10	20.0	
N-Nitroso-di-n-propylamine	ND	10	20.0	
N-Nitrosodimethylamine	ND	10	20.0	
N-Nitrosodiphenylamine	ND	10	20.0	
Naphthalene	ND	10	20.0	
4-Nitroaniline	ND	10	20.0	
3-Nitroaniline	ND	10	20.0	
2-Nitroaniline	ND	10	20.0	
Nitrobenzene	ND	51	20.0	
4-Nitrophenol	ND	10	20.0	
2-Nitrophenol	ND	10	20.0	
Pentachlorophenol	ND	51	20.0	
Phenanthrene	ND	10	20.0	
Phenol	ND	10	20.0	
Pyrene	ND	10	20.0	
Pyridine	ND	10	20.0	
1,2,4-Trichlorobenzene	ND	10	20.0	
2,4,6-Trichlorophenol	ND	10	20.0	
2,4,5-Trichlorophenol	ND	10	20.0	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

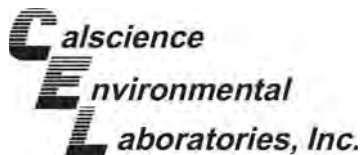
Project: USA Petrochem / 7636-1

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	87	27-120	
2-Fluorophenol	93	25-120	
Nitrobenzene-d5	87	33-123	
p-Terphenyl-d14	90	27-159	
Phenol-d6	88	26-122	
2,4,6-Tribromophenol	117	18-138	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: USA Petrochem / 7636-1

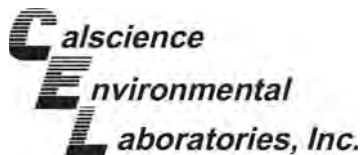
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-9-SS	14-03-1463-37-A	03/20/14 12:30	Solid	GC/MS SS	03/31/14	03/31/14 19:38	140331L09

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	1.0	2.00	
Acenaphthylene	ND	1.0	2.00	
Aniline	ND	1.0	2.00	
Anthracene	ND	1.0	2.00	
Azobenzene	ND	1.0	2.00	
Benzidine	ND	20	2.00	
Benzo (a) Anthracene	ND	1.0	2.00	
Benzo (a) Pyrene	ND	1.0	2.00	
Benzo (b) Fluoranthene	ND	1.0	2.00	
Benzo (g,h,i) Perylene	ND	1.0	2.00	
Benzo (k) Fluoranthene	ND	1.0	2.00	
Benzoic Acid	ND	5.0	2.00	
Benzyl Alcohol	ND	1.0	2.00	
Bis(2-Chloroethoxy) Methane	ND	1.0	2.00	
Bis(2-Chloroethyl) Ether	ND	5.0	2.00	
Bis(2-Chloroisopropyl) Ether	ND	1.0	2.00	
Bis(2-Ethylhexyl) Phthalate	ND	1.0	2.00	
4-Bromophenyl-Phenyl Ether	ND	1.0	2.00	
Butyl Benzyl Phthalate	ND	1.0	2.00	
4-Chloro-3-Methylphenol	ND	1.0	2.00	
4-Chloroaniline	ND	1.0	2.00	
2-Chloronaphthalene	ND	1.0	2.00	
2-Chlorophenol	ND	1.0	2.00	
4-Chlorophenyl-Phenyl Ether	ND	1.0	2.00	
Chrysene	ND	1.0	2.00	
Di-n-Butyl Phthalate	ND	1.0	2.00	
Di-n-Octyl Phthalate	ND	1.0	2.00	
Dibenz (a,h) Anthracene	ND	1.0	2.00	
Dibenzofuran	ND	1.0	2.00	
1,2-Dichlorobenzene	ND	1.0	2.00	
1,3-Dichlorobenzene	ND	1.0	2.00	
1,4-Dichlorobenzene	ND	1.0	2.00	
3,3'-Dichlorobenzidine	ND	20	2.00	
2,4-Dichlorophenol	ND	1.0	2.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

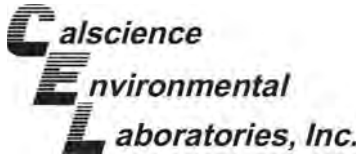
Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: USA Petrochem / 7636-1

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Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	1.0	2.00	
Dimethyl Phthalate	ND	1.0	2.00	
2,4-Dimethylphenol	ND	1.0	2.00	
4,6-Dinitro-2-Methylphenol	ND	5.0	2.00	
2,4-Dinitrophenol	ND	5.0	2.00	
2,4-Dinitrotoluene	ND	1.0	2.00	
2,6-Dinitrotoluene	ND	1.0	2.00	
Fluoranthene	ND	1.0	2.00	
Fluorene	ND	1.0	2.00	
Hexachloro-1,3-Butadiene	ND	1.0	2.00	
Hexachlorobenzene	ND	1.0	2.00	
Hexachlorocyclopentadiene	ND	5.0	2.00	
Hexachloroethane	ND	1.0	2.00	
Indeno (1,2,3-c,d) Pyrene	ND	1.0	2.00	
Isophorone	ND	1.0	2.00	
2-Methylnaphthalene	ND	1.0	2.00	
1-Methylnaphthalene	ND	1.0	2.00	
2-Methylphenol	ND	1.0	2.00	
3/4-Methylphenol	ND	1.0	2.00	
N-Nitroso-di-n-propylamine	ND	1.0	2.00	
N-Nitrosodimethylamine	ND	1.0	2.00	
N-Nitrosodiphenylamine	ND	1.0	2.00	
Naphthalene	ND	1.0	2.00	
4-Nitroaniline	ND	1.0	2.00	
3-Nitroaniline	ND	1.0	2.00	
2-Nitroaniline	ND	1.0	2.00	
Nitrobenzene	ND	5.0	2.00	
4-Nitrophenol	ND	1.0	2.00	
2-Nitrophenol	ND	1.0	2.00	
Pentachlorophenol	ND	5.0	2.00	
Phenanthrene	ND	1.0	2.00	
Phenol	ND	1.0	2.00	
Pyrene	ND	1.0	2.00	
Pyridine	ND	1.0	2.00	
1,2,4-Trichlorobenzene	ND	1.0	2.00	
2,4,6-Trichlorophenol	ND	1.0	2.00	
2,4,5-Trichlorophenol	ND	1.0	2.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

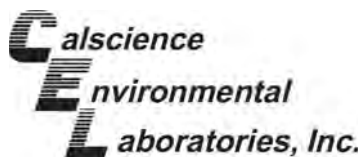
DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: USA Petrochem / 7636-1

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	87	27-120	
2-Fluorophenol	93	25-120	
Nitrobenzene-d5	88	33-123	
p-Terphenyl-d14	83	27-159	
Phenol-d6	94	26-122	
2,4,6-Tribromophenol	111	18-138	



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

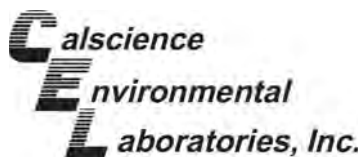
Project: USA Petrochem / 7636-1

Page 13 of 15

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-549-2889	N/A	Solid	GC/MS SS	03/31/14	03/31/14 17:01	140331L09

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	
Diethyl Phthalate	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

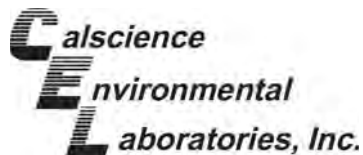
Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	103	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

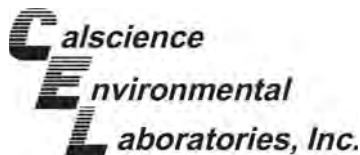
Project: USA Petrochem / 7636-1

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorophenol	114	25-120	
Nitrobenzene-d5	90	33-123	
p-Terphenyl-d14	100	27-159	
Phenol-d6	101	26-122	
2,4,6-Tribromophenol	126	18-138	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

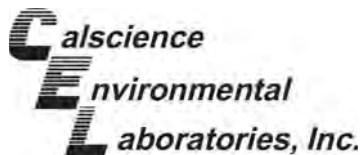
Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-5-SS	14-03-1463-34-A	03/20/14 11:00	Solid	GC/MS BB	03/20/14	03/21/14 19:14	140321L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	4.9	1.00	
Bromobenzene	ND	4.9	1.00	
Bromochloromethane	ND	4.9	1.00	
Bromodichloromethane	ND	4.9	1.00	
Bromoform	ND	4.9	1.00	
Bromomethane	ND	24	1.00	
2-Butanone	ND	49	1.00	
n-Butylbenzene	ND	4.9	1.00	
sec-Butylbenzene	ND	4.9	1.00	
tert-Butylbenzene	ND	4.9	1.00	
Carbon Disulfide	ND	49	1.00	
Carbon Tetrachloride	ND	4.9	1.00	
Chlorobenzene	ND	4.9	1.00	
Chloroethane	ND	4.9	1.00	
Chloroform	ND	4.9	1.00	
Chloromethane	ND	24	1.00	
2-Chlorotoluene	ND	4.9	1.00	
4-Chlorotoluene	ND	4.9	1.00	
Dibromochloromethane	ND	4.9	1.00	
1,2-Dibromo-3-Chloropropane	ND	9.7	1.00	
1,2-Dibromoethane	ND	4.9	1.00	
Dibromomethane	ND	4.9	1.00	
1,2-Dichlorobenzene	ND	4.9	1.00	
1,3-Dichlorobenzene	ND	4.9	1.00	
1,4-Dichlorobenzene	ND	4.9	1.00	
Dichlorodifluoromethane	ND	4.9	1.00	
1,1-Dichloroethane	ND	4.9	1.00	
1,2-Dichloroethane	ND	4.9	1.00	
1,1-Dichloroethene	ND	4.9	1.00	
c-1,2-Dichloroethene	ND	4.9	1.00	
t-1,2-Dichloroethene	ND	4.9	1.00	
1,2-Dichloropropane	ND	4.9	1.00	
1,3-Dichloropropane	ND	4.9	1.00	
2,2-Dichloropropane	ND	4.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

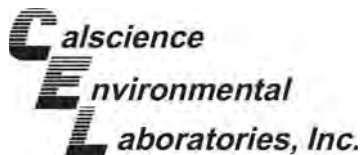
Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	4.9	1.00	
c-1,3-Dichloropropene	ND	4.9	1.00	
t-1,3-Dichloropropene	ND	4.9	1.00	
Ethylbenzene	ND	4.9	1.00	
2-Hexanone	ND	49	1.00	
Isopropylbenzene	ND	4.9	1.00	
p-Isopropyltoluene	ND	4.9	1.00	
Methylene Chloride	ND	49	1.00	
4-Methyl-2-Pentanone	ND	49	1.00	
Naphthalene	ND	49	1.00	
n-Propylbenzene	ND	4.9	1.00	
Styrene	ND	4.9	1.00	
1,1,1,2-Tetrachloroethane	ND	4.9	1.00	
1,1,2,2-Tetrachloroethane	ND	4.9	1.00	
Tetrachloroethene	ND	4.9	1.00	
Toluene	ND	4.9	1.00	
1,2,3-Trichlorobenzene	ND	9.7	1.00	
1,2,4-Trichlorobenzene	ND	4.9	1.00	
1,1,1-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	49	1.00	
Trichloroethene	ND	4.9	1.00	
1,2,3-Trichloropropane	ND	4.9	1.00	
1,2,4-Trimethylbenzene	ND	4.9	1.00	
Trichlorofluoromethane	ND	49	1.00	
1,3,5-Trimethylbenzene	ND	4.9	1.00	
Vinyl Acetate	ND	49	1.00	
Vinyl Chloride	ND	4.9	1.00	
p/m-Xylene	ND	4.9	1.00	
o-Xylene	ND	4.9	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	4.9	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	60-132	
Dibromofluoromethane	101	63-141	
1,2-Dichloroethane-d4	104	62-146	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

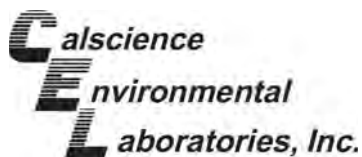
Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-6-SS	14-03-1463-35-A	03/20/14 11:15	Solid	GC/MS BB	03/20/14	03/21/14 19:41	140321L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	4.9	1.00	
Bromobenzene	ND	4.9	1.00	
Bromochloromethane	ND	4.9	1.00	
Bromodichloromethane	ND	4.9	1.00	
Bromoform	ND	4.9	1.00	
Bromomethane	ND	24	1.00	
2-Butanone	ND	49	1.00	
n-Butylbenzene	ND	4.9	1.00	
sec-Butylbenzene	ND	4.9	1.00	
tert-Butylbenzene	ND	4.9	1.00	
Carbon Disulfide	ND	49	1.00	
Carbon Tetrachloride	ND	4.9	1.00	
Chlorobenzene	ND	4.9	1.00	
Chloroethane	ND	4.9	1.00	
Chloroform	ND	4.9	1.00	
Chloromethane	ND	24	1.00	
2-Chlorotoluene	ND	4.9	1.00	
4-Chlorotoluene	ND	4.9	1.00	
Dibromochloromethane	ND	4.9	1.00	
1,2-Dibromo-3-Chloropropane	ND	9.7	1.00	
1,2-Dibromoethane	ND	4.9	1.00	
Dibromomethane	ND	4.9	1.00	
1,2-Dichlorobenzene	ND	4.9	1.00	
1,3-Dichlorobenzene	ND	4.9	1.00	
1,4-Dichlorobenzene	ND	4.9	1.00	
Dichlorodifluoromethane	ND	4.9	1.00	
1,1-Dichloroethane	ND	4.9	1.00	
1,2-Dichloroethane	ND	4.9	1.00	
1,1-Dichloroethene	ND	4.9	1.00	
c-1,2-Dichloroethene	ND	4.9	1.00	
t-1,2-Dichloroethene	ND	4.9	1.00	
1,2-Dichloropropane	ND	4.9	1.00	
1,3-Dichloropropane	ND	4.9	1.00	
2,2-Dichloropropane	ND	4.9	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

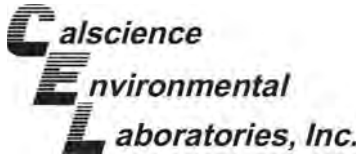
Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	4.9	1.00	
c-1,3-Dichloropropene	ND	4.9	1.00	
t-1,3-Dichloropropene	ND	4.9	1.00	
Ethylbenzene	ND	4.9	1.00	
2-Hexanone	ND	49	1.00	
Isopropylbenzene	ND	4.9	1.00	
p-Isopropyltoluene	ND	4.9	1.00	
Methylene Chloride	ND	49	1.00	
4-Methyl-2-Pentanone	ND	49	1.00	
Naphthalene	ND	49	1.00	
n-Propylbenzene	ND	4.9	1.00	
Styrene	ND	4.9	1.00	
1,1,1,2-Tetrachloroethane	ND	4.9	1.00	
1,1,2,2-Tetrachloroethane	ND	4.9	1.00	
Tetrachloroethene	ND	4.9	1.00	
Toluene	ND	4.9	1.00	
1,2,3-Trichlorobenzene	ND	9.7	1.00	
1,2,4-Trichlorobenzene	ND	4.9	1.00	
1,1,1-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	49	1.00	
Trichloroethene	ND	4.9	1.00	
1,2,3-Trichloropropane	ND	4.9	1.00	
1,2,4-Trimethylbenzene	ND	4.9	1.00	
Trichlorofluoromethane	ND	49	1.00	
1,3,5-Trimethylbenzene	ND	4.9	1.00	
Vinyl Acetate	ND	49	1.00	
Vinyl Chloride	ND	4.9	1.00	
p/m-Xylene	ND	4.9	1.00	
o-Xylene	ND	4.9	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	4.9	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	60-132	
Dibromofluoromethane	102	63-141	
1,2-Dichloroethane-d4	107	62-146	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

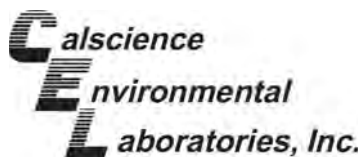
Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-12-SS	14-03-1463-36-A	03/20/14 11:30	Solid	GC/MS BB	03/20/14	03/21/14 20:08	140321L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	130	1.00	
Benzene	ND	5.1	1.00	
Bromobenzene	ND	5.1	1.00	
Bromochloromethane	ND	5.1	1.00	
Bromodichloromethane	ND	5.1	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	26	1.00	
2-Butanone	ND	51	1.00	
n-Butylbenzene	ND	5.1	1.00	
sec-Butylbenzene	ND	5.1	1.00	
tert-Butylbenzene	ND	5.1	1.00	
Carbon Disulfide	ND	51	1.00	
Carbon Tetrachloride	ND	5.1	1.00	
Chlorobenzene	ND	5.1	1.00	
Chloroethane	ND	5.1	1.00	
Chloroform	ND	5.1	1.00	
Chloromethane	ND	26	1.00	
2-Chlorotoluene	ND	5.1	1.00	
4-Chlorotoluene	ND	5.1	1.00	
Dibromochloromethane	ND	5.1	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.1	1.00	
Dibromomethane	ND	5.1	1.00	
1,2-Dichlorobenzene	ND	5.1	1.00	
1,3-Dichlorobenzene	ND	5.1	1.00	
1,4-Dichlorobenzene	ND	5.1	1.00	
Dichlorodifluoromethane	ND	5.1	1.00	
1,1-Dichloroethane	ND	5.1	1.00	
1,2-Dichloroethane	ND	5.1	1.00	
1,1-Dichloroethene	ND	5.1	1.00	
c-1,2-Dichloroethene	ND	5.1	1.00	
t-1,2-Dichloroethene	ND	5.1	1.00	
1,2-Dichloropropane	ND	5.1	1.00	
1,3-Dichloropropane	ND	5.1	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

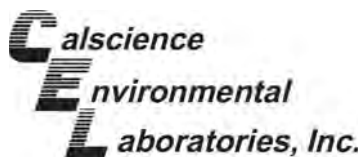
Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	92	60-132	
Dibromofluoromethane	103	63-141	
1,2-Dichloroethane-d4	110	62-146	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

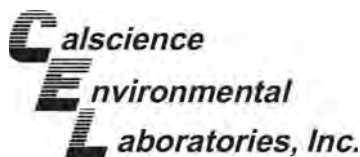
Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EX-9-SS	14-03-1463-37-B	03/20/14 12:30	Solid	GC/MS BB	03/20/14	03/21/14 20:35	140321L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	130	1.00	
Benzene	ND	5.2	1.00	
Bromobenzene	ND	5.2	1.00	
Bromochloromethane	ND	5.2	1.00	
Bromodichloromethane	ND	5.2	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	26	1.00	
2-Butanone	ND	52	1.00	
n-Butylbenzene	ND	5.2	1.00	
sec-Butylbenzene	ND	5.2	1.00	
tert-Butylbenzene	ND	5.2	1.00	
Carbon Disulfide	ND	52	1.00	
Carbon Tetrachloride	ND	5.2	1.00	
Chlorobenzene	ND	5.2	1.00	
Chloroethane	ND	5.2	1.00	
Chloroform	ND	5.2	1.00	
Chloromethane	ND	26	1.00	
2-Chlorotoluene	ND	5.2	1.00	
4-Chlorotoluene	ND	5.2	1.00	
Dibromochloromethane	ND	5.2	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.2	1.00	
Dibromomethane	ND	5.2	1.00	
1,2-Dichlorobenzene	ND	5.2	1.00	
1,3-Dichlorobenzene	ND	5.2	1.00	
1,4-Dichlorobenzene	ND	5.2	1.00	
Dichlorodifluoromethane	ND	5.2	1.00	
1,1-Dichloroethane	ND	5.2	1.00	
1,2-Dichloroethane	ND	5.2	1.00	
1,1-Dichloroethene	ND	5.2	1.00	
c-1,2-Dichloroethene	ND	5.2	1.00	
t-1,2-Dichloroethene	ND	5.2	1.00	
1,2-Dichloropropane	ND	5.2	1.00	
1,3-Dichloropropane	ND	5.2	1.00	
2,2-Dichloropropane	ND	5.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

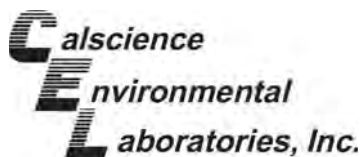
Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.2	1.00	
c-1,3-Dichloropropene	ND	5.2	1.00	
t-1,3-Dichloropropene	ND	5.2	1.00	
Ethylbenzene	ND	5.2	1.00	
2-Hexanone	ND	52	1.00	
Isopropylbenzene	ND	5.2	1.00	
p-Isopropyltoluene	ND	5.2	1.00	
Methylene Chloride	ND	52	1.00	
4-Methyl-2-Pentanone	ND	52	1.00	
Naphthalene	ND	52	1.00	
n-Propylbenzene	ND	5.2	1.00	
Styrene	ND	5.2	1.00	
1,1,1,2-Tetrachloroethane	ND	5.2	1.00	
1,1,2,2-Tetrachloroethane	ND	5.2	1.00	
Tetrachloroethene	ND	5.2	1.00	
Toluene	ND	5.2	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.2	1.00	
1,1,1-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	52	1.00	
Trichloroethene	ND	5.2	1.00	
1,2,3-Trichloropropane	ND	5.2	1.00	
1,2,4-Trimethylbenzene	5.4	5.2	1.00	
Trichlorofluoromethane	ND	52	1.00	
1,3,5-Trimethylbenzene	ND	5.2	1.00	
Vinyl Acetate	ND	52	1.00	
Vinyl Chloride	ND	5.2	1.00	
p/m-Xylene	ND	5.2	1.00	
o-Xylene	ND	5.2	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.2	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	60-132	
Dibromofluoromethane	101	63-141	
1,2-Dichloroethane-d4	104	62-146	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

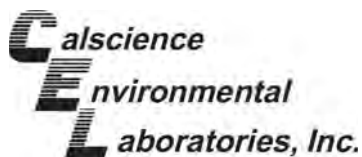
Project: USA Petrochem / 7636-1

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-796-8309	N/A	Solid	GC/MS BB	03/21/14	03/21/14 16:17	140321L025

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

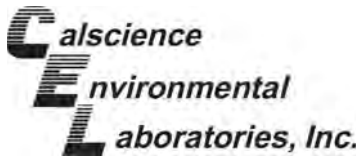
Project: USA Petrochem / 7636-1

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	60-132	
Dibromofluoromethane	100	63-141	
1,2-Dichloroethane-d4	106	62-146	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: USA Petrochem / 7636-1

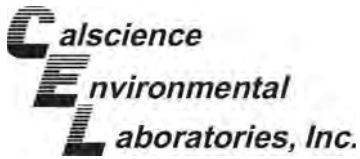
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-1364-4	Sample	Concrete	GC 48	03/24/14	03/25/14 15:02	140324S13
14-03-1364-4	Matrix Spike	Concrete	GC 48	03/24/14	03/25/14 12:30	140324S13
14-03-1364-4	Matrix Spike Duplicate	Concrete	GC 48	03/24/14	03/25/14 12:46	140324S13

Parameter	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Diesel	31.82	400.0	290.8	65	244.5	53	64-130	17	0-15	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3050B
Method: EPA 6010B

Project: USA Petrochem / 7636-1

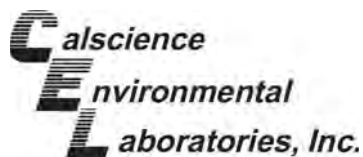
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-1309-1	Sample	Solid	ICP 7300	03/24/14	03/24/14 19:28	140324S04
14-03-1309-1	Matrix Spike	Solid	ICP 5300	03/24/14	03/24/14 19:29	140324S04
14-03-1309-1	Matrix Spike Duplicate	Solid	ICP 5300	03/24/14	03/24/14 19:30	140324S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	18.97	76	19.26	77	50-115	2	0-20	
Arsenic	ND	25.00	25.65	103	26.04	104	75-125	2	0-20	
Barium	68.98	25.00	96.51	110	94.46	102	75-125	2	0-20	
Beryllium	ND	25.00	27.17	109	26.87	107	75-125	1	0-20	
Cadmium	ND	25.00	27.87	111	27.50	110	75-125	1	0-20	
Chromium	5.256	25.00	31.79	106	31.64	106	75-125	0	0-20	
Cobalt	1.180	25.00	30.16	116	30.25	116	75-125	0	0-20	
Copper	102.8	25.00	131.9	4X	128.8	4X	75-125	4X	0-20	Q
Lead	5.574	25.00	33.80	113	33.86	113	75-125	0	0-20	
Molybdenum	1.595	25.00	27.82	105	27.98	106	75-125	1	0-20	
Nickel	6.046	25.00	34.16	112	34.35	113	75-125	1	0-20	
Selenium	ND	25.00	26.14	105	26.62	106	75-125	2	0-20	
Silver	0.7288	12.50	13.93	106	13.82	105	75-125	1	0-20	
Thallium	ND	25.00	26.54	106	26.76	107	75-125	1	0-20	
Vanadium	2.696	25.00	28.65	104	28.47	103	75-125	1	0-20	
Zinc	205.9	25.00	234.7	4X	228.8	4X	75-125	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14

Work Order: 14-03-1463

Preparation: EPA 7471A Total

Method: EPA 7471A

Project: USA Petrochem / 7636-1

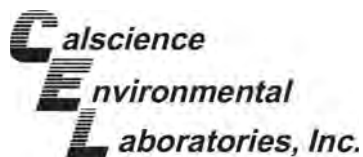
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-1309-1	Sample	Solid	Mercury	03/24/14	03/24/14 19:54	140324S07
14-03-1309-1	Matrix Spike	Solid	Mercury	03/24/14	03/24/14 20:00	140324S07
14-03-1309-1	Matrix Spike Duplicate	Solid	Mercury	03/24/14	03/24/14 20:03	140324S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.1967	0.8350	0.9079	85	1.113	110	71-137	20	0-14	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082

Project: USA Petrochem / 7636-1

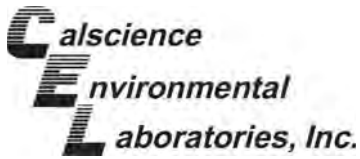
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IK-21	Sample	Solid	GC 58	03/21/14	03/26/14 21:05	140321S21
IK-21	Matrix Spike	Solid	GC 58	03/21/14	03/27/14 06:05	140321S21
IK-21	Matrix Spike Duplicate	Solid	GC 58	03/21/14	03/27/14 06:23	140321S21

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	ND	500.0	135.3	27	146.1	29	50-135	8	0-20	3
Aroclor-1260	339.0	500.0	453.1	23	472.8	27	50-135	4	0-25	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

DUDEK
605 Third Street
Encinitas, CA 92024-3513

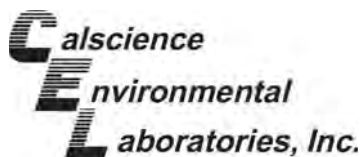
Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082

Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
A14-16	Sample	Solid	GC 58	03/21/14	03/27/14 12:56	140321S22
A14-16	Matrix Spike	Solid	GC 58	03/21/14	03/27/14 06:41	140321S22
A14-16	Matrix Spike Duplicate	Solid	GC 58	03/21/14	03/27/14 06:59	140321S22

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	500.0	178.4	36	184.1	37	50-135	3	0-20	3
Aroclor-1260	26160	500.0	26430	53	47740	4315	50-135	57	0-25	3,4



Quality Control - Spike/Spike Duplicate

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C

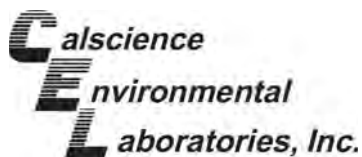
Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
EX-6-SS	Sample	Solid	GC/MS SS	03/31/14	03/31/14 19:58	140331S09				
EX-6-SS	Matrix Spike	Solid	GC/MS SS	03/31/14	03/31/14 17:20	140331S09				
EX-6-SS	Matrix Spike Duplicate	Solid	GC/MS SS	03/31/14	03/31/14 17:40	140331S09				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	10.66	107	10.03	100	34-148	6	0-20	
Acenaphthylene	ND	10.00	9.731	97	9.496	95	53-120	2	0-20	
Butyl Benzyl Phthalate	ND	10.00	7.811	78	8.657	87	15-189	10	0-20	
4-Chloro-3-Methylphenol	ND	10.00	9.530	95	10.15	101	32-120	6	0-20	
2-Chlorophenol	ND	10.00	10.37	104	10.22	102	53-120	1	0-20	
1,4-Dichlorobenzene	ND	10.00	9.366	94	9.367	94	43-120	0	0-26	
Dimethyl Phthalate	ND	10.00	10.04	100	9.911	99	44-122	1	0-20	
2,4-Dinitrotoluene	ND	10.00	12.71	127	12.42	124	28-120	2	0-20	3
Fluorene	ND	10.00	10.22	102	10.09	101	12-186	1	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	8.380	84	8.560	86	38-140	2	0-20	
Naphthalene	ND	10.00	9.876	99	9.908	99	20-140	0	0-20	
4-Nitrophenol	ND	10.00	8.612	86	8.908	89	14-128	3	0-59	
Pentachlorophenol	ND	10.00	5.048	50	5.298	53	10-124	5	0-20	
Phenol	ND	10.00	10.20	102	9.922	99	22-124	3	0-20	
Pyrene	ND	10.00	8.788	88	8.953	90	31-169	2	0-20	
1,2,4-Trichlorobenzene	ND	10.00	10.06	101	9.699	97	56-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B

Project: USA Petrochem / 7636-1

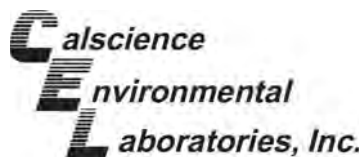
Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-03-1270-3	Sample	Solid	GC/MS BB	03/18/14	03/21/14 17:26	140321S017
14-03-1270-3	Matrix Spike	Solid	GC/MS BB	03/18/14	03/21/14 17:53	140321S017
14-03-1270-3	Matrix Spike Duplicate	Solid	GC/MS BB	03/18/14	03/21/14 18:20	140321S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	25000	24390	98	23940	96	61-127	2	0-20	
Carbon Tetrachloride	ND	25000	24550	98	23650	95	51-135	4	0-29	
Chlorobenzene	ND	25000	27030	108	27430	110	57-123	1	0-20	
1,2-Dibromoethane	ND	25000	24070	96	25180	101	64-124	4	0-20	
1,2-Dichlorobenzene	ND	25000	26950	108	27520	110	35-131	2	0-25	
1,2-Dichloroethane	ND	25000	25730	103	25640	103	80-120	0	0-20	
1,1-Dichloroethene	ND	25000	26020	104	24310	97	47-143	7	0-25	
Ethylbenzene	ND	25000	27390	110	26920	108	57-129	2	0-22	
Toluene	ND	25000	25860	103	25570	102	63-123	1	0-20	
Trichloroethene	ND	25000	26500	106	24850	99	44-158	6	0-20	
Vinyl Chloride	ND	25000	32620	130	31020	124	49-139	5	0-47	
p/m-Xylene	ND	50000	54760	110	54170	108	70-130	1	0-30	
o-Xylene	ND	25000	28920	116	27740	111	70-130	4	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	25000	23040	92	23710	95	57-123	3	0-21	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

DUDEK
605 Third Street
Encinitas, CA 92024-3513

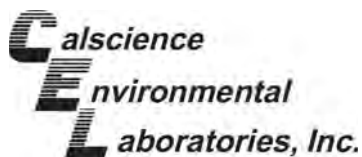
Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-838	LCS	Solid	GC 48	03/24/14	03/25/14 12:15	140324B13
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	340.3	85	75-123	

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Quality Control - LCS

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3050B
Method: EPA 6010B

Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18194	LCS	Solid	ICP 5300	03/24/14	03/24/14 19:26	140324L04

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	26.35	105	80-120	73-127	
Arsenic	25.00	25.79	103	80-120	73-127	
Barium	25.00	26.02	104	80-120	73-127	
Beryllium	25.00	25.16	101	80-120	73-127	
Cadmium	25.00	26.74	107	80-120	73-127	
Chromium	25.00	26.52	106	80-120	73-127	
Cobalt	25.00	28.95	116	80-120	73-127	
Copper	25.00	27.28	109	80-120	73-127	
Lead	25.00	27.41	110	80-120	73-127	
Molybdenum	25.00	26.42	106	80-120	73-127	
Nickel	25.00	28.43	114	80-120	73-127	
Selenium	25.00	23.71	95	80-120	73-127	
Silver	12.50	13.09	105	80-120	73-127	
Thallium	25.00	27.38	110	80-120	73-127	
Vanadium	25.00	25.79	103	80-120	73-127	
Zinc	25.00	26.58	106	80-120	73-127	

Total number of LCS compounds: 16

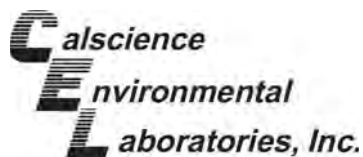
Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 7471A Total
Method: EPA 7471A

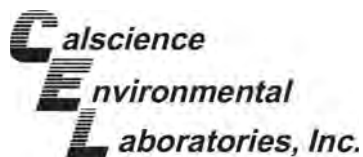
Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-117	LCS	Solid	Mercury	03/24/14	03/24/14 19:51	140324L07

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8254	99	85-121	

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Quality Control - LCS

DUDEK
605 Third Street
Encinitas, CA 92024-3513

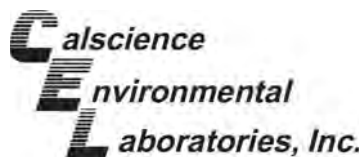
Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082

Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-2536	LCS	Solid	GC 58	03/21/14	03/26/14 16:36	140321L21
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	114.4	114	50-135	
Aroclor-1260		100.0	107.8	108	50-135	

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Quality Control - LCS

DUDEK
605 Third Street
Encinitas, CA 92024-3513

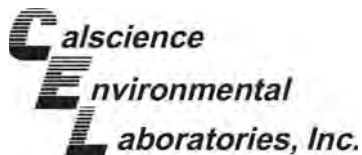
Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3540C
Method: EPA 8082

Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-2537	LCS	Solid	GC 58	03/21/14	03/26/14 17:12	140321L22
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	125.8	126	50-135	
Aroclor-1260		100.0	116.9	117	50-135	

Return to Contents



Quality Control - LCS

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 3545
Method: EPA 8270C

Project: USA Petrochem / 7636-1

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-549-2889	LCS	Solid	GC/MS SS	03/31/14	03/31/14 16:41	140331L09

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acenaphthene	10.00	9.905	99	51-123	39-135	
Acenaphthylene	10.00	9.860	99	52-120	41-131	
Butyl Benzyl Phthalate	10.00	9.217	92	43-139	27-155	
4-Chloro-3-Methylphenol	10.00	9.708	97	55-121	44-132	
2-Chlorophenol	10.00	10.11	101	58-124	47-135	
1,4-Dichlorobenzene	10.00	9.458	95	42-132	27-147	
Dimethyl Phthalate	10.00	9.869	99	51-123	39-135	
2,4-Dinitrotoluene	10.00	10.34	103	51-129	38-142	
Fluorene	10.00	9.957	100	54-126	42-138	
N-Nitroso-di-n-propylamine	10.00	8.680	87	40-136	24-152	
Naphthalene	10.00	9.654	97	32-146	13-165	
4-Nitrophenol	10.00	7.467	75	24-126	7-143	
Pentachlorophenol	10.00	9.842	98	23-131	5-149	
Phenol	10.00	9.634	96	40-130	25-145	
Pyrene	10.00	9.408	94	47-143	31-159	
1,2,4-Trichlorobenzene	10.00	9.962	100	45-129	31-143	

Total number of LCS compounds: 16

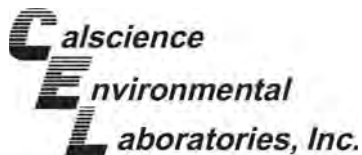
Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

DUDEK
605 Third Street
Encinitas, CA 92024-3513

Date Received: 03/20/14
Work Order: 14-03-1463
Preparation: EPA 5030C
Method: EPA 8260B

Project: USA Petrochem / 7636-1

Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-796-8309	LCS	Solid	GC/MS BB	03/21/14	03/21/14 15:23	140321L025

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	47.67	95	78-120	71-127	
Carbon Tetrachloride	50.00	50.21	100	49-139	34-154	
Chlorobenzene	50.00	53.03	106	79-120	72-127	
1,2-Dibromoethane	50.00	52.11	104	80-120	73-127	
1,2-Dichlorobenzene	50.00	53.01	106	75-120	68-128	
1,2-Dichloroethane	50.00	50.95	102	80-120	73-127	
1,1-Dichloroethene	50.00	48.61	97	74-122	66-130	
Ethylbenzene	50.00	52.21	104	76-120	69-127	
Toluene	50.00	50.01	100	77-120	70-127	
Trichloroethene	50.00	51.28	103	80-120	73-127	
Vinyl Chloride	50.00	55.30	111	68-122	59-131	
p/m-Xylene	100.0	103.6	104	75-125	67-133	
o-Xylene	50.00	53.81	108	75-125	67-133	
Methyl-t-Butyl Ether (MTBE)	50.00	48.05	96	77-120	70-127	

Total number of LCS compounds: 14

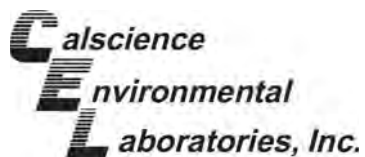
Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Sample Analysis Summary Report

Work Order: 14-03-1463

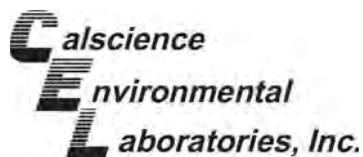
Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	598	ICP 7300	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8015B (M)	EPA 3550B	847	GC 48	1
EPA 8082	EPA 3540C	669	GC 58	1
EPA 8260B	EPA 5030C	823	GC/MS BB	2
EPA 8270C	EPA 3545	449	GC/MS SS	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



Glossary of Terms and Qualifiers

Work Order: 14-03-1463

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Chain - of - Custody Form

Page 1 of 4

Project Name: USA PETROCHEM		Job Number: 7636-1		Laboratory: CAISCIENCE		Lab Job #:	
Sampled by: LAURA ROLL		Sampler Signature: 		Lab Contact: DON BORLEY		Shipping Method:	
NICOLE PEACOCK				Project Manager: NICOLE PEACOCK		PM Email: npeacock@dudek.com	
Type of Analysis to be Performed		TAT		Special Instructions			
VOCs EPA 8260B				Standard Turn-Around Time		24 hr 48 hr 72 hr	
SVOCs EPA 8270				Metals			
OCs / Pesticides EPA 8081				TPH (GRO, DRO, Motor Oil) EPA m8015			
TDS				Following extra by method 3540C per TSCA			
Other:				X			
X				X			
12				12			
Total # of containers per type		Total # of containers		Please return original COC to Dudek			
Company Date Time		Company Date Time		Company Date Time		Company Date Time	
Dudek 3/20/14 16:45		Dudek 3/20/14 16:45		Dudek 3/20/14 16:45		Dudek 3/20/14 16:45	
Relinquished by:		Received by:		Sample Receipt			
NTP		Dudek 3/20/14 16:45		X		X	
				Cooler Temp: _____ °C			
				Conforms to COC			




Chain - of - Custody Form

Project Name: USA PETROCHEM		Job Number: 7636-1		Laboratory: CALSCE		Lab Job #: 2 of 4 (1463)	
Sampled by: LAURA ROLL		Sampler Signature: <i>[Signature]</i>		Lab Contact: DON BURLEY		Shipping Method:	
NICOLE PEACOCK				Project Manager: NICOLE PEACOCK		PM Email: npeacock@dudek.com	
Type of Analysis to be Performed		TAT		Special Instructions			
EPA 8260B							
VOCs							
SVOCs							
EPA 8270							
OCs / Pesticides							
EPA 8081							
TPH (GRO, DRO, Motor Oil)							
EPA m8015							
TDS							
Metals							
PCBS EPA 8062							
Following extraction by method 3154C per TSCA							
Standard Turn-Around Time							
Other: 24 hr 48 hr 72 hr							

Sample ID	Sample Collection		Matrix		Method Preserved				Number of Sample Containers				Total # of containers per type	Total # of containers	Time	Date	Company	Received by:	Relinquished by:
	Date	Time	Water	Vapor	Soil	HCl	HNO ₃	NONE	Filtered (Y/N)	40 mL glass	4 oz. Glass Jar	Amber							
13 GH-21	3/20/14	1127	X		X														
14 F-21-22		1130																	
15 F-23-25		1132																	
16 F-26-28		1135																	
17 DF-31		1137																	
18 AC-31		1140																	
19 A-29-30		1142																	
20 A-26-28		1145																	
21 A-23-25		1147																	
22 A-20-22		1150																	
23 A-17-19		1152																	
24 A-14-16		1155																	
Total # of containers per type													12	Total # of containers		12	Please return original COC to Dudek		

Relinquished by: <i>[Signature]</i>	Company: Dudek	Date: 3/20/14	Time: 16:45	Received by: <i>[Signature]</i>	Company: ASZ	Date: 3/20/14	Time: 1645	Sample Receipt	
								<input type="checkbox"/> Samples Intact <input type="checkbox"/> Cooler Temp: ____ °C <input type="checkbox"/> Conforms to COC	

Chain - of - Custody Form

Project Name: USA PETROCHEM Sampled by: Laura Boll NICOLE PEACOCK		Job Number: 7030-1 Sample Signature: 		Laboratory: CAISCIENCE Lab Job #: Shipping Method: PM Email: npeacock@dudek.com															
Sample Collection Date Time		Matrix Water Vapor Soil		Method Preserved NONE HCl HNO ₃		Number of Sample Containers 40 mL glass oz. Glass Jar Amber Poly		Type of Analysis to be Performed EPA 8260B VOCs EPA 8270 SVOCs EPA 8081 OCPs / Pesticides EPA m8015 TPH (GRO, DRO, Motor Oil) TDS Metals PCBs Following extraction by method 3540C per TSCA											
Sample ID A-11-13 A-8-10 A-5-7 A-2-4 AA-14-16 AA-23-25 AA-5-7		3/20/14 1200 1202 1205 0800 0830 0845		X X X X X X X		1 1 1 1 1 1 1		Standard Turn-Around Time Other:											
Relinquished by: 		Company Dudek		Date 3/20/14		Time 16:45		Received by: 		Company OEL		Date 3/20/14		Time 1645					
Total # of containers per type 7										Total # of containers 7									
Please return original COC to Dudek										Sample Receipt <input type="checkbox"/> Samples Intact <input type="checkbox"/> Cooler Temp: _____ °C <input type="checkbox"/> Conforms to COC									

Chain - of - Custody Form						Laboratory: CALSCIENCE	Lab Job #:												
						Lab Contact: DON BURLEY	Shipping Method:												
						Project Manager: NICOLE PEACOCK	PM Email: @dudek.com												
Project Name: USA PETROCHEM Sampled by: LAURA ROLL Nicole Peacock Job Number: 7636-1 Sampler Signature: [Signature]																			
Sample ID	Date	Time	Sample Collection		Matrix	Method Preserved				Number of Sample Containers									
						Water	Vapor	Soil	HCl	HNO ₃	NONE	Filtered (Y/N)	40 mL glass	VOA	oz. Glass Jar	Amber	Poly		
E-25-24	3/20/14	0900			X					X									
EF-29		1005			X					X									
EX-5-SS		1100			X					X									
EX-6-SS		1115			X					X									
EX-12-SS		1130			X					X									
EX-9-SS		1230			X					X									

Total # of containers per type																			
7																			
Please return original COC to Dudek																			
Relinquished by: [Signature]						Company Date		Received by: g		Time		Date		Company		Time		Sample Receipt	
						Dudek 3/20/14		16:45				3/20/14		Car		1645		Samples Intact	
																		Cooler Temp: ____ °C	
																		Conforms to COC	

WORK ORDER #: **14-03-1463**

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Dydek

DATE: 03/20/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.8 °C - 0.3 °C (CF) = 2.5 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: SW

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: SW

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Checked by: 920

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Collection <u>date</u> , <u>time</u> , matrix, and/or # of containers logged in based on sample labels. <u>778</u> <u>03-20-14</u>			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container..... ☒ 778 03-20-14 ☐ ☒

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ ☐ ☒

Tedlar bag(s) free of condensation..... ☐ ☐ ☒

CONTAINER TYPE:

Solid: ☒ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister **Other:** ☐ _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** 920

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** 778

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered **Scanned by:** 778

* Collection date per label is 03/20/14