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By Alameda County Environmental Health at 3:38 pm, Apr 17, 2014

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | |
|---|---|---|
| Cook Environmental Services, Inc.<br><br>1485 Treat Blvd, Ste. 203A<br><br>Walnut Creek, CA 94597 | Client Project ID: #1035; Alameda Gas | Date Sampled: 05/16/12 |
| | | Date Received: 05/17/12 |
| | Client Contact: Tim Cook | Date Reported: 05/22/12 |
| | Client P.O.: | Date Completed: 05/21/12 |

**WorkOrder: 1205512**

May 23, 2012

Dear Tim:

Enclosed within are:

1) The results of the **5** analyzed samples from your project: **#1035; Alameda Gas,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

***The analytical results relate only to the items tested.***

120512

McCAMPBELL ANALYTICAL, INC.
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Pittsburg, CA 94565-1701
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Telephone: (877) 252-9262 Fax: (925) 252-9269

# CHAIN OF CUSTODY RECORD

**TURN AROUND TIME** ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Tim Cook Bill To: Same

Company: Cook Environmental Services
1485 Treat Blvd, Suite 203A
Walnut Creek, CA 94597 email: tcook@cookenvironmental.com

Tele: ( 925) 478-8390 Fax: (925) 478-8394

Project #:1035 Project Name: Alameda Gas

Project Location: Alameda, CA

Sampler Name & Signature: T. Cook

| SAMPLE ID (Field Point Name) | LOCATION | SAMPLING Date | SAMPLING Time | # Containers | Type Containers | MATRIX Water | MATRIX Soil | MATRIX Air | MATRIX Sludge | MATRIX Other | METHOD PRESERVED ICE | METHOD PRESERVED HCL | METHOD PRESERVED $HNO_3$ | METHOD PRESERVED Other | BTEX & TPH as Gas (602/8020 + 8015)/MTBE | TPH as Diesel (8015) | Total Petroleum Oil & Grease (5520 E&F/B&F) | Total Petroleum Hydrocarbons (418.1) | EPA 601 / 8010 / 8021 | BTEX ONLY (EPA 602 / 8020) | EPA 608 / 8081 | EPA 608 / 8082 PCB's ONLY | EPA 8140 / 8141 | EPA 8150 / 8151 | EPA 524.2 / 624 / 8260 (9 oxys ) | EPA 525 / 625 / 8270 | PAH's / PNA's by EPA 625 / 8270 / 8310 | CAM-17 Metals (6010 / 6020) | LUFT 5 Metals (6010 / 6020) | Lead (200.8 / 200.9 / 6010) | Other | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 5/16/12 as prior | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-1 | | ~~3/29/12~~ | | 4 | VOA | X | | | | | X | X | | | X | X | | | | | | | | | | | | | | | | | | |
| MW-2 | | ~~3/29/12~~ | | 4 | VOA | X | | | | | X | X | | | X | X | | | | | | | | | | | | | | | | | | |
| MW-3 | | ~~3/29/12~~ | | 4 | VOA | X | | | | | X | X | | | X | X | | | | | | | | | | | | | | | | | | |
| MW-4 | | ~~3/29/12~~ | | 4 | VOA | X | | | | | X | X | | | X | X | | | | | | | | | | | | | | | | | | |
| MW-5 | | ~~3/29/12~~ | | 4 | VOA | X | | | | | X | X | | | X | X | | | | | | | | | | | | | | | | | | |

| Relinquished By: | Date: | Time: | Received By: |
|---|---|---|---|
| Tim Cook | 5/17 | 1020 | Michael Vall |
| Relinquished By: | Date: | Time: | Received By: |
| Relinquished By: | Date: | Time: | Received By: |

ICE/t° 10.8 ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

PRESERVATION VOAS ✓ | O&G | METALS pH<2 | OTHER

COMMENTS:

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 1205512** **ClientCode: CESW**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

**Report to:**
Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597
925-937-1759 FAX: 925-937-1759

Email: tcook@cookenvironmental.com
cc:
PO:
ProjectNo: #1035; Alameda Gas

**Bill to:**
Tim Cook
Cook Environmental Services, Inc.
1485 Treat Blvd, Ste. 203A
Walnut Creek, CA 94597

**Requested TAT:** 5 days

***Date Received:*** **05/17/2012**
***Date Printed:*** **05/17/2012**

| Lab ID | Client ID | Matrix | Collection Date | Hold | Requested Tests (See legend below) 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1205512-001 | MW-1 | Water | 5/16/2012 | ☐ | A | B | | | | | | | | | | |
| 1205512-002 | MW-2 | Water | 5/16/2012 | ☐ | A | B | | | | | | | | | | |
| 1205512-003 | MW-3 | Water | 5/16/2012 | ☐ | A | B | | | | | | | | | | |
| 1205512-004 | MW-4 | Water | 5/16/2012 | ☐ | A | B | | | | | | | | | | |
| 1205512-005 | MW-5 | Water | 5/16/2012 | ☐ | A | B | | | | | | | | | | |

**Test Legend:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | G-MBTEX_W | 2 | TPH(D)_W | 3 | | 4 | | 5 | |
| 6 | | 7 | | 8 | | 9 | | 10 | |
| 11 | | 12 | | | | | | | |

**Prepared by: Melissa Valles**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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# Sample Receipt Checklist

Client Name: **Cook Environmental Services, Inc.**
Date and Time Received: **5/17/2012 10:42:15 AM**

Project Name: **#1035; Alameda Gas**
LogIn Reviewed by: Melissa Valles

WorkOrder N°: **1205512** Matrix: Water
Carrier: Client Drop-In

## Chain of Custody (COC) Information

| | | |
|---|---|---|
| Chain of custody present? | Yes ☑ | No ☐ |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ |
| Sample IDs noted by Client on COC? | Yes ☑ | No ☐ |
| Date and Time of collection noted by Client on COC? | Yes ☑ | No ☐ |
| Sampler's name noted on COC? | Yes ☑ | No ☐ |

## Sample Receipt Information

| | | | |
|---|---|---|---|
| Custody seals intact on shipping container/cooler? | Yes ☐ | No ☐ | NA ☑ |
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | |
| Samples in proper containers/bottles? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |

## Sample Preservation and Hold Time (HT) Information

| | | | |
|---|---|---|---|
| All samples received within holding time? | Yes ☐ | No ☑ | |
| Container/Temp Blank temperature | Cooler Temp: 10.8°C | | NA ☐ |
| Water - VOA vials have zero headspace / no bubbles? | Yes ☑ | No ☐ | No VOA vials submitted ☐ |
| Sample labels checked for correct preservation? | Yes ☑ | No ☐ | |
| Metal - pH acceptable upon receipt (pH<2)? | Yes ☐ | No ☐ | NA ☑ |
| Samples Received on Ice? | Yes ☑ | No ☐ | |

(Ice Type: WET ICE )

** NOTE: If the "No" box is checked, see comments below.*

Comments: g-mbtex has a 14 day hold time and diesel has a 7 day hold time.

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| | | |
|---|---|---|
| Cook Environmental Services, Inc. | Client Project ID: #1035; Alameda Gas | Date Sampled: 05/16/12 |
| | | Date Received: 05/17/12 |
| 1485 Treat Blvd, Ste. 203A | Client Contact: Tim Cook | Date Extracted: 05/18/12-05/21/12 |
| Walnut Creek, CA 94597 | Client P.O.: | Date Analyzed: 05/18/12-05/21/12 |

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE***

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1205512

| Lab ID | Client ID | Matrix | TPH(g) | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | DF | % SS | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 001A | MW-1 | W | 2700 | ND | 2.2 | 18 | 41 | 41 | 1 | ---# | d2,d9,b1 |
| 002A | MW-2 | W | ND | ND | ND | ND | ND | ND | 1 | 93 | |
| 003A | MW-3 | W | 5300 | ND<80 | 41 | 21 | 14 | 24 | 10 | 121 | d1 |
| 004A | MW-4 | W | ND | ND | ND | ND | ND | ND | 1 | 99 | |
| 005A | MW-5 | W | 760 | 220 | 15 | 3.1 | 0.57 | 4.3 | 1 | 116 | d1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | 50 | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | µg/L |
| | S | 1.0 | 0.05 | 0.005 | 0.005 | 0.005 | 0.005 | mg/Kg |

* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
b1) aqueous sample that contains greater than ~1 vol. % sediment
d1) weakly modified or unmodified gasoline is significant
d2) heavier gasoline range compounds are significant (aged gasoline?)
d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

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| | | |
|---|---|---|
| Cook Environmental Services, Inc. | Client Project ID: #1035; Alameda Gas | Date Sampled: 05/16/12 |
| | | Date Received: 05/17/12 |
| 1485 Treat Blvd, Ste. 203A | Client Contact: Tim Cook | Date Extracted 05/17/12 |
| Walnut Creek, CA 94597 | Client P.O.: | Date Analyzed 05/17/12 |

**Total Extractable Petroleum Hydrocarbons***

Extraction method: SW3510C Analytical methods: SW8015B Work Order: 1205512

| Lab ID | Client ID | Matrix | TPH-Diesel (C10-C23) | DF | % SS | Comments |
|---|---|---|---|---|---|---|
| 1205512-001B | MW-1 | W | 1500 | 1 | 90 | e4,b1 |
| 1205512-002B | MW-2 | W | 94 | 1 | 95 | e7,e2 |
| 1205512-003B | MW-3 | W | 2000 | 1 | 100 | e4 |
| 1205512-004B | MW-4 | W | ND | 1 | 94 | |
| 1205512-005B | MW-5 | W | 350 | 1 | 90 | e4 |
| | | | | | | |
| | | | | | | |
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| | | | | | | |

| | | | |
|---|---|---|---|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | 50 | µg/L |
| | S | NA | NA |

* water samples are reported in ug/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
b1) aqueous sample that contains greater than ~1 vol. % sediment
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.
e7) oil range compounds are significant

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# QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 67689 | WorkOrder: 1205512

**EPA Method: SW8021B/8015Bm** **Extraction: SW5030B** **Spiked Sample ID: 1205529-008A**

| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | Acceptance Criteria (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | MS / MSD | RPD | LCS |
| TPH(btex)£ | ND | 60 | 81.2 | 84.7 | 4.25 | 85.1 | 70 - 130 | 20 | 70 - 130 |
| MTBE | ND | 10 | 89.6 | 92.6 | 3.32 | 88.6 | 70 - 130 | 20 | 70 - 130 |
| Benzene | ND | 10 | 93.1 | 94.1 | 1.07 | 94.8 | 70 - 130 | 20 | 70 - 130 |
| Toluene | ND | 10 | 92.8 | 97 | 4.42 | 98.1 | 70 - 130 | 20 | 70 - 130 |
| Ethylbenzene | ND | 10 | 94.5 | 101 | 6.32 | 101 | 70 - 130 | 20 | 70 - 130 |
| Xylenes | ND | 30 | 98.1 | 102 | 3.55 | 104 | 70 - 130 | 20 | 70 - 130 |
| %SS: | 100 | 10 | 94 | 96 | 2.30 | 95 | 70 - 130 | 20 | 70 - 130 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 67689 SUMMARY

| Lab ID | Date Sampled | Date Extracted | Date Analyzed | Lab ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 1205512-003A | 05/16/12 | 05/19/12 | 05/19/12 2:44 AM | 1205512-005A | 05/16/12 | 05/19/12 | 05/19/12 3:13 AM |
| 1205512-005A | 05/16/12 | 05/21/12 | 05/21/12 8:08 PM | | | | |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

DHS ELAP Certification 1644

QA/QC Officer

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# QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 67690 | WorkOrder: 1205512

**EPA Method: SW8021B/8015Bm** **Extraction: SW5030B** **Spiked Sample ID: 1205512-002A**

| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | Acceptance Criteria (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | MS / MSD | RPD | LCS |
| TPH(btex)£ | ND | 60 | 93.5 | 94.2 | 0.682 | 120 | 70 - 130 | 20 | 70 - 130 |
| MTBE | ND | 10 | 105 | 103 | 2.44 | 106 | 70 - 130 | 20 | 70 - 130 |
| Benzene | ND | 10 | 88.4 | 87.1 | 1.52 | 87.2 | 70 - 130 | 20 | 70 - 130 |
| Toluene | ND | 10 | 88.2 | 86.3 | 2.18 | 87 | 70 - 130 | 20 | 70 - 130 |
| Ethylbenzene | ND | 10 | 87.7 | 86.3 | 1.59 | 89.6 | 70 - 130 | 20 | 70 - 130 |
| Xylenes | ND | 30 | 92.6 | 89.7 | 3.18 | 92.9 | 70 - 130 | 20 | 70 - 130 |
| %SS: | 93 | 10 | 93 | 93 | 0 | 94 | 70 - 130 | 20 | 70 - 130 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 67690 SUMMARY

| Lab ID | Date Sampled | Date Extracted | Date Analyzed | Lab ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 1205512-001A | 05/16/12 | 05/18/12 | 05/18/12 5:33 PM | 1205512-002A | 05/16/12 | 05/18/12 | 05/18/12 6:03 PM |
| 1205512-004A | 05/16/12 | 05/18/12 | 05/18/12 6:33 PM | | | | |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

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QA/QC Officer

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# QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water | QC Matrix: Water | BatchID: 67625 | WorkOrder: 1205512

**EPA Method: SW8015B** **Extraction: SW3510C** **Spiked Sample ID: N/A**

| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | Acceptance Criteria (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | MS / MSD | RPD | LCS |
| TPH-Diesel (C10-C23) | N/A | 1000 | N/A | N/A | N/A | 112 | N/A | N/A | 70 - 130 |
| %SS: | N/A | 625 | N/A | N/A | N/A | 89 | N/A | N/A | 70 - 130 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 67625 SUMMARY

| Lab ID | Date Sampled | Date Extracted | Date Analyzed | Lab ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 1205512-001B | 05/16/12 | 05/17/12 | 05/17/12 11:03 PM | 1205512-002B | 05/16/12 | 05/17/12 | 05/17/12 6:37 PM |
| 1205512-003B | 05/16/12 | 05/17/12 | 05/17/12 5:30 PM | 1205512-004B | 05/16/12 | 05/17/12 | 05/17/12 11:03 PM |
| 1205512-005B | 05/16/12 | 05/17/12 | 05/17/12 9:57 PM | | | | |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

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QA/QC Officer