

**ATTACHMENT D**

**SUMMARY OF GROUND WATER MONITORING DATA**

**(2004)**

**GLOBAL PETROLEUM CORPORATION**

**NPDES PERMIT NO. MA0003425**

Global Petroleum Corporation  
 140 Lee Burbank Highway, Revere, Massachusetts  
 NPDES Exclusion 98-086  
 Groundwater Treatment System  
 Influent/Effluent Testing Results

Date	NPDES Limit	7/23/04		8/18/04		9/27/04	
		Influent	Effluent	Influent	Effluent	Influent	Effluent
TPH	5 ppm	1.2 mg/l	ND mg/l	ND mg/l	ND mg/l	ND mg/l	ND mg/l
Methyl Butyl Tert Ether	70 ppb	85,600 ug/l	ND ug/l	29,600 ug/l	ND ug/l	17,700 ug/l	ND ug/l
Benzene	5 ppb	1,330 ug/l	ND ug/l	946 ug/l	ND ug/l	1,130 ug/l	ND ug/l
Toluene	*	695 ug/l	ND ug/l	1,900 ug/l	ND ug/l	1,880 ug/l	ND ug/l
Ethylbenzene	*	269 ug/l	ND ug/l	160 ug/l	ND ug/l	301.0 ug/l	ND ug/l
Xylenes	*	2,990 ug/l	ND ug/l	2,940 ug/l	ND ug/l	540 ug/l	ND ug/l
Total BTEX	100 ppb	5,284 ug/l	ND ug/l	5,946 ug/l	ND ug/l	3,851.0 ug/l	ND ug/l

\*No established limit

Technical Report for

Camp Dresser & McKee  
Global Petroleum, Revere MA

Accutest Job Number: M42134

Sampling Dates: 09/24/04 - 09/27/04

Report to:

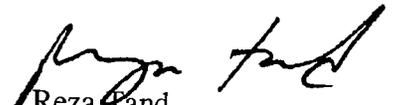
Camp Dresser & McKee  
50 Hampshire Street  
Cambridge, MA 02139

ATTN: James H. Winkler

Total number of pages in report: 30



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

  
Reza Fand  
Lab Director

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579)  
NY (23346) NJ (MA926) NAVY USACE

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## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Camp Dresser & McKee

**Job No:** M42134

**Site:** Global Petroleum, Revere MA

**Report Date** 10/12/2004 5:57:31 P

5 Samples and 1 Trip Blank were collected on between 09/24/2004 and 09/27/2004 and were received at Accutest on 09/28/2004 properly preserved, at 1.7 Deg. C and intact. These Samples received an Accutest job number of M42134. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC By Method EPA 602

**Matrix:** AQ

**Batch ID:** GMN1257

- All samples were analyzed within the recommended method holding time.
- Sample(s) M42042-3MS, M42042-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** AQ

**Batch ID:** GMN1262

- All samples were analyzed within the recommended method holding time.
- Sample(s) M42134-5MS, M42134-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

For EPA 602, only BTX and MTBE requested.

### Wet Chemistry By Method EPA 418.1

**Matrix:** AQ

**Batch ID:** GP4877

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) M42188-1DUP, M42188-2MS were used as the QC samples for Petroleum Hydrocarbons.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(M42134).



Massachusetts Department  
of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC-CAM

Exhibit VII A-1

21 May 2004

Revision No. 3.2

Final

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Title: **MADEP MCP Response Action Analytical Report Certification Form**

**MADEP MCP Analytical Method Report Certification Form**

Laboratory Name: Accutest Laboratories of New England Project #: M42134

Project Location: Global Petroleum, Revere MA MADEP RTN <sup>1</sup> None

This form provides certifications for the following data set:  
M42134-1 through M42134-6

Test Method: EPA 602, 418.1

Sample Matrices: Groundwater  Soil/Sediment  Drinking Water  Other:

<b>MCP SW-846</b>	8260B <input type="checkbox"/>	8151A <input type="checkbox"/>	8330 <input type="checkbox"/>	6010B <input type="checkbox"/>	7470A/1A <input type="checkbox"/>
<b>Methods Used</b>	8270C <input type="checkbox"/>	8081A <input type="checkbox"/>	VPH <input type="checkbox"/>	6020 <input type="checkbox"/>	9014M <sup>2</sup> <input type="checkbox"/>
As specified in MADEP	8082 <input type="checkbox"/>	8021B <input type="checkbox"/>	EPH <input type="checkbox"/>	7000 S <sup>3</sup> <input type="checkbox"/>	7196A <input type="checkbox"/>

Compendium of Analytical Methods (Check all that apply):  
<sup>1</sup> List Release Tracking Number (RTN), if known  
<sup>2</sup> M - SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method  
<sup>3</sup> S - SW-846 Methods 7000 Series List individual method and analyte

**An affirmative response to questions A, B, C, and D is required for "Presumptive Certainty" status**

- A Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?  Yes  No<sup>1</sup>
- B Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?  Yes  No<sup>1</sup>
- C Does the data included in this report meet all the analytical requirements for "Presumptive Certainty", as described in Section 2.0 (a), (b), (c) and (d) of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?  Yes  No<sup>1</sup>
- D **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?  Yes  No<sup>1</sup>

**A response to questions E and F below is required for "Presumptive Certainty" status**

- E Were all QC performance standards and recommendations for the specified methods achieved?  Yes  No<sup>1</sup>  
Refer to Narrative
- F Were results for all analyte-list compounds/elements for the specified method(s) reported?  Yes  No<sup>1</sup>  
Refer to Narrative

<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:

Position: Laboratory Director

Printed Name: Reza Tand

Date: 10/12/2004

### Sample Summary

Camp Dresser & McKee

Global Petroleum, Revere MA

Job No: M42134

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
M42134-1	09/27/04	12:15	TAN 09/28/04	AQ	Influent	INF-92704
M42134-2	09/27/04	12:35	TAN 09/28/04	AQ	Ground Water	CIN-92704
M42134-3	09/27/04	13:10	TAN 09/28/04	AQ	Ground Water	MID-1-92704
M42134-4	09/27/04	13:15	TAN 09/28/04	AQ	Ground Water	MID-2-92704
M42134-5	09/27/04	13:20	TAN 09/28/04	AQ	Effluent	EFF-92704
M42134-6	09/24/04	15:00	TAN 09/28/04	AQ	Trip Blank Water	TB

## Report of Analysis

<b>Client Sample ID:</b> INF-92704		
<b>Lab Sample ID:</b> M42134-1		
<b>Matrix:</b> AQ - Influent	<b>Date Sampled:</b> 09/27/04	
<b>Method:</b> EPA 602	<b>Date Received:</b> 09/28/04	
<b>Project:</b> Global Petroleum, Revere MA	<b>Percent Solids:</b> n/a	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN29825.D	1	10/02/04	AP	n/a	n/a	GMN1257
Run #2	MN29876.D	200	10/05/04	AP	n/a	n/a	GMN1262

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1130 <sup>a</sup>	200	ug/l	
108-88-3	Toluene	1880 <sup>a</sup>	200	ug/l	
100-41-4	Ethylbenzene	301	1.0	ug/l	
1330-20-7	Xylenes (total)	2540 <sup>a</sup>	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	17700 <sup>a</sup>	200	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	86%	82%	61-124%

(a) Result is from Run# 2

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> INF-92704		<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-1		<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Influent		<b>Percent Solids:</b> n/a
<b>Project:</b> Global Petroleum, Revere MA		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	<0.61	0.61	mg/l	1	10/04/04	BF	EPA 418.1

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> CIN-92704	<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-2	<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 602	
<b>Project:</b> Global Petroleum, Revere MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN29824.D	1	10/02/04	AP	n/a	n/a	GMN1257
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics, MTBE**

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	41.4	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	84%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> CIN-92704		<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-2		<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Project:</b> Global Petroleum, Revere MA		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	<0.61	0.61	mg/l	1	10/04/04	BF	EPA 418.1

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MID-1-92704	<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-3	<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 602	
<b>Project:</b> Global Petroleum, Revere MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN29877.D	1	10/05/04	AP	n/a	n/a	GMN1262
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.8	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	80%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MID-1-92704		<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-3		<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Project:</b> Global Petroleum, Revere MA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	<0.61	0.61	mg/l	1	10/04/04	BF	EPA 418.1

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MID-2-92704	<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-4	<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 602	
<b>Project:</b> Global Petroleum, Revere MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN29878.D	1	10/05/04	AP	n/a	n/a	GMN1262
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics, MTBE**

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	79%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MID-2-92704		<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-4		<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Project:</b> Global Petroleum, Revere MA		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	<0.61	0.61	mg/l	1	10/04/04	BF	EPA 418.1

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> EFF-92704		<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-5		<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Effluent		<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 602		
<b>Project:</b> Global Petroleum, Revere MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN29874.D	1	10/05/04	AP	n/a	n/a	GMN1262
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics, MTBE**

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	79%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EFF-92704		<b>Date Sampled:</b> 09/27/04
<b>Lab Sample ID:</b> M42134-5		<b>Date Received:</b> 09/28/04
<b>Matrix:</b> AQ - Effluent		<b>Percent Solids:</b> n/a
<b>Project:</b> Global Petroleum, Revere MA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Petroleum Hydrocarbons	<0.61	0.61	mg/l	1	10/04/04	BF	EPA 418.1

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> TB	
<b>Lab Sample ID:</b> M42134-6	<b>Date Sampled:</b> 09/24/04
<b>Matrix:</b> AQ - Trip Blank Water	<b>Date Received:</b> 09/28/04
<b>Method:</b> EPA 602	<b>Percent Solids:</b> n/a
<b>Project:</b> Global Petroleum, Revere MA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MN29875.D	1	10/05/04	AP	n/a	n/a	GMN1262
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics, MTBE**

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	79%		61-124%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

# Method Blank Summary

Job Number: M42134  
Account: CDM Camp Dresser & McKee  
Project: Global Petroleum, Revere MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GMN1257-MB	MN29811.D	1	10/02/04	AP	n/a	n/a	GMN1257

The QC reported here applies to the following samples:

Method: EPA 602

M42134-1, M42134-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Result	Limits
	2,3,4-Trifluorotoluene	81%	61-124%

# Method Blank Summary

Job Number: M42134  
Account: CDM Camp Dresser & McKee  
Project: Global Petroleum, Revere MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GMN1262-MB	MN29869.D	1	10/05/04	AP	n/a	n/a	GMN1262

The QC reported here applies to the following samples:

Method: EPA 602

M42134-1, M42134-3, M42134-4, M42134-5, M42134-6

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Result	Limits
	2,3,4-Trifluorotoluene	81%	61-124%

# Blank Spike/Blank Spike Duplicate Summary

Job Number: M42134  
 Account: CDM Camp Dresser & McKee  
 Project: Global Petroleum, Revere MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GMN1257-BSP	MN29812.D	1	10/02/04	AP	n/a	n/a	GMN1257
GMN1257-BSD	MN29813.D	1	10/02/04	AP	n/a	n/a	GMN1257

The QC reported here applies to the following samples:

Method: EPA 602

M42134-1, M42134-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	15.3	77	15.4	77	1	39-150/30
100-41-4	Ethylbenzene	20	17.2	86	17.4	87	1	32-160/30
1634-04-4	Methyl Tert Butyl Ether	20	16.6	83	16.9	85	2	65-122/30
108-88-3	Toluene	20	17.2	86	17.2	86	0	46-148/30
1330-20-7	Xylenes (total)	60	56.2	94	56.0	93	0	69-111/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
	2,3,4-Trifluorotoluene	87%	86%	61-124%

# Blank Spike/Blank Spike Duplicate Summary

Job Number: M42134  
 Account: CDM Camp Dresser & McKee  
 Project: Global Petroleum, Revere MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GMN1262-BSP	MN29870.D	1	10/05/04	AP	n/a	n/a	GMN1262
GMN1262-BSD	MN29871.D	1	10/05/04	AP	n/a	n/a	GMN1262

The QC reported here applies to the following samples:

Method: EPA 602

M42134-1, M42134-3, M42134-4, M42134-5, M42134-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	15.2	76	15.4	77	1	39-150/30
100-41-4	Ethylbenzene	20	17.6	88	17.7	89	1	32-160/30
1634-04-4	Methyl Tert Butyl Ether	20	16.5	83	16.7	84	1	65-122/30
108-88-3	Toluene	20	17.3	87	17.4	87	1	46-148/30
1330-20-7	Xylenes (total)	60	57.4	96	57.7	96	1	69-111/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
	2,3,4-Trifluorotoluene	83%	84%	61-124%

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M42134  
 Account: CDM Camp Dresser & McKee  
 Project: Global Petroleum, Revere MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M42042-3MS	MN29814.D 1		10/02/04	AP	n/a	n/a	GMN1257
M42042-3MSD	MN29815.D 1		10/02/04	AP	n/a	n/a	GMN1257
M42042-3	MN29816.D 1		10/02/04	AP	n/a	n/a	GMN1257

The QC reported here applies to the following samples:

Method: EPA 602

M42134-1, M42134-2

CAS No.	Compound	M42042-3 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.54	J	20	16.3	79	16.2	78	1	39-150/30
100-41-4	Ethylbenzene	0.88	J	20	18.6	89	17.5	83	6	32-160/30
1634-04-4	Methyl Tert Butyl Ether	ND		20	16.1	81	15.4	77	4	57-126/30
108-88-3	Toluene	3.1		20	20.9	89	20.1	85	4	46-148/30
1330-20-7	Xylenes (total)	6.7		60	63.1	94	60.4	90	4	61-113/30

CAS No.	Surrogate Recoveries	MS	MSD	M42042-3	Limits
	2,3,4-Trifluorotoluene	87%	87%	82%	61-124%

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: M42134  
 Account: CDM Camp Dresser & McKee  
 Project: Global Petroleum, Revere MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M42134-5MS	MN29872.D	1	10/05/04	AP	n/a	n/a	GMN1262
M42134-5MSD	MN29873.D	1	10/05/04	AP	n/a	n/a	GMN1262
M42134-5	MN29874.D	1	10/05/04	AP	n/a	n/a	GMN1262

The QC reported here applies to the following samples:

Method: EPA 602

M42134-1, M42134-3, M42134-4, M42134-5, M42134-6

CAS No.	Compound	M42134-5 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	15.3	77	15.3	77	0	39-150/30
100-41-4	Ethylbenzene	ND	20	17.6	88	17.8	89	1	32-160/30
1634-04-4	Methyl Tert Butyl Ether	0.14	20	16.8	83	16.8	83	0	57-126/30
108-88-3	Toluene	ND	20	17.4	87	17.5	88	1	46-148/30
1330-20-7	Xylenes (total)	ND	60	57.3	96	57.8	96	1	61-113/30

CAS No.	Surrogate Recoveries	MS	MSD	M42134-5	Limits
	2,3,4-Trifluorotoluene	83%	84%	79%	61-124%

# Volatile Surrogate Recovery Summary

Job Number: M42134  
Account: CDM Camp Dresser & McKee  
Project: Global Petroleum, Revere MA

Method: EPA 602

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 <sup>a</sup>
M42134-1	MN29876.D	82.0
M42134-1	MN29825.D	86.0
M42134-2	MN29824.D	84.0
M42134-3	MN29877.D	80.0
M42134-4	MN29878.D	79.0
M42134-5	MN29874.D	79.0
M42134-6	MN29875.D	79.0
GMN1257-BSD	MN29813.D	86.0
GMN1257-BSP	MN29812.D	87.0
GMN1257-MB	MN29811.D	81.0
GMN1262-BSD	MN29871.D	84.0
GMN1262-BSP	MN29870.D	83.0
GMN1262-MB	MN29869.D	81.0
M42042-3MS	MN29814.D	87.0
M42042-3MSD	MN29815.D	87.0
M42134-5MS	MN29872.D	83.0
M42134-5MSD	MN29873.D	84.0

Surrogate Compounds                      Recovery Limits

S1 = 2,3,4-Trifluorotoluene              61-124%

(a) Recovery from GC signal #2

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: M42134  
Account: CDM - Camp Dresser & McKee  
Project: Global Petroleum, Revere MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Petroleum Hydrocarbons	GP4877/GN14946	0.60	<0.60	mg/l	5	4.5	90.0	80-120%

Associated Samples:

Batch GP4877: M42134-1, M42134-2, M42134-3, M42134-4, M42134-5

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: M42134  
Account: CDM - Camp Dresser & McKee  
Project: Global Petroleum, Revere MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Petroleum Hydrocarbons	GP4877/GN14946	M42188-1	mg/l	<0.61	<0.61	0.0	0-20%

Associated Samples:

Batch GP4877: M42134-1, M42134-2, M42134-3, M42134-4, M42134-5

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: M42134  
Account: CDM - Camp Dresser & McKee  
Project: Global Petroleum, Revere MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Petroleum Hydrocarbons	GP4877/GN14946	M42188-2	mg/l	<0.61	5.1	4.4	86.3	75-125%

Associated Samples:

Batch GP4877: M42134-1, M42134-2, M42134-3, M42134-4, M42134-5

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Sample Tracking Chronicle

## Internal Sample Tracking Chronicle

Camp Dresser & McKee

Job No: M42134

Global Petroleum, Revere MA

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
M42134-1 Collected: 27-SEP-04 12:15 By: TAN Received: 28-SEP-04 By: RS INF-92704						
M42134-1	EPA 602	02-OCT-04 14:05	AP			V602BTXM
M42134-1	EPA 418.1	04-OCT-04	BF	04-OCT-04	BF	PHC
M42134-1	EPA 602	05-OCT-04 22:34	AP			V602BTXM
M42134-2 Collected: 27-SEP-04 12:35 By: TAN Received: 28-SEP-04 By: RS CIN-92704						
M42134-2	EPA 602	02-OCT-04 13:24	AP			V602BTXM
M42134-2	EPA 418.1	04-OCT-04	BF	04-OCT-04	BF	PHC
M42134-3 Collected: 27-SEP-04 13:10 By: TAN Received: 28-SEP-04 By: RS MID-1-92704						
M42134-3	EPA 418.1	04-OCT-04	BF	04-OCT-04	BF	PHC
M42134-3	EPA 602	05-OCT-04 23:17	AP			V602BTXM
M42134-4 Collected: 27-SEP-04 13:15 By: TAN Received: 28-SEP-04 By: RS MID-2-92704						
M42134-4	EPA 418.1	04-OCT-04	BF	04-OCT-04	BF	PHC
M42134-4	EPA 602	05-OCT-04 23:59	AP			V602BTXM
M42134-5 Collected: 27-SEP-04 13:20 By: TAN Received: 28-SEP-04 By: RS EFF-92704						
M42134-5	EPA 418.1	04-OCT-04	BF	04-OCT-04	BF	PHC
M42134-5	EPA 602	05-OCT-04 21:10	AP			V602BTXM
M42134-6 Collected: 24-SEP-04 15:00 By: TAN Received: 28-SEP-04 By: RS TB						
M42134-6	EPA 602	05-OCT-04 21:52	AP			V602BTXM

