

SDG CASE NARRATIVE

TechLaw
KNM

SDG Executive Summary

This case narrative applies to samples received on May 10, 2012 through May 21, 2012. All samples were scheduled for analysis in accordance with parameters outlined on the field chain of custody record, the TriMatrix bid form, and/or oral and written correspondence between TechLaw and TriMatrix Laboratories, Inc.

Each sample receipt event was assigned a unique TriMatrix work order number. Sample receipt documentation is included in section A of this data package.

Project Technical Issues/Problems

Project-related data qualification designations and reporting conventions are included in Attachment 1 - *Project Technical Narrative*.

QA/QC Data Qualifications/Narrations

Quality assurance issues and/or quality control data qualifications and narrations related to the analysis and reporting of this SDG are presented in Attachment 2 - *Statement of Data Qualifications*. The absence of a statement page for a particular analyte group (e.g. Percent Solids) implies that no qualifying statements were generated for that analyte.

Data Review and Approval

All data was peer-reviewed by a second analyst, and then by appropriate data management staff against laboratory quality control requirements and project specifications. It was then reviewed and approved by the group supervisor/manager prior to further review by the project chemist.

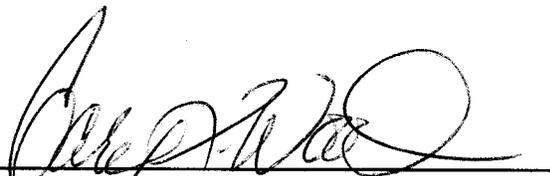
Data Deliverables

This report relates only to the sample(s) as received. Estimates of analytical uncertainties for the test results contained within the report are available upon request. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC), and one or more of the following certification programs:

ACLASS DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#10-046-0); Florida DEP (#E87622-24); Georgia EPD (#E87622-24); Illinois DEP (#002841); Kansas DPH (#E-10302); Kentucky DEP (#0021); Louisiana DEP (#03068); Michigan DPH (#0034); Minnesota DPH (#367345); New York ELAP (#44950); North Carolina DNRE (#659); Texas CEQ (#T104704495-11-1); Virginia DCLS (#1239); Wisconsin DNR (#999472650); USDA Soil Import Permit (#P330-09-00163).

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The data deliverables, both hardcopy and/or electronic (EDD), that comprise this data package are intended to comply with the documents referenced in the introductory section of this narrative. The EDD, if requested, will be issued separately from this hardcopy report. Hold time reports for each test procedure are presented following the CLP-like forms section of this report.



Gary L. Wood, Project Chemist

Date

SDG CASE NARRATIVE

Sample Receipt and Login -- Work Order: 1205226

TriMatrix Laboratories received the cooler(s) for this work order on May 10, 2012, at 08:15am. Receiving documents include field chain-of-custody (COC) record(s), sample receipt form(s), and FedEx shipping document(s). The condition of the custody seals, the type and location of the coolant, and the temperatures recorded for each cooler are presented on the TriMatrix *Sample Receiving / Log-In Checklist* provided in section A of this package. The receipt temperature of the samples was determined by using an infrared thermometer to record the temperature of three random samples of varying container types and the accompanying temperature blank, if present.

Samples were scheduled for the analyses listed on the corresponding COC form. Field IDs and assigned laboratory identifiers are presented in the table below.

Field Sample Name	Laboratory Sample ID	Matrix	Date Sampled
106091	1205226-01	Water	5/9/2012
106191	1205226-02	Water	5/9/2012

No administrative issues were encountered during the receipt and analysis of this work order.

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Sample Receipt and Login -- Work Order: 1205358

TriMatrix Laboratories received the cooler(s) for this work order on May 18, 2012, at 08:15am. Receiving documents include field chain-of-custody (COC) record(s), sample receipt form(s), and FedEx shipping document(s). The condition of the custody seals, the type and location of the coolant, and the temperatures recorded for each cooler are presented on the TriMatrix *Sample Receiving / Log-In Checklist* provided in section A of this package. The receipt temperature of the samples was determined by using an infrared thermometer to record the temperature of three random samples of varying container types and the accompanying temperature blank, if present.

Samples were scheduled for the analyses listed on the corresponding COC form. Field IDs and assigned laboratory identifiers are presented in the table below.

Field Sample Name	Laboratory Sample ID	Matrix	Date Sampled
1060SL	1205358-01	Water	5/17/2012

No administrative issues were encountered during the receipt and analysis of this work order.

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Sample Receipt and Login -- Work Order: 1205374

TriMatrix Laboratories received the cooler(s) for this work order on May 21, 2012, at 08:30am. Receiving documents include field chain-of-custody (COC) record(s), sample receipt form(s), and FedEx shipping document(s). The condition of the custody seals, the type and location of the coolant, and the temperatures recorded for each cooler are presented on the TriMatrix *Sample Receiving / Log-In Checklist* provided in section A of this package. The receipt temperature of the samples was determined by using an infrared thermometer to record the temperature of three random samples of varying container types and the accompanying temperature blank, if present.

Samples were scheduled for the analyses listed on the corresponding COC form. Field IDs and assigned laboratory identifiers are presented in the table below.

Field Sample Name	Laboratory Sample ID	Matrix	Date Sampled
106RCT	1205374-01	Water	5/18/2012

No administrative issues were encountered during the receipt and analysis of this work order.



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Attachment 1 Project Technical Narrative

Sample Result Reporting Convention

Sample results are reported as RL "U" (e.g. 0.001 U) if the target analyte was not detected above the MDL.

If a sample for an organic analyte is reanalyzed and also reported, the second analysis includes the suffix "RE n " where n = the first, second, etc. reanalysis.

Data Qualifier Designation

If applicable, sample results are qualified with:

- a "J" flag if the analyte was detected, but the concentration is greater than the MDL and less than the RL;
- a "B" flag if the analyte was also detected at or above the RL in the associated method blank, and the sample concentration was less than five times the method blank result;
- a "E" flag if the analyte exceeded the instrument calibration range;
- an asterisk (*) if a report-generated statement of qualification applies; qualifying statements, if any, will be found in Attachment 2 to this narrative.

QC Batch and Analytical Batch Designation

A Quality Control (QC) Batch is a seven-digit number that associates all samples that have been prepared together (or analyzed together if there is no preparation). Quality Control batches are limited to no more than twenty samples, excluding batch QC (method blanks, control spikes, etc.). Some batches may contain multiple sets of method blanks (BLK) and laboratory control samples (BS), where a set of method quality control analyses were prepared in concert with each set of samples on a given day.

An Analytical Batch (or Sequence) is a seven-digit number that associates all samples analyzed as a set under one analytical run.

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Attachment 2 Statement of Data Qualifications

Extractable Petroleum Hydrocarbons by EPA Method 8015C

Qualification: The quality control batch(s), associated with the following samples and analyses, do not contain an MS/MSD or MS/DUP because client specific matrix QC was not requested. An LCS and LCSD were analyzed as the measure of batch precision and accuracy.

Analysis: USEPA-8015C

Sample/Analyte: 1205226-01 106091
1205226-02 106191
1205358-01 1060SL
1205374-01 106RCT

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Attachment 2 Statement of Data Qualifications

Volatile Petroleum Hydrocarbons by EPA Method 8015C

Qualification: The quality control batch(s), associated with the following samples and analyses, do not contain an MS/MSD or MS/DUP due to insufficient sample volumes. An LCS and LCSD were analyzed as the measure of batch precision and accuracy.

Analysis: USEPA-8015C

Sample/Analyte: 1205358-01 1060SL
1205374-01 106RCT

Qualification: Manual integration was required on the analytes listed below. All manual integrations were performed and reviewed in accordance with TriMatrix laboratory policy.

Analysis: USEPA-8015C

Sample/Analyte: 1206983-BS1	GRO - 8015 (C6-C10)
2F04023-CAL3	GRO - 8015 (C6-C10)
2F04025-CCV1	GRO - 8015 (C6-C10)

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Attachment 2 Statement of Data Qualifications

EDB and DBCP by EPA Method 8011

Qualification: The quality control batch(s), associated with the following samples and analyses, do not contain an MS/MSD or MS/DUP because client specific matrix QC was not requested. An LCS and LCSD were analyzed as the measure of batch precision and accuracy.

Analysis: USEPA-8011

Sample/Analyte: 1205226-01 106091
1205226-02 106191
1205358-01 1060SL
1205374-01 106RCT



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Attachment 2 Statement of Data Qualifications

Volatile Organic Compounds by EPA Method 8260B

Qualification: The quality control batch(s), associated with the following samples and analyses, do not contain an MS/MSD or MS/DUP because client specific matrix QC was not requested. An LCS and LCSD were analyzed as the measure of batch precision and accuracy.

Analysis: USEPA-8260B

Sample/Analyte: 1205226-01 106091
1205226-02 106191
1205358-01 1060SL

Qualification: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was less than 5 times the MB value, is considered estimated.

Analysis: USEPA-8260B

Sample/Analyte: 1205226-01 106091	Methyl Acetate
1205226-02 106191	Methyl Acetate
1205358-01 1060SL	Methyl Acetate



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Attachment 2 Statement of Data Qualifications

Semivolatile Organic Compounds by EPA Method 8270C

Qualification: The quality control batch(s), associated with the following samples and analyses, do not contain an MS/MSD or MS/DUP because client specific matrix QC was not requested. An LCS and LCSD were analyzed as the measure of batch precision and accuracy.

Analysis: USEPA-8270C

Sample/Analyte: 1205226-01 106091
1205226-02 106191
1205358-01 1060SL
1205374-01 106RCT

Qualification: Manual integration was performed on this sample for the analyte(s) listed below in accordance with the TriMatrix Manual Integration SOP. All necessary documentation, including the signed review, is included in the raw data section of the data package.

Analysis: USEPA-8270C

Sample/Analyte: 1205358-01 1060SL Benzo(k)fluoranthene

Qualification: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was less than 5 times the MB value, is considered estimated.

Analysis: USEPA-8270C

Sample/Analyte: 1205226-01 106091	Benzo(a)anthracene
1205226-01 106091	Benzo(k)fluoranthene
1205226-01 106091	Chrysene
1205226-02 106191	Benzo(a)anthracene
1205226-02 106191	Benzo(k)fluoranthene
1205358-01 1060SL	Anthracene
1205358-01 1060SL	Benzo(a)anthracene
1205358-01 1060SL	Chrysene
1205358-01 1060SL	Fluoranthene
1205358-01 1060SL	Phenanthrene
1205358-01 1060SL	Pyrene
1205374-01 106RCT	Benzo(a)anthracene

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Attachment 2 Statement of Data Qualifications

Dissolved Metals by EPA 6000/7000 Series Methods

Qualification: This analyte was not present in this sample at a concentration greater than 50 times the MDL, therefore serial dilution is not required.

Analysis: USEPA-6010C

Sample/Analyte: 1205374-01 106RCT

Manganese

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Attachment 2 Statement of Data Qualifications

Total Metals by EPA 6000/7000 Series Methods

Qualification: The MS or MSD recovery, but not both, was outside the control limit. The RPD is within the control limit. The unspiked sample result is not qualified.

Analysis: USEPA-6010C

Sample/Analyte: 1205374-01 106RCT

Calcium

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Attachment 2 Statement of Data Qualifications

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Qualification: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was less than 5 times the MB value, is considered estimated.

Analysis: SM 2320 B 20th

Sample/Analyte: 1205358-01 1060SL	Alkalinity, Bicarbonate
1205358-01 1060SL	Alkalinity, Total

Analysis: SM 4500-Cl E 20th

Sample/Analyte: 1205358-01 1060SL	Chloride
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Analysis: SM 4500-NO3 F 20th

Sample/Analyte: 1205358-01 1060SL	Nitrogen, Nitrate+Nitrite
1205374-01 106RCT	Nitrogen, Nitrate+Nitrite

Qualification: The analyte concentration in the associated MB was greater than the MDL but less than the RL. The positive sample result, which was greater than 5 times the MB value, is not considered estimated.

Analysis: SM 2320 B 20th

Sample/Analyte: 1205374-01 106RCT	Alkalinity, Bicarbonate
1205374-01 106RCT	Alkalinity, Total

Analysis: SM 4500-Cl E 20th

Sample/Analyte: 1205226-01 106091	Chloride
1205226-02 106191	Chloride
1205374-01 106RCT	Chloride