100.38.218

ROCKWELL ENGINEERING & CONSTRUCTION SERVICES, Inc.

2375 UNIVERSITY AVENUE, SOUTH
FAIRBANKS, ALASKA 99709
PHONE: (907) 457-7625
FAX: (907) 457-7620
rockwellcorp@acsalaska.net

Date: July 23, 2007

Attention: Civil Air Patrol
Carl Brown
PO Box 6014
Elmendorf AFB, AK 99506-6014

Subject: **TANK REPLACEMENT AND SITE ASSESSMENT REPORT**
CIVIL AIR PATROL
3855 UNIVERSITY AVE.
FAIRBANKS, ALASKA 99709
ROCKWELL E&C JOB NO: 2708

Dear Carl Brown:

On May 11, 2007, Rockwell Engineering & Construction Services Inc. (Rockwell E&C) performed a site assessment (SA) during the removal of a 2000-gallon underground storage tank (UST). The tank was located at the Civil Air Patrol Building on the east ramp at Fairbanks International Airport.

Attachment 1 presents the site drawing. Attachment 2 presents a photographic history of the project. Attachment 3 presents the laboratory results.

PROJECT ORGANIZATION AND SCOPE OF WORK

- The State of Alaska is the landowner.
- Mark Rockwell volunteered his time and equipment to perform the earthwork associated with the heating oil tank removal.
- The Civil Air Patrol contracted Rockwell E&C to perform the SA and prepare the SA report.
- Rockwell E&C subcontracted SGS Environmental Services, Inc. Laboratory Division (SGS) to perform the analysis on soil samples for the project. SGS is an Alaska Department of Environmental Conservation (ADEC) approved laboratory.

SITE ASSESSMENT PROCEDURES

During excavation, Rockwell E&C screened soils for contaminants. Clean hand tools and latex gloves were used for field screening, headspace sampling, and laboratory soil sampling.

Field screening was accomplished by inserting a photoionization detector (PID) probe into a funnel placed below the soil surface to contain vapors.

The headspace sampling procedure consisted of placing a small quantity of soil in a plastic bag. Once the soil was warmed to a minimum of 40°F for at least 10 minutes, the PID probe was inserted into the bag and the highest reading recorded.

All laboratory samples collected were grab samples. Soil samples were collected from freshly uncovered soil. To minimize volatilization, the lab jars were filled in order of decreasing analytical volatility. For benzene, toluene, ethylbenzene and xylenes 25 milliliters of methanol was added as a preservative immediately upon sample collection. The jar for diesel range organics was filled quickly and completely to eliminate excess headspace.

Sample jars were labeled and placed into a pre-chilled cooler. The chilled temperature within the cooler was maintained using frozen gel packages during transportation to the laboratory. A signed Chain of Custody (COC) form accompanied the samples to the lab to be analyzed for AK Method 102 DRO and EPA method 8021B BTEX.

FIELD OBSERVATIONS

On May 11, 2007, Rockwell E&C excavated soils to expose the tank. The tank was then removed using the excavator. The tank was inspected and found to be in good condition and exhibited no visible signs of holes, corrosion, or pitting. After removal the tank was measured and found to be approximately 6 feet by 9 feet.

Headspace sample readings during the excavation ranged from 0 to 460 ppm. Potentially contaminated soil was encountered along the sides of the tank, above the tank and below the tank.

On May, 11, 2007, two primary soil samples S1 and S2 were collected for laboratory analysis. Soil sample S3 is a quality control duplicate collected from the same location as sample S2. Soil sample S1 was collected from under the center of the tank and S2/S3 were collected from under the fill tube of the tank. A trip blank was included to verify no cross-contamination occurred during sampling.

RESULTS

The results of field screening are presented in Table 1. Table 2 presents the laboratory results of the soil samples collected.

Table 1: Field Screening Results

TIME	HDSP ID	DEPTH	TEMP °F	PID* READING ppm
4:00	1	18"		460
4:00	2	18"	60 F	300
4:00	3	18"	60 F	17
4:00	4	18"	60 F	14
4:00	5	18"	60 F	11
4:00	6	18"	60 F	8
4:00	7	SURFACE	60 F	150
4:00	8	18"	60 F	11
10:00	9	51"	60 F	0
10:00	10	51"	60 F	0
10:05	11	84"	60 F	140
10:05	12	40"	60 F	3
10:10	13	80"	60 F	23
10:30	14	64"	60 F	4
10:30	15	64"	60 F	2
10:40	16	50"	60 F	12
10:50	17	18"	60 F	50
11:30	18	100"	60 F	165
11:30	19	100"	60 F	135
11:30	20	72"	60 F	20
11:30	21	72"	60 F	12

The highest levels of contaminants were encountered in the West stock pile, with PID Readings of 460 and 300 ppm, 18" below the surface. The East stock pile showed moderate levels of contaminants, indicated by PID Readings of 150 ppm at the surface, 140 ppm at 84" below surface, 165 ppm 100" below surface, and 135 ppm 100" below surface.

Table 2: Laboratory Results

	Result	Units
S-1 (Center)		
DRO	6680	mg/Kg
Benzene	ND	ug/Kg
Toluene	ND	ug/Kg
Ethylbenzene	ND	ug/Kg
Total Solids	92	%
S-2 (Fill tube)		
DRO	14100	mg/Kg
Benzene	ND	ug/Kg
Toluene	ND	ug/Kg
Ethylbenzene	ND	ug/Kg
Total Solids	85.3	%
S-3 (Fill tube duplicate)		
DRO	13200	mg/Kg
Benzene	ND	ug/Kg
Toluene	ND	ug/Kg
Ethylbenzene	ND	ug/Kg
Total Solids	87.9	%

Laboratory samples indicate that there was a significant amount of contamination located in the tank area. DRO was detected in all three soil samples.

BTEX was non-detect in all samples.

RECOMMENDATIONS

Rockwell E&C makes the following recommendations at this site:

1. The East and West soil stockpiles, which are contaminated based on field screening, should be transported to OIT's Moose Creek facility for thermal treatment.

2. Two (2) soil borings should be drilled and soil samples should be collected to determine the lateral extent of contamination at this site. These soil samples should be analyzed for DRO.

3. The tank area should be capped with asphalt to prevent rainwater infiltration and to prevent the migration of contaminants.

Please contact us directly at (907) 457-7625 should any questions arise.

Sincerely,

Rockwell Engineering & Construction Services, Inc.

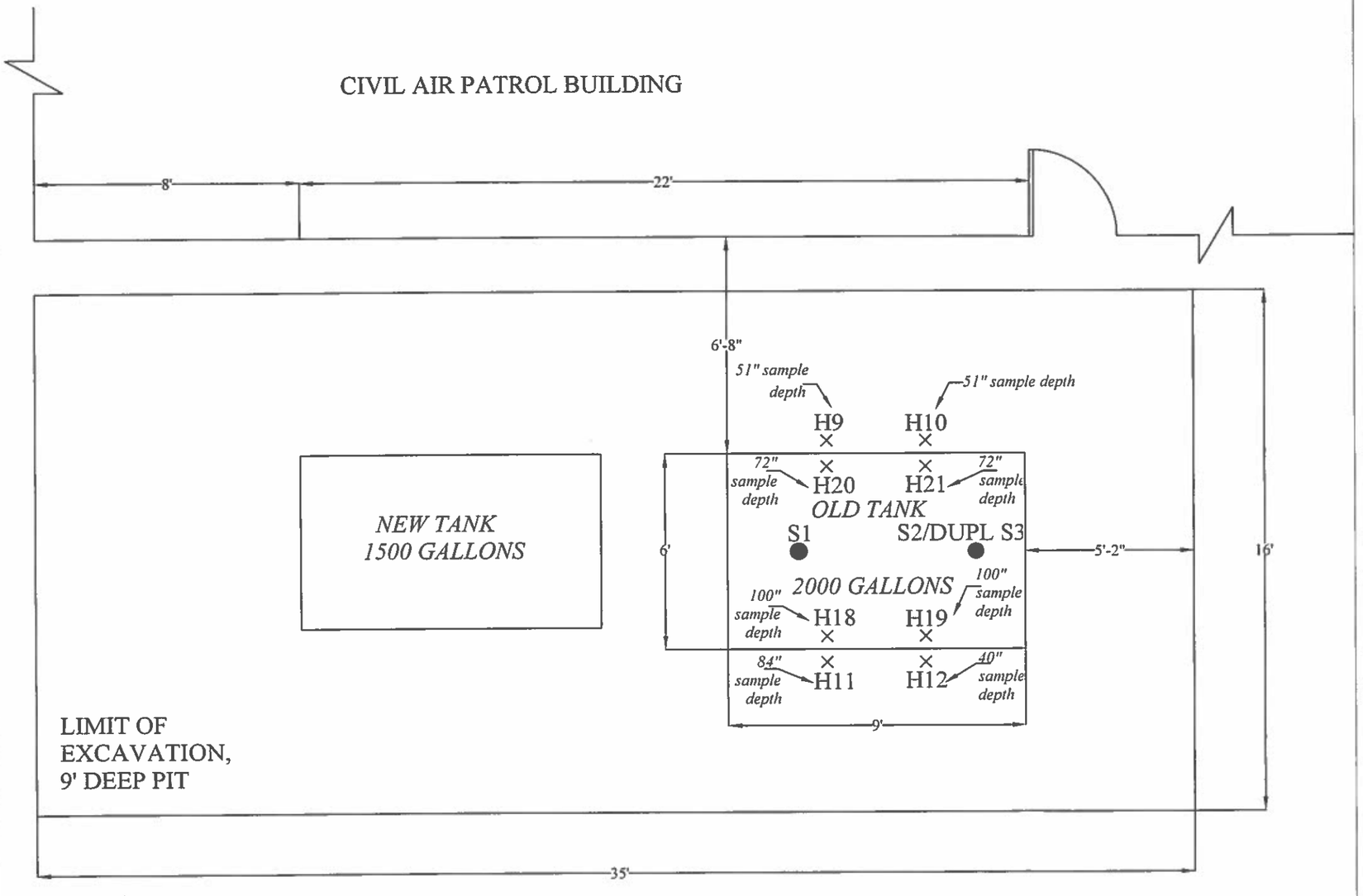
Aaron Hall
Environmental Services Manager

7-25-07
Date

ATTACHMENT 1

SITE DRAWING

OVERHEAD VIEW



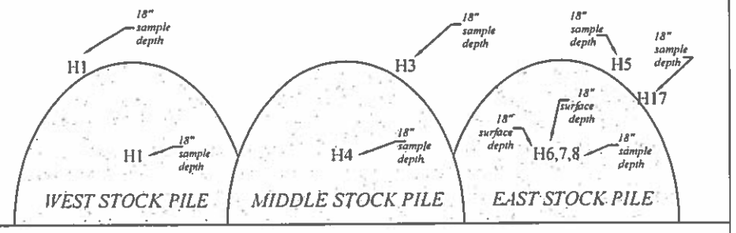
N

LEGEND

× HEADSPACE SOIL SAMPLE

● LAB SOIL SAMPLE

SIDE VIEW OF SPECIFIC SAMPLE LOCATION



WEST STOCK PILE	MIDDLE STOCK PILE	EAST STOCK PILE
7' - 9' BELOW GROUND SURFACE FROM NEW TANK AREA; DARK, GREY, MOIST, FROZEN SAND	0' - 7' BELOW GROUND SURFACE FROM NEW TANK AREA; LIGHT GREY PIT RUN, DRY	0' - 7' BELOW GROUND SURFACE AREA FROM OLD TANK AREA; LIGHT GREY PIT RUN, DRY

ROCKWELL ENGINEERING & CONSTRUCTION SERVICES INC.
2375 UNIVERSITY AVE. S
FAIRBANKS, ALASKA 99709

Project Name: SAMPLE LOCATIONS

Location: CIVIL AIR PATROL
UST SITE ASSESSMENT
EAST RAMP FIA

Date: 5/14/2007
SITE ASSESSOR:
DRAWN BY: HRR
JOB NO. 2708

ATTACHMENT 2

PHOTOGRAPHIC HISTORY

Excavation showing old fuel tank and new fuel tank, looking NE. 5/14/2007

Excavation showing old fuel tank completely removed, looking NW. 5/14/2007

Soil stockpiles, looking NE. 5/15/2007

Old fuel tank, looking E. 5/15/2007

ATTACHMENT 3

LABORATORY RESULTS

SGS

SGS Environmental Services
Alaska Division
Level II Laboratory Data Report

Project:	Civil Air Patrol
Client:	Rockwell Engineering & Construction
SGS Work Order:	1071882

Released by: Stephen C. Ede
Alaska Division Technical Director
Stephen C. Ede
2007.06.04
11:47:06 -08'00'

Contents:

Note:
Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.

Client Name: Rockwell Engineering & Construction
Project Name: Civil Air Patrol
Workorder No.: 1071882

Sample Comments

Refer to the sample receipt form for information on sample condition.

Lab Sample ID	Sample Type	Client Sample ID
1071882001	PS	S-1
	DRO - The pattern is consistent with a weathered middle distillate.	
1071882002	PS	S-2
	DRO - The pattern is consistent with a weathered middle distillate.	
1071882003	PS	S-3
	8260 - Surrogate recovery for 1,2-dichloroethane-d4 does not meet QC criteria due to matrix of the sample. All other surrogates meet QC critera. DRO - The pattern is consistent with a weathered middle distillate.	
1071882004	TB	Trip Blank
	8260 - Surrogate recovery for 1,2-dichloroethane-d4 does not meet QC criteria. All other surrogates meet QC criteria. 8260 - Inital calibration verification (ICV) recoveries for 1,1,2-trichloro-1,2,2-trifluoromethane, carbon disulfide, 1-chlorohexane, methyl-t-butyl ether do not meet QC criteria (biased high). These analytes were not detected in the associated sample.	
765370	MSD	PO-6(1071867001MSD)
	8260 - Matrix spike duplicate (MSD) recoveries for the surrogates 1,2-dichloroethane-D4 and dibromofluoromethane does not meet QC criteria. See laboratory control sample for accuracy.	
765371	IB	IB for HBN 185928 (VMS/9087)
	8260 - Instrument blank (IB) recovery for dibromofluoromethane does not meet QC criteria. All other surrogates meet QC criteria.	
765759	LCS	LCS for HBN 186014 [VXX/16715]
	8260 - Laboratory control sample (LCS) recoveries for several analytes do not meet QC criteria (biased high). These analytes were not detected in the associated samples. 8260 - Laboratory control sample (LCS) surrogate recovery for 1,2-dichloroethane-d4 does not meet QC criteria. All other surrogates meet QC criteria.	
765760	MS	C1/0-2(1072273003MS)
	8260 - Matrix spike (MS) recoveries for several analytes do not meet QC criteria (biased high). These analytes were not detected in the associated samples. 8260 - Matrix spike (MS) surrogate recovery for 1,2-dichloroethane-d4 does not meet QC criteria. All other surrogates meet QC criteria. 8260 - Matrix spike (MS) recovery for tetrachloroethene does not meet QC criteria (biased low) due to matrix of sample being heavily contaminated for this analyte.	
765761	MSD	C1/0-2(1072273003MSD)
	8260 - Matrix spike duplicate (MSD) recoveries for several analytes do not meet QC criteria (biased high). These analytes were not detected in the associated samples. 8260 - Matrix spike duplicate (MSD) surrogate recovery for 1,2-dichloroethane-d4 does not meet QC criteria. All other surrogates meet QC criteria. 8260 - Matrix spike duplicate (MSD) recovery for tetrachloroethene does not meet QC criteria (biased low) due to matrix of sample being heavily contaminated for this analyte.	
765763	CCV	CCV for HBN 186015 (VMS/9094)

8260 - Continuing calibration verification (CCV) recoveries for several analytes do not meet QC criteria (biased high). These analytes were not detected in the associated samples.
8260 - Continuing calibration verification (CCV) surrogate recovery for 1,2-dichloroethane-d4 does not meet QC criteria. All other surrogates meet QC criteria.

SGS

Laboratory Analytical Report

Client: **Rockwell Engineering & Construct**
2375 University Ave, South
Fairbanks, AK 99709

Attn: **Clayton Dunn**
T: (907)457-7625 F:(907)457-7620
cdunn2rockwellcorp@acsalaska.net

Project: **Civil Air Patrol**

Workorder No.: **1071882**

Certification: Stephen C. Ede
Alaska Division Technical Director
Stephen C. Ede
2007.06.04 11:47:36 -
08'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, other than the conditions noted on the sample data sheet(s) and/or the case narrative. This certification applies only to the tested parameters and the specific sample(s) received at the laboratory.

If you have any questions regarding this report, or if we can be of further assistance, please contact your SGS Project Manager.

Sunny Castleberry
sunny_castleberry@sgs.com
Project Manager

Print Date: 6/4/2007

Enclosed are the analytical results associated with this workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Assurance Plan (QAP), which outlines this program is available at your request.

The laboratory certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro) for ADEC and 001582 for NELAP (RCRA methods: 1010/1020, 1311, 6000/7000, 9040/9045, 9056, 9060, 9065, 8015B, 8021B, 8081A/8082, 8260B, 8270C).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP, the National Environmental Laboratory Accreditation Program and, when applicable, other regulatory authorities.

If you have any questions regarding this report or if we can be of any assistance, please contact your SGS Project Manager at 907-562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

MDL	Method Detection Limit
PQL	Practical Quantitation Limit (reporting limit).
CL	Control Limit
U	Indicates the analyte was analyzed for but not detected.
F	Indicates value that is greater than or equal to the MDL.
J	The quantitation is an estimation.
ND	Indicates the analyte is not detected
B	Indicates the analyte is found in a blank associated with the sample.
*	The analyte has exceeded allowable regulatory or control limits.
GT	Greater Than
LT	Less Than
Q	QC parameter out of acceptance range.
M	A matrix effect was present.
E	The analyte result is above the calibrated range.
DF	Analytical Dilution Factor
JL	The analyte was positively identified, but the quantitation is a low estimation.
<Surr>	Surrogate QC spiked standard

Note: Soil samples are reported on a dry weight basis unless otherwise specified

SGS

SAMPLE SUMMARY

Print Date: 6/4/2007

Client Name: Rockwell Engineering & Construction
Project Name: Civil Air Patrol
Workorder No.: 1071882

Analytical Methods

Method Description	Analytical Method
Diesel Range Organics (S)	AK102
Percent Solids SM2540G	SM20 2540G
Volatile Organic Compounds (S) FIELD EXT	SW8260B

Sample ID Cross Reference

Lab Sample ID	Client Sample ID
1071882001	S-1
1071882002	S-2
1071882003	S-3
1071882004	Trip Blank

Client Sample ID: **S-1**
SGS Ref. #: 1071882001
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 92.0

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Semivolatile Organic Fuels Department

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	6680	216	mg/Kg	10	XFC7401	XXX18035	
5a Androstane <surr>	72.6	50-150	%	10	XFC7401	XXX18035	

Batch Information

Analytical Batch: XFC7401
Analytical Method: AK102
Analysis Date/Time: 05/30/07 11:11
Dilution Factor: 10

Prep Batch: XXX18035
Prep Method: SW3550B
Prep Date/Time: 05/23/07 12:35

Initial Prep Wt./Vol.: 30.229 g
Prep Extract Vol.: 1 mL
Container ID:1071882001-B
Analyst: JE

Client Sample ID: **S-1**
SGS Ref. #: 1071882001
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 92.0

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND	15.8	ug/Kg	1	VMS9087	VXX16705	
Toluene	ND	60.6	ug/Kg	1	VMS9087	VXX16705	
Ethylbenzene	ND	30.3	ug/Kg	1	VMS9087	VXX16705	
P & M -Xylene	ND	60.6	ug/Kg	1	VMS9087	VXX16705	
o-Xylene	ND	30.3	ug/Kg	1	VMS9087	VXX16705	
1,2-Dichloroethane-D4 <surr>	106	85-115	%	1	VMS9087	VXX16705	
Toluene-d8 <surr>	87.8	87-115	%	1	VMS9087	VXX16705	
4-Bromofluorobenzene <surr>	82.9	50-154	%	1	VMS9087	VXX16705	
Dibromofluoromethane <surr>	105	83-119	%	1	VMS9087	VXX16705	

Batch Information

Analytical Batch: VMS9087
Analytical Method: SW8260B
Analysis Date/Time: 05/24/07 04:13
Dilution Factor: 1

Prep Batch: VXX16705
Prep Method: SW5035A
Prep Date/Time: 05/23/07 20:00

Initial Prep Wt./Vol.: 44.83 g
Prep Extract Vol.: 25 mL
Container ID:1071882001-A
Analyst: KPW

Client Sample ID: S-1
SGS Ref. #: 1071882001
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 92.0

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	92.0		%		SPT7212		

Batch Information

Analytical Batch: SPT7212
Analytical Method: SM20 2540G
Analysis Date/Time: 05/22/07 12:00

Initial Prep Wt./Vol.: 1 mL

Container ID:1071882001-B
Analyst: NHN

Client Sample ID: **S-2**
SGS Ref. #: 1071882002
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 85.3

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Semivolatile Organic Fuels Department

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	14100	467	mg/Kg	20	XFC7401	XXX18035	
5a Androstane <surr>	82.5	50-150	%	20	XFC7401	XXX18035	

Batch Information

Analytical Batch: XFC7401
Analytical Method: AK102
Analysis Date/Time: 05/30/07 11:27
Dilution Factor: 20

Prep Batch: XXX18035
Prep Method: SW3550B
Prep Date/Time: 05/23/07 12:35

Initial Prep Wt./Vol.: 30.133 g
Prep Extract Vol.: 1 mL
Container ID:1071882002-B
Analyst: JE

Client Sample ID: S-2
SGS Ref. #: 1071882002
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 85.3

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result		PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND		16.4	ug/Kg	1	VMS9087	VXX16705	
Toluene	ND		63.0	ug/Kg	1	VMS9087	VXX16705	
Ethylbenzene	ND		31.5	ug/Kg	1	VMS9087	VXX16705	
P & M -Xylene	ND		63.0	ug/Kg	1	VMS9087	VXX16705	
o-Xylene	ND		31.5	ug/Kg	1	VMS9087	VXX16705	
1,2-Dichloroethane-D4 <surr>	84.8	*	85-115	%	1	VMS9087	VXX16705	
Toluene-d8 <surr>	105		87-115	%	1	VMS9087	VXX16705	
4-Bromofluorobenzene <surr>	96.4		50-154	%	1	VMS9087	VXX16705	
Dibromofluoromethane <surr>	86.4		83-119	%	1	VMS9087	VXX16705	

Batch Information

Analytical Batch: VMS9087
Analytical Method: SW8260B
Analysis Date/Time: 05/24/07 04:48
Dilution Factor: 1

Prep Batch: VXX16705
Prep Method: SW5035A
Prep Date/Time: 05/23/07 20:00

Initial Prep Wt./Vol.: 46.51 g
Prep Extract Vol.: 25 mL
Container ID:1071882002-A
Analyst: KPW

Client Sample ID: **S-2**
SGS Ref. #: 1071882002
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 85.3

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	85.3		%		SPT7212		

Batch Information

Analytical Batch: SPT7212
Analytical Method: SM20 2540G
Analysis Date/Time: 05/22/07 12:00

Initial Prep Wt./Vol.: 1 mL

Container ID:1071882002-B
Analyst: NHN

Client Sample ID: S-3
SGS Ref. #: 1071882003
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 87.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Semivolatile Organic Fuels Department

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Diesel Range Organics	13200	448	mg/Kg	20	XFC7401	XXX18035	
5a Androstane <surr>	87.2	50-150	%	20	XFC7401	XXX18035	

Batch Information

Analytical Batch: XFC7401
Analytical Method: AK102
Analysis Date/Time: 05/30/07 11:43
Dilution Factor: 20

Prep Batch: XXX18035
Prep Method: SW3550B
Prep Date/Time: 05/23/07 12:35

Initial Prep Wt./Vol.: 30.47 g
Prep Extract Vol.: 1 mL
Container ID:1071882003-B
Analyst: JE

Client Sample ID: **S-3**
SGS Ref. #: 1071882003
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 87.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result		PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND		14.5	ug/Kg	1	VMS9087	VXX16705	
Toluene	ND		55.7	ug/Kg	1	VMS9087	VXX16705	
Ethylbenzene	ND		27.9	ug/Kg	1	VMS9087	VXX16705	
P & M -Xylene	ND		55.7	ug/Kg	1	VMS9087	VXX16705	
o-Xylene	ND		27.9	ug/Kg	1	VMS9087	VXX16705	
1,2-Dichloroethane-D4 <surr>	75.1	*	85-115	%	1	VMS9087	VXX16705	
Toluene-d8 <surr>	106		87-115	%	1	VMS9087	VXX16705	
4-Bromofluorobenzene <surr>	104		50-154	%	1	VMS9087	VXX16705	
Dibromofluoromethane <surr>	90		83-119	%	1	VMS9087	VXX16705	

Batch Information

Analytical Batch: VMS9087
Analytical Method: SW8260B
Analysis Date/Time: 05/24/07 05:23
Dilution Factor: 1

Prep Batch: VXX16705
Prep Method: SW5035A
Prep Date/Time: 05/23/07 23:00

Initial Prep Wt./Vol.: 51.03 g
Prep Extract Vol.: 25 mL
Container ID:1071882003-A
Analyst: KPW

Client Sample ID: S-3
SGS Ref. #: 1071882003
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 87.9

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	87.9		%		SPT7212		

Batch Information

Analytical Batch: SPT7212
Analytical Method: SM20 2540G
Analysis Date/Time: 05/22/07 12:00

Initial Prep Wt./Vol.: 1 mL

Container ID:1071882003-B
Analyst: NHN

Client Sample ID: Trip Blak
SGS Ref. #: 1071882004
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Volatile Gas Chromatography/Mass Spectroscopy

Parameter	Result		PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Benzene	ND		13.1	ug/Kg	1	VMS9094	VXX16715	
Toluene	ND		50.2	ug/Kg	1	VMS9087	VXX16705	
Ethylbenzene	ND		25.1	ug/Kg	1	VMS9087	VXX16705	
P & M -Xylene	ND		50.2	ug/Kg	1	VMS9087	VXX16705	
o-Xylene	ND		25.1	ug/Kg	1	VMS9087	VXX16705	
1,2-Dichloroethane-D4 <surr>	126	*	85-115	%	1	VMS9094	VXX16715	
1,2-Dichloroethane-D4 <surr>	951	*		ug/Kg	1	VMS9094	VXX16715	
Toluene-d8 <surr>	112		87-115	%	1	VMS9087	VXX16705	
4-Bromofluorobenzene <surr>	111		50-154	%	1	VMS9087	VXX16705	
Dibromofluoromethane <surr>	86.6		83-119	%	1	VMS9087	VXX16705	

Batch Information

Analytical Batch: VMS9087
Analytical Method: SW8260B
Analysis Date/Time: 05/24/07 05:58
Dilution Factor: 1
Prep Batch: VXX16705
Prep Method: SW5035A
Prep Date/Time: 05/23/07 20:00
Initial Prep Wt./Vol.: 49.79 g
Prep Extract Vol.: 25 mL
Container ID:1071882004-A
Analyst: KPW

Analytical Batch: VMS9094
Analytical Method: SW8260B
Analysis Date/Time: 05/26/07 01:19
Dilution Factor: 1
Prep Batch: VXX16715
Prep Method: SW5035A
Prep Date/Time: 05/14/07 17:00
Initial Prep Wt./Vol.: 49.79 g
Prep Extract Vol.: 25 mL
Container ID:1071882004-A
Analyst: KPW

Client Sample ID: **Trip Blak**
SGS Ref. #: 1071882004
Project ID: Civil Air Patrol
Matrix: Soil/Solid
Percent Solids: 100

All Dates/Times are Alaska Local Time
Collection Date/Time: 05/14/07 17:00
Receipt Date/Time: 05/17/07 09:00

Solids

Parameter	Result	PQL/CL	Units	DF	Analytical Batch	Prep Batch	Qualifiers
Total Solids	100		%		SPT7212		

Batch Information

Analytical Batch: SPT7212
Analytical Method: SM20 2540G
Analysis Date/Time: 05/22/07 12:00

Initial Prep Wt./Vol.: 1 mL

Container ID:1071882004-A
Analyst: NHN

SGS

SGS Ref.#	764893 Method Blank	Printed Date/Time	06/04/2007 11:10
Client Name	Rockwell Engineering & Construction	Prep Batch	XXX18035
Project Name/#	Civil Air Patrol	Method	SW3550B
Matrix	Soil/Solid	Date	05/23/2007

QC results affect the following production samples:
1071882001, 1071882002, 1071882003

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	ND	19.9	1.99	mg/Kg	05/24/07
Surrogates					
5a Androstane <surr>	76	60-120		%	05/24/07
Batch	XFC7395				
Method	AK102				
Instrument	HP 5890 Series II FID SV D R				

SGS

SGS Ref.#	764976 Method Blank	Printed Date/Time	06/04/2007 11:10
Client Name	Rockwell Engineering & Construction	Prep Batch	
Project Name/#	Civil Air Patrol	Method	
Matrix	Soil/Solid	Date	

QC results affect the following production samples:
1071882001, 1071882002, 1071882003, 1071882004

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Solids					
Total Solids	100			%	05/22/07
Batch SPT7212					
Method SM20 2540G					
Instrument					

SGS

SGS Ref.#	765367 Method Blank	Printed Date/Time	06/04/2007 11:10
Client Name	Rockwell Engineering & Construction	Prep Batch	VXX16705
Project Name/#	Civil Air Patrol	Method	SW5035A
Matrix	Soil/Solid	Date	05/23/2007

QC results affect the following production samples:
1071882001, 1071882002, 1071882003, 1071882004

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	ND	13.0	3.90	ug/Kg	05/23/07
Toluene	ND	50.0	15.0	ug/Kg	05/23/07
Ethylbenzene	ND	25.0	7.80	ug/Kg	05/23/07
P & M -Xylene	ND	50.0	15.0	ug/Kg	05/23/07
o-Xylene	ND	50.0	15.0	ug/Kg	05/23/07
Surrogates					
Dibromofluoromethane <surr>	118	83-119		%	05/23/07
1,2-Dichloroethane-D4 <surr>	105	85-115		%	05/23/07
Toluene-d8 <surr>	112	87-115		%	05/23/07
4-Bromofluorobenzene <surr>	118	50-154		%	05/23/07

Batch VMS9087
Method SW8260B
Instrument HP 5890 Series II MS5 VLA

SGS

SGS Ref.#	765758 Method Blank	Printed Date/Time	06/04/2007 11:10
Client Name	Rockwell Engineering & Construction	Prep Batch	VXX16715
Project Name/#	Civil Air Patrol	Method	SW5035A
Matrix	Soil/Solid	Date	05/25/2007

QC results affect the following production samples:
1071882004

Parameter	Results	Reporting/Control Limit	MDL	Units	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy					
Benzene	ND	13.0	3.90	ug/Kg	05/25/07
Surrogates					
Dibromofluoromethane <surr>	103	83-119		%	05/25/07
1,2-Dichloroethane-D4 <surr>	114	85-115		%	05/25/07
Toluene-d8 <surr>	94.5	87-115		%	05/25/07
4-Bromofluorobenzene <surr>	114	50-154		%	05/25/07

Batch VMS9094
Method SW8260B
Instrument HP 5890 Series II MSI VMA

SGS

SGS Ref.#	764977 Duplicate	Printed Date/Time	06/04/2007 11:10
Client Name	Rockwell Engineering & Construction	Prep Batch	
Project Name/#	Civil Air Patrol	Method	
		Date	
Original	1071882002		
Matrix	Soil/Solid		

QC results affect the following production samples:
1071882001, 1071882002, 1071882003, 1071882004

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
Solids						
Total Solids	85.3	85.2	%	0	(< 5)	05/22/2007
Batch SPT7212						
Method SM20 2540G						
Instrument						

SGS

SGS Ref.#	764894 Lab Control Sample	Printed	Date/Time	06/04/2007	11:10
	764895 Lab Control Sample Duplicate	Prep	Batch	XXX18035	
Client Name	Rockwell Engineering & Construction		Method	SW3550B	
Project Name/#	Civil Air Patrol		Date	05/23/2007	
Matrix	Soil/Solid				

QC results affect the following production samples:

1071882001, 1071882002, 1071882003

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Semivolatile Organic Fuels Department								
Diesel Range Organics	LCS	26.8	81	(75-125)			33 mg/Kg	05/24/2007
	LCSD	29.1	88		8	(< 20)	33.1 mg/Kg	05/24/2007
Surrogates								
5a Androstane <surr>	LCS		70	(60-120)				05/24/2007
	LCSD		70		0			05/24/2007

Batch	XFC7395
Method	AK102
Instrument	HP 5890 Series II FID SV D R

SGS

SGS Ref.#	765368 Lab Control Sample	Printed Date/Time	06/04/2007 11:10
		Prep Batch	VXX16705
Client Name	Rockwell Engineering & Construction	Method	SW5035A
Project Name/#	Civil Air Patrol	Date	05/23/2007
Matrix	Soil/Solid		

QC results affect the following production samples:
1071882001, 1071882002, 1071882003, 1071882004

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Benzene	LCS	890	119	(85-121)			750 ug/Kg	05/23/2007
Toluene	LCS	813	108	(86-116)			750 ug/Kg	05/23/2007
Ethylbenzene	LCS	789	105	(85-115)			750 ug/Kg	05/23/2007
P & M -Xylene	LCS	1610	108	(85-115)			1500 ug/Kg	05/23/2007
o-Xylene	LCS	784	104	(85-115)			750 ug/Kg	05/23/2007
Surrogates								
Dibromofluoromethane <surr>	LCS		105	(83-119)				05/23/2007
1,2-Dichloroethane-D4 <surr>	LCS		106	(85-115)				05/23/2007
Toluene-d8 <surr>	LCS		110	(87-115)				05/23/2007
4-Bromofluorobenzene <surr>	LCS		101	(50-154)				05/23/2007

Batch	VMS9087
Method	SW8260B
Instrument	HP 5890 Series II MS5 VLA

SGS Ref.# 765759 Lab Control Sample

Printed Date/Time 06/04/2007 11:10
Prep Batch VXX16715
Method SW5035A
Date 05/25/2007

Client Name Rockwell Engineering & Construction
Project Name/# Civil Air Patrol
Matrix Soil/Solid

QC results affect the following production samples:
1071882004

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy								
Benzene	LCS	661	88	(85-121)			750 ug/Kg	05/25/2007
Surrogates								
Dibromofluoromethane <surr>	LCS		109	(83-119)				05/25/2007
1,2-Dichloroethane-D4 <surr>	LCS		131 *	(85-115)				05/25/2007
Toluene-d8 <surr>	LCS		91	(87-115)				05/25/2007
4-Bromofluorobenzene <surr>	LCS		109	(50-154)				05/25/2007

Batch VMS9094
Method SW8260B
Instrument HP 5890 Series II MS1 VMA

SGS

SGS Ref.#	765369	Matrix Spike	Printed	Date/Time	06/04/2007 11:10
	765370	Matrix Spike Duplicate	Prep	Batch	VXX16705
				Method	Vol. Extraction SW8260 Feld I
				Date	05/23/2007
Original	1071867001				
Matrix	Soil/Solid				

QC results affect the following production samples:
1071882001, 1071882002, 1071882003, 1071882004

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	548	97	(85-121)			565 ug/Kg	05/23/2007
	MSD		634	112		15	(< 20)	565 ug/Kg	05/23/2007
Toluene	MS	ND	593	105	(86-116)			565 ug/Kg	05/23/2007
	MSD		584	103		2	(< 20)	565 ug/Kg	05/23/2007
Ethylbenzene	MS	ND	595	105	(85-115)			565 ug/Kg	05/23/2007
	MSD		595	105		0	(< 20)	565 ug/Kg	05/23/2007
P & M -Xylene	MS	ND	1220	108	(85-115)			1130 ug/Kg	05/23/2007
	MSD		1200	106		2	(< 20)	1130 ug/Kg	05/23/2007
o-Xylene	MS	ND	608	108	(85-115)			565 ug/Kg	05/23/2007
	MSD		601	106		1	(< 20)	565 ug/Kg	05/23/2007
Surrogates									
Dibromofluoromethane <surr>	MS		584	103	(83-119)				05/23/2007
	MSD		711	126*		20			05/23/2007
1,2-Dichloroethane-D4 <surr>	MS		563	100	(85-115)				05/23/2007
	MSD		675	119*		18			05/23/2007
Toluene-d8 <surr>	MS		608	108	(87-115)				05/23/2007
	MSD		589	104		3			05/23/2007
4-Bromofluorobenzene <surr>	MS		1570	104	(50-154)				05/23/2007
	MSD		1590	105		1			05/23/2007

Batch	VMS9087
Method	SW8260B
Instrument	HP 5890 Series II MS5 VLA

SGS

SGS Ref.#	765760	Matrix Spike	Printed	Date/Time	06/04/2007 11:10
	765761	Matrix Spike Duplicate	Prep	Batch	VXX16715
				Method	Vol. Extraction SW8260 Feld I
				Date	05/25/2007
Original	1072273003				
Matrix	Soil/Solid				

QC results affect the following production samples:

1071882004

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	ND	374	86	(85-121)			437 ug/Kg	05/25/2007
	MSD		393	90		5	(< 20)	437 ug/Kg	05/25/2007
Surrogates									
Dibromofluoromethane <surr>	MS		455	104	(83-119)				05/25/2007
	MSD		472	108		4			05/25/2007
1,2-Dichloroethane-D4 <surr>	MS		508	110*	(85-115)				05/25/2007
	MSD		520	119*		2			05/25/2007
Toluene-d8 <surr>	MS		386	88	(87-115)				05/25/2007
	MSD		391	89		1			05/25/2007
4-Bromofluorobenzene <surr>	MS		987	85	(50-154)				05/25/2007
	MSD		933	80		6			05/25/2007

Batch	VMS9094
Method	SW8260B
Instrument	HP 5890 Series II MS1 VMA

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations: • Alaska • Louisiana • New Jersey • West Virginia

1071882

1

CLIENT: Rockwell Engineering
CONTACT: Clayton Dunn — PHONE NO: ( )
PROJECT: Civil Air Patrol — SITE/PWSID#:
REPORTS TO: — E-MAIL: cdunn@rockwellcorp@acsalaska.net
FAX NO.: ( )
INVOICE TO: — QUOTE #
P.O. NUMBER

SGS Reference:

PAGE ____ OF ____

2 / **3**

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	BTEX 8021	DRO	REMARKS
1 A-B	S-1	5/14	5:00pm				X	X	
2 ↓	S-2	5/14	5:00pm				X	X	
3 ↓	S-3	5/14	5:00pm				X	X	
4 A	trip Blank						X		

Preservatives Used / Analysis Required

5

Relinquished	Date	Time	Received By
Collected/Relinquished By: (1) Clayton D	5/16/07	11:00	Sunny Castleberry
Relinquished By: (2) [signature] SC	5/16/07	1600	Received By: SC ~~Sunny Castleberry~~
Relinquished By: (3) Sunny Castleberry	5/16/07	1640	Received By:
Relinquished By: (4)	5/17/07	0900	Received By: [signature]

4

Shipping Carrier: hand
Shipping Ticket No:
Special Deliverable Requirements:
Samples Received Cold? (Circle) (YES) NO
Temperature °C: CT: 5.8°C ; TB: 4.6°C
Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT)
Requested Turnaround Time and Special Instructions:

□ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
□ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557
□ 1270 Greenbrier Street Charleston, WV 25311 Tel: (304) 346-0725 Fax: (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

SGS

SAMPLE RECEIPT FORM

SGS WO#: 1071882

Yes	No	NA	
	X		Are samples RUSH, priority, or *w/n 72 hrs.* of hold time?
		X	If yes have you done *e-mail notification*?
	X		Are samples *within 24 hrs.* of hold time or due date?
		X	If yes, have you *spoken with* Supervisor?
		X	Archiving bottles – if req., are they properly marked?
		X	Are there any problems? PM Notified? ______
		X	Were samples preserved correctly and pH verified?
		X	If this is for PWS, provide PWSID. ______
		X	Will courier charges apply?
		X	Method of payment? ______
X			Data package required? (Level: 1 / (2) / 3 / 4)
			Notes: ______
	X		Is this a DoD project? (USACE, Navy, AFCEE)

Due Date: 5/31/07

Received Date: 5/16/07

Received Time: 1100

Is date/time conversion necessary? ______

# of hours to AK Local Time: ______

Thermometer ID: Logastim 7LD

Cooler ID	Temp Blank	Cooler Temp
1	4.6 °C	5.2 °C
	°C	°C
	°C	°C
	°C	°C
	°C	°C

*Temperature readings include thermometer correction factors

Delivery method (circle all that apply): (Client) / Alert Courier / UPS / FedEx / USPS / AA Goldstreak / NAC / ERA / PenAir / Carlile Lynden / SGS / Other: ______

Airbill # ______

Additional Sample Remarks: (√ *if applicable*)

- ______ Extra Sample Volume?
- ______ Limited Sample Volume?
- X Field preserved for volatiles?
- ______ Field-filtered for dissolved? ______
- ______ Lab-filtered for dissolved? ______
- ______ Ref Lab required? ______
- ______ Foreign Soil?

This section must be filled out for DoD projects (USACE, Navy, AFCEE)

Yes	No	
		Is received temperature 4 $\pm$ 2°C?
		Exceptions: ______ Samples/Analyses Affected: ______
		Rad Screen performed? Result: ______
		Was there an airbill? *(Note # above in the right hand column)*
		Was cooler sealed with custody seals?
		# / where: ______
		Were seal(s) intact upon arrival?
		Was there a COC with cooler?
		Was COC sealed in plastic bag & taped inside lid of cooler?
		Was the COC filled out properly?
		Did the COC indicate COE / AFCEE / Navy project?
		Did the COC and samples correspond?
		Were all sample packed to prevent breakage?
		Packing material: ______
		Were all samples unbroken and clearly labeled?
		Were all samples sealed in separate plastic bags?
		Were all VOCs free of headspace and/or MeOH preserved?
		Were correct container / sample sizes submitted?
		Is sample condition good?
		Was copy of CoC, SRF, and custody seals given to PM to fax?

This section must be filled if problems are found.

Yes	No	
		Was client notified of problems?

Individual contacted: ______

Via: Phone / Fax / Email (*circle one*)

Date/Time: ______

Reason for contact: ______

Change Order Required? ______

SGS Contact: ______

Notes: ______

Completed by (sign): Sunny Castleberry (print): Sunny Castleberry

Login proof (check one): waived ______ required X performed by: [signature]

DOCUMENT\FORMS\approved\SRF_F004r15.doc Form # F004r15 6/6/5

SGS

SGS WO#: 1071882

SAMPLE RECEIPT FORM FOR TRANSFERS
From
FAIRBANKS, ALASKA OR HONOLULU, HAWAII
To

ANCHORAGE, AK

TO BE COMPLETED IN ANCHORAGE UPON ARRIVAL FROM FAIRBANKS OR HAWAII. NOTES RECORDED BELOW ARE ACTIONS NEEDED UPON ARRIVAL IN ANCHORAGE.

Notes: _____

_____

_____

_____

_____

Receipt Date / Time: 5-17-07 0900

Is Sample Date/Time Conversion Necessary? Yes _____ No ✓

Number of Hours From Alaska Local Time: _____

Foreign Soil? Yes _____ No ✓

Delivery method to Anchorage (*circle all that apply*):

Alert Courier / UPS / FedEx / USPS / AA Goldstreak / NAC / ERA / PenAir / Carlile / (Lynden) / SGS

Other: _____

Airbill # _____

COOLER AND TEMP BLANK READINGS*

Cooler ID	Temp Blank (°C)	Cooler (°C)	Cooler ID	Temp Blank (°C)	Cooler (°C)
1	7.4	3.4			

CUSTODY SEALS INTACT: (YES) / NO
#'s / WHERE: Lonfront, lonback

COMPLETED BY: JLT

**Temperature readings include thermometer correction factors.*

1071882

SGS

SAMPLE RECEIPT FORM (page 2)

SGS WO#:

#	Container ID	Matrix	Test	QC	TB	Container Volume: 1 L	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	4oz (125 mL)	Other	Container Type: AG	CG	HDPE	Nalgene	Cubie	Coli	Septa	Other	Preservative: None	HCl	HNO_3	H_2SO_4	MeOH	$Na_2S_2O_3$	NaOH	Other
1-3	A	2	BTEX										3		X						X						X			
	B		DRO									3			X								X							
4	A	2	BTEX		X								1		X						X						X			

Page 31 of 32

Bottle Totals								3	4	

Completed by: Sunny Castleberry Date: 5/16/07

C:\Documents and Settings\scastleberry.FAIRBANKS\Local Settings\Temporary Internet Files\OLK10C\F004r15_SampleReceiptForm_pg12.doc

1071882

SGS Environmental CUSTODY SEAL WO# 1880, 1881, 1882

Signature: Sunny Castleberry Date/Time: 5/16/07 1640

SGS Environmental CUSTODY SEAL WO# 1880, 1881, 1882

Signature: Sunny Castleberry Date/Time: 5/16/07 1640

TB=7.4
C=3.4