MOUNTAIN
Environmental Group

environmental consulting • assessment • remediation • waste management

August 13, 2008

Mr. Barry Jones
NFSNC HAZMAT Coordinator
USDA Forest Service, R8
160A Zillicoa Street
Asheville, NC 28801

Re: **Soil Assessment Activities**
Upper Tellico OHV Trails 2, 7, and 9
Murphy, North Carolina

Dear Mr. Jones,

Mountain Environmental Group (MEG) has been contracted by The United States Department of Agriculture Forest Service (USFS) to conduct soil sampling at three sites within the Upper Tellico Off-Highway Vehicle (OHV) Area. These three sites are known as 'challenge' areas and were heavily utilized by 4-wheel drive vehicles prior to closure in 2007. A site topographic map is included as ***Figure 1***.

Overview of the Scope of Work

The objective of soil sampling activities was to determine whether OHV use in the subject areas has resulted in a significant release of automotive fluids to area soils. Some materials of concern that might impact area soils include antifreeze, fuels (diesel and gasoline), lead batteries, motor oils, brake fluids, differential oils, hydraulic oils, steering fluids, transmission fluids, and mercury switches. Samples were analyzed for total petroleum hydrocarbons as diesel and gasoline range organics (TPH-DRO/GRO), oil and grease, arsenic, cadmium, chromium, lead, and mercury. MEG submitted the soil samples to Pace Analytical Laboratory (Pace) in Asheville, NC for analysis.

MEG personnel conducted soil sampling activities on July 17, 2008 at the three 'challenge' areas as identified by the USFS. Each area was located utilizing a Garmin Etrex GPS unit. This included Trail 2 'Rock Garden', Trail 7 'Cliff', and Trail 9 'Slick Rock'. The soil samples were collected at various points within each 'challenge' area ranging from visually stained surface soils to hand-augered soil samples within the man-made sediment traps. ***Figure 2*** is a sample/trail location map.

Trail 2 – Rock Garden

On July 17, 2008, five soil samples (T2-1, T2-2, T2-3, T2-4, and T2-5) were collected from Trail 2 at the Rock Garden (35° 15' 18.74"N 84° 04' 52.70"W). Soil samples T2-1 and T2-2 were

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collected at approximately 3-4 feet below ground surface (BGS) from the lower sediment trap as depicted in photographs 1, 2, and 3 (***Appendix A***). Soil sample T2-3 was collected at approximately 3-4 feet BGS from a middle sediment trap as depicted in photograph 4. Soil sample T2-4 was collected at approximately 3-4 feet BGS from an upper sediment trap as depicted in photograph 5. Soil sample T2-5 was collected at the surface within the 'Rock Garden' were visually stained soils were apparent as depicted in photograph 6. The five soil samples collected from the Rock Garden were analyzed for TPH-DRO/GRO, oil and grease, arsenic, cadmium, chromium, lead, and mercury.

According to the Pace analytical report included in ***Appendix B***, TPH-DRO was detected above the North Carolina Department of Environment and Natural Resources (NCDENR) Action Level in samples T2-1 and T2-5 at a concentration of 61.8 milligrams per kilogram (mg/kg) and 151 mg/kg, respectively. The analyte oil and grease was also detected above the NCDENR Action Level in T2-5 at a concentration of 439 mg/kg. The analyte cadmium was detected above the United States Environmental Protection Agency Region IV Ecological Screening Values for Freshwater Sediments (EPA Region IV ESVs for sediments) in soil samples T2-1, T2-2, T2-3, T2-4, and T2-5 at concentrations of 1.9 mg/kg, 2.7 mg/kg, 3.6 mg/kg, 1.8 mg/kg, and 1.9 mg/kg, respectively. Please note that EPA screening values for terrestrial soils are in the process of being established and that freshwater sediment values are utilized strictly for comparative purposes.

A table summarizing soil sampling results for Trail 2 Rock Garden is included as ***Table 1a***. A photographic summary is included as ***Appendix A*** and the laboratory analytical report for the samples collected on July 17, 2008 is included as ***Appendix B***.

Trail 7 – The Cliff

On July 17, 2008, three soil samples (T7-1, T7-2, and T7-3,) were collected from Trail 7 at the Cliff (35° 16' 12.20" N 84° 02' 50.10"W). Soil sample T7-1 was collected at approximately 3-4 feet BGS from the lower sediment trap as depicted in photographs 7 and 8. Soil sample T7-2 was collected from surface stained soils just below the Cliff as depicted in photograph 9. Soil sample T7-3 was collected from surface stained soils just above the Cliff as depicted in photograph 10. The three soil samples collected from the Cliff were analyzed for TPH-DRO/GRO, oil and grease, arsenic, cadmium, chromium, lead, and mercury.

According to the Pace analytical report included in ***Appendix B***, TPH-DRO was detected above the NCDENR Action Level in samples T7-1, T7-2, and T7-3 at concentrations of 77.6 mg/kg, 121 mg/kg, and 6,270 mg/kg, respectively. The analyte oil and grease was also detected above the NCDENR Action Level in T7-2 and T7-3 at a concentration of 1,230 mg/kg and 9,870 mg/kg, respectively. The analyte arsenic was detected above the EPA Region IV ESVs for sediments and the NCDENR Health-based Soil Remediation Goals (SRGs) in soil samples T7-1 and T7-2 at concentrations of 7.4 mg/kg and 17.8 mg/kg, respectively. The analyte cadmium was detected above the EPA Region IV ESVs (sediments) in soil samples T7-1, T7-2 and T7-3 at concentrations of 1.6 mg/kg, 2.4 mg/kg, and 1.8 mg/kg, respectively.

A table summarizing soil sampling results for Trail 7 Cliff is included as **Table 1b**. A photographic summary is included as ***Appendix A*** and the laboratory analytical report for the samples collected on July 17, 2008 is included as ***Appendix B***.

Trail 9 – Slick Rock

On July 17, 2008, two soil samples (T9-1 and T9-2) were collected from Trail 9 at the Slickrock (35° 16' 5.7" N 84° 02' 30.6"W). Soil sample T9-1 was collected at approximately 3-4 feet BGS from the lower sediment trap as depicted in photograph 11 and 13 (***Appendix A***). Soil sample T9-2 was collected from surface stained soils from the upper portion of the Slickrock as depicted in photographs 12 and 13. The two soil samples collected from the Slickrock were analyzed for TPH-DRO/GRO, oil and grease, arsenic, cadmium, chromium, lead, and mercury.

According to the Pace analytical report included in ***Appendix B***, TPH-DRO was detected above the NCDENR Action Level in sample T9-2 at a concentration of 61 mg/kg. The analyte oil and grease was also detected above the NCDENR Action Level in T9-2 at a concentration of 708 mg/kg. The analyte arsenic was detected above the EPA Region IV ESVs for sediments in soil samples T9-1 and T9-2 at concentrations of 1.9 mg/kg and 2.3 mg/kg, respectively.

A table summarizing soil sampling results for Trail 9 Slickrock is included as **Table 1b**. A photographic summary is included as ***Appendix A*** and the laboratory analytical report for the samples collected on July 17, 2008 is included as ***Appendix B***.

Conclusions

On July 17, 2008, MEG performed soil assessment activities associated with Trail 2 'Rock Garden', Trail 7 'Cliff', and Trail 9 'Slickrock' in order to determine whether there was automotive fluid impact to soils in these areas. The soil samples were collected at selected locations within each 'challenge' area ranging from surface soils collected at visually stained locations to hand auger soil samples within the man-made sediment traps. The soil samples were submitted to Pace Analytical Laboratory (Pace) in Asheville, NC for analysis of TPH-DRO/GRO, oil and grease, arsenic, cadmium, chromium, lead, and mercury. Based on laboratory analytical results, it appears that automotive fluid spillage at these locations has impacted area soils. Additional assessment will be required to determine the extent of impact to area soils and to compare the observed analyte concentrations with background concentrations.

The following analytes were detected in soil samples exceeding one or more of the corresponding NCDENR Action Levels, NCDENR Health-based SRGs or EPA Region IV ESVs for sediments:

TPH-DRO: T2-1 (61.8 mg/kg), T2-5 (152 mg/kg), T7-1 (77.6 mg/kg), T7-2 (121 mg/kg), T7-3 (6,270 mg/kg), and T9-2 (61 mg/kg).

Oil and Grease: T2-5 (439 mg/kg), T7-2 (1,230 mg/kg), T7-3 (9,870 mg/kg), and T9-2 (708 mg/kg).

Arsenic: T7-1 (7.4 mg/kg) and T7-2 (17.8 mg/kg).

Cadmium: T2-1 (1.9 mg/kg), T2-2 (2.7 mg/kg), T2-3 (3.6 mg/kg), T2-4 (1.8 mg/kg), T2-5 (1.9 mg/kg), T7-1 (1.6 mg/kg), T7-2 (2.4 mg/kg), T7-3 (1.8 mg/kg), T9-1 (1.9 mg/kg), T9-2 (2.3 mg/kg).

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The analytes chromium, lead, and mercury were also present above the laboratory reporting limit in one or all of the soil samples collected from the three challenge areas but below the corresponding regulatory standards.

The action levels set by NCDENR for DRO and oil and grease for above ground releases are 40 mg/kg and 250 mg/kg, respectively. State law requires that measurable releases of petroleum products be reported to the North Carolina Department of Environment and Natural Resources (NCDENR) UST Section. MEG has discussed sampling results with Ms. Jan Andersen of NCDENR – Asheville Branch. Ms. Andersen confirmed that these results should be reported to NCDENR. MEG also discussed sampling results with Ms. Nancy McKee of EPA Region IV. Ms. McKee indicated that the USFS would be required to remediate soil impact; however, there was no reporting requirement to EPA unless impact to surface water has been confirmed. Laboratory analytical results have been compared in the text of this report, and in the attached tables, to both NCDENR and EPA Region IV standards. Further coordination with NCDENR and/or EPA Region IV may be necessary to confirm the applicable standards for these sites.

If you have any questions or require assistance, please do not hesitate to contact me at 828-458-2240.

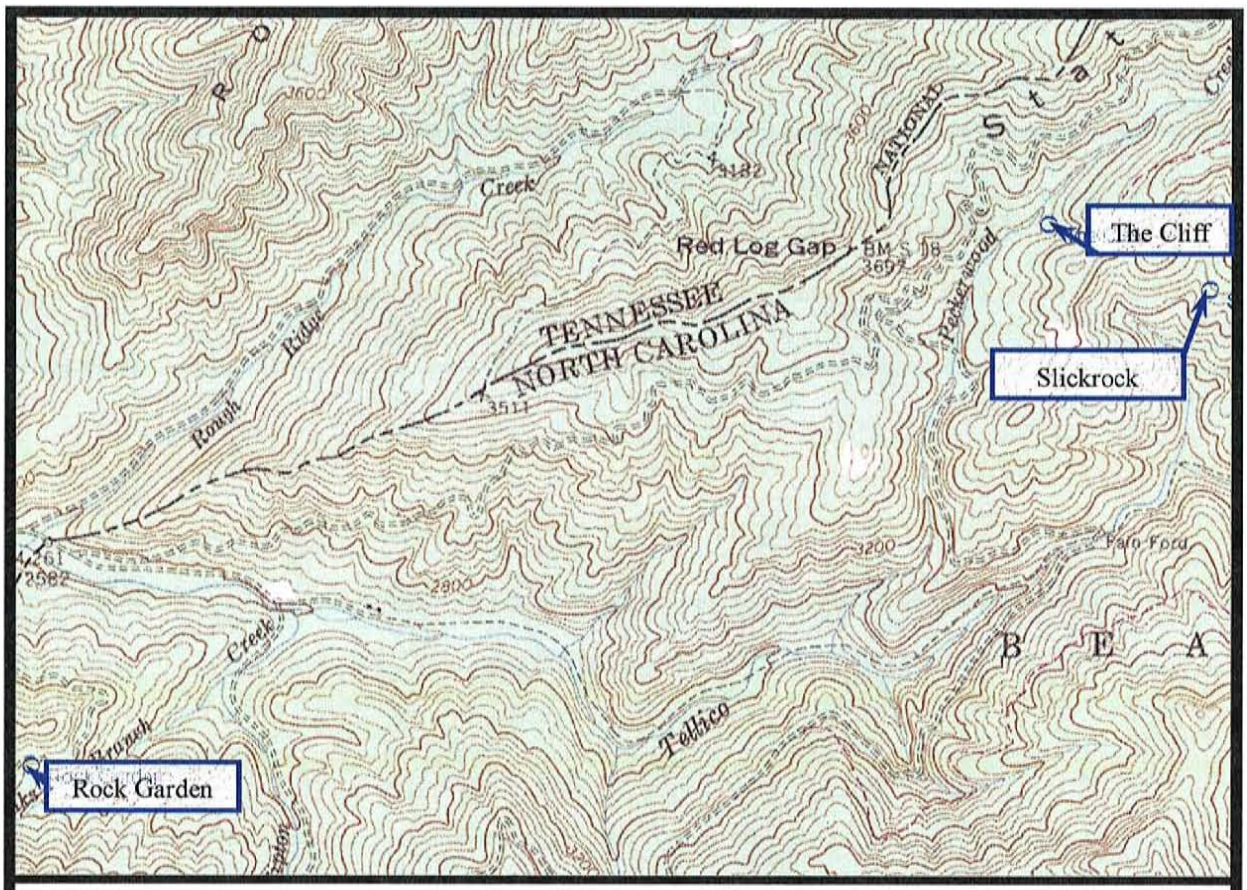
Sincerely,

Justin 'Judd' Mahan, PG
Project Manager

NORTH CAROLINA LICENSED SEAL 2026 GEOLOGIST JUSTIN D. MAHAN

FIGURES

BIG JUNCTION QUADRANGLE
TENNESSEE-NORTH CAROLINA
7.5 MINUTE SERIES (TOPOGRAPHIC) 140-SE

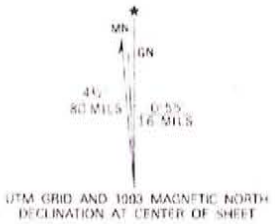


SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

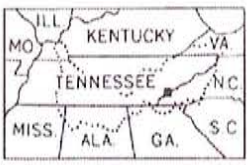
1 .5 0 1 KILOMETER



UTM GRID AND 1993 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

BIG JUNCTION, TENN.-N.C.
N3515—W8400/7.5

1957
PHOTOREVISED 1978
AMS 4154 I SE-SERIES V841



QUADRANGLE LOCATION

Figure 1
Site Topographic Map
Tellico Off Road Vehicle Area
Tellico, NC

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Tellic Offroad Vehicle Area
Nantahala National Forest
Murphy, NC

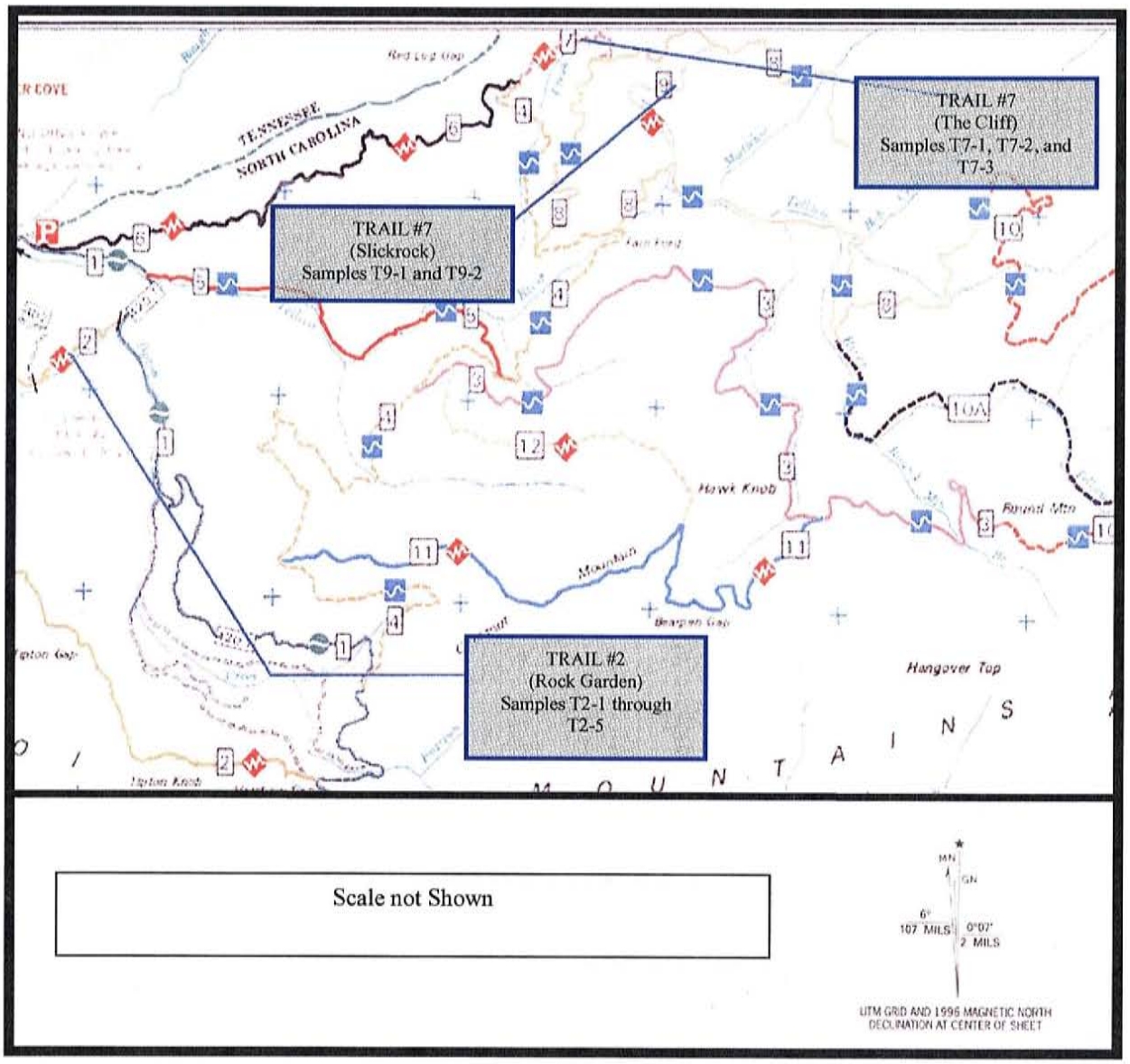

Figure 2
Sample Location/Trail Map
Tellico Offroad Vehicle Area
Murphy, NC

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TABLES

Table 1a
Soil Analytical Results - Trail 2 "Rock Garden"

Tellico Off-highway Vehicle Area
Murphy, North Carolina

Sample ID: / Date Collected:	NCDENR Action Level	NCDENR Soil-to-Water MCCs	NCDENR Health-based SRGs	EPA Region IV ES Values (Sediments)	Units	T2-1 (3-4') 07/17/08	T2-2(3-4') 07/17/08	T2-3 (3-4') 07/17/08	T2-4 (3-4') 07/17/08	T2-5 (Surface) 07/17/08
TPH-DRO (EPA 8015/3546)	**40**	- -	- -	- -	mg/kg	**61.8**	21.8	ND	23.3	**152**
TPH-GRO (EPA 8015/5030)	10	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND
Oil & Grease (EPA 9071)	**250**	- -	- -	- -	mg/kg	ND	ND	ND	ND	**439**
Arsenic (EPA 6010)	- -	- -	4.4*	7.24	mg/kg	1.8	3.7	4.3	1.8	3.5
Cadmium (EPA 6010)	- -	- -	7.4*	**1.0**	mg/kg	**1.9**	**2.7**	**3.6**	**1.8**	**1.9**
Chromium (EPA 6010)	- -	27	44*	52.3	mg/kg	19.1	21.8	26.6	16.7	17.5
Lead (EPA 6010)	- -	270	400	30.2	mg/kg	10.8	11.8	15.2	9.4	11.2
Mercury (EPA 7471)	- -	- -	4.6	0.13	mg/kg	0.026	0.023	0.16	0.018	0.032

Notes:
1. NCDENR Soil-to-Water MCCs - North Carolina Department of Environment and Natural Resources Soil-to-Water Maximum Contaminant Concentrations.
2. SRGs - Soil Remediation Goals
3. -- none defined.
4. ND - None Detected.
5. EPA Region IV ES Values (Sediments) - Environmental Protection Agency Region IV Ecological Screening Values - Freshwater Sediments.
6. Arsenic (4.4)* - NCDENR Health-based SRGs are calculated by different methods depending upon whether the compound is carcinogenic or non-carcinogenic. Arsenic exhibits both carcinogenic and non-carcinogenic effects. Normally, the lower of the two values would be used. However, in this case the carcinogenic value is below the method detection limit; therefore, NCDENR lists the non-carcinogenic value.
7. Cadmium (7.4)* - Cadmium exhibits both carcinogenic and non-carcinogenic effects. The lower goal is listed.
8. Chromium (44)* - EPA Method 6010 is for total chromium. The listed goal is the lower, for chromium VI.
9. Standards in bold have been exceeded.

Table 1b
Soil Analytical Results - Trail 7 "The Cliff"

Tellico Off-highway Vehicle Area
Murphy, North Carolina

Sample ID: / Date Collected:	NCDENR Action Level	NCDENR Soil-to-Water MCCs	NCDENR Health-based SRGs	EPA Region IV ES Values (Sediments)	Units	T7-1 (3-4') 07/17/08	T7-2 (surface) 07/17/08	T7-3 (surface) 07/17/08
TPH-DRO (EPA 8015/3546)	**40**	--	--	--	mg/kg	**77.6**	**121**	**6,270**
TPH-GRO (EPA 8015/5030)	10	--	--	--	mg/kg	ND	ND	ND
Oil & Grease (EPA 9071)	**250**	--	--	--	mg/kg	248	**1,230**	**9,870**
Arsenic (EPA 6010)	--	--	**4.4***	**7.24**	mg/kg	**7.4**	**17.8**	4.1
Cadmium (EPA 6010)	--	--	7.4*	**1.0**	mg/kg	**1.6**	**2.4**	**1.8**
Chromium (EPA 6010)	--	27	44*	52.3	mg/kg	21.5	19.4	17.2
Lead (EPA 6010)	--	270	400	30.2	mg/kg	15.7	5.9	7.5
Mercury (EPA 7471)	--	--	4.6	0.13	mg/kg	0.052	0.010	0.028

Notes:
1. NCDENR Soil-to-Water MCCs - North Carolina Department of Environment and Natural Resources Soil-to-Water Maximum Contaminant Concentrations.
2. SRGs - Soil Remediation Goals
3. -- none defined.
4. ND - None Detected.
5. EPA Region IV ES Values (Sediments) - Environmental Protection Agency Region IV Ecological Screening Values - Freshwater Sediments.
6. Arsenic (4.4)* - NCDENR Health-based SRGs are calculated by different methods depending upon whether the compound is carcinogenic or non-carcinogenic. Arsenic exhibits both carcinogenic and non-carcinogenic effects. Normally, the lower of the two values would be used. However, in this case the carcinogenic value is below the method detection limit; therefore, NCDENR lists the non-carcinogenic value.
7. Cadmium (7.4)* - Cadmium exhibits both carcinogenic and non-carcinogenic effects. The lower goal is listed.
8. Chromium (44)* - EPA Method 6010 is for total chromium. The listed goal is the lower, for chromium VI.
9. Standards in bold have been exceeded.

Table 1c
Soil Analytical Results - Trail 9 "Slickrock"

Tellico Off-highway Vehicle Area
Murphy, North Carolina

Sample ID: / Date Collected:	NCDENR Action Level	NCDENR Soil-to-Water MCCs	NCDENR Health-based SRGs	EPA Region IV ES Values (Sediments)	Units	T9-1 (3-4') 07/17/08	T9-2 (surface) 07/17/08
TPH-DRO (EPA 8015/3546)	**40**	--	--	--	mg/kg	24.3	**61**
TPH-GRO (EPA 8015/5030)	10	--	--	--	mg/kg	ND	ND
Oil & Grease (EPA 9071)	**250**	--	--	--	mg/kg	ND	**708**
Arsenic (EPA 6010)	--	--	4.4*	7.24	mg/kg	4.0	2.0
Cadmium (EPA 6010)	--	--	7.4*	**1.0**	mg/kg	**1.9**	**2.3**
Chromium (EPA 6010)	--	27	44*	52.3	mg/kg	19.0	19.7
Lead (EPA 6010)	--	270	400	30.2	mg/kg	9.9	8.6
Mercury (EPA 7471)	--	--	4.6	0.13	mg/kg	0.051	0.016

Notes:
1. NCDENR Soil-to-Water MCCs - North Carolina Department of Environment and Natural Resources Soil-to-Water Maximum Contaminant Concentrations.
2. SRGs - Soil Remediation Goals
3. -- none defined.
4. ND - None Detected.
5. EPA Region IV ES Values (Sediments) - Environmental Protection Agency Region IV Ecological Screening Values - Freshwater Sediments.
6. Arsenic (4.4)* - NCDENR Health-based SRGs are calculated by different methods depending upon whether the compound is carcinogenic or non-carcinogenic. Arsenic exhibits both carcinogenic and non-carcinogenic effects. Normally, the lower of the two values would be used. However, in this case the carcinogenic value is below the method detection limit; therefore, NCDENR lists the non-carcinogenic value.
7. Cadmium (7.4)* - Cadmium exhibits both carcinogenic and non-carcinogenic effects. The lower goal is listed.
8. Chromium (44)* - EPA Method 6010 is for total chromium. The listed goal is the lower, for chromium VI.
9. Standards in bold have been exceeded.

APPENDIX A

Photographs of Sampling Locations

Photo 1: Lower Trap at Trail 2 "Rock Garden" Sample T2-1.

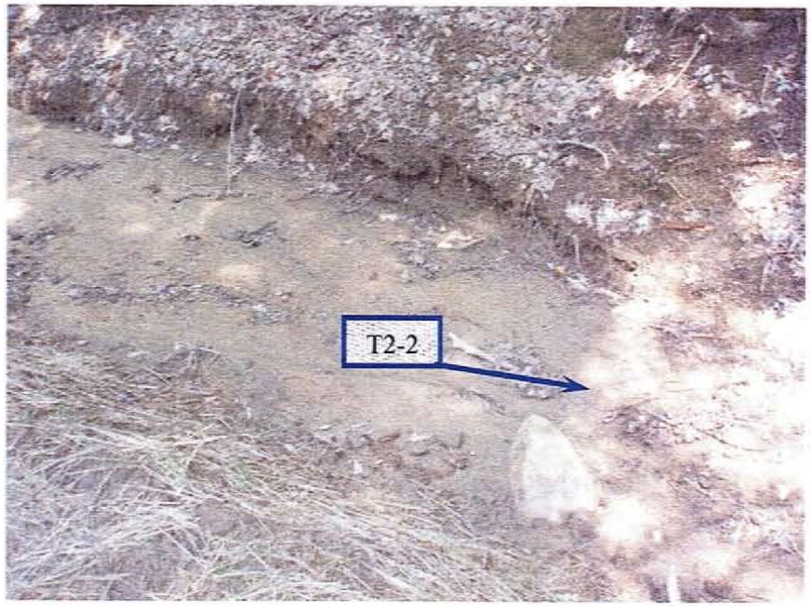

Photo 2: Lower Trap at Trail 2 "Rock Garden Sample T2-2 .

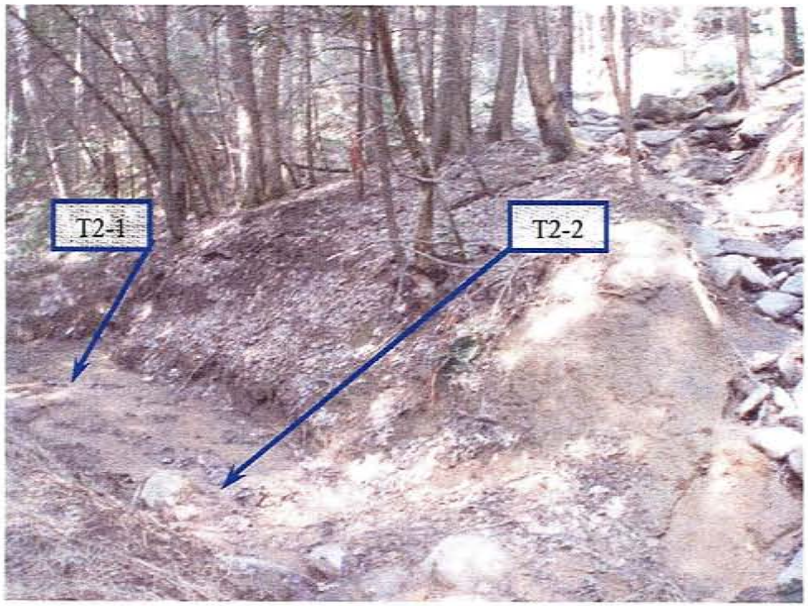

Photo 3: Lower Trap at Trail 2 "Rock Garden" Samples T2-1 & T2-2 .

Photo 4: Middle Trap at Trail 2 "Rock Garden" Sample T2-3.

Photo 5: Upper Trap at Trail 2 "Rock Garden" Sample T2-4.

Photo 6: Stained Area at Trail 2 "Rock Garden" Sample T2-5 .

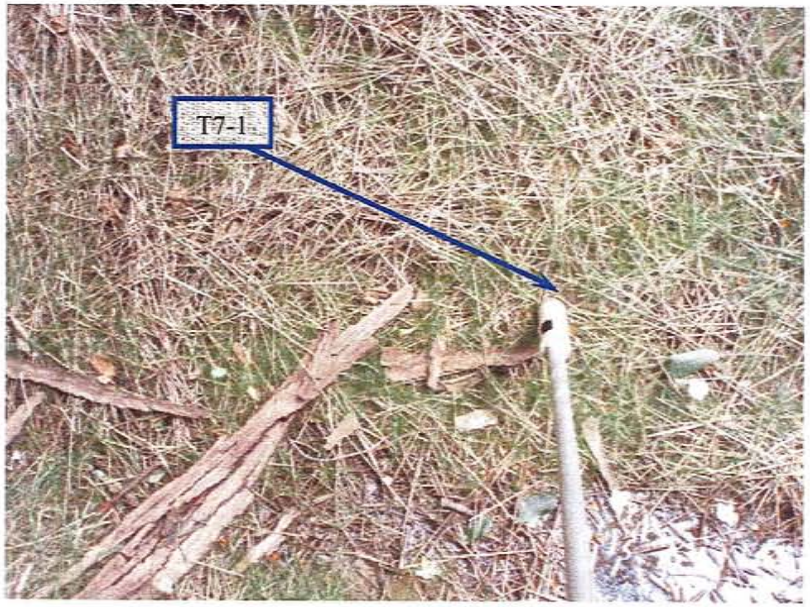

Photo 7: Lower Trap at Trail 7 "The Cliff" Sample T7-1.

Photo 8: Lower Trap looking up Trail 7 "The Cliff".

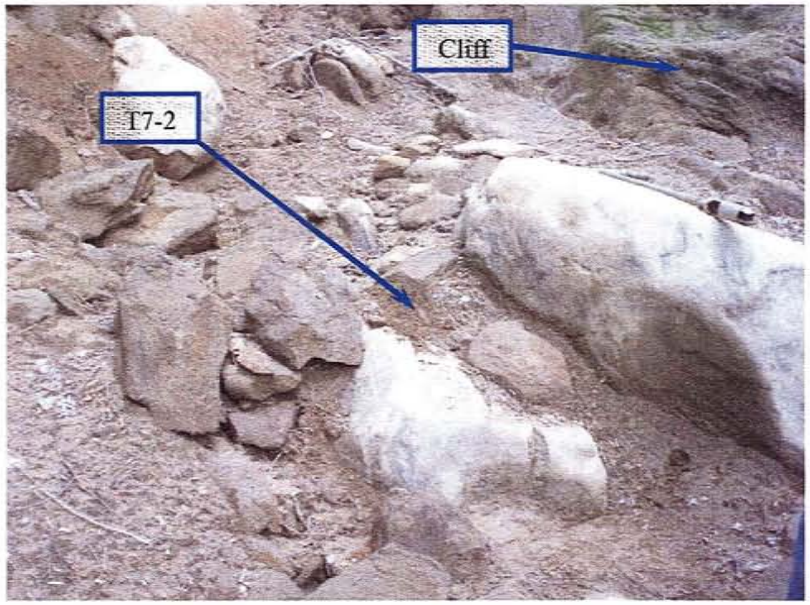

Photo 9: Surface Staining Sample at Trail 7 "The Cliff" Sample T7-2.

Photo 10: Surface Sample Above the cliff Trail 7 "The Cliff" Sample T7-3.

Photo 11: Lower Trap at Trail 9 "Slickrock" Sample T9-1.

Photo 12: Surface Staining Area Trail 9 "Slickrock" Sample T9-2.

Photo 13: Trail 9 "Slickrock.

APPENDIX B

Laboratory Analytical Report

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

July 28, 2008

Mr. Brian Bauer
Mountain Environmental
1560 Pisgah Drive
Canton, NC 28716

RE: Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Dear Mr. Bauer:
Enclosed are the analytical results for sample(s) received by the laboratory on July 18, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lorri Patton

Lorri Patton

lorri.patton@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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nelac

Pace Analytical
www.pacelabs.com

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(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Charlotte Certification IDs
Florida/NELAP Certification Number: E87627
Kansas Certification Number: E-10364
Louisiana/LELAP Certification Number: 04034
North Carolina Drinking Water Certification Number: 37706
North Carolina Wastewater Certification Number: 12
North Carolina Field Services Certification Number: 5342
South Carolina Certification Number: 990060001
South Carolina Bioassay Certification Number: 990060003
Tennessee Certification Number: 04010
Virginia Certification Number: 00213

Asheville Certification IDs
Florida/NELAP Certification Number: E87648
Louisiana/LELAP Certification Number: 03095
New Jersey Certification Number: NC011
North Carolina Drinking Water Certification Number: 37712
North Carolina Wastewater Certification Number: 40
North Carolina Bioassay Certification Number: 9
Pennsylvania Certification Number: 68-03578
South Carolina Certification Number: 99030001
South Carolina Bioassay Certification Number: 99030002
Tennessee Certification Number: 2980
Virginia Certification Number: 00072

Eden Certification IDs
North Carolina Drinking Water Certification Number: 37738
Virginia Drinking Water Certification Number: 00424
North Carolina Wastewater Certification Number: 633

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Huntersville, NC 28078
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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T2-1 **Lab ID: 9223709001** Collected: 07/17/08 11:00 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**61.8**	mg/kg	7.0	1	07/21/08 00:00	07/23/08 13:43	68334-30-5	
n-Pentacosane (S)	116	%	50-135	1	07/21/08 00:00	07/23/08 13:43	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	ND	mg/kg	233	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	8.8	1	07/24/08 13:32	07/24/08 20:57	8006-61-9	
4-Bromofluorobenzene (S)	91	%	50-135	1	07/24/08 13:32	07/24/08 20:57	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**1.8**	mg/kg	0.57	1	07/22/08 11:40	07/24/08 05:26	7440-38-2	
Cadmium	**1.9**	mg/kg	0.11	1	07/22/08 11:40	07/24/08 05:26	7440-43-9	
Chromium	**19.1**	mg/kg	0.57	1	07/22/08 11:40	07/24/08 05:26	7440-47-3	
Lead	**10.8**	mg/kg	0.57	1	07/22/08 11:40	07/24/08 05:26	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.026**	mg/kg	0.0055	1	07/21/08 11:35	07/22/08 14:08	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**28.4**	%	0.10	1		07/21/08 14:07		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T2-2 **Lab ID: 9223709002** Collected: 07/17/08 11:15 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**21.8**	mg/kg	6.2	1	07/21/08 00:00	07/23/08 14:38	68334-30-5	
n-Pentacosane (S)	89	%	50-135	1	07/21/08 00:00	07/23/08 14:38	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	ND	mg/kg	207	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	4.7	1	07/24/08 13:32	07/24/08 21:24	8006-61-9	
4-Bromofluorobenzene (S)	90	%	50-135	1	07/24/08 13:32	07/24/08 21:24	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**3.7**	mg/kg	0.49	1	07/22/08 11:40	07/24/08 05:32	7440-38-2	
Cadmium	**2.7**	mg/kg	0.098	1	07/22/08 11:40	07/24/08 05:32	7440-43-9	
Chromium	**21.8**	mg/kg	0.49	1	07/22/08 11:40	07/24/08 05:32	7440-47-3	
Lead	**11.8**	mg/kg	0.49	1	07/22/08 11:40	07/24/08 05:32	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.023**	mg/kg	0.0030	1	07/24/08 12:40	07/24/08 17:04	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**19.2**	%	0.10	1		07/21/08 14:07		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T2-3 **Lab ID: 9223709003** Collected: 07/17/08 11:30 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	ND	mg/kg	6.2	1	07/21/08 00:00	07/23/08 14:38	68334-30-5	
n-Pentacosane (S)	83	%	50-135	1	07/21/08 00:00	07/23/08 14:38	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	ND	mg/kg	208	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	7.7	1	07/24/08 13:32	07/24/08 22:17	8006-61-9	
4-Bromofluorobenzene (S)	90	%	50-135	1	07/24/08 13:32	07/24/08 22:17	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**4.3**	mg/kg	0.52	1	07/22/08 11:40	07/24/08 05:37	7440-38-2	
Cadmium	**3.6**	mg/kg	0.10	1	07/22/08 11:40	07/24/08 05:37	7440-43-9	
Chromium	**26.6**	mg/kg	0.52	1	07/22/08 11:40	07/24/08 05:37	7440-47-3	
Lead	**15.2**	mg/kg	0.52	1	07/22/08 11:40	07/24/08 05:37	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.16**	mg/kg	0.011	2	07/24/08 12:40	07/24/08 17:56	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**19.8**	%	0.10	1		07/21/08 14:08		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T2-4 **Lab ID: 9223709004** Collected: 07/17/08 11:45 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**23.3**	mg/kg	7.1	1	07/21/08 00:00	07/23/08 15:06	68334-30-5	
n-Pentacosane (S)	89	%	50-135	1	07/21/08 00:00	07/23/08 15:06	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	ND	mg/kg	236	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	8.8	1	07/24/08 13:32	07/24/08 22:43	8006-61-9	
4-Bromofluorobenzene (S)	92	%	50-135	1	07/24/08 13:32	07/24/08 22:43	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**1.8**	mg/kg	0.45	1	07/23/08 14:20	07/24/08 02:25	7440-38-2	
Cadmium	**1.8**	mg/kg	0.090	1	07/23/08 14:20	07/24/08 02:25	7440-43-9	
Chromium	**16.7**	mg/kg	0.45	1	07/23/08 14:20	07/24/08 02:25	7440-47-3	
Lead	**9.4**	mg/kg	0.45	1	07/23/08 14:20	07/24/08 02:25	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.018**	mg/kg	0.0057	1	07/24/08 12:40	07/24/08 17:09	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**29.3**	%	0.10	1		07/21/08 14:08		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T2-5 **Lab ID: 9223709005** Collected: 07/17/08 12:00 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**152**	mg/kg	6.3	1	07/21/08 00:00	07/23/08 15:06	68334-30-5	
n-Pentacosane (S)	138	%	50-135	1	07/21/08 00:00	07/23/08 15:06	629-99-2	1g
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	**439**	mg/kg	212	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	7.1	1	07/24/08 13:32	07/24/08 23:10	8006-61-9	
4-Bromofluorobenzene (S)	90	%	50-135	1	07/24/08 13:32	07/24/08 23:10	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**3.5**	mg/kg	0.52	1	07/23/08 14:20	07/24/08 02:31	7440-38-2	
Cadmium	**1.9**	mg/kg	0.10	1	07/23/08 14:20	07/24/08 02:31	7440-43-9	
Chromium	**17.5**	mg/kg	0.52	1	07/23/08 14:20	07/24/08 02:31	7440-47-3	
Lead	**11.2**	mg/kg	0.52	1	07/23/08 14:20	07/24/08 02:31	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.032**	mg/kg	0.0048	1	07/24/08 12:40	07/24/08 17:11	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**21.1**	%	0.10	1		07/21/08 14:08		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T7-1 **Lab ID: 9223709006** Collected: 07/17/08 13:52 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**77.6**	mg/kg	7.0	1	07/21/08 00:00	07/23/08 15:33	68334-30-5	
n-Pentacosane (S)	104	%	50-135	1	07/21/08 00:00	07/23/08 15:33	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	**248**	mg/kg	234	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	9.9	1	07/24/08 13:32	07/24/08 23:36	8006-61-9	
4-Bromofluorobenzene (S)	92	%	50-135	1	07/24/08 13:32	07/24/08 23:36	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**7.4**	mg/kg	0.63	1	07/23/08 14:20	07/24/08 02:36	7440-38-2	
Cadmium	**1.6**	mg/kg	0.13	1	07/23/08 14:20	07/24/08 02:36	7440-43-9	
Chromium	**21.5**	mg/kg	0.63	1	07/23/08 14:20	07/24/08 02:36	7440-47-3	
Lead	**15.7**	mg/kg	0.63	1	07/23/08 14:20	07/24/08 02:36	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.052**	mg/kg	0.0066	1	07/24/08 12:40	07/24/08 17:14	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**28.7**	%	0.10	1		07/21/08 14:09		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T7-2 **Lab ID: 9223709007** Collected: 07/17/08 14:05 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**121**	mg/kg	5.7	1	07/21/08 00:00	07/23/08 15:33	68334-30-5	
n-Pentacosane (S)	121	%	50-135	1	07/21/08 00:00	07/23/08 15:33	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	**1230**	mg/kg	191	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	11.6	1	07/24/08 13:32	07/25/08 00:03	8006-61-9	
4-Bromofluorobenzene (S)	91	%	50-135	1	07/24/08 13:32	07/25/08 00:03	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**17.8**	mg/kg	0.29	1	07/23/08 14:20	07/24/08 02:42	7440-38-2	
Cadmium	**2.4**	mg/kg	0.057	1	07/23/08 14:20	07/24/08 02:42	7440-43-9	
Chromium	**19.4**	mg/kg	0.29	1	07/23/08 14:20	07/24/08 02:42	7440-47-3	
Lead	**5.9**	mg/kg	0.29	1	07/23/08 14:20	07/24/08 02:42	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.010**	mg/kg	0.0049	1	07/24/08 12:40	07/24/08 17:16	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**12.5**	%	0.10	1		07/21/08 14:09		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T7-3 **Lab ID: 9223709008** Collected: 07/17/08 14:15 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**6270**	mg/kg	121	20	07/21/08 00:00	07/24/08 09:41	68334-30-5	
n-Pentacosane (S)	0	%	50-135	20	07/21/08 00:00	07/24/08 09:41	629-99-2	S4
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	**9870**	mg/kg	202	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	7.2	1	07/24/08 13:32	07/25/08 00:29	8006-61-9	
4-Bromofluorobenzene (S)	89	%	50-135	1	07/24/08 13:32	07/25/08 00:29	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**4.1**	mg/kg	0.52	1	07/23/08 14:20	07/24/08 02:48	7440-38-2	
Cadmium	**1.8**	mg/kg	0.10	1	07/23/08 14:20	07/24/08 02:48	7440-43-9	
Chromium	**17.2**	mg/kg	0.52	1	07/23/08 14:20	07/24/08 02:48	7440-47-3	
Lead	**7.5**	mg/kg	0.52	1	07/23/08 14:20	07/24/08 02:48	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.028**	mg/kg	0.0057	1	07/24/08 12:40	07/24/08 17:24	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**17.3**	%	0.10	1		07/21/08 14:09		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T9-1 **Lab ID: 9223709009** Collected: 07/17/08 15:05 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**24.3**	mg/kg	5.3	1	07/21/08 00:00	07/23/08 16:01	68334-30-5	
n-Pentacosane (S)	100	%	50-135	1	07/21/08 00:00	07/23/08 16:01	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	ND	mg/kg	176	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	4.8	1	07/24/08 13:32	07/25/08 00:56	8006-61-9	
4-Bromofluorobenzene (S)	94	%	50-135	1	07/24/08 13:32	07/25/08 00:56	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**4.0**	mg/kg	0.50	1	07/23/08 14:20	07/24/08 02:54	7440-38-2	
Cadmium	**1.9**	mg/kg	0.10	1	07/23/08 14:20	07/24/08 02:54	7440-43-9	
Chromium	**19.0**	mg/kg	0.50	1	07/23/08 14:20	07/24/08 02:54	7440-47-3	
Lead	**9.9**	mg/kg	0.50	1	07/23/08 14:20	07/24/08 02:54	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.051**	mg/kg	0.0032	1	07/24/08 12:40	07/24/08 17:26	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**5.4**	%	0.10	1		07/21/08 14:09		

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ANALYTICAL RESULTS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

Sample: T9-2 **Lab ID: 9223709010** Collected: 07/17/08 15:20 Received: 07/18/08 12:25 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015 Modified Preparation Method: EPA 3546							
Diesel Components	**61.0**	mg/kg	7.3	1	07/21/08 00:00	07/23/08 16:28	68334-30-5	
n-Pentacosane (S)	105	%	50-135	1	07/21/08 00:00	07/23/08 16:28	629-99-2	
9071 Oil and Grease	Analytical Method: 9071B ASE Preparation Method: 9071B ASE							
Oil and Grease	**708**	mg/kg	243	1	07/22/08 00:00	07/22/08 00:00		
Gasoline Range Organics	Analytical Method: EPA 8015 Modified Preparation Method: EPA 5035A/5030B							
Gasoline Range Organics	ND	mg/kg	8.5	1	07/24/08 13:32	07/25/08 01:22	8006-61-9	
4-Bromofluorobenzene (S)	89	%	50-135	1	07/24/08 13:32	07/25/08 01:22	460-00-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050							
Arsenic	**2.0**	mg/kg	0.47	1	07/23/08 14:20	07/24/08 03:08	7440-38-2	
Cadmium	**2.3**	mg/kg	0.093	1	07/23/08 14:20	07/24/08 03:08	7440-43-9	
Chromium	**19.7**	mg/kg	0.47	1	07/23/08 14:20	07/24/08 03:08	7440-47-3	
Lead	**8.6**	mg/kg	0.47	1	07/23/08 14:20	07/24/08 03:08	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471							
Mercury	**0.016**	mg/kg	0.0059	1	07/24/08 12:40	07/24/08 17:29	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**31.3**	%	0.10	1		07/21/08 14:09		

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: MERP/1597
QC Batch Method: EPA 7471
Analysis Method: EPA 7471
Analysis Description: 7471 Mercury
Associated Lab Samples: 9223709001

METHOD BLANK: 142315
Associated Lab Samples: 9223709001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Mercury	mg/kg	ND	0.0050	

LABORATORY CONTROL SAMPLE: 142316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.067	0.059	88	80-120	

MATRIX SPIKE SAMPLE: 142317

Parameter	Units	9223627001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.0055	.056	0.051	81	75-125	

SAMPLE DUPLICATE: 142318

Parameter	Units	9223459001 Result	Dup Result	RPD	Qualifiers
Mercury	mg/kg	ND	.0017J	23	

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QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: PMST/1778 — Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 — Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 9223709001, 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

SAMPLE DUPLICATE: 142327

Parameter	Units	9223740001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	7.1	5.5	25	

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QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: GCSV/3285 — Analysis Method: 9071B ASE
QC Batch Method: 9071B ASE — Analysis Description: 9071 ASE, Oil and Grease
Associated Lab Samples: 9223709001, 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

METHOD BLANK: 142375
Associated Lab Samples: 9223709001, 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Oil and Grease	mg/kg	ND	167	

LABORATORY CONTROL SAMPLE: 142376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/kg	1330	1280	96	78-114	

MATRIX SPIKE SAMPLE: 142377

Parameter	Units	9223309028 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/kg	3370	1480	4810	97	78-114	

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QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: OEXT/3833 — Analysis Method: EPA 8015 Modified
QC Batch Method: EPA 3546 — Analysis Description: 8015 Solid GCSV
Associated Lab Samples: 9223709001, 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

METHOD BLANK: 142449

Associated Lab Samples: 9223709001, 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Diesel Components	mg/kg	ND	5.0	
n-Pentacosane (S)	%	81	50-135	

LABORATORY CONTROL SAMPLE: 142450

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Components	mg/kg	167	151	91	50-114	
n-Pentacosane (S)	%			93	50-135	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 142451 142452

Parameter	Units	9223718007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Diesel Components	mg/kg	ND	223	223	111	198	49	88	50-107	56	M0,R1
n-Pentacosane (S)	%						56	89	50-135		

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QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: MPRP/2705 — Analysis Method: EPA 6010
QC Batch Method: EPA 3050 — Analysis Description: 6010 MET
Associated Lab Samples: 9223709001, 9223709002, 9223709003

METHOD BLANK: 142633
Associated Lab Samples: 9223709001, 9223709002, 9223709003

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Arsenic	mg/kg	ND	0.50	
Cadmium	mg/kg	ND	0.10	
Chromium	mg/kg	ND	0.50	
Lead	mg/kg	ND	0.50	

LABORATORY CONTROL SAMPLE: 142634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	49.2	98	80-120	
Cadmium	mg/kg	50	48.6	97	80-120	
Chromium	mg/kg	50	49.2	98	80-120	
Lead	mg/kg	50	49.0	98	80-120	

MATRIX SPIKE SAMPLE: 142635

Parameter	Units	9223409001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	8.2	47.6	50.4	89	75-125	
Cadmium	mg/kg	1.0	47.6	45.5	93	75-125	
Chromium	mg/kg	43.5	47.6	106	131	75-125	M1
Lead	mg/kg	13.7	47.6	58.9	95	75-125	

SAMPLE DUPLICATE: 142636

Parameter	Units	9223409002 Result	Dup Result	RPD	Qualifiers
Arsenic	mg/kg	7.3	6.8	7	
Cadmium	mg/kg	0.94	0.94	.8	
Chromium	mg/kg	58.8	67.7	14	
Lead	mg/kg	14.2	14.2	.4	

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QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: MERP/1602 — Analysis Method: EPA 7471
QC Batch Method: EPA 7471 — Analysis Description: 7471 Mercury
Associated Lab Samples: 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

METHOD BLANK: 143042
Associated Lab Samples: 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Mercury	mg/kg	ND	0.0050	

LABORATORY CONTROL SAMPLE: 143043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.067	0.060	90	80-120	

MATRIX SPIKE SAMPLE: 143044

Parameter	Units	9223817002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.17	.062	0.18	18	75-125	M1

SAMPLE DUPLICATE: 143045

Parameter	Units	9223817006 Result	Dup Result	RPD	Qualifiers
Mercury	mg/kg	0.035	0.035	2	

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QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: MPRP/2714 — Analysis Method: EPA 6010
QC Batch Method: EPA 3050 — Analysis Description: 6010 MET
Associated Lab Samples: 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

METHOD BLANK: 143223
Associated Lab Samples: 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Arsenic	mg/kg	ND	0.50	
Cadmium	mg/kg	ND	0.10	
Chromium	mg/kg	ND	0.50	
Lead	mg/kg	ND	0.50	

LABORATORY CONTROL SAMPLE: 143224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	52.3	105	80-120	
Cadmium	mg/kg	50	51.3	103	80-120	
Chromium	mg/kg	50	51.6	103	80-120	
Lead	mg/kg	50	51.9	104	80-120	

MATRIX SPIKE SAMPLE: 143225

Parameter	Units	9223817002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	0.86	45.4	41.5	90	75-125	
Cadmium	mg/kg	7.9	45.4	44.9	82	75-125	
Chromium	mg/kg	40.4	45.4	77.3	81	75-125	
Lead	mg/kg	11.5	45.4	45.6	75	75-125	

SAMPLE DUPLICATE: 143226

Parameter	Units	9223817006 Result	Dup Result	RPD	Qualifiers
Arsenic	mg/kg	2.2	1.6	33	R1
Cadmium	mg/kg	4.7	4.3	9	
Chromium	mg/kg	32.0	26.5	19	
Lead	mg/kg	10.0	9.4	7	

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QUALITY CONTROL DATA

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

QC Batch: GCV/2287 — Analysis Method: EPA 8015 Modified
QC Batch Method: EPA 5035A/5030B — Analysis Description: Gasoline Range Organics
Associated Lab Samples: 9223709001, 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

METHOD BLANK: 144093

Associated Lab Samples: 9223709001, 9223709002, 9223709003, 9223709004, 9223709005, 9223709006, 9223709007, 9223709008, 9223709009, 9223709010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Gasoline Range Organics	mg/kg	ND	6.0	
4-Bromofluorobenzene (S)	%	91	50-135	

LABORATORY CONTROL SAMPLE: 144094

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	25	28.8	115	70-150	
4-Bromofluorobenzene (S)	%			97	50-135	

MATRIX SPIKE SAMPLE: 144095

Parameter	Units	9223669003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	mg/kg	ND	24.2	28.6	118	70-148	
4-Bromofluorobenzene (S)	%				97	50-135	

SAMPLE DUPLICATE: 144096

Parameter	Units	9223669004 Result	Dup Result	RPD	Qualifiers
Gasoline Range Organics	mg/kg	ND	ND	69	
4-Bromofluorobenzene (S)	%		94	.7	

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QUALIFIERS

Project: Tellico OHV 8-UFS01-1A
Pace Project No.: 9223709

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1g	Surrogate recovery outside control limits due to matrix interferences.
M0	Matrix spike recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1212046

Section A Required Client Information:

Company:	Mount. Env.
Address:	CANTON, NC
Email To:	Brian Bauer
Phone:	648-5556
Fax:	648-1566
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Brian Bauer
Copy To:	
Purchase Order No.:	EMAILED 4580
Project Name:	TELLICO OHV
Project Number:	8-UFSOHA

Section C Invoice Information:

Attention:	PATSY MINTZ
Company Name:	MOUNT. ENV.
Address:	
Pace Quote Reference:	
Pace Project Manager:	Lorri Patton
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): TPH GRO/DRO	OIL & GREASE	CADMIUM	CHROMIUM	LEAD	MERCURY	ARSENIC	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 9223709
1	T2-1	SL		7/17/08	1100				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		9223709001
2	T2-2				1115				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		002
3	T2-3				1130				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		003
4	T2-4				1145				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		004
5	T2-5				1200				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		005
6	T7-1				1352				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		006
7	T7-2				1405				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		007
8	T7-3				1415				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		008
9	T9-1				1505				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		009
10	T9-2				1520				5	✓						✓		✓	✓	✓	✓	✓	✓	✓		010
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Brian Bauer (MEA)	7/18/08	1220	[signature]	7/18/08	12:25	29	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: BRIAN BAUER

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 7/17/08

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007