



02.01-12/29/99-02380  
**OHM Remediation Services Corp.**  
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A Member of The IT Group

December 29, 1999

Mr. Neal Paul  
AC/S EMD/IR  
Building 58  
PSC Box 20004  
Camp Lejeune, NC 28542-0004

Re: Sampling of Edwards Creek  
Site 89, DO. 0083  
Contract N62470-93-D-3032  
MCB Camp Lejeune, NC

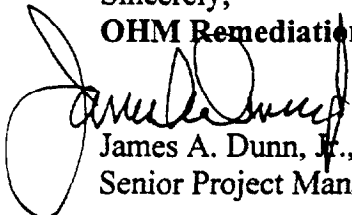
Dear Mr. Paul:

As directed by the RPM and ROICC, OHM sampled the surface water and sediments of the Edwards Creek and its discharge into the New River after convergence with Strawhorn Creek. The locations of the eight sample points are indicated on the attached Figure 4-7 prepared by Baker Environmental, Inc.

A Summary Table of the results is attached. All detections are in ppb (parts per billion). Several of the samples were diluted and rerun by the laboratory to obtain the indicated results. A QC check of the data has been performed by our Program Chemist and follows the tabular data.

Should you have any questions concerning the data, please do not hesitate to contact us.

Sincerely,  
**OHM Remediation Services Corp.**



James A. Dunn, Jr., PE  
Senior Project Manager

pc: Kate Landman, RPM  
Gena Townsend, EPA  
Diane Rossi, NCDENR  
Mark Martin, Lejeune w/pkg.

Kathy Chavara, Baker w/pkg  
Dave Lown, NCDENR  
Rick Raines, EMD  
File Job 917536

Sample Number	CLJ-34-SS-001	CLJ-34-SS-001DL	CLJ-34-SS-002	CLJ-34-SS-002DL	CLJ-34-SS-003	CLJ-34-SS-003DL	CLJ-34-SS-004	CLJ-34-SS-004DL
Date Sampled	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99
Compound								
Acetone	210	1100 D	200	1300 D	150		120	180 D
Carbon Disulfide	5600 E	3300 D	7800 E	4400 D	250 E	880 ED	660 E	780 D
1,2-Dichloroethene (total)							19	
Xylenes (total)	23 J							
Vinyl Chloride								13 J
Trichloroethene								
2-Butanone								
Methylene Chloride								
1,1,2,2-Tetrachloroethane								
Toulene								

Sample Number	CLJ-34-WS-001	CLJ-34-WS-001DL	CLJ-34-WS-002	CLJ-34-WS-002DL	CLJ-34-WS-003	CLJ-34-WS-004	CLJ-34-WS-005	CLJ-34-WS-006
Date Sampled	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99
Compound								
Acetone		1200 BD		330 BD		2		
Carbon Disulfide	360 E	1100 D	150 E	800 D	14	5	15	0.3 J
1,2-Dichloroethene (total)					29	40		73 E
Xylenes (total)								
Vinyl Chloride					0.8 J	1		4
Trichloroethene					13	17		31
2-Butanone								
Methylene Chloride								
1,1,2,2-Tetrachloroethane					19	23		40 E
Toulene								
1,1,2-Trichloroethane					0.6 J	0.7 J		1
1,1-Dichloroethene								0.6 J

RE in samle ID denotes RERUN

DL in sample ID denotes sample  
that has been diluted by the  
laboratory

E= Estimated

CLJ-34-SS-008 had an instrumnt  
problem

CLJ-34-WS-008D had sediment &  
biological material May bias  
results high

Sample Number	CLJ-34-SS-005	CLJ-34-SS-006	CLJ-34-SS-007	CLJ-34-SS-008	CLJ-34-SS-008DL	CLJ-34-SS-008D	CLJ-34-SS-008DRE
Date Sampled	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99
Compound							
Acetone	180	20		830 E	1000 D		5400 JE
Carbon Disulfide	15			540 E	88 D		490 J
1,2-Dichloroethene (total)							
Xylenes (total)							
Vinyl Chloride							
Trichloroethene							
2-Butanone	96			500			2600 JE
Methylene Chloride		4 J					
1,1,2,2-Tetrachloroethane		4 J					
Toluene				50			42 J

Sample Number	CLJ-34-WS-006DL	CLJ-34-WS-007	CLJ-34-WS-007DL	CLJ-34-WS-008	CLJ-34-WS-008D	CLJ-34-WS-008DDL
Date Sampled	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99	12/17/99
Compound						
Acetone						
Carbon Disulfide			2 JD		70 E	74 D
1,2-Dichloroethene (total)	68 D	71 E	73 D			
Xylenes (total)						
Vinyl Chloride	3 D	4	4 D			
Trichloroethene	28 D	31	29 D			
2-Butanone						
Methylene Chloride	1 JBD		1 JBD			1 JBD
1,1,2,2-Tetrachloroethane	39 D	40 E	40			
Toluene						
1,1,2-Trichloroethane	1 JD	1	1 JD			
1,1-Dichloroethene		0.5 J				

RE in samle ID denotes RERUN  
DL in sample ID denotes sample  
that has been diluted by the  
laboratory  
E= Estimated  
CLJ-34-SS-008 had an insturment  
problem  
CLJ-34-WS-008D had sediment &  
biological material May bias  
results high

## Chemical Analytical Data Evaluation/Validation Checklist

Project Name: Edwards Creek

Project Number: 780151

Laboratory: STL

Lab Project/Case Number: 70260.01

Sample Number(s): CLJ-34-SS-001, CLJ-34-SS-002, CLJ-34-SS-003, CLJ-34-SS-004, CLJ-34-SS-005, CLJ-34-SS-006, CLJ-34-SS-007, CLJ-34-SS-008, CLJ-34-SS-008D, CLJ-34-WS-001, CLJ-34-WS-002, CLJ-34-WS-003, CLJ-34-WS-004, CLJ-34-WS-005, CLJ-34-WS-006, CLJ-34-WS-007, CLJ-34-WS-008, CLJ-34-WS-008D and CLJ-34-TB-001.

Evaluated By: Dorothy Small

Date Evaluated: 12/23/99

Data Package Deliverables Requirement:  OHM Minimum       OHM Standard       OHM Maximum  
 Other, please describe

Quality Control Deliverables	Required	Received	Passed	Failed
PQL, MDL, RL, etc meets DQOs			X	
Comment: None				
Holding Times			X	
Comment: None				
Sample Condition (preservatives, containers, temperature, etc)	X		X	
Comment: None				
Surrogate Recoveries	X			
Comment: CLJ-34-SS-001, SLJ-34-SS-003 AND CLJ-34-SS-008D had one or more surrogate recoveries outside the laboratory QC limits. These samples were reanalyzed with similar recoveries indicating a probable matrix interference. The initial analysis of sample CLJ-34-WS-001 (80%) had the surrogate recovery of dibromofluoromethane (80%) below the lower QC limit of 86%. This sample was reanalyzed with all surrogate recoveries within QC limits.				
Lab Control Sample Recoveries	X		X	
Comment: None				
Lab Control Sample Duplicate or Other Spike Recoveries	X		X	
Comment: None				
Lab Control Sample Duplicate or Other Laboratory Duplicate RPD	X		X	
Comment: None				
Matrix Spike Recoveries	X			X
Comment: Recoveries were within limits except Benzene (130 %) had a high recovery (upper range is 119 %) and Trichloroethene (134%) had a high recovery ( upper range is 122%).				
Matrix Spike Duplicate Recoveries	X			X
Comment: Recoveries were within limits except Benzene (138 %) had a high recovery (upper range is 199%) and Trichloroethene (142 %) had a high recovery (upper range is 122 %).				
Matrix Spike / Matrix Spike Duplicate RPD	X		X	
Comment: None				
Laboratory Blanks	X			X
Comment: Blank VBLK02 had a 0.9 J value for methylene chloride. Associated water samples are "J" qualified.				
Field Blanks	X		X	
Comment: None				
Field Duplicates RPD	X			X
Comment: Soil sample CLJ-34-SS-008D was the duplicate of CLJ-34-SS-008. Instrument "clogged" on sample CLJ-34-SS-008D. This sample was reanalyzed with improved internal standard and surrogate responses, however, the reanalyses had concentrations of target analytes above the instrument calibration range. There was insufficient sample volume to perform a dilution for this sample.				

**Chemical Analytical Data Evaluation / Validation Checklist**  
**-continued-**

Quality Control Deliverables	Required	Received	Passed	Failed
Tentively Identified Compounds (TICs) Not required				
Comment:				
Instrument Performance Check (Organics Only)	X			
Comment:				
Initial Calibration	X		X	
Comment:				
Continuing Calibration	X		X	
Comment:				
Internal Standard Areas and Retention Times (Organics Only)	X		X	
Comment: samples CLJ-34-SS-001, CLJ-34-SS-003 AND CLJ-34-SS-008D had one or more internal standard areas less than - 25% of the daily calibration standard. Samples CLJ-34-SS-001 and CLJ-34-SS-003 were reanalyzed at dilutions with similar results indicating a probable matrix interference. Sample CLJ-34-SS-008D was reanalyzed undiluted with improved standard areas.				
Chromatograms	X	X		
Comment:				
Sample Prp Worksheets	X	X		
Comment:				
Raw Data Calculations	X	X		
Comment:				
Laboratory Duplicates	X	X		
Comment:				

General Comments:

The data for the water samples were annotated in the summary report by the lab, that the CLJ-34-008D may be biased high due to the sediment and biological material in the vial.

The data for the sediment sample duplicate has been qualified due to instrument performance problems on this sample.

Summary:

Sample CLJ-34-WS-001 and CLJ-34-WS-002 are "B" qualified for Acetone in the diluted sample results. Samples CLJ-34-WS-006 and CLJ-34-WS-007 are "B" qualified for methylene chloride. Sample CLJ-34-SS-008D experienced instrument problems, results are qualified as "J" values.

- Check One:      The data, as reported by the laboratory, are acceptable.  
 The data, with qualifiers as described in the "Summary" portion of this report, are acceptable.  
 The data are unacceptable.  
 Other \_\_\_\_\_

*Dorothy S. Small*  
 Evaluator's Signature

12/23/99  
 Date

