

Environmental Response Correspondence

Ruthel Watson

From: Mike Feamster [REDACTED]
Sent: Friday, March 11, 2005 8:40 AM
To: Karen Crawford
Subject: SC, Graniteville, Cl, HCL, and pH detections sheet



Graniteville
CL-HCL Detec

Ms. Crawford:

CTEH has reduced air monitoring data for your specific purpose and the attached spreadsheet provides only locations where positive detections were indicated. Many of these are below the concentration of concern and can be easily excluded, several are pH measurements on railcars and can also be excluded as they will fall well within your boundary. We are assembling field observations for vegetation, wildlife, etc today and plotting them for you.

Please call with any questions

Michael T. Feamster, PE

C.T.E.H., LLC

1113 Murfreesboro Rd, Suite 106, PMB 418

Franklin, TN 37064-1308

Office- [REDACTED]

Cell- [REDACTED]

Fax- 615-790-6604

[REDACTED]

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Date	Time	Station	Instrument	Analyte	Concentration	Units
1/12/2005	17:14	Aiken & Gregg	GT/MR	HCL/CL2	0.05/0.0	ppm
1/6/2005	18:02	1 Gregg & Aiken	MR	CL2	0.0-0.2	ppm
1/16/2005	9:02	Gregg and Aiken N33.569110 W81.805167	MR/GT	CL2/HCL	0.0/1.5	ppm
1/15/2005	8:41	Dahlia and Julianne N33.562251 W81.804902	MR/GT	CL2/HCL	0.0/1.2	ppm
1/15/2005	8:51	Decon 1 (Near) N33.561477 W81.805552	MR/GT	CL2/HCL	0.0/1.0	ppm
1/10/05	10:03	2nd and Main (191) N33.56938 W81.80717	MR/GT	CL2/HCL	0.0/0.5	ppm
1/19/2005	9:51	Trolley Line Rd N33.574908 W81.800102	MR/GT	CL2/HCL	0.0/0.5	ppm
1/16/2005	13:57	Hard & Canal	MR/GT	CL2/HCL	0.0/0.3	ppm
1/14/2005	05:14	At CTEH worksite	GT	CL2	.25-.5	ppm
1/14/2005	8:57	Corner of Gregg and Hard N33.563493 W81.806120	MR/GT	CL2/HCL	.1/4.5	ppm
1/6/2005	1:20	1406 Augusta Rd N33.54470 W81.81448	SPM	CL2	.07/.06	ppm
1/19/2005	11:47	UTLX630115	pH paper	pH	4 - 5	H+
1/16/2006	10:18	Water Station 6 in puddle	pH paper	pH	4-5	
1/18/2005	11:49	OLNX 116007	pH paper	pH	3 - 4	
1/16/2005	20:22	Hickman & Red Right in front of Train	MR	Cl2	8	ppm
1/6/2005	20:15	15 yds N of PS01	AR	Cl2	5.4	ppm
1/6/2005	20:15	15 yds N of PS01	SPM	Cl2	5.36	ppm
1/6/2005	20:15	15 yds N of PS01	GT	Cl2	5	ppm
1/17/2005	14:06	N33.56165 W081.81040	GT	HCl	5	ppm
1/12/2005	5:32	AF010	pH paper	pH	4	ppm
1/12/2005	5:33	AF011	pH paper	pH	4	
1/12/2005	5:45	AF015	pH paper	pH	4	
1/12/2005	5:50	AF017	pH paper	pH	4	
1/12/2005	5:51	AF018	pH paper	pH	4	
1/12/2005	5:57	AF021	pH paper	pH	4	
1/12/2005	6:07	AF026	pH paper	pH	4	
1/12/2005	6:09	AF028	pH paper	pH	4	
1/15/2005	01:40	Decon Station	GT	Cl2	4	
1/17/2005	13:52	N33.56299 W081.80813	MR	Cl2	4	
1/18/2005	11:50	OLNX 116007	pH paper	pH	4	
1/12/2005	5:47	AF016	pH paper	pH	3.5	
1/14/2005	10:47	Corner of Gregg & Aiken	MR	VOC	3.3	
1/19/2005	18:01	Unit 7 Gregg & Hard	MR	CL2	3.30	
1/12/2005	6:30	AF001	pH paper	pH	3	
1/12/2005	6:37	AF004	pH paper	pH	3	
1/12/2005	6:41	AF006	pH paper	pH	3	
1/12/2005	5:55	AF019	pH paper	pH	3	
1/12/2005	5:56	AF020	pH paper	pH	3	
1/12/2005	6:06	AF025	pH paper	pH	3	
1/17/2005	17:50	MC001, puddle	pH		3	
1/17/2005	17:51	MC001, puddle	pH		3	
1/19/2005	13:51	Chevy Cavalier VIN:1G1JF52F8372338992	pH paper	pH	3	

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1/15/2005	19:35	CTEH Command, PS01	AR	Cl2	2.3	ppm
1/12/2005	6:32	AF002	pH paper	pH	2	
1/12/2005	6:35	AF003	pH paper	pH	2	
1/12/2005	12:26	AF007	pH paper	pH	2	
1/12/2005	12:28	AF008	pH paper	pH	2	
1/12/2005	6:00	AF022	pH paper	pH	2	
1/12/2005	6:04	AF024	pH paper	pH	2	
1/12/2005	6:08	AF027	pH paper	pH	2	
1/15/2005	18:13	Fire hydrant 8's puddle, Aiken & Rock Town	pH		2	
1/17/2005	14:03	N33.56165 W081.81040	GT	HCl	2	ppm
1/17/2005	20:20	N33.56434 W081.80793	GT	HCl	2	ppm
1/19/2005	04:35	The Zone Bar/Rest N33.55500 W81.80799	GT	HCL	2.00	ppm
1/15/2005	08:44	Corner RR & Aiken N 25 yds from derailment	MR	Cl2	1.0	ppm
1/17/2005	08:39	N 33.56165 W 81.80820	MR	Cl2	1.0	ppm
1/19/2005	04:34	The Zone Bar/Rest N33.55500 W81.80799	GT	CL2	1.00	ppm
1/15/2005	01:30	Decon Station	SPM	Cl2	0.94	ppm
1/19/2005	12:49	S-2-2115 N 33.56323 W 81.80695	SPM	CL2	0.90	ppm
1/12/2005	8:35	Aiken Rd just E of park N 100 yds from derailment	MR	Cl2	0.8	ppm
1/16/2005	06:27	In front of the zone	GT	CL2	0.75	ppm
1/12/2005	00:54	Aiken Rd & Gregg St. N 33.56323	SPM	CL2	0.70	ppm
1/12/2005	00:57	Aiken Rd & Gregg St.	SPM	CL2	0.64	ppm
1/17/2005	08:38	N 33.56165 W 81.80820	GT	Cl2	0.6	ppm
1/17/2005	11:30	N33.56338 W81.81106	SPM	Cl2	0.57	ppm
1/12/2005	15:54	3Gregg & Hard	MR	CL2	0.50	ppm
1/14/2005	16:37	Corner of Gregg & Cottage	GT	HCl	0.5	ppm
1/15/2005	02:30	Decon Station 1	AR	CL2	0.50	ppm
1/15/2005	02:31	Decon Station 1	GT	CL2	0.50	ppm
1/17/2005	20:19	N33.55711 W081.81050	GT	HCl	0.5	ppm
1/17/2005	11:30	N33.56338 W81.81106	MR	Cl2	0.5	ppm
1/18/2005	11:53	PS03 @ Hard & Gregg Streets	MR	HCl	0.5	ppm
1/19/2005	04:25	The Zone Bar/Rest N33.55500 W81.80799	SPM	CL2	0.49	ppm
1/17/2005	20:18	N33.55711 W081.81050	SPM	Cl2	0.41	ppm
1/14/2005	15:31	Corner of Harden & Canal	GT	HCl	0.4	ppm
1/18/2005	11:34	PS02	MR	Cl2	0.4	ppm
1/18/2005	11:44	PS04	MR	Cl2	0.4	ppm
1/14/2005	00:59	Blue Top Grill	SPM	CL2	0.39	ppm
1/18/2005	04:21	Overpass Hwy 1 and Main N33.55420 W81.81110	SPM	CL2	0.39	ppm
1/16/2005	05:00	Hwy 2 and Main st overpass N33.55429 W81.81109	SPM	CL2	0.38	ppm
1/18/2005	3:15	PS04	SPM	Cl2	0.37	ppm
1/17/2005	20:21	N33.56434 W081.80793	SPM	Cl2	0.36	ppm

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NSP1_006843

1/19/2005 04:52	The Zone Bar/Rest N33.55500 W81.80799	GT	HCL	0.36	ppm
1/19/2005 05:02	Saltwater City Main St. N33.55491 W81.81081	SPM	CL2	0.31	ppm
1/6/2005 16:40	1 Gregg & Aiken	GT	HCL	0.3	ppm
1/18/2005 14:39	PS05	MR	CL2	0.3	ppm
1/18/2005 12:29	PS05	SPM	CL2	0.28	ppm
1/19/2005 06:27	The Zone Bar/Rest N33.55491 W81.80829	SPM	CL2	0.26	ppm
1/18/2005 3:25	PS01, 20 yds North	SPM	CL2	0.22	ppm
1/14/2005 18:09	Collage & Gregg	MR	CL2	0.20	ppm
1/14/2005 16:36	Corner of Gregg & Cottage	MR	CL2	0.2	ppm
1/18/2005 12:29	PS05	MR	CL2	0.2	ppm
1/16/2005 9:58	Hard & Gregg St N33.56343 W081.80604	SPM	CL2	0.17	ppm
1/17/2005 10:12	N33.56628 W081.81074	SPM	CL2	0.15	ppm
1/6/2005 1:25	1406 Augusta Rd N33.54470 W81.81448	SPM	CL2	.14	ppm
1/15/2005 20:08	Down Leinart N of PS01	SPM	CL2	0.13	ppm
1/6/2005 1:23	1406 Augusta Rd N33.54470 W81.81448	SPM	CL2	.1	ppm
1/14/2005 12:04	Corner of 2nd & Ergle	TR	CL2	0.1	ppm
1/15/2005 12:10	Driveway of Byrd Elem	TR	CL2	0.1	ppm
1/17/2005 20:20	N33.56434 W081.80793	MR	CL2	0.1	ppm
1/16/2006 15:58	Woodhead firepump building 1947	MultiRAE PL	CL2	0.1	ppm
1/11/2005 10:02	2nd intersection of Hard & Gregg N33.56913 W081.80511	SPM	CL2	0.08	ppm
1/14/2005 10:08	By Avondale N33.56609 W081.80873	SPM	CL2	0.07	ppm
1/14/2005 10:06	Canal St. and Church St. (by school) N33.56703 W081.80722)	SPM	CL2	0.06	ppm
1/16/2005 22:23	Hwy 191 Main Overpass N.33.55416 W81.81111	SPM	CL2	.06	ppm
1/19/2005 9:08	Swan Antique Mall	SPM	CL2	0.05	ppm
1/8/2005 19:00	Storm outfall @ Horse Ck N33.56160 W81.81168	MR	CL2	10	ppm

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NSP1_006844

Comments

500mL no odor, slight color change
Slight Odor

100mL

100mL

100mL

100mL

100mL

Slight CL2 odor, possible interference w/ GT, 500mL
500mL 8La

100mL

No odor

On back rail handle

On hard rail

SPM maxed out, CTEH baked off

In APR, notify NS

In APR, notify NS

In APR, notify NS

14L 100mL

wearing respirator

On back hand rail

APR

Interior corrosion

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NSP1_006845

CTEH donned respirators and evacuated. Notified NS

14L 100mL

odor

No workers

odor

Sustained

Slight odor, donned respirators

200mL

Readings lasted

No workers

Slight odor downwind

slight odor 100mL

Everyone in APR

200mL Everyone in APR

odor

On road Marshall St.

100 mL Immediately DW of wreck

Spike on AreaRAE here 1.2 ppm

odor

odor

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NSP1_006846

odor

odor

No odor 100mL

odor

slight odor

Chlorine odor apparent

downwind

No odor

No odor

ToxiRae bouncing between 0.0 - 0.1 sunny

ToxiRae bouncing between 0.0 - 0.1 sunny

Chlorine odor no irritating: with Stevens Steam workers. See datalog for details, Level D

CTEH in APR, Respirators in use, directly downwind

downwind

By Leavelle McCambell public school, downwind of tracks

Mild odor

Breathing zone air at outfall pipe, CTEH evacuated area

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NSP1_006847



**NORFOLK
SOUTHERN**

Norfolk Southern Corporation
Environmental Protection
110 Franklin Road, S.E.
Roanoke, Virginia 24042-0013
540/981-4456

received

1-31-05

00304/01542/
RKH/KAC/CAQ/RHN/ST2

Richard P. Russell
System Director

January 27, 2005

Ms. Angie Jones
Bureau of Land and Waste Management
South Carolina Department of Health & Environmental Control
2600 Bull Street
Columbia, SC 29201-1708

Re: Graniteville Soil Remediation

Dear Ms. Jones:

This is a follow-up to our conversation from January 26, 2005. As requested, I have attached the analytical results from the samples collected at the Graniteville derailment site by our contractor, the Center for Toxicology and Environmental Health (CTEH). I have also attached a sample location sketch for your reference.

It is our understanding that based on our mutual sampling efforts, the Department is agreeable to issuing a no further action (NFA) determination for the site, particularly in light of the following:

- The excavation was advanced to visibly clean soil, and the analytical sampling program was developed and conducted in consultation with four on-site representatives from SCDHEC.
- Headspace readings collected from end point samples selected for analysis were extremely low (i.e. less than 15 ppm), as measured with a PID.
- Excavation in the vicinity of NS-01 was advanced to a clay layer at approximately 4 to 5 feet below grade, which will serve as a confining layer.
- Surface soils were removed in the vicinity of NS-03 after the collection of this sample.
- There are no known private water supply wells within a 1 mile radius of the site (the entire area is served by public water supply), and wells that exist beyond a 1 mile radius of the site are reportedly screened at approximately 160' below grade.
- There is a substantial separation distance to the groundwater table (the site of the excavation is at an elevation of approximately 260' above MSL while Horse Creek is at an elevation of approximately 200' above MSL).

Per our discussion, it is my understanding that the above site specific considerations together with the attached analytical results will support a no further action determination from the SCDHEC, and we will look forward to that written determination from your office.

In conclusion, I want to thank you and your colleagues for the professional and collaborative manner in which we were able to expeditiously and effectively address and remediate the environmental impacts at the site. In particular, Rick Caldwell, Chris Staton, Steve Burdick and Bubba Carnes all went above and beyond the call of duty to assist us in our response effort. I was also very happy to hear that you feel that Norfolk Southern took excellent care of your family members in Graniteville.

Sincerely,

Richard P. Russell

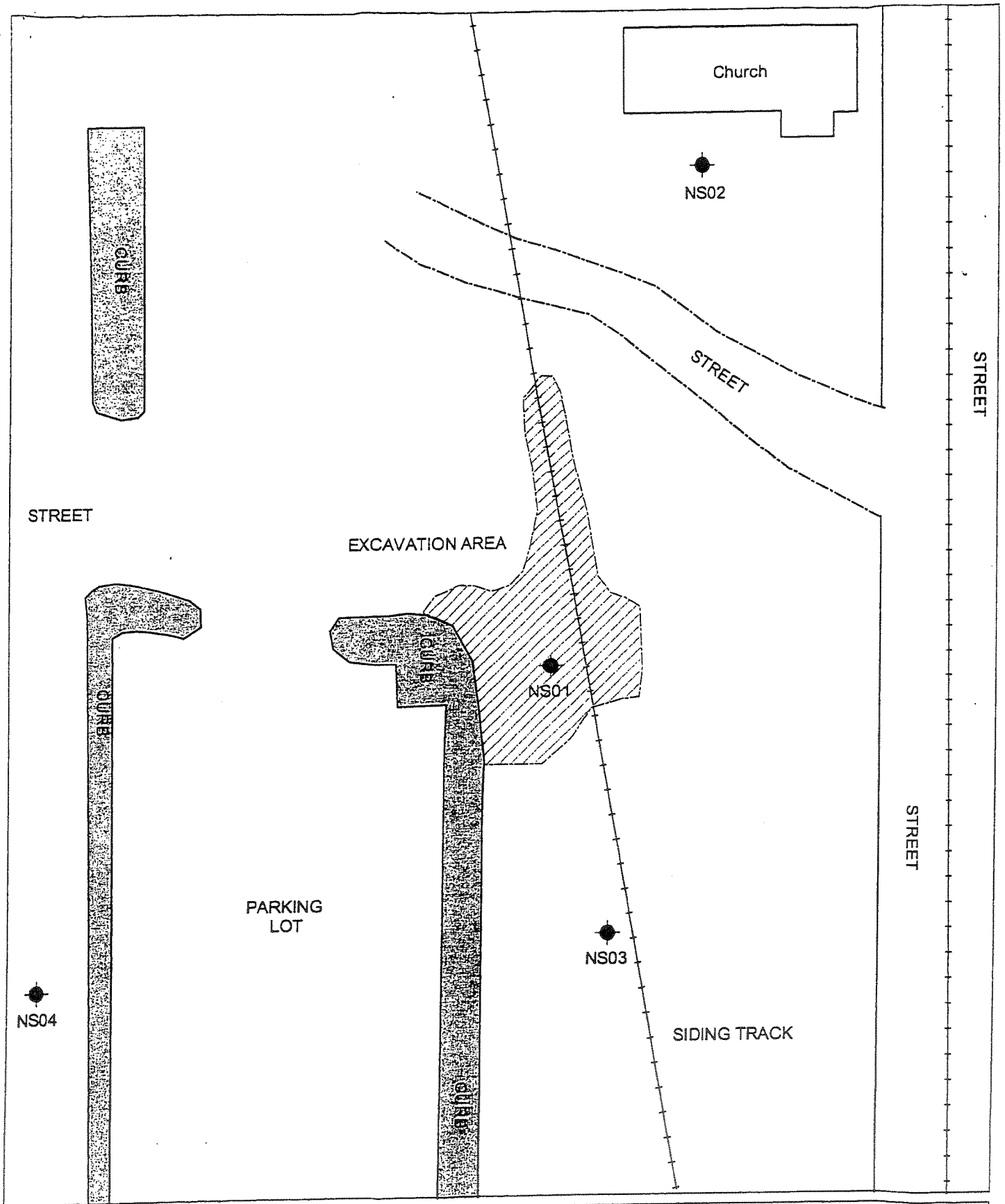
Ms. Angie Jones
January 27, 2005

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bcc: C. J. Wehrmeister
K. Crawford

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NSP1_006909



LEGEND

SITE SKETCH - GRANITEVILLE, SC
SOIL SAMPLING LOCATIONS



CTEH

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NSP1_006910