Clayton, Sr., P.E., Inc.
Civil & Environmental Engineering

October 12, 2009

Jaclynne Drummond
Compliance Hydrogeologist
NC Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

RE: Dunn-Erwin Landfill Phased Assessment Plan – Follow-up
Dunn-Erwin Landfill Transfer Station - SWS Permit No. 47-07T
Harnett County, NC

Ms. Drummond,

On behalf of Harnett County, C. T. Clayton, Sr., PE., Inc. is pleased to present the findings from our August 20, 2009 soil sampling event. The tests were taken to analyze for possible soil contamination after a leachate storage tank overflow were performed as described in our August 11, 2009 letter.

Samples were pulled from the bottom up, therefore, Sample 1 was taken from the 2-foot depth and Sample 2 was taken from the 1-foot depth within the background sampling point Location 1. Samples 3 & 4 came from Location 2 beside the tank. Samples 5 & 6 were taken at Location 3, approximately 25' down gradient of the tank. Samples 7 & 8 came from Location 4, approximately 75' down gradient of the tank.

After a careful review of the results, it appears that no soil contamination is present in exceedance of the October 2008 soil standards http://www.wastenotnc.org/soiltable.pdf. Please confirm our findings.

P. O. Box 578
Coats, NC 27521
Phone: 910-897-7070
Fax: 910-897-6767

Offices located in Coats and New Bern, North Carolina
www.ctclayton.com

Should you have any questions or comments regarding this plan, please contact me at the telephone numbers on the previous page or by e-mail at ryan@ctclayton.com.

Sincerely,

Ryan Sadler

cc: C. T. Clayton, Sr., P. E.
Tyrus Clayton, Jr. P.E.
Jerry Blanchard

/attachment – Environment 1, Inc. Report
CTC August 11, 2009 Letter

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 1003

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC
ATTN: RYAN SADLER
P.O. BOX 578
COATS ,NC 27521

DATE COLLECTED: 08/20/09
DATE REPORTED : 09/30/09

REVIEWED BY:

PARAMETERS	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5	Analysis Date	Analyst	Method Code
PH, Units	5.2	5.3	3.8	4.5	5.2	08/24/09	TRB	SM4500HB
Antimony (dry wt. basis), mg/kg	<1.5	<1.5	<1.5	<1.5	<1.5	09/04/09	CMF	EPA7041
Arsenic (dry wt. basis), mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	08/31/09	LFJ	SM3113B
Barium (dry wt. basis), mg/kg	5	6	13	10	12	08/26/09	LFJ	EPA200.7
Beryllium (dry wt. basis), mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	08/26/09	LFJ	EPA200.7
Cadmium (dry wt. basis), mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	09/03/09	CMF	SM3113B
Cobalt (dry wt. basis), mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	08/26/09	LFJ	EPA200.7
Copper (dry wt. basis), mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	08/27/09	LFJ	EPA200.7
Chromium, T.(dry wt. basis),mg/kg	3	<2.0	5	8	<2.0	08/25/09	LFJ	EPA200.7
Lead (dry weight basis), mg/kg	3	<2.5	3	4	3	09/01/09	LFJ	SM3113B
Nickel (dry wt. basis), mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	08/26/09	LFJ	EPA200.7
Selenium (dry wt. basis), mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	08/26/09	CMF	SM3113B
Silver (dry wt. basis), mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	08/26/09	LFJ	EPA200.7
Thallium (dry wt. basis), mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	09/04/09	CMF	EPA7841
Vanadium (dry wt. basis), mg/kg	<5.0	<5.0	29	23	7	08/26/09	LFJ	EPA200.7
Zinc (dry wt. basis), mg/kg	9	9	7	10	<5.0	08/28/09	ADD	SM3111B
Total Solids, %	91.05	93.66	84.17	82.33	94.11	08/21/09	TRB	SM2540G
Phosphorus, T. (dry wt.), mg/kg	85.33	177	65.09	926	52.19	08/31/09	TWA	EPA365.4
Nitrate-Nitrite (dry wt.), mg/kg	10.32	15.13	28.34	43.54	16.53	08/26/09	TWA	EPA353.2

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 1003 A

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC
ATTN: RYAN SADLER
P.O. BOX 578
COATS ,NC 27521

DATE COLLECTED: 08/20/09
DATE REPORTED : 10/01/09

REVIEWED BY:

PARAMETERS	Sample #6	Sample #7	Analysis Date	Analyst	Method Code
PH, Units	5.8	5.2	08/24/09	TRB	SM4500HB
Antimony (dry wt. basis), mg/kg	<1.5	<1.5	09/04/09	CMF	EPA7041
Arsenic (dry wt. basis), mg/kg	<2.5	<2.5	08/31/09	LFJ	SM3113B
Barium (dry wt. basis), mg/kg	8	<5.0	08/26/09	LFJ	EPA200.7
Beryllium (dry wt. basis), mg/kg	<0.5	<0.5	08/26/09	LFJ	EPA200.7
Cadmium (dry wt. basis), mg/kg	<0.5	<0.5	09/03/09	CMF	SM3113B
Cobalt (dry wt. basis), mg/kg	<5.0	<5.0	08/26/09	LFJ	EPA200.7
Copper (dry wt. basis), mg/kg	<5.0	<5.0	08/27/09	LFJ	EPA200.7
Chromium, T.(dry wt. basis),mg/kg	3	<2.0	08/25/09	LFJ	EPA200.7
Lead (dry weight basis), mg/kg	4	<2.5	09/01/09	LFJ	SM3113B
Nickel (dry wt. basis), mg/kg	<5.0	<5.0	08/26/09	LFJ	EPA200.7
Selenium (dry wt. basis), mg/kg	<5.0	<5.0	08/26/09	CMF	SM3113B
Silver (dry wt. basis), mg/kg	<2.0	<2.0	08/26/09	LFJ	EPA200.7
Thallium (dry wt. basis), mg/kg	<0.5	<0.5	09/04/09	CMF	EPA7841
Vanadium (dry wt. basis), mg/kg	<5.0	<5.0	08/26/09	LFJ	EPA200.7
Zinc (dry wt. basis), mg/kg	15	6	08/28/09	ADD	SM3111B
Total Solids, %	94.96	92.74	08/21/09	TRB	SM2540G
Phosphorus, T. (dry wt.), mg/kg	262		08/31/09	TWA	EPA365.4
Phosphorus, T. (dry wt.), mg/kg		9.01	09/03/09	TWA	EPA365.4
Nitrate-Nitrite (dry wt.), mg/kg	8.75	16.55	08/26/09	TWA	EPA353.2

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

ID#: 1003

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC
ATTN: RYAN SADLER
P.O. BOX 578
COATS ,NC 27521

DATE COLLECTED: 08/20/09
DATE REPORTED : 09/30/09

REVIEWED BY:

PARAMETERS	Sample #8	Analysis Date	Analyst	Method Code
PH, Units	4.9	08/24/09	TRB	SM4500HB
Antimony (dry wt. basis), mg/kg	<1.5	09/04/09	CMF	EPA7041
Arsenic (dry wt. basis), mg/kg	<2.5	08/31/09	LFJ	SM3113B
Barium (dry wt. basis), mg/kg	13	08/26/09	LFJ	EPA200.7
Beryllium (dry wt. basis), mg/kg	<0.5	08/26/09	LFJ	EPA200.7
Cadmium (dry wt. basis), mg/kg	<0.5	09/03/09	CMF	SM3113B
Cobalt (dry wt. basis), mg/kg	<5.0	08/26/09	LFJ	EPA200.7
Copper (dry wt. basis), mg/kg	<5.0	08/27/09	LFJ	EPA200.7
Chromium, T.(dry wt. basis),mg/kg	<2.0	08/25/09	LFJ	EPA200.7
Lead (dry weight basis), mg/kg	4	09/01/09	LFJ	SM3113B
Nickel (dry wt. basis), mg/kg	<5.0	08/26/09	LFJ	EPA200.7
Selenium (dry wt. basis), mg/kg	<5.0	08/26/09	CMF	SM3113B
Silver (dry wt. basis), mg/kg	<2.0	08/26/09	LFJ	EPA200.7
Thallium (dry wt. basis), mg/kg	<0.5	09/04/09	CMF	EPA7841
Vanadium (dry wt. basis), mg/kg	<5.0	08/26/09	LFJ	EPA200.7
Zinc (dry wt. basis), mg/kg	11	08/28/09	ADD	SM3111B
Total Solids, %	93.65	08/21/09	TRB	SM2540G
Phosphorus, T. (dry wt.), mg/kg	193	08/31/09	TWA	EPA365.4
Nitrate-Nitrite (dry wt.), mg/kg	13.51	08/26/09	TWA	EPA353.2

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

METHOD 8260 GC/MS

VOLATILE ORGANIC COMPOUNDS IN SOILS

(Prep Method: 5030)

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC.
ATTN: RYAN SADLER
46 WEST WASHINGTON STREET
COATS, NC 27521

Client ID#:	**1003**
Analyst:	**MAO**
Date Collected:	**08/20/09**
Date Analyzed:	**09/03/09**
Date Reported:	**09/30/09**

Reviewed by: _____

Location

	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5
Dilution Factor *	1	1	1	1	1
(All Results in mg/kg)					
Chloromethane	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	<0.010	<0.010	<0.010	<0.010	<0.010
Bromomethane	<0.010	<0.010	<0.010	<0.010	<0.010
Chloroethane	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	<0.005	<0.005	<0.005	<0.005	<0.005
Acetone	<0.050	<0.050	**0.162**	**0.110**	**0.298** x
Iodomethane	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon Disulfide	<0.010	<0.010	<0.010	<0.010	<0.010
Methylene chloride	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	<0.025	<0.025	<0.025	<0.025	<0.025
cis-1,2-Dichloroethene	<0.005	<0.005	<0.005	<0.005	<0.005
2-Butanone	<0.100	<0.100	<0.100	<0.100	<0.100
Bromochloromethane	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroform	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005
Carbon Tetrachloride	<0.005	<0.005	<0.005	<0.005	<0.005
Benzene	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethene	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	<0.005	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-pentanone	<0.050	<0.050	<0.050	<0.050	<0.050

(Continued; page 2)

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

Page 2, Continued: Method 8260 GC/MS
Volatile Organic Compounds in Soils

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC.
ATTN: RYAN SADLER
46 WEST WASHINGTON STREET
COATS, NC 27521

Client ID#:	**1003**
Analyst:	**MAO**
Date Collected:	**08/20/09**
Date Analyzed:	**09/03/09**
Date Reported:	**09/30/09**

Location

(All Results in mg/kg)	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5
Toluene	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	<0.005	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	<0.005	<0.005	<0.005	<0.005	<0.005
2-Hexanone	<0.050	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dibromoethane	<0.005	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1,2-Tetrachloroethane	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050
Xylenes, Total	<0.010	<0.010	<0.010	<0.010	<0.010
Dibromomethane	<0.005	<0.005	<0.005	<0.005	<0.005
Styrene	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.050	<0.050	<0.050	<0.050	<0.050
1,2,3-Trichloropropane	<0.010	<0.010	<0.010	<0.010	<0.010
1,4-Dichlorobenzene	<0.010	<0.010	<0.010	<0.010	<0.010
1,2-Dichlorobenzene	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dibromo-3-Chloropropane	<0.005	<0.005	<0.005	<0.005	<0.005
Acrylonitrile	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,4-Dichloro-2-Butene	<0.005	<0.005	<0.005	<0.005	<0.005

[x] Concentration exceeded instrument calibration range.

* Dilution Factor = 1 for Low Level analysis. DF = 50 or higher for high level analysis.

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

METHOD 8260 GC/MS

VOLATILE ORGANIC COMPOUNDS IN SOILS

(Prep Method: 5030)

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC.
ATTN: RYAN SADLER
46 WEST WASHINGTON STREET
COATS, NC 27521

Client ID#:	**1003**
Analyst:	**MAO**
Date Collected:	**08/20/09**
Date Analyzed:	**09/03/09**
Date Reported:	**09/30/09**

Reviewed by: _____

Location

	Sample #6	Sample #7	Sample #8
Dilution Factor *	1	1	1
(All Results in mg/kg)			
Chloromethane	<0.005	<0.005	<0.005
Vinyl Chloride	<0.010	<0.010	<0.010
Bromomethane	<0.010	<0.010	<0.010
Chloroethane	<0.010	<0.010	<0.010
Trichlorofluoromethane	<0.005	<0.005	<0.005
1,1-Dichloroethene	<0.005	<0.005	<0.005
Acetone	**0.129**	**0.300** x	<0.050
Iodomethane	<0.010	<0.010	<0.010
Carbon Disulfide	<0.010	<0.010	<0.010
Methylene chloride	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	<0.005	<0.005	<0.005
1,1-Dichloroethane	<0.005	<0.005	<0.005
Vinyl acetate	<0.025	<0.025	<0.025
cis-1,2-Dichloroethene	<0.005	<0.005	<0.005
2-Butanone	<0.100	<0.100	<0.100
Bromochloromethane	<0.005	<0.005	<0.005
Chloroform	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	<0.005	<0.005	<0.005
Carbon Tetrachloride	<0.005	<0.005	<0.005
Benzene	<0.005	<0.005	<0.005
1,2-Dichloroethane	<0.005	<0.005	<0.005
Trichloroethene	<0.005	<0.005	<0.005
1,2-Dichloropropane	<0.005	<0.005	<0.005
Bromodichloromethane	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	<0.005	<0.005	<0.005
4-Methyl-2-pentanone	<0.050	<0.050	<0.050

(Continued; page 2)

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

Page 2, Continued: Method 8260 GC/MS
Volatile Organic Compounds in Soils

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC.
ATTN: RYAN SADLER
46 WEST WASHINGTON STREET
COATS, NC 27521

Client ID#:	**1003**
Analyst:	**MAO**
Date Collected:	**08/20/09**
Date Analyzed:	**09/03/09**
Date Reported:	**09/30/09**

Location

(All Results in mg/kg)	**Sample #6**	**Sample #7**	**Sample #8**
Toluene	<0.005	<0.005	<0.005
trans-1,3-Dichloropropene	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	<0.005	<0.005	<0.005
Tetrachloroethene	<0.005	<0.005	<0.005
2-Hexanone	<0.050	<0.050	<0.050
Dibromochloromethane	<0.005	<0.005	<0.005
1,2-Dibromoethane	<0.005	<0.005	<0.005
Chlorobenzene	<0.005	<0.005	<0.005
1,1,1,2-Tetrachloroethane	<0.005	<0.005	<0.005
Ethylbenzene	<0.050	<0.050	<0.050
Xylenes, Total	<0.010	<0.010	<0.010
Dibromomethane	<0.005	<0.005	<0.005
Styrene	<0.005	<0.005	<0.005
Bromoform	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	<0.050	<0.050	<0.050
1,2,3-Trichloropropane	<0.010	<0.010	<0.010
1,4-Dichlorobenzene	<0.010	<0.010	<0.010
1,2-Dichlorobenzene	<0.005	<0.005	<0.005
1,2-Dibromo-3-Chloropropane	<0.005	<0.005	<0.005
Acrylonitrile	<0.005	<0.005	<0.005
trans-1,4-Dichloro-2-Butene	<0.005	<0.005	<0.005

[x] Concentration exceeded instrument calibration range.

* Dilution Factor = 1 for Low Level analysis. DF = 50 or higher for high level analysis.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 1003 1003A Week: 1

DUNN/ERWIN LANDFILL (SOIL SAMPLES)
C/O C.T. CLAYTON, SR., PE, INC
ATTN: RYAN SADLER
46 WEST WASHINGTON STREET
COATS NC 27521

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	pH	Metals	% Total Solids	PO4	Nitrate-Nitrite	EPA 8260B	8260 Dup. 1
						P	P	P	P	P	G	G
						A	A	A	A	A	E	E
Sample #1	8/20/09	5:15pm			5							
Sample #2	8/20/09	5:00pm			5							
Sample #3	8/20/09	4:45pm			5							
Sample #4	8/20/09	4:30pm			5							
Sample #5	8/20/09	4:15pm			5							
Sample #6	8/20/09	4:00pm			5							
Sample #7	8/20/09	3:45pm			5							
Sample #8	8/20/09	3:30pm			5							

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS

A - NONE
B - HNO_3
C - H_2SO_4
D - NAOH
E - HCL
F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [X] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
Y N

SAMPLES COLLECTED BY:
(Please Print)

SAMPLES RECEIVED IN LAB AT 3.8 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	8/21/09 9:00AM	B [signature]	8/21 10:54
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested.

FORM #5

№ 191827

Clayton, Sr., P.E., Inc.
Civil & Environmental Engineering

August 11, 2009

Jaclynne Drummond
Compliance Hydrogeologist
NC Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

RE: Dunn-Erwin Landfill Phased Assessment Plan
SWS Permit No. 47-07T
Harnett County, NC

Ms. Drummond,

On behalf of Harnett County, C. T. Clayton, Sr., PE., Inc. is pleased to present this phased assessment plan as required in compliance order dated July 28, 2009 regarding the Dunn-Erwin Landfill Facility Transfer Station leachate storage tank spill.

Introduction

On January 15, 2009 it was observed by the inspection party that a recent overflow had occurred at the leachate storage tanks. The tanks had become full and had overflowed out the manhole lid and down the sloped stone truck road via a small stormwater ditch. The report described the affected area as:

> "The leachate impacted the soil surrounding the concrete pad that is located above the tank and approximately 50 feet of soil that is adjacent to the gravel driveway that slopes away from the transfer station area."

The landfill operations officer took a backhoe and scraped off the top layer of soils which had come in contact with the leachate and disposed of the soils.

Proposed Action Plan

Due to the clayey soils found throughout the landfill facility, CTC does not feel that any potential contamination would have infiltrated below 2-feet in depth.

CTC proposes to perform 8 soil tests within 4 locations (one test a 12" and one at 24" for each location). A soils test will be performed up-gradient of the spill for background testing. The

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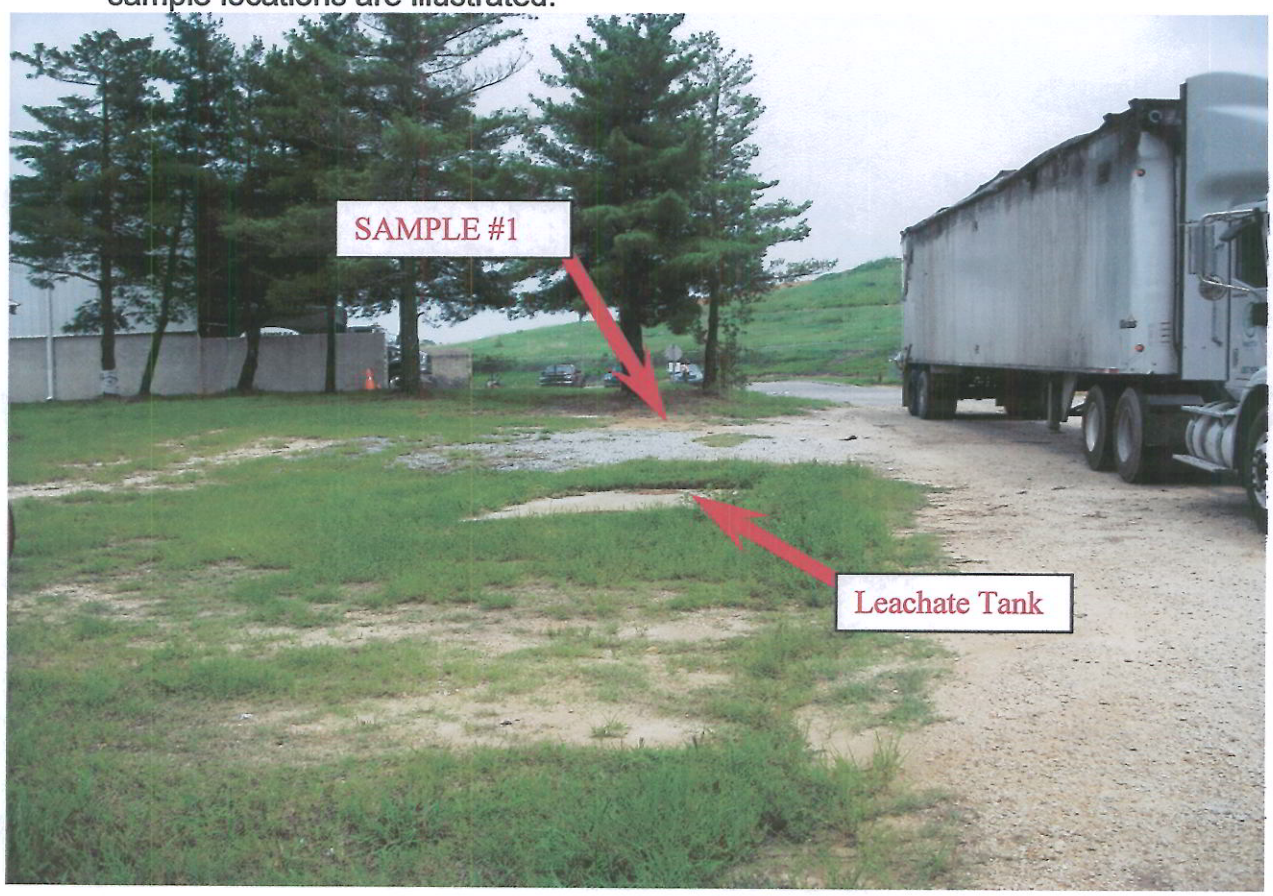
remaining tests will be conducted directly beside the leachate storage tank, 25-feet down-gradient and 75-feet down-gradient.

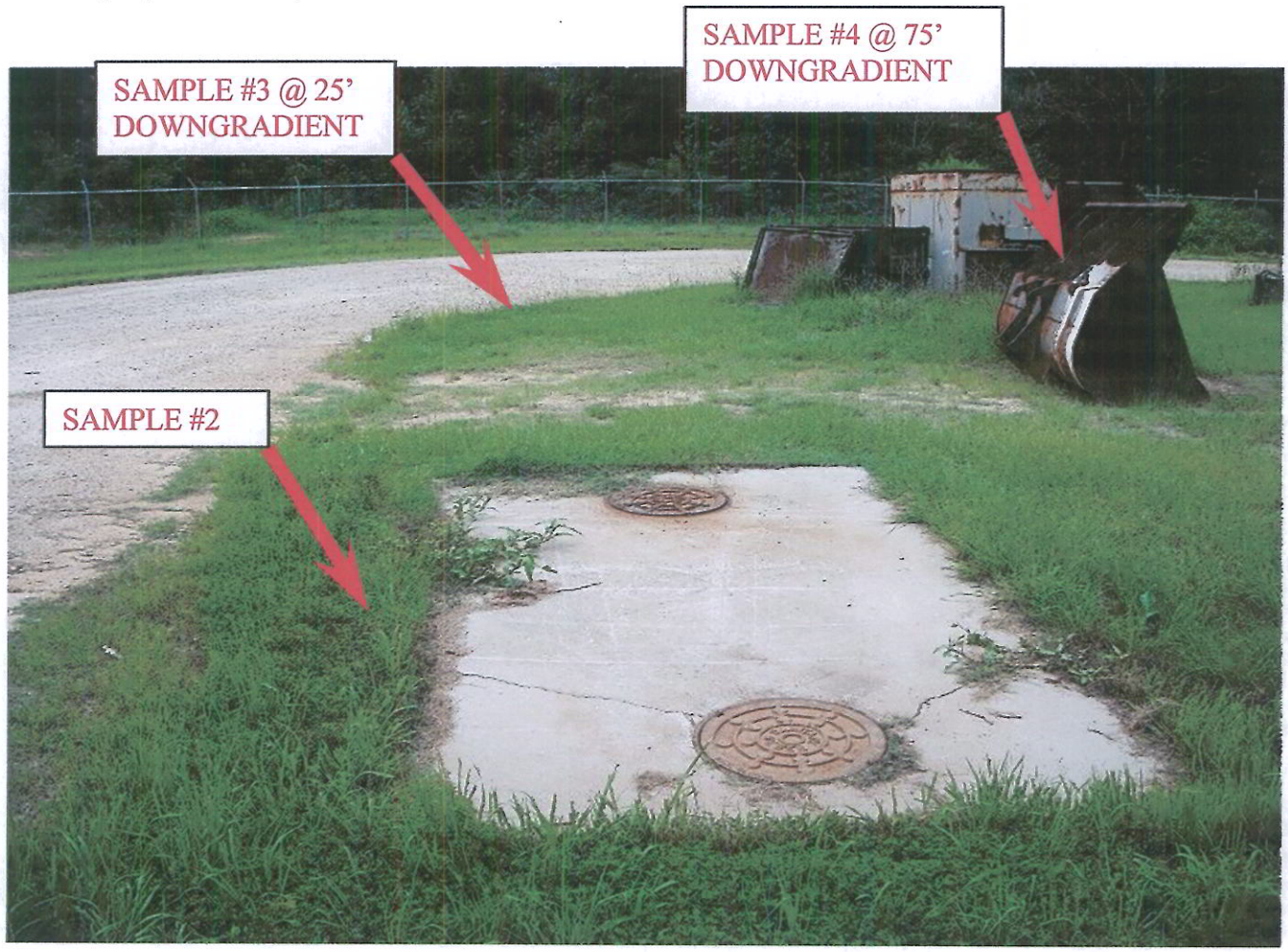
Sampling Procedure

A backhoe will be utilized to excavate a test pit approximately 3-feet in depth. A technician wearing latex gloves will use a stainless steel tool to scrape the side wall of the pit at the 12" depth. The soil will be packed as tightly as possible into the sample container. The technician will detoxify the tool in a Liqui-Nox® solution and rinsed with de-ionized water prior to the next sample at 24" depth. The technician will use a clean pair of gloves for each sample. This procedure will be repeated for all samples.

The picture below shows the top of the tank looking up-gradient. The proposed sample locations are illustrated.



The picture below shows the top of the tank looking down-gradient. The proposed sample locations are illustrated.



Sample Testing

The soil samples will be sent to Environment 1, Inc., of Greenville, NC for analysis of Appendix I Volatile Organics and Metals, Nitrate-Nitrite, Phosphorus, Percent Solids, and pH. Soil results will be compared to updated October 2008 soil standards - http://www.wastenotnc.org/soiltable.pdf

When the results are returned we will share the information with the Solid Waste Section and discuss further actions at that time.

Conclusion

C. T. Clayton, Sr. PE, Inc. (CTC) proposes to proceed with the assessment plan in phases as follows:

- **Phase 1** - CTC will take the eight soils samples as described above and send to Environment 1, Inc. for analysis.
- **Phase 2** - CTC will forward results of soil samples taken and contact the Solid Waste Section to discuss the analytical results. Based upon the preliminary sampling results, additional soil and/or surface water sampling and/or installation of monitoring wells or temporary piezometers may be required since no monitoring wells are present down-gradient of the leachate release flow-path.
- **Phase 3** - If necessary, implement the agreed upon clean-up and disposal method or additional sampling and follow up with a report documenting the work as completed.

Should you have any questions or comments regarding this plan, please contact me at the telephone numbers on the previous page or by e-mail at ryan@ctclayton.com.

Sincerely,

Ryan Sadler

cc: C. T. Clayton, Sr., P. E.
Ryan Sadler
Jerry Blanchard

/attachment – Location Sketch