



May 15, 2000

NCDENR
Division of Solid Waste Management
401 Oberlin Road
Raleigh, North Carolina 27605

ATTENTION: Mr. Larry Rose

Reference: Former Bladen County Landfill
Request to Modify the Water Quality Monitoring Program
S&ME Job No. 1034-95-147

Dear Mr. Rose:

S&ME, Inc., on behalf of Bladen County Solid Waste, requests that two monitoring wells (MW-2 and MW-6) and the surface water samples (upgradient and downgradient) be eliminated from the monitoring program for the referenced landfill. Our rationale for the request is discussed below. Bladen County Solid Waste would like to have this change implemented for the Spring 2000 sampling event, which is scheduled for this month, and would appreciate a quick response to this request so that unneeded sampling and analysis costs may be saved. Based on the laboratory data of the Spring 2000 sampling event, S&ME would also like to discuss the elimination of monitoring wells (MW-4 and MW-7). The rationale for the elimination of these wells will be forwarded to you at a later date.

Monitoring well MW-2 is one of three monitoring wells (MW-1 and MW-3) located up-gradient of the landfill. In addition laboratory data of groundwater samples collected at MW-2 have been non-detect for organics since 1995 and non-detect for metals since September 1997. In 1995, chromium, lead and zinc were detected at MW-2, however the concentrations were below the groundwater standards. In 1996, zinc was the only metal present at MW-2, and was also below the groundwater standard.

**Request to Modify the Water Quality Monitoring Program
Bladen County Landfill**

**S&ME Project No. 1034-95-147
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Past groundwater sampling at MW-6 has shown sporadic detection of lead and arsenic, but not above the groundwater standards. Organics have not been detected at MW-6 since 1995. In addition, MW-6 is located in a discharge area on Bladen County property. Therefore, the likelihood of contaminants migrating offsite within the groundwater is low.

Laboratory data of surface water samples collected upgradient and downgradient of the landfill show that organics have been non-detect since the first sampling in February 1998. The only metal detected in the downgradient sample was Arsenic during March 1999.

Due to the conditions discussed above, S&ME requests that monitoring wells MW-2 and MW-6 and the surface water samples (upgradient and downgradient) be eliminated from the water quality monitoring program for the landfill. During our phone conversation on April 24, 2000, these items were discussed and you indicated that their elimination from the monitoring program would seem reasonable.

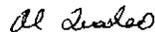
If you have any questions regarding this request or require additional information concerning our request, please contact us.

Sincerely,

S&ME, Inc.



Jamie T. Honeycutt
Staff Professional



Al Quarles, L.G.
Senior Hydrogeologist

c: Mr. Chuck Bryant - Bladen County Solid Waste



NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

JAMES B. HUNT JR.
GOVERNOR

May 30, 2000

BILL HOLMAN
SECRETARY

Mr. Chuck Bryan
Director, Bladen County Solid Waste
1522 Mercer Mill Road
Elizabethtown, N.C. 28337

WILLIAM L. MEYER
DIRECTOR

Re: Correction for May 15, 2000 Letter

Dear Mr. Bryan:

In my May 15, 2000 letter approving the request to modify the water quality monitoring plan for the Bladen County Landfill I listed monitoring wells MW-1 and MW-3 as the wells to be eliminated from semi-annual sampling requirements. That was a mistake. The correct wells to be dropped are MW-2 and MW-6. Please note this correction. The error was brought to my attention by your consultant, Mr. Jamie Honeycutt of S&ME, Inc.

Wells MW-2 and MW-6 should not be permanently abandoned, but secured and maintained like all of the other wells in the monitoring system.

Please accept my apology for any confusion or misunderstanding that may have resulted. If you have any questions, please call me at (919) 733-0692, extension 257.

Sincerely

Larry Rose
Environmental Specialist
Solid Waste Section

cc: Mark Fry - Eastern Region Supervisor
Ikie Guyton - Waste Management Specialist
Jamie Honeycutt - S&ME, Inc.



1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

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NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

May 15, 2000 DIVISION OF WASTE MANAGEMENT

JAMES B. HUNT JR. GOVERNOR

Mr. Chuck Bryan Director, Bladen County Solid Waste 1522 Mercer Mill Road Elizabethtown, N.C. 28337

BILL HOLMAN SECRETARY

Re: Water Quality Monitoring Requirements - Bladen County Landfill (Permit # 09-01)

WILLIAM L. MEYER DIRECTOR

Dear Mr. Bryan:

The request to modify the water quality monitoring plan for the Bladen County Landfill submitted by S&ME, Inc. on behalf of Bladen County has been reviewed. Specifically, the request proposed the elimination of sampling requirements for monitoring wells MW-2 and MW-6, and the upgradient and downgradient surface water locations.

Based on the documentation submitted and a review of the information from the files in this office, the Solid Waste Section conditionally approves the requested changes to the monitoring requirements. Monitoring wells MW-2, MW-6, and surface water locations upgradient and downgradient may be deleted from sampling and analysis requirements beginning with the next monitoring event.

Information generated from past sampling episodes indicates some redundancy and inefficiency in a number of the sampling locations and adjusting the requirements should not jeopardize the ability to monitor any effects the landfill has on water quality at the site. However if there are any significant changes in future water quality data from the remaining wells, it may be necessary to reinstate these locations for sampling requirements.

If you have any question, please call me at (919) 733-0692, extension 257.

Sincerely, Larry Rose Environmental Specialist Solid Waste Section

- cc: Phil Prete, Head - Field Operations Branch Mark Fry - Eastern Region Supervisor Ikie Guyton - Waste Management Specialist Jamie Honeycutt - S&ME, Inc.

bryan.wpd



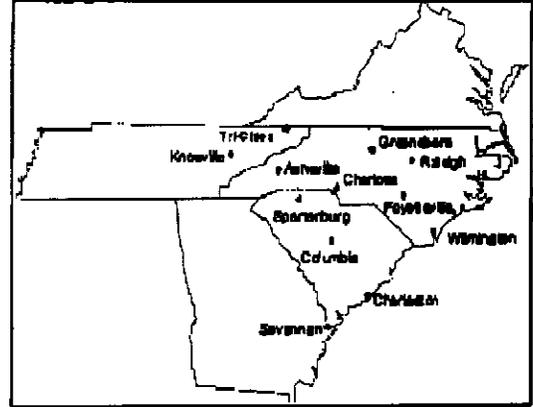
1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646 401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605 PHONE 919-733-4996 FAX 919-715-3605

**FAX TRANSMITTAL
COVER SHEET**
URGENT TRANSMISSION
Please Forward Immediately



S&ME, Inc.
409 Chicago Drive
Suite 116
Fayetteville, NC 28306
(910) 323-1091
Fax (910) 323-3499

TO: Larry Rose
FIRM: _____
LOCATION: RALEIGH
FAX NUMBER: 919-733-4810
FROM: Jamie T. Honeycutt
Bladen County Landfill



DATE: May 15, 2000 TIME: 1:43 PM

RETURN FAX NUMBER: (910) 323-3499

NUMBER OF PAGES INCLUDING COVER SHEET: 3
(If all pages not received, call (910) 323-1091)

COMMENTS:

Mr. Rose:

Here is the letter regarding the elimination of sampling points for the Bladen County Landfill. I will mail you the original.

Thanks

Jamie T. Honeycutt

S&ME Project Number:

This cover sheet and the documents accompanying this telecopy transmission contain information from S&ME, Inc., which is confidential and legally privileged. The information is intended only for the use of the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on these documents is strictly prohibited.



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Division of Solid Waste Management
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Sincerely,

S&ME, Inc.



Jamie T. Honeycutt
Staff Professional



Al Quarles, L.G.
Senior Hydrogeologist

c: Mr. Chuck Bryant - Bladen County Solid Waste

Bladen Co.

- 19-00 - called Chuck Bryan
 - Got permission to talk to S+ME - Jamie Honeycutt
 - Told Mr. Bryan about some possible changes w/ monitoring requirement.
 - Will call Jamie Honeycutt next. He can then keep Mr. Bryan informed.
- called Jamie Honeycutt - out until Fri.

- 24-00 - Talked to Jamie Honeycutt
 - Discussed request
 - He will submit proposal on behalf of Bladen Co.
 - Faxed him a copy of the closure letter and Bladen Co's response.

Subject: Bladen Co. Monitoring

Date: Tue, 18 Apr 2000 09:15:17 -0400

From: Larry Rose <Larry.Rose@ncmail.net>

To: PHIL PRETE <PHIL.PRETE@ncmail.net>

Phil,

I received a call last week from Chuck Bryan, the Solid Waste Director for Bladen Co. He asked for a review of the monitoring requirements and if possible some latitude. According to him, the county is hurting budget-wise and evidently he is in the process of developing a budget for the upcoming year. This year is the 5th year of official post closure monitoring for the old closed landfill. Earlier he had called me about monitoring of the new C&D site, again requesting some leniency. There I gave him some room with a strict interpretation of the rules. He could delay placing waste in the site and consequently delay monitoring.

I have reviewed the data and well records files and could offer some relief for this year by reducing the number of monitoring locations. Basically I could eliminate surface water monitoring and delete wells that have not shown much, and still have adequate monitoring coverage. There seems to be some redundancy in the system, particularly with upgradient coverage. According to the groundwater flow direction maps, the discharge point is a large creek and swamp bordering the site that eventually empties into the Cape Fear. As far as I can tell, there are no receptors downgradient.

I don't know if the financial situation for the county is as bad as was implied, but I don't have any problems with recommending this if it doesn't infringe on the permitting branch's territory. Let me have your thoughts on this. Does this type of action fall under our jurisdiction? Thanks.

Larry

Chuck Bryan - 910-645-4279

4-18-00

Phil's suggestion:

- Call Chuck Bryan. Tell him we have some ideas and want permission to talk w/ his consultant.
- Call S&ME - Jamie Honeycutt - 910-323-1091 - and discuss ideas.
- Ask for written request to change or vary monitoring requirements.
- Request should come from CF owner and research & justification should not be done by SWS.
- Any changes should not be based on Co's financial standing.
- Field Operations has jurisdiction to make these types of decisions.

Bladen Co.

4-14-00

- Call from Chuck Bryan
Bladen Co. - Solid Waste
Director
- County "hunting" budget-wise.
- Can any adjustments to
monitoring requirements be
made for old LF?
- Told him we would review
data, etc.

L.

Bladen Co. - Monitoring System.

1. Well screen lengths vary - 5' - 10'
2. Screened in 2 different formations - Waccamaw - Black Creek.
3. Subsurface stratigraphy varies - sands & clays.
4. Wells surveyed. GW elevations can be calculated.
5. Some wells screened in sand, some in clay.
6. Well depths vary - 22' → 44' BTOC
7. Water levels vary - 0.5' → 33' BTOC
8. No well located directly downgradient w/ compliance boundary.

1. Analyses w/ lower MDLs have detected more contaminants than current MDLs.

Possible modification:

1. Annual monitoring wells: ^{Beginning in 2001} VOCs; RERA metals.

MW-1 MW-3 MW-5 MW-8 MW-9

2. Discontinue sampling monitoring wells:

MW-2 MW-4 MW-6 MW-7

3. Drop surface water monitoring: - Brown's Creek

SW-1 SW-2

- ** 4. 2000 - Sample wells MW-1 MW-3 MW-5 MW-8 MW-9

2x This year.

* LF has been investigated by CERCLA

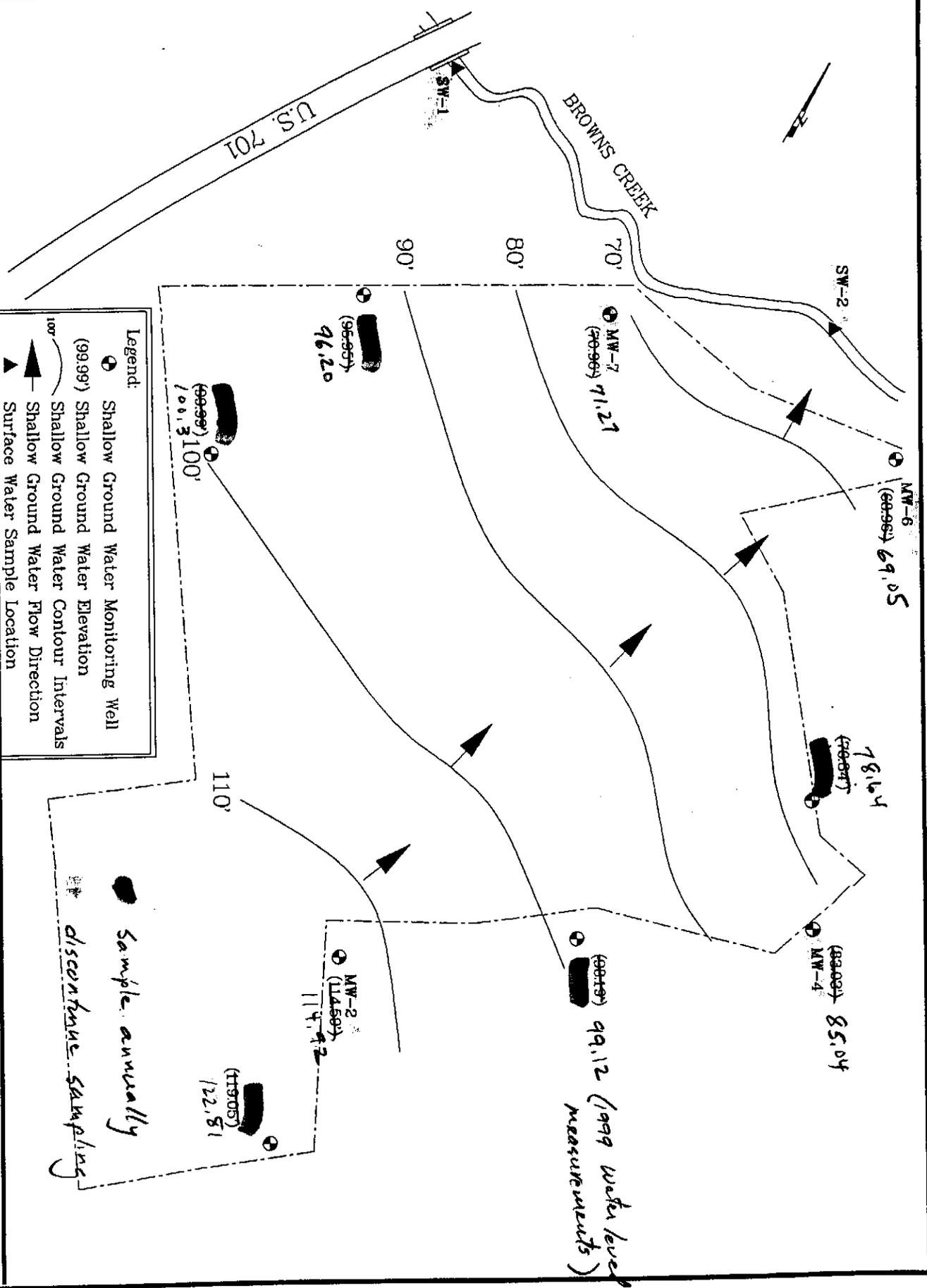
* Official 5 yrs Post Closure Monitoring ends 11/2000

PROJECT: BLADEN COUNTY LANDFILL
ELIZABETHTOWN, NORTH CAROLINA

TITLE: Site Plan With Shallow Ground Water Contour Map

JOB: 007
DRAWING: 007-1
FIGURE: 2
SCALE: 1"=350'

AQUATERRA, INC.
RALEIGH, GREENSBORO, CHARLOTTE
NORTH CAROLINA



Bleden Co. - Detections per well
 LAST 7-sampling events

MW-1 As 24
 Pb 6.5 - 6.89
 Cd 2

MW-2 Cr 20.1 Pb 3.72
 Z 24.8 - 26

MW-3 Cd 3-2-2
 As 27 - 20 - 11 - - 50
 Se 50
 Cr 12.3
 Pb 8.74 - 4.65
 Z 20.6

MW-4 1,1-DCA 5
 Cd 1-1

MW-5 As 10 - 25.1 - *
 Be 2
 Co 21
 Ba 291 - *
 Pb - *
 Z 121
 Acetone 140J - * - 320

* same sampling event.

MW-6 As 10

Pb 3.88 - 4.23

MW-7 As 16 - 10 - 10

Cd 1 - 1

MC

MW-8 Cd - - - - 2 - -

Ba 732

Z 1910 - 29.8

Pb 4.08

MW-9 C-1,2-DCE 7.8 - 8.9 - 9.9 - 8.5 - 10

As 18 - 12

Z 65 - 91.2 - 45.7

Cd 1

Cr 35

Bladen Co - 2 L Exceedances
LAST 7 sampling events

MW-3 As 54 - 50

MW-5 Ba 2550 AS 294

Pb 22 - 320

Acetone 2100

MW-7 Mc 12

MW-8 Cd 10 - 11 - 48 - 9 - 92.7

Bladen Co.
Partial Monitoring History

11-10-99

MW-1
2
3 Cd 3
4 1,1-DCA 5
5
6
7 As 16
8 ~~As~~ ~~16~~
9 Z 65

3-30-99

MW-1 As 24
Cd 2
2
3 As 20
Cd 2
4
5 Be 2
Co 21
Pb 22
Acetone 140 J
6 As 10
7 As 10
8 Cd 2
9 C-1,2-DCE 9.9

9-30-98

MW-1
2
3 Cd 2
4 Cd 1
5
6
7 Cd 1
8 ~~As~~ ~~16~~
9 C-1,2-DCE 7.8

2--98

MW-1
2
3 As 11
Se 50
4
5
6
7 Cd 1
8 ~~As~~ ~~16~~
9 As 12
Cd 1
Cr 35
C-1,2-DCE 8.5

9-18-97

MW-1
2
3 As 27
4 Cd 1
5 As 10
6
7 As 10
8 ~~As~~ ~~16~~
9 As 18
C-1,2-DCE 8.9

6-19-96

MW-1 Pb 6.50
2 Z 24.8
3 ~~As~~ ~~16~~
Cr 12.3
Pb 8.79
Z 20.6
4
5 As 25.1
Ba 291
Acetone 320
6 Pb 3.88
7 ~~As~~ ~~16~~
8 Ba 732
~~Cd~~ ~~16~~
Z 1910
9 C-1,2-DCE 10
Z 91.2

11-951

MW-1 Pb 6.89

2 Cr 20.1

Pb 3.72

Z 26

3 As 50

Pb 4.65

4

5 ~~As~~ ~~2.1~~

~~Z~~ ~~20.5~~

~~Pb~~ ~~2.1~~

Z 121

~~As~~ ~~2.1~~

6 Pb 4.23

7

8 Pb 4.08

Z 29.8

9 Z 45.7