



Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2059 ♦ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700
FAX (334) 271-7950

June 28, 2007

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711



Dear Mr. Turk:

RE: ALABAMA NATIONAL GUARD SITE
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of the report entitled "TCE Comprehensive Investigation at Organizational Maintenance Shop 28." Upon review of the report, the following was determined:

1. The report documents the sampling of temporary wells TW-1, TW-3, TW-4, TW-5, PZ-1 and PZ-2; however, the report does not include detailed information regarding how these wells were constructed, installed, purged and sampled during this sampling period, and if these well currently exist onsite. Additionally, the report does not include boring logs and well construction diagrams for these temporary wells. All information with respect to these wells should be submitted to ADEM for review.
2. The groundwater analysis collected from Direct Push Technology (DPT) wells are only deemed as screening data. Therefore, the Department agrees with the reports recommendation to install additional monitoring wells at the site to define the horizontal and vertical extent of contamination in groundwater. The Department recommends that additional monitoring wells are warranted between well MW-8 and temporary well TW-3, and in the vicinity of temporary wells TW-1 and TW-7. Additionally, due to the type of contaminant's of concern (chlorinated constituents), monitoring wells screened in a deeper groundwater producing zone or aquifer should be installed in the source area (adjacent to MW-8) and adjacent to temporary well TW-6 and monitoring well MW-12. All existing and proposed monitoring wells should be sampled for all VOCs. A work plan should be developed and submitted to ADEM for review and approval that incorporates detailed information regarding how the recommended monitoring wells will be installed, constructed, developed and sampled.
3. Soil samples should be obtained from soil intervals between the upper saturated zone and the deeper saturated zone from all deep monitoring wells. Soil samples collected should be submitted to the laboratory for the analysis of all VOCs. The above requested work plan should include details regarding how all soil samples will be collected.

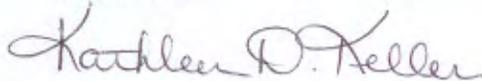


The report recommends developing a risk assessment in accordance with ADEM's most recent ARBCA guidance document. It should be noted that a risk assessment can not be performed until a minimum of 4 quarterly sampling events or 2 years of semi-annual sampling events have been completed. The above requested work plan should include a quarterly groundwater monitoring plan that includes how all monitoring wells will be purged and sampled for VOCs analysis. The plan should also include the submittal of quarterly monitoring reports to the Department.

Additionally, ADEM's ARBCA document has recently been revised. Therefore, the development of the risk assessment should be completed in accordance with the revised document (June 2007).

If there are any questions regarding this letter, please do not hesitate to contact me at 334/271-7964 or by Email at kdk@adem.state.al.us.

Sincerely,



Kathleen D. Keller
Hydrogeologist
ADEM Hydrogeology Section

KK/aw

File: GW106/AL National Guard – Mobile/ Mobile County/GW 07-01-02

ONIS "TREY" GLENN, III
DIRECTOR



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BOB RILEY
GOVERNOR



August 17, 2007

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711

Dear Mr. Turk:

RE: Alabama National Guard Site
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of the State Military Department's (Joint Force Headquarters Alabama National Guard) responses to ADEM's letter dated June 28, 2007 regarding the previously submitted report "TCE Comprehensive Investigation at Organizational Maintenance Shop 28." It has been determined that all of ADEM's comments have been adequately addressed.

Upon review of the installation information and construction of temporary wells TW-1 through TW-5, it has been determined that these well were not constructed in accordance with ADEM's guidance. Therefore, these temporary wells should be properly abandoned in accordance with ADEM's well abandonment guidance (See Appendix B of the Alabama Environmental Investigation and Remediation Guidance). All casing and annulus material should be removed, contained and disposed, with the borehole grouted by tremie method from the bottom of the borehole to the land surface.

If there are any questions, please do not hesitate to contact me at 334/271-7964 or by Email at kdk@adem.state.al.us.

Sincerely,

A handwritten signature in black ink that reads "Kathleen D. Keller".

Kathleen D. Keller
Hydrogeologist
ADEM Hydrogeology Section

KDK/pw

File: GW106/AL National Guard – Mobile/ Mobile County/GW 07-01-02

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(251) 479-2593 (Fax)

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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

March 18, 2008

Environmental and HTRW Section
Engineering Division

SUBJECT: Supplemental Comprehensive Investigation, Groundwater Incident No. GW 07-01-02, OMS-28, 1622 South Broad Street, Mobile, Mobile County, Alabama

Mr. Chad Reeves
Alabama Department of Environmental Management
Groundwater Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Reeves:

Please reference the ADEM letter to the Alabama Army National Guard dated June 28, 2007 requiring additional investigation on the subject site. On behalf of the Alabama Army National Guard, the work plan for the additional investigation has been completed and mailed to you under separate cover directly from the contractor, Aerostar Environmental. The work plan is provided for your information and, while comments are not expected, they are welcome. If you have any comments please provide them by March 24th as we anticipate field work starting next week.

If you have any concerns or comments, please contact Melissa Shirley at (251)690-2616.

Sincerely,

William L. Woodall
Chief, Environmental and HTRW Section

cf:

Alabama National Guard, ALJ4-CFMO-ENV (Rachel Riggins), P.O. Box 3711, Montgomery, Alabama, 36109-0711

EN-GE/Shirley *MKS*
EN-GE/Woodall *W*
EN-G/Poiroux *GW 3-18-08*

EN-GE/SUBJECT FILE

ONIS "TREY" GLENN, III
DIRECTOR



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adem.alabama.gov

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BOB RILEY
GOVERNOR

April 16, 2008

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711

Dear Mr. Turk:

RE: Alabama National Guard Site
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of the "Supplemental Comprehensive Investigation Work Plan" dated March 2008 for the above referenced facility. Upon review of the report, the Department has determined that the work plan is acceptable except for the following:

- Naphthalene was not included on the analysis list of VOCs and should be added.
- The detection limit for 1,1,2,2 Tetrachloroethane is higher than its respected Preliminary Screening Value (PSV) of .055 ug/l. The lab should be requested to get the detection limit at least to, if not lower than the PSV.

Due to Ms. Keller's retirement from the Department, I will be the future contact regarding this site. If there are any questions, please do not hesitate to contact me at 334/270- 5665 or by Email at jcreeves@adem.state.al.us.

Sincerely,

Chad Reeves
Hydrogeologist
ADEM Hydrogeology Section
Land Division

CR/bjk

File: GW106/AL National Guard – Mobile/ Mobile County/GW 07-01-02



Birmingham Branch
110 Vulcan Road
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STATE MILITARY DEPARTMENT
JOINT FORCE HEADQUARTERS ALABAMA NATIONAL GUARD
1720 CONGRESSMAN WILLIAM L. DICKINSON DRIVE
P. O. BOX 3711
MONTGOMERY, ALABAMA 36109-0711

REPLY TO
ATTENTION OF:

May 1, 2008

Office of Construction and Facilities Management, Environmental

Mr. Chad Reeves
Alabama Department of Environmental Management
Hydrogeology Section/Land Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Dear Mr. Reeves:

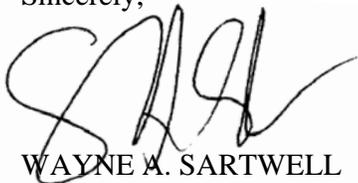
Upon receiving the comments from your office dated April 16, 2008, we forwarded the findings to the contractor, the United States Army Corps of Engineers (USACE) Mobile district. Melissa Shirley from the Environmental and HTRW Section, Engineering Division, USACE, reviewed the comments and responded as follows:

1. Comment: Naphthalene was not included on the analysis list of VOCs and should be added.
RESPONSE: Naphthalene was inadvertently left off of the table. It will be included as an analyte for the 8260B Volatile Organic Compounds analysis run on soil and groundwater.

2. Comment: The detection limit for 1,1,2,2 Tetrachloroethane is higher than its respective PSV of 0.055 µg/l. The lab should be requested to get the detection limit at least to, if not lower than, the PSV.
RESPONSE: The detection limit of 0.055 µg/L for 1,1,2,2 Tetrachloroethane is not attainable by the lab (Gulf Coast Analytical Laboratories GCAL in Baton Rouge, LA) using either method 8260B or method 8021B. GCAL can get 0.227 µg/L MDL. I have canvassed other labs that have done work for us including Empirical Laboratories (can get 0.20 µg/L MDL) and TestAmerica and GPL Laboratories (both can only get a 1.0 µg/L RL). Based on the info above, it is not possible for us to get a detection limit of 0.055 µg/L for 1,1,2,2 Tetrachloroethane. We will have a statement to that effect from the lab to include in the report.

Additional questions should be addressed to Rachel Riggins, Environmental Engineer, 1720A Congressman Dickinson Drive, Montgomery, Alabama 36109 or e-mailed to rachel.riggins@us.army.mil; she may also be reached by phone at (334) 271-8187. Thank you for your assistance.

Sincerely,



WAYNE A. SARTWELL
Lieutenant Colonel, MS, ALARNG
Environmental Program Manager

ONIS "TREY" GLENN, III
DIRECTOR



BOB RILEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

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July 10, 2008

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711

Dear Mr. Turk:

RE: **ALABAMA NATIONAL GUARD SITE**
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of your response letter (dated May 1, 2008) to our comments dated April 16, 2008 for the above referenced facility. Upon review of the letter, the Department has determined that the comments were addressed properly and are acceptable.

If there are any questions, please do not hesitate to contact me at **(334) 270- 5665** or by email at jcreeves@adem.state.al.us.

Sincerely,

Chad Reeves
Hydrogeologist
ADEM Hydrogeology Section
Land Division

CR/bjk

File: GW106/AL National Guard – Mobile/ Mobile County/GW 07-01-02

Birmingham Branch
110 Vulcan Road
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DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

May 27, 2008

Environmental and HTRW Section
Engineering Division

SUBJECT: Well Abandonment Report, Supplemental Comprehensive Investigation,
Groundwater Incident No. GW 07-01-02, OMS-28, 1622 South Broad Street,
Mobile, Mobile County, Alabama

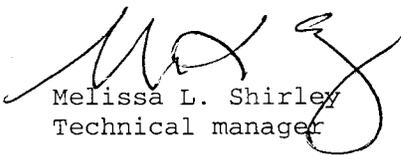
Mr. Chad Reeves
Alabama Department of Environmental Management
Groundwater Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Reeves:

Please reference the ADEM letter to the Alabama Army National Guard dated 17 August 2007 requiring abandonment of temporary wells on the subject site. In accordance with the work plan for the well abandonment, provided in the Supplemental Comprehensive Investigation Work Plan dated March 2008, the wells have been properly abandoned. The attached well abandonment report documents the well abandonment.

If you have any concerns or comments, please contact the Alabama Army National Guard or the undersigned at (251)690-2616.

Sincerely,


Melissa L. Shirley
Technical manager

cf:

Alabama National Guard, ALJ4-CFMO-ENV (Buzz Turk and Rachel Riggins), P.O.
Box 3711, Montgomery, Alabama, 36109-0711

File: F175 RB

ONIS "TREY" GLENN, III
DIRECTOR



BOB RILEY
GOVERNOR

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July 10, 2008

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711

Dear Mr. Turk:

RE: **ALABAMA NATIONAL GUARD SITE**
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of the "Well Abandonment Report" dated May 27, 2008 for the above referenced facility. Upon review of the report, the Department has determined that wells TW-1 through TW-5, MW-10, MW-11, PZ-1 and PZ-2 were properly abandoned.

If there are any questions, please do not hesitate to contact me at (334) 270- 5665 or by email at jcreeves@adem.state.al.us.

Sincerely,

Chad Reeves
Hydrogeologist
ADEM Hydrogeology Section
Land Division

CR/bjk

File: GW106/AL National Guard – Mobile/ Mobile County/GW 07-01-02

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DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

November 12, 2008

Environmental and HTRW Section
Engineering Division

SUBJECT: Supplemental Comprehensive Investigation Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

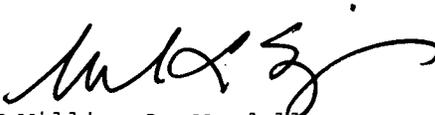
Mr. Chad Reeves
Alabama Department of Environmental Management
Groundwater Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Reeves:

Please reference the ADEM letter to the Alabama National Guard, dated 28 June 2007, requiring additional investigation on the subject site. On the behalf of the Alabama National Guard, the Supplemental Comprehensive Investigation Report documenting the additional investigation has been completed and is enclosed for your review.

If you have any concerns or comments, please contact Melissa Shirley at (251) 690-2616.

Sincerely,


for William L. Woodall
Chief, Environmental and HTRW Section

cf:

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV (Rachel Riggins) 1720 Congressman Dickinson Dr., Montgomery, AL 36109-0711

State Military Dept. Joint Force Headquarters Alabama National Guard CFMO/ENV (Buzz Turk) 1720 Congressman Dickinson Dr., Montgomery, AL 36109-0711

ONIS "TREY" GLENN, III
DIRECTOR



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BOB RILEY
GOVERNOR

July 15, 2009

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711

Dear Mr. Turk:

RE: Alabama National Guard Site
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of the following reports: "Supplemental Comprehensive Investigation Report" dated November 2008, and "Supplemental Comprehensive Investigation Groundwater Monitoring Report" dated April 2009. Upon review of the reports, the following was determined:

- In the November 2008 report the following Constituents of Concern (COCs) were detected above ADEM's Preliminary Screening Values (PSVs): Benzene, Chloromethane, Methylene Chloride, Naphthalene, Tetrachloroethene (PCE), and Trichloroethene (TCE).
- In the April 2009 report the following COCs were detected above ADEM's PSVs: Benzene, Naphthalene, PCE, and TCE.
- The reports recommend conducting the remaining sampling events to fulfill the 4 events needed for an ARBCA assessment and complete the ARBCA assessment of the OMS-28 site to determine further actions. The Department is in agreement with this recommendation.

If there are any questions, please do not hesitate to contact me at 334/270- 5665 or by Email at jcreeves@adem.state.al.us.

Sincerely,

A handwritten signature in black ink that reads "Chad Reeves".

Chad Reeves
Hydrogeologist
Groundwater Branch
Land Division

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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

April 23, 2009

Environmental and HTRW Section
Engineering Division

SUBJECT: Supplemental Comprehensive Investigation Groundwater Monitoring Report,
Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad
Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

Mr. Chad Reeves
Alabama Department of Environmental Management
Groundwater Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Reeves:

Please reference the Supplemental Comprehensive Investigation Report for the Alabama National Guard Site OMS-28 that was provided for your review in November 2008. As recommended in the report, the first quarterly monitoring event has been preformed and is documented in the enclosed groundwater monitoring report.

Please provide your comments on the subject report to the Alabama National Guard. If you have any questions, please contact Melissa Shirley at (251)690-2616.

Sincerely,

William L. Woodall
Chief, Environmental and HTRW Section

cf:

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV
(Rachel Riggins), P.O. Box 3711, Montgomery, AL 36109-0711

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV
(Buzz Turk), P.O. Box 3711, Montgomery, AL 36109-0711



Alabama Department of Environmental Management
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July 15, 2009

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711

Dear Mr. Turk:

RE: Alabama National Guard Site
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of the following reports:
"Supplemental Comprehensive Investigation Report" dated November 2008, and "Supplemental
Comprehensive Investigation Groundwater Monitoring Report" dated April 2009. Upon review of
the reports, the following was determined:

- In the November 2008 report the following Constituents of Concern (COCs) were detected above ADEM's Preliminary Screening Values (PSVs): Benzene, Chloromethane, Methylene Chloride, Naphthalene, Tetrachloroethene (PCE), and Trichloroethene (TCE).
- In the April 2009 report the following COCs were detected above ADEM's PSVs: Benzene, Naphthalene, PCE, and TCE.
- The reports recommend conducting the remaining sampling events to fulfill the 4 events needed for an ARBCA assessment and complete the ARBCA assessment of the OMS-28 site to determine further actions. The Department is in agreement with this recommendation.

If there are any questions, please do not hesitate to contact me at 334/270- 5665 or by Email at jcreeves@adem.state.al.us.

Sincerely,

Chad Reeves
Hydrogeologist
Groundwater Branch
Land Division





DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

August 14, 2009

Environmental and HTRW Section
Engineering Division

SUBJECT: 2nd Supplemental Comprehensive Investigation Groundwater Monitoring Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

Mr. Chad Reeves
Alabama Department of Environmental Management
Groundwater Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Reeves:

Thank you for your letter to the Alabama National Guard dated 15 July 2009 providing your agreement with the recommendations provided in the Supplemental Comprehensive Investigation Report for the Alabama National Guard Site OMS-28 dated November 2008 and the Supplemental Comprehensive Investigation Groundwater Monitoring Report dated April 2009. As recommended in the reports, the second quarterly monitoring event has been performed and is documented in the enclosed groundwater monitoring report.

Please provide your comments on the subject report to the Alabama National Guard. If you have any questions, please contact Melissa Shirley at (251)690-2616.

Sincerely,

A handwritten signature in black ink, appearing to read "MS Shirley".

Melissa L. Shirley, P.E.
Environmental Engineer

cf:

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV (Rachel Riggins), P.O. Box 3711, Montgomery, AL 36109-0711

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV (Buzz Turk), P.O. Box 3711, Montgomery, AL 36109-0711



Alabama Department of Environmental Management
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October 8, 2009

Alabama National Guard
c/o: Mr. William Turk
P.O. Box 3711
Montgomery, AL 36109-0711

Dear Mr. Turk:

RE: Alabama National Guard Site
Organizational Maintenance Shop (OMS-28)
1622 South Broad Street
Mobile, Mobile County, Alabama
Groundwater Incident No. GW 07-01-02

The Alabama Department of Environmental Management is in receipt of the "Supplemental Comprehensive Investigation Groundwater Monitoring Report" dated August 2009. Upon review of the report, the following was determined:

- In the April 2009 report the following COCs were detected above ADEM's PSVs: Benzene, Naphthalene, PCE, and TCE.
- The reports recommend conducting the remaining sampling event to fulfill the 4 events needed for an ARBCA assessment and complete the ARBCA assessment of the OMS-28 site to determine further actions. The Department is in agreement with this recommendation. However, due to the PCE and TCE concentrations increasing, the site will not be able to reach closure until these concentrations show a decreasing trend. The ARBCA assessment should also be carried to the RM-2 level due to groundwater being less than ten feet below ground surface.

If there are any questions, please do not hesitate to contact me at 334/270- 5665 or by Email at jcreeves@adem.state.al.us.

Sincerely,

A handwritten signature in black ink that reads "Chad Reeves". The signature is written in a cursive, flowing style.

Chad Reeves
Hydrogeologist
Groundwater Branch
Land Division



DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

December 11, 2009

Environmental and HTRW Section
Engineering Division

SUBJECT: 3rd Supplemental Comprehensive Investigation Groundwater Monitoring Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

Mr. Chad Reeves
Alabama Department of Environmental Management
Groundwater Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Reeves:

Thank you for your letter to the Alabama National Guard dated 8 October 2009 providing your review of the 2nd Supplemental Comprehensive Investigation Groundwater Monitoring Report for the Alabama National Guard Site OMS-28 dated August 2009. As noted in your letter, the site will not be able to reach closure until concentrations of PCE and TCE show a decreasing trend. The concentrations of these constituents did decrease in this sampling event and we propose conducting two more sampling events in 2010 to determine if concentrations continue to decrease.

Please provide your comments on the subject report to the Alabama National Guard. If you have any questions, please contact Melissa Shirley at (251)690-2616.

Sincerely,

A handwritten signature in black ink, appearing to read "MS Shirley".

Melissa L. Shirley, P.E.
Environmental Engineer

cf:

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV (Rachel Riggins), P.O. Box 3711, Montgomery, AL 36109-0711

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV (Buzz Turk), P.O. Box 3711, Montgomery, AL 36109-0711

JOHN P. HAGOOD
DIRECTOR



BOB RILEY
GOVERNOR

Alabama Department of Environmental Management

adem.alabama.gov

1400 Coliseum Blvd. 36110-2059 ♦ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700
FAX (334) 271-7950

January 28, 2010

Ms. Melissa L. Shirley, P.E.
U.S. Army Corps of Engineers, Mobile District
Environmental and HTRW Section
Engineering Division
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Ms. Shirley,

RE: 3rd Supplemental Comprehensive Investigation Groundwater Monitoring Report,
Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622
South Broad Street Mobile, Mobile County, Alabama Groundwater Incident No.
GW 07-01-02.

The Alabama Department of Environmental Management (ADEM) has reviewed the above document.

The report indicates the groundwater flow direction at OMS-28 remains to the north northeast as in the two previous events. No COCs were detected in deep wells exceeding ADEM PSVs. Naphthalene and benzene previously detected in events were not detected in this sampling event. PCE was detected in shallow well OMS-28-5 in a concentration exceeding ADEM drinking water PSVs. TCE was detected in shallow wells MW-8, OMS-28-3 and OMS-28-5 in concentrations exceeding ADEM drinking water PSVs.

The report proposes two additional groundwater sampling events in March 2010 and September 2010 be conducted. In addition an ARBCA assessment of the OMS-28 site is recommended.

The presence of benzene and naphthalene should be checked in any additional events and the trend of TCE and PCE concentrations should be monitored in additional events. Although the deeper wells were negative, these wells should be monitored also.

If you have any questions, please contact me at 334/394-4371 or at ablake@adem.state.al.us.

Sincerely,

Alan B. Blake, Hydrogeologist, AL P.G. No. 524
Hydrogeology Section
Groundwater Branch
Land Division

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (Fax)

Decatur Branch
2715 Sandlin Road, S. W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (Fax)



Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (Fax)

Mobile - Coastal
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (Fax)



DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

REPLY TO
ATTENTION OF

June 22, 2010

Environmental and HTRW Section
Engineering Division

SUBJECT: 4th Supplemental Comprehensive Investigation Groundwater Monitoring Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

Mr. Colin Mitchell
Alabama Department of Environmental Management
Government Hazardous Waste Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Reeves:

On behalf of the Alabama National Guard, the Mobile District of the U.S. Army Corps of Engineers has conducted a groundwater monitoring event at the Alabama National Guard Site OMS-28 located in Mobile, Alabama. The report documenting this groundwater monitoring event is enclosed for your review.

Please provide your comments on the subject report to the Alabama National Guard. If you have any questions, please contact Melissa Shirley at (251)690-2616.

Sincerely,

A handwritten signature in black ink, appearing to read "MS Shirley".

Melissa L. Shirley, P.E.
Environmental Engineer

cf:

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV (Rachel Riggins), P.O. Box 3711, Montgomery, AL 36109-0711

State Military Dept. Joint Force Headquarters Alabama National Guard ALJ4-CFMO-ENV (Buzz Turk), P.O. Box 3711, Montgomery, AL 36109-0711



Alabama Department of Environmental Management
adem.alabama.gov

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August 6, 2010

Mr. William Woodall
Environmental and HTRW Section
U.S. Army Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

RE: ADEM Review and Comments: *4th Supplemental Comprehensive Investigation
Groundwater Monitoring Report, Mobile OMS 28 & 29, dated June 22, 2010.
Mobile OMS 28 & 29, Mobile County, Alabama
DSMOA ID: 535-223-0031*

Dear Mr. Woodall,

The Alabama Department of Environmental Management (ADEM or the Department) has reviewed the U.S. Army Corps of Engineers' (USACE or the Corps) subject document and has attached comments for your review and response. Please submit response comments within 45 days from the date of receipt of this letter.

If you have any questions or concerns regarding this matter, please contact Mr. Colin Mitchell of the Governmental Hazardous Waste Branch at 334-271-7967 or via e-mail at cjmitchell@adem.state.al.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen A. Cobb".

Stephen A. Cobb, Chief
Governmental Hazardous Waste Branch
Land Division

SAC/TPS/CM/mal

Cc: Melissa Shirley, US Army Corps of Engineers
Buzz Turk, Alabama National Guard
Rachel Riggins, Alabama National Guard
Alan Blake, ADEM Groundwater Branch
Tracy Strickland, ADEM Governmental Hazardous Waste Branch



ATTACHMENT
4th Supplemental Comprehensive Investigation GWMR
ADEM Review Comments
Mobile OMS 28 & 29

1. **Page 9, Section 4.2 Groundwater Analytical Results:** The tetrachloroethylene (PCE) concentration in well OMS-28-5 exceeds ADEM drinking water Maximum Contaminant Levels (MCLs). Please address.
2. **Page 9, Section 4.2 Groundwater Analytical Results:** Trichloroethylene (TCE) concentrations in wells OMS-28-3, OMS-28-5, and MW-8 exceed ADEM drinking water MCLs. Please address.
3. **Page 12, Section 6.0 Recommendations:** The Department notes that an ARBCA assessment of the OMS-28 site will be performed following the September 2010 sampling event.

Please note that the Department has recently promulgated regulations, effective May 26, 2009, to establish minimum requirements governing environmental covenants pursuant to the Alabama Uniform Environmental Covenants Act (UECA), Code of Alabama 1975, §§ 35-19-1 to 35-19-14. ADEM Admin. Code r. 335-5 is located on the ADEM website and applies to all sites that are not remediated to unrestricted use. Therefore, if PCE and TCE continue to exceed ADEM drinking water MCLs, it will be required that a covenant request, including appropriate information, be submitted along with the land use control implementation plan (LUCIP) prior to approval of the final remedy.



DEPARTMENTS OF THE ARMY AND THE AIR FORCE
NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON, VA 22204-1382

NGB-ARE-I

14 September 2010

Mr. Colin Mitchell
Government Hazardous Waste Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Mitchell:

Thank you for your letter dated 6 August 2010 providing comments on the 4th Supplemental Comprehensive Investigation Groundwater Monitoring Report dated June 2010. Our responses to your comments are attached for your review.

If you have any questions or comments, please me at 703-607-7980.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn Elliott", is written over the typed name.

Glenn Elliott
ARNG-ILE-C
Environmental Programs Division

ADEM letter dated 6 August 2010

SUBJECT: 4th Supplemental Comprehensive Investigation Groundwater Monitoring Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

ADEM Comment 1: Page 9, Section 4.2 Groundwater Analytical Results: The tetrachloroethylene (PCE) concentration in well OMS-28-5 exceeds ADEM drinking water Maximum Contaminant Levels (MCLs).

USACE Response to comments 1 and 2: During this investigation, only two chemicals of concern, PCE and TCE, were detected in the shallow groundwater at concentrations that exceeded their respective ADEM drinking water PSVs; no chemicals of concern were detected in the three deep wells except for one estimated detection of acetone, which was well below PSVs. A comparison of this sampling event and previous sampling events reveals that dissolved-phase VOC concentrations have generally remained stable at the site. The next groundwater monitoring event will likely provide additional data to substantiate the stability of the plume. The plume is small (about half an acre), and the site is wooded and undeveloped. The risk to human health is minimal since there is no ingestion of or contact with the groundwater and no vapor intrusion risk.

ADEM Comment: 2. Page 9, Section 4.2 Groundwater Analytical Results: Trichloroethylene (TCE) concentrations in wells OMS-28-3, OMS-28-5, and MW-8 exceed ADEM drinking water MCLs.

USACE response to comment: See response 1.

ADEM Comment: 3. Page 12, Section 6.0 Recommendations: The Department notes that an ARBCA assessment of the OMS-28 site will be performed following the September 2010 sampling event.

Please note that the Department has recently promulgated regulations, effective May 26, 2009, to establish minimum requirements governing environmental covenants pursuant to the Alabama Uniform Environmental Covenants Act (UECA), Code of Alabama 1975, §§ 35-19-1 to 35-19-14. ADEM Admin. Code r. 335-5 is located on the ADEM website and applies to all sites that are not remediated to unrestricted use. Therefore, if PCE and TCE continue to exceed ADEM drinking water MCLs, it will be required that a covenant request, including appropriate information, be submitted along with the land use control implementation plan (LUCIP) prior to approval of the final remedy.

USACE Response to comment 3: Following the next monitoring event to be conducted in September, we plan to prepare an Alabama Risk-Based Corrective Action (ARBCA) Report to evaluate the cumulative risk present at the site and to develop appropriate risk management levels for the site. Based on the results of the ARBCA, we will, in conjunction with ADEM, prepare a risk management plan to propose a path forward. We understand that if the site is not released for unrestricted residential use, an Alabama UECA and LUCIP will be required.



NATIONAL GUARD BUREAU

111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

December 28, 2010

ILE-C

SUBJECT: 5th Supplemental Comprehensive Investigation Groundwater Monitoring Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

Mr. Colin Mitchell
Alabama Department of Environmental Management
Government Hazardous Waste Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Mitchell:

The Alabama National Guard has conducted the 5th and final groundwater monitoring event at the Alabama National Guard Site OMS-28 located in Mobile, Alabama. The report documenting this groundwater monitoring event is enclosed for your review.

Note that we are currently preparing an Alabama Risk-Based Corrective Action (ARBCA) Report to evaluate the cumulative risk present at the site and to develop appropriate risk management levels for the site. Based on the results of the ARBCA, we will, in conjunction with ADEM, prepare a risk management plan to propose a path forward. We understand that if the site is not released by ADEM for unrestricted residential use, an Alabama UECA and LUCIP will be required prior to approval of the final remedy.

If you have any questions or comments, please contact me at 703-607-7980.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn Elliott", is positioned above the typed name.

Glenn Elliott
CC Program Manager
Cleanup and Restoration Branch
Environmental Programs Division

cf:

State Military Dept. Joint Force Headquarters Alabama National Guard
U.S. Army Corps of Engineers, EN-GE

LANCE R. LEFLEUR
DIRECTOR



ROBERT J. BENTLEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

March 31, 2011

ARNG-ILE-C
ATTN: LTC Munger
111 S. George Mason Dr.
Arlington, VA 22204

**RE: ADEM Review and Comments: 5th Supplemental Comprehensive Investigation
Groundwater Monitoring Report, Mobile OMS 28 & 29, dated January 2011.
Mobile OMS 28 & 29, Mobile County, Alabama
DSMOA ID: 535-223-0031**

Dear Mrs. Munger,

The Alabama Department of Environmental Management (ADEM or the Department) has reviewed the U.S. Army Corps of Engineers' (USACE or the Corps) subject document and has attached comments for your review and response.

If you have any questions or concerns regarding this matter, please contact Mr. Colin Mitchell of the Governmental Hazardous Waste Branch at 334-271-7967 or via e-mail at cjmitchell@adem.state.al.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen A. Cobb".

Stephen A. Cobb, Chief
Governmental Hazardous Waste Branch
Land Division

SAC/TPS/CM/mal

Cc: ~~Melissa Shirley, US Army Corps of Engineers~~
Rachel Riggins, Alabama National Guard

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
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(251) 479-2593 (FAX)

Mobile-Coastal
4171 Commanders Drive
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(251) 432-6533
(251) 432-6598 (FAX)

Mrs. Michaelle Munger
March 31, 2011
Page 2 of 2

ATTACHMENT
5th Supplemental Comprehensive Investigation GWMR
ADEM Review Comments
Mobile OMS 28 & 29

1. **Groundwater Analytical Results:** The tetrachloroethylene (PCE) concentration in well OMS-28-5 exceeded the ADEM PSV of 0.005 mg/L. Please address.

2. **Groundwater Analytical Results:** The trichloroethylene (TCE) concentration in wells MW-8, OMS-28-3, and OMS-28-5 exceeded the ADEM PSV of 0.005 mg/L. Please address.



NATIONAL GUARD BUREAU

111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

April 11, 2011

ARNG-ILE-C

SUBJECT: 5th Supplemental Comprehensive Investigation Groundwater Monitoring Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

Mr. Colin Mitchell
Government Hazardous Waste Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Mitchell:

Thank you for your letter dated 31 March 2011 providing comments on the 5th Supplemental Comprehensive Investigation Groundwater Monitoring Report dated January 2011. Our responses to your comments are attached for your review.

If you have any questions or comments, please contact me at (703) 601-7982.

Sincerely,


Michaelle M. Munger
Lieutenant Colonel
Deputy, Cleanup & Restoration Branch
Environmental Programs Division

Enclosure

cf:

Mobile Airport Authority, Mr. Thomas Hughes, P.O. Box 88004, Mobile, Alabama, 36608
State Military Dept. Joint Forces Headquarters Alabama National Guard
U.S. Army Corps of Engineers, EN-GE

Response to Comments, ADEM Letter dated 31 March 2011

SUBJECT: 5th Supplemental Comprehensive Investigation Groundwater Monitoring Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

ADEM Comment 1: Groundwater Analytical Results: The tetrachloroethylene (PCE) concentration in well OMS-28-5 exceeded the ADEM PSV of 0.005 mg/L. Please address.

Response to Comment 1: Only two chemicals of concern, PCE and TCE, were detected in the shallow groundwater at concentrations that exceeded their respective ADEM PSVs. PCE and TCE were not detected in the deep groundwater. A comparison of this sampling event and previous sampling events reveals that dissolved-phase VOC concentrations have generally remained stable at the site. The plume is small (about half an acre), and the majority site is wooded and undeveloped.

An Alabama Risk Based Corrective Action (ARBCA) Report for the site was prepared and provided to your office on 16 March 2011. The ARBCA Report contains the evaluation of the cumulative risk present at the site and developed appropriate risk management levels for the site. The results of the risk evaluation demonstrated no current risk for human health at the site based on the current use of the property. Note that there is no current risk to human health from chemicals in groundwater because all water used on/near the property for drinking and other purposes is supplied by the Mobile Area Water and Sewer System (MAWSS) public water supply.

Based on the results of the ARBCA, we are proceeding with the preparation of a feasibility study to propose a path forward to address potential future use of the site. We understand that if the site is not released by ADEM for unrestricted residential use, an Alabama UECA and LUCIP will be required prior to approval of the final remedy.

ADEM Comment 2: The trichloroethylene (TCE) concentration in wells MW-8, OMS-28-3, and OMS-28-5 exceeded the ADEM PSV of 0.005 mg/L. Please address.

Response to Comment 2: See response to comment 1.



NATIONAL GUARD BUREAU

111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1382

March 16, 2011

ARNG-ILE-C

SUBJECT: Alabama Risk Based Corrective Action Report, Alabama National Guard Site, Organizational Maintenance Shop (OMS-28), 1622 South Broad Street, Mobile, Mobile County, Alabama, Groundwater Incident No. GW 07-01-02

Mr. Colin Mitchell
Government Hazardous Waste Branch
P.O. Box 301463
Montgomery, AL 36130-1463

Dear Mr. Mitchell:

The Alabama National Guard prepared an Alabama Risk Based Corrective Action (ARBCA) Report for the Alabama National Guard Site OMS-28 located in Mobile, Alabama. The report is enclosed for your review. The ARBCA Report contains the evaluation of the cumulative risk present at the site and developed appropriate risk management levels for the site. The results of the risk evaluation demonstrated no current risk for human health at the site based on the current use of the property. Note that there is no current risk to human health from chemicals in groundwater because all water used on/near the property for drinking and other purposes is supplied by the Mobile Area Water and Sewer System (MAWSS) public water supply.

Based on the results of the ARBCA, we are proceeding with the preparation of a feasibility study to propose a path forward to address potential future use of the site. We understand that if the site is not released by ADEM for unrestricted residential use, an Alabama UECA and LUCIP will be required prior to approval of the final remedy.

If you have any questions or comments, please contact me at (703) 601-7982.

Sincerely,


Michaelle M. Munger
Lieutenant Colonel
Deputy, Cleanup & Restoration Branch
Environmental Programs Division

Enclosure

cf:

Mobile Airport Authority, Mr. Thomas Hughes, P.O. Box 88004, Mobile, Alabama, 36608
State Military Dept. Joint Forces Headquarters Alabama National Guard
U.S. Army Corps of Engineers, EN-GE