

**Appendix A Approval from USEPA and TCEQ for Previous DQOs and Implementation
of LTMO Recommendations**

December 19, 2005	TCEQ's conditional approval of LTMO Evaluation
November 15, 2005	USEPA approval of LTMO Evaluation, on-post only
April 20, 2004	TCEQ approval of November 2003 DQOs
August 26, 2002	Letter requesting approval or comment to the April 2002 DQOs

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 19, 2005

Camp Stanley Storage Activity
25800 Ralph Fair Road
Boerne, TX 78015-4800
Attention: Lieutenant Colonel Jason Shirley

Re: Three-Tiered Long Term Monitoring Network Optimization Evaluation - Approval with modification
Camp Stanley Storage Activity, Boerne, TX
TCEQ SWR No. 69026
EPA ID No. TX2210020739

Dear LTC Shirley:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the report entitled *Final Three Tiered Long Term Monitoring Network Optimization Evaluation* received by the TCEQ on May 19, 2005. On November 8, 2005, the TCEQ approved your request to implement the Long Term Monitoring Optimization (LTMO) program; however, implementation of the LTMO was approved only for on-site monitor wells and only for the last calendar quarter 2005 groundwater monitoring. As further stated in the November 8, 2005 TCEQ letter, the approval may be modified upon completion of the review of the above-stated report.

The TCEQ Technical Support Section reviewed and provided comments regarding the above-stated report. The recommendations and conclusions of the TCEQ review are provided as an Enclosure to this letter. As stated in the InterOffice Memorandum, the four recommendations are acceptable. The TCEQ Technical Support Section has reservations concerning the fifth recommendation (i.e., reduced off-site monitoring) - this appears to be in agreement with the previous requirement of the TCEQ Environmental Cleanup Section letter dated November 8, 2005. Consequently, the TCEQ requires Camp Stanley to continue monitoring the off-site wells according to standard protocol currently in effect while implementing the four other recommendations. The TCEQ will monitor the LTMO groundwater sampling results at the southwest portion (area near the off-site contaminant release) of the facility; should a need to modify or invalidate the LTMO at this area arise, the TCEQ will inform you in a separate letter.

LTC Shirley
December 19, 2005
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Please call me at 512.239.2371 or email me at srayos@tceq.state.tx.us if you wish to discuss or if you have questions concerning this letter.

Sincerely,



Sonny Rayos, P.G., Project Manager
Team III, Environmental Cleanup II
Remediation Division
Texas Commission on Environmental Quality

Enclosure: InterOffice Memorandum from Mr. Greg Tipple

cc: Ms. Glare Sanchez, Camp Stanley Storage Activity, 25800 Ralph Fair Road, Boerne, TX
78015-4800
Mr. Greg Lyssy, U.S. EPA Region 6, 1445 Ross Ave (6SF-LT), Dallas, TX 75202-2733
Ms. Julie Burdey, Parsons Engineering, 8000 Centre Park Drive, Suite 200, Austin, TX
78754
Waste Program Manager, TCEQ Region 13 Office, San Antonio, TX

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Sonny Rayos, Environmental Cleanup
Section II, Team 3, Remediation
Division

Date: December 14, 2005

Thru: Chet Clarke, Section Manager, Technical Support Section, Remediation Division

From: <sup>GL
12-14-05</sup> Greg Tipple, Technical Specialist, Technical Support Section, Remediation
Division

Subject: Three-Tiered Long-Term Monitoring Network Optimization Evaluation, May
2005, Camp Stanley Storage Activity, Bexar County

As requested, I have reviewed the document titled *Three-Tiered Long Term Monitoring Network Optimization Evaluation* that is dated May 2005 and that pertains to Camp Stanley Storage Activity (CSSA). CSSA consists of 4,004 acres and is located approximately 19 miles northwest of downtown San Antonio in the general vicinity of Boerne, Texas. Primary activities at CSSA include the receipt, storage, and issuance of ordnance material as well as quality assurance testing and maintenance of military weapons and ammunition. While 39 solid waste management units (SWMUs) and 40 areas of concern (AOCs) have been identified at the facility, only SWMUs B-3 and O-1 and AOC-65 are considered as potential sources for elevated concentrations of tetrachloroethene, trichloroethene, dichloroethene, and other chemicals of concern within the Lower Glen Rose limestone member of the middle Trinity Aquifer. The reviewed document describes qualitative, temporal statistical, and spatial statistical evaluations that were performed in order to identify potential opportunities for streamlining while still maintaining an effective groundwater monitoring program at the CSSA facility.

This groundwater monitoring optimization study for the CSSA facility recommends the following:

1. that the sampling frequency for the 40 on-post monitoring wells be reduced from quarterly to a biennial, annual, and semi-annual schedule for 13, 11, and 16 on-post wells, respectively;
2. that the AOC-65 piezometers be removed from the monitoring program while the sampling frequency for the 2 AOC-65 monitoring wells be reduced from quarterly to after significant rainfall events;

December 14, 2005

3. that the sampling frequency for the 4 Westbay monitoring wells, with a total of 64 sampling points, be reduced from monthly and after significant rainfall events to semi-annual;
4. that 11 additional on-post monitoring wells be constructed to better determine groundwater levels and/or to further delineate groundwater PCLE zone boundaries; and
5. that the monitoring frequency for the 44 off-post monitoring wells be reduced from annual for 18 wells and quarterly for 26 wells to biennial for 20 wells, annual for 17 wells, and quarterly for 7 wells.

In my evaluation, the groundwater monitoring optimization report provides adequate documentation and rationale to support the first four recommendations stated above. However, I do have concern regarding the fifth recommendation. The document indicates that the distance to potential receptor exposure points and the groundwater seepage velocity are primary factors that should be considered when designing a groundwater monitoring network. The report indicates that the land use surrounding the CSSA facility is primarily residential or is used for ranching. In my view, the report does not adequately discuss how the proximity of potential receptors and the groundwater transport velocity were actually taken into account when designing the proposed revision to the sampling frequencies for the off-post monitoring wells. The TCEQ, of course, has a heightened concern to make sure that the groundwater monitoring program will adequately protect off-site receptors. Therefore, I recommend that you carefully consider whether the final recommendation listed above should be approved.

Vaughn, Kimberly

From: Burdey, Julie
Sent: Wednesday, November 16, 2005 12:48 PM
To: Vaughn, Kimberly
Subject: FW: Approval of the LTMO Changes On-Post

-----Original Message-----

From: Glare Sanchez [mailto:environmentaldept@campstanley.net]
Sent: Wednesday, November 16, 2005 11:55 AM
To: Lyssy.Gregory@epamail.epa.gov
Cc: Burdey, Julie
Subject: RE: Approval of the LTMO Changes On-Post

Thanks!!

-----Original Message-----

From: Lyssy.Gregory@epamail.epa.gov [mailto:Lyssy.Gregory@epamail.epa.gov]
Sent: Monday, November 14, 2005 12:59 PM
To: Glare Sanchez
Cc: Jeff Aston
Subject: Approval of the LTMO Changes On-Post

Hey Glare:

I received a voice-mail message from Julie at Parsons concerning the LTMO recommendations for the December sampling. I hereby approve the optimization recommendations for the on-post portion of the CSSA monitoring network, starting with the December sampling event.

Please feel free to call me with any questions.

Greg J. Lyssy
U.S. EPA
Senior Project Manager
New Mexico - Federal Facilities Section (6PD-F) Phone - 214.665.8317 Cell
Phone - 214.543.4415 Fax - 214.665.7263 lyssy.gregory@epa.gov

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Larry R. Soward, *Commissioner*
Margaret Hoffman, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 20, 2004

LTC Jason D. Shirley, Commander
Camp Stanley Storage Activity
25800 Ralph Fair Road
Boerne, TX 78015-4800

Re: Camp Stanley Storage Activity (CSSA), Boerne, TX;
TCEQ SWR No. 69026;
Data Quality Objectives Groundwater Contamination Investigation - Approval

Dear Mr. Shirley:

The Texas Commission on Environmental Quality (TCEQ) has received the report entitled *Data Quality Objectives Groundwater Contamination Investigation - Revised November 2003*. The TCEQ has reviewed the report. The TCEQ does not have any comment regarding the report. The data quality objectives specified in the report appears to be adequate in addressing the investigation and characterization of the on-site and off-site groundwater contamination.

Please call me at 512.239.2371 or email me at srayos@tceq.state.tx.us if you wish to discuss or if you have any questions concerning this letter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sonny Rayes".

Sonny Rayes, P.G., Project Manager
Team I, Corrective Action Section
Remediation Division
Texas Commission on Environmental Quality

cc: Mr. Brian Murphy, Camp Stanley Storage Activity, 25800 Ralph Fair Road, Boerne, TX 78015-4800
Mr. Greg Lyssy, U.S. EPA Region 6, 1445 Ross Ave (6SF-LT), Dallas, TX 75202-2733
Ms. Julie Burdey, Parsons Engineering, 8000 Centre Park Drive, Suite 200, Austin, TX 78754
Waste Program Manager, TCEQ Region 13 Office, San Antonio, TX

August 26, 2002

Via facsimile

Mr. Greg J. Lyssy
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Subject: Camp Stanley Storage Activity (CSSA) Groundwater Monitoring Program
TNRCC Number: Solid Waste Registration Number 69026
EPA Identification Number: TXD2210020739

Dear Mr. Lyssy:

This letter concerns the CSSA Data Quality Objectives (DQOs) for the Groundwater Contamination Investigation submitted April 22, 2002. The DQOs were also submitted to Mr. Kirk Coulter of the Texas Natural Resource Conservation Commission (TNRCC) requesting his review and comments. At this time, CSSA has not received suggestions or revisions to the proposed DQOs.

CSSA is currently planning the September 9, 2002, quarterly groundwater monitoring event for both on- and off-post drinking water and monitoring wells. CSSA proposes to reduce the frequency of sampling of groundwater for metals, as set out in the DQOs. Cumulative analysis for metals in groundwater since 1995 indicate exceedance of the maximum contaminant level (MCL) / action level (AL) for lead, cadmium and nickel only. Results during the last two years of quarterly groundwater monitoring indicate exceedance of the MCL for lead only, occurring in agricultural/livestock wells. Therefore, beginning in September 2002, on-post monitoring wells sampling for metals will be conducted annually. On-post drinking water supply wells will continue to be sampled for metals on a quarterly basis.

Additionally, CSSA requests confirmation of the list of VOCs to be sampled in the future for off-post drinking water wells. Quarterly off-post groundwater monitoring conducted since September 2001 included full list VOCs analyzed under SW 846 Method 8260B. In accordance with the proposed DQOs, CSSA proposes reducing the analyte list for off-post monitoring to the following short list:

- 1,2-dichloroethane
- Acetone
- Bromodichloromethane
- Bromoform

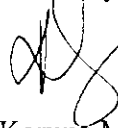


Chloroform
cis-1,2-Dichloroethene
Dibromochloromethane
Dichlorodifluoromethane
Naphthalene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
Trichloroethene
Vinyl chloride

CSSA prepared the proposed short list of analytes following review of cumulative historical detections of VOCs from off-post groundwater monitoring conducted since 1999. All analytes with detections over the last year of monitoring, even though detections were below MCLs, are included in the proposed short list.

If you have any questions or comments regarding CSSA's plan for metals analysis, a reduced list of analytes, or on the previously submitted DQOs, please call me at (512) 719-6051 or Mr. Brian Murphy, CSSA, at (210) 698-5208.

Sincerely,



Karuna Mirchandani
Deputy Task Manager

xc: Kirk Coulter, TNRCC Remediation Division
Teri DuPriest, AFCEE
Brian Murphy, CSSA
Susan Roberts, Parsons
Tammy Chang, Parsons

Via telefacsimile or hand delivery