

**RESPONSE TO COMMENTS ON
 DRAFT AUGUST 2000 GROUNDWATER MONITORING REPORT,
 IRP SITES 9, 12 AND 13, FORMER LONG BEACH NAVAL SHIPYARD, AND MONITORING WELL DESTRUCTION,
 FORMER LONG BEACH NAVAL COMPLEX, LONG BEACH, CALIFORNIA
 CTO-177**

Written on March 26, 2001 Sue Hakim Remedial Project Manager DTSC	
COMMENTS	RESPONSE
1: Section 2.4 Deviations From The Work Plan, Page 2-28 GSU noted several discrepancies in the well purging logs. This section should also discuss these issues and provide corrective measures to prevent these incidents from reoccurring.	1: Section not to be modified. Following response to comments should address these questions.
A. Appendix A Well Purging Logs i. The groundwater monitoring wells at Site 9 were purged between August 14, 2000 and August 21, 2000. The purge logs show that groundwater purge rates for wells MW-27, MW-FW-05, MW-SGI-08, MW-SGI-16, and MW-SGI-17 on August 14-15, 2000 were less than 1.5 gallons per minute. However, wells MW-09-01, MW-09-03, MW-09-04, MW-09-05, MW-09-06, MW-09-07, MW-09-08, MW-09-09, MW-09-10, MW-09-11, MW-SGI-07, and MW-SGI-14, purged on August 17-21, 2000 were purged at around 3.0 gallons per minute. Rapid purge rates with a submersible pump can agitate and heat the water, causing volatilization and loss of VOCs. In addition, purge rate variations between sampling events may cause fluctuations in the plotted contaminant concentration trends for individual wells. GSU recommends that a groundwater purge rate, not to exceed 1.5 gallons per minute, be established for each Site 9 well to eliminate this variable between sampling events.	A. i. Work was performed in accordance with the work plan and Navy CLEAN standard operating procedures (SOPs). Purge rates were not specified in the Final Work Plan for Groundwater Monitoring, IRP Sites 9, 12, and 13, Long Beach Naval Shipyard, Long Beach, California (BNI March 1999). Navy CLEAN SOPs do not dictate purge rates during conventional 3 well volume purging of groundwater monitoring wells. Fixing of purge rates to 1.5 gpm will need to be addressed in a future work plan for sampling of any groundwater monitoring wells at IR Sites 9, 12, and 13 as work for this project is complete. In addition, all VOC samples were collected after purging using bailers dedicated to each groundwater monitoring. A description of sampling using bailers has been added to the beginning of Appendix A.

Written on March 26, 2001
Sue Hakim
Remedial Project Manager
DTSC

COMMENTS	RESPONSE
<p>ii Turbidity measurements were not recorded on the purge logs for wells MW-09-03, MW-09-05, MW-09-09, MW-09-011, and MW-SGI-17. Corrective measures should be taken to ensure that the field staff record the groundwater parameters.</p>	<p>ii. Several of the subject wells has initial turbidity readings below 5 NTUs. All readings remained below 5 NTUs during the purging and the purge sheets were updated to reflect the readings. Two of the wells did not have turbidity readings recorded and field personnel responsible for the readings have been notified the data was not recorded. No other corrective measures are necessary.</p>
<p>iii. Site 12 and Site 13 wells were purged using a low-flow groundwater purge method. Printed on the purge log is the low-flow purging criteria: "Pump flow rate of 0.1 to 0.5 liters per minute. Drawdown of water in well less than 0.1 meters." The volume of groundwater purged at specific time intervals was not recorded. However, the purge logs do indicate that groundwater samples were collected after approximately thirty minutes had elapsed and five gallons of water was purged. The purge rate for five gallons of water purged in 30 minutes is 0.63 liters per minute. The purge logs indicate that drawdown was not being measured during purging. The groundwater monitoring at Site 12 and Site 13 did not follow low-flow purging criteria. Corrective measures should be implemented to ensure that low-flow purging and drawdown measurements will be conducted.</p>	<p>iii. The groundwater volumes purged from the wells were noted to be approximately 5 gallons (actual volumes varied by a couple of gallons). Purge rates were measured at the start of purging using a graduated cylinder to set the purge rates at 0.5 liters per minute or less. Monitoring to ensure that the water level did not drop in excess of 0.1 meters was verified by setting the groundwater level tape probe so that it would sound off if the water level dropped 0.1 meters from the initial level. A description of these procedures has been added to the beginning of Appendix A.</p>



CLEAN II Program
Bechtel Job No. 22214
Contract No. N68711-92-D-4670
File Code: 0222.1
IN REPLY REFERENCE: CTO-0177/0176

May 10, 2001

Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 02R1
1220 Pacific Highway
San Diego, CA 92132-5190

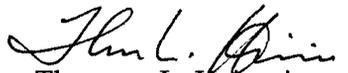
Subject: Response to Comments on the Draft August 2000 Groundwater
Monitoring Report, IRP Sites 9, 12, and 13,
Former Long Beach Naval Shipyard, and Monitoring Well Destruction, Former Long
Beach Naval Complex, Long Beach, CA

Dear Mr. Selby:

Enclosed is a copy of our Response to Comments on the Draft August 2000 Groundwater
Monitoring Report, IRP Sites 9, 12, and 13, Former Long Beach Naval Shipyard, and Monitoring
Well Destruction, Former Long Beach Naval Complex, Long Beach, prepared under Contract No.
N68711-92-D-4670. Responses to California Department of Toxic Substances and Control (DTSC)
comments are being submitted for review by the Navy. If the Navy concurs with the responses they
can be forwarded to the DTSC.

If further information is required, please contact me at (619) 744-3004 or Scott Donovan, CTOL, at
(619) 744-3019.

Very truly yours,


Thurman L. Heironimus
Project Manager

TLH/sp
Attachments



BECHTEL NATIONAL INC.

CLEAN II TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-92-D-4670

Document Control No. CTO-0177/0176

File Code: 0222.1

TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Richard Selby, Code 02R1
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: May 10, 2001
CTO #: 0177
LOCATION: Long Beach Naval Shipyard

FROM: Thurman L Heironimus, Project Manager

DESCRIPTION: Response to Comments on the Draft August 2000 Groundwater Monitoring Report, IRP Sites 9, 12, and 13 Former Long Beach Naval Shipyard and Monitoring Well Destruction Former Long Beach Naval Complex Dated March, 2001

TYPE: Contract Deliverable X CTO Deliverable Change Notice/Project Note
Other

VERSION: N/A REVISION #: 0
(e.g., Draft, Draft Final, Final, etc.)

ADMIN RECORD: Yes X No Category Confidential
(PM to Identify)

SCHEDULED DELIVERY DATE: 5/10/01 ACTUAL DELIVERY DATE: 5/10/01

NUMBER OF COPIES SUBMITTED: 0/5C/5E

COPIES TO (Include Name, Navy Mail Code, and No. of Copies):

Table with 3 columns: SWDIV, BECHTEL, OTHER (Distribution done by Bechtel). Rows include M. Orpilla, T. Heironimus, S. Donovan, E. Dienzo, PDCC, C. Leadon, D. Silva.

- O - Original Transmittal Sheet
C - Copy Transmittal Sheet
E - Enclosure
* - Unbound

Date/Time Received