

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

Certified Mail

March 13, 2009

In reply refer to SHEA-108390

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013



Attention: Ms. L. B. Nye, 401 Certification Program Unit Chief

Reference: CLEANUP AND ABATEMENT ORDER NO. R4-2007-0054

Subject: February 2009 Monthly Monitoring Report Submittal
Northern Drainage Debris Area and LOX Debris Area Removal Project
Santa Susana Field Laboratory, Ventura County, California

Dear Ms. Nye:

The Boeing Company (Boeing) hereby submits the monthly monitoring report (MMR) for the Santa Susana Field Laboratory (SSFL) Northern Drainage Debris Area and LOX Debris Area Removal Project, as required by Section B. xii of Cleanup and Abatement Order No. R4-2007-0054 (CAO). Monthly reports are to provide a summary of wet weather sampling activities and analytical results. Based on CAO requirements, MMRs will be submitted to the California Regional Water Quality Control Board-Los Angeles Region (RWQCB) by the 15th day of each calendar month for the previous month. This report covers sampling activities during February, 2009.

Project History

As previously reported, two distinct debris areas were identified in the northeast portion of the SSFL along the Northern Drainage: the LOX Debris Area and the Former Shooting Range/Clay Target Debris Area. In addition to these specific areas, but still within the Northern Drainage, clay target debris was observed extending westward from the Former Shooting Range down drainage, and foam insulation debris was observed extending westward from the LOX Debris Area. Based on work scopes, the project was divided into two specific task areas: (i) the LOX Debris Area and (ii) the Northern Drainage Debris Area (including the Former Shooting Range).

Boeing submitted a mitigation work plan to the Department of Toxic Substances Control (DTSC) on September 10, 2007 (*Sage Ranch Debris/Asbestos Removal Work Plan*) for review and approval. In anticipation of commencing this project, Boeing submitted a *Request to Amend a Lake or Streambed Alteration Agreement* to the California Department of Fish and Game (CDFG) on August 15, 2007. Additionally, a site-specific storm water pollution prevention plan (SWPPP) was submitted to the RWQCB on October 10, 2007. Based on discussion and communication with the United States Army Corps of Engineers

(ACOE), Clean Water Act Section 404 authorization or permitting was not necessary or required for this project.

Project Implementation

LOX Debris Area. Soil and debris removal began in the LOX Debris Area on November 14, 2007 and was completed on December 20, 2007. The LOX Debris Area removal was performed in an area covering approximately 0.3 acres, with approximately 2,500 cubic yards of debris and soil removed, shipped off-site and appropriately managed. Additional information regarding the field activities for the LOX Debris Area was provided in previous MMRs.

Northern Drainage Debris Area. Debris removal from the Northern Drainage Debris Area began on July 22, 2008 and is currently on hold until the end of the 2008/2009 winter rainy season.

A cultural survey to identify and protect historical anthropogenic sites and a biological survey to identify protected natural resources within the Northern Drainage including the Former Shooting Range Area were initiated on May 12, 2008. Historical sites and protected species identified during the surveys were marked with red flags so they could be preserved during the debris removal.

In preparation for clay target debris removal, clearing and grubbing of vegetation at the Former Shooting Range Area was performed between June 3, 2008 and June 27, 2008. Pursuant to a DTSC requirement, radiological surveys were performed in the cleared areas.

Debris removal in the Northern Drainage Debris Area commenced on July 22, 2008. Soil that was removed from the drainage was either placed in roll-off bins or stockpiled on site for waste profiling. Anthropogenic debris discovered during excavation activities at the Former Shooting Range Area were removed and contained in roll-off bins on site for waste characterization. To date, approximately 9,400 cubic yards of sediment, soil and debris have been removed, characterized, and transported off-site for disposal.

Confirmation soil sampling was performed between September 17, 2008 and September 26, 2008 to identify potential impacts from the material removed from the anthropogenic debris area. To address elevated concentrations of analytical results identified during the initial confirmation soil sampling event, additional soil removal was performed at the Former Shooting Range Area. Confirmation soil sampling was performed intermittently between October 31, 2008 and December 5, 2008 concurrently with the additional soil removal.

Additional down-drainage confirmation soil sampling between the Former Shooting Range and the LOX Debris Area was conducted on October 24, 2008. Based on the analytical results from confirmation soil sampling, additional soil removal in this stretch of the drainage is necessary and will be performed after the conclusion of the 2008/2009 winter rainy season.

Silt barriers were installed at the Former Shooting Range area and at the bottom of RD-82 Well Road to reduce sediment loads into the drainage. Approximately 1.5 acres of Hydroseed were applied at the Former Shooting Range area on November 10, 2008 and an additional 1 acre was applied on December 19, 2008.



Wet Weather Flow and Sampling

The CAO requires surface water samples to be collected when wet weather flow discharging downstream of the cleanup area occurs. Samples are to be collected during the first hour of discharge or at the first safe opportunity. Samples are to be collected not more than 50 feet upstream or downstream of the area where work is occurring. Samples are to be collected for three rain events or two years, whichever occurs first, after work is complete. To further define the sampling requirements, the Los Angeles RWQCB agreed to adopt the sampling requirements found in the SSFL National Pollution Discharge Elimination System (NPDES) permit which provides the definition of "rain event" as a discharge (rain) event greater than 0.1 inch of rainfall in a 24-hour period, that no more than one sample per week need be obtained during extended periods of rainfall, and that a storm must be preceded by at least 72 hours of dry weather to qualify as a next event. To establish whether a rain event results in wet weather flow, field inspections are conducted before, during and after rain events.

Boeing observed rain events on February 5 through February 9, 2009, on February 13, 2009, and on February 16 through February 17, 2009. The SSFL rain gauge recorded the following amounts of precipitation for the month of February:

- A total of 3.38 inches of rain between approximately 11:00 am on February 5 and 3:00 pm on February 9, 2009.
- A total of 0.39 inches of rain between approximately 11:00 am and 3:00 pm on February 13, 2009.
- A total of 2.06 inches of rain between approximately 2:00 am on February 16 and 5:00 pm on February 17, 2009.

Surface water flow was observed during all three rain events in February 2009. Surface water samples were collected upstream from the Former Shooting Range on February 6, 2009 and February 16, 2009. The collection of downstream water samples was deemed to be unsafe.¹ The Los Angeles RWQCB was notified of the conditions and agreed that the surface water samples collected at Outfall 009 will meet the requirements for downstream samples from the Former Shooting Range under the CAO. Surface water samples were collected at Outfall 009 on February 6, 2009 and February 13, 2009.

Wet Weather Flow Sample Results Reporting

The following table is a summary of the wet weather flow samples collected during February 2009.

¹ The downstream sampling location is approximately 500 feet downstream of Outfall 009. The variable weather conditions, the fact that access to the location could be obtained only by forging in the stream bed 500 feet in-flow downstream while carrying heavy equipment-containing coolers, and the potentially treacherous rain-slicked rocks and muddy and rocky terrain rendered access to the location unsafe.



Sample ID	Description	Sample		Field Readings	
		Date	Time	Temp (°F)	pH
NDSW0012	SR-upstream	2/6/2009	14:15	56.0	7.7
NDSW0012	SR-upstream	2/16/2009	12:30	42.1	7.3
NDSW0013 ⁽¹⁾	SR-downstream	2/13/2009	14:30	45.8	7.1
Outfall 009 ⁽²⁾	Outfall 009	2/6/2009	14:10	51	8.0

Notes:

°F – degrees Fahrenheit

RWQCB – Regional Water Quality Control Board

SR-Shooting Range Area

⁽¹⁾ Access to downstream sampling locations beyond Outfall 009 was limited due to hazardous conditions. With approval from the Los Angeles RWQCB, downstream surface water samples from the Former Shooting Range were collected at Outfall 009.

⁽²⁾ Annual Outfall 009 surface water sample. Sampling was conducted at Outfall 009 under the SSFL NPDES permit and validated data from the sampling event will be provided with the NPDES permit quarterly report.

All other analyses required in the CAO are being performed by a California-certified analytical laboratory. Analytical results will be submitted in a future MMR subsequent to analytical test completion, data validation, and QA/QC review.

Figure 1 is a site location map showing the extent of excavation activities in the Northern Drainage and sample locations.

If there are any questions regarding this report, please contact Ms. Lori Blair at (818) 466-8741.

Sincerely,



Thomas D. Gallacher

Director, Santa Susana Field Laboratory
Environment, Health and Safety

Attachment: Figure 1. Excavation Extents in the Northern Drainage

cc: Norman E. Riley, DTSC
Gerard Abrams, DTSC
Cassandra Owens, RWQCB
Allen Elliott, NASA
Dixie Hambrick, MWH



Excavation Extents
in the
Northern Drainage

Base Map Legend

- Administrative Area Boundary
- RFI Site Boundary
- Existing Building or Structure
- Removed Building or Structure
- Dirt Road
- Fences
- A/C Paving
- Pipe
- Drainage
- NPDES Outfall

Figure Legend

- Clay Target Excavation Extent
- Drainage Excavation and Debris Removal
- Extent of Lox Debris / Asbestos

Document: NorthDrainage_ExcavationExtents.MXD Date: Dec. 12, 2008

