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Mr. Mark Malinowski  
California Department of Health Services  
Toxic Substances Control Division  
Region 2  
700 Heinz Avenue, Building F, Suite 200  
Berkeley, CA 94710

Mr. Malinowski:

Enclosed is the Monthly Progress Report for the month of November on the Remedial Investigation/Feasibility Study at the Naval Air Station, Alameda. Also enclosed are minutes of the Progress Review meeting held on November 28, 1990.

Thank you for your continued guidance and involvement in the IR program. Please direct any questions to Commander, Western Division, Naval Facilities Engineering Command (Attn: Ms. Bella G. Dizon, Code 1813BD, (415) 244-2551 or 2564).

Sincerely,

original signed by:

RICHARD SERAYDARIAN  
Head, Installation Restoration Section

Encl:

- (1) RI/FS Monthly Progress Report at NAS Alameda, November 1990
- (2) Minutes of Progress Review Meeting, November 28, 1990

Copy to: (w/ encl)

NAS Alameda (Attn: Randy Cate)

COMNAVBASE San Francisco (Attn: Randy Friedman)

Regional Water Quality Control Board (Attn: Rico Duazo)

National Oceanic & Atmospheric Administration (Attn: Chip Demarest)

Bay Area Air Quality Management District (Attn: Scott Lutz/Brian Jennison)

Department of the Interior (Attn: William C. Allan)

Blind copy to: (w/ encl)

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REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
PHASE 2A  
NAS ALAMEDA  
MONTHLY STATUS REPORT  
NOVEMBER 1990

1. Progress During the Reporting Period

- o Laboratory analyses on water samples from Yard D-13 (Wells MWD13-3 and MWD13-4) and Oil Refinery (Well MW-1(B-14)) were completed during this period. Samples from Yard D-13 were analyzed for both total petroleum hydrocarbons (TPH) and total organic carbon (TOC). Samples from the Oil Refinery were analyzed for the same chemical groups and/or constituents listed in the Sampling Plan, Volume 1, Remedial Investigation/Feasibility Study Work Plan for NAS Alameda. Ground water levels were also measured at the Phase 2A monitoring well sites during this period. Several reports documenting the results of Phase 2A field and laboratory activities were prepared during this period. Phase 2A field activities for November 1990 are summarized in Table 1. The field activity status for November 1990 and projected field activities for December 1990 are provided on Tables 2 and 3, respectively.

Removals:

- o None

2. Reports and Meetings

- o The monthly progress report for October 1990 was submitted on November 5, 1990. A monthly progress review meeting was held on November 28, 1990 at NAS Alameda. Agenda for this meeting focused on several issues, including those associated with Phase 1 Water SWAT at the landfill areas and Phase 2A field and office activities. Specific topics discussed during this meeting are presented in Table 4.
- o The following reports were submitted during October 1990:

<u>Report</u>	<u>Date of Submittal</u>
Phase 2A Boring Logs and Well Construction Details	November 2, 1990
Phase 2A Geotechnical Test Results	November 9, 1990
Phase 2A Survey Data	November 9, 1990
Phase 2A Water Well Drillers Reports	November 13, 1990
Phase 2A Analytical Results for Site 4, Building 360	November 16, 1990

ENCLOSURE 1

Phase 2A Analytical Results for Site 7, Building 547	November 16, 1990
Phase 2A Analytical Results for Site 3, Area 97	November 21, 1990
Phase 2A Air Sampling Results	November 27, 1990
Phase 2A Analytical Results for Site 16, Cans C-2 Area	November 28, 1990

3. Problems Encountered and Resolutions:

NAS Alameda Facilities Management Office (FMO) personnel requested that the Phase 2A waste barrels be placed on wooden pallets and appropriately labelled with hazardous waste labels. FMO also requested that the Phase 1 waste barrels be labelled at the landfill areas. Phase 1 and 2A waste barrels will be labelled after FMO delivers pallets to the Phase 2A storage area at Building 547.

4. Reports Scheduled for December Submittal:

- o Phase 2A Analytical Results for Site 9, Building 410;
- o Phase 2A Analytical Results for Site 13, Oil Refinery;
- o Phase 2A Analytical Results for Site 10, Building 530;
- o Phase 2A Analytical Results for Site 19, Yard D-13;
- o Phase 2A Ground Water Levels;
- o Phase 2A Soil Gas Survey Results for Area 97 and Building 547.

TABLE 1

PHASE 2A FIELD ACTIVITIES FOR NOVEMBER 1990  
 NAS ALAMEDA RI/FS

<u>Site Name</u>	<u>Soil Gas Surveying</u>	<u>Surface Soil Sampling</u>	<u>Soil Borings</u>	<u>Well Installation</u>	<u>Well Development</u>	<u>Well Sampling</u>	<u>Surveying</u>	<u>Waste Barrel Handling</u>	<u>Ground Water Levels</u>
Building 360	-	-	-	-	-	-	-	-	X
Building 547	-	-	-	-	-	-	-	-	X
Yard D-13	-	-	-	-	-	-	-	-	X
Building 410	-	-	-	-	-	-	-	-	X
Building 530	-	-	-	-	-	-	-	-	X
Oil Refinery	-	-	-	-	-	-	-	-	X
Cans C-2 Area	-	-	-	-	-	-	-	-	X
Area 97	-	-	-	-	-	-	-	-	X

Notes:

1. "-" denotes no activity.
2. "x" denotes activity.

TABLE 2

STATUS OF PHASE 2A FIELD ACTIVITIES AS OF NOVEMBER 30, 1990  
 NAS ALAMEDA RI/FS

<u>Site Name</u>	<u>Soil Gas Survey</u>		<u>Surface Soil Sampling</u>		<u>Soil Borings</u>		<u>Well Installation</u>	
	<u>Planned</u>	<u>Completed</u>	<u>Planned</u>	<u>Completed</u>	<u>Planned</u>	<u>Completed</u>	<u>Planned</u>	<u>Completed</u>
Building 360	0	0	30	0	5	5	4	4
Building 547	72	62	0	0	5	5	5	5
Yard D-13	0	0	0	0	12	12	4	4
Building 410	0	0	0	0	5	5	4	4
Building 530	0	0	0	0	0	0	3	3
Oil Refinery	0	0	0	0	22	22	5	5
Cans C-2 Area	0	0	55	55	6	6	3	3
Area 97	137	121	0	0	0	0	3	3
<b>Total</b>	<b>209</b>	<b>183</b>	<b>85</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>31</b>	<b>31</b>

TABLE 2

STATUS OF PHASE 2A FIELD ACTIVITIES AS OF NOVEMBER 30, 1990  
 NAS ALAMEDA RI/FS  
 (Continued)

Site Name	Water Sampling		Surveying		Ground Water Levels	
	Planned	Completed	Planned	Completed	Planned	Completed
Building 360	4	4	9	9	4	4
Building 547	5	5	72	72	5	5
Yard D-13	4	4	16	16	4	4
Building 410	4	4	9	9	4	4
Building 530	3	3	3	3	3	3
Oil Refinery	5	6	27	27	6	6
Cans C-2 Area	4	3	64	64	3	3
Area 97	3	3	124	124	3	3
<b>Total</b>	<b>32</b>	<b>32</b>	<b>324</b>	<b>324</b>	<b>32</b>	<b>32</b>

## Notes:

1. Surveying includes soil gas survey points, surface sampling points, borings, and monitoring wells.
2. Sixty-two soil gas survey points were only completed at Building 547 during the Phase 2A field work to cover the planned grid area shown in Volume 1, NAS Alameda RI/FS Sampling Plan. Only 121 points were completed at Area 97 because of existing buildings along the grid lines.
3. The proposed thirty surface soil samples from the crawlspace underneath Building 360 have not been collected because sampling locations are undergoing redesignation.
4. An existing monitoring well at the Cans C-2 Area was not sampled because of the lack of background information on the well. Existing monitoring well, B-14 (MW-1), installed by a previous contractor at the Oil Refinery site, was sampled on October 16, 1990, in substitution for the existing Cans C-2 well. The ground water level was also measured at MW-1.

TABLE 3

PROJECTED FIELD ACTIVITIES FOR DECEMBER 1990  
NAS ALAMEDA RI/FS

- o Hazardous waste labelling of Phase 1 waste barrels at the Pistol Range Area, (1943 to 1956 Disposal Area).
- o Placement of Phase 2A waste barrels on wooden pallets and hazardous waste labelling at Building 547 storage area.

TABLE 4

NOVEMBER 1990 NAS ALAMEDA PROGRESS REVIEW

<u>Date</u>	<u>Location</u>	<u>Attendees/Affiliations</u>	<u>Meeting Topics</u>
November 28, 1990	NAS Alameda Facilities Management Office	Mark Malinowski/DHS Randy Cate/NAS Alameda Ernie Galang/WESTDIV Kirk Switzer/PRC Steve Newton/JMM Bella G. Dizon/WESTDIV Timothy G. Bodkin/Canonie	Status Report Phase 2A Phase 5 (SWAT) Consistency Determination (BCDC) Abandonment of Existing Wells at Landfills Comments on Environmental Sampling (NOAA)  Data Validation Phases 1 and 2A Phases 5 and 6  Summary Tables of Analytical Results Areas of Concern  Soil Sampling of Deep Wells  Bldg. 5/Bldg. 360 Testing  Removal Action on AIMD Site

**REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
PHASE 5 (SWAT), CTO 0085  
NAS ALAMEDA  
MONTHLY STATUS REPORT  
NOVEMBER 1990**

**1. Progress During the Reporting Period:**

- All field activities were performed by James M. Montgomery (JMM). The JMM Staging area was designated as being south of Building 111, which belongs to the Weapons Department. The Health and Safety Plan was finalized. Underground utilities were identified and marked. Well locations were moved as necessary. The trailer was delivered and tied down. Field equipment was procured and delivered to the staging area. The decontamination area was designated and constructed.
- The drilling phase began November 26, 1990. The drilling contract was awarded to Water Development Corporation (WDC) of Woodland, CA. The mud rotary portion of the drilling was subcontracted by WDC to Exploration Drilling Services of Redwood City, CA. Surface soil samples were collected from well locations M-108B, M-103B, M-105B, M-10B, M-12B and M-14B. Four intermediate wells were drilled to the Bay Mud and surface casing was installed in wells M-108B, M-103B, M105B, and M-10B.
- PRC Environmental Management conducted field oversight activities on November 27, 1990. JMM was well organized. Proper health and safety procedures and well decontamination procedures were being followed.

**2. Reports and Meetings:**

- During the Progress Review Meeting held at NAS Alameda on November 28, 1990, it was decided to drill sites M-12 and M-14 instead of sites M-15 and M-19. This change was made because the Bay Conservation and Development Commission (BCDC) had not yet approved sites M-15 and M-19 for drilling.
- At the same meeting, the Navy requested that data validation packages for 10%, instead of 20%, of the samples be prepared.

**3. Problems Encountered and Resolutions:**

- The original start date of November 13, 1990 was held up due to lack of designation and approval of a staging area.
- The BCDC informed NAS Alameda that sites, M-15 and M-19 are too close to the Bay (within 100), and they will have to decide if we will be permitted to drill them. At the NAS Alameda Progress Review Meeting (November 28, 1990), it was decided to drill sites M-12 and M-14. These two sites (4 well locations) were cleared for underground utilities.
- Waiting on NAS Alameda personnel to hook up electricity and water to trailer, and to grade the trailer/staging area.

**4. Reports Scheduled for December Submittal:**

- No reports are scheduled for submittal during December 1990.

**5. Planned Field Activities for December 1990:**

- All drilling for CTO 0085 is scheduled to be completed in December 1990. Soil samples will be analyzed by Analytical Technologies, Inc., Laboratory of San Diego, CA.

**INSTALLATION RESTORATION PROGRAM, NAS ALAMEDA  
WELL DECOMMISSIONING, 1943-1956 DISPOSAL AREA AND WEST BEACH LANDFILL,  
CTO 0095  
MONTHLY STATUS REPORT  
NOVEMBER 1990**

**1. Progress During the Reporting Period:**

- **A Field Work Plan for decommissioning existing ground-water monitoring wells at the 1943-1956 Disposal Area was prepared. Discussions between PRC Environmental Management (PRC), the Navy, and the Department of Health Services (DHS) pertaining to health and safety issues and well decommissioning procedures were conducted. The health and safety issues revolved around infectious wastes brought to the surface during well decommissioning activities. Well decommissioning issues focused on which decommissioning procedure should be used. Three procedures were discussed and included 1) overdrilling, and removing both the PVC casing and the filter pack, 2) perforating the PVC casing, and grouting everything in place, and 3) pulling the PVC casing, and grouting the filter pack in place. During the discussions, the Field Work Plan was put on hold and therefore it was not submitted to the Navy.**

**2. Reports and Meetings:**

- **During the Progress Review Meeting held at NAS Alameda on November 28, 1990, the DHS requested that all monitoring wells be decommissioned by overdrilling unless it can be demonstrated that the wells do not penetrate both the upper aquifer and the aquifer below the Bay Muds.**

**3. Problems Encountered and Resolutions:**

- **Health and safety issues and well decommissioning procedures were not resolved, and the Field Work Plan was put on hold. Based on discussions during the Progress Review Meeting, well decommissioning procedures will be determined after a review of boring logs has been conducted to determine which aquifers have been penetrated by the monitoring wells. The health and safety issues will be addressed after well decommissioning procedures have been established.**

4. **Reports Scheduled for December Submittal:**

- **A study will be conducted to determine which aquifers the existing ground-water monitoring wells penetrate. A Field Work Plan, with a Health and Safety Plan, will be prepared.**

5. **Planned Field Activities for December 1990:**

- **No field activities are planned for December. Depending on approval of the Field Work Plan, field activities may begin in January 1991.**

PROGRESS REVIEW MEETING  
REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
NAVAL AIR STATION, ALAMEDA

28 NOVEMBER 1990  
(see Attachment 1 for Agenda)

<u>Attendees</u>	<u>Affiliation</u>	<u>Telephone</u>
Mark Malinowski	DHS	(415)540-3816
Randy Cate	NAS Alameda	(415)263-3716
Ernie Galang	WESTDIV	(415)244-2560
Bella Dizon	WESTDIV	(415)244-2564
Steve Newton	J. M. Montgomery	(415)975-3400
Timothy Bodkin	Canonie	(415)573-8012
Kirk Switzer	PRC Environmental Mgmt.	(916)852-8300

MINUTES

Phase 2A -- Report by Tim Bodkin

1. Barrels need to be labeled; also waiting on pallets.
2. Summary reports have been delivered for sites CANS C-2, Area 97, Bldg. 316, and Bldg. 547.
3. Bella has geotechnical results for Phase 2A.
4. TCE detected at Bldg 316 in soil and ground water.
5. Soil gas hits at Bldg. 547; TPH and BTEX detected in ground water.
6. The DHS Hazardous Materials Lab (Bart Simmons and Stan Yeto) is reviewing the initial Phase 2A data for Bldg. 360.

Phase 5 (SWAT) -- Report by Steve Newton

1. Steve reported on the status of field activity for the month of November as summarized on the status report (attachment 2) he distributed at the meeting.

Consistency Determination (BCDC) -- Report by Randy Cate

1. BCDC evaluates the impacts of any drilling within 100 feet of the high-tide mark (6.1 feet MSL).
2. Randy will submit to the BCDC the information required to satisfy their permit application for all wells along the bay at both landfills by next week. BCDC will do an internal review and then respond by phone.
3. JMM will stake contingency holes in the event M-19 and M-15 are delayed by BCDC.
4. Not allowed to dispose in the landfill unless below TTLC and STLC. JMM to do a volume estimate and submit it to Randy Cate. Mark Malinowski suggested talking to the water board about disposal in the WB landfill or along the estuary. Randy Cate will pursue locating a site.

CTO 107 and Other Work at NAS Alameda -- Report by Bella Dizon

1. Bella has funding for CTO 107 and it must be awarded by December 31, 1990 (because is must be funded with first quarter money).
2. Phase 4 to begin in January 1991.

ENCLOSURE 2

## Abandonment of Existing Wells at Landfills -- Report by Kirk Switzer

1. Kirk presented PRC's tentative proposal to abandon the wells by removing the casing with a backhoe and then grouting without removing the filter pack material.
2. Mark indicated that he still wants the wells drilled out unless we can show that the wells are in the fill only and do not extend through the bay mud. If we can show this, then Mark says it will be acceptable to perforate the casings and then pressure grout. Only if the wells penetrate the bay mud (connect the two aquifers) should they be drilled out. This will result in the need to characterize the cuttings.
3. Bella tasked PRC to research the issue in item (2) and finalize the field work plan for well abandonment (No due date set although PRC should begin working on the question right away).

## Comments on Environmental Sampling -- Report by Mark Malinowski

1. NOAA -- no response yet from Chip Demarest.
2. DOI -- Bill Allen has responded to Mark
3. Mark Malinowski requested that Bella issue a separate CTO for environmental sampling and not incorporate into the CTOs for the other phases.

## Data Validation

1. Data validation is not required for Phases 1 and 2A. However, approximately 1-2 % of the samples had data validation packages prepared, but the validation review was not performed.
2. Data validation for Phase 5 will be reduced from 20 % to 10 %.

## Summary Tables of Analytical Results (Areas of Concern)

1. Canonie will look into ways to highlight data presentation to indicate where values are above action levels.
2. Jmm wants to work with Canonie to come up with a compatible data base.

## Soil Sampling of Deep Wells

1. For Phase 5, the work plan calls for continuous sampling to 50 feet, the in 5-foot increments thereafter. Mark Malinowski indicated a preference for continuous sampling throughout.

## Building 5/Building 360 Testing

1. Mark Malinowski discussed adding one or more borings to the Bldg. 5 IR program to cover closure of a small area in the southeast corner of building 5. This is more sample locations than described in the work plan, but Bella indicated that she would consider add two more borings to the Building 5 RI scope of work.
2. Randy Cate will do the sampling at Building 360. A revised closure plan has been submitted by Randy Cate. He thought the closing date would be March or April 1991. Mark wants to be able to sample as soon as the building is vacated. Bella plans to issue a separate CTO to PRC for this work.

### Removal Action on AIMD Site

1. Randy said it could be fenced or capped.
2. Mark is concerned about the low pH with regard to metals mobility. He wants the pH of "hot spots" raised.
3. Mark is also concerned about the effect of low pH on grout integrity.

### Storm Line

1. Collapsed section of storm sewer (due to October 1989 earthquake) are being replaced in two phases. A TV survey of the lines was done and some contamination was found. Randy sent letter to COE to see if they have jurisdiction -- still waiting to hear.
2. Mark Malinowski indicated that the sampling protocol (suite of analyses) should be the same as for the existing IR sites

### Miscellaneous

1. Tim Bodkin will supply a mylar of the site plan to Bella and then she will forward it to JMM.

Attachment 1

AGENDA

PROGRESS REVIEW MEETING  
REMEDIAL INVESTIGATION/ FEASIBILITY STUDY  
NAVAL AIR STATION ALAMEDA

28 NOVEMBER 1990

1. STATUS REPORT
  - PHASE 2A
  - PHASE 5 (SWAT)
  - CONSISTENCY DETERMINATION (BCDC)
  - ABANDONEMENT OF EXISTING WELLS AT LANDFILLS
  - COMMENTS ON ENVIRONMENTAL SAMPLING (NOAA)
2. DATA VALIDATION
  - PHASES 1 & 2A
  - PHASES 5 & 6
3. SUMMARY TABLES OF ANALYTICAL RESULTS
  - AREAS OF CONCERN
4. SOIL SAMPLING OF DEEP WELLS
5. BLDG 5 / BLDG 360 TESTING
6. REMOVAL ACTION ON AIMD SITE

# Attachment 2

## NAVY CLEAN CONTRACT MONTHLY FIELD ACTIVITY STATUS REPORT

CTO-085

November 28, 1990

### PROGRESS MADE THIS REPORT PERIOD:

- Meet with NAS personnel to coordinate field activities
- Locate and mark well site locations
- Initiate and obtain utility clearances
- Establish staging and materials storage location by the pistol range
- Mobilize drill crew and prepare decontamination area (Nov. 26, 1990)
- Begin drilling at well site M-108 ( background well) (Nov. 27, 1990) ,
- *Starting well M-103 today*

### FACTORS AFFECTING SCHEDULE

- Identification of an area by NAS Alameda for the staging and materials storage area delayed start-up of the field program from November 12 to November 26th. However, if drilling activities run smoothly and there are no other delays, the overall project schedule will not be affected.
- As of the day of drilling mobilization (Nov. 26th), ground electronics clearances had not been provided by NAS Alameda nor had approval been given for the decon area. These both delayed the start of drilling activities by one additional day.

### OUTSTANDING ISSUES/RESOLUTIONS

- Approval is still pending by the Bay Conservation and Development Corporation (BCDC) for two well sites within 100 feet of the shoreline. Randy Cate is coordinating this effort.
- *The staging area needs to be graded*
- *Disposal areas for clean water and soils need to be identified*

Prepared By: James M. Montgomery Consulting Engineers  
November 27, 1990