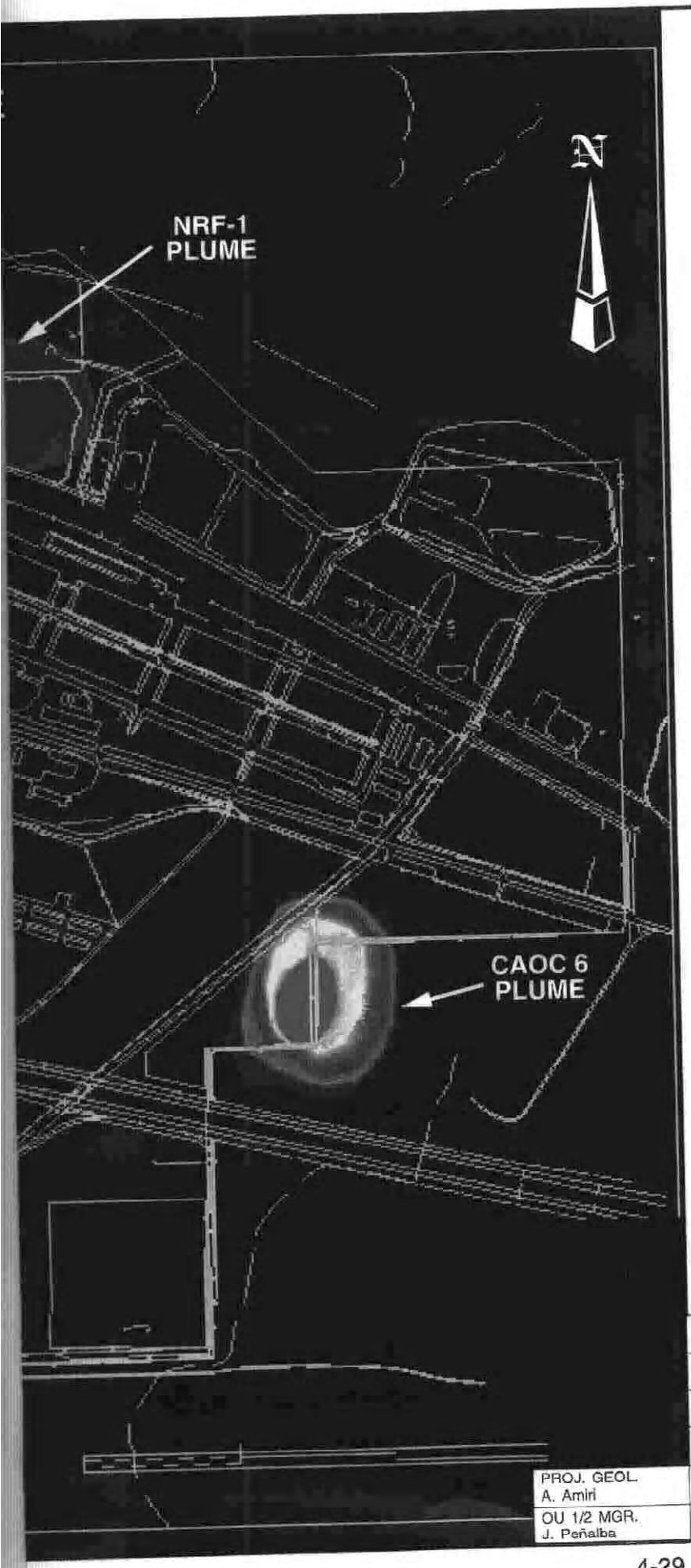
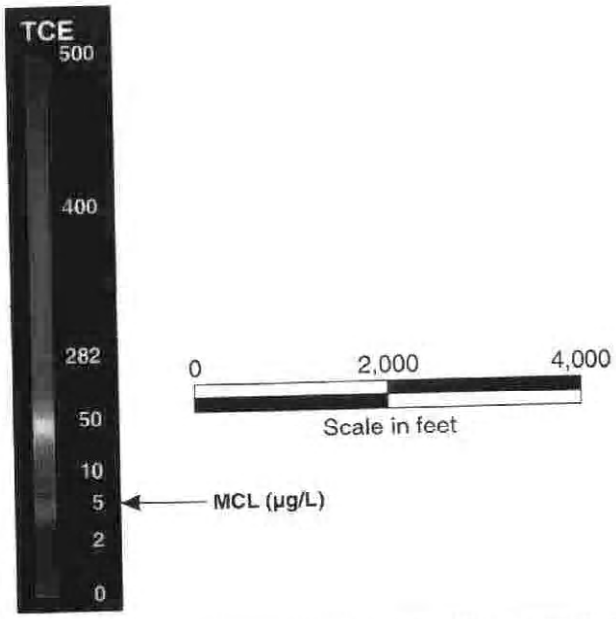


Model shows an areal view slice through TCE contaminated groundwater at approximately 40 ft. below ground surface at NRF-1 and 100 ft. below ground surface at CAOC 6 as of October, 1995. Color variations show intensity of TCE concentration.

Model was produced using LYNX Geosystems to conceptualize the extent of the TCE plume. Light blue and gray areas are based on geostatistical estimations and represent values detected below MCL (5 µg/L).

Color scale shows intensity of concentration in micrograms per liter (µg/L).



PROJ. MGR. S. Walker	JACOBS ENGINEERING GROUP INC. PASADENA, CALIFORNIA	
PROJ. ENG. A. Garrison	MARINE CORPS LOGISTICS BASE Barstow, California	
DRAWN BY J. Lawrence	**TCE Plumes in Groundwater from NRF-1 and CAOC 6 Nebo Main Base**	
DRAWING NO. 1109\F298136A.CDR		
PROJ. GEOL. A. Amiri / MADE FROM 1109\F298-136.CDR		
OU 1/2 MGR. J. Peñalba / DATE 02/20/97	PROJ. NO. 01-F298-YB	FIGURE 4-3

5.0 NEBO SOUTH PLUME

5.1 Summary of Plume Characteristics

5.1.1 Contaminants of Concern

5.1.1.1 Organics

The results of the groundwater RI for Nebo South plume indicate that VOCs are the primary class of chemicals affecting the groundwater in the southern Nebo Main Base area. TCE, PCE, and 1,2-DCA have been detected at concentrations exceeding their federal and/or state drinking water standards. Other VOCs detected at levels not exceeding federal or state standards include 1,1-DCE, chloroform, bromoform, dibromochloromethane, and bromodichloromethane.

Table 5-1 shows the maximum concentration of VOCs detected in the Nebo South groundwater monitoring wells, along with their associated MCLs. Contaminants exceeding drinking water standards appear at the top of the table.

TCE appears to be the predominant contaminant in the groundwater at the Nebo South plume and was detected in all seven wells in the plume area. PCE was detected in three of the seven wells.

5.1.1.2 Inorganics

The evaluation of the nature and extent of metals concentrations at the Nebo South plume indicates that metals are not present in the groundwater plume at levels above the expected naturally occurring concentrations. The RI concluded that there is no evidence that discharge of wastes from the Base has resulted in elevated metals concentrations in the groundwater at the southern Nebo Main Base area.

5.1.2 VOC Contaminant Source

VOCs are the only confirmed class of groundwater contaminants in the Nebo South plume area. The areal extent of the VOC plume and location of contaminant sources are shown in Figure 4-1. The groundwater contamination plume at Nebo South plume appears to be the result of historical releases and disposal practices for solvents at CAOC 6 between 1946 and 1952. Practices included disposing of waste liquids in revetments at this CAOC. The maximum concentrations of PCE and TCE detected in groundwater in this area are 17 and 422 µg/L, respectively.

5.1.3 Location of Vadose Zone Contamination

Although VOCs were not detected in soil samples at this CAOC during the RI, VLEACH modeling conducted on soil gas data collected from several vertical profile borings indicated that organic vapors in the vadose zone soils pose a continuing, long-term source of VOCs to groundwater. Groundwater contamination by VOCs has been confirmed at this site. The vadose zone at CAOC 6 has been targeted for remedial action under OU 2 on the basis of these results. An air sparge/soil vapor extraction (AS/SVE) pilot study is being conducted at CAOC 6 to evaluate the feasibility of this technology and to help select the most practical and cost-effective remedial alternative for the Nebo South VOC plume.

5.1.4 Location of Groundwater Contamination

VOCs were detected in groundwater at and downgradient of CAOC 6 as discussed in Section 5.1.3. Figures 4-2 and 4-3 show the distribution of PCE and TCE in groundwater in the area of the Nebo South plume. These maps, contoured using Lynx Geosystem, show the location of the source area and the extent of the dissolved VOC plume. The areal extent of the plume is approximately 1,000 by 800 feet, and appears to be limited to the upper 40 feet of the aquifer. The groundwater contaminant plume has migrated off Base; however, the data suggest that the plume has not moved far off Base. The

leading edge of the plume extends downgradient approximately 600 feet from the Base boundary. In 1992, TCE concentrations above the MCL were found in a private resident's well. The Base conducted a time-critical removal action to remove the well from service and connect the residence to the Base water supply system.

5.1.5 Contaminant Migration Routes

Two potential routes of contaminant migration were identified for the Nebo South plume.

1) **Vadose zone contaminant transport:**

   a) Vertical transport through the soil by desorption of chemicals bonded to the surface of soil particles and percolation of infiltrated water through the contaminated soil column.

   b) Vertical and horizontal transport of contaminant vapors through soil pore space from either residual or re-vaporization of material adsorbed/absorbed onto the soil particles. Vapors can potentially recontaminate the groundwater or be emitted to the surface.

2) **Groundwater contaminant transport:** Vertical and horizontal transport of contaminants through the groundwater matrix.

5.1.5.1 Vadose Zone Contaminant Transport

In general, VOCs have a high vertical mobility in soils and can percolate into the groundwater. The data gathered from the Nebo South plume area indicate that VOCs have percolated into the groundwater and that TCE and PCE are the predominant constituents of groundwater contamination.

Soil gas data collected during installation of the pilot study AS/SVE system (OHM 1995b) was also used for the VLEACH modeling analysis. The results

indicated that the maximum concentration of TCE (5.6 µg/L), which was slightly above the MCL (5 µg/L), would reach groundwater in 1 year.

5.1.5.2 Groundwater Contaminant Transport

As shown in Figure 4-1, the Nebo South plume is restricted to the general CAOC 6 area. The plume area is estimated at 800 by 1,000 feet. The longitudinal transport of TCE extends 600 feet downgradient of the Base boundary. The plume appears to have limited longitudinal and lateral migration. This limited migration appears to be the result of relatively tight soils that slow the contaminant migration and inhibit groundwater flow in this area.

Groundwater samples from intermediate-depth monitoring wells (screened from 40 to 60 feet below the groundwater table) resulted in mostly concentrations of VOCs below detection limits through the Nebo Main Base. A vertical extent of 40 feet was conservatively assumed to be the average depth of groundwater VOC contamination at the Nebo South plume.

5.2 Summary of Nebo South Plume Risks

The major risk currently associated with the Nebo South plume is the ingestion of the contaminated groundwater underlying the affected on- and off-Base areas. Actual or threatened releases of hazardous substances from the Nebo South plume, if not addressed by implementing the response action selected in the ROD, may present a threat to public health and the environment.

5.2.1 Chemicals of Concern

The majority of the waste and residues generated by mission operations at the Nebo Main Base have been managed, treated, and disposed of on site throughout the Base history. By applying screening criteria, the chemicals detected in the vadose zone and groundwater during the RI were evaluated for inclusion as chemicals of potential concern in the risk assessment.

Contaminants of concern identified in groundwater at the Nebo Main Base are listed in Table 5-1.

5.2.2 Summary of Toxicity Values

Summaries of the carcinogenic and noncarcinogenic toxicity values for contaminants of concern in groundwater at the Nebo South plume area are provided in Tables 3-3 and 3-4, respectively.

5.2.3 Human Health Risk

For groundwater at Nebo South plume under OU 2, the BLRA evaluated future hypothetical residential scenario.

The BLRA showed that under this scenario for cancer risk, as many as 10 persons in 10,000 (1×10^{-3}) have the potential to develop cancer during their lifetimes. Excluding the contribution from naturally occurring metals and laboratory contaminants, the incremental cancer risk is approximately 4×10^{-4}. The primary contributor to this risk is TCE.

These estimates were developed by taking into account the conservative assumptions about the likelihood of a person being exposed to groundwater contamination (see Section 2.7.2). The estimate is above the EPA's target risk management range of 10^{-4} to 10^{-6}.

Evaluations were also performed for hypothetical receptors assuming exposure at the MCL and background levels (analytical quantitation limit). At the MCL, the incremental risk from both PCE and TCE was estimated to be approximately 1×10^{-5}. The corresponding incremental risk at the background level is approximately 5×10^{-6}. The noncarcinogenic hazard index is less than 1.0 for both chemicals.

5.2.4 Ecological Risk

EPA Region IX independently conducted an ecological risk assessment to evaluate potential effects on plants and animals from groundwater contaminants at MCLB Barstow. At Nebo South, the groundwater in most areas is found at depths greater than 100 feet bgs and no surface water exists. Exposure of potential ecological receptors to VOCs in groundwater is unlikely because groundwater does not discharge to local surface water and is therefore not accessible to plants and animals. Thus there is no complete exposure pathway to impact ecological receptors at Nebo South.

5.3 Rationale for Remedial Action Decisions

This section discusses the rationale used to make groundwater and vadose zone cleanup decisions for the Nebo South plume.

5.3.1 Groundwater Cleanup

The extent of groundwater VOC contamination at the Nebo South plume was determined during the RI/FS. As discussed in Section 5.1.4, the Nebo South plume is located in a relatively deep aquifer (about 180 feet) characterized by fine-grained soil conditions that significantly inhibit plume movement. Site characterization and fate and transport modeling data generated for the site indicates that this plume is moving very slowly and will continue to migrate indefinitely unless it is contained. The plume has already migrated off Base about 600 feet east of the Base boundary. Due to the site conditions, this plume is not likely to degrade by natural processes to concentrations below MCLs for over 500 years. As with the Nebo North plume, the MCL and background contour areas for the Nebo South plume are very close together (within 300 feet).

Based on site conditions, the containment strategy selected for this plume is to prevent any further migration of the VOC contamination at the leading edge of the plume, which contains both the MCLs and background boundaries. This

strategy captures 100 percent of the total VOC mass estimated to exist in the aquifer. Two groundwater cleanup options were considered in the FS under this containment strategy.

1) Containment of groundwater contamination at the leading edge of the VOC plume by active extraction and treatment. This process option was evaluated to determine if extraction and treatment is a cost-effective remedy to prevent further plume migration and provide a permanent solution. Due to the significant limitations posed on extraction and treatment technology by the extremely low permeability of the aquifer (i.e., maximum well yields of 5 gpm), a limited containment system was determined to be more cost-effective than a more aggressive full-scale system.

2) Removal of VOC contaminant source by AS/SVE at CAOC 6. This process option was evaluated to determine if AS/SVE is a cost-effective remedy to remove VOC contamination from the vadose zone and groundwater in the source area and reduce the time required to cleanup the aquifer with the extraction and treatment containment system. A pilot study consisting of two nested sets of two air sparging wells (one shallow and one deep) and six vapor extraction wells was conducted to analyze the effectiveness of AS/SVE in removing VOC mass from the vadose zone and groundwater. The pilot study yielded inconclusive results. Average radius of influence, mass removal rates, vacuum levels and flow rates for both AS and SVE wells were greater than expected, suggesting that coverage of the entire site could be achieved with about half as many wells as originally anticipated. However, the results also indicate significant variability from well to well for some of the parameters, suggesting that localized subsurface conditions could significantly affect the performance of a full-scale system. In addition, many data gaps in the study make it difficult to fully assess the results.

Because of the inconclusive results of the AS/SVE pilot study so far, the Marine Corps has decided to select the plume containment option as an interim remedy at this time. The Marine Corps believes this interim remedy is necessary to contain the plume while continuing the pilot study to obtain more conclusive data to characterize the source area and assess the effectiveness of AS/SVE to reduce remediation costs.

The Marine Corps anticipates that the results of the pilot study will provide data that will allow for a more accurate determination of the source area and overall cleanup time using the AS/SVE alternative. If it is determined that AS/SVE is not the best alternative for remediation, the Marine Corps will recommend a future course of action in the primary FFA deliverable. The Marine Corps feels

that the selected interim remedy is the best option at this time, since it is fully protective of human health and the environment, prevents downgradient migration, and is cost effective.

The appropriate groundwater cleanup goal for the Nebo South plume was selected based on an evaluation of the technical and economic feasibility of achieving MCL and background levels, the residual risk remaining in groundwater after achieving each cleanup goal, and the costs/benefits of incremental risk reduction. The following summarizes the TEF analysis results and conclusions.

- Cleanup of contaminated groundwater to MCLs would reduce baseline risks by 98 percent resulting in a residual risk of 1×10^{-5}. Cleanup to background levels would reduce baseline risks by 99 percent, resulting in a residual risk of 5×10^{-6} (an incremental 1 percent reduction over MCLs). Both cleanup levels are within EPA's risk management range and are considered protective of human health and the environment.

- Cleanup of contaminated groundwater to MCLs would remove 93 percent of the total estimated VOC mass, and take from 55 to over 500 years depending on the alternative selected. Cleanup to background levels would remove 100 percent of the total estimated VOC mass (an incremental 7 percent mass reduction over MCLs), and would take from 130 to over 500 years for the same alternatives (an incremental 130 percent duration over MCLs).

- The estimated present worth costs of all alternatives evaluated range from $1.3 to 15.1 million for cleanup to MCLs, versus $1.3 to 16.2 million for cleanup to background levels, a cost increase of 1 to 5 percent for background over MCLs.

Hydrogeological conditions in the Nebo South plume may pose significant limitations to aquifer remediation due to the very low permeability of the aquifer. These conditions can make cleanup of contaminated groundwater extremely difficult and very unlikely to achieve either MCLs or background levels within a reasonable time. Although the incremental costs of remediating to background levels versus MCLs do not appear significant, this is largely due to the masking effects of present worth analysis caused by the extremely long durations of the remedial alternatives (the shortest time to achieve background is 130 years). Cleaning up to background instead of to MCLs would result in only a minimal

incremental difference in risk reduction and mass removal while increasing cleanup duration by two- to three-fold. Based on the above rationale and the fact that both MCLs and background cleanup goals are considered protective of human health and the environment, the TEF analysis concluded that cleanup to background levels is technically and economically infeasible. The Marine Corps therefore selected MCLs as the cleanup goal for the Nebo South VOC plume.

5.3.2 Source Reduction

Vadose zone contamination that may pose a continuing, long-term source of VOCs to groundwater has been determined to exist at CAOC 6. Continued releases to groundwater from this area could potentially reduce the effectiveness of remediation and extend the duration of cleanup.

The following cleanup options were evaluated for the CAOC 6 area in the FS:

1) **Soil excavation:** This option is not feasible to remove the residual contamination in the soil because of the depth of the contamination (180 feet to groundwater) at CAOC 6.

2) **In Situ Vertical AS/SVE:** This option involves installing and operating a full-scale AS/SVE system to provide adequate coverage of the vadose zone and groundwater in the source area of CAOC 6. As discussed previously, the initial results of the pilot study were inconclusive regarding whether AS/SVE could effectively remove VOCs from the source area and reduce the remediation time for the Nebo South plume. Therefore, the Marine Corps has decided to continue to operate the pilot study until conclusive results can be obtained.

5.4 Description of Alternatives

Five alternatives are presented in this ROD for remediation of groundwater and vadose zone soil in the Nebo South plume area. These alternatives are discussed in detail in the Draft Final FS for OUs 1 and 2 (Jacobs 1996a) and are summarized in this section.

5.4.1 Alternative 1 – No Action

Under this alternative, MCLB Barstow would not take any action to clean up or control contamination from vadose zone soils or groundwater. Existing site conditions would not change. No costs are associated with this alternative. The no action alternative provides a baseline for comparing the other alternatives.

5.4.2 Alternative 2 – Institutional Controls/Groundwater Monitoring

This alternative includes implementing institutional controls and initiating a long-term groundwater monitoring program. This alternative relies on natural processes such as dispersion, degradation, sorption, and volatilization to reduce VOC concentrations. Institutional controls will ensure that the affected groundwater will not be used in the future, thereby maintaining the current lack of exposure to, and risks from, chemicals in the groundwater.

Institutional controls include restrictions on the use of untreated groundwater for drinking water, and provisions for wellhead treatment of affected water supply wells within the Nebo Main Base South plume area. The institutional controls to restrict access to contaminated groundwater in this area will be documented in the Base Master Plan.

This alternative also includes a long-term program to monitor vadose zone and groundwater beneath and downgradient of contaminant sources. Groundwater monitoring involves sampling existing monitoring wells to: 1) monitor trends in contaminant concentrations; 2) evaluate remediation progress and contaminant patterns; and 3) provide early warning to prevent contaminant exposure to potentially affected downgradient users. Vadose zone monitoring involves sampling of soil vapor probes to 1) monitor trend in contaminant concentrations and 2) assess the effect of the vadose zone contamination on the effectiveness of the selected remedy.

A post-ROD vadose zone and groundwater monitoring plan for the Nebo South plume remedial action will be prepared under the authority of this ROD, outlining

the monitoring well network, sampling and analytical methods, sampling frequency, and major decision points during monitoring (e.g., adding/removing monitoring wells from the network, changing sampling frequency of analytical parameters, etc.).

The cost for Alternative 2 includes approximately $90,000 in capital costs and $55,000 in yearly O&M costs to put in place institutional controls and install and monitor groundwater monitoring wells, for a total present worth cost of $1.3 million. Groundwater modeling indicates that minimal natural processes are at work and that it would take this alternative over 500 years to degrade the groundwater contamination to levels below drinking water standards. Except for the no action alternative, all of the alternatives include institutional controls and long-term groundwater monitoring.

5.4.3 Alternative 3 – Vadose Zone Source Reduction (AS/SVE at CAOC 6)

This alternative involves operating the existing AS/SVE pilot study system. This pilot-scale system does not prevent plume migration and will only remove VOCs from vadose zone soils and groundwater within a limited portion of the plume. This alternative is intended to reduce the time to clean up the groundwater VOC contamination by removing contaminants trapped in the vadose zone soil and groundwater underneath the source.

The cost for Alternative 3 includes $738,000 in capital costs to construct the treatment system, (all of which has already been constructed as part of the pilot study), and $110,000 in yearly O&M costs to operate the system. The total present worth cost of this alternative is estimated at $3.3 million, of which $1 million has been incurred in the pilot study. Groundwater modeling indicates that it would take this alternative over 500 years to degrade the groundwater contamination to levels below drinking water standards.

5.4.4 Alternative 4 – Groundwater Removal (Extraction Wells at MCL/Background Boundary), Source Reduction at CAOC 6, Ex Situ Treatment, and Discharge

This alternative builds upon Alternative 3 by: 1) expanding the existing pilot scale AS/SVE system to a full-scale AS/SVE treatment system to address source removal at CAOC 6; and 2) adding a groundwater extraction and treatment system to contain the leading edge of the plume.

The full-scale AS/SVE system would consist of ten nested sets of air sparge wells, each containing a shallow and a deep well, and 30 soil vapor extraction wells designed to collect the VOC gases released from the air sparging wells and remove vadose zone contamination that may be acting as a source of groundwater contamination.

The extraction and treatment system would consist of five groundwater extraction wells spaced about 200 feet apart, and screened as deep as 60 feet below the groundwater table to capture the deepest contamination. The extracted groundwater would pass through activated carbon treatment and be pumped via a pipeline to the percolation ponds used by the Nebo North plume treatment system to recharge the groundwater. This system would only extract groundwater at an estimated rate of about 25 gpm (5 gpm per well) due to the very tight soil formation at this site.

Should AS/SVE be determined to be technically and economically feasible at the conclusion of the pilot study, this alternative would considerably reduce the total time to meet MCLs (from 500 to 55 years). The cost for Alternative 4 includes $3.3 million in capital costs to construct the treatment system (of which $1 million has already been constructed as part of the pilot study) and $598,000 in yearly O&M costs to operate the system. The total present worth cost of this alternative is estimated at $15.1 million.

5.4.5 Alternative 5 – Groundwater Containment and Removal (Extraction Wells at MCL), Ex Situ Treatment, and Discharge

This alternative provides an intermediate option between Alternatives 3 and 4. Alternative 5 consists of the five groundwater extraction wells system in Alternative 4 to contain and extract the groundwater at the leading edge of the plume. The extracted groundwater would be treated with activated carbon and then pumped to the percolation ponds to recharge the groundwater. This alternative evaluates the option of cleaning up the VOCs contaminated groundwater to meet federal and state drinking water standards without having to address the source. This alternative is estimated to meet MCLs in approximately 105 years.

The cost for Alternative 5 includes $892,000 in capital costs and $205,000 in yearly O&M costs to construct and operate the treatment system, for an estimated total present worth cost of $5.5 million.

5.5 Summary of Comparative Analysis of Alternatives

This section summarizes the evaluation of alternatives conducted to determine which alternative provides the best balance with respect to statutory balancing criteria in Section 121 of CERCLA and Section 300.430 of NCP. The NCP categorizes the nine evaluation criteria into three groups, as discussed in Section 2.9. The following analysis summarizes the evaluation of remedial alternatives under the three categories. Table 5-2 compares the alternatives for achievement of a specific criterion.

The selected alternative for addressing the groundwater contamination at the Nebo Main South is Alternative 5: Groundwater Containment and Removal (Extraction Wells at the MCL/Background Boundary). This alternative was selected as an interim remedy. Based on current information, the Marine Corps believes plume containment (Alternative 5) is a necessary interim action to stop any further plume migration. The agencies agree with this conclusion and concur with the Marine Corps decision to continue to run the pilot study for a longer duration until useable data are obtained to

fully characterize the source area and assess the effectiveness of AS/SVE to shorten cleanup times and reduce overall treatment costs.

5.5.1 Threshold Criteria

5.5.1.1 Overall Protection of Human Health and the Environment

The no action alternative does not adequately protect human health and the environment if the groundwater were to be used as drinking water in the future. The institutional controls alternative (Alternative 2) provides protection by restricting future use. The calculated human health risk for Alternatives 3, 4, and 5 is within EPA's target risk range. Assuming that institutional controls are effective, particularly in off-Base areas, all alternatives except the no action alternative are considered to be protective of human health and the environment. However, only Alternatives 3, 4, and 5 use active measures to significantly reduce contamination, the future threat to human health and the environment, and more quickly remediate to cleanup levels.

5.5.1.2 Compliance with ARARs

A summary of the potentially applicable ARARs for groundwater protection at MCLB Barstow is provided in Section 2.10. All alternatives comply with location-specific ARARs if the existing tortoise protection measures are followed for alternatives requiring active remediation. No natural or cultural resources are threatened by the groundwater contamination. All alternatives also comply with action-specific ARARs; specifically, state antidegradation ARARs for treated groundwater discharges, VOC emissions control, and groundwater monitoring requirements. Only Alternatives 4 and 5 comply with chemical-specific federal and state ARARs drinking water standards (i.e., MCLs).

5.5.2 Primary Balancing Criteria

5.5.2.1 Long-Term Effectiveness and Permanence

All alternatives except Alternative 1 provide moderate to high long-term effectiveness and permanence. However, Alternatives 2 and 3 require a very long time to achieve remedial goals (over 500 years). Institutional controls can effectively reduce risk by restricting the use of untreated groundwater for drinking water and providing wellhead treatment when warranted. Alternative 5 can significantly reduce the remediation time over Alternatives 2 and 3 from 500 to 105 years.

5.5.2.2 Reduction of Toxicity, Mobility, or Volume through Treatment

The no action and institutional control alternatives would not reduce toxicity, mobility, or volume through treatment because they are not treatment options. Alternative 3 would not comply with this criterion because it only provides active AS/SVE treatment within a limited portion of the plume. Only Alternatives 4 and 5 achieve moderate to high reduction of toxicity, mobility, or volume through active extraction and treatment and/or AS/SVE remediation and satisfy the statutory preference for treatment. Alternatives 1, 2, and 3 reduce toxicity, mobility, and volume through natural degradation of the contaminants over a long time.

5.5.2.3 Short-Term Effectiveness

Due to the length of remediation, short-term risks are the same as current risks. All alternatives except the no action alternative rely on institutional controls for short-term effectiveness of community protection. Such controls are more effective on-Base. If off-Base controls were not maintained, short-term effectiveness would be compromised.

The no action and institutional control alternatives would have the least immediate harmful effect on human health and the environment, but would also

provide less protection in the short term. The active remediation alternatives would slightly increase the short-term risk of exposure by pumping and handling of contaminated groundwater and soil. However, use of proper worker protection and safety measures would reduce these risks to safe levels.

5.5.2.4 Implementability

The no action alternative is the easiest to implement because there is nothing to implement. Imposing institutional controls off Base will require state, local, and community involvement.

Extraction and treatment and AS/SVE are proven, commercially available, readily implementable, and simple-to-operate technologies. No problems are expected during installation of on-Base extraction wells and treatment systems. Construction of off-Base extraction wells will require gaining access through coordination with private land owners and local officials. Alternatives 2 and 3 involve very long cleanup duration.

5.5.2.5 Cost Effectiveness

The selected interim alternative (Alternative 5) is the second most costly, with an estimated present worth value of $5.5 million, exceeded only by Alternative 4, with a present worth of $15.1 million. Alternative 5 costs more than Alternatives 1, 2, and 3, but is the least costly groundwater remedy that meets the threshold criteria for protection of human health and the environment. Furthermore, it significantly reduces cleanup time Therefore, the higher cost of Alternative 5 is justifiable.

5.5.3 Modifying Criteria

5.5.3.1 State Acceptance

The California State DTSC and RWQCB have reviewed the approved FS and Proposed Plan, and agree with the selected interim remedy for the Nebo South plume.

5.5.3.2 Community Acceptance

Minor verbal comments were received from the public concerning the proposed actions for OUs 1 and 2. These comments are included on Page 27 of the public meeting transcripts provided in Appendix C and in Section 6.0, "Responsiveness Summary."

5.6 Summary of Selected Interim Remedy For the Nebo South Plume

As required by CERCLA and the NCP, and based on the results of the detailed analysis of alternatives presented previously, MCLB Barstow selected Alternative 5 as an interim remedy to address groundwater and vadose zone contamination at the Nebo South plume.

The selected remedy is an interim remedy consisting of containment and removal of the groundwater contaminant plume from the aquifer, followed by ex situ treatment and recharge of treated groundwater back into the aquifer. Five extraction wells will be arranged to contain the entire plume originating from CAOC 6. The actual locations, sizing, and pumping rates for the wells will be determined by evaluating the results of pump tests to be conducted as part of the remedial design phase.

Based on current information, the DON believes this interim remedy is a necessary containment measure designed to stop any further migration of the VOC plume and prevent the contamination from impacting unaffected waters of the state. The DON has decided to implement this interim remedy while continuing to operate the AS/SVE pilot study at CAOC 6 to obtain the data needed to assess the effectiveness of

AS/SVE. The agencies agree with the above conclusions and concur with the DON's decision.

The results of the pilot study will be incorporated into an FFA primary document deliverable to be submitted to the agencies as established in Section 2.8.12 of this interim ROD.

To ensure that human health and the environment are protected in the future, institutional controls will be implemented that include access restrictions to prevent the on-Base use of untreated groundwater for domestic use. Wellhead treatment will be provided for any existing water supply wells that fall within the area of the plume exceeding MCLs. The DON will provide necessary information to appropriate county agencies identifying off Base areas impacted by groundwater contamination exceeding MCLs. The DON will support county agencies with any technical information needed for the county to implement restrictions on construction and use of wells in the affected areas.

All requirements, procedures, and restrictions established in Section 3.6 for development and implementation of institutional controls, pursuant to Base Master Plan amendment language shall apply equally to this section. The major components of the selected remedy consist of:

- Implementing institutional controls
- Designing and constructing of groundwater extraction and monitoring wells
- Designing and installing a groundwater pumping and monitoring system and a treatment system (the percolation ponds already exist)
- Starting and operating this system
- Transporting, regenerating, recycling, and/or disposal of the spent carbon filters
- Operating and maintaining a long-term groundwater monitoring program, which includes quarterly, semiannual, or annual monitoring of selected COCs in extraction and monitoring wells to be specified in the post-ROD OU 2 Remedial Action Groundwater Monitoring Plan.

The interim groundwater remedy for the Nebo South plume (OU 2) is consistent with the requirements of Section 121 of CERCLA and the NCP. The interim remedy will reduce the mobility, toxicity, and volume of contaminated groundwater at the Nebo South plume.. The interim remedy for the Nebo South plume is consistent with previous and projected removal actions at the site. Based on the information available at this time, the selected remedy represents the best balance among the criteria used to evaluate remedies.

The DON believes that the selected interim remedy is the best option at this time, since it is fully protective of human health and the environment, prevents downgradient migration of the contaminant plume, and is cost-effective. Because the selected interim remedy is not a final remedy, a Proposed Plan and ROD for this plume will be provided at a later date when a final remedy is decided. The Proposed Plan and ROD would be required to go through public participation and agency approval pursuant to CERCLA/NCP and the FFA.

5.6.1 Performance Standards for Groundwater

Groundwater from the aquifer shall be monitored until the cleanup goals (performance standards) set forth in Table 2-1 are achieved, as agreed upon between the DON and the regulatory agencies. See Sections 2.8 and 5.3.2 for discussion of source reduction performance standards.

5.6.2 Infiltration Standards

Treated groundwater that will be recharged back into the aquifer through the percolation ponds shall comply with the substantive general waste discharge requirements for land disposal of treated groundwater, set forth in Lahontan RWQCB Board Order No. 6-93-106 as TBCs. These requirements are listed in Table 3-6. Meeting these requirements shall ensure compliance with SWRCB Resolution 68-16 and the Basin Plan ARARs. The general discharge requirements of Board Order No. 6-93-106 have monitoring requirements that verify compliance. A schedule of compliance appropriate for the purpose of this

monitoring shall be established in the OU 2 Nebo Main Base Remedial Action Groundwater Monitoring Plan.

5.6.3 Groundwater and Vadose Zone Monitoring

Groundwater monitoring shall be conducted for the Nebo South plume during the interim remedial action in accordance with the Nebo Main Base Remedial Action Groundwater Monitoring Plan (see Section 5.4.2) to verify that the remedial action is effectively achieving the interim plume containment goal. The criteria for assessing the effectiveness of the interim remedial action shall also be included in the groundwater monitoring plan. Criteria for long-term groundwater and vadose zone monitoring will be incorporated into the plan when the final remedy is selected.

5.7 Statutory Determination

As a lead federal agency, the Marine Corps' primary responsibility at its CERCLA sites is to undertake remedial actions that adequately protect human health and the environment. In addition, Section 121 of CERCLA established several other statutory requirements and preferences. These specify that, when complete, the selected remedial action for this site must comply with applicable or relevant and appropriate environmental standards as established under federal and state environmental laws unless a statutory waiver is justified. The selected remedy also must be cost effective and use permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Finally, the statute includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity, or mobility of hazardous wastes as their principal element. The following sections discuss how the selected interim remedy meets these statutory requirements.

5.7.1 Protection of Human Health and the Environment

The selected interim remedy, Alternative 5, protects human health and the environment by containing contaminated groundwater at the Nebo South plume.

The selected interim remedy provides protection to human health and the environment by eliminating, reducing, and controlling risk through containment and institutional controls. The contaminated groundwater will be extracted, contained, and treated to cleanup levels. In addition, institutional controls will be employed throughout the treatment process to protect human health and the environment.

5.7.2 Compliance with ARARs

As stated in Section 2.10, remedial action performed under CERCLA must comply with all ARARs. All alternatives considered for the Nebo South groundwater plume were evaluated on the basis of the degree to which they comply with these requirements. The selected interim remedy was found to comply with all ARARs presented in Tables 2-2 through 2-7.

5.7.3 Cost Effectiveness

Cost effectiveness is determined by comparing the cost of all alternatives being considered with their overall effectiveness to determine whether the costs are proportional to the effectiveness achieved. The Marine Corps evaluates the incremental cost of each alternative as compared to the increased effectiveness of the remedy. The selected interim remedy for groundwater is containment, extraction, and aboveground treatment for VOC removal and discharge of treated groundwater back into the aquifer via the percolation ponds. The selected interim remedy includes extraction wells at the leading edge of the plume and institutional controls.

Based on the current information, the selected interim remedy will provide the best balance of trade-offs among the alternatives with respect to the nine criteria provided by the NCP to evaluate the alternatives. The selected interim remedy is more costly than the other alternatives considered except Alternative 4.

5.7.4 Use of Permanent Solutions to the Maximum Extent Practicable

The DON, EPA, DTSC, and CRWQCB believe that the selected interim remedy is the most appropriate interim solution for the Nebo South groundwater plume at the present time, and provides the best balance among the evaluation criteria for the remedial alternatives considered.

5.7.5 Preference for Treatment as a Principal Element

The statutory preference for treatment at the Nebo South plume will be met through treatment of contaminated groundwater to remove the VOCs.

5.8 Documentation of Significant Change

The permanent (i.e., pump and treat) portion of the interim remedy for the Nebo South plume, Alternative 5, has not been changed or refined from the Proposed Plan.

Table 5-1
Nebo South Plume
Maximum Groundwater Concentrations of VOCs and Associated MCLs

VOC	Maximum Groundwater Concentration (µg/L)	Federal MCL (µg/L)	California MCL (µg/L)
Contaminants Exceeding Drinking Water Standards (MCLs)			
1,2-Dichloroethane (1,2-DCA)	4	5.0	0.5
Tetrachloroethene (PCE)	17	5.0	5.0
Trichloroethene (TCE)	422	5.0	5.0
Contaminants Not Exceeding Drinking Water Standards (MCLs)			
Acetone[1]	3	610[3]	
Chloroform	5	1,000	
Dibromochloromethane[2]	3.0	100	
Bromodichloromethane[2]	4.0	100	
Bromoform[2]	1.3 J	100	
Methylene Chloride[1]	0.4	5.0	

1 This chemical is a suspected laboratory contaminant and is not considered representative of plume conditions.

2 MCL is for trihalomethanes.

3 This chemical does not have a Federal or State primary MCL. Therefore, the PRG is used.

Data also include most recent groundwater sampling results from OHM Remediation Services, Inc. (OHM 1994, 1995, 1996).

TABLE 5-2
Summary of Comparative Analysis - Southern Nebo Plume, NEP-4
MCLB Barstow

Criteria	Alternatives				
	NEP4-GW-1	NEP4-GW-2	NEP4-GW-3	NEP4-GW-4	NEP4-GW-5
Overall Protection of Human Health and the Environment	No	Within Risk Management Range**			
Compliance with ARARs	* No	* No	Yes	Yes	Yes
Long-Term Effectiveness and Permanence	Low	Low	Mod	High	Mod
Reduction of Toxicity, Mobility, or Volume	Low	Low	Mod	High	Mod
Short-Term Effectiveness	Low	Mod	Mod	High	Mod
Implementability	High	High	High	Mod	Mod
Duration of Remedy					
Time to MCLs (years)	>500	>500	>500	55	105
Time to Background (years)	>500	>500	>500	130	240
Present Cost ($ millions) 20 Years Duration	0	0.8	2.1	10.6	3.5
Remediation to MCLs	0	1.3	3.3	15.1	5.5
Remediation to Background	0	1.3	3.3	16.2	5.5

* ARARs achieved over a very long time only through natural contaminant degradation processes.

** Alternatives NRF1-GW-2 through NRF1-GW-5 all result in residual risks that fall within EPA's risk management range of 10^{-6} to 10^{-4}. Cleanup to MCLs would result in an upper-bound incremental risk of approximately 1×10^{-5} while cleanup to background (0.5 µg/L) would result in a risk of approximately 5×10^{-6}.

Alternative NEP4-GW-1: No action

Alternative NEP4-GW-2: Institutional controls and groundwater monitoring

Alternative NEP4-GW-3: Vadose zone source reduction (air sparging/soil vapor extraction)

Alternative NEP4-GW-4: Groundwater and vadose zone source reduction (air sparging/soil vapor extraction) and groundwater removal, *ex situ* treatment, and discharge

Alternative NEP4-GW-5: Groundwater removal, *ex situ* treatment, and discharge

ARARs - Applicable or relevant and appropriate requirements.

MCLs - Federal and state maximum contaminant levels.

Mod - Moderate.

NA - Not applicable.

6.0 RESPONSIVENESS SUMMARY

Two minor verbal questions were received from the public at the public meeting held on November 12, 1997 concerning the proposed actions for OUs 1 and 2. These questions are included on Page 27 of the public meeting transcripts provided in Appendix C, and are reproduced below.

Question. Mr. Chavez: My name is Lewis Chavez. I just like to ask the question, this plume that we have here, this Yermo, is this around the area of the Silver Valley High School?

Response. Mr. Cox: No. Silver Valley is actually in the opposite direction.

Question. Mr. Chavez: On this side. Okay. So this plume is moving from west to east?

Response. Mr. Cox: Yes.

Comment: Mr. Chavez: Okay. No further questions. Thank you.

No other questions or comments were received on the Proposed Plan at the public meeting or any other time. The public comments did not result in any changes to the proposed actions for OUs 1 and 2 presented in this ROD.

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7.0 REFERENCES

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U.S. Geological Survey. (USGS). 1975. Professional Paper 878. "Evaluation of Groundwater Degradation Resulting from Waste Disposal to Alluviums near Barstow, California."

Appendix A

DON Position on POC ARARs

APPENDIX A

DON POSITION ON POC ARARs

Disclaimer: This Appendix represents the views of the Department of the Navy and is not endorsed or approved by the other FFA signatories.

This appendix discusses the DON's position on the point of compliance (POC) with respect to groundwater cleanup standards at MCLB Barstow. The DON has agreed, as established in Section 2.8.2 of this ROD, that groundwater cleanup standards will be attained throughout the contaminant plume, except for immediately below any source area classified as a waste management unit (WMU) under Title 23 CCR, Division 3, Chapter 15, for which cleanup standards will be attained at and beyond the edge of the WMU. However, it is the DON's position that the designation of a POC at the downgradient edge of source areas not classified at WMUs would be appropriate and is supported by CERCLA, the NCP, and the administrative record for this ROD. The DON has decided not to make such designations for non-WMU source areas at this time for reasons set forth in Section 2.8.2. The following sections provide the basis for the DON's position.

Regulatory Issues

The regulatory issues in question are whether or not the CAOCs at MCLB Barstow addressed in this ROD are "waste management areas" under specific EPA policy and State regulations relating to the POC for groundwater cleanup levels, and whether designation of POCs at the CAOCs in this ROD is appropriate.

The National Contingency Plan

The origins of EPA policy regarding the POC regulatory mechanism can be traced to early EPA RCRA regulations for groundwater monitoring and corrective action at RCRA regulated units set forth in 40 CFR Part 264. Subpart F. See 40 CFR Section 264.95 and 47 Fed. Reg. 32273, 3229, July 26, 1982. The cited preamble to these regulations

clearly state that groundwater cleanup standard and corrective action requirements apply at and beyond the POC at the downgradient edge of regulated units.

EPA followed the RCRA regulatory model and adopted the POC when it established its CERCLA groundwater cleanup policy in the 1990 NCP. EPA's CERCLA policy, set forth in the NCP preamble at 55 Fed. Reg. 8753, March 8, 1990, states that *"EPA believes that remediation levels should generally be attained throughout the contaminated plume, or at and beyond the edge of the waste management area when the waste is left in place."* The NCP preamble on the same page discusses groundwater cleanup levels and states that *"Such restoration may be achieved by attaining MCLs or non-zero MCLGs in the ground water itself, excluding the area underneath any waste left in place".*

EPA Region IX's position relative to MCLB Barstow is that a POC is only acceptable at *"RCRA-regulated units,"* and that groundwater cleanup standards must be achieved throughout the contaminated plume at all other categories of sites. The DON disagrees with EPA Region IX on this point. The NCP preamble refers to *"waste management area"* as opposed to *"RCRA regulated unit."* After all, CERCLA was enacted in large part to support remediation of sites that were created prior to the effective date of RCRA and is generally intended to address sites that are not RCRA-regulated units. The NCP preamble clearly indicates that EPA has adopted its early RCRA POC policy for RCRA regulated units into its CERCLA Groundwater Policy for non-regulated unit sites.

The policy reflected in the NCP preamble language quoted above was issued to accommodate both scenarios, where: 1) complete "clean closure" is selected as a remedial action using the nine NCP remedy selection criteria and cleanup throughout the contaminant plume is an appropriate cleanup goal, and 2) the remedy selected under those criteria support leaving some waste in place and containing it in conjunction with a POC either for cost reasons or technical feasibility limitations on complete treatment.

EPA's continued support for its POC policy for non-RCRA regulated unit sites is supported by EPA's 1996 proposed RCRA corrective action rule for RCRA Solid Waste

Management Units (SWMUs). The preamble for that proposed rule states, *"For groundwater, program implementors and facility owners/operators generally set the POC throughout the area of contaminated groundwater or, when waste is left in place, at and beyond the boundary of the waste management area encompassing the original source(s) or groundwater contamination."* (61 Fed. Reg. 19450, May 1, 1996). This preamble discussion goes on to reference the NCP preamble POC policy and states EPA's intention to implement CERCLA and RCRA corrective action in a consistent manner.

A review of past RODs in the ERD-ROD database located many RODs issued or approved by other EPA regional offices addressing *non-RCRA regulated unit* sites in which soil contamination/ waste was left in place (sometimes as residual contamination following treatment of hot spots). The sites addressed included mining waste impoundments, gravel pits, wood treatment sites, and general industrial areas impacted by a range of types of repeated contaminant releases. These RODs have included the establishment of a POC for groundwater at the downgradient edge of the waste management area where the waste was left in place and required compliance with groundwater cleanup standards at and downgradient from the POC. The EPA regional offices issuing these RODs have adhered to the EPA POC policy set forth in the NCP preamble and quoted above. The following RODs offer some examples:

1. Teledyne Wah Chang, USEPA R10, 6/10/94 (EDR-ID 1000201862)
2. Montana Pole & Treating Plant, USEPA R8, 9/21/93 (EDR-ID 1000396074)
3. Naval Air Station, Ault Field, USEPA R10, 12/20/93 (EDR-ID 1000141164)
4. Reilly Tar & Chemical, USEPA R5, 9/30/93 (EDR-ID 1000289722)
5. American Crossarm & Conduit, USEPA R10, 6/30/93 (EDR-ID 1000360942)
6. Reilly Tar & Chemical, USEPA R5, 6/30/92 (EDR-ID 1000289722)

In accordance with the NCP preamble, there may be certain circumstances where a plume of groundwater contamination is caused by releases from several distinct sources that are in close geographical proximity. In such cases, the most cost-effective groundwater cleanup strategy may be to address the problem as a whole rather than on a source-by-source basis and to draw a common point of compliance that encompasses all the sources of release (55 Federal Register 8753, 8 March 1990).

Based on the above provisions, the DON believes that the following designations of points of compliance for MCLB Barstow WMAs/WMUs would be appropriate:

- CAOCs 15/17, 16, 23 and 35 at the Yermo Annex are contiguous WMAs/WMUs. A common point of compliance for groundwater cleanup would be defined at the downgradient edge of these CAOCs, as shown in Figure A-1.

- CAOC 26 at the Yermo Annex is not a contiguous WMA. An individual point of compliance for groundwater cleanup would be defined at the downgradient edge of this CAOC, as also shown in Figure A-1.

- Warehouse 2 and CAOC 6 at the Nebo Main Base are not contiguous WMAs. Individual points of compliance for groundwater cleanup would be defined at the downgradient edge of these areas, as shown in Figure A-2.

State Regulations

State of California regulations contain POC provisions that are consistent with the EPA's policy as set forth in the NCP preamble. These provisions are both potential federal and state ARARs. The POC at Title 22 CCR 66264.95, which is essentially the same as Title 23 CCR 2550.5, is defined as *"a vertical surface, located at the hydraulically downgradient limit of the waste management area that extends through the uppermost aquifer underlying the regulated unit."*

These regulations were promulgated to conform to the RCRA regulated unit POC requirements at 40 CFR Section 264.95. The current language in those provisions was developed to support EPA's authorization of the State of California's RCRA Subtitle C program in July 1992 (57 Fed. Reg. 32726, July 23, 1992) and was promulgated in order to assure EPA that the State POC provisions were no less stringent than the Federal requirements set forth in 40 CFR Section 264.95. (Note: Title 23 CCR Chapter 15 was reviewed as part of the RCRA authorization process because of its applicability to Class I hazardous waste management units; the relevant language in Title 22 and Title 23 is identical because of this "overlap" of authorities and because conforming amendments to both titles were jointly promulgated).

The POC provisions at Title 22 CCR 66264.95 are considered by the DON to be a "relevant and appropriate" federal ARAR for the CAOCs addressed in this ROD. Significantly, cross-references from Title 22 CCR Sections 66264.94 to 66264.93 to 66264.92 clearly indicate that both concentration limits and the POC are integral parts of the RCRA groundwater protection standard. The POC provisions of Title 22 CCR 66264.95 provide that the water quality standard (including concentration limits) would apply at the POC and other monitoring locations *"determined pursuant to Section 66264.97"*. The language of Title 22 CCR 66264.97 provides that in the context of corrective action such monitoring locations would be established at appropriate locations to support evaluation of groundwater compliance with the water quality standard for groundwater *"passing the point of compliance"* and downgradient from the POC. See Title 22 CCR Sections 66264.94(d)(4); 66264.97(b)(1)(B)(1), (C)(1), and (D)(1); and 66264.98(n).

The DON also considers the POC provisions of Title 23 CCR Section 2550.5 to be a potential *"applicable"* state ARAR for the *"closed, abandoned or inactive"* WMU CAOCs through Title 23 CCR Section 2510(g) and to other Title 23 CCR Chapter 15 WMU CAOCs through Article 5. In addition, they are a potentially *"relevant and appropriate"* ARAR for non-WMU CAOCs.

In a manner identical to Title 22 CCR 66264.95, cross references from Title 23 CCR Sections 2550.4 to 2550.3 to 2550.2 clearly indicate that both concentration limits and the POC are integral parts of the groundwater protection standard. The language relating to corrective action , POC, and monitoring locations set forth in Title 23 CCR Sections 2550.4, 2550.7, and 2550.8 is identical to that referenced above for Title 22 CCR Sections 66264.94, 66264.97, and 66264.98. The POC provisions of Title 23 CCR 2550.5 provide that the water quality standard would apply at the POC and other monitoring locations *"determined pursuant to Section 1550.7"*. Consistent with Title 22 CCR Section 66264.97, Title 23 CCR Section 1550.7 provides that, in the context of corrective action, monitoring locations would be established at appropriate locations to support evaluation of groundwater compliance with the water quality standard for groundwater *"passing the point of compliance"* and downgradient from the POC.

The current provisions in Title 23 CCR Chapter 15 relating to the POC and corrective action requirements were promulgated in 1991 amendments to the provisions of *"Article 5. Water Quality Monitoring and Response Programs for Waste Management Units"*. A December 17, 1990 *"Statement of Reasons"* (SOR) discusses the State's intent and rationale for amending these regulations.

The language in the repealed POC provisions at the former Section 2553(a) had stated: *"The "points of compliance" or "compliance points" are the points at which water quality protection standards shall be applied, and at which monitoring shall be conducted. They describe a surface usually located hydraulically downgradient of each waste management unit, or cluster of contiguous waste management units, in both saturated and unsaturated zones."* There was no language in the repealed regulations implying that the water quality protection standard might apply upgradient of the POC.

The amended POC language in Section 2550(a) states: *"The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management unit that extends through the uppermost aquifer underlying the unit. For each Class I waste management unit, the regional board shall specify monitoring points at the point of compliance and additional monitoring points at locations determined pursuant to section 2550.7 of this article at which the water quality protection standard under section 2550.2 of this article applies and at which monitoring shall be conducted."*

In the SOR for these amendments the SWRCB explains that these amendments were intended to conform to and demonstrate compliance/equivalency with the RCRA POC provisions at 40 CFR Section 264.95. See discussion of *"Factual Basis"* for amendments at Section 2550.5 and the response to the first comment on page 134 of the SOR and the discussion of *"Factual Basis"* for amendments at Section 2550.5(a) on page 137 of the SOR. There is no indication that there was any SWRCB intent to be more stringent than 40 CFR Section 264.95 by requiring compliance with the water quality protection standard upgradient of the POC. To the contrary, the SOR very clearly states that it was the intent of the amendments to clarify an ambiguity under the old regulations that could allow placement of the POC further downgradient than the downgradient edge of the waste management area. Those regulations were less

stringent than RCRA requirements and would have jeopardized authorization of California's hazardous waste management program under RCRA (Title 23 CCR Class I facilities are hazardous waste facilities).

The SOR explains that the reason for adding the *"additional monitoring locations"* language to Section 2550.5(a) was to clarify that downgradient monitoring locations allowed under the repealed regulations would continue to be acceptable so long as the POC was located at the downgradient edge of the waste management area in order to ensure compliance with minimum RCRA requirements. This *"combined"* approach is explained in the SOR in the response to the third and fifth comments in the discussion of comments on Section 2550.5(a).

The SOR discussion of corrective action requirements now found at Title 23 CCR Section 2550.10 is also relevant to interpretation of the POC provisions in Title 23 CCR Section 2550.10. It has been argued by SWRCB counsel assigned to MCLB Barstow matters that the current language in Title 23 CCR Section 2550.10(c) requiring corrective action *"throughout the zone affected by the release"* supports the interpretation that the water quality protection standard applies upgradient of the POC. DTSC staff assigned to MCLB Barstow matters has made similar interpretations of the identifical provisions of Title 22 CCR Section 66264.100(c). The State's interpretations are not consistent with other provisions in Title 23 CCR Chapter 15, Article 5, and the equivalent provisons of Title 22 CCR discussed above or with the intent of the SWRCB as set forth in the SOR.

The SOR states that Title 23 CCR Section 1550.10 is based upon RCRA groundwater corrective action provisions at 40 CFR Section 264.100. See discussion beginning on page 306 of the SOR. The language *"throughout the zone affected by the release"* was added to the final rule as a result of comments received on the proposed rule relating to the Board's authority to require corrective action beyond a facility boundary when the *"affected zone"* of a release extends beyond that boundary. The federal RCRA regulations made such corrective action conditional upon receipt of permission from the adjoining landowner. In the SOR, the Board maintained that it had authority to mandate such corrective action without such consent. In responding to comments on Subsection 2550.10(f) on page 314 of the SOR, the Board states: *"Rather than*

continue to separate the requirements to implement corrective action measures both at the point of compliance and beyond the point of compliance, Subsection (c) has been rewritten to require corrective action "throughout the zone affected by the release" and Subsection (e) has been deleted." The Board's intent is unmistakably clear.

It is the DON's position that the POC provisions of Title 22 CCR Section 66264.95 are a "relevant and appropriate" federal ARAR, taking precedence over the equivalent potential "applicable or relevant and appropriate" Title 23 CCR Section 2550.5 state ARAR, for both WMUs as well as VOC-contaminated vadose zone source areas not classified as WMUs in Section 2.8.2 of this ROD. The Title 22 CCR Section 66264.95 provision is an integral component of the water quality protection standard in Title 22 CCR Section 66264.92.

It is the DON's understanding that the regulatory agencies concur that Title 23 CCR Section 2550.5 is applicable to Title 23 CCR Chapter 15 WMUs including "closed, abandoned or inactive" waste management units through Title 23 CCR Section 2510(g), but disagree that either Title 23 CCR Section 2550.5 or Title 22 CCR Section 66264.95 constitute ARARs for VOC-contaminated vadose zone areas that are not classified as WMUs.

The DON's position concerning these regulations is consistent with the EPA's position discussed previously regarding POC for waste left in place as set forth in the NCP preamble (55 Federal Register 8753, March 8, 1990). In addition, the DON considers the POC provisions of Title 23 CCR Section 2550.5 and Title 22 CCR Section 66264.95 to apply as ARARs to both groundwater and vadose zone cleanup standards.

It is also the DON's position that the potential "relevant and appropriate" provisions of the state point of compliance regulations at Title 22 CCR 66264.95(b)(2) and Title 23 CCR 2550.5(b), which describe an approach to a "common point of compliance" for contiguous regulated units and WMUs, are consistent with the NCP approach described previously for sources in close proximity. Title 22 CFR Section 66264.95(b)(2) provides as follows:

> *"If the facility contains contiguous regulated units, and monitoring along a shared boundary would impair the integrity of a containment or structural*

feature of any of the units, the WMA may be described as an imaginary line along the outer boundary of the contiguous regulated units. This provision only applies to contiguous regulated units that have operated or have received all permits necessary for construction and operation before July 1, 1991."

Title 23 CCR 2550.5(b) contains nearly identical language for WMUs.

Conclusion

Based on the DON's agreement to comply with groundwater cleanup standards throughout the contaminant plume for non-WMU sources, it does not appear that the POC ARAR issue is significant in terms of any practical effect for this ROD. Complying with the groundwater cleanup standards throughout the plume will be a conservative means of demonstrating attainment at the POC. However, the DON is addressing the POC issue with an "agree to disagree" compromise with the regulatory agencies. Under this compromise, the DON reserves the right to propose POCs for non-WMU areas in the future as provided in Section 2.8.2 of this ROD. In addition, the DON's agreement to the RAO for non-WMUs under this ROD shall not be construed as establishing precedent for any other DON or DOD sites.

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Appendix B

Administrative Record Index

MARINE CORPS LOGISTICS BASE, BARSTOW
FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
CORRESPONDENCE		8.1 - 0055	NOTIFICATION OF CHANGE IN THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL'S REMEDIAL PROJECT MANAGER	DEPT OF TOXIC SUBSTANCE CONTROL	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
CORRESPONDENCE, TRIP REPO	3/1/493	5.1 - 0244	TRIP REPORT FOR SITE VISIT AT DTSC LONG BEACH RE TECH MEMO TM-0008 GROUNDWATER REMEDIATION ASSESSMENT	SOUTHWEST DIVISION	FILE	1,2
REPORT, GROUNDWATER	6/1/64	1.4 - 0001	GROUNDWATER OCCURRENCE AND QUALITY (DWR BULLETIN 106-1) AND GEOLOGIC, HYDROLOGIC AND WATER QUALITY STUDY RESULTING IN DELINEATION OF 55 GROUNDWATER BASINS	US DEPT OF WATER RESOURCES	PUBLIC RELEASE	1,2
REPORT, GROUNDWATER	12/20/66	1.4 - 0002	BARSTOW GROUNDWATER STUDY, CONCLUDES THAT THE GROUNDWATER BELOW THE WASTE DISCHARGES IS STILL GRADED AND EXTENDS 1 MILE FURTHER DOWNSTREAM CONDUCTED FROM MAY	CALIF DEPT OF PUBLIC HEALTH	REGIONAL WATER QUALITY CONTROL BOARD	1,2
REPORT, GROUNDWATER	1/1/69	1.4 - 0003	WATER RESOURCES OF THE MARINE CORPS SUPPLY CENTER AREA, GROUNDWATER IN STORAGE IS THE ONLY DEPENDABLE SOURCE OF WATER AT MCLB	US DEPT OF INTERIOR GEOLOGICAL SURVEY WATER RESOURCES DIV	REGIONAL WATER QUALITY CONTROL BOARD	1,2
REGULATION, CITY	1/1/70	1.1 - 0031	WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	CITY OF BARSTOW	1,2
REPORT, GROUNDWATER	6/1/70	1.4 - 0004	GROUNDWATER STUDY TO IDENTIFY CURRENT CONDITIONS AND UPDATE INFORMATION PRESENTED IN THE 1966 REPORT	CALIF DEPT OF PUBLIC HEALTH	PUBLIC RELEASE	1,2
REPORT, GROUNDWATER	11/12/70	1.1 - 0030	GROUNDWATER DEGRADATION STUDY IN THE BARSTOW AREA DESCRIBING FINDINGS ON THEIR PROPOSAL TO DO THE SUBJECT STUDY	NAVAL FACILITIES ENGINEERING COMMAND	US DEPT OF INTERIOR	1,2
REPORT, WASTEWATER	10/1/71	1.4 - 0037	STUDY FOR DETERMINING THE FEASIBILITY OF CONNECTING DOMESTIC AND INDUSTRIAL WASTE FLOW FROM THE SUPPLY CENTER TO THE MUNICIPAL SEWERAGE SERVICE, MCLB BARSTOW	BROWN AND CALDWELL	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, NFEC	12/10/73	1.1 - 0017	BASE REVIEW OF REGIONAL WATER QUALITY CONTROL BOARD'S WASTE DISCHARGE REQUIREMENTS FOR MCLB	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2

MARINE CORPS LOGISTICS BASE, BARSTOW
FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
GUIDANCE, RWQCB	1/10/74	1.6 - 0008	REVISED WASTE DISCHARGE REQUIREMENTS FOR MARINE CORPS SUPPLY CENTER, YERMO, BARSTOW, MCLB. MEETING OF JANUARY 24, 1974, NO. 6-74-8	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
ENFORCEMENT, BOARD ORDER	2/22/74	1.6 - 0007	MONITORING REPORTING PROGRAM, #74-8 & 74-9 FOR NEBO AND YERMO ANNEX, RESULTS OF TREATED DOMESTIC WASTEWATER EFFLUENT, ETC, MONITORING EFFORT	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PUBLIC COMMUNICATION, NEWS ARTICLE	6/9/74	1.8 - 0002	"60 YEARS OF POLLUTION THREATENS DESERT'S MOJAVE RIVER"	L A TIMES	PUBLIC RELEASE	1, 2
REPORT, GROUNDWATER	1/1/75	1.4 - 0006	EVALUATION OF GROUNDWATER DEGRADATION RESULTING FROM WASTE DISPOSAL TO ALLUVIUM AND DISCUSSES NATURE AND EXTENT OF CONTAMINATION	US DEPT OF THE INTERIOR	PUBLIC RELEASE	1,2
REPORT, INSPECTION	2/5/76	11.1 - 0011	ON-SITE INSPECTION OF YERMO AND NEBO WASTEWATER TREATMENT	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
REPORT, INSPECTION	3/4/76	11.1 - 0049	ON-SITE INSPECTION OF YERMO AND NEBO WASTEWATER TREATMENT AND DISPOSAL PLANTS	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
REPORT, COMPLIANCE	3/26/76	2.2 - 0016	MONTHLY SEWAGE EFFLUENT TEST ANALYSIS RESULTS IN COMPLIANCE WITH BOARD ORDER NOS. 6-74-8 AND 6-74-9	NAVAL FACILITIES ENGINEERING COMMAND	REGIONAL WATER QUALITY CONTROL BOARD	1,2
ENFORCEMENT, BOARD ORDER	2/18/77	1.6 - 0019	BOARD ORDER NO 77-1, FOR CLEAN UP AND ABATEMENT AND RESCISSION OF WASTE DISCHARGE REQUIREMENTS UNDER BOARD ORDERS OF 6-74-9, 6-74-8, AND VIOLATION OF BOARD ORDER NOS. 6-74-	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
ENFORCEMENT, BOARD ORDER	4/14/77	1.6 - 0017	BOARD ORDER #1 6-77-49, CEASE AND DESIST WASTE DISCHARGES	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
ENFORCEMENT, BOARD ORDER	4/14/77	1.6 - 0018	BOARD ORDER #6-77-50	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	2

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REPORT, SLUDGE	5/1/77	1.4 - 0053	INDUSTRIAL WASTE SLUDGE DISPOSAL AT NAVY AND MARINE CORPS ACTIVITIES	NFEC ENVIRONMENTAL PROTECTION SUPPORT SERVICE	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4
REPORT, WASTEWATER	12/15/77	2.2 - 0015	MONTHLY DOMESTIC AND INDUSTRIAL WASTEWATER MONITORING REPORTS IN COMPLIANCE WITH BOARD ORDER NOS. 6-74-8 AND 6-74-9	NAVAL FACILITIES ENGINEERING COMMAND	REGIONAL WATER QUALITY CONTROL BOARD	1,2
ENFORCEMENT, BOARD ORDER	4/14/78	1.6 - 0012	ORDER NO. 6-78-14 WASTE DISCHARGE REQUIRED SOLID WASTE DISPOSAL SITE	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
ENFORCEMENT, BOARD ORDER	12/26/78	1.6 - 0015	BOARD ORDER LAHONTAN REGION, REVISED WASTE DISCHARGE REQUIREMENTS NO. 6-78-73	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	2
ENFORCEMENT, BOARD ORDER	12/28/78	1.6 - 0016	BOARD ORDER 6-78-74 DOMESTIC WASTEWATER	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	2
ENFORCEMENT, BOARD ORDER	1/10/80	1.6 - 0014	BOARD ORDER NO. 6-80-12 RESCINDING BOARD ORDER NO. 6-77-49	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
COMMENTS, MCLB	4/11/80	1.1 - 0024	APPROVAL OF A 1-TIME DISCHARGE OF INDUSTRIAL EFFLUENT FROM NEBO ANNEX SANITATION FACILITY INTO OXIDATION POND #2	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2
REPORT, GROUNDWATER	10/22/80	1.6 - 0009	REVISED MONITORING AND REPORTING PROGRAMS FOR NEBO AND YERMO ANNEX, REVISED 10/16/80. RESULTS OF FLOW MONITORING EFFORT	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
REPORT, GROUNDWATER	3/1/81	1.4 - 0007	RESULTS OF GROUNDWATER QUALITY ALONG THE MOJAVE RIVER NEAR BARSTOW FROM 1974-1979, DEGRADATION OF GROUNDWATER QUALITY IS ATTRIBUTED TO WASTEWATER DISCHARGE PRACTICES	US DEPT OF THE INTERIOR WITH REGIONAL WATER QUALITY CONTROL BOARD	PUBLIC RELEASE	1,2
PERMIT, HAZARDOUS WASTE	4/8/81	1.1 - 0013	DISPOSAL OF TOXIC OR HAZARDOUS WASTE BY UNDERGROUND INJECTION WELLS, ENCLOSING SITE INSPECTION FORMS	MARINE CORPS LOGISTICS BASE	NFEC & MCLB	1,2

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CORRESPONDENCE	6/26/81	1.1 - 0025	UNDERGROUND INJECTION CONTROL PROGRAM, ADVISING DELETION OF MCLB	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
REPORT, WASTEWATER	10/23/81	1.1 - 0018	DECSRIBES FURNISHING WASTEWATER TREATMENT PLANT CLASSIFICATION	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2
ENFORCEMENT, NOTICE	11/20/81	11.1 - 0048	NEBO AND YERMO FACILITIES VIOLATIONS OF EFFLUENT LIMITATIONS	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
ENFORCEMENT, BOARD ORDER	4/29/82	11.1 - 0047	ACTIONS IN RESPONSE TO VIOLATIONS OF INDUSTRIAL WASTEWATER DISCHARGE REQUIREMENTS AT BARSTOW MCLB YERMO ANNEX.	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2
REPORT, WASTEWATER	8/3/82	2.2 - 0014	MONTHLY DOMESTIC AND INDUSTRIAL WASTEWATER MONITORING REPORTS FROM 1979 THROUGH 1982	MARINE CORPS LOGISTICS BASE	MCLB & RWQCB	1,2
REPORT, WASTEWATER	2/10/83	1.6 - 0010	REVISED WASTE DISCHARGE REQUIREMENTS FOR INDUSTRIAL WASTEWATER	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	2
REPORT, INSPECTION	3/4/83	11.1 - 0038	COMPLIANCE INSPECTION OF NEBO AND YERMO INDUSTRIAL WASTEWATER, MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
ENFORCEMENT, BOARD ORDER	3/4/83	11.1 - 0042	COMPLIANCE INSPECTIONS OF NEBO & YERMO INDUSTRIAL WASTEWATER FACILITIES, BOARD ORDERS 6-83-18 AND 6-83-20	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
REPORT, WASTEWATER	5/4/83	1.4 - 0049	CONCEPTUAL STUDY AND REPORT FOR WASTEWATER RECYCLING AT THE EXISTING VEHICLE WASHDOWN/STEAM RACK AREA ADJACENT TO BUILDING 573	INTERNATIONAL CONSULTING ENGINEERS, INC	MARINE CORPS LOGISTICS BASE	1
MEETING NOTES	9/15/83	1.1 - 0016	VEGETATION AND TREE REMOVAL AT NEBO DOMESTIC WASTEWATER PERCOLATION PONDS, NOTES FROM THE 9/15/83 MEETING WITH DTSC DISCUSSING VEGETATION CONTROL TECHNIQUES	MARINE CORPS LOGISTICS BASE	DEPT OF HEALTH SERVICES	2

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PERMIT, WASTE	6/19/84	1.1 - 0023	UNDERGROUND CONTAINERS, HAZARDOUS SUBSTANCE STORAGE STATEMENT	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2,3,4
REPORT, DRINKING WATER	9/28/84	1.7 - 0003	AB 1803 SAMPLING AND ANALYSIS OF DRINKING WATER RESULTS FROM 6 STATE WELLS AROUND MCLB AREA AND WELL CONSTRUCTION DATE	SOUTHERN CALIFORNIA WATER CO	SAN BERNARDINO COUNTY	1,2
PLAN, WASTE	11/1/84	1.4 - 0042	HAZARDOUS SUBSTANCE MANAGEMENT PLAN AT MCLB TO IMPLEMENT APPLICABLE REGULATORY REQUIREMENTS AND TO PROVIDE INSTRUCTIONS FOR THE SAFE HANDLING OF HAZARDOUS MATERIALS	J B YOUNG & ASSOCIATES	NFEC & MCLB	1,2,3,4,5,6,7
REPORT, GROUNDWATER	11/15/84	1.7 - 0002	AB 1803 SAMPLE ANALYTICAL RESULTS FOR GROUNDWATER ANALYSES FROM STATE OWNED WELLS AROUND MCLB AREA AND WELL CONSTRUCTION DATE FOR THESE 7 WELLS	STONER LABORATORIES	YERMO WATER COMPANY	1,2
PERMIT, WASTE	12/31/84	1.1 - 0010	HAZARDOUS WASTE, FACILITY PERMIT ISSUED BY DTSC, US EPA ID# CA8170090023, YERMO ANNEX	MARINE CORPS LOGISTICS BASE	DEPT OF HEALTH SERVICES	1
REPORT, GROUNDWATER	2/25/85	1.7 - 0004	AB 1803 SAMPLE RESULTS FOR GROUNDWATER, AND WELL CONSTRUCTION DATE	CALIFORNIA WATER LABS INC	MARINE CORPS LOGISTICS BASE	1,2
REPORT, GROUNDWATER	3/29/85	1.4 - 0011	STAFF REPORT ON THE PROGRESS BEING MADE BY THE CITY OF BARSTOW TO CLEAN UP THE POLLUTED GROUNDWATER LOCATED IN THE MOJAVE RIVERBED	REGIONAL WATER QUALITY CONTROL BOARD	PUBLIC RELEASE	1,2
REPORT, INSPECTION	6/1/85	11.1 - 0001	COMPLIANCE INSPECTION REPORT (ORDER NO. 6-78-14) YERMO SOLID WASTE DISPOSAL SITE	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
REPORT, WATER & SOIL	7/16/85	1.7 - 0013	ENVIRONMENTAL SAMPLE ANALYSIS AND RESULTS FOR SOILS AND GROUNDWATER AT SITE 2, 11, 18, & 21	A L BURKE ENGINEERS INC	NAVAL FACILITIES ENGINEERING COMMAND	2
GUIDANCE, RWQCB	7/19/85	11.1 - 0002	UPDATE OF WASTE DISCHARGE REQUIREMENTS FOR YERMO ANNEX SOLID WASTE DISPOSAL SITE, BOARD ORDER NO. 6-78-14.	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1

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ENFORCEMENT, BOARD ORDER	7/19/85	1.6 - 0020	UPDATE OF WASTE DISCHARGE REQUIREMENTS FOR YERMO ANNEX SOLID WASTE DISPOSAL SITE, BOARD CODE NO. 6-78-14	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
POLICY, MCLB	8/8/85	11.1 - 0003	UPDATE OF WASTE DISCHARGE REQUIREMENTS FOR YERMO ANNEX SOLID WASTE DISPOSAL SITE, BOARD ORDER NO. 6-85-119	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1
ENFORCEMENT, BOARD ORDER	8/8/85	1.6 - 0021	UPDATE OF WASTE DISCHARGE REQUIREMENTS FOR YERMO ANNEX SOLID WASTE DISPOSAL SITE, BOARD ORDER NO. 6-78-14	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1
REPORT, INSPECTION	8/15/85	11.1 - 0004	COMPLIANCE INSPECTION REPORT NEBO/YERMO ANNEXES FOR INDUSTRIAL WASTE DISCHARGE	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
CORRESPONDENCE, MEMORANDUM	11/5/85	11.1 - 0043	NAVAL ASSESSMENT & CONTROL OF INSTALLATION POLLUTANTS (NACIP) PROGRAM	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
REPORT, ASSESSMENT	1/8/86	1.1 - 0011	PHASE 2, STAGE 2 DRAFT FINAL REPORT MEETING & PRELIMINARY ASSESSMENT SUMMARY	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
REPORT, GROUNDWATER	1/14/86	1.1 - 0007	MEMORANDUM RE: GROUNDWATER QUALITY, NAVAL ASSESSMENT AND CONTROL OF INSTALLATION POLLUTANTS AT MCLB AND MEETING MINUTES HELD ON 12/17/85	REGIONAL WATER QUALITY CONTROL BOARD	US ENVIRONMENTAL PROTECTION AGENCY	1,2
REPORT, CONFIRMATION	2/1/86	1.3 - 0003	CONFIRMATION STUDY FOR CAOC 11 (VOL 3 OF 7)	A L BURKE ENGINEERS INC	NFEC & MCLB	2
REPORT, CONFIRMATION	2/1/86	1.3 - 0004	CONFIRMATION STUDY FOR CAOC 2 (VOL 2 OF 7)	A L BURKE ENGINEERS INC	NFEC & MCLB	2
REPORT, CONFIRMATION	2/1/86	1.3 - 0005	CONFIRMATION STUDY FOR CAOC 18 (VOL 4 OF 7)	A L BURKE ENGINEERS INC	NFEC & MCLB	1

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REPORT, CONFIRMATION	2/1/86	1.3 - 0006	CONFIRMATION STUDY FOR CAOC 21 (VOL 5 OF 7)	A L BURKE ENGINEERS INC	NFEC & MCLB	1
REPORT, NPL RANKING	3/1/86	1.1 - 0001	SITE RANKING FOR INCLUSION IN NATIONAL PRIORITIES LIST WITH BACKGROUND INFORMATION	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1
REPORT, WASTEWATER	3/25/86	1.1 - 0022	WASTE CATEGORIES GENERATED AND WASTE STREAM INVENTORY DATED 03/25/86	MARINE CORPS LOGISTICS BASE	DEPT OF HEALTH SERVICES	1,2,3,4
REPORT, COMPLIANCE	8/26/86	2.2 - 0001	NONSUBMITTAL OF QUARTERLY REPORTS REQUIRED BY MONITORING AND REPORTING PROGRAM BOARD ORDER NO. 6-85-119 FOR USMC YERMO CLASS III LANDFILL	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
GUIDANCE, EPA	10/1/86	3.1 - 0001	DRAFT GUIDANCE ON REMEDIAL ACTIONS FOR CONTAMINATED GROUNDWATER	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1,2
GUIDANCE, EPA	10/1/86	3.1 - 0009	SUPERFUND PUBLIC HEALTH EVALUATION MANUAL	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1,2,3,4,5,6,7
REGULATION, ACT	10/27/86	1.1 - 0027	TOXIC PITS CLEANUP ACT, CLOSURE REQUIREMENTS OF UNAPPROVED SURFACE IMPOUNDMENTS, ETC.	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
REPORT, HYDROGEOLOGICAL	11/1/86	1.4 - 0013	HYDROGEOLOGICAL ASSESSMENT REPORT FOR INDUSTRIAL WASTE SURFACE IMPOUNDMENTS (2 OF 2)	ALMGREN & KOPTIONAK INC	NFEC & MCLB	1,2
CORRESPONDENCE	1/20/87	1.1 - 0012	TENTATIVE UPDATED WASTE DISCHARGE REQUIREMENTS FOR MCLB, NEBO INDUSTRIAL WASTE TREATMENT PLANT, ANNOUNCEMENT OF A 02/10/87 WORKSHOP AND 03/12/87 RWQCB BOARD MEETING	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
REPORT, INSPECTION	2/25/87	1.4 - 0061	RCRA COMPLIANCE EVALUATION INSPECTION REPORT, CONTAINS A SUMMARY OF MANAGEMENT PRACTICES, POTENTIAL VIOLATIONS, ETC.	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,3,4

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GUIDANCE, EPA	3/1/87	3.1 - 0006	DATA QUALITY OBJECTIVES FOR REMEDIAL RESPONSE ACTIVITIES DEVELOPMENT PROCESS	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1,2,3,4,5,6,7
GUIDANCE, EPA	3/1/87	3.1 - 0016	DATA QUALITY OBLECTIVES FOR REMEDIAL RESPONSE ACTIVITIES, EXAMPLE SCENARIO (EPA) 540/G-87(004)	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1,2,3,4,5,6,7
ENFORCEMENT, BOARD ORDER	3/12/87	1.6 - 0002	UPDATED WASTE DISCHARGE REQUIREMENTS AND MONITORING AND REPORTING PROGRAM (BOARD ORDER NO. 6-87-36, NEBO ANNEX DOMESTIC WASTEWATER TREATMENT PLANT)	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	2
ENFORCEMENT, BOARD ORDER	3/12/87	1.6 - 0003	UPDATED WASTE DISCHARGE REQUIREMENTS AND MONITORING AND REPORTING PROGRAM (BOARD ORDER NO. 6-87-37, YERMO ANNEX DOMESTIC WASTEWATER TREATMENT PLANT)	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
ENFORCEMENT, BOARD ORDER	3/12/87	1.6 - 0004	UPDATED WASTE DISCHARGE REQUIREMENTS AND MONITORING AND REPORTING PROGRAM (BOARD ORDER NO. 6-87-38, NEBO ANNEX INDUSTRIAL WASTEWATER TREATMENT PLANT) FACT SHEET	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	2
ENFORCEMENT, BOARD ORDER	3/12/87	1.6 - 0005	UPDATED WASTE DISCHARGE REQUIREMENTS AND MONITORING AND REPORTING PROGRAM (BOARD ORDER NO. 6-87-39, YERMO ANNEX INDUSTRIAL WASTEWATER TREATMENT PLANT). FACT SHEET	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
ENFORCEMENT, BOARD ORDER	3/12/87	1.6 - 0011	WASTE DISCHARGE REQUIREMENTS FOR MCLB YERMO INDUSTRIAL TREAT PLANT UPDATING BOARD ORDER # 5-87-39	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1
REPORT, GROUNDWATER	5/1/87	1.4 - 0012	INSTALLATION OF 2 GROUNDWATER WELLS AT YERMO ANNEX FOR MONITORING UPGRADIENT AND DOWNGRADIENT OF THE SOLID WASTE DISPOSAL SITE (1 OF 2)	A L BURKE ENGINEERS INC	MARINE CORPS LOGISTICS BASE	1,2
REPORT, GROUNDWATER	5/1/87	1.4 - 0029	INSTALLATION OF 2 GROUNDWATER MONITORING WELLS FOR YERMO ANNEX, DETAILS OF WELL INSTALLATION PROCEDURES IMPLEMENTED AND PROCEDURES FOR OPERATION AND MAINTENANCE OF	A L BURKE ENGINEERS INC	MARINE CORPS LOGISTICS BASE	1
REPORT, WASTEWATER	11/5/87	1.4 - 0016	RESULTS OF LABORATORY ANALYSIS AND LAB MONTHLY REPORTS ON THE DOMESTIC AND INDUSTRIAL WASTEWATER TREATMENT PLANT	MARINE CORPS LOGISTICS BASE	NAVAL FACILITIES ENGINEERING COMMAND	1,2

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REPORT, WASTEWATER	11/13/87	1.4 - 0039	DOMESTIC WASTEWATER OXIDATION PONDS STUDY TO EVALUATE THE CAUSES OF HIGH MINERAL SALT CONTENT IN THE EFFLUENT OF THE DOMESTIC WASTEWATER TREATMENT PLANTS AT NEBO AND YERMO	AQUA RESOURCES INC	NFEC & MCLB	1,2
PLAN, MASTER	3/1/88	1.4 - 0038	MASTER PLAN UPDATE MCLB, CALIFORNIA DRAFT, 1988, SUMMARY OF ONE FULL YEAR'S STUDY OF EXISTING OPERATIONS AND FACILITIES, TO EVALUATE THE CONTINUED EXISTENCE OF MCLB	MIRALLES ASSOCIATES IN ASSOCIATION WITH CH2M HILL, CANNETT & FLEMING	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
REPORT, INSPECTION	3/5/88	11.1 - 0032	RCRA INSPECTION REPORT. INSPECTION OF RCRA FACILITY CONDUCTED BY USEPA AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	2,4
REPORT, WASTEWATER	3/17/88	1.7 - 0005	WATER SAMPLE TEST RESULTS, LEVEL OF CONTAMINATE METALS PRESENT IN THE NEBO AND YERMO WASTEWATER TREATMENT FACILITY PONDS	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2
REPORT, GROUNDWATER	4/5/88	11.1 - 0005	POLLUTED GROUNDWATER NEAR BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	TOPEKA AND SANTA FE RAILWAY COMPANY	1,2
GUIDANCE, NFEC	5/1/88	3.1 - 0007	NAVY INSTALLATION RESTORATION (IRP) MANUAL	NAVAL FACILITIES ENGINEERING COMMAND	PUBLIC RELEASE	1,2,3,4,5,6,7
GUIDANCE, EPA	6/1/88	3.1 - 0004	COMMUNITY RELATIONS IN SUPERFUND A HANDBOOK (INTERIM VERSION)	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1,2,3,4,5,6,7
CORRESPONDENCE, REQUEST	6/14/88	11.1 - 0006	REQUEST FOR SUBMITTAL OF GROUNDWATER INVESTIGATION PLAN BY THE CITY OF BARSTOW AND ATCHISON, TOPEKA & SANTA FE RAILWAYS	REGIONAL WATER QUALITY CONTROL BOARD	TOPEKA AND SANTA FE RAILWAY COMPANY	1,2
ENFORCEMENT, NOTICE	6/15/88	11.1 - 0013	SYSTEM DEFICIENCY RECORD (DEFICIENCIES IN DOMESTIC WATER SUPPLY FACILITIES)	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2
REPORT, WASTEWATER	9/1/88	1.4 - 0054	DOMESTIC WASTEWATER OXIDATION PONDS STUDY-CHAPTER 1 ONLY, TO EVALUATE THE CAUSES OF HIGH MINERAL SALT CONTENT IN THE EFFLUENT OF THE DOMESTIC WASTEWATER OXIDATION PONDS	AQUA RESOURCES INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2

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GUIDANCE, EPA	10/1/88	3.1 - 0008	GUIDANCE FOR CONDUCTING REMEDIAL INVESTIGATIONS AND FEASIBILITY STUDIES UNDER CERCLA-INTERIM FINAL	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1,2,3,4,5,6,7
REPORT, GROUNDWATER	10/25/88	1.7 - 0001	BASE LANDFILL SAMPLING, GROUNDWATER SAMPLING PERFORMED AT TWO MONITORING WELLS MW-1 AND MW-2	MONTGOMERY LABORATORIES	MARINE CORPS LOGISTICS BASE	1,2
REPORT, POTABLE WATER	11/11/88	2.2 - 0011	SAMPLE AND ANALYZE MONITORING AND POTABLE WATER WELLS (REPORT OF ANALYTICAL DATA) AT YERMO ANNEX.	INTERNATIONAL TECHNOLOGY CORP	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, GROUNDWATER	1/4/89	1.7 - 0009	RESULTS OF GROUNDWATER ANALYSIS, PERFORMED VOA, METALS, AND OTHER ANALYSIS. PERFORMED ON SAMPLE FROM AGATE 4, 5, 6	SOUTHERN CALIFORNIA WATER CO	MARINE CORPS LOGISTICS BASE	1
REPORT, WASTE MINIMIZATION	1/22/89	1.4 - 0048	DRAFT WASTE MINIMIZATION ASSESSMENT OF BUILDING 537 REPORT, BASED ON QUALITATIVE REVIEW OF BUILDING OPERATIONS AND THE WASTEWATER TREATMENT SYSTEM CAPABILITY	BATTELLE MEMORIAL INSTITUTE	MARINE CORPS LOGISTICS BASE	1
REPORT, SOIL	2/9/89	1.4 - 0015	SOILS INVESTIGATION, PAINT COMBAT VEHICLE MAINTENANCE SHOP, SUPPLEMENT TO THE 05/27/88 REPORT	BENTON ENGINEERING INC	ATKINSON, JOHNSON, & SPURPIER, INC	1,3
REPORT, WASTEWATER	3/22/89	1.7 - 0006	SAMPLING VISIT REPORT, CONDUCTED ON MARCH 7-8, 1989 AT THE INDUSTRIAL WASTEWATER TREATMENT PLANTS LOCATED IN YERMO AND NEBO ANNEXES, MCLB, BARSTOW	A KEARNEY, INC & DPRA INC	US ENVIRONMENTAL PROTECTION AGENCY	1,2
REPORT, INSPECTION	4/18/89	1.4 - 0041	RCRA INSPECTION REPORT AT NEBO ANNEX MCLB, BARSTOW BY EPA REG 9 CONDUCTED ON MARCH 9-10, 1989	SCIENCE APPLICATION INTERNATIONAL CORP	MARINE CORPS LOGISTICS BASE	2
ACTION MEMORANDUM	7/13/89	2.1 - 0001	REMOVAL OF VOLATILE ORGANIC CONTAMINANTS IN YERMO DRINKING WATER SYSTEM	MARINE CORPS LOGISTICS BASE	NFEC & MCLB	1
PUBLIC COMMUNICATION, PRES RELEASE	7/14/89	9.5 - 0034	"GEORGE, BARSTOW BASES PUT ON EPA HAZARD LIST"	SAN BERNARDINO SUN	PUBLIC RELEASE	1,2,3,4,5,6,7

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ENFORCEMENT, NOTICE	8/23/89	11.1 - 0016	VIOLATION OF MONITORING ORGANIC CHEMICAL FOR THE WATER SYSTEM	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2
ENFORCEMENT, BOARD ORDER	8/28/89	11.1 - 0017	NOTICE OF VIOLATIONS (BOARD ORDER NO 6-87-38 & 6-87-39, NEBO AND YERMO INDUSTRIAL WASTEWATER TREATMENT PLANTS), REQUEST FOR SUBMITTAL OF REPORT THAT HAVE NOT BEEN	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
CORRESPONDENCE	8/29/89	1.1 - 0002	SOLID WASTE ASSESSMENT TEST PERFORMANCE FOR YERMO SOLID WASTE DISPOSAL SITE, MCLB AND COMMENTS ON THE DUE DATES SET IN THE RWQCB'S CORRESPONDENCE DATED 05/15/89	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,5
REPORT, GROUNDWATER	10/4/89	1.4 - 0017	GROUNDWATER INVENTORY OF THE MOJAVE RIVER BASIN PRESENTED TO THE TECHNICAL ADVISORY COMMITTEE	SUBSURFACE SURVEYS	PUBLIC RELEASE	1,2
REPORT, GROUNDWATER	10/12/89	1.7 - 0008	RESULTS OF GROUNDWATER ANALYSIS, 3 WELLS SAMPLED AND ANALYZED FOR ATRAZINE, SIMAZINE, EDB, DBCP, VOA	PACIFIC ANALYTICAL INC	NAVY PUBLIC WORKS CENTER	1,2
REPORT, WATER INVENTORY	10/14/89	1.4 - 0018	INTERIM REPORT - MOJAVE RIVER BASIN WATER INVENTORY INVESTIGATION, NORTHWEST OF HELENDALE, TO DETERMINE DEPTH OF WATER TABLE WHERE WELL CONTROL IS SPARSE	SUBSURFACE SURVEYS	MOJAVE WATER AGENCY	1,2
REPORT, COMPLIANCE	10/18/89	2.2 - 0002	MONITORING REPORTS - BOARD ORDER NOS. 6-87-36, 6-87-37, 6-87-38, AND 6-87-39.	NAVAL FACILITIES ENGINEERING COMMAND	REGIONAL WATER QUALITY CONTROL BOARD	1,2
REPORT, CARBON ABSORPTION	10/23/89	2.2 - 0003	MONITORING REPORT FOR THE GRANULAR CARBON ABSORPTION UNITS	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1
REPORT, WASTE MINIMIZATION	11/1/89	1.4 - 0019	INDUSTRIAL WASTE MINIMIZATION STRATEGY AND OPTIONS TO EVENTUALLY MODIFY OR ELIMINATE THE INDUSTRIAL WASTE TREATMENT PLANT OPERATIONS	NAVAL CIVIL ENGINEERING LABORATORY	MARINE CORPS LOGISTICS BASE	1,2,3,4
PUBLIC COMMUNICATION, PRES RELEASE	11/24/89	9.5 - 0035	"MARINE BASE ON FINAL SUPERFUND LIST" POLLUTED GROUNDWATER SOIL SLATED FOR CLEAN UP	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1,2,3,4,5,6,7

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PLAN, GROUNDWATER	12/1/89	1.4 - 0027	GROUNDWATER MONITORING PLAN WITH ANALYTICAL DATA	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PUBLIC COMMUNICATION, PRES RELEASE	12/1/89	9.5 - 0036	"CONTAMINATION CLEAN UP PROGRESSES" CARBON TREATMENT OF DRINKING WATER & LONG TERM CLEAN UP MEASURES CURRENTLY UNDER STUDY FOR MCLB, BARSTOW	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2
PLAN, RI/FS	2/1/90	4.1 - 0001	SUMMARY REPORT REMEDIAL INVESTIGATION/FEASIBLITY STUDY WORK PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, CARBON ABSORPTION	2/26/90	2.2 - 0004	ANALYTICAL RESULTS, OPERATION OF THE CALGON CARBON MODEL 10 UNITS INSTALLED ON WELLS NOs 3 AND 5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1
REPORT, WASTEWATER	2/26/90	1.7 - 0011	WASTEWATER ANALYSIS RESULTS, VOAs, INORGANICS, ETC	NAVY PUBLIC WORKS CENTER, ENVIRONMENTAL ENGINEERING LAB	MARINE CORPS LOGISTICS BASE	1, 2
PLAN, SAMPLING & ANALYSIS	3/1/90	4.2 - 0011	SAMPLING PUBLIC AND PRIVATE DRINKING WATER WELLS, YERMO AREA	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
REPORT, GROUNDWATER	3/1/90	1.4 - 0023	FINAL REPORT ASSESSMENT OF GROUNDWATER QUALITY NEAR BARSTOW, APPENDICES A THROUGH H (2 OF 4)	GERAGHTY & MILLER INC	ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY AND CITY OF BARSTOW	1,2
COMMENTS, EPA	3/8/90	5.2 - 0035	REVIEW OF THE WORKPLAN FOR SAMPLING PUBLIC/PRIVATE DRINKING WATER WELLS AROUND MCLB, BARSTOW	US EPA, DTSC, & RWQCB	MARINE CORPS LOGISTICS BASE	1,2
PUBLIC COMMUNICATION, PRES RELEASE	3/17/90	9.5 - 0017	"YERMO WELLS TO BE TESTED FOR GROUNDWATER QUALITY"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1
REPORT, GROUNDWATER	3/19/90	1.4 - 0022	FINAL REPORT ASSESSMENT OF GROUNDWATER QUALITY NEAR BARSTOW, 4 NEW GROUNDWATER WELLS WERE INSTALLED AND EXTENSIVE LAB ANALYSIS WAS CONDUCTED (1 OF 4)	GERAGHTY & MILLER INC	ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY AND CITY OF BARSTOW	1,2

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REPORT, GROUNDWATER	3/19/90	1.4 - 0024	FINAL REPORT ASSESSMENT OF GROUNDWATER QUALITY N_AR BARSTOW, APPENDIX I (3 OF 4)	GERAGHTY & MILLER INC	ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY AND CITY OF BARSTOW	1,2
REPORT, GROUNDWATER	3/19/90	1.4 - 0025	FINAL REPORT ASSESSMENT OF GROUNDWATER QUALITY NEAR BARSTOW, APPENDICES J AND K (4 OF 4)	GERAGHTY & MILLER INC	ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY AND CITY OF BARSTOW	1,2
PUBLIC COMMUNICATION, PRES RELEASE	3/28/90	9.5 - 0003	"NICE TO SEE ACTION ON BARSTOW BASE CLEAN UP OF GROUNDWATER CONTAMINATION"	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1
PUBLIC COMMUNICATION, PRES RELEASE	4/6/90	9.5 - 0021	"DMA INSTITUTES TEMPORARY PROCESS FOR INDUSTRIAL WASTEWATER DISPOSAL"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2
REPORT, DRINKING WATER	4/19/90	6.4 - 0013	DRAFT SAMPLING AND ANALYSIS REPORT FOR PUBLIC AND PRIVATE DRINKING WATER WELLS, YERMO AREA	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
REPORT, CARBON ABSORPTION	4/23/90	2.2 - 0005	ANALYTICAL RESULTS, OPERATION OF THE CALGON CARBON MODEL 10 UNITS INSTALLED ON WELLS 3 AND 5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1
REPORT, SOIL	4/23/90	1.4 - 0035	SOIL INVESTIGATION, FY 1991, MCON PROJECT P. 655, PAINT COMBAT VEHICLE MAINTENANCE SHOP, MCLB BARSTOW. RESULTS OF SOIL INVESTIGATION ARE PRESENTED. THE PURPOSE WAS TO DETERMINE	BENTON ENGINEERING INC	ATKINSON, JOHNSON, & SPURPIER, INC	1
PUBLIC COMMUNICATION, PRES RELEASE	5/7/90	9.5 - 0033	"MCLB TESTS INDICATE WELLS OFF-BASE NOT CONTAMINATED"	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1
REPORT, GROUNDWATER	5/7/90	1.4 - 0034	ALTERNATE DRINKING WATER SUPPLY STUDY TO REPLACE/SUPPLEMENT THE GROUNDWATER AT YERMO ANNEX, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
PUBLIC COMMUNICATION, PRES RELEASE	5/8/90	9.5 - 0032	"SOME GOOD NEWS FOR YERMO WATER" WELLS CLEAN	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1,2

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PUBLIC COMMUNICATION, PRES RELEASE	5/9/90	9.5 - 0030	"TESTS SHOW MARINE WELLS NOT TAINTED" WATER FROM PUBLIC AND PRIVATE WELLS EXCEEDS STATE DRINKING WATER STANDARDS	SAN BERNARDINO SUN	PUBLIC RELEASE	1,2
PUBLIC COMMUNICATION, PRES RELEASE	5/9/90	9.5 - 0031	"MCLB IMPROVES WASTE HANDLING, WASTEWATER TRUCKED OFF SITE FOR DISPOSAL TREATMENT"	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1,2
PUBLIC COMMUNICATION, PRES RELEASE	5/11/90	9.5 - 0029	"GROUNDWATER AT YERMO MEETS SAFE WATER STANDARDS"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1
REPORT, CARBON ABSORPTION	5/21/90	2.2 - 0006	ANALYTICAL RESULTS, OPERATION OF THE CALGON CARBON MODEL 10 UNITS INSTALLED ON WELLS 3 AND 5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1
REPORT, DRINKING WATER	5/29/90	6.4 - 0004	REPORT ON PUBLIC/PRIVATE DRINKING WATER WELLS, YERMO AREA	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PLAN, SITE INVESTIGATION WOF	6/1/90	4.1 - 0002	SITE INVESTIGATION WORK PLAN FOR THE YERMO ANNEX SANITARY LANDFILL	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
REPORT, DRINKING WATER	6/11/90	1.7 - 0012	LETTER ENCLOSING REPORTING WATER ANALYSIS FROM FAUCET AT NEBO BASE IN BLDG 198	GROUNDWATER TECHNOLOGY INC	MARINE CORPS LOGISTICS BASE	2
GUIDANCE, STATE	6/22/90	3.1 - 0017	INTERIM GUIDANCE FOR PREPARATION OF ENDANGERMENT ASSESSMENT REPORT	DEPT OF HEALTH SERVICES	PUBLIC RELEASE	1,2,3,4,5,6,7
REPORT, CARBON ABSORPTION	6/29/90	2.2 - 0007	ANALYTICAL RESULTS, OPERATION OF THE CALGON CARBON MODEL 10 UNITS INSTALLED ON WELLS 3 AND 5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1,2
REPORT, DRINKING WATER	7/13/90	1.7 - 0014	THIRD QUARTER DRINKING WATER WELL ANALYSIS RESULTS; TITLE 22 WATER TESTING.	K BANKS MONTGOMERY LABORATORIES	MARINE CORPS LOGISTICS BASE	1, 2

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REPORT, CARBON ABSORPTION	8/13/90	2.2 - 0008	ANALYTICAL RESULTS, OPERATION OF THE CALGON CARBON MODEL 10 UNITS INSTALLED ON WELLS 3 AND 5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1
PLAN, QAPP	9/1/90	4.2 - 0001	DRAFT RI/FS QUALITY ASSURANCE PROJECT PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, CARBON ABSORPTION	9/6/90	2.2 - 0009	ANALYTICAL RESULTS, OPERATION OF THE CALGON CARBON MODEL 10 UNITS INSTALLED ON WELLS 3 AND 5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1,2
AGREEMENT, FEDERAL FACILITI	9/28/90	11.1 - 0023	FEDERAL FACILITY COMPLIANCE AGREEMENT MCLB NEBO, BETWEEN MCLB AND US EPA	US EPA & MCLB	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
AGREEMENT, FEDERAL FACILITI	9/28/90	11.1 - 0030	FEDERAL FACILITIES COMPLIANCE AGREEMENT MCLB YERMO BETWEEN MCLB AND EPA	US EPA & MCLB	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
AGREEMENT, FEDERAL FACILITI	9/29/90	11.1 - 0024	RESPONSE TO THE US EPA ON THE FEDERAL FACILITIES COMPLIANCE AGREEMENT	MARINE CORPS LOGISTICS BASE	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4,5,6,7
REPORT, CARBON ABSORPTION	10/9/90	2.2 - 0010	ANALYTICAL RESULTS, OPERATION OF THE CALGON CARBON MODEL 10 UNITS INSTALLED ON WELLS 3 AND 5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PUBLIC COMMUNICATION, PRES RELEASE	10/10/90	9.5 - 0027	"PACTS SIGNED FOR CLEAN UP OF HAZARDOUS SITE AT MCLB, BARSTOW"	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1,2,3,4,5,6,7
PUBLIC COMMUNICATION, PRES RELEASE	10/19/90	9.5 - 0028	"TEMPORARY TREATMENT UNIT FOR INDUSTRIAL WASTEWATER TESTED AT DEPOT MAINTENANCE ACTIVITY"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2,3,4,5,6,7
CORRESPONDENCE, MEMORANDUM	10/22/90	11.1 - 0044	FURTHER INVESTIGATION OF OFF-SITE CONTAMINATION OF GROUNDWATER	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	1,2

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AGREEMENT, FEDERAL FACILITI	10/24/90	11.1 - 0026	FEDERAL FACILITY AGREEMENT UNDER CERCLA SECTION 120 BETWEEN MCLB, USEPA AND CDHS	US EPA, DTSC & NFEC	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
PUBLIC COMMUNICATION, PRES RELEASE	10/26/90	9.5 - 0026	"EPA, STATE AND NAVY SIGN FEDERAL FACILITY AGREEMENTS FOR MCLB, BARSTOW"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2,3,4,5,6,7
AGREEMENT, FEDERAL FACILITI	10/29/90	11.1 - 0025	RESPONSE TO US EPA ON THE FEDERAL FACILITIES COMPLIANCE AGREEMENT	MARINE CORPS LOGISTICS BASE	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4,5,6,7
REPORT, ANALYTICAL	10/30/90	1.7 - 0032	ANALYTICAL REPORT DATED SEPTEMBER 1990, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
GUIDANCE, STATE	11/1/90	3.3 - 0001	PROCEDURES FOR ENDANGERED SPECIES ACT COMPLIANCE FOR THE MOJAVE DESERT TORTOISE	US DEPT INTERIOR FISH AND WILDLIFE SERVICE REGIONS 1,2 AND 6	PUBLIC RELEASE	1, 2, 3, 4, 5, 6, 7
REPORT, GROUNDWATER	11/19/90	1.7 - 0010	RESULTS OF GROUNDWATER ANALYSIS, PERFORMED ANALYSIS FOR REGULATED ORGANIC CHEMICALS AND RADIOACTIVE SUBSTANCES	MONTGOMERY LABORATORIES	MARINE CORPS LOGISTICS BASE	1, 2
COMMENTS, DTSC	11/21/90	5.2 - 0023	REVIEW OF THE DRAFT RI/FS WORK PLAN FOR MCLB, BARSTOW, DATED SEPTEMBER 1990	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
COMMENTS, DTSC	11/27/90	5.2 - 0024	REVIEW OF THE DRAFT RI/FS SAP FOR MCLB, BARSTOW, DATED SEPTEMBER 1990	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
COMMENTS, DTSC	11/27/90	5.2 - 0025	REVIEW OF THE DRAFT RI/FS, HEALTH AND SAFETY PLAN FOR MCLB, BARSTOW, DATED SEPTEMBER 1990	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
COMMENTS, DTSC	11/27/90	5.2 - 0026	REVIEW OF THE DRAFT RI/FS QUALITY ASSURANCE PROJECT PLAN FOR MCLB, BARSTOW, DATED SEPTEMBER 1990	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7

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COMMENTS, EPA	11/28/90	5.2 - 0005	REVIEW ON THE DRAFT WORK PLAN SAMPLING AND ANALYSIS PLAN, QUALITY ASSURANCE PROJECT PLAN AND COMMUNITY RELATIONS PLAN FOR MCLB DATED SEPTEMBER 26, 1990	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
COMMENTS, DTSC	11/28/90	5.2 - 0021	REVIEW OF THE RI/FS COMMUNITY RELATIONS PLAN, DATED 09/90	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
COMMENTS, RWQCB	11/29/90	5.2 - 0022	REVIEW OF THE DRAFT RI/FS WORK PLAN FOR MCLB, BARSTOW, DATED SEPTEMBER 1990	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
COMMENTS, RWQCB	11/30/90	5.2 - 0007	REVIEW ON THE DRAFT RI/FS WORK PLAN, SAP, QUALITY ASSURANCE PROJECT PLAN, COMMUNITY RELATIONS PLAN, HEALTH AND SAFETY PLAN FOR MCLB	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
PUBLIC COMMUNICATION, PRES RELEASE	11/30/90	9.5 - 0024	"MCLB, BARSTOW HOSTS FIRST TRC MEETING"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2,3,4,5,6,7
AGREEMENT, FEDERAL FACILITI	12/5/90	11.1 - 0029	SUBMITTAL TO THE US EPA IN RESPONSE TO FEDERAL FACILITIES COMPLIANCE AGREEMENT	MARINE CORPS LOGISTICS BASE	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4,5,6,7
REGULATION, SENATE BILL	1/1/91	3.2 - 0001	CALIFORNIA STATE REQUIREMENTS FOR WATER WELL DESTRUCTION - SENATE BILL NO. 1817	ENVIRONMENTAL HEALTH SERVICES, COUNTY OF SAN BERNARDINO	PUBLIC RELEASE	1,2
REPORT, WASTEWATER	1/3/91	6.4 - 0017	LETTER REPORT ON THE SAMPLING OF SLUDGE LAGOON #1 NEBO DOMESTIC WASTEWATER TREATMENT FACILITY, MCLB, BARSTOW	BROWN AND CALDWELL	NFEC, MCLB, RWQCB, DTSC, & US EPA	2
COMMENTS RESPONSE	1/18/91	5.3 - 0001	RESPONSE TO REGULATORY AGENCY COMMENTS ON RI/FS WORK PLAN, MCLB, BARSTOW SEPT 1990	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
CORRESPONDENCE	1/25/91	1.7 - 0018	ANALYTICAL REPORT DATED NOVEMBER 1990 ON WELL NOS 3 AND 5 MCLB, BARSTOW	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2

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REPORT, WATER LEVELS	2/14/91	1.1 - 0014	RECORDS OF WATER LEVELS IN WELLS TOWNSHIP 9N RANGE 1W THROUGH TOWNSHIP 9N RANGE PRINTED 2/14/91 IN RESPONSE TO JEG'S REQUEST	US GEOLOGICAL SURVEY	NFEC & MCLB	1,2
PLAN, COMMUNITY RELATIONS	3/1/91	9.2 - 0001	DRAFT FINAL COMMUNITY RELATIONS PLAN, MCLB BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
PLAN, RI/FS WORK	3/1/91	4.1 - 0003	DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
GUIDANCE, EPA	3/1/91	3.1 - 0019	GROUNDWATER ISSUE: DENSE NON-AQUEOUS PHASE LIQUIDS	US ENVIRONMENTAL PROTECTION AGENCY	JACOBS ENGINEERING GROUP INC	1,2
REPORT, CONTAMINATION RELEASE	3/7/91	1.1 - 0015	RELEASE OF 55-GALLONS OF TRITIUM CONTAMINATED WATER INTO YERMO ANNEX DOMESTIC SEWER SYSTEM AND DETAILS OF REASONS WHY SPILL OCCURRED	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1
REPORT, ANALYTICAL	3/15/91	1.7 - 0030	ANALYTICAL REPORT DATED FEBRUARY 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
REPORT, ANALYTICAL	3/15/91	1.7 - 0031	ANALYTICAL REPORT DATED JANUARY 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
PLAN, HEALTH & SAFETY	3/27/91	4.6 - 0002	UTILITIES INSTALLATION HEALTH AND SAFETY PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
COMMENTS, DTSC	3/27/91	5.2 - 0017	REVIEW OF THE DRAFT FINAL RI/FS WORK PLAN, MARCH 1991, MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
COMMENTS, DTSC	3/27/91	5.2 - 0018	REVIEW OF THE DRAFT FINAL COMMUNITY RELATIONS PLAN, MARCH 1991, MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7

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COMMENTS, RWQCB	3/27/91	5.2 - 0028	REVIEW OF THE DRAFT RI/FS WORK PLAN FOR MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
PLAN, RI/FS WORK	4/1/91	4.2 - 0002	DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY SAMPLING AND ANALYSIS PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
REPORT, ANALYTICAL	4/2/91	1.7 - 0029	ANALYTICAL REPORT DATED MARCH 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
CORRESPONDENCE	4/3/91	5.1 - 0007	TIMELY SUBMITTAL OF RI/FS SCOPING DOCUMENTS	MARINE CORPS LOGISTICS BASE	DEPT TOXIC SUBSTANCES CONTROL	1,2,3,4,5,6,7
PLAN, SITE	4/15/91	4.2 - 0010	SITE MANAGEMENT PLAN FOR MCLB	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
CORRESPONDENCE	4/29/91	5.1 - 0005	CONCERNS REGARDING TECHNICAL REVIEW COMMITTEE CHARTER FOR THE RI/FS AND RFA ACTIVIRIES AT MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1, 2, 3, 4, 5, 6, 7
COMMENTS, RWQCB	4/29/91	5.2 - 0061	REVIEW OF THE RI/FS SAMPLING AND ANALYSIS PLAN AND QUALITY ASSURANCE PROJECT PLAN SAP AND QAPP, MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
COMMENTS, EPA	4/30/91	5.2 - 0015	CONDITIONAL APPROVAL AND REVIEW OF THE RI/FS WORK PLAN AND SAMPLING AND ANALYSIS PLAN, MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
REPORT, ANALYTICAL	4/30/91	1.7 - 0028	ANALYTICAL REPORT DATED APRIL 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
COMMENTS, DHS	4/30/91	5.2 - 0060	REVIEW OF THE DRAFT FINAL RI/FS SAMPLING AND ANALYSIS PLAN AND QUALITY ASSURANCE PROJECT PLAN	DEPT OF HEALTH SERVICES	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7

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COMMENTS, EPA	5/3/91	5.2 - 0009	REVIEW OF THE DRAFT FINAL REMEDIAL INVESTIGATION, FEASIB ILITY STUDY WORK PLAN MARCH 1, 1991, FOR MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
CORRESPONDENCE, RESPONSE	5/15/91	5.1 - 0008	CONCERNING APPROVAL OF DRAFT COMMUNITY RELATIONS PLAN AND HEALTH AND SAFETY PLAN FOR THE RI/FS AND RFA ACTIVITIES AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	1, 2, 3, 4, 5, 6, 7
CORRESPONDENCE	5/15/91	5.1 - 0023	RI/FS WORK PLAN, TIME EXTENSION SUBMITTAL FOR MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
CORRESPONDENCE	5/22/91	5.1 - 0004	TIME EXTENSION FOR SAMPLING & ANALYSIS PLAN SUBMITTAL FOR THE RI/FS ACTIVITIES AT MCLB, BARSTOW	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1, 2, 3, 4, 5, 6, 7
CORRESPONDENCE, RESPONSE	5/22/91	5.1 - 0026	RESPONSE TO US EPA LETTER DATED MAY 15, 1991, ON THE APPROVAL OF TIME EXTENSION FOR SAP SUBMITTAL	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4,5,6,7
CORRESPONDENCE	5/23/91	5.1 - 0006	RESPONSE TO THE CONCERNS OF DHS ON TECHNICAL REVIEW COMMITTEE CHARTER FOR RI/FS AND RFA ACTIVITIES AT MCLB, BARSTOW	MARINE CORPS LOGISTICS BASE	DEPT TOXIC SUBSTANCES CONTROL	1, 2, 3, 4. 5. 6. 7
REPORT, CARBON ABSORPTION	5/28/91	2.2 - 0020	REVISED ANALYTICAL REPORTS, MARCH & APRIL 1991, CALGON CARBON MODEL 10, WELLS #3&5	CALGON CARBON CORPORATION	MARINE CORPS LOGISTICS BASE	1,2
REPORT, CARBON ABSORPTION	6/3/91	2.2 - 0018	REPORT FOR MAY 1991, CALGON CARBON MODEL 10, WELLS #3&5,	CALGON CARBON CORPORATION	MARINE CORPS LOGISTICS BASE	1,2
PLAN, RI/FS WORK	6/15/91	4.1 - 0004	DRAFT REMEDIAL INVESTIGATION/FEASIBLITY STUDY WORK PLAN EXPANDED SECTION ON REGIONAL HYDROGEOLOGY; SAMPLING AND ANALYSIS RATIONALE FOR INVESTIGATION OF GROUNDWATER	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, PLANNING DOCUMENT	6/15/91	4.1 - 0011	DRAFT RI/FS PLANNING DOCUMENTS SUBMITTAL TO REGULATORY AGENCIES (ENCLOSURE 2)	SOUTHWEST DIVISION	MARINE CORPS LOGISTIC BASE	1, 2

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MEETING AGENDA	6/16/91	5.1 - 0002	MEETING NOTIFICATION AND TENTATIVE AGENDA	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1, 2, 3, 4, 5, 6, 7
CORRESPONDENCE, REQUEST	6/17/91	5.1 - 0029	REQUEST FOR TIME EXTENSION FOR SUBMISSION OF DRAFT REMEDIAL INVESTIGATION REPORT	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4,5,6,7
CORRESPONDENCE	6/20/91	5.1 - 0030	TIME EXTENSION FOR CLARIFICATION TO NFEC LETTER DATED 6/20/91	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4,5,6,7
REPORT, CARBON ABSORPTION	6/25/91	2.2 - 0019	REPORT FOR JUNE 1991, CALGON CARBON MODEL 10, WELLS #3&5,	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1,2
REPORT, ANALYTICAL	6/25/91	1.7 - 0027	ANALYTICAL REPORT DATED JUNE 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
MEETING NOTES	6/27/91	5.1 - 0013	DRAFT NOTES FROM PROJECT MANAGERS MEETINGS HELD ON 6/27-28/91, RE: PROJECT SCHEDULE, YERMO SLUDGE REMOVAL, OUs 1&2 WORK PLAN AMENDMENTS, RI/FS WORK PLAN AMENDMENTS, WASTE &	NAVAL FACILITIES ENGINEERING COMMAND	US EPA, DTSC, & RWQCB	1,2,3,4,5,6
MEETING NOTES	7/7/91	5.1 - 0208	JUNE 27-28, 1991, MEETING NOTES FROM PROJECT MANAGER'S MEETING, MARINE CORPS LOGISTICS BASE, BARSTOW	SOUTHWEST DIVISION	MARINE CORPS LOGISTICS BASE	1, 2, 3, 4, 5, 6
REPORT, WATER QUALITY	7/10/91	2.2 - 0022	INDUSTRIAL WATER QUALITY MONITORING REPORT FOR THE MONTH OF JUNE 1991	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2
PUBLIC COMMUNICATION, PRES RELEASE	7/26/91	9.5 - 0019	"INSTALLATION RESTORATION PROGRAM AT MCLB, BARSTOW REVIEWED"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2,3,4,5,6,7
COMMENTS RESPONSE	8/1/91	5.3 - 0002	RESPONSE TO REGULATORY AGENCY COMMENTS ON DRAFT FINAL WORK PLAN AND SAMPLING AND ANALYSIS PLAN APRIL 1, 1991	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7

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REPORT, CARBON ABSORPTION	8/1/91	2.2 - 0017	TREATED GROUNDWATER FOR THE CALGON CARBON MODEL 10, WELLS 3 AND 5	CALGON CARBON CORPORATION	MARINE CORPS LOGISTICS BASE	1,2
GUIDANCE, EPA	8/1/91	3.1 - 0018	ESTIMATING POTENTIAL FOR OCCURRENCE OF DNAPL AT SUPERFUND SITES	US ENVIRONMENTAL PROTECTION AGENCY	JACOBS ENGINEERING GROUP INC	1,2
COMMENTS, EPA	8/9/91	5.2 - 0008	REVIEW OF THE RI/FS FIELD SAMPLING PLAN AMENDMENTS FOR OPERABLE UNITS 1 & 2, WASTE MANAGEMENT PLAN, RISK ASSESSMENT ON LINE AND SCHEDULED TELE-CONFERENCE CALLS OF JULY 9 AND 29,	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
REPORT, WASTEWATER	8/9/91	2.2 - 0012	INDUSTRIAL WATER QUALITY MONITORING RESULTS	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2
COMMENTS, EPA	8/9/91	5.2 - 0036	REVIEW OF THE RISK ASSESSMENT SCHEDULE, RI/FS, MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	8/9/91	5.2 - 0037	REVIEW OF THE RISK ASSESSMENT OUTLINE FOR THE RI/FS AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	8/9/91	5.2 - 0038	REVIEW OF THE DATA MANAGEMENT PLAN FOR RI/FS AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	8/9/91	5.2 - 0039	REVIEW OF THE WASTE MANAGEMENT PLAN, RI/FS	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	8/9/91	5.2 - 0040	REVIEW OF THE FIELD SAMPLING PLAN FOR OUs 1/2 RI/FS	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
MEETING NOTES	8/9/91	5.1 - 0041	NOTES FROM CONFERENCE CALLS BETWEEN JEG AND US EPA ON REMEDIAL INVESTIGATION/FEASIBILITIES STUDY, RE: OUs 1&2 GROUNDWATER STAGES A&B OBJECTIVES	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2

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COMMENTS, EPA	8/9/91	5.2 - 0252	REVIEW COMMENTS ON THE DRAFT RI/FS PLANNING DOCUMENTS FOR THE MCLB BARSTOW DATED JUNE 15, 1991	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1, 2, 3, 4, 5, 6
COMMENTS, EPA	8/9/91	5.2 - 0255	COMMENTS ON THE DRAFT RI/FS PLANNING DOCUMENTS FOR MCLB, BARSTOW DATED JUNE 15, 1991 WITH ATTACHMENTS OF INTERIM FIELD SAMPLING PLAN FOR OUs 1 AND 2, WASTE MANAGEMENT PLAN, DATA	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1, 2,
MEETING AGENDA	8/16/91	5.1 - 0014	PROJECT MANAGERS MEETING NOTIFICATION ON RI/FS ACTIVITIES AT MCLB, BARSTOW	NAVAL FACILITIES ENGINEERING COMMAND	US EPA, DTSC, & RWQCB	1,2,3,4,5,6,7
COMMENTS, RWQCB	8/19/91	5.2 - 0003	REVIEW ON THE RI/FS STUDY SUBMITTAL TO REGULATORY AGENCIES ENCLOSURES 1 AND 2, OPERABLE UNITS 1 AND 2, MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
COMMENTS RESPONSE	8/23/91	5.3 - 0003	RESPONSE TO AGENCIES COMMENTS ON RI/FS PLAN FOR OPERABLE UNITS 1 AND 2	NAVAL FACILITIES ENGINEERING COMMAND	US EPA, DTSC, & RWQCB	1,2
CORRESPONDENCE	8/27/91	5.1 - 0206	DRAFT DETAILED PROJECT SCHEDULE FOR OUs 1,2,3,4,5,6, AND 7AT MCLB BARSTOW OF JULY 24, 1991 LETTER	DEPT. OF NAVY	US ENVIRONMENTAL PROTECTION AGENCY	1, 2, 3 4, 5, 6, 7
CORRESPONDENCE, REQUEST	8/29/91	5.1 - 0011	TIME EXTENSION FOR RI/FS SAMPLING AND ANALYSIS PLAN	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
REPORT, PLANNING DOCUMENT	8/30/91	4.1 - 0014	RESPONSE TO AGENCY COMMENTS VOLUME I DRAFT FINAL RI/FS PLANNING DOCUMENTS	SOUTHWEST DIVISION	MARINE CORPS LOGISTIC BASE	1, 2, 3, 4, 5, 6, 7
REPORT, CARBON ABSORPTION	9/4/91	2.2 - 0021	REPORT FOR AUGUST 1991, CALGON CARBON MODEL 10, WELLS #3&5	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS	9/9/91	5.2 - 0239	COMMENTS ON THE DRAFT RI/FS PLANNING DOCUMENTS FOR THE MCLB BARSTOW DATED JUNE 15, 1991	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1, 2

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TECHNICAL MEMORANDUM	9/10/91	5.1 - 0033	TECHNICAL MEMORANDA FRACTURE TRACE ANALYSIS TM-001 FOR MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
CORRESPONDENCE	9/11/91	5.1 - 0034	REGIONAL GROUNDWATER INVESTIGATION	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENTS IN YERMO AND DAGGET	1,2
REPORT, GROUNDWATER	9/23/91	1.7 - 0007	ANALYTICAL DATA FOR OFFSITE WELLS, MCLB, DATED 10/25/90, FOR OFF-BASE PRIVATE RESIDENT	US DEPT OF INTERIOR	CALIF GEOLOGICAL SURVEY	1,2
REPORT, ANALYTICAL	9/27/91	1.7 - 0026	ANALYTICAL REPORT DATED SEPTEMBER 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
CORRESPONDENCE, RECOMMENDATION	9/30/91	5.1 - 0027	PROPOSAL FOR SCHEDULE EXTENSIONS FOR OPERABLE UNITS 1, 2, 3, AND 4, MCLB	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4
MEETING AGENDA	10/1/91	5.1 - 0028	AGENDA FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY PROGRAM AND WORKSHOP ON 10/03/91	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2,3,4,5,6,7
CORRESPONDENCE, REQUEST	10/17/91	5.1 - 0025	INTENT TO EXTEND TIME FOR RESPONDING TO AGENCY COMMENTS ON OPERABLE UNITS 1/2 SAMPLING & ANALYSIS PLAN FOR RI/FS, MCLB, BARSTOW	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2
REPORT, ANALYTICAL	10/29/91	1.7 - 0024	ANALYTICAL REPORT DATED OCTOBER 1991, WELL NOS. 3 AND 5 (W/O ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
REPORT, ANALYTICAL	10/29/91	1.7 - 0025	ANALYTICAL REPORT DATED OCTOBER 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	MARINE CORPS LOGISTICS BASE	1,2
PLAN, WASTE MANAGEMENT	11/1/91	4.5 - 0001	RI/FS WASTE MANAGEMENT PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2

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GUIDANCE, EPA	11/1/91	3.1 - 0015	GUIDE TO MANAGEMENT OF INVESTIGATION DERIVED WASTES FOR CERCLA SITES	US ENVIRONMENTAL PROTECTION AGENCY	PUBLIC RELEASE	1,2,3,4,5,6,7
PLAN, DATA MANAGEMENT	11/8/91	4.4 - 0001	RI/FS, RCRA AND UST ACTIVITIES FINAL DATA MANAGEMENT PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PLAN, SAMPLING & ANALYSIS	11/15/91	4.2 - 0001	FINAL ADDENDUM SAMPLING AND ANALYSIS PLAN OUs 1/2, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
MEETING AGENDA	11/15/91	5.1 - 0021	PROJECT MANAGEMENT MEETING MCLB, TENTATIVE AGENDA	NAVAL FACILITIES ENGINEERING COMMAND	MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
MEETING NOTES	11/21/91	9.4 - 0004	TECHNICAL REVIEW COMMITTEE MEETING NOTES HELD ON 11/21/91, RE: THERMAL INFRARED PHOTOGRAPHIC SURVEY, FRACTURE TRACE ANALYSIS, GROUNDWATER & COMMUNITY RELATIONS EFFORTS	NAVAL FACILITIES ENGINEERING COMMAND	TECHNICAL REVIEW COMMITTEE MEMBERS	1,2
REPORT, ANALTYICAL	11/22/91	1.7 - 0023	ANALYTICAL REPORT DATED NOVEMBER 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
COMMENTS, DTSC	12/9/91	5.2 - 0030	REVIEW OF THE RI/FS WASTE MANAGEMENT PLAN FOR MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
CORRESPONDENCE	12/10/91	5.1 - 0164	REQUEST FOR SCHEDULE EXTENSIONS FOR FEDERAL FACILITY AGREEMENT (FFA) DELIVERABLES FOR THE MARINE CORPS LOGISTICS BASE, BARSTOW	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1, 2, 3, 4, 5, 6, 7
CORRESPONDENCE, RECOMMENDATION	12/12/91	5.1 - 0048	PROPOSED REVISION FOR SAMPLING STRATEGY FOR RI/FS ACTIVITIES AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
REPORT, USGS DATABASE	12/20/91	1.4 - 0064	DATABASE OF USGS WELLS IN BARSTOW VICINITY AND DATABASE FOR UNIVERSE OF CHEMICALS OF CONCERN	US GEOLOGICAL SURVEY	NAVAL FACILITIES ENGINEERING COMMAND	1

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COMMENTS, RWQCB	12/31/91	5.2 - 0051	REVIEW OF ADDENDUM SAMPLING AND ANALYSIS PLAN FOR OUs 1/2/3/4 AND FINAL DATA MANAGEMENT PLAN FOR RI/FS AT MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4
COMMENTS, RWQCB	12/31/91	5.2 - 0059	REVIEW OF THE WASTE MANAGEMENT PLAN RI/FS MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
PLAN, QAPP	1/6/92	4.3 - 0002	QUALITY ASSURANCE PROJECT PLAN FOR RI/FS APPENDIX A FOR MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, ANALYTICAL	1/6/92	1.7 - 0022	ANALYTICAL REPORT DATED DECEMBER 1991, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
CORRESPONDENCE, RECOMMENDATION	1/6/92	5.1 - 0032	PROPOSED REVISION FOR SAMPLING STRATEGY FOR RI/FS ACTIVITIES AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NFEC, DTSC, & RWQCB	1,2,3,4,5,6,7
COMMENTS, EPA	1/6/92	5.2 - 0044	REVIEW OF THE FINAL ADDENDUM, SAMPLING AND ANALYSIS PLAN FOR OUs 1 AND 2, AND WASTE MANAGEMENT PLAN, FOR RI/FS AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, DTSC	1/6/92	5.2 - 0048	REVIEW OF THE FINAL AMMENDMENT TO THE SAMPLING & ANALYSIS PLAN FOR OUs 1 AND 2 FOR MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2
MEETING NOTES	1/13/92	5.1 - 0022	PROJECT MANAGERS TELE-CONFERENCE CALL HELD ON 1/13/92, RE: OUs 1&2 STAGE A, OU 4 SAMPLING PLAN, REDUCED SAMPLING REQUIREMENTS & FEDERAL FACILITIES AGREEMENT SCHEDULE	NAVAL FACILITIES ENGINEERING COMMAND	US EPA, DTSC, & RWQCB	1,2,4
CORRESPONDENCE	1/15/92	8.1 - 0011	REGARDING CHANGES TO THE AMENDMENT OF THE SAMPLING & ANALYSIS PLAN WHICH COULD RESULT IN REDUCED FIELD WORK, LAB TIME AND PROJECT COSTS	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1,2,4
CORRESPONDENCE	1/17/92	5.1 - 0018	WELL LOGS OF A WELL IN NEBO AREA DRILLED 5/26/66 THRU 6/7/66	US GEOLOGICAL SURVEY	PUBLIC RELEASE	2

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TECHNICAL MEMORANDUM	1/17/92	5.1 - 0043	SEISMIC REFLECTION/REFRACTION SURVEY DURING JULY 1991, TECHNICAL MEMORANDUM TM-0002 FOR MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
COMMENTS, EPA	1/17/92	5.2 - 0046	REVIEW OF RI/FS, RCRA, AND UNDERGROUND STORAGE TANK ACTIVITIES FINAL DATA MANAGEMENT PLAN FOR MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
PLAN, HEALTH & SAFETY	2/3/92	4.6 - 0003	MASTER HEALTH AND SAFETY PLAN, MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, ANALYTICAL	2/10/92	1.7 - 0021	ANALYTICAL REPORT DATED JANUARY 1992, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
COMMENTS, RWQCB	2/18/92	5.2 - 0052	REVIEW OF THE QUALITY ASSURANCE PROJECT PLAN FOR RI/FS AT MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
AGREEMENT, FEDERAL FACILITI	2/21/92	8.1 - 0001	DISPUTE CONCERNING SCHEDULE EXTENSION REQUEST TO FEDERAL FACILITIES ASSESSMENT FOR MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
PUBLIC COMMUNICATION, PRES RELEASE	3/2/92	9.5 - 0014	"TEST WELL DRILLED AT MARINE BASE TO MONITOR GROUNDWATER QUALITY"	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1
PUBLIC COMMUNICATION, PRES RELEASE	3/5/92	9.5 - 0012	"INSTALLATION OF GROUNDWATER MONITORING WELLS AS PHASE 1 OF GROUNDWATER INVESTIGATION FOR MCLB, BARSTOW"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2
COMMENTS RESPONSE	3/11/92	5.3 - 0008	RESPONSE TO AGENCY COMMENTS FINAL RI/FS PLANNING DOCUMENTS VOL V FOR MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
REPORT, ANALYTICAL	3/11/92	1.7 - 0020	ANALYTICAL REPORT DATED FEBRUARY 1992, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2

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COMMENTS, EPA	3/13/92	5.2 - 0043	REVIEW OF THE REVISED QUALITY ASSURANCE PROJECT PLAN FOR RI/FS AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
PLAN, SAMPLING & ANALYSIS	3/16/92	4.2 - 0012	SAMPLING PUBLIC AND PRIVATE SUPPLY WATER WELLS, YERMO AND DAGGETT AREAS (VOL 1 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
PLAN, SAMPLING & ANALYSIS	3/16/92	4.2 - 0013	SAMPLING PUBLIC AND PRIVATE SUPPLY WATER WELLS YERMO AND DAGGETT AREA (VOL 2 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
PUBLIC COMMUNICATION, PRES RELEASE	3/26/92	9.5 - 0010	"CONTAINMENT AND TREATMENT OF SOLVENT SPILL ON MARCH 18, 1992, AT YERMO"	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1,2
PUBLIC COMMUNICATION, PRES RELEASE	3/26/92	9.5 - 0011	"TOXIC DEGREASING SOLVENT (PCE) SPILL AT YERMO DEPOT MARCH 18, 1992"	SAN BERNARDINO SUN	PUBLIC RELEASE	1,2
REPORT, ORGANIC CHEMICAL ANALYSIS	3/26/92	6.1 - 0026	ORGANIC CHEMICAL ANALYSES REPORT ON SAMPLES DATED 3/13/92	TRUESDAIL LABORATORY INC.		1,2
MEETING AGENDA	3/26/92	5.1 - 0042	LETTER ENCLOSING MEETING NOTIFICATION AND OVERVIEW OF PROJECT COSTS FOR RI/FS, MCLB, BARSTOW	NAVAL FACILITIES ENGINEERING COMMAND	MCLB, US EPA, DHS, & RWQCB	1,2,3,4,5,6,7
CORRESPONDENCE	3/30/92	13.1 - 0005	FOLLOW UP ON PROPOSALS FROM MARCH 23, 1992 MEETING RE: DISPUTE RESOLUTION FOR MCAS EL TORO AND MCLB BARSTOW: CROSS REFER# 5.1	MARINE CORPS LOGISTICS BASE	US ENVIRONMENTAL PROTECTION AGENCY	1, 2, 3,
REPORT, ANALYTICAL	4/2/92	1.7 - 0019	ANALYTICAL REPORT DATED MARCH 1992, WELL NOS. 3 AND 5 (W/ENCL)	CALGON CARBON CORPORATION	NAVAL FACILITIES ENGINEERING	1,2
COMMENTS, EPA	4/6/92	5.2 - 0012	REVIEW OF NEESA REQUIREMENTS FOR ANALYTICAL DATA AND DATA VALIDATION AT MCLB, BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7

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PERMIT	4/8/92	5.4 - 0001	DRILLING PERMITS FROM COUNTY OF SAN BERNARDINO, DEPT. OF ENVIRONMENTAL HEALTH SERVICES	JACOBS ENGINEERING GROUP INC	DEPT OF HEALTH SERVICES & MCLB	1,2
ARARS	4/8/92	6.2 - 0004	APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE RI/FS, MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	DEPT OF TOXIC SUBSTANCES CONTROL	1,2,3,4,5,6,7
COMMENTS, RWQCB	4/8/92	5.2 - 0042	REVIEW OF TECHNICAL MEMORANDUM TM-0002 AND TM-0003, RI/FS, MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
COMMENTS, DTSC	4/8/92	5.2 - 0062	REVIEW OF TECHNICAL MEMORANDA TM-0002 AND TM-0003, MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
MEETING NOTES	4/9/92	5.1 - 0012	PROJECT MANAGERS MEETING NOTES HELD ON 4/9-10/92, RE: GEOPHYSICAL & SOIL GAS SURVEYS, FIELD AUDITS, DATA & WASTE MANAGEMENT, OUs 1/2 GROUNDWATER STAGE A&B, USGS STATUS,	NAVAL FACILITIES ENGINEERING COMMAND	US EPA, DTSC, & RWQCB	1,2,3,4,5,6,7
PERMIT	4/13/92	5.4 - 0004	DRILLING PERMITS FROM THE COUNTY OF SAN BERNARDINO DEPT OF ENVIRONMENTAL HEALTH SERVICES	JACOBS ENGINEERING GROUP INC	DEPT OF HEALTH SERVICES & MCLB	1,2
COMMENTS, DTSC	4/29/92	9.6 - 0001	REVIEW ON DRAFT FACT SHEET FOR MCLB, BARSTOW	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4,5,6,7
PUBLIC COMMUNICATION, NEWS ARTICLE	4/30/92	9.5 - 0038	"SOLVENT SPILL CLEAN UP AT YERMO ANNEX DOMESTIC TREATMENT PLANT SHOWING PROGRESS"	MCLB BARSTOW TODAY	PUBLIC RELEASE	1,2
MEETING NOTES	5/5/92	5.1 - 0050	PROJECT NOTE 123 - TELE-CONFERENCE CALL WITH BUREAU OF LAND MANAGEMENT	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PLAN, WASTE MANAGEMENT	5/11/92	4.5 - 0004	PROJECT NOTE 133 - INVESTIGATION-DERIVED WASTEWATER & DISPOSAL OPTION TELECONFERENCE BETWEEN JEG & RWQCB HELD ON 5/11/92, RE: TREATED IDW WATER DISPOSAL OPTIONS & ANALYSIS	JACOBS ENGINEERING GROUP INC	NFEC & MCLB	1,2,3,4,5,6,7

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MEETING NOTES	5/13/92	5.1 - 0044	PROJECT MANAGERS TELE-CONFERENCE MEETING NOTES HELD ON 5/13/92, RE: OUs 1&2 STAGE A&B WELL LOCATIONS, FIELD AUDITS, YERMO SLUDGE REMOVAL, WASTE MANAGEMENT & OFF-SITE	NAVAL FACILITIES ENGINEERING COMMAND	US EPA, DTSC, & RWQCB	1,2
COMMENTS, RWQCB	5/13/92	5.2 - 0054	REVIEW OF THE WORK PLAN FOR SAMPLING PUBLIC AND PRIVATE WATER SUPPLY WELLS, YERMO AND DAGGETT AREA	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PUBLIC COMMUNICATION	5/18/92	9.3 - 0001	PROJECT NOTE 136 - UPDATED MAILING LIST FOR PUBLIC PARTICIPATION IN RI/FS ACTIVITIES AT MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
COMMENTS, DTSC	5/26/92	5.2 - 0053	REVIEW OF THE WORK PLAN FOR SAMPLING PUBLIC AND PRIVATE SUPPLY WATER WELLS, YERMO AND DAGGETT AREAS FOR MCLB, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PLAN, RISK ASSESSMENT WORK	5/28/92	4.8 - 0003	DRAFT HUMAN HEALTH & ECOLOGICAL RISK ASSESSMENT WORK PLAN	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
CORRESPONDENCE, RESPONSE	5/29/92	9.6 - 0003	COMPLIMENTS ON THE OPEN HOUSE/COMMUNITY WORKSHOP HELD ON MAY 12, 1992 FOR THE IRP AND RESPONSE TO REQUEST FOR COMMENTS AND SUGGESTIONS FOR FUTURE COMMUNITY MEETINGS	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6,7
TECHNICAL MEMORANDUM	5/29/92	5.1 - 0039	DRAFT QUALITY ASSESSMENT OF AERIAL PHOTO REVIEW TECHNICAL MEMORANDUM TM-004 FOR MCLB, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PERMIT	6/3/92	5.4 - 0002	PROJECT NOTE 145 - DRILLING AND GROUNDWATER MONITORING WELL INSTALLATION PERMIT ON SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT PROPERTY	JACOBS ENGINEERING GROUP INC	DEPT OF HEALTH SERVICES & MCLB	1,2
TECHNICAL MEMORANDUM	6/3/92	5.1 - 0116	PRELIMINARY DRAFT RESULTS OF STAGE A GROUNDWATER MONITORING WELL & PIEZOMETER INSTALLATION DURING FEBRUARY TO MARCH 1992, TECHNICAL MEMORANDUM 5, FOR OUs 1 & 2 (VOL 1 OF	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
TECHNICAL MEMORANDUM	6/3/92	5.1 - 0117	PRELIMINARY DRAFT RESULTS OF STAGE A GROUNDWATER MONITORING WELL & PIEZOMETER INSTALLATION DURING FEBRUARY TO MARCH 1992, TECHNICAL MEMORANDUM 5, FOR OUs 1 & 2 (VOL 2 OF	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2

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TECHNICAL MEMORANDUM	6/3/92	5.1 - 0118	PRELIMINARY DRAFT RESULTS OF STAGE A GROUNDWATER MONITORING WELL & PIEZOMETER INSTALLATION DURING FEBRUARY TO MARCH 1992, TECHNICAL MEMORANDUM 5, FOR OUs 1 & 2 (VOL 3 OF	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
CORRESPONDENCE	6/10/92	5.1 - 0240	ATTORNEY'S LETTER EXPRESSING CONCERN RE: CIRCULATION OF REVIEWS OF SEISMIC REPORT (BISON INSTRUMENTS LETER ATTACHED)	RUTTER AND WILBANKS CORPORATION	JACOBS ENGINEERING GROUP	1,2,3,4,5,6,7
MEETING NOTES	6/22/92	5.1 - 0051	PROJECT NOTE 133 - INVESTIGATION DERIVED WASTE SOILS MANAGEMENT AND DISPOSAL OPTION, TELE-CONFERENCE CALL HELD ON 6/22/92, WITH JEG, EPA & RWQCB	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
TECHNICAL MEMORANDUM	7/1/92	5.1 - 0052	PRELIMINARY DRAFT STAGE B GROUNDWATER INVESTIGATION PLAN OUs 1 AND 2, TECHNICAL MEMORANDUM TM-0006	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, GROUNDWATER	7/10/92	6.4 - 0018	PROJECT NOTE 157 - FIRST QUARTERLY GROUNDWATER MEASUREMENTS & CONFIRMATION OF BASELINE GROUNDWATER MONITORING DATA	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PERMIT	7/16/92	5.4 - 0005	PROJECT NOTE 166 - DRILLING PERMIT APPLICATION, BACKGROUND FOR THE SAN BERNARDINO COUNTY FOR STAGE B GROUNDWATER MONITORING WELLS LOCATED WITHIN BASE BOUNDARIES	JACOBS ENGINEERING GROUP INC	DEPT OF HEALTH SERVICES & MCLB	1,2
PLAN, SAMPLING & ANALYSIS	7/16/92	4.2 - 0022	PROJECT NOTE 153 - SAMPLING AND ANALYSIS OF GROUNDWATER FOR TOTAL METALS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
COMMENTS RESPONSE	7/31/92	5.3 - 0012	PROJECT NOTE 162 - RESPONSE TO AGENCY COMMENTS ON MARCH 16, 1992 WORK PLAN FOR SAMPLING PUBLIC AND PRIVATE SUPPLY WELLS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, USGS DATABASE	8/10/92	1.4 - 0065	WATER CHEMISTRY FROM USGS DATABASE - MULTIPLE STATION ANALYSES	US GEOLOGICAL SURVEY	MARINE CORPS LOGISTICS BASE	1,2
MEETING NOTES	8/13/92	5.1 - 0053	PROJECT NOTE 222 - PROJECT MANAGERS' TELE-CONFERENCE CALL, HELD ON 8/13/92, RE: PUBLIC/PRIVATE WELLS, STAGE B INVESTIGTION, RI PHASE 1, BLDG 573, DESERT MIX, GEOPHYSICS & YERMO SLUDGE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7

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MEETING NOTES	8/14/92	5.1 - 0054	PROJECT NOTE 221 - MINUTES OF PROJECT MANAGERS' TELE-CONFERENCE CALL, HELD ON 8/14/92, RE: PUBLIC/PRIVATE WELLS, RI PHASE 1, DESERT MIX, YERMO SLUDGE REMOVAL, WASTE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
REPORT, INVESTIGATION-DERIV WASTE	8/17/92	4.5 - 0002	PROJECT NOTE 183 - INVESTIGATION DERIVED WASTE FIELD MANAGEMENT PROCEDURE FOR STAGE B	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
MEETING NOTES	8/27/92	5.1 - 0055	PROJECT NOTE 203 - COORDINATION AND ANALYSES FOR JOINT SAMPLING OF THE US GEOLOGICAL SURVEY PIEZOMETER CLUSTERS NEAR THE NEBO ANNEX, SPECIALLY STAGE A	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	2
PLAN, SAMPLING & ANALYSIS	9/2/92	4.2 - 0021	PROJECT NOTE 204 - SAMPLING AND ANALYSIS OF GROUNDWATER FOR PHASE I, STAGE B WELLS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, INVESTIGATION-DERIV WASTE	9/3/92	6.4 - 0051	PROJECT NOTE 189 - WASTE MANAGEMENT, INVESTIGATION DERIVED WASTE EFFLUENT WASTEWATER ANALYTICAL RESULTS FROM STAGE A DRILLING ACTIVITY FOR OUs 1 & 2, RESULTS INDICATE THAT THE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, INVESTIGATION-DERIV WASTE	9/15/92	8.2 - 0006	PROJECT NOTE 213 - TELE-CONFERENCE AGREEMENT ON INVESTIGATION-DERIVED WASTEWATER DISPOSAL	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PLAN, QAPP	9/21/92	4.3 - 0003	PROJECT NOTE 202 - REVISIONS TO THE APPROVED QUALITY ASSURANCE PROJECT PLAN, SECTIONS 4.0 AND 5.0, DATED SEPTEMBER 1992	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PLAN, SAMPLING & ANALYSIS	9/21/92	4.2 - 0016	PROJECT NOTE 202 - REVISIONS TO THE APPROVED SAMPLING AND ANALYSIS PLAN, SECTIONS 11.0 AND 12.0, DATED SEPTEMBER 1992	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1, 2, 3, 4, 5, 6, 7
MEETING NOTES	9/28/92	5.1 - 0056	PROJECT NOTE 200 - MINUTES OF PROJECT MANAGERS' TELE-CONFERENCE, HELD ON 9/28/92, RE: OUs 1&2 STAGE A&B SAMPLING PLAN, PUBLIC/PRIVATE WELLS, TENTATIVELY IDENTIFIED COMPOUNDS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
MEETING NOTES	10/12/92	5.1 - 0057	PROJECT NOTE 198 - TELE-CONFERENCE CALL WITH PRIVATE LAND OWNER WHICH THE NAVY WISHES TO DRILL A WELL, HELD ON OCTOBER 12, 1992	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2

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MEETING NOTES	10/23/92	5.1 - 0058	PROJECT NOTE 223 - WELL INSPECTION BY SAN BERNARDINO COUNTY DEPARTMENT OF HEALTH SERVICES	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, INVESTIGATION-DERIV WASTE	11/5/92	6.4 - 0022	PROJECT NOTE 225 - INVESTIGATION-DERIVED WASTE SOILS LABORATORY ANALYTICAL RESULTS FROM 56 STAGE A WELLS AND PIEZOMETERS, (VOL 2 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, INVESTIGATION-DERIV WASTE	11/5/92	6.4 - 0023	PROJECT NOTE 225 - INVESTIGATION DERIVED WASTE SOILS LABORATORY ANALYTICAL RESULTS FROM 56 STAGE A WELLS AND PEIZOMETERS (VOL 1 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
MEETING NOTES	11/5/92	5.1 - 0059	PROJECT NOTE 230 - PROJECT MANAGERS' MEETING NOTES HELD ON 11/5/92, RE: YERMO SLUDGE REMOVAL, RCRA, STRATEGY FOR SOIL SITE DATA, PROJECT BUDGET, WASTE MANAGEMENT, OUs 1&2	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
PLAN, QAPP	11/12/92	4.3 - 0004	FINAL QUALITY ASSURANCE PROJECT PLAN, APPENDIX A FOR SAMPLING AND ANALYSIS PLAN FOR REMEDIAL INVESTIGATION /FEASIBILITY STUDY	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
MEETING NOTES	11/13/92	5.1 - 0060	MEETING NOTES HELD ON 11/13/93 BETWEEN USGS, NAVY & JACOBS COOPERATIVE SAMPLING WELL EFFORTS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REPORT, GROUNDWATER	11/16/92	5.1 - 0061	SUBMITTAL OF RESULTS FROM 56 STAGE A WELLS, VOL. I AND II, DATED 11/5/92	MARINE CORPS LOGISTICS BASE	US EPA, DTSC, & RWQCB	1,2
GUIDANCE, STATE	11/20/92	3.2 - 0002	WELL DESTRUCTION, COMPLIANCE REQUIREMENTS	SAN BERNARDINO COUNTY ENVIRONMENTAL HEALTH SERVICES	JACOBS ENGINEERING GROUP INC	1, 2
MEETING NOTES	11/25/92	5.1 - 0062	PROJECT NOTE 236 - PROJECT MANAGERS' TELE-CONFERENCE CALL, HELD ON 11/25/92, RE: EE/CA FOR YERMO SLUDGE REMOVAL, RCRA, PCE SPILL, CAOC 16 BOUNDARIES, SCHEDULE OF DATA, SPILL	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
REPORT, GROUNDWATER	12/1/92	5.1 - 0063	RESULTS OF WELL TESTING ON PRIVATE PROPERTY AND THE INTERIM ACTION TO SUPPLY BOTTLED WATER TO OFF-BASE RESIDENTS	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT	1, 2

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MEETING NOTES	12/4/92	5.1 - 0065	PROJECT NOTE 7 - REMEDIAL PROJECT MANAGERS' MEETING NOTES, HELD ON 12/4/92, RE: USGS UPDATE, OUs 5&6 SAMPLING PROPOSAL, COMMUNITY RELATIONS, YERMO SLUDGE REMOVAL, & CAOC 16	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
CORRESPONDENCE, GROUNDWATER	12/11/92	5.1 - 0245	TRANSMITTAL FOR COMMENTS OF FINAL DRAFT TO GROUNDWATER REMEDIATION ASSESMENT FOR OU1 AND 2 (W/O ENCL)	MARINE CORPS LOGISTICS BASE	VARIOUS AGENCIES	1,2
CORRESPONDENCE, RESPONSE	12/14/92	9.6 - 0002	RESPONSE TO RESIDENT'S CONCERN REGARDING WELL WATER CONTAMINATION	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT	1,2
TECHNICAL MEMORANDUM	12/14/92	5.1 - 0064	DRAFT GROUNDWATER REMEDIATION ASSESSMENT TECHNICAL MEMORANDUM TM-0008, OUs 1 AND 2	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
MEETING NOTES	12/21/92	5.1 - 0067	PROJECT NOTE 6 - REMEDIAL PROJECT MANAGERS' TELE-CONFERENCE, HELD ON DECEMBER 21, 1992	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
EASEMENT, RIGHT-OF-WAY	12/30/92	5.1 - 0068	RIGHT-OF-WAY FROM SOUTHERN CALIFORNIA EDISION FOR DRILLING AT WELLS Y91, Y10-1 & Y11-1	SOUTHERN CALIF EDISON CO	JACOBS ENGINEERING GROUP INC	1,2
CORRESPONDENCE, RESPONSE	1/6/93	8.2 - 0007	RESPONSE TO REQUEST OF INVESTIGATION DERIVED WASTE OUs 1 AND 2, PHASE 1, STAGE A WELLS AND PIEZOMETER SOILS ANALYTICAL, DISPOSAL OF "CLEAN" SOIL, PROJECT NOTE 225, DATED 11/92	DEPT OF TOXIC SUBSTANCES CONTROL	MARINE CORPS LOGISTICS BASE	1,2
PLAN, SAMPLING & ANALYSIS	1/7/93	4.2 - 0020	PROJECT NOTE 248 - ESTABLISHING UNIFORM SAMPLING AND ANALYSIS OF GROUNDWATER	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
MEETING NOTES	1/19/93	5.1 - 0069	PROJECT NOTE 16 - REMEDIAL PROJECT MANAGERS' MEETING NOTES, HELD 1/19/93, OUs 1&2 GROUNDWATER, YERMO SLUDGE REMOVAL & PUBLIC/PRIVATE WELLS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,5
MEETING NOTES	1/20/93	9.4 - 0002	PROJECT NOTE 17 - TECHNICAL REVIEW COMMITTEE MEETING NOTES HELD ON 1/20/93	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7

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CORRESPONDENCE	1/25/93	5.1 - 0071	LETTER ON THE CONNECTION OF THE PRIVATE PROPERTY TO MCLB'S WATER SYSTEM, AND AUTHORIZATION TO PROCEED FROM PROPERTY OWNER	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT	1,2
COMMENTS, RWQCB	1/25/93	5.2 - 0084	REVIEW OF THE DRAFT WATER REMEDIATION ASSESSMENT TECHNICAL MEMORANDUM 8, DATED 12/92	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
REPORT, INVESTIGATION-DERIV WASTE	1/26/93	6.4 - 0040	PROJECT NOTE 238 - STAGE A/B INVESTIGATION DERIVED WASTE EFFLUENT WATER INDICATING THE TREATED WATER MEETS STATE AND FEDERAL DRINKING WATER STANDARDS	JACOBS ENGINEERING GROUP INC	REGIONAL WATER QUALITY CONTROL BOARD	1,2
PUBLIC COMMUNICATION, NEWS ARTICLE	1/27/93	9.5 - 0043	"RIVER FLOW BRINGS WELL LEVELS UP"	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1,2
CORRESPONDENCE, REQUEST	1/29/93	5.1 - 0072	REQUEST TO SIGN AGREEMENT FOR INSTALLATION AND MAINTENANCE OF WELL EQUIPMENT ON PRIVATE PROPERTY	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT	1,2
CORRESPONDENCE	2/5/93	9.1 - 0001	TRANSMITTAL OF FACT SHEET ON TCE AND THE INSTALLATION RESTORATION PROGRAM TO A PRIVATE CITIZEN WHO LIVED ON PROPERTY WITH A WELL SUSPECTED OF BEING CONTAMINATED WITH	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT	1,2
MEETING NOTES	2/8/93	5.1 - 0073	PROJECT NOTE 8 - NOTES OF REMEDIAL PROJECT MANAGERS' MEETING, HELD 2/8-10/93, RE: OUs 1&2 GROUNDWATER, GEOPHYICAL & SOIL GAS SURVEYS, CHEMICAL CONCERNS, OUs 5&6 OBJECTIVES &	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
CORRESPONDENCE, GROUNDWATER	2/11/93	5.2 - 0284	COMMENTS ON GWOUNDWATER REMEDIATION ASSESSMEENT TECH MEMO (TM-0008), OU 1 AND 2	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1,2
COMMENTS, DTSC	2/16/93	5.2 - 0085	REVIEW OF DRAFT GROUNDWATER REMEDIATION ASSESSMENT, TECHNICAL MEMORANUM 8, DATED 12/92	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	3/2/93	5.2 - 0069	REVIEW OF THE DRAFT GROUNDWATER REMEDIATION ASSESSMENT, TECHNICAL MEMORANDUM 0008, OUs 1&2, DATED 12/92	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2

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REPORT, INVESTIGATION-DERIV WASTE	3/15/93	6.4 - 0039	PROJECT NOTE 257 - STAGE B INVESTIGATION DERIVED WASTE ANALYTICAL RESULTS	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2
MEETING NOTES	3/17/93	5.1 - 0074	PROJECT NOTE 10 - REMEDIAL PROJECT MANAGERS' MEETING NOTES, HELD ON 3/17/93, RE: PROPOSAL NO FURTHER ACTION CAOCs, BLDG 573 MAY BE OU 8 , WASTE MANAGEMENT, OUs 3/4 PHASE 2 PLANNING	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
REPORT, ANALYTICAL DATA	4/5/93	6.4 - 0041	OCTOBER 1992 ANALYSIS RESULTS FOR 6 PRIVATE AND 2 YERMO ANNEX WELLS	MARINE CORPS LOGISTICS BASE	US EPA, DTSC, & RWQCB	1,2
CORRESPONDENCE, REQUEST	4/9/93	8.1 - 0020	REQUEST TO REVIEW THE SCOPE OF WORK FOR THE ENGINEERING EVALUATION/COST ANALYSIS AND CURRENT RI/FS WORK BY 05/07/93 AND INCLUDES LIST OF TECHNICAL INFORMATION	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
REPORT, GROUNDWATER	4/20/93	8.1 - 0017	PROJECT NOTE 278 - WELL DEVELOPMENT, SPECIFICALLY WELL LOCATION AND GROUNDWATER ELEVATION DATA TO USGS, STAGE B, YERMO ANNEX AND NEBO	JACOBS ENGINEERING GROUP INC	US GEOLOGICAL SURVEY	1,2
CORRESPONDENCE, GROUNDWATER	4/29/93	5.4 - 0015	TRANSMITTAL OF FULLY EXECUTED COPY OF RIGHT OF ENTRY PERMIT TO AUTHORIZE DRILLING GROUNDWATER TEST WELL ON PRIVATE PROPERTY (W/ENCL)	SOUTHWEST DIVISION	M/M SILER	1,2
REPORT, ANALYTICAL DATA	5/6/93	6.1 - 0019	PROJECT NOTE 282 - RI/FS OUs 1, 2, 3, 4, 5, & 6 PHASE 1 GROUNDWATER & SOIL ANALYTICAL LABORATORY RESULTS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 3 4 5 6
MEETING NOTES	5/6/93	5.1 - 0077	PROJECT NOTE 124 - PHONE CONVERSATION ON GROUNDWATER MONITORING WELL INSTALLATIONS RE: PHASE 1 STAGE B FIST 40 MONITORING WELL LOCATIONS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
CORRESPONDENCE, PERMIT	5/17/93	5.4 - 0014	2ND REQUEST FOR PERMISSIO TO DRILL A TEST WELL ON PRIVATE PROPERTY (W/O ENCL)	SOUTHWEST DIVISION	R. APPLING	1,2
CORRESPONDENCE	5/18/93	6.4 - 0104	PHASE I GROUNDWATER AND SOIL ANALYTICAL DATA FOR RI/FS OU's 1 THRU 7 DATED MAY 6, 1993	MARINE CORPS LOGISTICS BASE, BARSTOW	US EPA, DTSC, RWQCB	1,2,3,4,5,6,7

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MEETING NOTES	5/19/93	5.1 - 0083	PROJECT NOTE 29 - MEETING NOTES FOR REMEDIAL PROJECTS MANAGERS HELD ON 5/19-20/93, RE: BLDG 573, DATA MANAGEMENT & YERMO SLUDGE REMOVAL	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
ENFORCEMENT, BOARD ORDER	7/1/93	1.6 - 0013	BOARD ORDER DISCHARGE REQUIREMENTS FOR LAND DISPOSAL OF TREATED GROUNDWATER #6-93-106	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1, 2
MEETING NOTES	7/1/93	5.1 - 0080	PROJECT NOTE 30 - MINUTES OF REMEDIAL PROJECT MANAGERS MEETING HELD 7/1/93, RE: RISK BASED CRITERIA, OUs 1&2 GROUNDWATER, OUs 5&6 REVISIONS & PROJECT SCHEDULE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,5,6
CORRESPONDENCE, COMMENT!	7/8/93	5.2 - 0278	FAX RESPONSE TO REQUEST FOR REVIEW OF SAMPLE RESULTS FROM 6 DOMESTIC WELLS NEAR MCLB, DATED OCTOBER 1992	DEPT. OF TOXIC SUBSTANCES CONTROL		1,2
CORRESPONDENCE, WASTE	7/12/93	1.7 - 0034	REQUEST CONCURRENCE ON PROJECT NOTE 269, WASTE MANAGEMENT, OU1 AND 2 PHASE 1, STAGE B (IRP RI/FS STUDY PROJECT NOTE) (W/O ENCL)	MARINE CORPS LOGISTICS BASE	US ENVIRONMENTAL PROTECTION AGENCY	1,2
CORRESPONDENCE, WASTE	7/12/93	5.1 - 0243	TRANSMITTAL FOR COMMENTS OF IRP RI/FS PROJECT NOTE 269 RE WASTE MANAGEMENT, OU 1 AND 2 PHASE1, STAGE B, WELLS IDW SOILS ANALYTICAL RESULTS AND RECOMMENDATIONS (W/O ENCL)	MARINE CORPS LOGISTICS BASE	VARIOUS AGENCIES	1,2
CORRESPONDENCE, PERMIT	7/13/93	5.4 - 0007	REQUEST PERMIT TO ALLOW JACOGS ENGR TO DRILL TEST WELL ON PROPERTY TO DETERMINE QUALITY OF GROUNDWATER IN VICINITY OF MCLB	SOUTHWEST DIVISION	G. JOHNSON AND M/M WRIGHT	1,2
CORRESPONDENCE, PERMIT	7/13/93	5.4 - 0011	REQUEST PERMISSION TO DRILL A TEST WELL ON PRIVATE PROPERTY (W/O ENCL, RIGHT OF ENTRY PERMIT)	SOUTHWEST DIVISION	K. AMOUR	1,2
CORRESPONDENCE, PERMIT	7/13/93	5.4 - 0012	REQUEST PERMISSION TO DRILL A TEST WELL ON PRIVATE PROPERTY (W/O ENCL, RIGHT OF ENTRY PERMIT)	SOUTHWEST DIVISION	G. JOHNSON AND M/M WRIGHT	1,2
CORRESPONDENCE, PERMIT	7/13/93	5.4 - 0013	REQUEST PERMISSION TO DRILL A TEST WELL ON PRIVATE PROPERTY (W/O ENCL, RIGHT OF ENTRY PERMIT)	SOUTHWEST DIVISION	R. ARIAS	1,2

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MEETING NOTES	8/5/93	5.1 - 0079	PROJECT NOTE 3 - REMEDIAL PROJECT MANAGERS MEETING HELD 8/5-6/93, RE: OUs 1&2 PHASE 2 PLANNING, OUs 5&6 WORK PLAN REVISIONS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,5,6
MEETING NOTES	8/13/93	5.1 - 0092	PROJECT NOTE 8 - MEETING NOTES BETWEEN JACOBS ENGINEERING AND THE REGIONAL WATER QUALITY CONTROL BOARD RE: INVESTIGATION DERIVED WASTE SOILS MANAGEMENT FOR OPERABLE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,5,6
MEETING NOTES	8/19/93	5.1 - 0082	PROJECT NOTE 2 - INVESTIGATION DERIVED WASTE MANAGEMENT APPROACH FOR OUs 5&6	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,5,6
REPORT, GROUNDWATER	8/24/93	6.4 - 0028	WELL SAMPLING REPORT ON OFF-BASE GROUNDWATER	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT	1,2
MEETING NOTES	9/2/93	5.1 - 0087	PROJECT NOTE 318 - REMEDIAL PROJECT MANAGERS MEETING NOTES HELD 9/2/93, RE: ECOLOGICAL RISK ASSESSMENT & BLDG 573 PLANNING	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,5,6
TECHNICAL MEMORANDUM	9/29/93	5.1 - 0086	DRAFT SEPTEMBER 1992 GROUNDWATER SAMPLING RESULTS OPERABLE UNITS 1 AND 2 TECHNICAL MEMORANDUM 0013	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
TECHNICAL MEMORANDUM	9/29/93	5.1 - 0088	DRAFT JUNE 1993 GROUNDWATER SAMPLING RESULTS OPERABLE UNITS 1 AND 2 TECHNICAL MEMORANDUM 0011	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
CORRESPONDENCE, GROUNDWATER	10/12/93	4.2 - 0041	REQUEST FOR COMMENTS TO RI/FS DRAFT PHASE II FIELD SAMPLING WORK PLAN FOR OU 1 AND 2 (REGIONAL GROUNDWATER), DATED OCTOBER 15, 1993 (W/O ENCL)	MARINE CORPS LOGISTICS BASE	VARIOUS AGENCIES	1,2
CORRESPONDENCE, COMMENTS	10/12/93	4.2 - 0044	REQUEST FOR COMMENTS TO RI/FS DRAFT PHASE II FIELD SAMPLING WORK PLAN FOR OU 1 AND 2, DATED 10/15/93	MARINE CORPS LOGISTICS BASE	VARIOUS AGENCIES	1,2
PLAN, QAPP	10/15/93	4.3 - 0005	PROJECT NOTE 312 - ELIMINATION OF SPECIFIC CHEMICALS FROM THE CHEMICALS OF CONCERN AND THE PROJECT TARGET ANALYTE LIST	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7

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PLAN, RI/FS WORK	10/15/93	4.2 - 0018	RI/FS DRAFT PHASE II FIELD SAMPLING (WORK) PLAN FOR OPERABLE UNITS 1 AND 2	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
REMOVAL ACTION	11/3/93	2.1 - 0021	ON-SITE COORDINATOR REPORT - REMOVAL ACTION OF TRICHLOROETHENE CONTAMINATED OFF-BASE WELL AT NEBO ANNEX	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	2
MEETING NOTES	11/4/93	5.1 - 0090	PROJECT NOTE 322 - REMEDIAL PROJECT MANAGERS' MEETING NOTES HELD 11/4/93, RE: PERSONNEL CHANGES, BLDG 573, OUs 1&2 GROUNDWATER FIELD SAMPLING, YERMO SLUDGE REMOVAL & USGS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4
REPORT, INVESTIGATION-DERIV WASTE	11/9/93	4.5 - 0003	PROJECT NOTE 321 - INVESTIGATION-DERIVED WASTE SOIL FOR MONITORING WELLS Y7-1 AND Y8-1 TO DISCHARGE CUTTINGS WITH DTSC CONCURRANCE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
TECHNICAL MEMORANDUM	11/9/93	5.1 - 0047	DRAFT RESULTS OF STAGE B GROUNDWATER INVESTIGATION TECHNICAL MEMORANDUM 12 OUs 1/2	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
TECHNICAL MEMORANDUM	11/9/93	5.1 - 0089	DRAFT JANUARY 1993 GROUNDWATER SAMPLING RESULTS OUs 1/2 TECHNICAL MEMORANDUM 15	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
CORRESPONDENCE, GROUNDWATER	11/16/93	1.7 - 0033	REQUEST FOR COMMENTS TO DRAFT JANUARY 1993 GROUNDWATER SAMPLING RESULTS OU1 AND 2 TECHNICAL MEMO TM-0015, NOVEMBER 9, 1992 (W/O ENCL)	MARINE CORPS LOGISTICS BASE	VARIOUS AGENCIES	1,2
TECHNICAL MEMORANDUM	11/16/93	5.1 - 0111	SUBMITTAL OF DRAFT GROUNDWATER SAMPLING RESULTS OPERABLE UNITS 1 AND 2 TECHNICAL MEMORANDUM 15 DATED NOVEMBER 9, 1993	MARINE CORPS LOGISTICS BASE	US EPA, DTSC, & RWQCB	1,2
COMMENTS, EPA	12/1/93	5.2 - 0076	REVIEW OF THE DRAFT PHASE I REMEDIAL INVESTIATION REPORTS OUs UNITS 3&4, DATED 9/93; DRAFT PHASE II RI/FS OUs 3&4 FIELD SAMPLING PLAN, TECHNICAL MEMORANDUM 10, DATED 5/93; AND	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,3,4
COMMENTS, DTSC	12/2/93	5.2 - 0075	REVIEW OF THE DRAFT PHASE II RI/FS SAMPLING WORK PLAN FOR OUs 1&2, DATED 10/93	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2

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MEETING NOTES	12/8/93	9.4 - 0005	PROJECT NOTE 330 - TECHNICAL REVIEW COMMITTEE MEETING NOTES HELD ON 12/08/93 AT THE MARINE CORPS LOGISTICS BASE, BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
COMMENTS, RWQCB	12/15/93	5.2 - 0077	REVIEW OF RI/FS DRAFT PHASE 2 FIELD SAMPLING (WORK) PLAN, DATED 10/93, AND REQUESTS INFORMATION BY 01/16/94	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PLAN, HEALTH & SAFETY	1/5/94	4.6 - 0004	HEALTH AND SAFETY PLAN FOR GROUNDWATER EXTRACTION PILOT STUDIES AT YERMO ANNEX	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2
CORRESPONDENCE, REQUEST	1/7/94	8.1 - 0021	REQUEST FOR CONCURRENCE TO CONDUCT AN AQUIFER PUMP TEST	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1,2,3,4
CORRESPONDENCE, APPROVAL	1/19/94	8.1 - 0022	WRITTEN APPROVAL TO CONDUCT AN AQUIFER PUMP TEST WITH GUIDELINES	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
MEETING NOTES	2/4/94	5.1 - 0115	PROJECT NOTE 338 - REMEDIAL PROJECT MANAGERS' MEETING HELD ON 02/04/94, RE: PERSONNEL CHANGES, CHEMICALS OF CONCERN, PILOT GROUNDWATER EXTRACTION STUDY, AGENCY COMMENTS ON	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
REPORT, GROUNDWATER	2/9/94	6.4 - 0048	PROJECT NOTE 334 - QUARTERLY SAMPLING & OFF-SITE WELLS DRILLING, INVESTIGATION DERIVED WASTE EFFLUENT WATER	JACOBS ENGINEERING GROUP INC	NFEC & MCLB	1,2
MEETING NOTES	3/10/94	5.1 - 0113	PROJECT NOTE 345- REMEDIAL PROJECT MANAGERS' MEETING HELD ON 3/10-11/94, PCB STORAGE AREA, FUNDING, PROGRAM SCHEDULE, PHASE 2 PLANNING, YERMO REMOVAL ACTION STUDY, RCRA FACILITY	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
COMMENTS RESPONSE	3/16/94	5.3 - 0014	PROJECT NOTE 340 - RESPONSE TO DTSC, EPA AND RWQCB COMMENTS ON THE DRAFT PHASE 2 FIELD SAMPLING WORK PLAN, REMEDIAL INVESTIGATION/FEASIBLITY STUDY FOR OUs 1/2	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
TECHNICAL MEMORANDUM	3/16/94	5.1 - 0040	PRELIMINARY DRAFT APRIL 1993 GROUNDWATER SAMPLING RESULTS FOR OUs 1 & 2, TECHNICAL MEMORANDUM 24	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2

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CORRESPONDENCE	3/21/94	13.3 - 0017	EPA REQUEST FOR 30-DAY EXTENSION FOR REVIEW OF MCLB DRAFT OU1&2 RESULTS OF STAGE B GROUNDWATER INVESTIGATION TECH MEMO-0012	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTIC BASE	1,2
COMMENTS, EPA	3/28/94	5.2 - 0082	REVIEW OF QUARTERLY GROUNDWATER SAMPLING RESULTS FOR JUNE AND SEPTEMBER 1992 AND JANUARY 1993, TECHNICAL MEMORANDA 11, 13, AND 15	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	3/28/94	5.2 - 0247	COMMENTS ON GROUNDWATER SAMPLING RESULTS AS DESCRIBED IN DRAFT TECHNICAL MEMORANDUMS 11, 13, AND 15, OUs 1 AND 2 MCLB BARSTOW	US ENVIRONMENTAL PROTECTIONS AGENCY	SOUTHWEST DIVISION	1, 2
COMMENTS, EPA	3/29/94	5.2 - 0081	REVIEW OF DRAFT RESULTS OF STAGE B GROUNDWATER INVESTIGATION, TECHNICAL MEMORANDUM 12	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	3/29/94	5.2 - 0083	REVIEW OF DRAFT PHASE 2 FIELD SAMPLING (WORK) PLAN	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PLAN, QAPP	3/30/94	4.3 - 0008	REVISED FINAL QUALITY ASSURANCE PROJECT PLAN FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2
REPORT	3/30/94	1.4 - 0066	PROJECT NOTE 347 - RESULTS OF A LITERATURE SEARCH RE: APPROPRIATENESS OF USING CENTRIGUGAL SUBMERSIBLE PUMPS FOR SAMPLING GROUNDWATER AT MCLB BARSTOW	JACOBS ENGINEERING GROUP INC	NFEC & MCLB	2
COMMENTS, DTSC	4/1/94	5.2 - 0047	REVIEW OF THE DRAFT RESULTS OF STAGE B GROUNDWATER INVESTIGATION, TECHNICAL MEMORANDUM 12, DATED 11/9/93, & THE DRAFT GROUNDWATER EXTRACTION PILOT STUDY FIELD WORK PLAN,	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1,2
MEETING NOTES	4/13/94	5.1 - 0070	REMEDIAL PROJECT MANAGERS' MEETING HELD ON 04/13/94 - 04/14/94	NAVAL FACILITIES ENGINEERING COMMAND	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
SAMPLING PLAN	4/21/94	4.2 - 0036	DRAFT FINAL PHASE II FIELD SAMPLING (WORK)PLAN FOR OU 1/2 (REGIONAL GROUNDWATER)	MARINE CORPS LOGISTICS BASE	VARIOUS AGENCIES	1,2

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PLAN, RI/FS WORK	4/29/94	4.2 - 0025	REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT FINAL PHASE 2 FIELD SAMPLING (WORK) PLAN FOR OUs 1/2, (Vol 1 of 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PLAN, SAMPLING & ANALYSIS	4/29/94	4.2 - 0026	PROJECT NOTE 350 - DRAFT FINAL PHASE 2 FIELD SAMPLING WORK PLAN FOR OUs 1/2, PROGRAM CHANGES BASED ON REGULATORY AGENCY COMMENTS	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PLAN, RI/FS WORK	4/29/94	4.2 - 0027	REMEDIAL INVESTIGATION/ FEASIBILITY STUDY DRAFT FINAL PHASE 2 FIELD SAMPLING (WORK) PLAN FOR OUs 1/2, (VOL 2 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
PLAN, SAMPLING & ANALYSIS	5/9/94	4.3 - 0009	PROJECT NOTE 353 - COMPARISON OF THE CHEMICAL OF CONCERN LISTS OF ANALYTES IN THE SAMPLING & ANALYSIS PLAN VS. THE QUALITY ASSURANCE PROJECT PLAN	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PLAN, PILOT STUDY	5/10/94	6.4 - 0047	PROJECT NOTE 15 - DESIGN PACKAGE SUMMARY OF WORK FOR THE AIR SPARGE/SOIL VAPOR EXTRACTION PILOT STUDY	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2
MEETING NOTES	5/11/94	5.1 - 0129	PROJECT NOTE 39 - REMEDIAL PROJECT MANAGERS' MEETING NOTES HELD ON 5/11-12/94, DISCUSSIONS ON OUs 5 & 6 PHASE 1 RISK ASSESSMENT, VADOSE ZONE MODEL, PROJECT SCHEDULE, SITE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6
COMMENTS, EPA	5/23/94	5.2 - 0006	REVIEW OF THE DRAFT FINAL PHASE 2 FIELD SAMPLING WORK PLAN FOR OUs 1&2, DATED 4/29/94, FINDS IT AN ACCEPTABLE APPROACH, SOME CHANGES MAY BE REQUIRED FOR BLDG 573	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	5/23/94	5.2 - 0013	REVIEW OF THE DRAFT GROUNDWATER EXTRACTION PILOT STUDY FIELD PLAN, DATED 3/9/94, FINDS IT ACCEPTABLE & OFFERS SUGGESTIONS FOR IMPROVEMENTS	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
COMMENTS, EPA	5/23/94	5.2 - 0014	REVIEW OF THE PRELIMINARY DRAFT GROUNDWATER 04/93 SAMPLING RESULTS FOR OUs 1&2, TECHNICAL MEMORANDUM 24, DATED 3/94	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2
PLAN, QAPP	6/8/94	4.3 - 0006	ADDENDUM 1 TO PHASE 2 REMEDIAL INVESTIGATION FEASIBILITY STUDY DRAFT QUALITY ASSURANCE PROJECT PLAN	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1,2

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COMMENTS RESPONSE	6/8/94	5.3 - 0016	PROJECT NOTE 354 - RESPONSES TO EPA COMMENTS ON THE DRAFT PHASE 2 FIELD SAMPLING PLAN FOR OUs 1 & 2, DATED 4/29/94	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
COMMENTS RESPONSE	6/20/94	5.3 - 0013	PROJECT NOTE 355 - RESPONSE TO EPA COMMENTS ON THE DRAFT GROUNDWATER INVESTIGATION, STAGE B, OUs 1/2, TECHNICAL MEMORANDUM 12; AND THE DRAFT GROUNDWATER SAMPLING	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
COMMENTS RESPONSE	7/7/94	5.3 - 0024	PROJECT NOTE 7 - RESPONSE TO AGENCY COMMENTS ON THE DRAFT GROUNDWATER SAMPLING RESULTS FOR OUs 1 & 2, TECHNICAL MEMORANDUM 24, DATED 04/93	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2
CORRESPONDENCE	8/1/94	5.2 - 0285	APPROVAL OF RIGHT-OF-WAY RESERVATION CACA 31081 (W/ATTACH)	US DEPARTMENT OF THE INTERIOR	SOUTHWEST DIVISION	1,2
MEETING NOTES	8/3/94	5.1 - 0132	PROJECT NOTE 47 - RPMs' MEETING NOTES HELD 8/3-4/94 RE: TM 23, VPB, GROUNDWATER SAMPLING & CLEAN-UP SCHEMATIC, INFRARED THERMAL ANOMALIES, DLM, BASEWIDE SURVEY, INITIAL ASSESSMENT	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6
CORRESPONDENCE	9/20/94	1.6 - 0029	REQUEST FOR EXTENSION ON SUBMITTAL OF OU2 DRAFT RI REPORT	SOUTHWEST DIVISION	FEDERAL FACILITIES SECTION	2
MEETING NOTES	11/1/94	5.1 - 0036	PROJECT NOTE 66 - REMEDIAL PROJECT MANAGERS' MEETING NOTES HELD ON 11/1-2/94, RE: CHEMICALS OF CONCERN, PILOT GROUNDWATER REMOVAL ACTION, EE/CAs, CAOC 10, FUNDING, OUs 5 &	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6
CORRESPONDENCE, MEMO	11/9/94	5.2 - 0263	DIFFERENCES BETWEEN EPA AND MCLB BARSTOW LISTS IDENTIFYING COMPOUNDS OF CONCERNS	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1,2,3,4,5,6,7
MEETING NOTES	11/21/94	5.1 - 0133	PROJECT NOTE 73 - REMEDIAL PROJECT MANAGERS' MEETING NOTES HELD ON 11/21-22/94, RE: CAOC 1 ANALYTICAL RESULTS, GEOPHYSICAL ANOMALIES, RECOMMENDED NFIs, DESERT MIX, CAOC 19 1ST	JACOBS ENGINEERING GROUP INC	NFEC & MCLB	1,2,3,4,5,6
CORRESPONDENCE	11/29/94	5.1 - 0237	AGENDA FOR TECHNICAL REVIEW COMMITTEE MEETING OF 15 DECEMBER 1994	MARINE CORPS LOGISTICS BASE BARSTOW	SOUTHWEST DIVISION	1,2,3,4

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CORRESPONDENCE	12/2/94	1.6 - 0030	REQUEST PERMISSION TO CONDUCT EXPLORATORY GROUNDWATER SAMPLING AND INSTALLING WELL ON PRIVATE PROPERTY; AMEND RIGHT-OF-WAY RESERVATION CACA 31081 TO INCLUDE ACCES TO	SOUTHWEST DIVISION	BUREAU OF LAND MANAGEMENT	1,2
CORRESPONDENCE	12/12/94	1.6 - 0027	APPROVAL OF AMENDMENT TO RIGHT-OF-WAY RESERVATION CACA 31081; APPROVES 3 ADDITIONAL GROUNDWATER MONITORING WELLS (Y15-1, Y16-1 AND Y17-1) AND ACCESS TO ADJACENT PUBLIC LANDS	US DEPT. OF INTERIOR	SOUTHWEST DIVISION	1,2
MEETING NOTES	12/14/94	5.1 - 0038	PROJECT NOTE 69 - REMEDIAL PROJECT MANAGERS' MEETING NOTES HELD ON 12/14-15/94, RE: OUs 1 & 2 GROUNDWATER MONITORING PROGRAM; OUs 1 & 5 EE/CA, OU 1 PILOT TEST RESULTS, OUs 3 & 4	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,7
PUBLIC COMMUNICATION, NEWSLETTER	1/1/95	9.5 - 0050	MCLB BARSTOW COMMUNITY UPDATE, ISSUE #2, FOR THE IRP ACTIVITIES & ANNOUNCING A PUBLIC MEETING/OPEN HOUSE SCHEDULED FOR 1/19/95	JACOBS ENGINEERING GROUP INC	PUBLIC RELEASE & IRP COMMUNITY RELATIONS MAILING LIST	1,2,3,4,5,6
EE/CA	1/17/95	2.3 - 0002	DRAFT ENGINEERING EVALUATION/COST ANALYSIS FOR OU 1, YERMO ANNEX (VOL 1 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
EE/CA	1/17/95	2.3 - 0003	DRAFT ENGINEERING EVALUATION/COST ANALYSIS FOR OU 1, YERMO ANNEX (VOL 2 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
MEETING NOTES	1/18/95	5.1 - 0136	PROJECT NOTE 74 - REMEDIAL PROJECT MANAGERS' MEETING NOTES HELD ON 01/18-20/95; RE: RECORDS SEARCH, ABBREVIATED FEASIBILITY STUDY, BUDGET, & EE/CA	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 3 4 5 6
COMMENTS, RWQCB	1/25/95	5.2 - 0091	REVIEW ON BACKGROUND SOILS INVESTIGATION, TECHNICAL MEMORANDUM 23, DATED 9/26/94; NO COMMENTS	REGIONAL WATER QUALITY CONTROL BOARD	DEPT OF TOXIC SUBSTANCES CONTROL	1,2,3,4,5,6,7
CORRESPONDENCE, REQUEST	1/31/95	6.2 - 0007	REQUESTS IDENTIFICAION OF POTENTIAL STATE CHEMICAL & LOCATION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR OUs 1 THROUGH 6	NAVAL FACILITIES ENGINEERING COMMAND	DEPT OF TOXIC SUBSTANCES CONTROL	1 2 3 4 5 6
CORRESPONDENCE	2/15/95	5.2 - 0262	REQUEST FOR 30-DAY EXTENSION FOR SUBMITTING REVIEW COMMENTS ON MCLB DOCUMENTS	DEPARTMENT OF TOXIC SUBSTANCES CONTROL	SOUTHWEST DIVISION	1,3,4,5,6

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CORRESPONDENCE	2/22/95	1.6 - 0026	COMPLETION OF TASK B1 (GEOLOGIC MAP OF YERMO ANNEX AND VICINITY), B2 (FAULT TRENCHING), AND A (DIRECT CURRENT RESISITIVITY STUDY)	US DEPT. OF INTERIOR	SOUTHWEST DIVISION	1,2
COMMENTS, EPA	3/15/95	5.2 - 0111	REVIEW ON THE DRAFT ENGINEERING EVALUATION/COST ANALYSIS FOR OU 1, YERMO ANNEX (2 VOLS); FINDS THE DOCUMENT GENERALLY ACCEPTABLE; HOWEVER, THERE ARE SOME INCONSISTENCIES IN THE	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1
MEETING NOTES	3/16/95	5.1 - 0134	PROJECT NOTE 86 - REMEDIAL PROJECT MANAGERS MEETING NOTES HELD ON 03/16-17/95; RE: CAOC 23, CHEMICALS OF POTENTIAL CONCERN (TM-27), FY 96 BUDGET, OUs 1 & 2 STATISTICAL	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,3,4,5,6,
REPORT, WATER QUALITY	4/4/95	6.4 - 0059	PROJECT NOTE 31 - BACKGROUND WATER QUALITY DETERMINATION AND ITS IMPACT ON CONCEPTUAL REMEDIAL DESIGN AT OU 1	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1
COMMENTS, DTSC	4/10/95	5.2 - 0183	INTERNAL REVIEW OF THE DRAFT ENGINEERING EVALUATION/COST ANALYSIS FOR OU 1 REMOVAL ACTION; PRIMARY REVIEW OF GEOLOGICAL PORTION; ATTACHMENT TO DTSC'S LETTER DATED 4/25/95	DEPT OF TOXIC SUBSTANCES CONTROL	DEPT OF TOXIC SUBSTANCES CONTROL	1
CORRESPONDENCE, GROUNDWATER	4/12/95	1.6 - 0035	REQUEST PERMISSION TO CONDUCT EXPLORATORY GROUNDWATER SAMPLING AND INSTALLING WELL ON PRIVATE PROPERTY	SOUTHWEST DIVISION	H. WINKERLING	1,2
CORRESPONDENCE	4/13/95	13.5 - 0004	REQUEST FOR RE-EVALUATION OF FUNDING PLANS AND JUSTIFICATION FOR NOT PROVIDING FUNDING IN FY 95 FOR OU1 CLEANUP	REGIONAL WATER QUALITY CONTROL BOARD	SOUTHWEST DIVISION	1
CORRESPONDENCE	4/13/95	8.1 - 0025	PROPOSED REMOVAL ACTION FOR OU 1; CONCERNS WITH SIGNIFICANT DELAYS IN THE REMOVAL ACTION FOR OU 1 MAY RESULT IN ADVERSE IMPACTS TO DOWNGRADIENT RECEPTORS (WATER SUPPLY WELLS)	REGIONAL WATER QUALITY CONTROL BOARD	NAVAL FACILITIES ENGINEERING COMMAND	1
COMMENTS, RWQCB	4/13/95	5.2 - 0112	REVIEW ON THE DRAFT EE/CA FOR OU 1, DATED 01/17/95 & THE PRELIMINARY DRAFT CONCEPTUAL DESIGNS DATED 02/14/95; FINDS IT MAY NOT BE SUITABLE AS THE FINAL REMEDIAL SOLUTION, EE/CA	REGIONAL WATER QUALITY CONTROL BOARD	DEPT OF TOXIC SUBSTANCES CONTROL	1
CORRESPONDENCE	4/21/95	13.4 - 0006	DTSC REQUEST FOR ADDITIONAL INFORMATION RE: ARARS ADDECTING THE PROPOSED UPCOMING CERCLA ACTIONS	DEPT. OF TOXIC SUBSTANCE CONTROL	MCLB OU1-6 MAILING LIST	1,2,3,4,5,6

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CORRESPONDENCE, GROUNDWATER	4/25/95	1.6 - 0034	REQUEST PERMISSION TO CONDUCT EXPLORATORY GROUNDWATER SAMPLING AND INSTALLING WELL ON PRIVATE PROPERTY	SOUTHWEST DIVISION	MR. AND MRS. SILER	1,2
COMMENTS, DTSC	4/25/95	5.2 - 0113	REVIEW ON THE DRAFT EE/CA FOR OU 1, DATED 01/17/95; RECOMMEND THE DRAFT BE APPROVED WITH MINOR CHANGES	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1
CORRESPONDENCE, PERMIT	4/27/95	5.4 - 0010	RE APPROVAL FOR THREE NEW MONITORING WELLS AND ACCESS ROADS ON BLM PROPERTY (REF. LETTER DATED APRIL 11, 1995 TO BLM)	DEPT - COUNTY SURVEYOR, SAN BERNARDINO	SOUTHWEST DIVISION	1,2
CORRESPONDENCE	5/5/95	13.5 - 0002	GROUNDWATER SAMPLING RESULTS: OU1 THROUGH 6, RI REPORTS - SAMPLE TABLE FORMATS ATTACHED	REGIONAL WATER QUALITY CONTROL BOARD	DEPT. OF TOXIC SUBSTANCES CONTROL	1,2,3,4,5,6
COMMENTS, RWQCB	5/5/95	5.2 - 0149	INTERNAL MEMORANUM RE: THE NEED TO INCLUDE GROUNDWATER SAMPLING RESULT TABLES IN REMEDIAL INVESTIGATION REPORTS FOR OUs 1 THROUGH 6	REGIONAL WATER QUALITY CONTROL BOARD	DEPT OF TOXIC SUBSTANCES CONTROL	1 2 3 4 5 6
CORRESPONDENCE	5/15/95	1.6 - 0025	CONCERN ABOUT IMPACT OF REUCTIONS IN DoD CLEANUP PROGRAM FOR FY-95 AND FUTURE	DEPT. OF TOXIC SUBSTANCE CONTROL	OFFICE OF UNDERSECRETARY OF DEFENSE	1,2
CORRESPONDENCE, GROUNDWATER	5/17/95	1.6 - 0033	REQUEST PERMISSION TO CONDUCT EXPLORATORY GROUNDWATER SAMPLING ON BUREAU OF LAND MGMT PROPERTY	SOUTHWEST DIVISION	COUNTY OF SAN BERNARDINO	1,2
CORRESPONDENCE, RESPONSE	5/30/95	8.1 - 0029	RESPONSE TO LETTER DATED 04/13/95 EXPRESSING CONCERN OVER THE DELAYS IN STARTING REMOVAL ACTION	NAVAL FACILITIES ENGINEERING COMMAND	REGIONAL WATER QUALITY CONTROL BOARD	1
PLAN, FIELD SAMPLING	5/30/95	4.2 - 0030	PROJECT NOTE 39 - DESCRIPTION & RATIONALE FOR ADDITIONAL FIELD WORK ON OUs 1 & 2	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1 2
CORRESPONDENCE	5/30/95	8.1 - 0046	AGREES WITH RWQCB'S SUGGESTION TO RESAMPLE THE TWO DOWNGRADIENT WELLS AT OU 1 REMOVAL ACTION	NAVAL FACILITIES ENGINEERING COMMAND	REGIONAL WATER QUALITY CONTROL BOARD	1

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COMMENTS, EPA	5/31/95	5.2 - 0155	REVIEW OF PROJECT NOTE 31, BACKGROUND WATER QUALITY DETERMINATION; US EPA DOES NOT CONCUR WITH CONCLUSIONS	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1
CORRESPONDENCE, COMMENT!	6/2/95	5.1 - 0233	TRANSMITTAL OF REVISION 1 - MINUTES OF RPM MEETING HELD 17 AND 18 MAY 1995 IN MCLB BARSTOW	SOUTHWEST DIVISION	DTSC, US EPA, RWQCB, MCLB	1,2,3,4
COMMENTS RESPONSE	6/8/95	5.3 - 0030	PROJECT NOTE 32 - RESPONSE TO RWQCB'S COMMENTS ON EFFECTS OF GROUNDWATER CONTAMINATION AT CAOC 26, OU 1 DRAFT ENGINEERING EVALUATION/COST ANALYSIS	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1 5
REMOVAL RESPONSE, CONCEPTUAL DESIGN	6/9/95	2.4 - 0002	FINAL CONCEPTUAL DESIGN & COST ESTIMATE FOR OU 1, YERMO ANNEX, REMEDIATION SYSTEMS, REVISION 1	JACOBS ENGINEERING GROUP INC	NAVAL FACILITIES ENGINEERING COMMAND	1
PLAN, FIELD SAMPLING	6/12/95	4.2 - 0034	PROJECT NOTE 43 - REVISION #1 TO PROJECT NOTE 39 DATED 5/30/95; DESCRIPTION & RATIONALE FOR ADDITIONAL FIELD WORK FOR OUs 1 & 2	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
COMMENTS, RWQCB	6/12/95	5.2 - 0161	REVIEW OF PROJECT NOTE 31, BACKGROUND WATER QUALITY DETERMINATION AT OU 1; ATTACHMENT TO DTSC'S LETTER DATED 6/14/95	REGIONAL WATER QUALITY CONTROL BOARD	DEPT OF TOXIC SUBSTANCES CONTROL	1
COMMENTS, DTSC	6/13/95	5.2 - 0163	INTERNAL REVIEW OF PROJECT NOTE 31, DATED 4/4/95	DEPT OF TOXIC SUBSTANCES CONTROL	DEPT OF TOXIC SUBSTANCES CONTROL	1
CORRESPONDENCE	6/14/95	13.1 - 0002	FINAL CONCEPTUAL DESIGN AND COST ESTIMATE FOR YERMO ANNEX OU 1 REMEDIATION SYSTEMS	MARINE CORPS LOGISTICS BASE	DEPT. OF TOXIC SUBSTANCES CONTROL	1
COMMENTS, DTSC	6/14/95	5.2 - 0156	REVIEW OF PROJECT NOTE 31, BACKGROUND WATER QUALITY DETERMINATION AT OU 1	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1
COMMENTS, DTSC	6/14/95	5.2 - 0162	INTERNAL REVIEW OF PROJECT NOTE 31, BACKGROUND WATER QUALITY DETERMINATION AT OU 1, DATED 4/5/95	DEPT OF TOXIC SUBSTANCES CONTROL	DEPT OF TOXIC SUBSTANCES CONTROL	1

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REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0066	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2 (VOL 1 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0067	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDIX A (VOL 2 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0068	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDIX B (VOL 3 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0069	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDICES C & D (VOL 4 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0070	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDIX E, PART 1 (VOL 5 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0071	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDIX E, PART 2 (VOL 6 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0072	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDIX E, PART 3 (VOL 7 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0073	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDIX E, PART 4 (VOL 8 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0074	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDIX E, PART 5 (VOL 9 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	6/15/95	6.4 - 0075	DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, APPENDICES F, G H, & I (VOL 10 OF 10)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2

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ARARS	6/19/95	6.2 - 0012	RESPONSE TO REQUEST FOR APPLICABLE OR RELEVANT & APPROPRIATE REQUIREMENTS FOR MCLB	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1 2 3 4 5 6
CORRESPONDENCE, GROUNDWATER	7/12/95	1.6 - 0031	CONDUCT OF GROUNDWATER SAMPLING TO EVALUATE QUALITY OF GROUNDWATER IN OFF-BASE WELLS NEAR MCLB FROM AUGUST 15 THRU SEPTEMBER 30, 1995	SOUTHWEST DIVISION	SID HODGES	1,2
CORRESPONDENCE, GROUNDWATER	7/12/95	1.6 - 0032	CONDUCT OF GROUNDWATER SAMPLING TO EVALUATE QUALITY OF GROUNDWATER IN OFF-BASE WELLS NEAR MCLB FROM AUGUST 15 THRU SEPTEMBER 30, 1995	SOUTHWEST DIVISION	K. YOUNT	1,2
COMMENTS, DTSC	7/14/95	5.2 - 0140	REVIEW OF THE OU 1 PRELIMINARY DRAFT FINAL ENGINEERING EVALUATION/COST ANALYSIS, DATED 6/9/95	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1
CORRESPONDENCE	7/21/95	8.1 - 0045	NOTIFICATION OF THE DISCOVERY OF CONTAMINANTS IN AN OFF-BASE MONITORING WELL (Y15-1) EAST OF YERMO ANNEX; CONTAINS MAP	MARINE CORPS LOGISTICS BASE	US EPA, DTSC, RWQCB, COUNTY OF SAN BERNARDINO	1
MEETING NOTES	7/26/95	5.1 - 0142	PROJECT NOTE 53 - REMEDIAL PROJECT MANAGERS' MEETING NOTES CONDUCTED ON 07/26-27/95; RE: REMOVAL ACTIONS, BACKGROUND METALS, EE/CA, RAC DESIGN, ARARs, & SCHEDULE	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 3 4 5 6 7
PUBLIC COMMUNICATION, NEWS ARTICLE	7/27/95	9.5 - 0059	"OFF-BASE GROUNDWATER MONITORING WELL NEAR YERMO ANNEX REVEALS CONTAMINATION" FOR OU 1	MCLB BARSTOW TODAY	PUBLIC RELEASE	1
PUBLIC COMMUNICATION, NEWS ARTICLE	7/31/95	9.5 - 0058	"MORE WATER POLLUTION FOUND NEAR YERMO" OU 1	BARSTOW DESERT DISPATCH	PUBLIC RELEASE	1
EE/CA	8/1/95	2.3 - 0004	DRAFT FINAL ENGINEERING EVALUTATION/COST ANALYSIS FOR OU 1, YERMO ANNEX	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
REPORT, ANALYTICAL DATA	8/2/95	6.4 - 0086	RESULTS OF WATER SAMPLES SHOW THAT VOLATILE ORGANIC COMPOUNDS FOUND IN THE WATER ARE SLIGHTLY BELOW, OR AT THE MCLs FOR DRINKING WATER; WILL CONTINUE TO MONITOR THE WELL	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT #4	1

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REMOVAL ACTION	8/3/95	2.1 - 0028	DRAFT OU 1 ACTION MEMORANDUM REMOVAL ACTION; NON-TIME CRITICAL	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
PUBLIC COMMUNICATION, NEWS ARTICLE	8/3/95	9.5 - 0061	"CONTAMINANTS FOUND IN YERMO WELL" OU 1	VICTORVILLE DAILY PRESS	PUBLIC RELEASE	1
PUBLIC COMMUNICATION, PRES RELEASE	8/3/95	9.5 - 0062	"TWO YERMO RESIDENTIAL WELLS INVESTIGATED FOR CONTAMINATION WERE DISCOVERED TO CONTAIN TRACES OF CLEANING SOLVENTS"	MARINE CORPS LOGISTICS BASE	PUBLIC RELEASE	1
COMMENTS, RWQCB	8/14/95	5.2 - 0136	INTERNAL REVIEW OF DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2	REGIONAL WATER QUALITY CONTROL BOARD	DEPT OF TOXIC SUBSTANCES CONTROL	1 2
REPORT, REMEDIAL INVESTIGATION	8/15/95	6.4 - 0076	DRAFT FEASIBILITY STUDY REPORT FOR OUs 1 & 2 (VOL 1 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
REPORT, REMEDIAL INVESTIGATION	8/15/95	6.4 - 0077	DRAFT FEASIBILITY STUDY REPORT FOR OUs 1 & 2 (VOL 2 OF 2)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
COMMENTS, EPA	8/15/95	5.2 - 0141	REVIEW OF THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2, DATED 06/15/95	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1 2
CORRESPONDENCE	8/18/95	5.4 - 0009	MONITORING WELL INSTALLATION WILL BEGIN AUGUST 28, 1995 BASED ON PREVIOUS APPROVAL (PREVIOUSLY SIGNED ENTRY PERMIT ENCLOSED) (W/O ENCL)	MARINE CORPS LOGISTICS BASE	M/M DE WERFF	1,2
COMMENTS, DTSC	8/18/95	5.2 - 0133	INTERNAL REVIEW OF MCLB DRAFT PROJECT NOTE ON STATISTICAL ANALYSES; ATTACHMENT TO DTSC'S LETTER DATED 8/28/95	DEPT OF TOXIC SUBSTANCES CONTROL	DEPT OF TOXIC SUBSTANCES CONTROL	1
COMMENTS, DTSC	8/24/95	5.2 - 0135	INTERNAL REVIEW OF THE GEOPHYSICAL ASPECTS OF MCLB OUs 1 & 2 REMEDIAL INVESTIGATION REPORT, DATED 06/15/95	DEPT OF TOXIC SUBSTANCES CONTROL	DEPT OF TOXIC SUBSTANCES CONTROL	1 2

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COMMENTS, DTSC	8/28/95	5.2 - 0132	REVIEW OF THE DRAFT PROJECT NOTE FOR MCLB STATISTICAL ANALYSIS ON GROUNDWATER METALS	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1 2
COMMENTS, DTSC	8/28/95	5.2 - 0134	REVIEW OF OUs 1 & 2 DRAFT REMEDIAL INVESTIGATION REPORT, DATED 06/15/95	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1 2
REMOVAL ACTION	9/11/95	2.1 - 0031	PROJECT NOTE 58 - EFFLUENT DISCHARGE MONITORING PROCEDURES FOR THE OU 1 YERMO GROUNDWATER REMOVAL ACTION; REFER TO CAT-DOC # 5.1-0144 FOR THE DOCUMENT (ATTACHMENT M)	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
MEETING NOTES	9/12/95	5.1 - 0144	PROJECT NOTE 100 - RPMs' MEETING NOTES HELD ON 09/12-13/95; RE: BACKGROUND METALS; HUMAN HEALTH RISK ASSESSMENT; RCRA FACILITIES ASSESSMENT; SCHEDULE; PROPOSED PLAN, OUs 3 & 4	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 3 4 5 6 7
MEETING NOTES	9/12/95	5.1 - 0145	PROJECT NOTE 101 - REMEDIAL PROJECT MANAGERS' MEETING NOTES HELD ON 09/12-13/95; RE: OVERALL GOALS & OBJECTIVES OF THE HUMAN HEALTH BASEWIDE BASELINE RISK ASSESSMENT	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 3 4 5 6
CORRESPONDENCE, COMMENTS	9/15/95	5.1 - 0242	TECHNICAL ISSUES RAISED BY EPA COMMENTS ON OU1 AND OU2 RI REPORT	JACOBS ENGINEERING GROUP INC	VARIOUS AGENCIES	1,2
COMMENTS	9/16/95	5.3 - 0050	COMMENTS ON USEPA REVIEW OF MCLB BARSTOW EE/CA OU 1 DRAFT FINAL REPORT DATED AUGUST 14, 1995	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1
COMMENTS, EPA	9/16/95	5.2 - 0124	REVIEW OF THE ENGINEERING EVALUATION/COST ANALYSIS FOR OU 1, YERMO, DRAFT FINAL REPORT, DATED 08/14/95	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1
MEMO. COMMENTS. REMOVAL	9/18/95	5.2 - 0282	COMMENTS ON DRAFT REMOVAL ACTION MEMO FOR MCLB OU1, DATED SEPTEMBER 7, 1995	DEPT. OF TOXIC SUBSTANCES CONTROL	JACOBS ENGINEERING GROUP	1
REMOVAL ACTION, MONITORING PROCEDURES	9/19/95	2.2 - 0013	PROJECT NOTE 58 - EFFLUENT DISCHARGE MONITORING PROCEDURES FOR THE OU 1 YERMO GROUNDWATER REMOVAL ACTION	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1

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REPORT, FEASIBILITY STUDY	9/19/95	6.4 - 0064	PROJECT NOTE 48 - PROPOSED CLEANUP LEVELS FOR REMEDIATION OF GROUNDWATER CONTAMINATION, OUs 1 & 2 DRAFT FEASIBILITY STUDY TABLE OF CONTENTS	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
CORRESPONDENCE	9/21/95	13.4 - 0003	ON-SCENE COORDINATOR'S REPORT FOR REMOVAL ACTION AT MCLB BARSTOW OU 3 CAOC 34	DEPT. OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1, 3
REPORT, ANALYTICAL DATA	9/22/95	6.4 - 0084	TEST RESULTS FROM WATER SAMPLES; TRACE AMOUNTS FOUND BUT ARE NOT CONSIDERED HAZARDOUS TO HUMAN HEALTH	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT #1	1
REPORT, ANALYTICAL DATA	9/22/95	6.4 - 0085	TEST RESULTS FROM WATER SAMPLES; TRACE AMOUNTS FOUND BUT ARE NOT CONSIDERED HAZARDOUS TO HUMAN HEALTH	MARINE CORPS LOGISTICS BASE	OFF-BASE RESIDENT #2	1
MEETING NOTES	9/25/95	5.1 - 0143	PROJECT NOTE 99 - ACTION ITEMS FROM THE REMEDIAL PROJECT MANAGERS' MEETING HELD ON 9/12-13/95	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 3 4
CORRESPONDENCE	10/16/95	13.3 - 0006	USEPA REQUEST FOR A 5 WORKING DAY EXTENSION TO THE COMMENT PERIOD FOR MCLB REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT FEASIBILITY STUDY REPORT OUs 1 AND 2: CROSS REFER# 5.3	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1, 2
REMOVAL ACTION	10/16/95	2.1 - 0027	DRAFT FINAL ACTION MEMORANDUM FOR GROUNDWATER REMOVAL ACTION FOR OU 1 AT THE YERMO ANNEX; NON-TIME CRITICAL	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
CORRESPONDENCE, REQUEST	10/16/95	8.1 - 0031	REQUESTS A 5-DAY EXTENSION TO COMMENT PERIOD ON REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT REPORT FOR OUs 1 & 2	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1 2
COMMENTS, EPA	10/23/95	5.2 - 0179	REVIEW OF THE DRAFT RI/FS REPORT FOR OU 1 & 2 DATED 8/15/95	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1 2
COMMENTS RESPONSE	10/24/95	5.3 - 0035	PROJECT NOTE 40 - RESPONSE TO EPA'S COMMENTS ON THE DRAFT FINAL OU 1 ENGINEERING EVALUATION/COST ANALYSIS DATED 09/15/95	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1

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COMMENTS RESPONSE	10/30/95	5.3 - 0032	PROJECT NOTE 56 - RESPONSE EPA'S COMMENTS DATED 08/15/95, RWQCB'S COMMENTS DATED 08/14/95, & DTSC'S COMMENTS DATED 06/15/96 & 08/24/95, ON THE REMEDIAL INVESTIGATION REPORT FOR	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 7 3 4
REMOVAL ACTION	10/31/95	2.1 - 0026	FINAL ACTION MEMORANDUM FOR REMOVAL ACTION AT PRIVATE RESIDENCES DOMESTIC WATER SUPPLY WELLS LOCATED EAST OF THE YERMO ANNEX; TIME CRITICAL	MARINE CORPS LOGISTICS BASE	PUBLIC RELEASE	1
REPORT, RI/FS	10/31/95	6.4 - 0111	DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY RI REPORT OPERABLE UNITS 1 AND 2 REVISION O; (VOL. I,II & 10 REVISED FROM B7-0004 DTD 6/15/95 DRFT VOL. 1-10) AND VOL. 11 & 12 ADDED TO VOLS.	JACOBS ENGINEERING GROUP INC	MARINE CORPS LOGISTICS BASE	1, 2
REPORT, RI/FS	10/31/95	6.4 - 0112	DRAFT FINAL REMEDIAL INVESTIGATION/FEASIBILITY STUDY RI REPORT OPERABLE UNITS 1 AND 2 VOLUME 12 OF 12 ADDENDUM APRIL 1995 GW SAMPLING EVENT	JACOBS ENGINEERING GROUP INC	MARINE CORPS LOGISTICS BASE	1, 2
COMMENTS, DTSC	11/1/95	5.2 - 0125	REVIEW OF DRAFT FEASIBILITY STUDY REPORT FOR OUs 1 & 2	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1 2
REPORT, TREATMENT SYSTEM	11/6/95	6.4 - 0065	PROJECT NOTE 63 - DISCUSSION OF THE EFFECTS OF METALS ON THE YERMO GROUNDWATER TREATMENT SYSTEM AT YERMO ANNEX	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
COMMENTS, DTSC	11/8/95	8.1 - 0033	DTSC REQUEST FOR DELAY ON CONCURRENCE OF DRAFT FINAL REMEDIAL INVESTIGATION FOR OUs 1 & 2, DATED 10/31/95	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1 2
AGREEMENT, FEDERAL FACILITI	11/15/95	8.1 - 0042	PROPOSES AN EXTENSION FOR ALL REMAINING FEDERAL FACILITIES AGREEMENT SUBMITTALS OF OUs 1 & 2	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1 2
AGREEMENT, FEDERAL FACILITI	11/15/95	8.1 - 0044	PROPOSES AN EXTENSION FOR ALL THE REMAINING FEDERAL FACILITY AGREEMENT SUBMITTAL FOR OUs 1 & 2	NAVAL FACILITIES ENGINEERING COMMAND	DEPT OF TOXIC SUBSTANCES CONTROL	1 2
CORRESPONDENCE	11/15/95	8.1 - 0047	COMMENDS THE EXCELLENT WORK PERFORMED BY NFEC IN THE RAPID EXECUTION OF A TIME-CRITICAL REMOVAL ACTION FOR OU 1	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1

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AGREEMENT, FEDERAL FACILITI	11/15/95	8.1 - 0048	PROPOSAL TO EXTEND ALL REMAINING DELIVERABLES IN THE FEDERAL FACILITIES AGREEMENT FOR OUs 1 & 2	NAVAL FACILITIES ENGINEERING COMMAND	US ENVIRONMENTAL PROTECTION AGENCY	1 2
MEETING NOTES	11/22/95	5.1 - 0147	PROJECT NOTE 80 - NEW TEXT RE: PROTECTIVENESS OF RESIDUAL RISKS; RESPONSE TO ACTION ITEM #11 FROM THE 12/5-6/95 REMEDIAL PROJECT MANAGERS' MEETING	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
AGREEMENT, FEDERAL FACILITI	11/27/95	8.1 - 0040	RESPONSE TO NFEC'S REQUEST TO EXTENDING ALL REMAINING FEDERAL FACILITIES AGREEMENT SUBMITTALS FOR OUs 1 & 2; WILL DETERMINE DATES PROPOSED AFTER THE RPM'S MEETING ON 12/5-6/95	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1 2
AGREEMENT, FEDERAL FACILITI	11/30/95	8.1 - 0038	RESPONSE TO NFEC'S REQUEST FOR AN EXTENSION OF THE FEDERAL FACILITIES AGREEMENT REMAINING SUBMITTALS OF OUs 1 & 2; EXTENSION IS GRANTED	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1 2
COMMENTS RESPONSE	11/30/95	5.3 - 0040	PRELIMINARY RESPONSES TO KEY ISSUES IN EPA & DTSC'S COMMENTS ON THE OUs 1 & 2 DRAFT FEASIBILITY STUDY FOR DISCUSSION AT THE 12/5-6/95 MEETING; REFER TO CAT-DOC # 5.1-0150 FOR THE DOCUMENT	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
COMMENTS, EPA	11/30/95	5.2 - 0174	SUBMITTAL OF ANY EPA COMMENTS ON THE REMEDIAL INVESTIGATION FOR OUs 1 & 2 WILL FOLLOW THE 12/5-6/95 RPM'S MEETING	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1 2
REMOVAL ACTION	12/1/95	2.1 - 0030	GROUNDWATER EXTRACTION & TREATMENT SYSTEM; REMOVAL ACTION PILOT STUDY FOR WAREHOUSE #2, NEBO MAIN BASE; REFER TO CAT-DOC #5.1-0150 FOR THE DOCUMENT (ATTACHMENT J)	OHM REMEDIATION SERVICES CORP	NFEC, MCLB, RWQCB, DTSC, & US EPA	2
REPORT	12/1/95	2.1 - 0034	DRAFT REMOVAL ACTION SITE CLOSEOUT REPORT, TIME-CRITICAL REMOVAL ACTION AT PRIVATE RESIDENCES DOMESTIC WATER SUPPLY WELLS LOCATED EAST OF THE YERMO ANNEX, MCLB BARSTOW DATED	OHM REMEDIATION SERVICES- IRVINE	SOUTHWEST DIVISION	1
MEETING NOTES	12/5/95	9.4 - 0006	PROJECT NOTE 104 - TECHNICAL REVIEW COMMITTEE MEETING NOTES CONDUCTED ON 12/5/95	JACOBS ENGINEERING GROUP INC	TECHNICAL REVIEW COMMITTEE MEMBERS	1 2 3 4 5 6 7
MEETING NOTES	12/5/95	5.1 - 0141	PROJECT NOTE 102 - ACTION ITEMS GENERATED FROM THE REMEDIAL PROJECT MANAGERS' MEETING CONDUCTED ON 12/5-6/95	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	5 1 2

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MEETING NOTES	12/5/95	5.1 - 0150	PROJECT NOTE 76 - RPMs' MEETING NOTES HELD ON 12/5/95; RE: RFA, CAOC 21 & 20, PROPOSED PLAN, 1,1-DCE; BACKGROUND METALS; REMOVAL ACTIONS; RISK MANAGEMENT; PLUME BOUNDARIES; VOCs;	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2 3 4
ENFORCEMENT, BOARD ORDER	12/13/95	1.6 - 0006	TENTATIVE AMENDMENT TO WASTE DISCHARGE REQUIREMENTS FOR YERMO ANNEX DOMESTIC WASTEWATER TREATMENT FACILTIY; BOARD ORDERS #6-94-24A1 & 6-94-29	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1, 2
COMMENTS, DTSC	12/19/95	5.2 - 0172	REVIEW OF THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2; GENERALLY ACCEPTS THE REPORT; DTSC WILL REQUIRE SAMPLING OF THE MONITORING WELLS AROUND THE CONTAMINATION	DEPT OF TOXIC SUBSTANCES CONTROL	NAVAL FACILITIES ENGINEERING COMMAND	1 2
COMMENTS, EPA	12/20/95	5.2 - 0170	REVIEW OF THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT FOR OUs 1 & 2; APPROVAL IS CONTINGENT ON MONITORING OF GROUNDWATER	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1 2
PLAN, CONSTRUCTION	1/1/96	4.9 - 0001	FINAL CONSTRUCTION PLAN FOR GROUNDWATER EXTRACTION & MONITORING WELLS; GROUNDWATER REMEDIATION & RECHARGE SYSTEM FOR OU 1	OHM REMEDIATION SERVICES CORP	NFEC & MCLB	1
PLAN, CONSTRUCTION	1/1/96	4.9 - 0002	FINAL CONSTRUCTION PLAN FOR OU 1, GROUNDWATER REMEDIATION SYSTEM	OHM REMEDIATION SERVICES CORP	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
PLAN, ENVIRONMENTAL PROTECTION	1/1/96	4.8 - 0004	FINAL ENVIRONMENTAL PROTECTION PLAN, GROUNDWATER REMEDIATION & RECHARGE SYSTEM FOR OU 1; NOTE: REFER TO CAT-DOC #4.9-0002 "FINAL CONSTRUCTION PLAN FOR GROUNDWATER	OHM REMEDIATION SERVICES CORP	NFEC & MCLB	1
PLAN, HEALTH & SAFETY	1/1/96	4.6 - 0007	FINAL SITE HEALTH & SAFETY PLAN, REV 1, GROUNDWATER REMEDIATION & RECHARGE SYSTEM FOR OU 1; NOTE: REFER TO CAT-DOC #4.9-0002 "FINAL CONSTRUCTION PLAN FOR GROUNDWATER	OHM REMEDIATION SERVICES CORP	NFEC & MCLB	1
PLAN, QUALITY CONTROL	1/1/96	4.3 - 0010	FINAL CONTRACTOR QUALITY CONTROL PLAN ADDENDUM, GROUNDWATER REMEDIATION & RECHARGE SYSTEM FOR OU 1; NOTE: REFER TO CAT-DOC #4.9-0002 "FINAL CONSTRUCTION PLAN FOR	OHM REMEDIATION SERVICES CORP	NFEC & MCLB	1
REPORT, DNAPL	1/26/96	6.4 - 0083	DENSE NON-AQUEOUS PHASE LIQUIDES (DNAPL) EVALUATION FOR CAOCs 6, 7, 23, 26, & 35	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1,2,5,6

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COMMENTS, EPA	1/26/96	5.2 - 0178	REVIEW OV THE 65% DESIGN CAOC 26 REMEDIATION SYSTEM FOR OU 1; MAJOR CONCERN IS THE FAILURE OF THE SYSTEM TO ACTIVELY REMEDIATE EXISTING PCE CONTAMINATION IN THE VADOSE ZONE	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1 5
CORRESPONDENCE	2/5/96	5.1 - 0232	TRANSMITTAL OF REVISED PROJECT SCHEDULE FOR FFA DOCUMENTS	MARINE CORPS LOGISTICS BASE BARSTOW	CRWQCB, US EPA, DTSC,	1,2,3,4
AGREEMENT, FEDERAL FACILITI	2/14/96	8.1 - 0050	FEDERAL FACILITIES AGREEMENT SCHEDULE UPDATE	MARINE CORPS LOGISTICS BASE	US EPA, DTSC, & RWQCB	1 2 3 4
REPORT, GROUNDWATER	2/16/96	6.4 - 0087	PROJECT NOTE 82 - SUMMARY OF GROUNDWATER CONTAMINANT FATE & TRANSPORT MODELING RESULTS FOR OUs 1 & 2	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1 2
COMMENTS	2/21/96	5.3 - 0046	COMMENTS ON OUs 1 AND 2 DRAFT FINAL REMEDIAL INVESTIGATION REPORT AND DRAFT FEASIBILITY STUDY MCLB BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1, 2
COMMENTS, RWQCB	2/21/96	5.2 - 0164	REVIEW OF THE DRAFT FINAL REMEDIAL INVESTIGATION REPORT & DRAFT FEASIBILITY STUDY; NEED MORE JUSTIFICATION TO SUPPORT ALTERNATIVES FOR OUs 1 & 2	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1 2
REPORT, COMMENTS	2/26/96	5.2 - 0281	RWQCB COMMENTS REVIEW MEETING ON OU1 AND 2 DRAFT FS	REGIONAL WATER QUALITY CONTROL BOARD		1,2
COMMENTS	2/28/96	5.3 - 0045	TRANSMISSION OF COMMENTS ON SAMPLE COLLECTION AND ANALYSIS PLAN OF THE SYSTEM START-UP AND TESTING PLAN, GW EXTRAC. ETC	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1,2,3,4
COMMENTS, EPA	2/28/96	5.2 - 0166	REVIEW OF THE SAMPLE COLLECTION & ANALYSIS PLAN OF THE SYSTEM START-UP & TESTING PLAN, GROUNDWATER EXTRACTION & TREATMENT REMOVAL ACTION PILOT STUDY, WAREHOUSE 2, NEBO	US ENVIRONMENTAL PROTECTION AGENCY	NAVAL FACILITIES ENGINEERING COMMAND	1
CORRESPONDENCE, GROUNDWATER	3/2/96	5.2 - 0280	COMMENTS TO NOVEMBER 1995 SYSTEM STARTUP AND TESTING PLAN FOR OU2	REGIONAL WATER QUALITY CONTROL BOARD	SOUTHWEST DIVISION	2

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CORRESPONDENCE, COMMENT!	3/22/96	5.2 - 0279	COMMENTS TO FUNDING AND TARGETED SCHEDULES FOR COMPLETING SOME PROJECTS AT MCLB AND MCMWTC	REGIONAL WATER QUALITY CONTROL BOARD	SOUTHWEST DIVISION	1,2
REPORT, DNAPL	3/27/96	6.4 - 0088	PROJECT NOTE 89 - EVALUATION OF DENSE NON-AQUEOUS PHASE LIQUIDS FOR CAOCs 6, 7, 23 26, & 35 PREPARED BY EPA DATED 1/26/96	JACOBS ENGINEERING GROUP INC	NFEC, MCLB, RWQCB, DTSC, & US EPA	1,2,5,6
CORRESPONDENCE	4/2/96	13.1 - 0007	REQUEST FOR AN EXTENSION OF ALL REMAINING FFA SUBMITTALS OF OUs 1,2,3, &4 AT MCLB	MARINE CORPS LOGISTICS BASE	SOUTHWEST DIVISION	1, 2, 3, 4
CORRESPONDENCE, FFA, SCHEDULE	4/2/96	5.1 - 0274	MCLB REQUEST EXTENSION FOR ALL FFA SUBMITTALS OF OUS 1, 2, 3, AND 4	MARINE CORPS LOGISTICS BASE	JACOBS ENGINEERING GROUP INC,	1,2,3,4
REPORT, TCRA	4/4/96	4.9 - 0002	FINAL ON-SITE COORDINATOR REPORT - TCRA AT PRIVATE RESIDENCES DOMESTIC WATER SUPPLY WELLS LOCATED EAST OF YERMO ANNEX	OHM REMEDIATION SERVICES- IRVINE	MARINE CORPS LOGISTICS BASE	1
REPORT	4/4/96	2.1 - 0033	FINAL ON-SITE COORDINATOR REPORT- TIME-CRITICAL REMOVAL ACTION AT PRIVATE RESIDENCES DOMESTIC WATER SUPPLY WELLS LOCATED EAST OF THE YERMO ANNEX, MCLB BARSTOW	OHM REMEDIATION SERVICES - IRVINE	SOUTHWEST DIVISION	1
COMMENTS	4/4/96	5.3 - 0042	COMMENTS ON OU 2 NORTH NEBO PLUME GROUND WATER EXTRACTION AND TREATMENT REMOVAL ACTION PILOT STUDY	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	2,
PLAN, CONSTRUCTION	4/8/96	4.9 - 0003	FINAL CONSTRUCTION PLAN, INSTALLATION OF A GROUNDWATER EXTRACTION, TREATMENT & RECHARGE SYSTEM	OHM REMEDIATION SERVICES CORP	NFEC, MCLB, RWQCB, DTSC, & US EPA	1
CORRESPONDENCE	4/11/96	13.3 - 0004	MCLB REQUEST FOR EXTENSION FOR EXISTING FEDERAL FACILITY AGREEMENT FOR OUs 1, 2, 3, & 4	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTIC BASE	1, 2, 3, 4
CORRESPONDENCE	4/16/96	13.4 - 0001	EXTENSION OF THE FFA SCHEDULE OF OUs 1,2,3, AND 4 AT MCLB BARSTOW	DEPT. OF TOXIC SUBSTANCE CONTROL	MARINE CORPS LOGISTIC BASE	1, 2, 3, 4

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RESPONSE TO REQUEST	4/16/96	5.2 - 0192	EXTENSION OF THE FFA SCHEDULE FOR OPERABLE UNITS 1,2,3 AND 4 AT MCLB BARSTOW	DEPARTMENT OF TOXICS SUBSTANCES CONTROL	MCLB BARSTOW	1, 2, 3, 4
MEETING NOTES	5/7/96	9.4 - 0007	MEETING NOTES, SPECIFICALLY REMEDIAL PROJECT MANAGER'S MEETING HELD ON MARCH 7, & 8, 1996 IN SAN FRANCISCO	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	5/22/96	13.5 - 0001	RWQCB APPROVAL OF EXTENSION FOR REMAINING FFA SUBMITTALS FOR OU1,2,3&4	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTIC BASE	1,2,3,4
CORRESPONDENCE	5/22/96	5.2 - 0235	FFA EXTENTION LETTER FROM CRWQCB ON OUs 1,2,3, & 4	REGIONAL WATER QUALITY CONTROL BOARD	MCLB BARSTOW	1,2,3,4,
MEETING NOTES	5/29/96	9.4 - 0010	MEETING NOTES: MAY 29-30, 1996 RPM MEETING IN BARSTOW	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2, 3, 4, 5, 6
RESPONSE TO COMMENTS	5/29/96	5.3 - 0057	RESPONSE TO AGENCIES COMMENTS ON THE OUs 1 AND 2 DRAFT FS AMD DRAFT FINAL RI REPORTS	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE, RESPONSE	5/29/96	5.3 - 0069	RESPONSE TO AGENCY COMMENTS ON OUS 1 AND 2 DRAFT FS AND DRAFT FINAL RI REPORTS	JACOBS ENGINEERING GROUP INC		1,2
CORRESPONDENCE	6/6/96	13.1 - 0008	REGARDING EXTENSION REQUEST: RPM's ARE PRESENTLY ROUTING FOR SIGNATURE AN ADDENDUM TO THE FFA FOR THE SCHEDULE EXTENSION	MARINE CORPS LOGISTICS BASE	REGIONAL WATER QUALITY CONTROL BOARD	1, 2, 3, 4
CORRESPONDENCE, FFA, SCHEDULE	6/6/96	5.1 - 0275	FFA DOCUMENT SCHEDULE EXTENSION CLARIFICATION	MARINE CORPS LOGISTICS BASE	VARIOUS AGENCIES	1,2,3,4
COMMENTS	6/14/96	5.2 - 0196	GROUNDWATER MONITORING PLAN AS PRESENTED AT THE REMEDIAL PROJECT MANAGERS MEETING OF MAY 29 AND 30, 1996 AT BARSTOW CALIFORNIA	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1, 2

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CORRESPONDENCE, COMMENTS	6/19/96	5.2 - 0322	CRWQCB COMMENTS TO OU 7 DRAFT RCRA FACILITIES ASSESSMENT REPORT	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	7,1,2
REPORT, RI/FS	6/20/96	6.4 - 0110	MCLB BARSTOW REMEDIAL INVESTIGATION/FEASIBILITY STUDY, FEASIBILITY STUDY REPORT OU 1 AND 2 DRAFT FINAL, REVISION O, DATED JUNE 21, 1996 (TRANSMITTAL ONLY)	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	7/10/96	13.3 - 0001	REQUEST FOR DELAY ON REVIEW OF DRAFT RCRA FACILITY ASSESSMENT FOR MCLB BARSTOW	MARINE CORPS LOGISTICS BASE	SOUTHWEST DIVISION	1, 2, 4, 5, 6
CORRESPONDENCE, PROJECT NOTE	7/12/96	5.1 - 0256	PROJECT NOTE 103 - PILOT STUDY MONITORING PLAN DNA SCHEDULE, GROUNDWATER EXTRACTION SYSTEM, OU 2, NEBO NORTHERN PLUME (NRF-1)	JACOBS ENGINEERING GROUP, INC.	SOUTHWEST DIVISION	2
COMMENTS	7/25/96	5.2 - 0202	COMMENTS ON MCLB BARSTOW REMEDIAL INVESTIGATION/FEASIBILITY STUDY DRAFT FINAL FEASIBILITY STUDY REPORT OU 1 & 2	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1, 2
PROJECT NOTE NO. 102/CTO 2	7/26/96	5.1 - 0152	PROJECT NOTE NO.102/CTO 298 REGARDING MCLB BARSTOW OPERABLE UNITS 1 AND 2 TECHNICAL AND ECONOMICAL FEASIBILITY (TEF) OF GROUNDWATER CLEANUP	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
COMMENTS	7/31/96	5.2 - 0203	COMMENTS ON DRAFT FINAL FS REPORT OUS 1 AND 2; AND OUS 5 AND 6	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1, 2, 5, 6
CORRESPONDENCE, RESPONSE	8/7/96	5.3 - 0067	RESPONSE TO USEPA NATIONAL RISK MANAGEMENT RESEARCH LABORATORY COMMENTS ON NATURAL ATTENUATION FOR OUS 1 AND 2, DATED MAY 6, 1996	JACOBS ENGINEERING GROUP, INC.	SOUTHWEST DIVISION	1,2
PLAN	8/28/96	4.2 - 0039	FINAL CHEMICAL DATA ACQUISITION PLAN, GROUNDWATER REMEDIATION AND RECHARGE SYSTEM OU 1, YERMO ANNEX MCLB BARSTOW	OHM REMEDIATION SERVICES-SAN DIEGO	SOUTHWEST DIVISION	1
MEETING MINUTES	9/4/96	9.4 - 0008	MEETING NOTES, REMEDIAL PROJECT MANAGERS MEETING OF SEPTEMBER 4-5, 1996	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2, 5, 6

MARINE CORPS LOGISTICS BASE, BARSTOW
FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
CORRESPONDENCE	9/9/96	5.2 - 0205	USEPA REVIEW OF YERMO ANNEX OU 1 DRAFT GROUNDWATER MONITORING PLAN	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	9/9/96	5.2 - 0206	USEPA REVIEW OF MCLB CALIFORNIA DRAFT RCRA FACILITY ASSESSMENT REPORT	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	7, 1, 2
COMMENTS	9/9/96	5.2 - 0233	COMMENTS ON REVIEW OF YERMO ANNEX OU 1 DRAFT GROUNDWATER MONITORING PLAN	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1, 2
PROJECT NOTE NO. 105	9/18/96	5.1 - 0153	CTO 298 PROJJECT NOTE NO. 105 REGARDING NEP-4 DATA FOR OUS 1 AND 2	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
RESPONSE TO COMMENTS	9/26/96	5.3 - 0055	RESPONSE TO COMMENTS ON THE OUs 1 AND 2 PROPOSED PLAN	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
PROPOSED PLAN	10/1/96	9.5 - 0065	DRAFT-MCLB OUs 1 AND 2 PROPOSED PLAN	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	10/4/96	5.2 - 0211	COMMENTS ON DRAFT RCRA RACILITY ASSESSMENT	DEPARTMENT OF TOXICS SUBSTANCE CONTROL	DTSC LONG BEACH	1,2,3,4,5,6,7
CORRESPONDENCE, RESPONSE	10/18/96	5.3 - 0070	RESPONSE TO AGENCY COMMENTS ON OUS 1 AND 2 DRAFT FINAL FS REPORT, REVISION 0	JACOBS ENGINEERING GROUP INC		1,2
CORRESPONDENCE, RESPONSE	10/29/96	5.3 - 0066	RESPONSE TO AGENCY COMMENTS ON OUS 1 AND 2 PROPOSED PLAN, DATED OCTOBER 1996	JACOBS ENGINEERING GROUP, INC.	SOUTHWEST DIVISION	1,2
COMMENTS	10/29/96	5.2 - 0221	COMMENTS ON THE OUs 1 AND 2 PROPOSED PLAN	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1,2

MARINE CORPS LOGISTICS BASE, BARSTOW
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DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
COMMENTS	10/29/96	5.2 - 0227	COMMENTS ON MCLB BARSTOW INSTALLATION RESTORATION PROGRAM OUs 1 AND 2 PROPOSED PLAN DATED OCTOBER 1996	DEPARTMENT OF TOXIC SUBSTANCES CONTROL	SOUTHWEST DIVISION	1, 2
COMMENTS	10/29/96	5.2 - 0228	COMMENTS ON THE REVIEW OF MCLB OUs 1 AND 2 DRAFT PROPOSED PLAN	EPA REGION IX SAN FRANCISCO	SOUTHWEST DIVISION	1, 2
PROPOSED PLAN	11/1/96	9.5 - 0064	DRAFT FINAL OUs 1 AND 2 PROPOSED PLAN	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE, COMMENTS	11/5/96	5.2 - 0268	US EPA COMMENTS ON OPERATION & MAINTENANCE MONITORING DATA SUMMARY GROUNDWATER EXTRACTION & TREATMENT REMOVAL PILOT STUDY AT NEBO	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1,2,3,4
MEETING MINUTES	11/6/96	9.4 - 0009	MEETING AGENDA, REMEDIAL PROJECT MANAGERS MEETING OF NOVEMBER 7, 1996	MARINE CORPS LOGISTICS BASE	BARSTOW	1,2 , 3, 4, 5,6
MEETING MINUTES	11/6/96	9.4 - 0012	NOVEMBER 6, 1996, REMEDIAL PROJECT MANAGERS MEETING MINUTES	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1,2,3,4,5,6
CORRESPONDENCE	11/6/96	5.1 - 0156	FINAL SITE HEALTH AND SAFETY PLAN OF OPERABLE UNITS 1 AND 2 (CROSS REFER 13.4)	NAVAL FACILITIES ENGINEERING COMMAND	DTSC LONG BEACH	1,2
MEETING NOTES	11/6/96	5.1 - 0254	NOVEMBER 6-7, 1996 REMEDIAL PROJECT MANAGERS MEETING MINUTES	JACOBS ENGINEERING GROUP INC	MARINE CORPS LOGISTICS BASE	1,2,3,4,5,6
PROJECT NOTE NO. 109/CTO 29	11/21/96	5.1 - 0154	PROJECT NOTE 109/CTO 298 REGARDING EVALUATION OF PERFORMING VADOSE ZONE CLEANUP AT CAOC 15/17	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1,
CORRESPONDENCE	12/20/96	13.3 - 0020	RESPONSE TO LETTER OF OCTOBER 31, 1996 EXPRESSING CONCERNS OVER THE STATE OF CALIFORNIA'S COMPLIANCE WITH THE FFA FOR THE MARINE CORPS LOGISTICS BASE BARSTOW	DEPT. OF TOXIC SUBSTANCE CONTROL	MARINE CORPS LOGISTIC BASE	1, 2, 3, 4 5, 6

MARINE CORPS LOGISTICS BASE, BARSTOW
FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
COMMENTS, EPA	12/24/96	5.2 - 0244	COMMENTS ON DRAFT FINAL OUs 1 AND 2 PROPOSED PLAN MARINE CORPS LOGISTICS BASE BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1, 2
COMMENTS, EPA	12/24/96	5.2 - 0257	COMMENTS ON THE DRAFT FINAL OUs 1 AND 2 PROPOSED PLAN, MARINE CORPS LOGISTICS BASE BARSTOW	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	12/27/96	5.2 - 0223	REVIEW OF THE DRAFT FINAL PROPOSED PLAN FOR OPERABLE UNITS 1 AND 2	DEPARTMENT OF TOXICS SUBSTANCE CONTROL	SOUTHWEST DIVISION	1,2
COMMENTS, RWQCB	12/27/96	5.2 - 0245	COMMENTS ON OUs 1 AND 2; DRAFT FINAL PROPOSED PLAN MARINE CORPS LOGISTICS BASE BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	DEPT. OF TOXIC SUBSTANCES CONTROL	1, 2
COMMENTS, DTSC	12/27/96	5.2 - 0246	COMMENTS ON REVIEW OF THE DRAFT FINAL PROPOSED PLAN FOR OUs 1 AND 2 MARINE CORPS LOGISTICS BASE BARSTOW	DEPT. OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	1/22/97	5.1 - 0230	PROPOSED CONSIDERATION OF A RESOLUTION APPROVING THE UNITED STATES MARINE CORPS LOGISITICS BASE OUs 1 AND 2 PROPOSED PLAN, BARSTOW	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1, 2
COMMENTS, DEPT. OF INTERIOF	2/6/97	5.2 - 0259	COMMENTS ON THE DRAFT FINAL OUs 1 AND 2 PROPOSED PLAN FOR APPROVAL AT MCLB BARSTOW	DEPT. OF INTERIOR	REGIONAL WATER QUALITY CONTROL BOARD	1, 2
PROPOSED PLAN	2/14/97	6.5 - 0004	DRAFT FINAL PROPOSED PLAN MARINE CORPS LOGISTICS BASE BARSTOW OUs 1 AND 2	REGIONAL WATER QUALITY CONTROL BOARD	DEPT OF TOXIC SUBSTANCES CONTROL	1, 2
REPORT, FS	2/14/97	6.4 - 0108	DRAFT FINAL FEASIBILITY STUDY REPORT ON OUS 1 AND 2 REVISION 1	JACOBS ENGINEERING GROUP INC	VARIOUS AGENCIES	1,2
COMMENTS, REQUEST	2/14/97	5.2 - 0258	REQUEST FOR AN EXTENSION OF DUE DATE FEBRUARY 14, 1997 TO ALLOW INPUT BY THE RGIONAL BOARD AT THEIR APRIL 3, 1997 MEETING ON DRAFT FINAL PROPOSED PLAN OUs 1 AND 2 MCLB	REGIONAL WATER QUALITY CONTROL BOARD	DEPT. OF TOXICS SUBSTANCE CONTROL	1, 2

MARINE CORPS LOGISTICS BASE, BARSTOW
FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
REPORT, ROD	2/27/97	7.1 - 0005	DRAFT OUs 1 AND 2 RECORD OF DECISION (ROD). REVISION O DATED FEBRUARY 28, 1997	JACOBS ENGINEERING GROUP, INC.	SOUTHWEST DIVISION	1, 2
TECHNICAL MEMORANDUM	3/3/97	5.1 - 0231	PROJECT NOTE NO.116-ECONOMIC ANALYSIS OF VADOSE ZONE CLEANUP AT MCLB BARSTOW DATED 2/28/97	JACOBS ENGINEERING GROUP, INC	SOUTHWEST DIVISION	1, 2
COMMENTS, RESPONSE	3/7/97	5.2 - 0260	RESPONSE TO ADDITIONAL US/EPA COMMENTS ON THE DRAFT FINAL OU 1 AND 2 PROPOSED PLAN, COMMENTS DATED DECEMBER 24, 1996	JACOBS ENGINEERING GROUP, INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	3/13/97	4.1 - 0017	OPERABLE UNITS 1 AND 2 DRAFT FINAL FEASIBILITY STUDY AND DRAFT FINAL PROPOSED PLAN	DEPARTMENT OF TOXIC SUBSTANCES CONTROL	SOUTHWEST DIVISION	1,2
COMMENTS, DTSC	3/13/97	5.2 - 0270	COMMENTS ON THE OU's 1/2 DRAFT FINAL ADDENDUM AND DRAFT FINAL PROPOSED PLAN	DEPT OF TOXIC SUBSTANCES CONTROL	SOUTHWEST DIVISION	1,2
COMMENTS, DTSC, EPA,RWQCB	3/13/97	5.2 - 0271	COMMENTS FROM VARIOUS AGENCIES ON THE OU's 5 AND 6 DRAFT PROPOSED PLAN AND DRAFT FINAL FS	DEPT OF TOXIC SUBSTANCES CONTROL	SOUTHWEST DIVISION	5,6,7,1,2
CORRESPONDENCE, RESPONSE	3/18/97	5.2 - 0297	RESPONSE TO COMMENTS ON OU 1 AND 2 PROPOSED PLAN AND DRAFT RECORD OF DECISION	REGIONAL WATER QUALITY CONTROL BOARD	BUREAU OF LAND MANAGEMENT	1,2
CORRESPONDENCE	3/21/97	7.1 - 0012	PROPOSED CONSIDERATION OF A RESOLUTION APPROVING THE OPERABLE UNITS 1 AND 2 DRAFT RECORD OF DECISION	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	1,2
CORRESPONDENCE	3/24/97	1.7 - 0036	ADDITIONAL SOIL SAMPLING AT CAOC 15/17 AND SOIL VAPOR MONITORING AT CAOC 16	SOUTHWEST DIVISION	VARIOUS AGENCIES	1,2
CORRESPONDENCE, REQUEST	4/14/97	5.1 - 0246	REQUEST TO ATTEND THE MCLB AND SWD STRATEGY MEETING FOR THE RECORD OF DECISION (ROD) ON OU'S 1 & 2	SOUTHWEST DIVISION	US ENVIRONMENTAL PROTECTION AGENCY	1,2

MARINE CORPS LOGISTICS BASE, BARSTOW
FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
CORRESPONDENCE	4/15/97	7.1 - 0010	COLLABORATIVE POSITION FOR OPERATIVE UNITS 1 AND 2 RECORD OF DECISION (ROD)	SOUTHWEST DIVISION	US ENVIRONMENTAL PROTECTION AGENCY	1,2
CORRESPONDENCE, REQUEST	4/28/97	5.1 - 0273	EXTENSION REQUEST FOR AGENCY REVIEW OF MCLB BARSTOW DRAFT ROD FOR OU 1 AND 2	US ENVIRONMENTAL PROTECTION AGENCY	MARINE CORPS LOGISTICS BASE	1,2
COMMENTS	4/29/97	7.1 - 0007	REVIEW OF THE DRAFT RECORD OF DECISION (ROD) FOR OU 1/2	DEPT OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1,2
CORRESPONDENCE, COMMENTS ROD	5/1/97	5.2 - 0305	COMMENTS TO DRAFT RECORD OF DECISION FOR OUS 1 AND 2	CALIFORNIA STATE WATER RESOURCES CONTROL BOARD	REGIONAL WATER QUALITY CONTROL BOARD	1,2
MEETING NOTES	5/6/97	5.1 - 0262	FEBRUARY 10-11, 1997 REMEDIAL PROJECT MANAGERS MEETING NOTES	JACOBS ENGINEERING GROUP, INC.	SOUTHWEST DIVISION	1,2,3,4,5,6,7
MEETING NOTES, ROD	5/13/97	5.1 - 0261	APRIL 17, 1997 RPM MEETING NOTES RE OU 1/2 DRAFT RECORD OF DECISION	JACOBS ENGINEERING GROUP, INC.	SOUTHWEST DIVISION	1,2
CORRESPONDENCE, MEETING	5/19/97	5.1 - 0272	INVITATION TO ATTEND REMEDIAL PROJECTS MANAGERS MEETING ON 21-22 MAY 1997	SOUTHWEST DIVISION	VARIOUS AGENCIES	1,2,3,4,5,6
CORRESPONDENCE, COMMENTS	5/30/97	5.2 - 0302	FINAL COMMENTS FOR OU 1 AND 2 RECORD OF DECISION, DATED FEBRUARY 28 1997	REGIONAL WATER QUALITY CONTROL BOARD	MARINE CORPS LOGISTICS BASE	1,2
CORRESPONDENCE, COMMENTS	5/30/97	5.2 - 0309	REQUEST FOR EXTENSION OF COMMENT PERIOD ON DRAFT RECORD OF DECISION TO 5/30/97	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1,2
PROPOSED PLAN	8/1/97	6.5 - 0009	REVISED DRAFT FINAL COPY OF THE PROPOSED PLAN	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1,2

MARINE CORPS LOGISTICS BASE, BARSTOW
FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
CORRESPONDENCE, COMMENTS	8/6/97	5.2 - 0314	COMENTS TO REVISED DRAFT FINAL PROSED PLAN ON OUS 1 AND 2	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1,2
CORRESPONDENCE, COMMENTS	8/6/97	5.2 - 0315	COMMENTS TO REVISED DRAFT PROPOSED PLAN, DATED AUGUST 1997, GROUNDWATER AND DEEP SOILS	REGIONAL WATER QUALITY CONTROL BOARD	VARIOUS AGENCIES	1,2
CORRESPONDENCE	8/7/97	7.1 - 0016	REQUEST FOR SCHEDULE EXTENSION TO FFA DEADLINES FOR ROD AND PROPOSED PLAN	SOUTHWEST DIVISION	VARIOUS AGENCIES	1,2
CORRESPONDENCE, PERMIT	8/20/97	5.4 - 0008	REQUEST PERMISSION TO DRILL A TEST WELL ON PRIVATE PROPERTY (W/O ENCL, RIGHT OF ENTRY PERMIT)	SOUTHWEST DIVISION	K. AMOUR	1,2
CORRESPONDENCE	8/28/97	5.2 - 0327	COMMENTS ON SVE SYSTEM LETTER REPORT OF 7/28/97	DEPT. OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1,2
CORRESPONDENCE	8/29/97	5.1 - 0279	STAFF REPORT ON OU 1/2 OF 8/22/97	REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN	MCLB BARSTOW	1,2
PROPOSED PLAN, CLEANUP	9/1/97	4.9 - 0004	IRP OPERABLE UNITS 1 AND 2 PROPOSED PLAN FOR CLEANUP	MARINE CORPS LOGISTICS BASE	PUBLIC	1,2
RFA PLANNING DOCUMENT	9/1/97	4.7 - 0009	DRAFT STRATEGIC PLAN FOR RFA AND LUFT SITES	BECHTEL NATIONAL INC	VARIOUS AGENCIES	1,2,3,4,5,6
CORRESPONDENCE, COMMENTS	9/4/97	5.2 - 0316	COLLECTIVE COMMENTS TO DRAFT FINAL PROPOSED PLAN BY VARIOUS AGENCIES	JACOBS ENGINEERING GROUP INC		1,2,5,6
CORRESPONDENCE, COMMENTS	9/5/97	5.2 - 0317	COLLECTIVE COMMENTS TO DRAFT FINAL FEASIBILITY STUDY AND DRAFT FINAL PROPOSED PLAN BY VARIOUS AGENCIES	JACOBS ENGINEERING GROUP INC		1,2,3,4,5,6

MARINE CORPS LOGISTICS BASE, BARSTOW
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DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
CORRESPONDENCE	9/17/97	5.3 - 0072	REQUEST FOR CLARIFICATION OF SVE CLEANUP GOALS	SOUTHWEST DIVISION	U.S. ENVIRONMENTAL PROTECTION AGENCY	1,2
CORRESPONDENCE	9/22/97	5.2 - 0331	COMMENTS ON RI/FS AND ROD FOR OU 1/2; CONCURRENCE WITH RI/FS	DEPT. OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1,2
CORRESPONDENCE	9/26/97	5.2 - 0328	COMMENTS ON AIR SPARGE AND SVE PILOT STUDY DRAFT TECH MEMO OF 7/31/97	REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN	MCLB BARSTOW	1,2
CORRESPONDENCE	9/29/97	5.1 - 0278	COMMENTS ON CRWQCB'S STAFF REPORT OF 8/29/97	MCLB BARSTOW	CALIF. REGIONAL WATER QUALITY CONTROL BOARD	1.2
CORRESPONDENCE	10/2/97	5.2 - 0329	CONCURRENCE WITH DRAFT FINAL PROPOSED PLAN FOR OU 1/2	DEPT. OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1,2
CORRESPONDENCE	10/3/97	2.4 - 0003	SOLICITATION OF USEPA INTERPRETATION OF CLEANUP STANDARDS FOR SVE SHUT-OFF CRITERIA	SOUTHWEST DIVISION	U.S. ENVIRONMENTAL PROTECTION AGENCY	1,2
CORRESPONDENCE	10/10/97	5.2 - 0333	COMMENTS ON WORKING DRAFT ROD FOR OU 1/2	DEPT. OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1,2
COMMENTS, RESPONSE	10/14/97	5.3 - 0081	RESPONSES TO AGENCY COMMENTS ON OPERABLE UNITS (OUs) 1/2 WORKING DRAFT FINAL RECORD OF DECISION (ROD) REV. 1 DATED AUGUST 1997	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	10/14/97	5.2 - 0325	COMMENTS ON WORKING DRAFT ROD FOR OU1/2	REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN	MCLB BARSTOW	1,2
CORRESPONDENCE	10/14/97	5.2 - 0326	COMMENTS ON WORKING DRAFT ROD FOR OU1/2	U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 9	SOUTHWEST DIVISION	1,2

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OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
PROJECT NOTE	11/12/97	5.1 - 0281	PROJECT NOTE 123: MINUTES OF THE REMEDIAL PROJECT MANAGERS (RPM) MEETING HELD ON NOVEMBER 12, 1997	JACOBS ENGINEERING GROUP	SOUTHWEST DIVISION	1, 2, 3, 4, 5, 6
CORRESPONDENCE, REQUEST	12/2/97	7.1 - 0019	REQUEST FOR EXTENSION FOR SUBMITTAL OF OPERABLE UNITS 1 AND 2 DRAFT FINAL RECORD OF DECISION FOR MCLG	DEPARTMENT OF THE NAVY	DEPT OF TOXIC SUBSTANCES CONTROL	1, 2
CORRESPONDENCE, REQUEST	12/2/97	7.1 - 0020	REQUEST FOR EXTENSION FOR SUBMITTAL OF OPERABLE UNITS 1 AND 2 DRAFT FINAL RECORD OF DECISION FOR MCLB	DEPARTMENT OF THE NAVY	US ENVIRONMENTAL PROTECTION AGENCY	1, 2
CORRESPONDENCE, REQUEST	12/2/97	7.1 - 0021	REQUEST FOR EXTENSION FOR SUBMITTAL OF OPERABLE UNITS 1 AND 2 DRAFT FINAL RECORD OF DECISION FOR MCLB	DEPARTMENT OF THE NAVY	REGIONAL WATER QUALITY CONTROL BOARD	1, 2
RECORD OF DECISION	12/2/97	7.1 - 0024	REQUEST FOR EXTENSION FOR SUBMITTAL OF OPERABLE UNITS 1 AND 2 DRAFT FINAL RECORD OF DECISION FOR MCLB	SOUTHWEST DIVISION	REGIONAL WATER QUALITY CONTROL BOARD	1, 2
PLAN, PLANNING DOCUMENTS	12/24/97	4.7 - 0011	DRAFT FINAL STRATEGIC PLAN FOR RFA AND LUFT SITES	BECHTEL NATIONAL INC.	SOUTHWEST DIVISION	1,2,3,4,5,6
RECORD OF DECISION	1/14/98	7.1 - 0022	DRAFT FINAL COLLABORATIVE REVIEW LANGUAGE OUs 1/2 RECORD OF DECISION (ROD)	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
REPORT,PROJECT NOTE	1/14/98	7.1 - 0023	PROJECT NOTE#124: VADOSE ZONE MODELING FOR AS/SVE SHUT-OFF	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE, RESPONSE	1/16/98	5.3 - 0080	RESPONSE TO LETTERS OF 9/17/97 AND 10/3/97, REQUESTING EPA's POSITION ON SEVERAL ISSUES IMPACTING MCLB	US ENVIRONMENTAL PROTECTION AGENCY	SOUTHWEST DIVISION	1, 2
CORRESPONDENCE	1/16/98	5.1 - 0287	CONCURRENCE REVIEW OF THE DRAFT FINAL STRATEGIC PLAN FOR RFA/LUFT SITES ON MCLB BARSTOW	DEPT OF TOXIC SUBSTANCE CONTROL	SOUTHWEST DIVISION	1, 2

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FINAL ADMINISTRATIVE RECORD INDEX FOR
OPERABLE UNITS 1 AND 2 FINAL RECORD OF DECISION

DOCUMENT TYPE	DATE	CAT - DOC#	SUBJECT	AUTHOR	ADDRESSEE	OP. UNIT
CORRESPONDENCE	2/12/98	1.7 - 0038	LIMITED GROUNDWATER SAMPLING RESULTS AT NORTHERN NEBO PLUME	OHM REMEDIATION SERVICES - IRVINE	SOUTHWEST DIVISION	1, 2
REPORT, RECORD OF DECISION	2/15/98	7.1 - 0025	DRAFT FINAL RECORD OF DECISION REPORT ON OPERABLE UNITS 1 AND 2	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2
REPORT, SURVEYING	2/27/98	1.3 - 0010	LAND PARCEL SURVEYING AT MCLB BARSTOW, NEBO MAIN BASE AND YERMO ANNEX	OHM REMEDIATION	SOUTHWEST DIVISION	1, 2
PLAN, MEMO WORK PLAN	2/28/98	4.1 - 0023	MEMO WORK PLAN FOR OPTIMIZATION OF THE GROUNDWATER REMEDIATION AND RECHARGE SYSTEMS AT YERMO ANNEX, OU 1 DATED 2/27/98	OHM REMEDIATION	SOUTHWEST DIVISION	1
PLAN, MEMO WORK PLAN	3/6/98	4.1 - 0024	MEMO WORK PLAN FOR OPERATION OF THE GROUNDWATER TREATMENT SYSTEM AT NEBO NORTH, NEBO MAIN BASE, OU 2, DATED 3/6/98	OHM REMEDIATION	SOUTHWEST DIVISION	2
RESPONSE TO COMMENTS	4/3/98	5.3 - 0082	RESPONSE TO AGENCY COMMENTS ON DRAFT FINAL RECORD OF DECISION ON OPERABLE UNITS 1 AND 2	JACOBS ENGINEERING GROUP INC	SOUTHWEST DIVISION	1, 2

Appendix C
Transcript for Public Meeting

CERTIFIED COPY

MCLB Barstow
Installation Restoration Program
Marine Corps Logistics Base
Barstow, California

Public Hearing

Date: *Wednesday, November 12, 1997*

Location: *Holiday Inn*
1511 East Main Street
Barstow, California

Reported by: *Mary L. Anderson, CSR 10319*

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BARSTOW, CALIFORNIA

WEDNESDAY, NOVEMBER 12, 1997

7:38 P.M.

LT. KEVIN MORONEY: Good evening. I'm Major Kevin Morony. I'm the environmental officer at MCLB Barstow. On behalf of our commanding officer, Colonel McBride, I welcome you to this public meeting for the proposed plan for Operable Units 1 and 2. The purpose of this meeting is to provide you, the public, with the opportunity to ask questions and provide input to plans the Marine Corps plans on implementing in order to continue the cleanup of the base.

With that I'm going to turn the meeting over to Mr. Dave Dawson, who will be the facilitator for tonight's meeting.

MR. DAWSON: Sharp haircut this guy has. As Kevin mentioned, my name is Dave Dawson. I work with Southwest Division. I provide environmental support for the Marine Corps Logistic Base Barstow. I'm the facilitator for this evening's meeting.

As you may notice we have a court reporter who's here preparing a transcript of the

meeting. That transcript will be recorded and placed into the administrative record file, which you are more than welcome to look at. One's located at Warehouse 3 at the base. The other one's located at the Barstow Public Library.

I'd like to introduce some people here who play an instrumental role in the Installation Restoration Program. Mr. Mike Cox, he is the Base's IR Program Manager. On my left, Mr. Shawn Monahan, he's the IR Program Field Manager for the Base. We also have with us Ms. Anna-Marie Cook, she's the representative of the United States EPA. Mr. Steven Baxter, the representative of California Department of Toxic Substances Control. Curt Shifrer, he's part of the California Regional Water Quality Control Board.

What we would like to do tonight is overview the Marine Corps' Installation Restoration Program. I'll start off with a breif overview of CERCLA, then we'll discuss our proposed remedial actions for some of the emanating groundwater that you heard us discuss earlier in our technical review meeting.

I'll start off with the CERCLA overview, and then I'll turn it over to Mr. Michael

1 Cox to give the presentation on the Installation
2 Restoration Program as well as some proposed
3 alternatives for cleanup at the site. We ask at the
4 end of all this, Mike will take any questions you
5 ask. Please hold all questions until the end. Jot
6 it down, and we'll address it at the end of the
7 presentation. With that, I'll give a brief
8 background on CERCLA.
9 CERCLA the acronym stands for
10 Comprehensive Environmental Response, Compensation
11 and Liability Act. It is the broadest environmental
12 statute which regulates the cleanup of past
13 hazardous waste sites. Sometimes you hear it in the
14 papers referred to as Superfund.
15 CERCLA was enacted in 1980. As part
16 of that, Department of Defense and the Marine Corps
17 began Installation Restoration Program, which is
18 meant to go out and investigate potential sites and
19 cleanup those sites as required by CERCLA. The
20 CERCLA program starts off with a process that begins
21 what we call "Site Discovery." In our case tonight,
22 Operable Units 1 and 2 we are talking about
23 contaminated groundwater. Diverse discovery of the
24 contaminated groundwater at the Yermo Annex of the
25 base.

As a result of this, based on the samples taken of the groundwater, as well as the quality of the groundwater. The Federal EPA ranks the site on what we call a hazard ranking system for those sites that are worthy of being regulated by the EPA placed on what we call the National Priorities List, which is sometimes referred to as the NPL. Barstow was placed on the NPL in November of 1989.

Following the site discovery, proceed to the remedial investigation. The goal of the remedial investigation is commonly referred to as the RI. This is to evaluate the nature and extent of all this contamination. In our case it ended up being one plume in the Yermo Annex, two plumes at the Nebo Annex.

Following RI, we proceed on to an FS or Feasibility Study whose goal is to evaluate different alternatives to clean up waste found on the site. Finally, after evaluating several alternatives, we proceed with the proposed plan for the site, which is why we're meeting here tonight. This lists the recommended alternatives, gives a short background on those that were looked at in the Feasibility Study.

1 Once we've public-commented the
2 proposed plan, which as mentioned is part of
3 tonight's meeting, proceed with what we call "Record
4 of Decision" or ROD. This legally documents our
5 decision for the cleanup at the site. Following
6 signature of the ROD, we proceed with remedial
7 design and remedial action, which is the cleanup of
8 the site.
9 For those of you who aren't familiar,
10 Barstow is divided in three portions. Pictured here
11 we have the Yermo Annex. Yermo consists of mostly
12 industrial operations on the base. The heart of the
13 Yermo Annex, what we call Building 573, your
14 maintenance center Barstow, it's the one-stop shop
15 where vehicles and military equipment is repaired
16 rehabed and stored on the site. This is pretty much
17 the industrial annex of the base.
18 Second portion of the base is the
19 Nebo Annex. This portion consists mostly of the
20 administrative buildings on the Base, base housing,
21 some recreation and activities on the Base.
22 Finally, we have the rifle rage portion of the Base,
23 which will not be addressed in tonight's public
24 meeting.
25 What we do for each alternative, back

in the FS or the Feasibility Study I mentioned, we take each alternative and compare it against nine NCP criteria. The goal of this is to get a fair comparison of each of the cleanup alternatives that were evaluated.

Listed here on my overhead are the nine NCP criteria that it was compared against. We take each alternative and evaluate its overall protection of human health in the environment. Its compliance with ARARs. ARARs is just an acronym for local, state or federal regulation that we need to make sure we comply with as we conduct the cleanup.

We evaluate each alternative for short-term and long-term effectiveness at the site. We also evaluate to see if an alternative has a reduction in mobility, toxicity or volume of the site. This shows the EPA's preference for reducing the mobility, toxicity or volume of the contamination at the site. Finally, we look at implementability, whether or not a remedial action is able to actually be put in at a site.

We compare each alternative on the basis of cost. We look for state acceptance of the alternative, and finally, we look to the public, which our proposed plan is part of tonight, for the

1 public's acceptance of our recommended
2 alternatives.
3 With that, I'll turn it over to
4 Mike Cox who will give you an overview of the
5 Installation Restoration Program.
6 MR. COX: Good evening. The slide
7 you're currently reviewing is a description of the
8 Operable Units for the Marine Corps' Logistic Base,
9 and they're grouped together. You'll notice each
10 operable unit is broken out.
11 Yermo Annex groundwater is listed
12 OU 1. Nebo main base groundwater is listed as OU
13 2. OU 3 is the Yermo Annex with some
14 preinvestigative data that was done prior to the
15 investigation occurring. OU 4, Nebo main base, also
16 had some preinvestigative data. OU 5 and 6 are soil
17 sites also that had no investigative data, which
18 means there was no information. It was very limited
19 data at all. Mostly just information packets and
20 stuff with people telling you about the site or some
21 information, but nothing real hard evidence to tell
22 us what happened there. OU 7 is the Yermo, Nebo
23 sites that are remaining from the RCRA Facility
24 Assessment. These are sites that are going to be
25 grouped later on after the main one was done.

1 The types of chemical waste that were
2 found at Barstow during the investigation included
3 petroleum hydrocarbons, solvent materials which are
4 very prevalent in plumes. There were pesticides,
5 herbicides, plating wastes activity from industrial
6 activity, PCBs, metals, as low as solid waste from
7 industrial and domestic facilities.
8 At this time I'd like to provide you a
9 little overview of the major events that brought us
10 to this point today. June 1983 we had initial
11 assessment study done. This was basically a
12 prework-up that was done as part of a Navy process
13 to look at the sites and determine if there were
14 contaminants present. This process noted some
15 contaminant sites.
16 October 1980 groundwater contamination
17 was detected at the Marine base. And November of
18 '89 MCLB Barstow was placed on the National
19 Priorities List, often called NPL, and in October of
20 1990, a Federal Facility Agreement was signed
21 between the Marine Corps and federal and state
22 regulatory agencies.
23 Other major events include 1994 a
24 COAC 16 Air Sparge/Soil Vapor Extraction System
25 Pilot Study. This was done to determine the

1 effectiveness of the technology in remediating soils
2 and groundwater at the eastern Yermo Annex.
3 October 1995, remedial investigation
4 for groundwater was completed. 1995 and '96
5 separate pilot studies were conducted at the Nebo
6 main base to evaluate the effectiveness of cleanup
7 technologies. And the beginning of 1996 a
8 Non-Time-Critical Removal Action has been underway
9 at the Yermo Annex and begun to clean up
10 contaminated groundwater.
11 Most recent activities have included
12 the finalizing of the Feasibility Study in February
13 of 1997. The Feasibility Study evaluated various
14 alternatives for cleaning up the groundwater
15 operable units.
16 Last month, OU 1 and 2 Proposed Plan
17 was issued to the public and your being here tonight
18 is part of that process to solicit your input, and
19 in December 1997 we are scheduled to complete a ROD
20 or Record of Decision on these operable units.
21 For the next few minutes I'd like to
22 discuss the Proposed Plan and provide a brief
23 discussion on the alternatives evaluated to each of
24 the groundwater OUs. The Yermo groundwater, Yermo
25 Annex, is OU 1 and OU 2 is the Nebo groundwater

1 Plume, which includes the north and south Plume. If
2 you notice the maps on the other side very quickly,
3 you can notice that for Nebo and Yermo, the plumes
4 are delineated in the pink areas.
5 I would like to begin my discussion by
6 talking about the Yermo Annex Plume. This is the
7 largest of three groundwater contaminant plumes at
8 MCLB Barstow. The most prevalent contaminants are
9 chlorinated solvents. This is a cleaning solvent
10 typical with industrial-type activity. These
11 chemicals were used as a degreaser and cleaner in a
12 wide variety of applications in the auto repair
13 shops over at the maintenance center Barstow and
14 other locations aboard the Base.
15 These chemicals were used primarily
16 for cold cleaning, vapor degreasing, et cetera. The
17 plume originated from past disposal activities at
18 the following locations: CAOC 35, which is a
19 landfill, CAOC 15/17 which is an industrial waste
20 area, CAOC 23 which is a landfill and a french drain
21 location at CAOC 26. Also included are breakage and
22 leakage within the drainage system at Building 573,
23 which is all through portions of the maintenance
24 center Barstow. The plume itself spans 12,000 feet
25 in length and about 4,000 feet wide, traveling at an

1 estimated 60 to 70 feet per year.
2 First I will discuss the alternatives
3 that were evaluated to address the contamination in
4 groundwater at the Yermo Annex. We evaluated
5 10 remedial alternatives. Each alternative was
6 assessed based on the previously discussed criteria
7 defined in the NCP. These criteria were used to
8 determine which alternatives would provide the most
9 benefits.
10 Again, the assessment criteria are:
11 Overall protection of human health and the
12 environment; compliance with ARARs, these are state
13 and federal regulations; effectiveness of long-term
14 and short-term; reduction of toxicity, mobility or
15 volume; implementability; cost; state acceptance and
16 community acceptance, which is your activity
17 tonight, why you're here.
18 Each of the alternatives have to be
19 evaluated against the criteria except community
20 acceptance. Again, the purpose of this meeting
21 tonight is to get your input into that process.
22 For OU 1, Yermo Annex Plume,
23 Alternative 1 is No Action Alternative. This
24 alternative is required by the NCP. It's basically
25 a baseline to evaluate all other alternatives that

are presented. Existing site conditions remain the same and no costs are associated. This means we actually do nothing at all, and everything else is based upon that.

Alternative 2 is Institutional Controls of groundwater monitoring. This would restrict the use of untreated groundwater for drinking at the Yermo Annex. It would provide wellhead treatment of affected wellhead water supplies. This alternative would also require sampling of selected wells to monitor the contaminant migration. Present cost of this, worth cost of this -- implementing this option would be $3.5 million.

Alternative 3 or Yermo Annex Plume would involve the installation of eight groundwater extraction wells at the eastern boundary. The extracted water would be treated with activated carbon and subsequently recharged via two infiltration galleries. I don't know if we have anything on the site. Could you go point out the infiltration galleries at the opposite end of the Base? The alternative would require an estimated 190 years to clean the on-Base and 500 years to clean the off-Base plume. The present worth cost of

1 this alternative would be $14.1 million.
2 Alternative 4 utilizes the component
3 of Alternative 3 -- and one thing I want to clarify,
4 tonight you're going to hear a number of
5 alternatives and many of them incorporate
6 information from the other alternatives. So you're
7 going to hear me say this incorporates Alternative 3
8 and 2, whatever, means that when I go to
9 Alternative 5 and I say that 3 and 2 are
10 incorporated, it is part of that one. So they're
11 rolling over into that part of it too.
12 Alternative 4 utilizes components of
13 Alternative 3, which are eight extraction wells
14 installed on the eastern Base boundary and adds
15 11 wells off-Base to capture the entire plume at the
16 background boundary. The difference between this
17 alternative and Alternative 3 is that it would clean
18 all of the contaminated groundwater to background
19 levels. Treatment time required is an estimate of
20 320 years for the on-Base cleanup and 70 years for
21 the off-Base. The total present worth cost of this
22 alternative would be $30.1 million.
23 Alternative 5 for the Yermo Annex
24 Plume is the same as Alternative 3 with four
25 additional wells for off-Base capture of the

1 off-Base plume above the drinking water standards.
2 There would be a total of eight extraction wells
3 along the eastern Base Boundary and four off-Base
4 wells at the drinking water standard boundary.
5 Cleanup time for Alternative 5 would be 160 years
6 for on-Base and 20 years for the off-Base plume.
7 The present worth cost would be $21.8 million.
8 Alternative 6 would involve
9 installation of eight extraction wells along the
10 eastern boundary from Alternative 3, along with four
11 additional wells on the Base at CAOC 26. The
12 alternative would not treat the off-Base portion of
13 the plume. The cleanup of the on-Base plume would
14 take 150 years, and the present worth cost would be
15 $19.3 million.
16 Alternative 8A is the same as
17 Alternative 6 with the addition Air Sparge/Soil
18 Vapor Extraction treatment at CAOC 26.
19 Specifically, there would be eight extraction wells
20 along the eastern Base boundary, four wells
21 downgradient of CAOC 26, and AS/SVE system at
22 CAOC 26. The AS/SVE would clean up the Vadose zone
23 near CAOC 26, which is providing an ongoing source
24 of contamination to groundwater. The time to clean
25 up the on-Base portion of the plume to below

1 drinking water standards would be reduced to
2 40 years. The total present worth cost would be
3 $21.3 million.
4 Alternative 8B is the same as
5 Alternative 8A, with the addition of an AS/SVE
6 system downgradient of CAOCs 16, 15/17 and 35. The
7 purpose of the AS/SVE systems at these locations is
8 to further accelerate the groundwater cleanup time.
9 The time to clean the on-Base plume is estimated to
10 be 30 years to a total present worth cost is
11 $22.1 million.
12 Alternative 8C is the same as
13 Alternative 8B, except it captures and treats the
14 off-Base portion of the contaminant plume above the
15 drinking water standards. The cleanup time to
16 drinking water standards would be 30 years on-Base
17 and 20 years off-Base. The total present worth cost
18 would be $27.1 million.
19 Alternative 8D is the same as
20 Alternative 8B with the capture of entire off-Base
21 plume at the background boundary and cleanup of all
22 contaminated groundwater to background levels. The
23 cleanup time for the on-Base portion of the plume is
24 estimated to be 55 years and 70 years for the
25 off-Base plume. The total present worth cost would

1 be $49.2 million.

2 For the Yermo Annex Plume the

3 preferred alternative is 8C, which includes

4 extraction wells at the Base boundary at the

5 off-Base drinking water standard boundary and

6 downgradient of CAOC 26 and Air Sparge/Soil Vapor

7 Extraction at CAOC 26 and downgradient of CAOC 16,

8 15/17 and 35. This alternative complies with all

9 ARARs.

10 Alternative 8C is protective of human

11 health by achieving safe drinking water standards

12 throughout the entire plume. It controls short-term

13 exposure to contaminated groundwater through

14 monitoring of the plume movement and restricting the

15 use of untreated groundwater for drinking.

16 It provides for source reduction at

17 CAOC 26 to shorten the overall remediation time.

18 Cleanup time for drinking water standards is

19 estimated to be 30 years on-Base and 20 years for

20 the off-Base portion of the plume. The total

21 present worth cost is $27.1 million.

22 Next, I'm going to talk about the

23 Nebo North Plume, which is in OU 2. This plume is

24 the result of operational releases around Warehouse

25 2. The vadose zone contamination in the vicinity of

1 Warehouse 2 may pose an ongoing long-term threat to
2 groundwater. Chlorinated solvents are the most
3 prevalent contaminants at this site.
4 The Nebo North Plume is approximately
5 4,000 by 1500 feet and appears limited to the upper
6 20 feet of the aquifer. The plume is contained
7 within the Base boundary and appears to be naturally
8 attenuating as a result of shallow groundwater, high
9 fluctuation in water table elevations and sandy soil
10 conditions.
11 Five alternatives were evaluated
12 against NCP criteria for the Nebo North Plume.
13 Briefly, I'd like to discuss each alternative
14 evaluated.
15 Again, Alternative 1 would involve No
16 Action. There would be no action to cleanup the
17 groundwater, and site conditions would remain the
18 same. There's no costs associated with this
19 alternative against its baseline.
20 Alternative 2 is Institutional
21 Controls with Natural Attenuation and fail-safe
22 pump-and-treat containment. This alternative would
23 require access restrictions to prevent the use of
24 untreated groundwater for drinking water purposes.
25 It also requires wellhead treatment for existing

1 water supply wells that would be impacted by the
2 plume. There would be long-term groundwater
3 monitoring to tract the movement of the plume and
4 monitor mass reduction, which is expected to occur
5 as as a result of natural attenuation. This
6 alternative would also utilize a fail-safe
7 pump-and-treat system that was constructed as part
8 of the existing pilot study. The system would be
9 activated in the event that drinking water standards
10 were exceeded but the downgradient monitoring wells
11 at the site. It would take an estimated 45 years
12 for the contaminant plume to naturally attenuate to
13 levels below the drinking water standards. The
14 total present worth cost of Alternative 2 would be
15 $1 million.
16 Alternative 3 utilizes the existing
17 pump-and-treat system from the pilot study to
18 actively remediate the contaminated groundwater to
19 meet federal and state drinking water standards. It
20 would take about 42 years to cleanup the groundwater
21 to levels below drinking water standards, and the
22 present worth cost of this alternative is
23 $7.1 million.
24 Alternative 4 would be the same as
25 Alternative 3 with the addition of AS/SVE source

reduction around Warehouse 2. This alternative would combine the pilot study pump-and-treat system with AS/SVE system at Warehouse 2. The removal of contaminants in the vadose zone underneath Warehouse 2 is expected to decrease the cleanup time of this plume. Estimated cleanup time for Alternative 4 is 12 years, and the total present worth cost would be $5.8 million.

The last remedial alternative evaluated for the Nebo North Plume is Alternative 5, which is the same as Alternative 2, with the addition of AS/SVE at Warehouse 2. Alternative 2 included natural attenuation with the fail-safe pump-and-treat and groundwater monitoring. This alternative would clean the groundwater in 15 years, and a total present worth cost of $1.8 million. Each of these alternatives were evaluated against the NCP criteria.

The No Action alternative is the only alternative which is not protective of human health and the environment, and therefore, was not considered for further analysis. All other alternatives would be in compliance with ARARs and provide moderate to high long-term effectiveness and performance. They would achieve moderate to high

1 reduction in toxicity, mobility or volume. All
2 remaining alternatives rely on institutional
3 controls for short-term effectiveness of community
4 protection. They would comply with worker
5 protection requirements and result in minimal
6 environmental impact. Each of the alternatives is
7 readily implemented. The cost range for the various
8 alternatives is from $2.2 to $7.1 million.
9 The preferred alternative for the
10 Nebo North Plume is Alternative 5. This includes
11 Institutional Controls with Natural Attenuation and
12 AS/SVE Source Reduction at Warehouse Number 2. This
13 alternative significantly reduces the total time
14 required to passively remediate the groundwater
15 contamination to levels below the drinking water
16 standard. The total cleanup time is estimated at
17 15 years.
18 Additionally, this alternative is
19 protective of human health, complies with all ARARs,
20 and is cost-effective. The estimated total present
21 worth cost is $1.8 million.
22 Next, I'm going to talk about the
23 Nebo South Plume, which is the result of disposal of
24 cleaning solvents at CAOC 6. Again, chlorinated
25 solvents are the predominant contaminants in these

1 locations.

2 This plume is approximately 1,000 feet

3 by 800 feet. The leading edge of the plume is

4 downgradient approximately 600 feet from the Base

5 boundary, and it is traveling generally in an east

6 to west direction at 10 to 20 feet per year. Five

7 alternatives were evaluated for the Nebo South

8 Plume.

9 The first alternative is the No Action

10 Alternative. MCLB Barstow would not take any action

11 to cleanup groundwater or limit contaminant

12 migration. Again, this is the baseline. There is

13 no associated costs associated with this. No

14 monitoring or anything else.

15 Second alternative evaluated is

16 Institutional Controls/Groundwater Monitoring. This

17 alternative would require access restrictions to

18 prevent the use of untreated groundwater for

19 drinking water purposes. Periodic long-term

20 groundwater monitoring would also be conducted to

21 tract movement of the contaminant plume, monitor the

22 progress contaminant mass reduction and provide

23 advance warning to potentially affected downgradient

24 users. Those are people downstream. It would take

25 over 500 years for the contaminant levels in the

1 groundwater to drop to levels below the drinking
2 water standards with Alternative 2. The present
3 worth cost of this alternative would be
4 $1.3 million.
5 Alternative 3 for the Nebo South Plume
6 is Groundwater and Vadose Zone Source Reduction at
7 CAOC 6. This alternative involves the existing
8 AS/SVE pilot study system, which is in the vicinity
9 of CAOC 6. This system would not prevent migration
10 of the plume. It would only remove contaminants
11 from the vadose zone soils and groundwater within a
12 limited portion of the plume. This alternative
13 would require over 500 years to cleanup the
14 groundwater and contaminant levels below drinking
15 water standards. The present worth cost of this
16 alternative is $3.1 million.
17 Alternative 4 utilizes Alternative 3
18 and expands on the existing pilot scale AS/SVE
19 system to a full-scale AS/SVE treatment system to
20 address source removal at CAOC 6. A groundwater
21 pump-and-treat system is also added to contain the
22 leading edge of this plume. The total time to
23 cleanup the groundwater at Nebo South Plume using
24 this alternative would be 55 years. The present
25 worth cost of this alternative would be

1 $15.1 million.

2 The last alternative evaluated

3 includes extraction wells at the plume boundary.

4 This alternative provides an interim remedy to

5 contain the contaminant plume until a more effective

6 remedy can be determined. This alternative requires

7 installation of five groundwater extraction wells to

8 contain and extract the groundwater at the

9 downgradient boundary of the plume. The extracted

10 groundwater is treated with activated carbon system

11 and then pumped to the percolating pump to recharge

12 the groundwater. This alternative would take

13 105 years to cleanup the entire plume to levels

14 below drinking water standards. The present worth

15 cost of this alternative is $5.5 million.

16 Each of the five alternatives were

17 evaluated using the criteria previously mentioned on

18 the NCP. Alternative 1, No Action, would not be

19 protective of human health and the environment.

20 Alternatives 2 and 3 for the Nebo South Plume would

21 not be in compliance with ARARs. These two

22 alternatives do not reduce the chemical-specific

23 contaminant levels to below the federal or state

24 drinking water standards. Alternatives 4 and 5

25 provide long-term effectiveness and permanence and

1 they reduce toxicity, mobility and volume.
2 Institutional controls are used to minimize
3 short-term risks. Since groundwater cleanup actions
4 require a long-term effort to restore the aquifer,
5 the short-term risks are the same as the current
6 risks. The costs associated with each of the
7 alternatives ranged from $1.3 million for
8 Alternative 2 to $15.1 million for Alternative 4.
9 Alternative 5 is the preferred
10 alternative for the Nebo South Plume. Alternative 5
11 was evaluated and chosen as interim remedy to
12 contain the plume until a final remedy can be
13 determined. This remedy includes groundwater
14 removal and treatment at the downgradient edge of
15 the contaminant plume.
16 This remedy also provides a
17 cost-effective way of preventing further spreading
18 of the contaminated groundwater from this site. The
19 total present worth cost is $5.5 million and would
20 take 105 years to cleanup the entire plume if no
21 further action were taken.
22 This concludes my portion tonight, and
23 I want to thank you. Dave, back to you.
24 MR. DAWSON: This concludes the formal
25 portion of our briefing. I want to respond to any

1 questions or comments you may have at this time. I
2 would ask that before you ask questions that you
3 state us your name and where you're from so it will
4 help create a complete transcript for the
5 administrative record.
6 Are there any questions or comments?
7 MR. CHAVEZ: My name is Lewis Chavez.
8 I just like to ask the question, this plume that we
9 have here, this Yermo, is this around the area of
10 the Silver Valley High School?
11 MR. COX: No. Silver Valley is
12 actually in the opposite direction.
13 MR. CHAVEZ: On this side. Okay.
14 So this plume is moving from west to
15 east?
16 MR. COX: Yes.
17 MR. CHAVEZ: Okay. No further
18 questions. Thank you.
19 MR. DAWSON: Any other questions or
20 comments? If not, that will conclude our public
21 meeting. Thank you for attending.
22 (Whereupon, at 8:12 p.m., the public
23 hearing was adjourned.)
24
25

CERTIFICATE

OF

COURT REPORTER

I, MARY ANDERSON, C.S.R. No. 10319, in and for the State of California, do hereby certify:

That, prior to being examined, the witness named in the foregoing deposition was by me duly sworn to testify the truth, the whole truth and nothing but the truth;

That said deposition was taken down by me in shorthand at the time and place therein named, and thereafter reduced to typewriting under my direction, and the same is a true, correct and complete transcript of said proceedings;

I further certify that I am not interested in the event of the action.

Witness my hand this 12th day of November, 1997.

Mary Anderson

Certified Shorthand
Reporter for the
State of California