2166-03829

SFUND RECORDS CTR
88133250
ITX 2166-03829

PHASE II INVESTIGATION REPORT
LOCKHEED PLANT C-1
LAT PARKING LOT
10650 SHERMAN WAY
BURBANK, CALIFORNIA

DECEMBER 9, 1991

McLaren Hart

McLaren Hart

December 9, 1991

Mr. Ron Helgerson
LESC/ETS
2550 North Hollywood Way
Burbank, California 91505

Dear Mr. Helgerson:

PHASE II INVESTIGATION REPORT LOCKHEED PLANT C-1
LAT PARKING LOT, 10650 SHERMAN WAY, BURBANK, CALIFORNIA

Enclosed is the Phase II Investigation Report for the Lockheed Air Terminal Parking Lot, east of the Lockheed Plant C-1 site. The Phase II investigation consisted of three borings at the LAT Parking Lot. The report presents analytical results and conclusions based on those results.

If you have any questions or comments, please contact us.

Very truly yours,

Gary B. Taggart, C.E.G. No. 1061
Managing Principal

cm

Enclosure

11101 White Rock Road, Rancho Cordova, CA 95670 (916) 638-3696 FAX (916) 638-2842

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
2.0	SITE DESCRIPTION AND BACKGROUND	1
3.0	FIELD INVESTIGATION	7
	3.1 Field Investigation Procedures	7
	3.2 Sampling and Analysis Specifications	8
4.0	SUBSURFACE CONDITIONS	10
5.0	RESULTS OF CHEMICAL ANALYSES	10
	5.1 Subgrade Sump	14
	5.2 Former Liquid Disposal Area	14
	5.3 Former Drainage Ditch	14
6.0	DATA VALIDATION	16
7.0	CONCLUSIONS	17

LIST OF FIGURES

Page

FIGURE 1: Lockheed Air Terminal parking Lot East of Plant C-1, 10650 Sherman Way, Burbank, California - Site Map 2

FIGURE 2: Lockheed Air Terminal Parking Lot East of Plant C-1, 10650 Sherman Way, Burbank, California - Parking Lot and Adjacent Areas 3

FIGURE 3: Lockheed Air Terminal Parking Lot East of Plant C-1, 10650 Sherman Way, Burbank, California - Soil Boring Locations 5

LIST OF TABLES

TABLE 1: Proposed Analyses, Phase II Investigation, Lockheed Burbank Plant C-1, LAT Parking Lot 10

TABLE 2: Summary of Laboratory Analyses (Except Metals), Phase II Investigation, Lockheed Burbank Plant C-1, LAT Parking Lot 11

TABLE 3: Summary of Metals Analyses at SB-69, Phase II Investigation, Lockheed Burbank Plant C-1, LAT Parking Lot 12

TABLE 4: Maximum Contaminant Levels, State Action Levels, and Proposed Threshold Concentrations for VHOC and VAC Compounds Detected During Phase IIB Investigation 14

TABLE 5: State of California Title 22 STLC and TTLC Values, Lockheed Burbank Plant C-1, LAT Parking Lot 15

LIST OF APPENDICES

APPENDIX A: Soil Boring Logs
APPENDIX B: Laboratory Analytical Data Sheets
APPENDIX C: Chain of Custodies, QA/QC Summary, and QA/QC Data Sheets

PHASE II INVESTIGATION REPORT
LOCKHEED PLANT C-1
LAT PARKING LOT
10650 SHERMAN WAY
BURBANK, CALIFORNIA

1.0 INTRODUCTION

This report presents the results of the Phase II investigation activities completed at the LAT parking lot, Lockheed Burbank Plant C-1. The work was conducted to investigate the areas of concern identified in the McLaren/Hart report entitled *Phase I Environmental Assessment Addendum, Lockheed Plant C-1, LAT Parking Lot, 10650 Sherman Way, Burbank, California*, dated October 3, 1991. The proposed scope of work for this investigation was presented in an October 25, 1991 letter to Mr. David Jones, Lockheed Engineering and Sciences Company. The investigation activities consisted of drilling and sampling three soil borings.

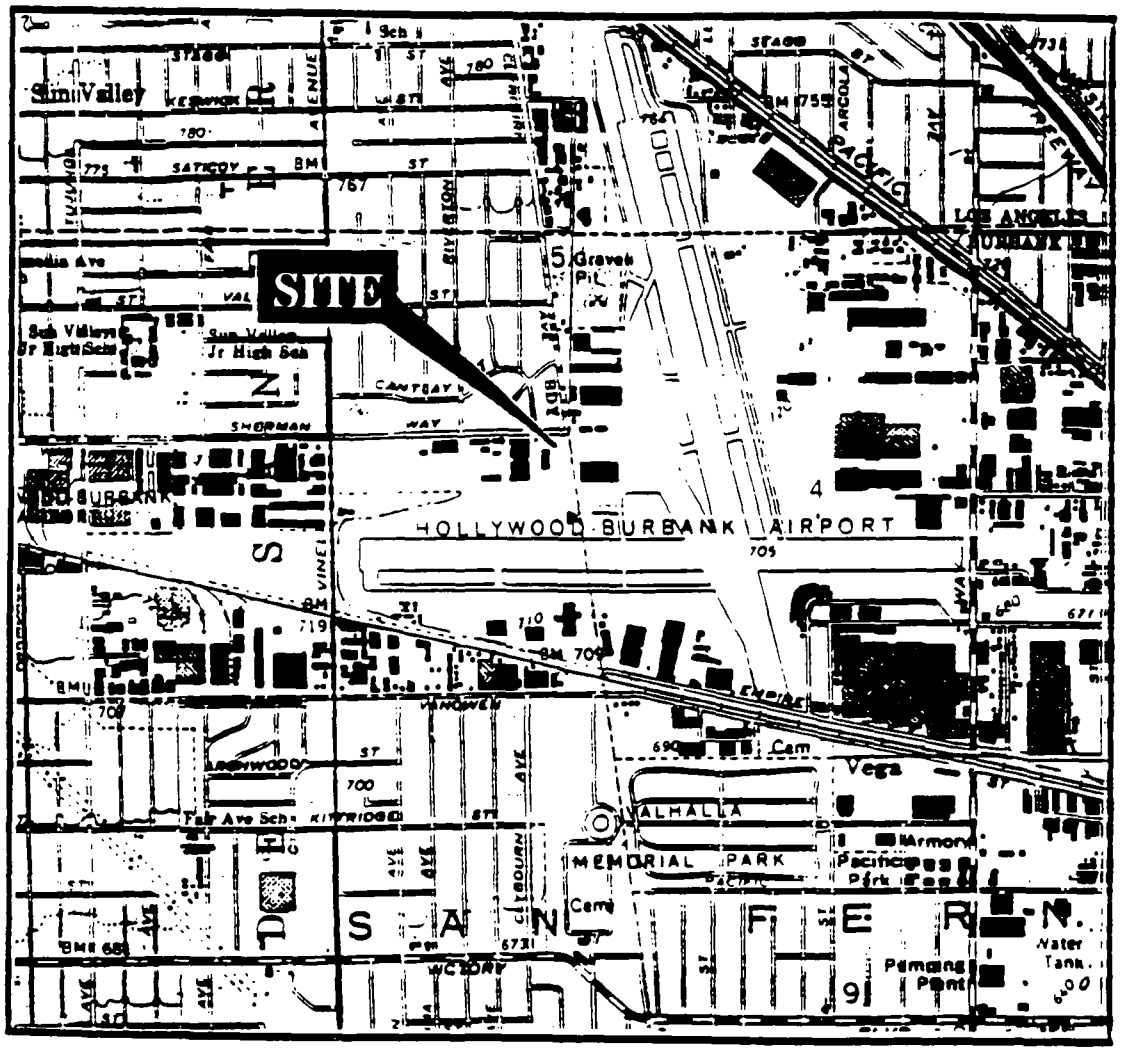
A discussion of the Phase II activities is presented in the following sections:

- Site Description and Background;
- Field Investigation;
- Subsurface Conditions;
- Results of Chemical Analyses;
- Data Validation; and
- Conclusions.

2.0 SITE DESCRIPTION AND BACKGROUND

The subject LAT parking lot is located east of Lockheed Plant C-1 at the corner of Clybourn Avenue and Sherman Way, Burbank, California, as shown on Figures 1 and 2. The area east of the parking lot is part of the Burbank-Glendale-Pasadena Airport and contains various commercial operations associated with the airport. The area south of the parking lot is occupied by two facilities: Federal Aviation Administration (FAA) communications equipment to the southwest; and Martin Aviation underground tank complex to the southeast. Northwest of the parking lot is an area that consists of residential homes and small industrial/commercial facilities.

FIGURE 1
LOCKHEED AIR TERMINAL
PARKING LOT EAST OF PLANT C-1
10650 SHERMAN WAY
BURBANK, CALIFORNIA
SITE MAP



Reference: USGS 7.5-minute quadrangle, Burbank, California, 1966. Photorevised 1972 and Van Nuys, California, 1966, Photorevised 1972

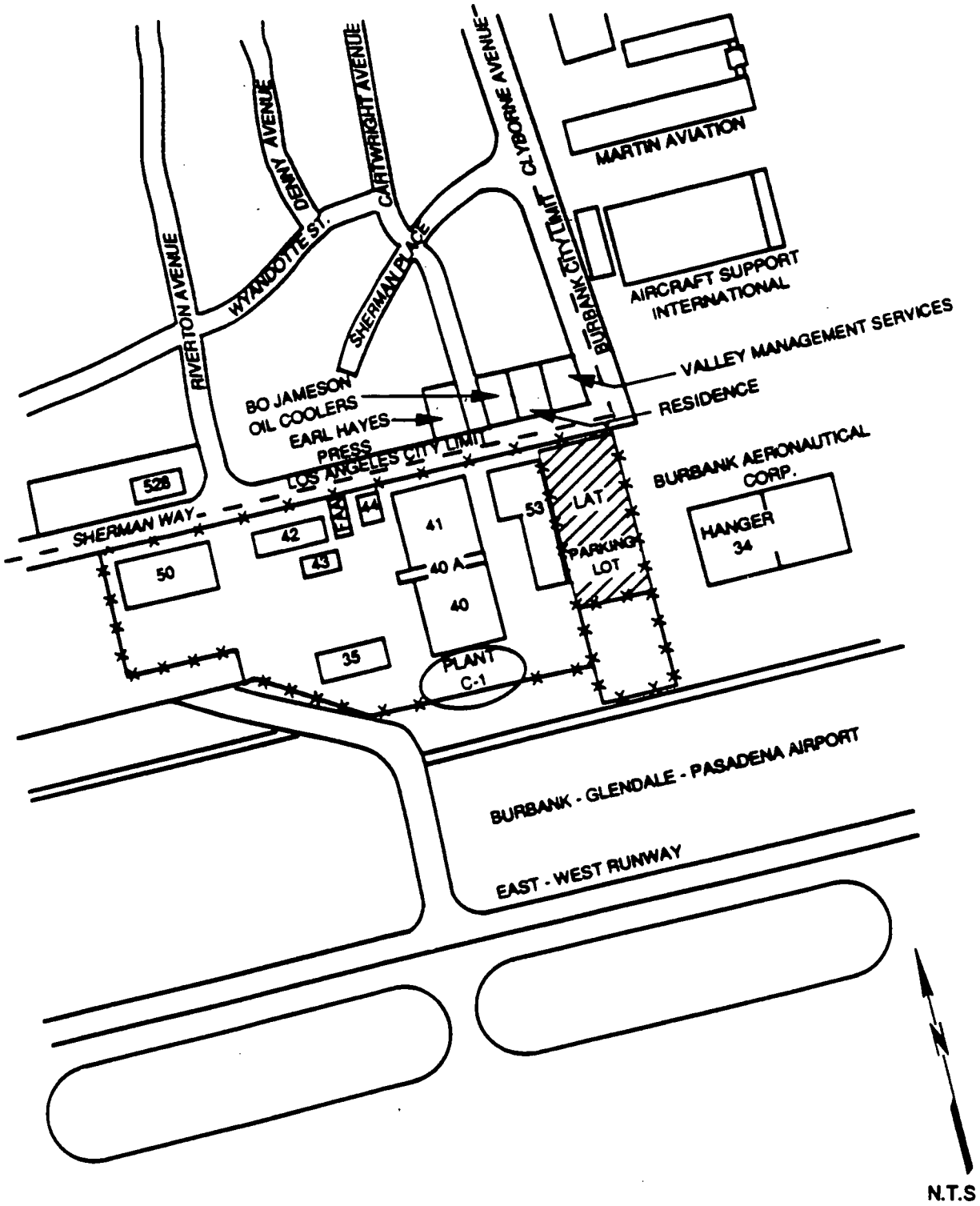
N

0 4000 8000

APPROXIMATE SCALE IN FEET

McLaren Hart

FIGURE 2
LOCKHEED AIR TERMINAL
PARKING LOT EAST OF PLANT C-1
10650 SHERMAN WAY
BURBANK, CALIFORNIA
PARKING LOT AND
ADJACENT AREAS



The airport was initially constructed in 1929 and has been operated/owned under the following titles: United Air Terminal, Union Air Terminal, Lockheed Airport, Burbank Airport, Hollywood-Burbank Airport, and Burbank-Glendale-Pasadena Airport.

According to Lockheed personnel, the parking lot and Plant C-1 area was purchased by Lockheed Corporation from a farming operation during the 1940s. Prior to the Lockheed purchase, the site was used for livestock/agriculture production. Structures were not known to have ever existed on the parking lot. The parking lot area was reportedly utilized by Flying Tiger Airline to support their nearby aircraft maintenance and repair operation (presently Hanger 34 on the Martin Aviation complex). The aircraft maintenance operation is now located directly east of the parking lot on airport property. After Flying Tiger moved from the airport in 1967, the subject site was vacant until approximately 1971 when it was used for long term parking of campers, recreational vehicles, etc. Since 1984 the parking lot has been leased to Desmond Brothers, Studio Production Services for storage of vehicles and equipment for motion picture production.

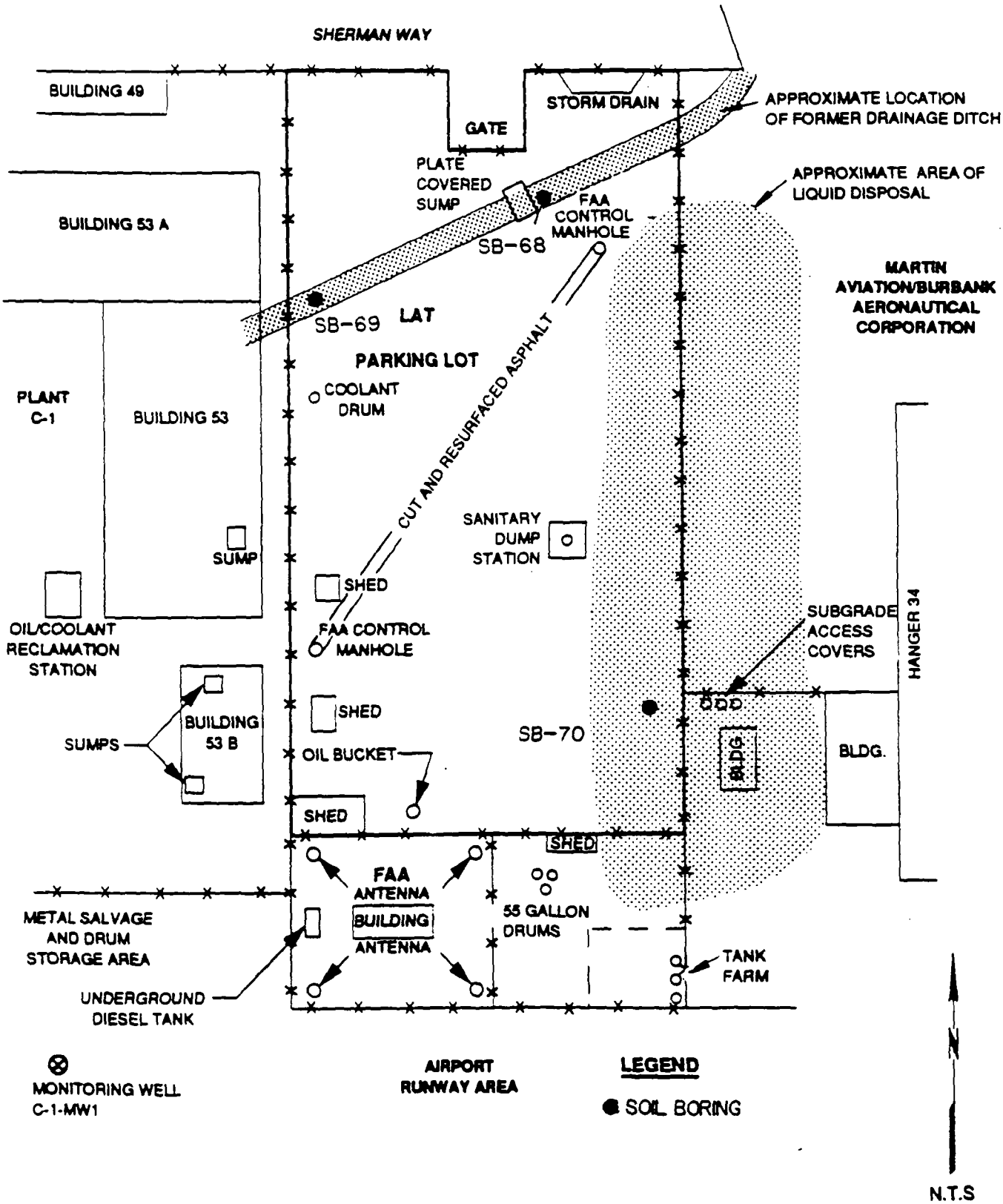
Lockheed Plant C-1 is located directly west of the parking lot at 10780 Sherman Way. The 15-acre plant was developed in the 1940s and was used for aircraft research, manufacturing, and maintenance operations. The on-site operations required the use of solvents, oils, inorganic acids, inorganic caustics, and fuels. An underground tank leak detection investigation was conducted at the plant in 1985, followed by an initial plant-wide environmental assessment in 1988 and soil investigations in 1990 and 1991.

The parking lot site is located within the San Fernando Valley Groundwater Basin 1. The basin was designated by the U.S. EPA as a National Priorities List (NPL) hazardous waste site in June 1986. Groundwater wells have been installed by Lockheed as part of the NPL investigation and one such well (C-1-MW1) is located just outside the southeast corner of Plant C-1 (see Figure 3).

The results of the LAT parking lot environmental assessment can be summarized in seven main points:

1. The subject LAT parking lot has historically been used for agricultural purposes and open storage of vehicles. Water, electric, and sewer utilities are provided; however, no permanent structures have been determined to have ever been on-site. A subgrade sump that appears to be connected to the storm drain system exists on-site.

FIGURE 3
LOCKHEED AIR TERMINAL
PARKING LOT EAST OF PLANT C-1
10650 SHERMAN WAY
BURBANK, CALIFORNIA
SOIL BORING LOCATIONS



2. Limited vehicle maintenance and repair most likely have taken place on the site resulting in possible surficial contamination from fluids such as motor oils and coolants. The extent of the surficial contamination appears to be limited and does not appear to be of concern.

3. The airport area east of the subject parking lot has been used for facilities associated with aircraft operations and is documented as using fuels, solvents, and detergents. Aerial photographs from the 1940s and 1950s show extensive staining from liquid disposal onsite during the time that Flying Tiger leased the adjacent property. The possible chemical dumping may have impacted the subject site.

4. The FAA area south of the subject site has one diesel underground tank.

5. The Martin Aviation area southeast of the subject site includes a tank farm with 60,000-gallons of capacity for Jet "A" fuel and one 10,000-gallon tank that is empty. Leak detection monitoring is conducted using vadose monitoring wells and the tanks appear to be tight.

6. The adjacent Lockheed Plant C-1 has been extensively investigated to determine if past activities conducted at the plant affected soil quality. Results of the investigations indicate the primary contaminant at the plant is petroleum hydrocarbons in the soils underlying Building 40. Investigations are currently on-going.

7. Groundwater underlying the subject parking lot is designated as a NPL superfund site which is known to be contaminated with PCE and TCE. A groundwater monitoring well adjacent to the parking lot has reported concentrations of TCE at a maximum of 11 ug/l and PCE at a maximum of 53 ug/l at groundwater depths between 200 and 550 feet.

Of these seven areas, three areas of onsite environmental concern were identified where further investigations were recommended. Soil sampling and laboratory analyses were proposed for the following areas:

- The subgrade sump on the north end of the parking lot;
- The former drainage ditch that transected the property, as noted on 1948 aerial photographs; and
- Liquid disposal on the subject property during the time that Flying Tiger leased the adjacent property.

3.0 FIELD INVESTIGATION

The purpose of the Phase II investigation was to address concern about the potential presence of contaminants at specific areas identified in the Environmental Assessment Addendum. The Phase II investigation included collecting and analyzing a total of 23 soil samples from 3 soil borings. Description of the field investigation procedures and sampling and analysis specifications are presented below.

3.1 Field Investigation Procedures

The Phase II field investigation was performed in accordance with McLaren/Hart's *Standard Field Investigation Procedures for Soil Sampling*, January 1990 and the McLaren/Hart *Analytical Laboratory Quality Control Manual* both of which were previously submitted to the Regional Water Quality Control Board, Los Angles Region (RWQCB) and approved by the RWQCB in a letter to McLaren/Hart dated April 13, 1990. The field investigation was conducted under the direction of a McLaren/Hart registered geologist. All subcontracted drilling services were provided by Gregg Drilling and Testing, Signal Hill, California using a Mobile Drill B-53 hollow stem auger rig.

Three soil borings (SB-68, SB-69, and SB-70) were drilled on October 14, 1991. Soil samples were collected ahead of the drill bit by driving a 2.5-inch split spoon sampler lined with three clean brass tubes 1.5 feet into the borehole bottom using a standard 140-pound sample drive hammer. Soil boring logs and borehole abandonment details are presented in Appendix A. The materials encountered in the borings were logged in accordance with the Unified Soil Classification System.

A portion of the collected soil from each interval was placed into a sealable plastic bag and screened using a photoionization detector (PID). The PID measures relative concentrations of volatile organic compounds and is calibrated to an isobutylene standard. Information recorded during the drilling and sampling operations including PID readings, soil descriptions, sample depths, sample numbers, and sample dates are reported on each boring log which are presented in Appendix A.

The remaining tubes from each sample interval were sealed with teflon lined caps, taped, labeled, placed in a sealable plastic bag, and stored in a thermally insulated chest with ice. The samples were delivered under appropriate chain-of-custody (COC) documentation to McLaren Analytical Laboratory (MAL) in Rancho Cordova, California for analysis. All soil cuttings were placed in DOT approved 55-gallon drums and appropriately labeled. All borings were backfilled to near surface with sodium bentonite chips, and patched to surface with asphalt cold patch.

3.2 Sampling and Analysis Specifications

Three soil borings were drilled at the locations shown on Figure 3. Sample collection depths and analyses are listed below.

1. Subgrade sump - One boring adjacent to the sump was drilled to a maximum depth of 15 feet below grade. Soil samples were collected at 3, 8, and 15-foot depths and analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH) by U.S. EPA Method 418.1; Polychlorinated Biphenyls (PCBs) by U.S. EPA Method 8080; and California Assessment Manual (CAM) metals by U.S. EPA series 7000 Methods; pH (U.S. EPA Method 9045).

2. Former Liquid Disposal Area - One boring near the east side of the parking lot was drilled to a maximum depth of 20 feet below grade. Soil samples were collected at 1, 5, 10, 15, and 20-foot depths and analyzed for TRPH; PCBs; Volatile Halogenated Organic Compounds (VHOCs) by U.S. EPA Method 8010; and Volatile Aromatic Compounds (VACs) by U.S. EPA Method 8020.

3. Former Drainage Ditch - One boring near the west side of the parking lot was drilled to a maximum depth of 20 feet below grade. Soil samples were collected at 1, 5, 10, 15, and 20 foot depths and analyzed for TRPH; PCBs; VHOCs; and VACs.

The location, depth, and type of analysis performed for each sample is summarized in Table 1. All soil samples were analyzed by MAL. The analytical procedures used by MAL follow methods published by the United States Environmental Protection Agency, the State of California Department of Health Services and were approved by the RWQCB (letter dated April 13, 1990). In some cases, the methods used include minor modifications to the published procedure to achieve lower detection limits or report a modified list of analytes. These modifications are documented in the laboratory's standard operating procedures for each method.

Laboratory detection limits for Lockheed Burbank soils investigations have been established by McLaren/Hart with the direction and approval of the State of California Regional Water Quality Control Board - Los Angeles Region. The detection limits are significantly lower than limits normally achieved by the methods used to evaluate soil contamination. In many instances, chemical concentrations which are presented in this report would be below normal laboratory reporting limits.

TABLE 1

ANALYSES PERFORMED
PHASE II INVESTIGATION
LOCKHEED BURBANK PLANT C-1, LAT PARKING LOT

Location	Depth	TPH by 418.1	VHOC by 8010	VAC by 8020	PCB by 8080	Metals	pH
Subgrade Sump (SB-68)	3	X			X	X	X
	8	X			X	X	X
	15	X			X	X	X
Former Drainage Ditch (SB-69)	1	X	X	X			
	5	X	X	X			
	10	X	X	X			
	15	X	X	X			
	20	X	X	X			
Former Liquid Disposal Area (SB-70)	1	X	X	X	X		
	5	X	X	X	X		
	10	X	X	X	X		
	15	X	X	X	X		
	20	X	X	X	X		

4.0 SUBSURFACE CONDITIONS

As shown on the soil boring logs in Appendix A, lithologic materials encountered below the LAT parking lot generally consist of light brown, fine to coarse grained sand, and gravel.

Organic vapor measurements which appear on the soil boring logs represent measurements of ionizable compounds detected with a PID. No positive measurements were recorded.

5.0 RESULTS OF CHEMICAL ANALYSES

Results of chemical analyses performed on soil samples are summarized and discussed in this section. A summary of all analytical results and quality control (QC) data evaluation reports are presented in Appendix B and Appendix C, respectively.

A summary of the analytical results for samples collected from each area of environmental concern is presented in this section. All analytical results are summarized in Appendix B and a summary of any compound reported above the detection limit (except for the metals analyses) from one or more samples is presented in Table 2. Metals analyses are listed in Table 3. In order to assess potential risk from any chemicals present in soil at the site, chemical results from the investigation have been compared to proposed threshold concentrations which are based on generally accepted industry-wide action levels and attenuated (dilution based) regulatory drinking water standards as appropriate to the chemicals of concern.

The approach to evaluating VHOCs and VACs in soil in this report is to assess whether compound concentrations are greater than 100 times the established State of California Department of Health Services Maximum Contaminant Levels (MCLs) and State Action Levels (SALs) for chemicals in drinking water. The value of 100 times the regulatory limit for drinking water is used to estimate the potential for chemicals in soil to impact receiving waters based on an attenuation (dilution) factor as generally supported by the work of Marshack[1]. Table 4 shows drinking water criteria and proposed threshold concentrations for VHOCs and VACs detected in soil samples taken in the investigation. The VHOCs and VACs detected in the soil

---

[1]Marshack, Jon B., 1986. Designated Level Methodology for Waste Classification and Cleanup Level Determination, California Regional Water Quality Control Board, Central Valley Region.

TABLE 2

SUMMARY OF LABORATORY ANALYSES (EXCEPT METALS)
PHASE II INVESTIGATION
LOCKHEED BURBANK PLANT C-1, LAT PARKING LOT

Location	Depth (feet)	ANALYSIS					
		8010 (ppb)	8020 (ppb)	PCB	418.1 (ppm)	CAM Metals	pH
SB-68	3	NS	NS	<	<	see Table 3	7.0
	8	NS	NS	<	5.5	see Table 3	7.0
	15	NS	NS	<	<	see Table 3	8.2
SB-69	1	TCE = 1.7	<	NS	5.3	NS	NS
	5	TCE = 2.9	<	NS	<	NS	NS
	10	<	<	NS	<	NS	NS
	15	TCA = 0.70 TCE = 3.1	Toluene = 2.4	NS	<	NS	NS
	20	<	<	NS	<	NS	NS
SB-70	1	<	<	<	<	NS	NS
	5	<	<	<	<	NS	NS
	10	<	<	<	<	NS	NS
	15	<	<	<	<	NS	NS
	20	<	<	<	<	NS	NS

NS = Not Sampled
< = Not detected

B/10.24.91:C1PH2LAT

TABLE 3

SUMMARY OF METALS ANALYSES AT SB-69
PHASE II INVESTIGATION
LOCKHEED BURBANK PLANT C-1, LAT PARKING LOT

Metal (in ppm)	Concentration at 3 Feet	Concentration at 8 Feet	Concentration at 15 Feet
Antimony	<	<	<
Arsenic	0.56	<	0.59
Barium	44	42	38
Beryllium	<	<	<
Cadmium	<	<	<
Chromium	5	4.5	3.9
Cobalt	3.1	2.6	2.6
Copper	8.4	14	27
Lead	3.3	2.9	2.7
Mercury	<	<	<
Molybdenum	<	<	<
Nickel	2.9	2.8	2.6
Selenium	<	<	<
Silver	<	<	<
Thallium	<	<	<
Vanadium	16	16	13
Zinc	23	22	27

< = Not detected

TABLE 4

MAXIMUM CONTAMINANT LEVELS,
STATE ACTION LEVELS, AND PROPOSED THRESHOLD CONCENTRATIONS
FOR VHOC AND VAC COMPOUNDS DETECTED DURING
PHASE II INVESTIGATION

Analyte	Maximum Contaminant Level[1] (ppb)	State Action Levels[1] (ppb)	Proposed Threshold Concentration MCL or SAL x 100 (ppb)
Trichloroethane	5		500
1,1,1-Trichloroethane	200		20,000
Toluene		100	10,000

[1]Chemical concentration in groundwater.

were at very low concentrations, less than 5 parts per billion (ppb) which are well below the proposed threshold concentration. PCBs were not detected in any samples and, therefore, are not discussed.

Total petroleum hydrocarbons in soil were evaluated based on a proposed threshold level of 1,000 ppm, a generally accepted industry action level. TPH was detected in two samples at levels well below the threshold cleanup level.

Detected metal concentrations were compared to State of California Title 22, Total Threshold Limit Concentrations (TTLC) and 10 times the Soluble Threshold Limit Concentration (STLC) as presented in Table 5 to determine whether the detected concentrations exceed Title 22 hazardous levels. The tenfold adjustment of the STLC is used to account for the 10 times dilution inherent in the Waste Extraction Test (WET) and allow comparison of total concentration data to STLC criteria. All metal results are less than the TTLC and 10 times the STLC.

Normal pH range for soils is about 5.5 to 8.5. All pH measurements from this investigation are within that range.

5.1 Subgrade Sump

The soil sample from SB-68 (at 8') contained TPH at a concentration of 5.5 ppm. Concentrations of TPH in the other two samples were below detection limits.

Metal concentrations in all three soil samples from this area were below 10 times STLC, and pH values for all three soil samples from this area were within normal ranges.

5.2 Former Liquid Disposal Area

Concentrations of TPH, VOCs, and VACs in all soil samples from this area were below detection limits.

5.3 Former Drainage Ditch

One soil sample from SB-69 (at 1') contained TPH at a concentration of 5.3 ppm. Concentrations of TPH in the other four samples were below detection limits.

TCE was detected in three of the five soil samples from this area (SB-69 at 1, 5, and 15 feet) at concentrations of 1.7, 2.9, and 3.1 ppb, respectively. TCA was detected in one of the five soil samples from this area (SB-69 at 15 feet) at a concentration of 0.70 ppb. Toluene was detected in one of the five soil samples from this area (SB-69 at 15 feet) at a concentration of 2.4 ppb.

TABLE 5

STATE OF CALIFORNIA TITLE 22
STLC AND TTLC VALUES
LOCKHEED BURBANK PLANT C-1, LAT PARKING LOT

Substance	STLC mg/l	STLC x 10	TTLC mg/kg
Antimony	15.	150.	500.
Arsenic	5.	50.	500.
Barium	100.	1,000.	10,000.
Beryllium	0.75	7.5	75.
Cadmium	1.	10.	100.
Chromium	560.	5,600.	2,500.
Cobalt	80.	800.	8,000.
Copper	25.	250.	2,500.
Lead	5.	50.	1,000.
Mercury	0.2	2.	20.
Molybdenum	3.5	350.	3,500.
Nickel	20.	200.	2,000.
Selenium	1.	10.	100.
Silver	5.	50.	500.
Thallium	7.	70.	700.
Vanadium	24.	240.	2,400.
Zinc	250.	2,500.	5,000.

6.0 DATA VALIDATION

The analytical results of soil samples collected during this investigation were reviewed to evaluate the validity of the data. The data validation process included review of the following components: 1) project completeness; 2) sample documentation review of chain of custodies for completeness and accuracy; and 3) review of laboratory Quality Control (QC) data associated with each sample result.

The QC results associated with each sample are summarized in Appendix C. Part of the results summary includes an evaluation of QC sample results associated with each batch of samples or sample delivery group, including reagent, system, and/or system blanks, Laboratory Control Spikes (LCS), Laboratory Control Spike Duplicates (LCSDs), Matrix Spikes (MS), and Matrix Spike Duplicates (MSD). The other part of the summary indicates whether each sample was extracted (if applicable) and analyzed within acceptable hold times and if surrogate recoveries were within acceptance limits.

Hold time evaluations are based on procedures applicable to each analytical method used and may include sample to extraction hold time (S-E hold time), extraction to analysis hold time (E-A hold time), and/or sample to analysis hold time (S-A hold time). No hold times were exceeded.

One surrogate recovery for the 8010 analysis of SB-70 (10 feet) was above the acceptable maximum recovery of 125 percent by 13 percent. Because only one surrogate recovery was above the acceptance limits and soil samples analyzed from SB-70 were all below detection limits, the qualification of the analytical data from SB-70 (10 feet) does not affect conclusions drawn about the data.

One LCS for the 8010/8020 analysis for Batch 91107-1302 was out of range low for 1,2-dichloroethane by 13 percent and tetrachloroethylene by 29 percent and high for toluene by 25 percent. The associated LCSD was within range for 1,2-dichloroethane, low for tetrachloroethane by 5 percent, and high for toluene by 35 percent. Because none of these three compounds were detected in the soil samples, the qualifications of the LCS/LCSD data for Batch 91107-1302 does not affect conclusions drawn about the data.

Based on the QC summary in Appendix C, samples results were considered either acceptable or acceptable with qualifications. No sample results were rejected.

7.0 CONCLUSIONS

The results of the laboratory analyses for samples collected at three potential areas of environmental concern at the LAT parking lot suggest that past operations have had little to no impact on the soils at the locations explored.

Metals were detected at low concentrations, below proposed threshold cleanup levels, in three soil samples collected next to the subgrade sump, and the value of pH was neutral. The concentration of TPH was low (5.5 ppm) or not detected.

TPH, TCE, TCA, and toluene were detected at low concentrations in the five soil samples collected in the vicinity of the former drainage ditch. TPH was detected at a low concentration (5.3 ppm) in the one-foot sample and was not detected in lower samples. TCE was detected in three of the samples, but the highest concentration was 3.1 ppb and the bottom sample, at 20 feet, was clean. TCA was detected in one sample only, 15 feet, at 0.7 ppb. Toluene was detected in one sample only, 15 feet, at 2.4 ppb. The detected concentrations of TPH, TCE, TCA, and toluene are below proposed threshold levels of 100 times the MCL or SAL.

There were no detected VHOCs, VACs, or TPH at the former liquid disposal area for the five samples collected from 1 to 20 feet.

These analytical data suggest that the LAT parking lot site has not been significantly impacted by the three potential areas of environmental concern identified in the environmental assessment addendum dated October 3, 1991, and that no further investigations are required at this site.

APPENDIX A

SOIL BORING LOGS

SOIL DRILLING LOG

McLaren Hart

SB/MW # : SB-68
D- 20404
Page 1 of 1
Sampler: T. HANSON

PROJECT LOCKHEED CORP. LOCATION BURBANK,CA. LAT PARKING LOT ADJCENT TO PLANT C-1
ELEVATION _____ MONITORING DEVICE HNu
SAMPLING DATE(S) 10-14-91 START 1020 FINISH 1050
SAMPLING METHOD 2 1/2"Ø CA. MOD. SPLIT SPOON SUBCONTRACTOR & EQUIPMENT GREGG DRILLING MOBILE B-53/HSA
MEMO 3" ASPHALT SURFACE AT SITE.

Depth Below Surface(ft.)	Penetration Results: Blows 6"-6"	Penetration Results: BPF	Sampler Depth Interval (ft.)	Sample ID #	HNu/LEL reading (ppm)	Soil Description Color, Texture, Moisture,Etc.	Unified Classification	Graphic Log	Sub-Sample	Borehole Abandonment
	12-14	26	3.0-4.5	115505	0	Pinkish gray (7.5YR 6/2) sand. Fine to medium grained, firm, dry.				0.3" Cold patch
5'										
	14-19	33	8.0-9.0	115506	0	Sand grades to coarse grained, dense, moist.	SW			Bentonite chip seal
10'										6"Ø HSA borehole
15'	23-35	58	15.0-16.5	115507	0	Grades to gravelly sand, very dense, moist.				16.5' T.D.

SIGNATURE OF FIELD SUPERVISOR
Thomas Hanson, Geologist
TITLE

Stephen M. Carlton R.G. #4730
SIGNATURE OF REVIEWER
Principal Hydrogeologist
TITLE

SOIL DRILLING LOG

McLaren Hart

SB/MW # : SB-69
D- 20403
Page 1 of 1
Sampler: T. HANSON

PROJECT LOCKHEED CORP. LOCATION BURBANK,CA. LAT PARKING LOT ADJCENT TO PLANT C-1
ELEVATION _____ MONITORING DEVICE HNu
SAMPLING DATE(S) 10-14-91 START 1055 FINISH 1150
SAMPLING METHOD 2 1/2"Ø CA. MOD. SPLIT SPOON SUBCONTRACTOR & EQUIPMENT GREGG DRILLING MOBILE B-53/HSA
MEMO 3" ASPHALT SURFACE AT SITE.

Depth Below Surface(ft.)	Penetration Results Blows 6"-6"	BPF	Sampler Depth Interval (ft.)	Sample ID #	HNu/LEL reading (ppm)	Soil Description Color, Texture, Moisture,Etc.	Unified Classification	Graphic Log	Sub-Sample	Borehole Abandonment
	7-9	16	1.0-2.5	115510 115511	0	Dark brown (7.5YR 4/4) silty sand. Fine to medium grained, firm, moist.	SM			0.3" Cold patch
5'	10-10	20	5.0-6.5	115508 115509	0	Pinkish gray (7.5YR 6/2) sand. Fine to medium grained, with minor, fine to medium pebble gravel, firm, slightly moist.				Bentonite chip seal
10'	16-17	33	10.0-11.5	115512 115513	0	Grades to dense	SW			
15'	21-26	47	15.0-16.5	115514 115515	0					
20'	10-22	32	20.0-21.5	115516 115517	0					21.5' T.D.

SIGNATURE OF FIELD SUPERVISOR
Thomas Hanson, Geologist
TITLE

Stephen M. Carlton R. G. # 4730
SIGNATURE OF REVIEWER
Principal Hydrogeologist
TITLE

SOIL DRILLING LOG

McLaren Hart

SB/MW # : SB-70
D- 20406
Page 1 of 1
Sampler: T. HANSON

PROJECT LOCKHEED CORP. LOCATION BURBANK,CA. LAT PARKING LOT ADJCENT TO PLANT C-1
ELEVATION _____ MONITORING DEVICE HNu
SAMPLING DATE(S) 10-14-91 START 1155 FINISH 1255
SAMPLING METHOD 2 1/2"Ø CA. MOD. SPLIT SPOON SUBCONTRACTOR & EQUIPMENT GREGG DRILLING MOBILE B-53/ HSA
MEMO 3" ASPHALT SURFACE AT SITE.

Depth Below Surface(ft.)	Penetration Results Blows 6"-6"	BPF	Sampler Depth Interval (ft.)	Sample ID #	HNu reading (ppm)	Soil Description Color, Texture, Moisture,Etc.	Unified Classification	Graphic Log	Sub-Sample	Borehole Abandonment
	7-10	17	1.0-2.5	115518 115519	0	Pinkish gray (7.5YR 6/2) sand. Fine to medium grained, with moderate, coarse grained sand to medium pebble gravel; minor silt, firm, slightly moist.				0.3" Cold patch
5'	10-12	22	5.0-6.5	115520 115521	0					
10'	10-12	22	10.0-11.5	115522 115523	0		SW			Bentonite chip seal
15'	10-15	25	15.0-16.5	115524 115525	0					
20'	18-22	40	20.0-21.5	115526 115527	0	Grades to dense.				21.5' T.D.

SIGNATURE OF FIELD SUPERVISOR
Thomas Hanson, Geologist
TITLE

Stephen M. Carlton R.G. #4730
SIGNATURE OF REVIEWER
Principal Hydrogeologist
TITLE

APPENDIX B

LABORATORY ANALYTICAL DATA SHEETS

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-68 3'	Lab Project-ID Number:	5046-001
Sample Number:	115505	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C. M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-68 3'

Lab Project-ID Number: 5046-001

Sample Number: 115505

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	11.8	71	20 - 150

Dilution: None

Comments:

Approved By: Lisa Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

CAM METALS
TOTAL THRESHOLD LIMIT CONCENTRATION (TTLC)

Preparation Method: EPA 3050 (a)

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-68 3'

Lab Project-ID Number: 5046-001

Sample Number: 115505

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Digested: 10/18/91(b)

Batch Number: 911018-0801(b)

METAL (SYMBOL)/EPA METHOD	DATE ANALYZED	CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Antimony (Sb)/6010	10/21/91	BDL	2.5
Arsenic (As)/7060	10/18/91	0.56	0.50
Barium (Ba)/6010	10/21/91	44.	1.0
Beryllium (Be)/6010	10/21/91	BDL	0.25
Cadmium (Cd)/6010	10/21/91	BDL	0.50
Chromium (Cr)/6010	10/21/91	5.0	1.0
Cobalt (Co)/6010	10/21/91	3.1	1.0
Copper (Cu)/6010	10/21/91	8.4	1.0
Lead (Pb)/6010	10/21/91	3.3	2.5
Mercury (Hg)/7471	10/16/91	BDL	0.25
Molybdenum (Mo)/6010	10/21/91	BDL	1.0
Nickel (Ni)/6010	10/21/91	2.9	1.0
Selenium (Se)/7740	10/18/91	BDL	0.25
Silver (Ag)/6010	10/21/91	BDL	1.0
Thallium (Tl)/7841	10/18/91	BDL	0.50
Vanadium (V)/6010	10/21/91	16.	1.0
Zinc (Zn)/6010	10/21/91	23.	1.0

McLaren Hart

CAM METALS
TOTAL THRESHOLD LIMIT CONCENTRATION (TTLC)

Preparation Method: EPA 3050 (a)

Lab Project-
ID Number: 5046-001

Dilution: None

Comments: (a) Applies to all metals except As, Se, Tl, and Hg. EPA Method 3050 Nitric used for As, Se, and Tl digestion. EPA Method 7471 used for Hg digestion.

(b) Applies to all metals except As, Se, Tl, and Hg. As, Se, and Tl digested on 10/17/91, Batch # 911017-0802; and Hg digested on 10/16/91, Batch # 911016-1001.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

082391MTL4

McLaren Hart

INORGANICS

Analysis:	pH	Method:	EPA 9045
Project Name:	Lockheed Burbank C-1	Project Number:	234508
Date Sampled:	10/14/91	Date Received:	10/15/91
Date Prepared:	10/16/91	Batch Number:	911016-1002
Date Analyzed:	10/16/91		

LAB PROJECT-ID NUMBER	SAMPLE NUMBER	SAMPLE DESCRIPTION	LEVEL
5046-001	115505	SB-68 3'	7.0
5046-002	115506	SB-68 8'	7.0
5046-003	115507	SB-68 15'	8.2

Approved by: Chris Millington for C.M Date: 10/28/91
Cheryl Matterson, Associate Chemist

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-68 8'	Lab Project-ID Number:	5046-002
Sample Number:	115506	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	5.5	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/18/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-68 8'

Lab Project-ID Number: 5046-002

Sample Number: 115506

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	11.4	68	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C. M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

CAM METALS
TOTAL THRESHOLD LIMIT CONCENTRATION (TTLC)

Preparation Method: EPA 3050 (a)

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-68 8'

Lab Project-ID Number: 5046-002

Sample Number: 115506

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Digested: 10/18/91(b)

Batch Number: 911018-0801(b)

METAL (SYMBOL)/EPA METHOD	DATE ANALYZED	CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Antimony (Sb)/6010	10/21/91	BDL	2.5
Arsenic (As)/7060	10/18/91	BDL	0.50
Barium (Ba)/6010	10/21/91	42.	1.0
Beryllium (Be)/6010	10/21/91	BDL	0.25
Cadmium (Cd)/6010	10/21/91	BDL	0.50
Chromium (Cr)/6010	10/21/91	4.5	1.0
Cobalt (Co)/6010	10/21/91	2.6	1.0
Copper (Cu)/6010	10/21/91	14.	1.0
Lead (Pb)/6010	10/21/91	2.9	2.5
Mercury (Hg)/7471	10/16/91	BDL	0.25
Molybdenum (Mo)/6010	10/21/91	BDL	1.0
Nickel (Ni)/6010	10/21/91	2.8	1.0
Selenium (Se)/7740	10/18/91	BDL	0.25
Silver (Ag)/6010	10/21/91	BDL	1.0
Thallium (Tl)/7841	10/18/91	BDL	0.50
Vanadium (V)/6010	10/21/91	16.	1.0
Zinc (Zn)/6010	10/21/91	22.	1.0

McLaren Hart

CAM METALS
TOTAL THRESHOLD LIMIT CONCENTRATION (TTLC)

Preparation Method: EPA 3050 (a)

Lab Project-
ID Number: 5046-002

Dilution: None

Comments: (a) Applies to all metals except As, Se, Tl, and Hg. EPA Method 3050 Nitric used for As, Se, and Tl digestion. EPA Method 7471 used for Hg digestion.

(b) Applies to all metals except As, Se, Tl, and Hg. As, Se, and Tl digested on 10/17/91, Batch # 911017-0802; and Hg digested on 10/16/91, Batch # 911016-1001.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

082391MTL4

McLaren Hart

INORGANICS

Analysis:	pH	Method:	EPA 9045
Project Name:	Lockheed Burbank C-1	Project Number:	234508
Date Sampled:	10/14/91	Date Received:	10/15/91
Date Prepared:	10/16/91	Batch Number:	911016-1002
Date Analyzed:	10/16/91		

LAB PROJECT-ID NUMBER	SAMPLE NUMBER	SAMPLE DESCRIPTION	LEVEL
5046-001	115505	SB-68 3'	7.0
5046-002	115506	SB-68 8'	7.0
5046-003	115507	SB-68 15'	8.2

Approved by: Chris Phillips for C.M Date: 10/28/91
Cheryl Matterson, Associate Chemist

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-68 15'	Lab Project-ID Number:	5046-003
Sample Number:	115507	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-68 15'

Lab Project-ID Number: 5046-003

Sample Number: 115507

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/22/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	11.8	71	20 - 150

Dilution: None

Comments:

Approved By: Chris Hillis for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

CAM METALS
TOTAL THRESHOLD LIMIT CONCENTRATION (TTLC)

Preparation Method: EPA 3050 (a)

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-68 15'

Lab Project-ID Number: 5046-003

Sample Number: 115507

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Digested: 10/18/91(b)

Batch Number: 911018-0801(b)

METAL (SYMBOL)/EPA METHOD	DATE ANALYZED	CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Antimony (Sb)/6010	10/21/91	BDL	2.5
Arsenic (As)/7060	10/18/91	0.59	0.50
Barium (Ba)/6010	10/21/91	38.	1.0
Beryllium (Be)/6010	10/21/91	BDL	0.25
Cadmium (Cd)/6010	10/21/91	BDL	0.50
Chromium (Cr)/6010	10/21/91	3.9	1.0
Cobalt (Co)/6010	10/21/91	2.6	1.0
Copper (Cu)/6010	10/21/91	27.	1.0
Lead (Pb)/6010	10/21/91	2.7	2.5
Mercury (Hg)/7471	10/16/91	BDL	0.25
Molybdenum (Mo)/6010	10/21/91	BDL	1.0
Nickel (Ni)/6010	10/21/91	2.6	1.0
Selenium (Se)/7740	10/18/91	BDL	0.25
Silver (Ag)/6010	10/21/91	BDL	1.0
Thallium (Tl)/7841	10/18/91	BDL	0.50
Vanadium (V)/6010	10/21/91	13.	1.0
Zinc (Zn)/6010	10/21/91	27.	1.0

McLaren Hart

CAM METALS
TOTAL THRESHOLD LIMIT CONCENTRATION (TTLC)

Preparation Method: EPA 3050 (a)

Lab Project-
ID Number: 5046-003

Dilution: None

Comments: (a) Applies to all metals except As, Se, Tl, and Hg. EPA Method 3050 Nitric used for As, Se, and Tl digestion. EPA Method 7471 used for Hg digestion.

(b) Applies to all metals except As, Se, Tl, and Hg. As, Se, and Tl digested on 10/17/91, Batch # 911017-0802; and Hg digested on 10/16/91, Batch # 911016-1001.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

082391MTL4

McLaren Hart

INORGANICS

Analysis:	pH	Method:	EPA 9045
Project Name:	Lockheed Burbank C-1	Project Number:	234508
Date Sampled:	10/14/91	Date Received:	10/15/91
Date Prepared:	10/16/91	Batch Number:	911016-1002
Date Analyzed:	10/16/91		

LAB PROJECT-ID NUMBER	SAMPLE NUMBER	SAMPLE DESCRIPTION	LEVEL
5046-001	115505	SB-68 3'	7.0
5046-002	115506	SB-68 8'	7.0
5046-003	115507	SB-68 15'	8.2

Approved by: Chris Phillips for C.M Date: 10/28/91
Cheryl Matterson, Associate Chemist

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 1'	Lab Project-ID Number:	5046-005
Sample Number:	115510	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	5.3	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 1'	Lab Project-ID Number:	5046-005
Sample Number:	115511	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	1.7	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-005

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	9.1	114	75 - 125
Orthochlorotoluene	8.0	8.7	109	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: [illegible] Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 1'	Lab Project-ID Number:	5046-005
Sample Number:	115511	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	7.9	99	75 - 125

Dilution: None

Comments:

Approved By: [illegible] for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-69 1'

Lab Project-ID Number: 5046-005

Sample Number: 115510

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	10.7	64	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 5'	Lab Project-ID Number:	5046-004
Sample Number:	115508	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 5'	Lab Project-ID Number:	5046-004
Sample Number:	115509	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	2.9	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-004

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	9.6	120	75 - 125
Orthochlorotoluene	8.0	8.9	111	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: [signature] Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 5'	Lab Project-ID Number:	5046-004
Sample Number:	115509	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	7.9	99	75 - 125

Dilution: None

Comments:

Approved By: Cheryl Matterson for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-69 5'

Lab Project-ID Number: 5046-004

Sample Number: 115508

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	11.8	71	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M
Cheryl Matterson, Associate Chemist

Date: 10/28/91

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 10'	Lab Project-ID Number:	5046-006
Sample Number:	115512	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 10'	Lab Project-ID Number:	5046-006
Sample Number:	115513	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	BDL	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-006

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	9.2	115	75 - 125
Orthochlorotoluene	8.0	9.5	119	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: [signature] Date: [illegible]/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 10'	Lab Project-ID Number:	5046-006
Sample Number:	115513	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	8.0	100	75 - 125

Dilution: None

Comments:

Approved By: [illegible] for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-69 10'

Lab Project-ID Number: 5046-006

Sample Number: 115512

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	12.5	75	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 15'	Lab Project-ID Number:	5046-007
Sample Number:	115514	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 15'	Lab Project-ID Number:	5046-007
Sample Number:	115515	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	0.70	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	3.1	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-007

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	9.6	120	75 - 125
Orthochlorotoluene	8.0	9.7	125	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: [signature] Date: 10/27/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 15'	Lab Project-ID Number:	5046-007
Sample Number:	115515	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	2.4	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	8.0	100	75 - 125

Dilution: None

Comments:

Approved By: [illegible] for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-69 15'

Lab Project-ID Number: 5046-007

Sample Number: 115514

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	13.0	78	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 20'	Lab Project-ID Number:	5046-008
Sample Number:	115516	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 20'	Lab Project-ID Number:	5046-008
Sample Number:	115517	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	BDL	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-008

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	10.	125	75 - 125
Orthochlorotoluene	8.0	9.0	112	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: [illegible] Date: [illegible]
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-69 20'	Lab Project-ID Number:	5046-008
Sample Number:	115517	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	8.0	100	75 - 125

Dilution: None

Comments:

Approved By: [illegible] for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-69 20'

Lab Project-ID Number: 5046-008

Sample Number: 115516

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	12.7	76	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 1'	Lab Project-ID Number:	5046-009
Sample Number:	115518	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 1'	Lab Project-ID Number:	5046-009
Sample Number:	115519	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	BDL	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-009

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	9.2	115	75 - 125
Orthochlorotoluene	8.0	7.8	98	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: [illegible] Date: [illegible]
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 1'	Lab Project-ID Number:	5046-009
Sample Number:	115519	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	8.0	100	75 - 125

Dilution: None

Comments:

Approved By: [illegible] for C. M. Date: 10/23/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-70 1'

Lab Project-ID Number: 5046-009

Sample Number: 115518

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	12.5	75	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 5'	Lab Project-ID Number:	5046-010
Sample Number:	115520	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Cheryl Matterson, Associate Chemist Date: 10/28/91

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 5'	Lab Project-ID Number:	5046-010
Sample Number:	115521	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	BDL	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-010

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	10.	125	75 - 125
Orthochlorotoluene	8.0	10.	125	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: Cheryl Matterson, Associate Chemist Date: 11/28/91

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 5'	Lab Project-ID Number:	5046-010
Sample Number:	115521	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	8.1	101	75 - 125

Dilution: None

Comments:

Approved By: [illegible] Date: 10/25/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-70 5'

Lab Project-ID Number: 5046-010

Sample Number: 115520

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	12.5	75	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 10'	Lab Project-ID Number:	5046-011
Sample Number:	115522	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 10'	Lab Project-ID Number:	5046-011
Sample Number:	115523	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	BDL	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-011

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	11.	138 (b)	75 - 125
Orthochlorotoluene	8.0	9.6	120	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

(b) Sample surrogate compound was beyond quality control limits. All other quality control is acceptable.

Approved By: _____ Date: _____
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 10'	Lab Project-ID Number:	5046-011
Sample Number:	115523	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	7.6	95	75 - 125

Dilution: None

Comments:

Approved By: [signature] Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-70 10'

Lab Project-ID Number: 5046-011

Sample Number: 115522

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	12.0	72	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 15'	Lab Project-ID Number:	5046-012
Sample Number:	115524	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 15'	Lab Project-ID Number:	5046-012
Sample Number:	115525	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	BDL	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-012

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	8.6	108	75 - 125
Orthochlorotoluene	8.0	8.8	110	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: Gina Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 15'	Lab Project-ID Number:	5046-012
Sample Number:	115525	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	7.9	99	75 - 125

Dilution: None

Comments:

Approved By: Chris Phillips for C. M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-70 15'

Lab Project-ID Number: 5046-012

Sample Number: 115524

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	12.0	72	20 - 150

Dilution: None

Comments:

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Analytical Method: Modified EPA 418.1 (a)
Preparation Method: Modified EPA 3550

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 20'	Lab Project-ID Number:	5046-013
Sample Number:	115526	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/16/91
Date Analyzed:	10/21/91	Batch Number:	911016-0301

	ANALYTE CONCENTRATION mg/Kg (ppm)	DETECTION LIMIT mg/Kg (ppm)
Total Recoverable Petroleum Hydrocarbons	BDL	5.0

Dilution: None

Comments: (a) The modification includes the calibration standard which covers a wide fraction of petroleum hydrocarbons and is not specific to a compound.

Approved By: Chris Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

070191

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 20'	Lab Project-ID Number:	5046-013
Sample Number:	115527	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Chloromethane	BDL	0.80
Bromomethane	BDL	1.0
Vinyl Chloride	BDL	1.0
Chloroethane	BDL	1.0
Methylene Chloride	BDL	5.0
Trichlorofluoromethane	BDL	1.0
1,1-Dichloroethene	BDL	1.0
1,1-Dichloroethane	BDL	0.70
c-1,2-Dichloroethene	BDL	1.0
t-1,2-Dichloroethene	BDL	1.0
Chloroform	BDL	0.50
1,2-Dichloroethane	BDL	0.30
1,1,1-Trichloroethane	BDL	0.30
Carbon Tetrachloride	BDL	1.0
Bromodichloromethane	BDL	1.0
1,2-Dichloropropane	BDL	0.40
c-1,3-Dichloropropene	BDL	1.0
Trichloroethene	BDL	1.0
Dibromochloromethane	BDL	0.90
1,1,2-Trichloroethane	BDL	0.20
t-1,3-Dichloropropene	BDL	1.0
Bromoform	BDL	1.0
1,1,2,2-Tetrachloroethane	BDL	0.30
Tetrachloroethene	BDL	0.30
Chlorobenzene	BDL	1.0
1,3-Dichlorobenzene	BDL	1.0
1,2-Dichlorobenzene	BDL	1.0
1,4-Dichlorobenzene	BDL	1.0
Freon 113	BDL	100.

McLaren Hart

VOLATILE HALOGENATED ORGANIC COMPOUNDS

Analytical Method: Modified EPA 8010 - Low Level (a)
Preparation Method: EPA 5030
Methanol Extraction

Lab Project-
ID Number: 5046-013

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Bromochloromethane	8.0	10.	125	75 - 125
Orthochlorotoluene	8.0	9.9	124	75 - 125

Dilution: None

Comments: (a) Modification includes 26 of the 39 compounds. c-1,2-Dichloroethene, Freon and c-1,3-Dichloropropene are reported additionally.

Approved By: Chris Phillips for C. M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

VOLATILE AROMATIC COMPOUNDS

Analytical Method: EPA 8020 - Low Level
Preparation Method: EPA 5030
Methanol Extraction

Project Name:	Lockheed Burbank C-1	Project Number:	234508
Sample Description:	SB-70 20'	Lab Project-ID Number:	5046-013
Sample Number:	115527	Date Sampled:	10/14/91
Date Received:	10/15/91	Date Extracted:	10/17/91
Date Analyzed:	10/19/91	Batch Number:	911017-1302

COMPOUND	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
Benzene	BDL	2.0
Toluene	BDL	2.0
Chlorobenzene	BDL	2.0
Ethyl Benzene	BDL	2.0
1,2-Xylene	BDL	2.0
1,3-Xylene	BDL	2.0
1,4-Xylene	BDL	2.0
1,2-Dichlorobenzene	BDL	2.0
1,3-Dichlorobenzene	BDL	2.0
1,4-Dichlorobenzene	BDL	2.0

Surrogates	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Orthochlorotoluene	8.0	8.1	101	75 - 125

Dilution: None

Comments:

Approved By: Thus Phillips for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

081691

McLaren Hart

POLYCHLORINATED BIPHENYLS

Analytical Method: EPA 8080
Preparation Method: Modified EPA 3550

Project Name: Lockheed Burbank C-1

Project Number: 234508

Sample Description: SB-70 20'

Lab Project-ID Number: 5046-013

Sample Number: 115526

Date Sampled: 10/14/91

Date Received: 10/15/91

Date Extracted: 10/16/91

Date Analyzed: 10/23/91

Batch Number: 911016-1901

AROCLOR TYPE	ANALYTE CONCENTRATION ug/Kg (ppb)	DETECTION LIMIT ug/Kg (ppb)
1016	BDL	50.
1221	BDL	100.
1232	BDL	50.
1242	BDL	50.
1248	BDL	50.
1254	BDL	50.
1260	BDL	50.

Surrogate	Amount Added	Amount Found	Percent Recovery	Acceptance Limits
Dibutylchlorendate	16.7	12.4	74	20 - 150

Dilution: None

Comments:

Approved By: Chris Phill for C.M. Date: 10/28/91
Cheryl Matterson, Associate Chemist

The cover letter and attachments are integral parts of this report.

090591

McLaren Hart

APPENDIX C

CHAIN OF CUSTODIES, QA/QC SUMMARY, AND QA/QC DATA SHEETS

McLaren Hart

REVISION

Pg 1/3

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY
Laboratory Project No.: 5046
Storage Refrigerator ID: 4-19, 12
Storage Freezer ID.
Secured Yes ✓ No

Project Name: Lockheed Burbank C-1 Project #: 234508 Sampler: Tom Hanson (Printed Name) Tom Hanson (Signature)

Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:
Tom Hanson / Tom Hanson	Fed EX	10/14/91	14:55
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:
FED EX	[illegible]	10/15/91	11:00
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Fed Ex
Shipment ID: 0204077241

Circle or Add Analysis(es) Requested

a) Identify specific metals requested under Special Instructions

Sample ID Number	Sample Description Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (~~Pesticides~~/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total a	Metals-Soluble a	Fluoride/Perchlorate	~~Chloride~~/pH	TDS/Percent Solid	Specific Conductivity (EC)	CAM Metals	TAT	Container(s) #	Type	FOR LABORATORY USE ONLY Lab ID
115505	10/14	10:25	SB-68 3'			X					X					X			X			4	1	B	5046-001
115506	10/14	10:30	SB-68 8'			X					X					X			X			4	1	B	-002
115507	10/14	10:35	SB-68 15'			X					X					X			X			4	1	B	-003
115508	10/14	10:59	SB-69 5'			X					X											4	1	B	-004 A
115509	10/14	10:59	SB-69 5'	X	X																	4	1	B	-004 B
115510	10/14	11:37	SB-69 1'			X					X											4	1	B	-005 A
115511	10/14	11:37	SB-69 1'	X	X																	4	1	B	-005 B
115512	10/14	11:03	SB-69 10'			X					X											4	1	B	-006 A
115513	10/14	11:03	SB-69 10'	X	X																	4	1	B	-006 B

Special Instructions/Comments:

Sample Archive/Disposal:
☒ Laboratory Standard
☐ Other

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types: B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette
O = Other

SEND DOCUMENTATION AND RESULTS TO (Check one):
☒ Project Manager/Office: Keith McIntyre - Rancho
☐ Client Name:
Company:
Address:
Phone: ( ) Fax:

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt: GOOD CONDITION - RSP
ALL SAMPLES FOR LP HAVE HEADSPACE.
TAT HAS CHANGED FOR ALL ANALYSIS: CHEMIST DUE DATE: 10-22-91
PCBs DUE: 10-23-91
THESE CHANGES PER K. McIntyre (RSP) FOR WHOLE LP

McLaren Hart

CHAIN OF CUSTODY RECORD

PG 2/3

227234

FOR LABORATORY USE ONLY
Laboratory Project No.: 5046
Storage Refrigerator ID: 7-19-12
Storage Freezer ID:
Secured: Yes ✓ No

Project Name: Lockheed Burbank Project #: 234506 Sampler: Tom Hansen (Printed Name) Tom H (Signature)

Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:
Tom H Tom Hansen	Fed Ex	10/14/91	14:55
FED EX	[illegible]	10/15/91	11:00

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Fed Ex

Shipment ID: 0260772 41

Circle or Add Analysis(es) Requested

a) Identify specific metals requested under Special Instructions

	Sample ID Number	Sample Description Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (Pesticides/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total a	Metals-Soluble a	Fluoride/Perchlorate	Chloride/pH	TDS/Percent Solid	Specific Conductivity (EC)	TAT	Container(s) #	Type	FOR LABORATORY USE ONLY Lab ID
1	115514	10/14	11:30	SB-69 15'				X						X								4	1	B	5046-007A
2	115515	10/14	11:30	SB-69 15'	X	X																4	1	B	-007B
3	115516	10/14	11:35	SB-69 20'				X						X								4	1	B	-008A
4	115517	10/14	11:35	SB-69 20'	X	X																4	1	B	-008B
5	115518	10/14	11:57	SB-70 1'				X						X								4	1	B	-009A
6	115519	10/14	11:57	SB-70 1'	X	X																4	1	B	-009B
7	115520	10/14	12:05	SB-70 5'				X						X								4	1	B	-010A
8	115521	10/14	12:05	SB-70 5'	X	X																4	1	B	-010B
9	115522	10/14	12:10	SB-70 10'				X						X								4	1	B	-011A
10	115523	10/14	12:10	SB-70 10'	X	X																4	1	B	-011B

Special Instructions/Comments:

Sample Archive/Disposal:
☒ Laboratory Standard
☐ Other

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types: B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette, O = Other

SEND DOCUMENTATION AND RESULTS TO (Check one):
☒ Project Manager/Office: Keith McIntyre - Rancho
☐ Client Name:
Company:
Address:
Phone: ( ) Fax:

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt: GOOD CONDITION - ASP

Pg 3/3

227235

McLaren Hart

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY
Laboratory Project No.: 5046
Storage Refrigerator ID: 4-19, 12
Storage Freezer ID:
Secured: Yes ✓ No

Project Name: Lockheed Burbank C-1 Project #: 234508 Sampler: Tom Hanson (Printed Name) Tom Hanson (Signature)

Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date	Time
Tom Hanson	Fed Ex	10/14/91	14:55
FED EX	[illegible]	10/15/91	11:00

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Fed Ex
Shipment ID: 0204077241

Circle or Add Analysis(es) Requested

a) Identify specific metals requested under Special Instructions

	Sample ID Number	Sample Description Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (Pesticides/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total a	Metals-Soluble a	Fluoride/Perchlorate	Chloride/pH	TDS/Percent Solid	Specific Conductivity (EC)	TAT	Container(s) #	Type	FOR LABORATORY USE ONLY Lab ID
1	115524	10/14	12:20	SB-70 15'				X					X									4	1	B	5046-012A
2	115525	10/14	12:20	SB-70 15'	X	X																4	1	B	-012B
3	115526	10/14	12:25	SB-70 20'				X					X									4	1	B	-013A
4	115527	10/14	12:25	SB-70 20'	X	X																4	1	B	-013B
5																									
6																									
7																									
8																									
9																									
10																									

Special Instructions/Comments:

Sample Archive/Disposal:
☒ Laboratory Standard
☐ Other

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types: B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette, O = Other

SEND DOCUMENTATION AND RESULTS TO (Check one):
☒ Project Manager/Office: Keith McIntyre
☐ Client Name:
Company:
Address:
Phone: ( ) Fax:

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt: GOOD CONDITION - ASP

APPENDIX C

TABLE C-1
LOCKHEED BURBANK PLANT C-1
LAT PARKING LOT
SAMPLING AND ANALYSIS SUMMARY

Boring Number	Top of Sample (feet)	Date Sampled	Analysis	Date Extracted	Date Analyzed	Sample Holding time (days)
SB-68	3	10/14/91	418.1	10/16/91	10/21/91	7
SB-68	3	10/14/91	8080	10/16/91	10/23/91	9
SB-68	3	10/14/91	7000	10/16-18/1991*	10/16,18,21/1991	2,4,7
SB-68	3	10/14/91	pH	10/16/1991**	10/16/91	2
SB-68	8	10/14/91	418.1	10/16/91	10/21/91	7
SB-68	8	10/14/91	8080	10/16/91	10/23/91	9
SB-68	8	10/14/91	7000	10/16-18/1991*	10/16,18,21/1991	2,4,7
SB-68	8	10/14/91	pH	10/16/1991**	10/16/91	2
SB-68	15	10/14/91	418.1	10/16/91	10/21/91	7
SB-68	15	10/14/91	8080	10/16/91	10/22/91	8
SB-68	15	10/14/91	7000	10/16-18/1991*	10/16,18,21/1991	2,4,7
SB-68	15	10/14/91	pH	10/16/1991**	10/16/91	2
SB-69	1	10/14/91	418.1	10/16/91	10/21/91	7
SB-69	1	10/14/91	8010	10/17/91	10/19/91	5
SB-69	1	10/14/91	8020	10/17/91	10/19/91	5
SB-69	1	10/14/91	8080	10/16/91	10/23/91	9
SB-69	5	10/14/91	418.1	10/16/91	10/21/91	7
SB-69	5	10/14/91	8010	10/17/91	10/19/91	5
SB-69	5	10/14/91	8020	10/17/91	10/19/91	5
SB-69	5	10/14/91	8080	10/16/91	10/23/91	9
SB-69	10	10/14/91	418.1	10/16/91	10/21/91	7
SB-69	10	10/14/91	8010	10/17/91	10/19/91	5
SB-69	10	10/14/91	8020	10/17/91	10/19/91	5
SB-69	10	10/14/91	8080	10/16/91	10/23/91	9
SB-69	15	10/14/91	418.1	10/16/91	10/21/91	7
SB-69	15	10/14/91	8010	10/17/91	10/19/91	5
SB-69	15	10/14/91	8020	10/17/91	10/19/91	5
SB-69	15	10/14/91	8080	10/16/91	10/23/91	9
SB-69	20	10/14/91	418.1	10/16/91	10/21/91	7
SB-69	20	10/14/91	8010	10/17/91	10/19/91	5
SB-69	20	10/14/91	8020	10/17/91	10/19/91	5
SB-69	20	10/14/91	8080	10/16/91	10/23/91	9
SB-70	1	10/14/91	418.1	10/16/91	10/21/91	7
SB-70	1	10/14/91	8010	10/17/91	10/19/91	5
SB-70	1	10/14/91	8020	10/17/91	10/19/91	5
SB-70	1	10/14/91	8080	10/16/91	10/23/91	9
SB-70	5	10/14/91	418.1	10/16/91	10/21/91	7
SB-70	5	10/14/91	8010	10/17/91	10/19/91	5
SB-70	5	10/14/91	8020	10/17/91	10/19/91	5
SB-70	5	10/14/91	8080	10/16/91	10/23/91	9
SB-70	10	10/14/91	418.1	10/16/91	10/21/91	7
SB-70	10	10/14/91	8010	10/17/91	10/19/91	5
SB-70	10	10/14/91	8020	10/17/91	10/19/91	5
SB-70	10	10/14/91	8080	10/16/91	10/23/91	9

APPENDIX C

TABLE C-1
LOCKHEED BURBANK PLANT C-1
LAT PARKING LOT
SAMPLING AND ANALYSIS SUMMARY
(continued)

Boring Number	Top of Sample (feet)	Date Sampled	Analysis	Date Extracted	Date Analyzed	Sample Holding time (days)
SB-70	15	10/14/91	418.1	10/16/91	10/21/91	7
SB-70	15	10/14/91	8010	10/17/91	10/19/91	5
SB-70	15	10/14/91	8020	10/17/91	10/19/91	5
SB-70	15	10/14/91	8080	10/16/91	10/23/91	9
SB-70	20	10/14/91	418.1	10/16/91	10/21/91	7
SB-70	20	10/14/91	8010	10/17/91	10/19/91	5
SB-70	20	10/14/91	8020	10/17/91	10/19/91	5
SB-70	20	10/14/91	8080	10/16/91	10/23/91	9

* Date digested, 10/18/91 applies to all metals except As, Se, Tl, and Hg. As, Se, and Tl digested on 10/17/91, Batch # 911017-0802; and Hg digested on 10/16/91, Batch # 911016-1001.

** Date prepared

APPENDIX C

TABLE C-2
LOCKHEED BURBANK PLANT C-1
LAT PARKING LOT
QA/QC SUMMARY

Analysis	Batch Number	Sample Extract # Date	Sample Analysis Date	MetBlk Extract. Date	SysBlk Extract. Date	RegBlk Extract Date	LCS/LCSD Extract. Date	MS/MSD Extract. Date	MetBlk Analysis Date	SysBlk Analysis Date	RegBlk Analysis Date	LCS/LCSD Analysis Date	MS/MSD Analysis Date
418.1	911016-0301	10/16/91	10/21/91	10/16/91	NA	NA	10/16/91	NA	10/18/91	NA	NA	0/18,21/199	NA
8010	911017-1302	10/17/91	10/19/91	10/17/91	NA	10/17/91	10/17/91	NA	10/19/91	10/19/91	10/19/91	10/18/91	NA
8020	911017-1302	10/17/91	10/19/91	10/17/91	NA	10/17/91	10/17/91	NA	10/19/91	10/19/91	10/19/91	10/18/91	NA
8080	911016-1901	10/16/91	10/22,23/91	10/16/91	NA	NA	10/16/91	10/16/91	10/22/91	NA	NA	10/22/91	10/22/91
Cam Metals*	911018-0801	10/18/91	10/21/91	10/18/91	NA	NA	10/18/91	10/18/91	10/21/91	NA	NA	10/21/91	10/21/91
Cam Metals**	911017-0802	10/17/91	10/18/91	10/17/91	NA	NA	10/17/91	10/17/91	10/18/91	NA	NA	10/18/91	10/18/91
Cam Metals***	911016-1001	10/16/91	10/16/91	10/16/91	NA	NA	10/16/91	10/16/91	10/16/91	NA	NA	10/16/91	10/16/91

 # Digestion date is listed for Cam Metals.
* Applies to all metals except As, Se, Tl and Hg.
** Applies to As, Se and Tl.
*** Applies to Hg.

QUALITY CONTROL DEFINITIONS

METHOD BLANK RESULTS: A method blank (MB) is a laboratory generated sample free of any contamination. The method blank assesses the degree to which the laboratory operations and procedures cause false-positive analytical results for your samples. The method blank results associated with your samples are attached.

LABORATORY CONTROL SPIKES

The LCS Program:

The laboratory control spike is a well characterized matrix (organic pure type II water for water samples and contamination free sand for soil samples) which is spiked with certain target parameters and analyzed in duplicate at approximately 5% of the sample load in order to assure the accuracy and precision of the analytical method. The results of the laboratory control spike associated with your samples are attached.

Accuracy is measured using percent recovery, i.e.:

$$\text{Percent Recovery} = \frac{\text{(measured concentration)}}{\text{(actual concentration)}} \times 100$$

Precision is measured using the relative percent difference (RPD) from duplicate tests, i.e.:

$$\text{RPD} = \frac{\%\ \text{Recovery of Spike}_{(1)} - \%\ \text{Recovery of Spike}_{(2)}}{(\%\ \text{Recovery of Spike}_{(1)} + \%\ \text{Recovery of Spike}_{(2)})/2} \times 100$$

Control limits for accuracy and precision are different for different methods. They may also vary with the different sample matrices. They are based on laboratory average historical data and EPA limits which are approved by the Quality Assurance Department. McLaren Analytical Laboratory reanalyzes samples if the precision or accuracy is out of acceptance control limits.

(DC3-CN5046)

McLaren Hart

ABBREVIATIONS USED IN THIS REPORT

BDL	Below Detection Limit
MB	Method Blank
MS	Matrix Spike
MSD	Matrix Spike Duplicate
LCS	Laboratory Control Spike
LCSD	Laboratory Control Spike Duplicate
RPD	Relative Percent Difference
NA	Not Applicable
NS	Not Specified

COMMENTS

Test methods may include minor modifications of published EPA methods (e.g., detection limits or parameter lists). Detection limits are adjusted to reflect dilution of the sample when appropriate. Solids and waste are analyzed with no correction made for moisture content. Results are not corrected for concentrations of analytes which may be found in the blanks. Blank results are reported in the Case Narrative.

* Low level laboratory control spike (LCS) analyses were performed at the request of Mr. Ham Taim, RWQCB, to validate the method detection for low level methanol extraction method which was substituted for the heated sparger approach originally requested by the RWQCB. This LCS procedure is not a standard QA/QC procedure and is not used to validate soil sample results. Therefore, this data has no impact on the soil sample results. As yet, there is not enough data available to statistically establish acceptance limits. The laboratory used the mid-level LCS acceptance limits.

** McLaren Analytical Laboratory has not established acceptance limits for MS recoveries for the Lockheed Burbank C-1 project yet. The limits will be statistically determined when enough data for the Lockheed Burbank C-1 project has been collected. When established, the MS values will be significantly wider than the LCS values.

Results are reported on the attached data sheets.

(DC3-CN5046)

QUALITY CONTROL REPORT

METHOD BLANK

Method: Mod. EPA 418.1
Units: mg/Kg (ppm)

Date Analyzed: 10/18/91
Date Extracted: 10/16/91
Batch Number: 911016-0301

Compound	Detection Limit	Results of the MB
Total Recoverable Petroleum Hydrocarbons	5.0	BDL

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Method 418.1 (Modified)

LP#: 5046

Analyst: EB

Spike Sample ID: LCSS/LCSDS #46

Date Of Analysis: 10/18/91

Spike ID Code: W2-643

Instrument #: Nicolet 205

Surrogate ID Code: NA

Batch #: 911016-0301

Matrix: Soil Units: mg/Kg

COMPOUNDS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP.+ SPIKE CONC.	(f) SPIKE DUP. REC. %	(g) RPD %	ACCEPTANCE LIMITS % REC.	ACCEPTANCE LIMITS RPD
TPH	NA	62.	58.	94	58.	94	0	72-116	≤ 25

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments:

4181SDR.S91

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Method 418.1 (Modified)

LP#: 5046

Analyst: EB

Spike Sample ID: 5046-007MSS/MSDS#71

Date Of Analysis: 10/21/91

Spike ID Code: W2-643

Instrument #: Nicolet 205

Surrogate ID Code: NA

Batch #: 911016-0301

Matrix: Soil Units: mg/Kg

COMPOUNDS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP.+ SPIKE CONC.	(f) SPIKE DUP. REC. %	(g) RPD %	ACCEPTANCE LIMITS** % REC.	RPD
TPH	BDL	62.	62.	100	60.	97	3		

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments:

**See Comments section.

4181SDR.S91

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

METHOD BLANK

Method: Mod. EPA 8010 - Low Level
Units: ug/Kg (ppb)

Date Analyzed: 10/19/91
Date Extracted: 10/17/91
Batch Number: 911017-1302

Compound	Detection Limit	Results of the MB
Chloromethane	0.80	BDL
Bromomethane	1.0	BDL
Vinyl Chloride	1.0	BDL
Chloroethane	1.0	BDL
Methylene Chloride	5.0	BDL
Trichlorofluoromethane	1.0	BDL
1,1-Dichloroethene	1.0	BDL
1,1-Dichloroethane	0.70	BDL
c-1,2-Dichloroethene	1.0	BDL
t-1,2-Dichloroethene	1.0	BDL
Chloroform	0.50	BDL
1,2-Dichloroethane	0.30	BDL
1,1,1-Trichloroethane	0.30	BDL
Carbon Tetrachloride	1.0	BDL
Bromodichloromethane	1.0	BDL
1,2-Dichloropropane	0.40	BDL
c-1,3-Dichloropropene	1.0	BDL
Trichloroethene	1.0	BDL
Dibromochloromethane	0.90	BDL
1,1,2-Trichloroethane	0.20	BDL
t-1,3-Dichloropropene	1.0	BDL
Bromoform	1.0	BDL
1,1,2,2-Tetrachloroethane	0.30	BDL
Tetrachloroethene	0.30	BDL
Chlorobenzene	1.0	BDL
1,3-Dichlorobenzene	1.0	BDL
1,2-Dichlorobenzene	1.0	BDL
1,4-Dichlorobenzene	1.0	BDL
Freon 113	100.	BDL

(DC3-CN5046)

McLaren Hart

QUALITY CONTROL REPORT

REAGENT BLANK

Method: Mod. EPA 8010 - Low Level
Units: ug/Kg (ppb)

Date Analyzed: 10/19/91
Date Extracted: 10/17/91
Batch Number: 911017-1302

Compound	Detection Limit	Results of the RB
Chloromethane	0.80	BDL
Bromomethane	1.0	BDL
Vinyl Chloride	1.0	BDL
Chloroethane	1.0	BDL
Methylene Chloride	5.0	BDL
Trichlorofluoromethane	1.0	BDL
1,1-Dichloroethene	1.0	BDL
1,1-Dichloroethane	0.70	BDL
c-1,2-Dichloroethene	1.0	BDL
t-1,2-Dichloroethene	1.0	BDL
Chloroform	0.50	BDL
1,2-Dichloroethane	0.30	BDL
1,1,1-Trichloroethane	0.30	BDL
Carbon Tetrachloride	1.0	BDL
Bromodichloromethane	1.0	BDL
1,2-Dichloropropane	0.40	BDL
c-1,3-Dichloropropene	1.0	BDL
Trichloroethene	1.0	BDL
Dibromochloromethane	0.90	BDL
1,1,2-Trichloroethane	0.20	BDL
t-1,3-Dichloropropene	1.0	BDL
Bromoform	1.0	BDL
1,1,2,2-Tetrachloroethane	0.30	BDL
Tetrachloroethene	0.30	BDL
Chlorobenzene	1.0	BDL
1,3-Dichlorobenzene	1.0	BDL
1,2-Dichlorobenzene	1.0	BDL
1,4-Dichlorobenzene	1.0	BDL
Freon 113	100.	BDL

(DC3-CN5046)

McLaren Hart

QUALITY CONTROL REPORT

SYSTEM BLANK

Method: Mod. EPA 8010 Date Analyzed: 10/19/91
Units: ug/L (ppb)

Compound	Detection Limit	Results of the SB
Chloromethane	4.0	BDL
Bromomethane	4.0	BDL
Vinyl Chloride	1.0	BDL
Chloroethane	4.0	BDL
Methylene Chloride	20.	BDL
Trichlorofluoromethane	0.50	BDL
1,1-Dichloroethene	0.50	BDL
1,1-Dichloroethane	0.50	BDL
c-1,2-Dichloroethene	0.50	BDL
t-1,2-Dichloroethene	0.50	BDL
Chloroform	0.50	BDL
1,2-Dichloroethane	0.50	BDL
1,1,1-Trichloroethane	0.50	BDL
Carbon Tetrachloride	0.50	BDL
Bromodichloromethane	0.50	BDL
1,2-Dichloropropane	0.50	BDL
c-1,3-Dichloropropene	0.50	BDL
Trichloroethene	0.50	BDL
Dibromochloromethane	1.0	BDL
1,1,2-Trichloroethane	0.50	BDL
t-1,3-Dichloropropene	0.50	BDL
Bromoform	1.0	BDL
1,1,2,2-Tetrachloroethane	1.0	BDL
Tetrachloroethene	0.50	BDL
Chlorobenzene	0.50	BDL
1,3-Dichlorobenzene	0.50	BDL
1,2-Dichlorobenzene	0.50	BDL
1,4-Dichlorobenzene	0.50	BDL
Freon 113	10.	BDL

(DC3-CN5046)

McLaren Hart

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Lockheed
Laboratory Control Spike/
Laboratory Control Spike Duplicate
Method 8010 (Modified)/8020

LP#: 5046

Analyst: TB

Batch #: 911017-1302

Date Of Analysis: 10/18/91

Spike Sample ID: LCS/D LOW 30*

Column: 502.2

Spike ID Code: W-1-329

Instrument #: 9

Surrogate ID Code: W-1-282

Units: ug/Kg Matrix: Soil

COMPOUNDS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC. %	(e) SAMPLE DUP. + SPIKE CONC.	(f) SPIKE DUP. REC. %	(g) RPD %	ACCEPTANCE LIMITS % REC.	ACCEPTANCE LIMITS RPD
Vinyl Chloride	NA	1.0	1.3	130	1.1	110	17	60-140	≤ 25
Chloroethane	NA	1.0	1.1	110	1.0	100	10	60-140	≤ 25
Chloroform	NA	1.0	0.56	56	0.70	70	21	75-125	≤ 25
1,2 - Dichloroethane	NA	1.0	0.62	62	0.82	82	28	75-125	≤ 25
Tetrachloroethylene	NA	1.0	0.46	46	0.70	70	41	75-125	≤ 25
Chlorobenzene	NA	1.0	0.96	96	0.96	96	0	75-125	≤ 25
Benzene	NA	1.0	0.92	92	0.96	96	4	75-125	≤ 25
Toluene	NA	1.0	1.5	150	1.6	160	6	75-125	≤ 25
1,2 - Xylene	NA	1.0	0.84	84	0.88	88	5	75-125	≤ 25
1,3 - Dichlorobenzene	NA	1.0	0.94	94	0.96	96	2	75-125	≤ 25

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments: *See Comments section.

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Lockheed
Laboratory Control Spike/
Laboratory Control Spike Duplicate
Method 8010 (Modified)/8020

LP#: 5046

Analyst: TB

Batch #: 911017-1302

Date Of Analysis: 10/18/91

Spike Sample ID: LCS/D LOW 30*

Column: 502.2

Spike ID Code: W-1-329

Instrument #: 9

Surrogate ID Code: W-1-282

Units: ug/Kg Matrix: Soil

SURROGATE COMPOUNDS	DET.	(h) SURROGATE SPIKE CONC.	(i) SAMPLE + SURROGATE SPIKE CONC.	(j) SURROGATE REC. %	(k) SAMPLE DUP + SURROGATE SPIKE CONC.	(l) SURROGATE DUP. RECOVERY %	ACCEPTANCE LIMITS % REC.
Bromochloromethane	HALL	8.0	8.6	108	9.8	122	75-125
o-Chlorotoluene	HALL	8.0	7.9	99	11.	138 [a]	75-125
o-Chlorotoluene	PID	8.0	7.6	95	7.2	90	75-125

Surrogate % Recovery = j = (i/h) x 100
Surrogate Dupe % Recovery = l = (k/h) x 100

Comments: *See Comments section.

[a] Sample surrogate compound was beyond quality control limits. All other quality control is acceptable.

8010-20L.91

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Lockheed
Laboratory Control Spike/
Laboratory Control Spike Duplicate
Method 8010 (Modified)/8020

LP#: 5046

Analyst: TB

Batch #: 911017-1302

Date Of Analysis: 10/18/91

Spike Sample ID: LCS/D MID 30

Column: 502.2

Spike ID Code: W-1-329

Instrument #: 9

Surrogate ID Code: W-1-282

Units: ug/Kg Matrix: Soil

COMPOUNDS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC. %	(e) SAMPLE DUP. + SPIKE CONC.	(f) SPIKE DUP. REC. %	(g) RPD %	ACCEPTANCE LIMITS % REC.	ACCEPTANCE LIMITS RPD
Vinyl Chloride	NA	5.0	3.4	68	3.0	60	12	60-140	≤ 25
Chloroethane	NA	5.0	3.4	68	3.1	62	9	60-140	≤ 25
Chloroform	NA	5.0	5.2	104	4.6	92	12	75-125	≤ 25
1,2 - Dichloroethane	NA	5.0	3.8	76	4.2	84	10	75-125	≤ 25
Tetrachloroethylene	NA	5.0	5.0	100	4.4	88	13	75-125	≤ 25
Chlorobenzene	NA	5.0	4.0	80	4.1	82	2	75-125	≤ 25
Benzene	NA	5.0	4.4	88	4.0	80	10	75-125	≤ 25
Toluene	NA	5.0	4.8	96	4.2	84	13	75-125	≤ 25
1,2 - Xylene	NA	5.0	3.8	76	4.2	84	10	75-125	≤ 25
1,3 - Dichlorobenzene	NA	5.0	4.2	84	4.6	92	9	75-125	≤ 25

Spike Recovery = d = ((c-a)/b) x 100

Spike Duplicate Recovery = f = ((e-a)/b) x 100

Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments:

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Lockheed
Laboratory Control Spike/
Laboratory Control Spike Duplicate
Method 8010 (Modified)/8020

LP#: 5046

Analyst: TB

Batch #: 911017-1302

Date Of Analysis: 10/18/91

Spike Sample ID: LCS/D MID 30

Column: 502.2

Spike ID Code: W-1-329

Instrument #: 9

Surrogate ID Code: W-1-282

Units: ug/Kg Matrix: Soil

SURROGATE COMPOUNDS	DET.	(h) SURROGATE SPIKE CONC.	(i) SAMPLE + SURROGATE SPIKE CONC.	(j) SURROGATE REC. %	(k) SAMPLE DUP + SURROGATE SPIKE CONC.	(l) SURROGATE DUP. RECOVERY %	ACCEPTANCE LIMITS % REC.
Bromochloromethane	HALL	8.0	9.1	114	9.1	114	75-125
o-Chlorotoluene	HALL	8.0	11.	138 [a]	9.4	118	75-125
o-Chlorotoluene	PID	8.0	6.9	86	7.6	95	75-125

Surrogate % Recovery = j = (i/h) x 100
Surrogate Dupe % Recovery = l = (k/h) x 100

Comments:

[a] Sample surrogate compound was beyond quality control limits. All other quality control is acceptable.

8010-20L.91

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Lockheed
Laboratory Control Spike/
Laboratory Control Spike Duplicate
Method 8010 (Modified)/8020

LP#: 5046

Analyst: TB

Batch #: 911017-1302

Date Of Analysis: 10/18/91

Spike Sample ID: 5049-005MS/D

Column: 502.2

Spike ID Code: W-1-329

Instrument #: 9

Surrogate ID Code: W-1-282

Units: ug/Kg Matrix: Soil

COMPOUNDS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC. %	(e) SAMPLE DUP. + SPIKE CONC.	(f) SPIKE DUP. REC. %	(g) RPD %	ACCEPTANCE LIMITS** % REC.	ACCEPTANCE LIMITS** RPD
Vinyl Chloride	BDL	5.0	2.4	48	3.6	72	40		
Chloroethane	BDL	5.0	2.9	58	3.1	62	7		
Chloroform	BDL	5.0	4.7	94	6.4	128	30		
1,2 - Dichloroethane	BDL	5.0	5.4	108	6.4	128	17		
Tetrachloroethylene	BDL	5.0	3.8	76	4.8	96	23		
Chlorobenzene	BDL	5.0	5.1	102	6.4	128	23		
Benzene	BDL	5.0	4.3	86	6.0	120	31		
Toluene	BDL	5.0	5.0	100	6.4	128	25		
1,2 - Xylene	BDL	5.0	4.6	92	5.8	116	22		
1,3 - Dichlorobenzene	BDL	5.0	5.0	100	5.6	112	11		

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments: **See Comments section.

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Lockheed
Laboratory Control Spike/
Laboratory Control Spike Duplicate
Method 8010 (Modified)/8020

LP#: 5046

Analyst: TB

Batch #: 911017-1302

Date Of Analysis: 10/18/91

Spike Sample ID: 5049-005MS/D

Column: 502.2

Spike ID Code: W-1-329

Instrument #: 9

Surrogate ID Code: W-1-282

Units: ug/Kg Matrix: Soil

SURROGATE COMPOUNDS	DET.	(h) SURROGATE SPIKE CONC.	(i) SAMPLE + SURROGATE SPIKE CONC.	(j) SURROGATE REC. %	(k) SAMPLE DUP + SURROGATE SPIKE CONC.	(l) SURROGATE DUP. RECOVERY %	ACCEPTANCE LIMITS** % REC.
Bromochloromethane	HALL	8.0	8.9	111	9.0	112	
o-Chlorotoluene	HALL	8.0	7.6	95	8.4	105	
o-Chlorotoluene	PID	8.0	7.5	94	7.5	94	

Surrogate % Recovery = j = (i/h) x 100
Surrogate Dupe % Recovery = l = (k/h) x 100

Comments:

**See Comments section.

8010-20L.91

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

METHOD BLANK

Method: EPA 8020 - Low Level
Units: ug/Kg (ppb)

Date Analyzed: 10/19/91
Date Extracted: 10/17/91
Batch Number: 911017-1302

Compound	Detection Limit	Results of the MB
Benzene	2.0	BDL
Toluene	2.0	BDL
Chlorobenzene	2.0	BDL
Ethyl Benzene	2.0	BDL
1,2-Xylene	2.0	BDL
1,3-Xylene	2.0	BDL
1,4-Xylene	2.0	BDL
1,2-Dichlorobenzene	2.0	BDL
1,3-Dichlorobenzene	2.0	BDL
1,4-Dichlorobenzene	2.0	BDL

(DC3-CN5046)

McLaren Hart

QUALITY CONTROL REPORT

REAGENT BLANK

Method: EPA 8020 - Low Level
Units: ug/Kg (ppb)

Date Analyzed: 10/19/91
Date Extracted: 10/17/91
Batch Number: 911017-1302

Compound	Detection Limit	Results of the RB
Benzene	2.0	BDL
Toluene	2.0	BDL
Chlorobenzene	2.0	BDL
Ethyl Benzene	2.0	BDL
1,2-Xylene	2.0	BDL
1,3-Xylene	2.0	BDL
1,4-Xylene	2.0	BDL
1,2-Dichlorobenzene	2.0	BDL
1,3-Dichlorobenzene	2.0	BDL
1,4-Dichlorobenzene	2.0	BDL

(DC3-CN5046)

McLaren Hart

QUALITY CONTROL REPORT

SYSTEM BLANK

Method: EPA 8020
Units: ug/L (ppb)

Date Analyzed: 10/19/91

Compound	Detection Limit	Results of the SB
Benzene	0.50	BDL
Toluene	0.50	BDL
Chlorobenzene	0.50	BDL
Ethyl Benzene	0.50	BDL
1,2-Xylene	0.50	BDL
1,3-Xylene	0.50	BDL
1,4-Xylene	0.50	BDL
1,2-Dichlorobenzene	0.50	BDL
1,3-Dichlorobenzene	0.50	BDL
1,4-Dichlorobenzene	0.50	BDL

(DC3-CN5046)

McLaren Hart

QUALITY CONTROL REPORT

METHOD BLANK

Method: EPA 8080 (PCB Only)
Units: ug/Kg (ppb)

Date Analyzed: 10/22/91
Date Extracted: 10/16/91
Batch Number: 911016-1901

Compound	Detection Limit	Results of the MB
AROCLOR TYPE		
1016	50.	BDL
1221	100.	BDL
1232	50.	BDL
1242	50.	BDL
1248	50.	BDL
1254	50.	BDL
1260	50.	BDL

McLaren Hart

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Method 8080 - PCB

LP#: 5046

Analyst: WLS

Batch #: 911016-1901

Date Of Analysis: 10/22/91

Spike Sample ID: LCSS/LCSDS 19

Column: RTX1701

Spike ID Code: W2-598

Instrument #: PGC #3

Surrogate ID Code: W2-760

Matrix: Soil Units: ug/Kg

COMPOUNDS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC.	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS % REC	ACCEPTANCE LIMITS RPD
Aroclor 1254	NA	167.	145.	87	138.	83	5	45 - 121	≤25

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

SURROGATE COMPOUNDS	(h) SURROGATE SPIKE CONC.	(i) SAMPLE + SURROGATE SPIKE CONC.	(j) SURROGATE REC. %	(k) SAMPLE DUP. + SURROGATE SPIKE CONC.	(l) SURROGATE DUP. RECOVERY %	ACCEPTANCE LIMITS % REC.
Dibutylchlorendate (DBC)	16.7	14.2	85	13.6	81	20 - 150

Surrogate % Recovery = j = (i/h) x 100
Surrogate Dupe % Recovery = l = (k/h) x 100

Comments:

8080PCB.S91

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Method 8080 - PCB

LP#: 5046

Analyst: WLS

Batch #: 911016-1901

Date Of Analysis: 10/22/91

Spike Sample ID: 5046-003MSS/MSDS 21

Column: RTX1701

Spike ID Code: W2-598

Instrument #: PGC #3

Surrogate ID Code: W2-760

Matrix: Soil Units: ug/Kg

COMPOUNDS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC.	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS** % REC	RPD
Aroclor 1254	BDL	167.	134.	80	132.	79	2		

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

SURROGATE COMPOUNDS	(h) SURROGATE SPIKE CONC.	(i) SAMPLE + SURROGATE SPIKE CONC.	(j) SURROGATE REC. %	(k) SAMPLE DUP. + SURROGATE SPIKE CONC.	(l) SURROGATE DUP. RECOVERY %	ACCEPTANCE LIMITS** % REC.
Dibutylchlorendate (DBC)	16.7	12.2	73	11.9	71	

Surrogate % Recovery = j = (i/h) x 100
Surrogate Dupe % Recovery = l = (k/h) x 100

Comments:

**See Comments section.

8080PCB.S91

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

METHOD BLANK

Method: CAM Metals TTLC
Units: mg/Kg (ppm)

Date Analyzed: 10/21/91[b]
Date Extracted: 10/18/91[b]
Batch Number: 911018-0801[b]

Compound	Detection Limit	Results of the MB
Antimony (Sb)/6010	2.5	BDL
Arsenic (As)/7060	0.50	BDL
Barium (Ba)/6010	1.0	BDL
Beryllium (Be)/6010	0.25	BDL
Cadmium (Cd)/6010	0.50	BDL
Chromium (Cr)/6010	1.0	BDL
Cobalt (Co)/6010	1.0	BDL
Copper (Cu)/6010	1.0	BDL
Lead (Pb)/6010	2.5	BDL
Mercury (Hg)/7471	0.25	BDL
Molybdenum (Mo)/6010	1.0	BDL
Nickel (Ni)/6010	1.0	BDL
Selenium (Se)/7740	0.25	BDL
Silver (Ag)/6010	1.0	BDL
Thallium (Tl)/7841	0.50	BDL
Vanadium (V)/6010	1.0	BDL
Zinc (Zn)/6010	1.0	BDL

[a]Applies to all metals except As, Se, Tl, and Hg. As, Se, and Tl were analyzed on 10/18/91, digested on 10/17/91, Batch #911017-0802. Hg was analyzed on 10/16/91 digested on 10/16/91, Batch #911016-1001.

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Metals

LP#: 5046

Instrument #: ICP

Analyst: RJ

Batch #: 911018-0801

Date Of Analysis: 10/21/91

Spike Sample ID: LCSS/LCSDS

Date of Digestion: 10/18/91

Spike ID Code: 4-1327

Matrix: Soil Units: mg/Kg

METALS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS REC%	ACCEPTANCE LIMITS RPD
Sb	NA	25.0	23.5	94	23.7	95	1	75 - 125	≤20
Ba	NA	100.	107.	107	108.	108	1	75 - 125	≤20
Be	NA	2.5	2.5	100	2.6	104	4	75 - 125	≤20
Cd	NA	2.5	2.2	88	2.0	80	10	75 - 125	≤20
Cr	NA	10.0	10.1	101	10.4	104	3	75 - 125	≤20
Co	NA	25.0	24.6	98	24.9	100	1	75 - 125	≤20
Cu	NA	12.5	14.3	114	14.2	114	1	75 - 125	≤20
Pb	NA	25.0	23.5	94	24.5	98	4	75 - 125	≤20
Mo	NA	25.0	23.2	93	23.3	93	0	75 - 125	≤20
Ni	NA	25.0	24.2	97	24.8	99	2	75 - 125	≤20
Ag	NA	2.5	2.4	96	2.4	96	0	75 - 125	≤20
V	NA	25.0	25.9	104	26.1	104	1	75 - 125	≤20
Zn	NA	25.0	22.0	88	22.3	89	1	75 - 125	≤20

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Metals

LP#: 5046

Instrument #: GFAA

Analyst: SP

Batch #: 911017-0802

Date Of Analysis: 10/18/91

Spike Sample ID: LCSS/LCSDS

Date of Digestion: 10/17/91

Spike ID Code: W4-838

Matrix: Soil Units: mg/Kg

METALS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS REC%	ACCEPTANCE LIMITS RPD
As	NA	2.00	1.93	96	1.81	90	6	75 - 125	≤20
Se	NA	0.50	0.50	100	0.49	98	2	75 - 125	≤20
Tl	NA	2.50	2.48	99	2.51	100	1	75 - 125	≤20

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Metals

LP#: 5046

Instrument #: AA

Analyst: SP

Batch #: 911016-1001

Date Of Analysis: 10/16/91

Spike Sample ID: LCSS/LCSDS

Date of Digestion: 10/16/91

Spike ID Code: W4-1390

Matrix: Soil Units: mg/Kg

METALS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS REC%	ACCEPTANCE LIMITS RPD
Hg	NA	0.00100	0.00104	104	0.00109	109	5	75 - 125	≤20

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Metals

LP#: 5046

Instrument #: ICP

Analyst: RJ

Batch #: 911018-0801

Date Of Analysis: 10/21/91

Spike Sample ID: 5046-001 MS/MSD

Date of Digestion: 10/18/91

Spike ID Code: 4-1327

Matrix: Soil Units: mg/Kg

METALS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS** REC%	RPD
Sb	BDL	25.0	9.53	38	10.6	42	11		
Ba	43.6	100.	155.	111	157.	113	1		
Be	BDL	2.5	2.8	112	2.7	108	4		
Cd	BDL	2.5	2.0	80	2.1	84	5		
Cr	5.0	10.0	15.1	101	15.0	100	1		
Co	3.1	25.0	27.5	98	27.1	96	1		
Cu	8.4	12.5	22.0	109	21.2	102	4		
Pb	3.3	25.0	26.4	92	26.2	92	1		
Mo	BDL	25.0	22.1	88	22.2	89	0		
Ni	2.9	25.0	26.7	95	26.3	94	2		
Ag	BDL	2.5	2.1	84	2.2	88	5		
V	16.2	25.0	44.3	112	42.5	105	4		
Zn	22.9	25.0	44.1	85	42.3	78	4		

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments: **See Comments section.

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Metals

LP#: 5046

Instrument #: GFAA

Analyst: SP

Batch #: 911017-0802

Date Of Analysis: 10/18/91

Spike Sample ID: 5046-001MS/MSD

Date of Digestion: 10/17/91

Spike ID Code: W4-838

Matrix: Soil Units: mg/Kg

METALS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS** REC%	RPD
As	0.56	2.00	2.38	91	2.22	83	9		
Se	BDL	0.50	0.28	56	0.29	58	4		
Tl	BDL	2.50	2.08	83	2.05	82	1		

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments: **See Comments section.

McLaren Hart

(DC3-CN5046)

QUALITY CONTROL REPORT

McLaren Analytical Laboratory
Spike/Spike Duplicate Recovery
Metals

LP#: 5046

Instrument #: AA

Analyst: SP

Batch #: 911016-1001

Date Of Analysis: 10/16/91

Spike Sample ID: 5046-001 MS/MSD

Date of Digestion: 10/16/91

Spike ID Code: W4-1390

Matrix: Soil Units: mg/Kg

METALS	(a) SAMPLE CONC.	(b) SPIKE CONC.	(c) SAMPLE + SPIKE CONC.	(d) SPIKE REC.%	(e) SAMPLE DUP. + SPIKE CONC	(f) SPIKE DUP. REC.%	(g) RPD %	ACCEPTANCE LIMITS** REC%	RPD
Hg	0.00011	0.00100	0.00115	104	0.00109	98	6		

Spike Recovery = d = ((c-a)/b) x 100
Spike Duplicate Recovery = f = ((e-a)/b) x 100
Relative Percent Difference = g = ((|c-e|)/((c+e) x .5) x 100

Comments: **See Comments section.

McLaren Hart

(DC3-CN5046)

2166-03829

McLaren Hart

August 20, 1991

#7

Mr. David L. Jones
Lockheed Engineering & Sciences Company
Environmental Technical Services
2550 N. Hollywood Way, Suite 305
Burbank, California 91505

PRELIMINARY GEOTECHNICAL INVESTIGATION, LOCKHEED BURBANK PLANT C-1, BURBANK CALIFORNIA

Dear Mr. Jones:

This report presents results of a preliminary geotechnical investigation for proposed grading at the Lockheed Aeronautical Systems Company, Plant C-1 in Burbank, California. Plant C-1 is located at 10720 Sherman Way, as shown on the Location Map, Figure 1. A previous environmental investigation has been performed at Plant C-1 by McLaren/Hart. The investigation included drilling 55 soil borings up to depths of 80 feet. The results are presented in a report titled, "Soil Investigation Results Of Rounds 2 Through 6, Lockheed Plant C-1, Burbank, California", and dated May 1991.

The object of our geotechnical investigation has been to supplement subsurface data obtained during the previous environmental investigation to develop conclusions and recommendations regarding the geotechnical aspects of the proposed site grading. The scope of work included, 1) exploring and evaluating subsurface conditions at the Site with test borings and laboratory tests, 2) analyzing the results of the field and laboratory tests, and 3) presenting our findings in this report. Our report provides the following geotechnical information:

- Site grading recommendations,
- Shrinkage factors for planning purposes, and
- Recommendations for reuse of concrete and asphalt debris as fill material.

1135 Atlantic Avenue, Alameda, CA 94501 (415) 521-5200 FAX (415) 521-1547

Project Description

Plant C-1 occupies approximately 15 acres and is bounded by Sherman Way on the north, the Burbank-Glendale-Pasadena Airport on the east and south, and by a retail grocery/department store on the west. The site is relatively level. The elevation of the site ranges from 730 to 740 feet above mean sea level.

The site was developed in the early 1940's by Lockheed for aircraft research, manufacturing and maintenance operations. The site is presently occupied by metal machine shops, warehouses, and office buildings. The site layout is shown on the Site Plan, Figure 2.

Proposed plans for the site include demolition of all existing structures, and removal of existing foundations, slabs, pavements, and utilities. The property will then be graded to allow for positive drainage of surface runoff. It is anticipated that minor cuts and fills, on the order of one to two feet, will be required to develop positive drainage. However, areas of deeper fill will be required where existing structures such as footings and utilities extend below grade.

The concrete and asphalt debris generated from the demolition will be used for fill material as much as possible. We understand that demolition will generate approximately 2180 cubic yards of concrete associated with the building floor slabs, 553 cubic yards of concrete associated with building foundations, 1920 cubic yards of concrete associated with machine foundations, 152 cubic yards of concrete associated with surface concrete outside buildings, and 11,600 tons of asphalt.

Field Investigation And Laboratory Testing

Information obtained during the previous environmental investigation of Plant C-1 was supplemented during our geotechnical investigation by three soil borings. Locations of the soil borings are shown on the Site Plan, Figure 2. The borings were drilled with a hollow stem auger drill rig to a depth of 21 feet.

The soils encountered in the borings were logged in the field by our geologist. Logs of our borings are included as Figures 3 through 5. The soils are classified in accordance with the Unified Soils Classification System.

Representative undisturbed soil samples were obtained from the borings at the selected depths shown on the logs. The samples were obtained with a California Modified Split Spoon Sampler. Penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The sampler was driven 18 inches, or a shorter distance where hard resistance was encountered, and the number of blows were recorded for each 6 inches of penetration.

The boring logs show our interpretation of the subsurface conditions on the date and at the locations indicated and it is not warranted that they are representative of the subsurface conditions at other locations and time. The stratification lines on the borings represent the approximate boundaries between the material types; actual transitions may be gradual.

Selected samples representative of the materials encountered in the exploratory borings were tested in accordance with ASTM standards. The tests consisted of moisture content/dry density determinations (ASTM D 2216-80), and moisture-density relationship determinations (ASTM D 1557-78). The results of the laboratory testing are included as Appendix A.

Subsurface Conditions

The subsurface information obtained from the borings drilled for this investigation correlates well with the information obtained from the previous environmental investigation. The soils at the site consist predominately of sands with occasional interbedded layers of silt and gravel. The sands vary from fine to coarse grain and have variable silt content. The sands range from medium dense to very dense.

No fill was encountered in the borings, however Plant C-1 has been in operation for a number of years and has experienced installation modifications which have likely required removal of subgrade structures. Consequently, it is possible that localized deposits of fill may exist at the site. Delineation of the lateral and vertical extent of existing fills was beyond the scope of this investigation.

Grading Recommendations

Based on our evaluation, we conclude that the proposed grading for site drainage is feasible from a geotechnical standpoint. Once future development plans have been prepared, additional geotechnical investigation should be performed to evaluate the presence of undocumented fill in proposed building areas and the suitability of the subsurface materials for foundation support.

Subgrade Preparation

Prior to site grading all existing structures should be excavated and removed from areas to be graded. Any existing fill, disturbed soil, or loose material that is encountered during site grading should be removed under the observation of a Soils Engineer to expose subgrade competent for support of the engineered fill. Prior to fill placement the exposed subgrade should be scarified until it is uniform and free from large clods, moisture conditioned where necessary, and compacted to not less than 90% of the maximum dry density in accordance with ASTM D-1557-78. If discolored or odorous soils are encountered, the Lockheed Project Manager should be contacted.

Fill Material

On-site soils may be used for the fill. The soils used should be free of organic matter and other deleterious substances and should not contain rocks or lumps greater than six inches in maximum dimension. The soils are generally at or below optimum moisture content, and we anticipate the addition of water will be necessary to achieve proper compaction.

Concrete and asphalt debris generated during demolition can be reused as fill provided the materials are free of reinforcing steel, organic matter, and the materials are broken into particles less than six inches in maximum dimension. Prior to using this material as fill, it should be thoroughly mixed with enough soil so that the concrete and asphalt are not nested. For planning purposes, we estimate that the soil that will be necessary for mixing will be approximately equal in volume (in-situ) to the amount of concrete and asphalt debris to be placed as fill. Based on approval of the Soils Engineer, the amount of soil mixed with the asphalt and concrete can be reduced if the debris is crushed into particles finer than 6 inches in size.

Placing, Spreading And Compacting Fill Materials

Fill material should be placed in layers that when compacted shall not exceed six inches in thickness. Each layer should be spread evenly, and thoroughly mixed during the spreading to attain uniformity of material and moisture in each layer. Where the moisture content of the fill material is below the limits specified by the Soils Engineer, water should be added until the moisture content is satisfactory to attain compaction. Where the moisture content of the fill material is above satisfactory limits, the fill materials should be aerated, blended or dried by other methods until the moisture content is satisfactory.

After each layer has been placed, mixed and spread evenly it should be compacted to not less than 90% of the maximum dry density in accordance with ASTM D-1557-78 test method. Compaction should be by sheepsfoot roller, multi-wheel pneumatic tire roller or other types of acceptable rollers. Compaction equipment should be of such design that they will be able to compact the fill to the specified density. Compaction of each layer should be accomplished by covering the entire area and making sufficient passes to attain desired density.

Backfilling of isolated deep excavations resulting from foundation or utility removal can be performed with hand held compaction equipment if access is not available for a roller. If hand held compaction equipment is used then the fill material used for backfill should consist only of soil and should be free of concrete and asphalt debris.

Shrinkage

Reuse of the on-site soils will generally result in some soil shrinkage when the soil is compacted to 90%. The moisture-density relationships resulting from the laboratory tests indicate a maximum dry density ranging from 123 to 125 pounds per cubic feet (pcf). The in-place density of the existing soils tested ranged from 86 to 113 pcf. For planning purposes we estimate that the soil shrinkage could be approximately 10% for the natural soils on-site.

Observation

A Soils Engineer should observe all fill placement and compaction so that he can verify that the engineered fill was consistent and in compliance with the above recommendations. Field density tests should be made by the Soils Engineer of the compaction of each layer of fill. Density tests should be made at intervals not to exceed two feet of fill height provided all layers are tested. Where the sheepsfoot rollers are used, the soils may be disturbed to a depth of several inches and density tests should be taken in the compacted material below the disturbed surface. When test results indicate the density of any layer of fill or portion thereof is below the 90% relative compaction, the particular layer or portion should be reworked and retested until the required compaction has been obtained.

Seasonal Limitations

No fill materials should be placed, spread or rolled during unfavorable weather conditions. When work is interrupted by heavy rains, fill operations should not be resumed until the field tests by the Soils Engineer indicate that the moisture content and density of the fill which has been placed are as previously specified.

Supplemental Services

A Soils Engineer should be retained to review the final grading plans for conformance with the intent of the recommendations presented in this report. During grading operations, a soils engineer should be retained to 1) observe overexcavations, 2) observe the subgrade conditions prior to fill placement, and 3) observe and test compaction of all fill. Once development plans have been prepared a soils investigation should be conducted to develop recommendations for foundation support and other geotechnical considerations regarding proposed development.

Limitations

Our services consist of professional opinions, conclusions and recommendations that are made in accordance with generally accepted geotechnical engineering principles and practice. This warranty is in lieu of all other warranties, either express or implied.

We judge that grading in accordance with these recommendations will be stable. If conditions different from those described in this report are encountered during grading or if the project is revised, we should be notified immediately so that we may modify our recommendations, if warranted.

Soil conditions and standards of practice change. Therefore, we should be consulted to update this report if construction is not performed within 18 months.

If you have any questions regarding this report or require further information, please call.

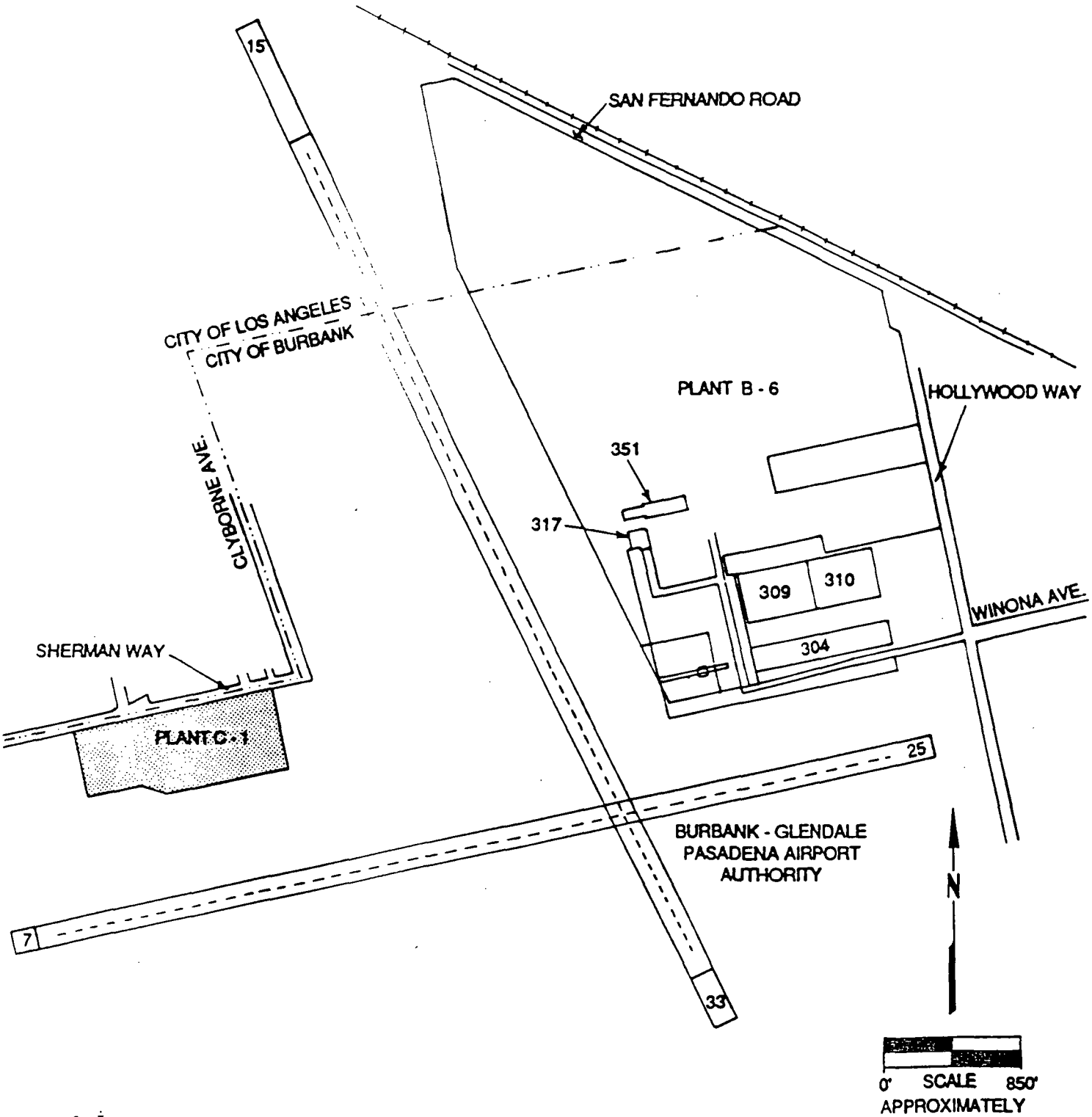
Sincerely,

James L. Vais G.E.
Principal Engineer

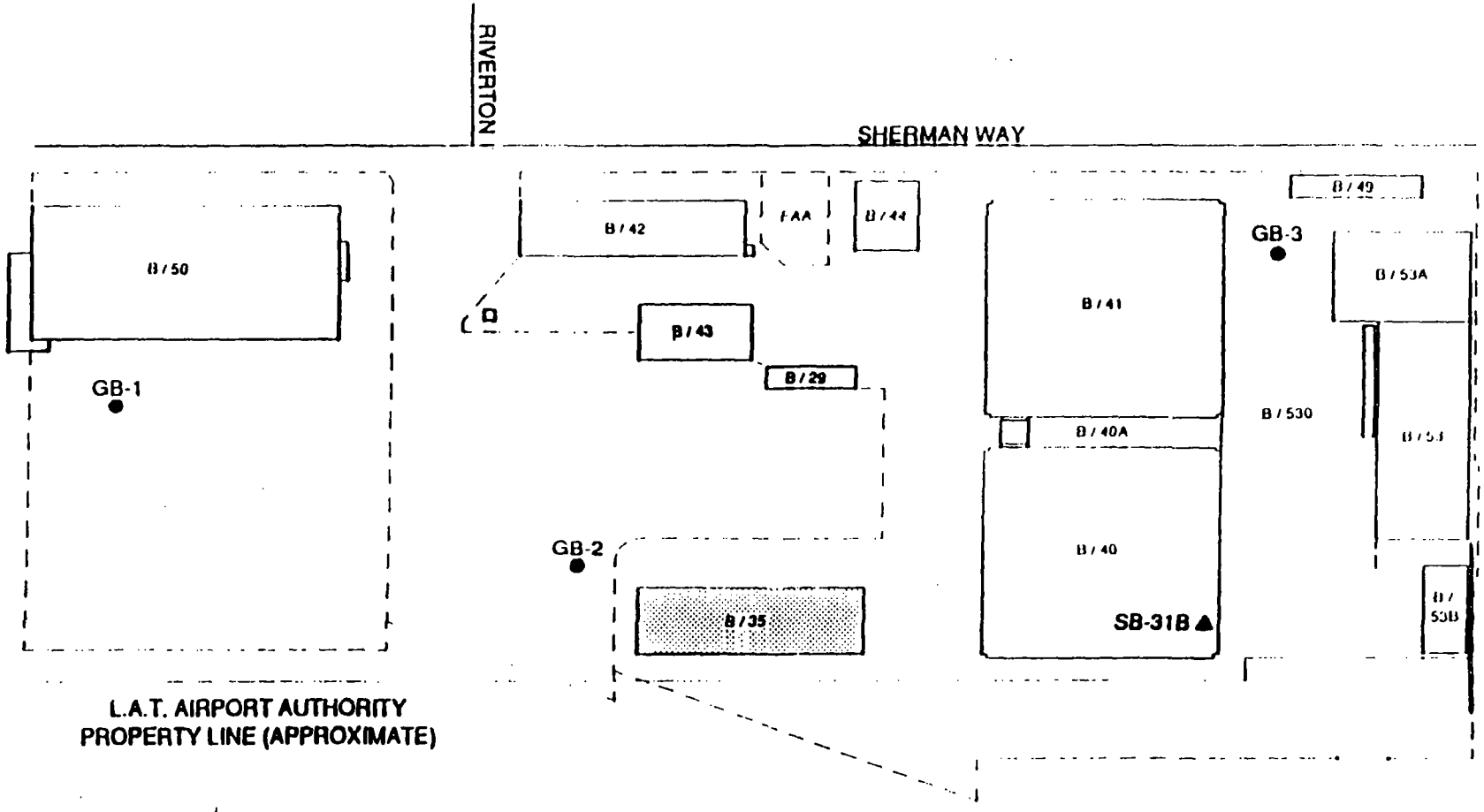
REGISTERED PROFESSIONAL ENGINEER
JAMES L. VAIS
GE 000849
Exp. 12/31/92
GEOTECHNICAL
STATE OF CALIFORNIA

McLaren Hart

FIGURE 1
LOCKHEED BURBANK
LOCATION MAP OF
PLANT C-1 AND
SURROUNDING AREA



McLaren Environmental Engineering



N

0' SCALE 100'

LEGEND

- ● PROPOSED GEOTECHNICAL BORING
- ▲ PROPOSED ENVIRONMENTAL BORING

PLANT C-1

BURBANK/ HOLLYWOOD AIRPORT

FIGURE 2
LOCKHEED BURBANK
PLANT C-1
SITE PLAN

McLaren

FIGURE 3

SOIL DRILLING LOG

McLaren Environmental Engineering

SB/MW # : GB-1
D- 20296
Page 1 of 1
Sampler: J. LOVE

PROJECT LOCKHEED BURBANK PLANT C-1 LOCATION BUILDING 50
ELEVATION _____ MONITORING DEVICE HNu
SAMPLING DATE(S) 7-15-91 START 1045 FINISH 1200
SAMPLING METHOD CA MOD. SPLIT SPOON SUBCONTRACTOR & EQUIPMENT WESTEX/B-61
MEMO 140 LB SAMPLE HAMMER

Depth Below Surface(ft.)	Penetration Results: Blows 6"-6"	Penetration Results: BPF	Sampler Depth Interval (ft.)	Sample ID #	HNu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sub-Sample	Borehole Abandonment Details
	33-24-35	59	0.5-2.0	98031	0	Asphalt and road base.	RB			6" Asphalt patch
	25-24-33	57	2.0-4.0	98032	0	Dark brown (10YR 4/2) sand. Fine to medium grained, well graded, angular, very dense, moist. Trace granule gravel.	SW			
5'	100 (8")		5.0-6.5	98033	0	Light yellowish brown (2.5Y 6/4) silty sand. Fine to medium grained, moderately graded, very dense, moist. Trace granule to fine pebble gravel.	SM			Backfilled with borehole cuttings
10'	100 (9")		9.5-11.0	98034	0	Brown (10YR 5/3) sand. Medium to coarse grained, well graded, sub-angular, dense, moist.	SW			6" Ø HSA borehole
15'	no recovery 100(5") no recovery 50(1")		14.5-16.0 16.0	98035	0	Coarse pebble gravel.				
20'	no recovery 100(3")		19.5-21.0	98036	0					21.0' T.D.

C.E.G. 1061

SIGNATURE OF FIELD SUPERVISOR
John Love, Geologist
TITLE

SIGNATURE OF REVIEWER
Gary B. Taggart, Principal Hydrogeologist
TITLE

FIGURE 4

SOIL DRILLING LOG

McLaren Environmental Engineering

SB/MW # : GB-2
D- 20295
Page 1 of 1
Sampler: J. LOVE

PROJECT LOCKHEED BURBANK PLANT C-1 LOCATION BUILDING 35
ELEVATION _____ MONITORING DEVICE HNu
SAMPLING DATE(S) 7-15-91 START 930 FINISH 1015
SAMPLING METHOD CA MOD. SPLIT SPOON SUBCONTRACTOR & EQUIPMENT WESTEX/B-61
MEMO 140 LB SAMPLE HAMMER

Depth Below Surface(ft.)	Penetration Results Blows 6"-6"	BPF	Sampler Depth Interval (ft.)	Sample ID #	HNu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sub-Sample	Borehole Abandonment Details
	5-5-5	10	0.5-2.0	98025	0	Asphalt and road base.	RB			6" Asphalt patch
	4-3-7	10	2.5-4.0	98026	0	Light yellowish brown (2.5Y 6/4) silty sand. Fine grained, poorly graded, firm, moist; minor granule gravel.	ML/SM			
5'	4-4-19	23	5.5-7.0	98027	0					
10'	23-29-23	52	9.5-11.0	98028	0	Brownish yellow (10YR 6/6) silty sand/sand. Very fine to medium grained, well graded, firm to very dense, moist to wet; minor granule gravel.	SM/SW			Backfilled with borehole cuttings
						Brown (10YR 5/3) sand. Fine to medium grained, well graded, angular, firm, moist; minor granule gravel.	SW			6" Ø HSA borehole
15'	6-12-15	27	14.5-16.0	98029	0	Light yellowish brown (2.5Y 6/4) silty sand. Fine grained, firm, poorly graded, moist, trace fine to medium pebbles gravel.	ML/SM			
20'	50-25-25	50	19.5-21.0	98030	0	Brown (10YR 5/3) sand. Fine to medium grained, well graded, sub-angular, dense, moist.	SW			21.0' T.D.

SIGNATURE OF FIELD SUPERVISOR

John Love, Geologist
TITLE

SIGNATURE OF REVIEWER C.E.G. 1061

Gary B. Taggart, Principal Hydrogeologist
TITLE

FIGURE 5

SOIL DRILLING LOG

McLaren Environmental Engineering

SB/MW # : GB-3
D- 20297
Page 1 of 1
Sampler: J. LOVE

PROJECT LOCKHEED BURBANK PLANT C-1 LOCATION BUILDING 53A
ELEVATION _____ MONITORING DEVICE HNu
SAMPLING DATE(S) 7-15-91 START 1300 FINISH 1415
SAMPLING METHOD CA MOD. SPLIT SPOON SUBCONTRACTOR & EQUIPMENT WESTEX/B-61
MEMO 140 LB SAMPLE HAMMER

Depth Below Surface(ft.)	Penetration Results: Blows 6"-6"	Penetration Results: BPF	Sampler Depth Interval (ft.)	Sample ID #	HNu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sub-Sample	Borehole Abandonment Details
	20-21-23	44	0.5-2.0	98037	0	Asphalt and road base.	RB			6" Asphalt patch
	19-18-30	48	2.5-4.0	98038	0	Light yellowish brown (2.5Y 6/4) silty sand. Medium to coarse grained, dense to very dense, moderate to well graded, dry to slightly moist.				
5'	14-14-13	27	5.0-6.5	98039	0					Backfilled with borehole cuttings
10'	34-50 (5")	-	9.5-11.0	98040	0		SM/SW			6" Ø HSA borehole
15'	14-17-23	40	14.5-16.0	98041	0					
20'	24-35-43	78	19.5-21.0	98042	0					21.0' T.D.

C.E.G. 1061

SIGNATURE OF FIELD SUPERVISOR
John Love, Geologist
TITLE

SIGNATURE OF REVIEWER
Gary B. Taggart, Principal Hydrogeologist
TITLE

APPENDIX A

LABORATORY TESTING RESULTS

Western Laboratories
Soil and Foundation Engineering
A McLaren/Hart Company

July 22, 1991

RECEIVED
JUL 26 1991
McLAREN/HART

Work Order 91-1220
Project # 234507-002

McLaren/Hart
11101 White Rock Road
Rancho Cordova, California 95670

LABORATORY TESTS PERFORMED ON SAMPLES RETRIEVED FROM THE CORNER OF SHERMAN WAY AND RIVERTON AVENUE, IN THE CITY OF BURBANK, CALIFORNIA BY A REPRESENTATIVE OF THIS COMPANY.

Dear Sirs:

At your request, Moisture-Density Relations Tests (ASTM: D 1557-78) were performed on three soil samples. Moisture and Density Tests (ASTM: D 2216-80) were performed on twenty-two soil samples. The samples are identified below.

Laboratory Standard: **(ASTM D 1557-78)**
4 inch dia.mold; 1/30 cu.ft.vol.;
5 layers - 25 blows per layer;
10 lb. hammer dropped 18 inches

Sample Labeled	Soil Classification	Optimum Moisture %	Max. Dry Density Lbs./Cu.Ft.
Bag #1 91-633 GB-1 (10-20)	Medium to Coarse Sand	8.5	123.0
Bag #2 91-634 GB-2 (10-20)	Medium to Coarse Sand	7.5	125.0
Bag #3 91-635 GB-3 (10-20)	Medium to Coarse Sand	8.0	124.0

22301 South Western Avenue, Suite 102, Torrance, CA 90501 (800) 526-7194 — FAX (213) 782-9113

Work Order 91-1220

Laboratory Standard: (ASTM D 2216-80)

Sample ID #	Sample Description	Moisture(%)	Density(Lbs./Cu.ft.)
98031	GB-1 (1)	5.7	103.0
98032	GB-1 (3)	4.8	105.4
98033	GB-1 (6)	2.1	113.5
98034	GB-1 (10)	4.7	95.8
98025	GB-2 (1)	10.5	86.3
98026	GB-2 (3)	11.5	85.4
98027	GB-2 (6)	6.9	111.9
98028	GB-2 (10)	4.5	98.7
98029	GB-2 (15)	10.8	92.7
98030	GB-2 (20)	3.4	93.9
98037	GB-3 (1)	10.3	97.2
98038	GB-3 (3)	3.3	100.3
98039	GB-3 (6)	3.3	97.2
98040	GB-3 (10)	4.2	108.5
98041	GB-3 (15)	2.7	105.8
98042	GB-3 (20)	5.4	104.8
83551	SB-31B (1)	4.2	104.8
83552	SB-31B (3)	4.1	98.9
83553	SB-31B (6)	3.4	97.7
83554	SB-31B (11)	4.4	93.6
83555	SB-31B (16)	4.8	94.6
83556	SB-31B (21)	2.9	109.8

We appreciate this opportunity to be of service to you.

Respectfully submitted,

WESTERN LABORATORIES

Anh N. Hoang

Anh N. Hoang

James L. Vais

James L. Vais
R.G.E. 849

REGISTERED PROFESSIONAL ENGINEER
JAMES L. VAIS
GE 000849
Exp. 12-31-92
GEOTECHNICAL
STATE OF CALIFORNIA

ASTM D-1557-78

MAXIMUM DENSITY & MOISTURE CURVES

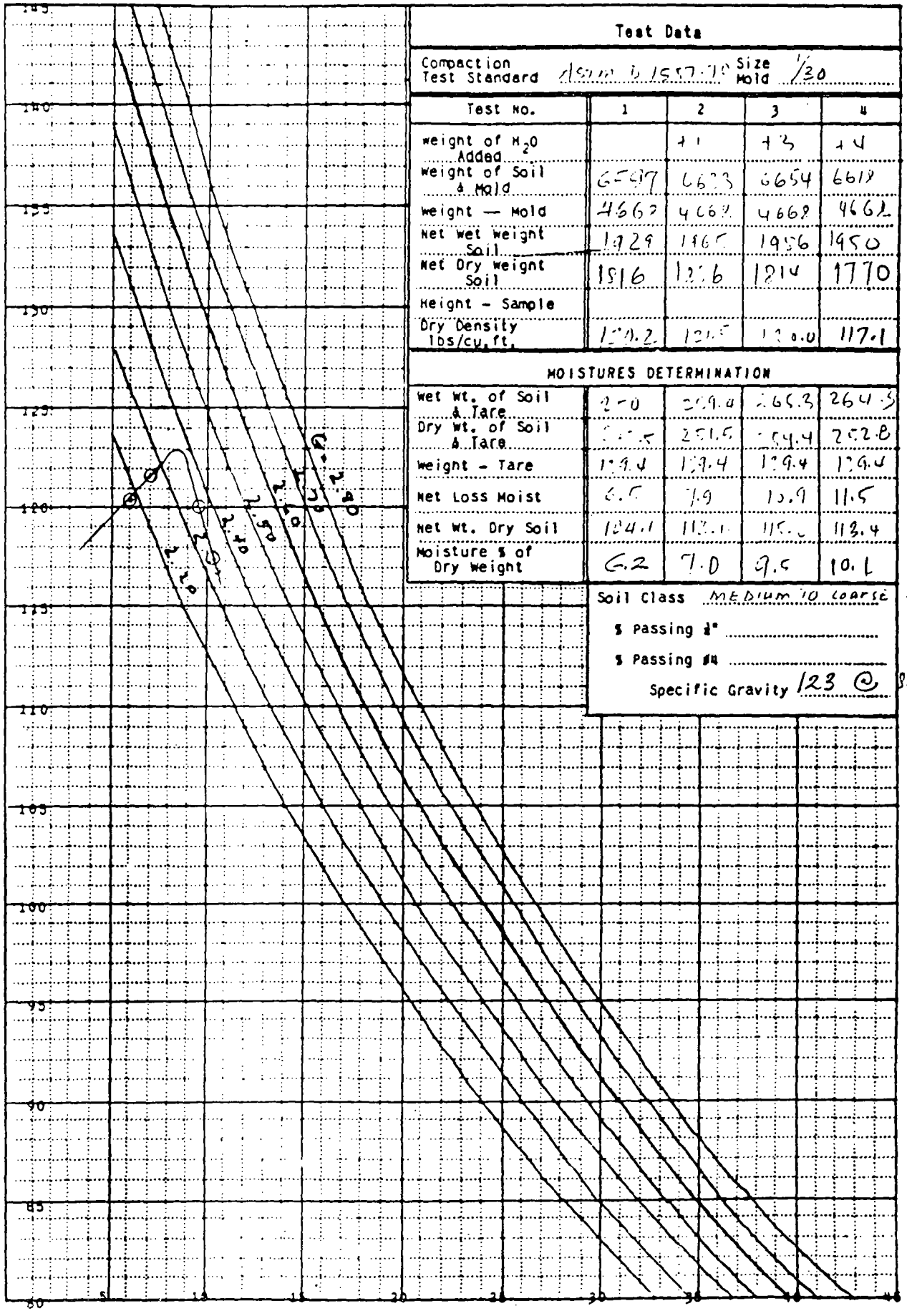
Date July 16, 19[illegible]

Location

File No. 91-633

Proj. Ref. [illegible]

Sample No. Pit #1



Test Data

Compaction Test Standard ASTM D 1557-78 Size Mold 1/30

Test No.	1	2	3	4
Weight of H_2O Added		+1	+3	+4
Weight of Soil & Mold	6597	6623	6654	6618
Weight — Mold	4662	4662	4662	4662
Net Wet Weight Soil	1929	1965	1956	1950
Net Dry Weight Soil	1816	1836	1814	1770
Height - Sample				
Dry Density lbs/cu. ft.	124.2	121.5	120.0	117.1

MOISTURES DETERMINATION

Wet Wt. of Soil & Tare	270	269.0	265.3	264.3
Dry Wt. of Soil & Tare	[illegible]	251.5	254.4	252.8
Weight - Tare	129.4	129.4	129.4	129.4
Net Loss Moist	6.5	7.9	10.9	11.5
Net Wt. Dry Soil	124.1	112.1	115.0	113.4
Moisture % of Dry Weight	6.2	7.0	9.5	10.1

Soil Class MEDIUM TO COARSE SAND

% Passing 3/8"

% Passing #4

Specific Gravity 123 @ 8.5%

ASTM D 1557-78

Date July 16, [illegible]

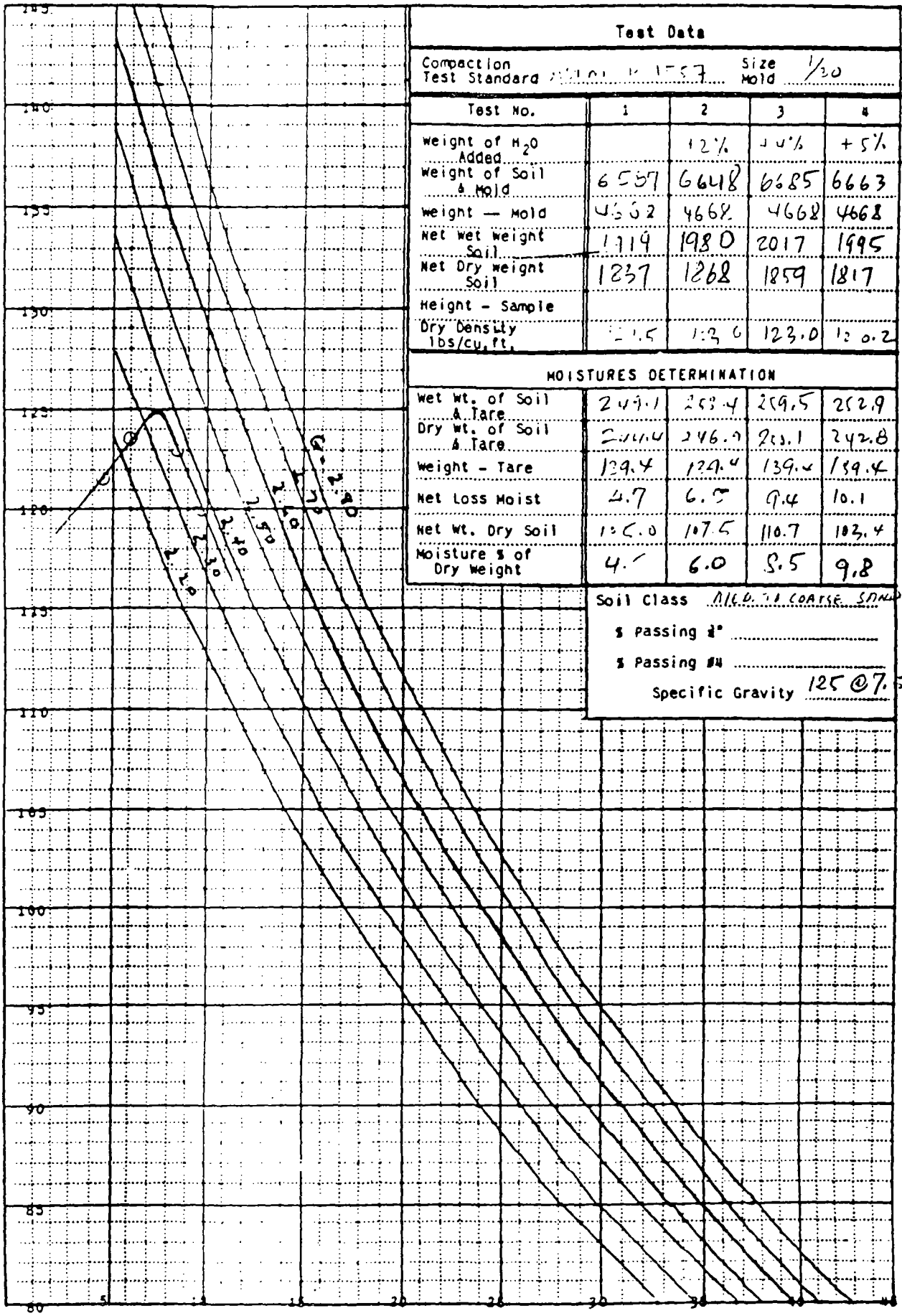
Location

MAXIMUM DENSITY & MOISTURE CURVES

File No. 91-634

Proj. Ref. McLaren

Sample No. [illegible]



Test Data

Compaction Test Standard ASTM D 1557 Size Mold 1/30

Test No.	1	2	3	4
Weight of H_2O Added		12%	[illegible]	+5%
Weight of Soil & Mold	6557	6648	6685	6663
Weight — Mold	4662	4668	4668	4668
Net Wet Weight Soil	1914	1980	2017	1995
Net Dry Weight Soil	1237	1268	1259	1217
Height - Sample				
Dry Density lbs/cu. ft.	[illegible]	123.6	123.0	120.2

MOISTURES DETERMINATION

Wet Wt. of Soil & Tare	249.1	253.4	259.5	252.9
Dry Wt. of Soil & Tare	244.4	246.9	253.1	242.8
Weight - Tare	139.4	139.4	139.4	139.4
Net Loss Moist	4.7	6.5	9.4	10.1
Net Wt. Dry Soil	105.0	107.5	110.7	103.4
Moisture % of Dry Weight	4.[illegible]	6.0	8.5	9.8

Soil Class MEDIUM COARSE SAND

% Passing 3/8"

% Passing #4

Specific Gravity 125 @ 7.5%

ASTM D 1557-78

MAXIMUM DENSITY & MOISTURE CURVES

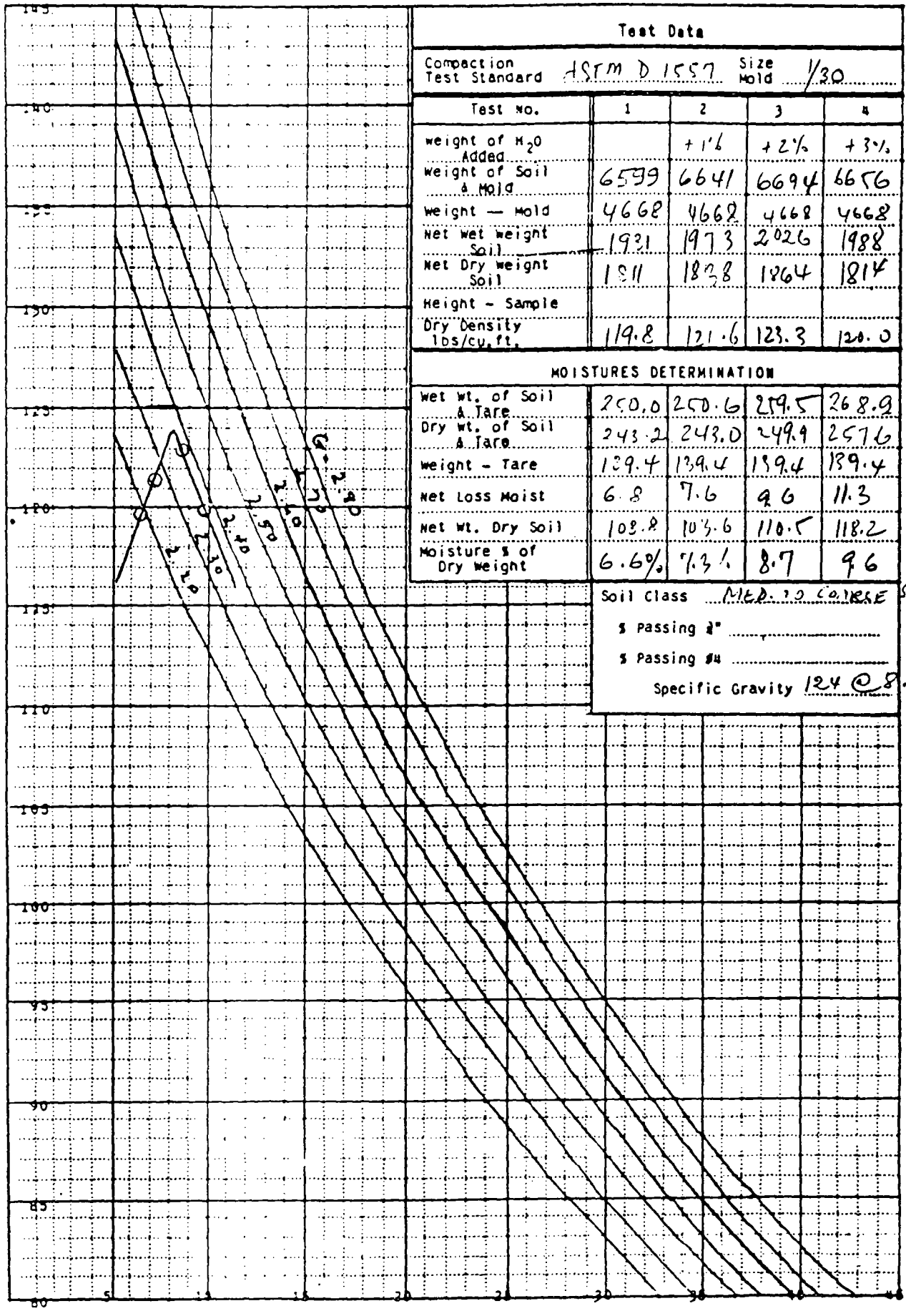
Date July 1991

Location

File No. 91-695

Proj. Ref. McLaren

Sample No. Bag #3



Test Data

Compaction Test Standard ASTM D 1557 Size Mold 1/30

Test No.	1	2	3	4
Weight of H_2O Added		+1%	+2%	+3%
Weight of Soil & Mold	6599	6641	6694	6656
Weight — Mold	4668	4668	4668	4668
Net wet weight Soil	1931	1973	2026	1988
Net Dry weight Soil	1811	1838	1864	1814
Height - Sample				
Dry Density lbs/cu. ft.	119.8	121.6	123.3	120.0

MOISTURES DETERMINATION

Wet wt. of Soil & Tare	250.0	250.6	259.5	268.9
Dry wt. of Soil & Tare	243.2	243.0	249.9	257.6
Weight - Tare	139.4	139.4	139.4	139.4
Net Loss Moist	6.8	7.6	9.6	11.3
Net Wt. Dry Soil	103.8	103.6	110.5	118.2
Moisture % of Dry Weight	6.6%	7.3%	8.7	9.6

Soil Class MED. TO COARSE SAN

% Passing 3/8"

% Passing #4

Specific Gravity 124 @ 8.0%

W.O. 91-1220

McLaren Hart

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY
Laboratory Project No.:
Storage Refrigerator ID:
Storage Freezer ID:
Secured: Yes / No

Project Name: Lockheed Plant C-1 Project #: 234507-002 Sampler: John Love (Printed Name) John Love (Signature)

Relinquished by: (Signature and Printed Name) John Love — Received by: (Signature and Printed Name) Samuel E. Martinez — Date: 7/16/91 Time: 8:15

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Hand Del.
Shipment ID:

Circle or Add Analysis(es) Requested

Sample ID Number	Sample Description: Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (Pesticides/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total [a]	Metals-Soluble [a]	Fluoride/Perchlorate	Chloride/pH	TDS/Percent Solid	Specific Conductivity (EC)	Bulk Density (ASTM D15-57)	TAT	Container(s) #	Type	FOR LABORATORY USE ONLY: Lab ID
1	7/15/91	10:15	GB-1 (10-20)																	X		4	1	Plastic Bag	
2	↓	11:55	GB-2 (10-20)																	X		4	1	↓	
3	↓	13:40	GB-3 (10-20)																	X		4	1	↓	
4																									
5																									
6																									
7																									
8																									
9																									
10																									

[a] Identify specific metals requested under Special Instructions

Special Instructions/Comments:

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types: B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette, O = Other

SEND DOCUMENTATION AND RESULTS TO (Check one):
☐ Project Manager/Office: K. McIntyre
☐ Client Name: McLaren / Hart Eng.
Company: Rancho Cordova
Address:
Phone: (916) 638-3696 Fax:

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt:

McLaren Hart

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project No.
Storage Refrigerator ID
Storage Freezer ID.

Secured
Yes
No

Project Name: Lockheed Plant C-1 Project #: 234507-002 Sampler: John Love (Printed Name) John Love (Signature)

Relinquished by: (Signature and Printed Name) John Love — Received by: (Signature and Printed Name) [illegible] — Date: 7/16/91 Time: 8:10

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Hand Del.

Shipment ID:

Circle or Add Analysis(es) Requested

a) Identify specific metals requested under Special Instructions

Sample ID Number	Sample Description: Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (Pesticides/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total a	Metals-Soluble a	Fluoride/Perchlorate	Chloride/pH	TDS/Percent Solid	Specific Conductivity (EC)	Moisture Density	TAT	Container(s) #	Type	FOR LABORATORY USE ONLY Lab ID
1 98031	7/15/91	10:50	GB-1 (1)																	X		4	1	B	
2 98032	↓	10:57	GB-1 (3)																	X		↓	1	B	
3 98033	↓	11:12	GB-1 (6)																	X		↓	1	B	
4 98034	↓	11:18	GB-1 (10)																	X		↓	1	B	
5																									
6																									
7																									
8																									
9																									
10																									

Special Instructions/Comments:

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types: B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette, O = Other

SEND DOCUMENTATION AND RESULTS TO (Check one):
☐ Project Manager/Office: K. McIntyre
☐ Client Name: Rancho
Company: McLaren/Hart Eng
Address:
Phone: (916) 638-3696 Fax:

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt:

McLaren Hart

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project No.: Secured
Storage Refrigerator ID: Yes
Storage Freezer ID: No

Project Name: Lockheed Plant C-1 Project #: 234507-002 Sampler: John Love (Printed Name) John Love (Signature)

Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:
John Love John Love	Samuel E Martinez SAMUEL E MARTINEZ	7/16/91	8:10

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Hand Del.

Shipment ID:

Circle or Add Analysis(es) Requested

a) Identify specific metals requested under Special Instructions

	Sample ID Number	Sample Description: Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (Pesticides/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total a	Metals-Soluble a	Fluoride/Perchlorate	Chloride/pH	TDS/Percent Solid	Specific Conductivity (EC)	Moisture Density	TAT	Container(s) #	Type	FOR LABORATORY USE ONLY Lab ID
1	98025	7/15/91	9.36	GB-2 (1)																		X		4	1	B	
2	98026	↓	9:40	GB-2 (3)																		X		↓	1	B	
3	98027	↓	9:45	GB-2 (6)																		X		↓	1	B	
4	98028	↓	9:54	GB-2 (10)																		X		↓	1	B	
5	98029	↓	10:02	GB-2 (15)																		X		↓	1	B	
6	98030	↓	10:12	GB-2 (20)																		X		↓	1	B	
7																										
8																										
9																										
10																										

Special Instructions/Comments:

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types: B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette, O = Other

SEND DOCUMENTATION AND RESULTS TO (Check one):
☐ Project Manager/Office: K. McIntyre
☐ Client Name: Rancho
Company: McLaren / Hart Eng.
Address:
Phone: (916) 638-3696 Fax:

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt:

McLaren Hart

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project No — Secured
Storage Refrigerator ID — Yes
Storage Freezer ID — No

Project Name: _____ Project #: 234507-002 Sampler: John Loe (Printed Name) John Loe (Signature)

Relinquished by: (Signature and Printed Name) John Loe — Received by: (Signature and Printed Name) Samuel E Martinez — Date: 7/16/91 — Time: 8:10

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: — Time:

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: — Time:

Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: — Time:

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Hand Del.

Shipment ID: _____

Circle or Add Analysis(es) Requested

Identify specific metals requested under Special Instructions

	Sample ID Number	Sample Description: Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (Pesticides/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total[a]	Metals-Soluble[a]	Fluoride/Perchlorate	Chloride/pH	TDS/Percent Solid	Specific Conductivity (EC)	Moisture Density	TAT	Container(s) #	Type	FOR LABORATORY USE ONLY Lab ID
1	98037	7/15/91	13:05	GB-3 (1)																		+	4	1	B	
2	98038	↓	13:10	GB-3 (3)																		+	↓	1	B	
3	98039	↓	13:15	GB-3 (6)																		+	↓	1	B	
4	98040	↓	13:20	GB-3 (10)																		+	↓	1	B	
5	98041	↓	13:30	GB-3 (15)																		+	↓	1	B	
6	98042	↓	13:40	GB-3 (20)																		+	↓	1	B	
7																										
8																										
9																										
10																										

Special Instructions/Comments:

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types: B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette, O = Other _____

SEND DOCUMENTATION AND RESULTS TO (Check one):
☐ Project Manager/Office: K. McIntyre
☐ Client Name: Rancho
Company: McLaren/Hart Eng
Address: _____
Phone: (916) 638-3696 Fax: _____

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt: _____

McLaren Hart

CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

Laboratory Project No
Storage Refrigerator ID
Storage Freezer ID:

Secured
Yes
No

Project Name: Lockheed Plant C1 Project #: 234507-002 Sampler: John Love (Printed Name) John Love (Signature)

Relinquished by: (Signature and Printed Name) John Love	Received by: (Signature and Printed Name) Samuel E Martinez	Date: 7/16/91	Time: 8:10
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Received by: (Signature and Printed Name)	Date:	Time:

SHIP TO:
McLaren Analytical Laboratory
11101 White Rock Road
Rancho Cordova, CA 95670
(916) 638-3696
FAX (916) 638-2842

Method of Shipment: Hand Del.

Shipment ID:

Circle or Add Analysis(es) Requested

Indicate specific metals requested under Special Instructions

Sample ID Number	Sample Description: Date	Time	Description	601/8010 (Halogenated Volatiles-GC)	602/8020 (Aromatic Volatiles-GC)	604/8040 (Phenols-GC)	608/8080 (Pesticides/PCB-GC)	610/8100 (PNA-GC)	624/8240 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	TPH/G (Gasoline-GC)	TPH/D (Diesel-GC)	418.1 (IR)	8015 Modified (GC)	Metals-Total a	Metals-Soluble a	Fluoride/Perchlorate	Chloride/pH	TDS/Percent Solid	Specific Conductivity (EC)	Moisture Content	TAT	Container(s) #	Container(s) Type	FOR LABORATORY USE ONLY Lab ID
1 83551	7/15/91	15:25	SB-31B (1)																		X	4	1	B	
2 83552	↓	15:30	SB-31B (3)																		X	↓	↓	↓	
3 83553		15:38	SB-31B (6)																		X				
4 83554		15:43	SB-31B (11)																		X				
5 83555		15:52	SB-31B (16)																		X				
6 83556	↓	16:00	SB-31B (21)																		X	↓	↓	↓	
7																									
8																									
9																									
10																									

Special Instructions/Comments:

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____

TAT (Analytical Turn-Around Times) 1 = 24 hours 2 = 48 hours 3 = 1 week 4 = 2 weeks
Container Types. B=Brass Tube, V=VOA Vial, A=1-Liter Amber, G=Glass Jar, C=Cassette, O = Other ____

SEND DOCUMENTATION AND RESULTS TO (Check one).
☐ Project Manager/Office: K. McIntyre
☐ Client Name: Rancho
Company: McLaren/Hart Eng.
Address:
Phone: (916) 638-3696 Fax:

FOR LABORATORY USE ONLY. Sample Condition Upon Receipt: _____

2166-03829

PHASE 3 GROUNDWATER SAMPLING

LOCKHEED AERONAUTICAL SYSTEMS COMPANY

Burbank, California

October, 1988
Part III of III

Prepared by:

e MARK Group, Engineers & Geologists, Inc.
nta Ana, California

88-03128.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

SFUND RECORDS CTR
2166-03829

TABLE OF CONTENTS
LOCKHEED AERONAUTICAL SYSTEMS CO.

Phase 3 Groundwater Sampling
Part III of III

Appendices: (continued)

APPENDIX F-1 LASC WATER QUALITY DATA BASE

APPENDIX F-2 ANALYTICAL TECHNOLOGIES, INC. LABORATORY REPORTS

APPENDIX G REPORT OF GROUNDWATER SAMPLE ANALYSIS OF A1 - CW3, BY URS CONSULTANTS, INC., OCTOBER 22, 1988

APPENDIX F-1

LASC WATER QUALITY DATA BASE

LASC WATER QUALITY DATA BASE

This data base presents the ground-water sampling data from Phase 3. Each page presents the data from one cluster well or one individual screen within a multiple screen well.

All organic parameters are recorded in units of ug/l.

All inorganic parameters are recorded in mg/l.

Dissolved oxygen measurements are recorded as a percentage.

Electrical conductivity measurements are those measured in the field (uncompensated for temperature), not those from the laboratory analyses (compensated for 25 C). The unit for conductivity measurement is umhos/cm.

Redox potentials were measured in millivolts during field sampling.

In addition, there is some question about the data from two of the well samples. The sample A1MW4 sample code EB is labeled as an equipment blank, but the data resemble a duplicate more than a blank. Also, data from sample B5CW2 sample code B are labeled as duplicates, but the data suggest that it is a field blank.

There are several sample codes used in the data base as well. These are A and B, which indicate original samples and their duplicates, and TB and EB which designate trip blanks and equipment blanks, respectively.

WELL ID: A1CW1

DATE SAMPLED: 10/06/88

DEPTH: 580.00

SAMPLE CODE:

INORGANICS

CA	=	33.70
K	=	3.35
MG	=	10.30
MN	=	0.07
NA	=	34.20
BR	=	0.50
FE	=	0.07
CL	=	21.40
HCO3	=	171.00
NO3	=	5.80
PO4	=	ND
S	=	0.20
SO4	=	42.10
F	=	0.60
CACO3	=	140.00
SIO2	=	13.10
DO	=	NA
ECOND	=	380.00
PH	=	8.22
REDOX	=	-50.00
TDS	=	220.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	10.00
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1CW2

DEPTH: 330.00

DATE SAMPLED: 10/06/88

SAMPLE CODE:

INORGANICS

CA	=	65.10
K	=	5.99
MG	=	21.10
MN	=	0.09
NA	=	37.90
BR	=	ND
FE	=	0.56
CL	=	28.60
HCO3	=	250.00
NO3	=	33.70
PO4	=	ND
S	=	ND
SO4	=	77.00
F	=	0.52
CACO3	=	205.00
SIO2	=	19.50
DO	=	NA
ECOND	=	574.00
PH	=	7.70
REDOX	=	-73.00
TDS	=	376.00

ORGANICS

TRICHLOROETHENE	=	6.00
TETRACHLOROETHENE	=	15.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	92.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1CW3

DEPTH: 190.00

DATE SAMPLED: 10/22/88

SAMPLE CODE:

INORGANICS

CA	=	51.50
K	=	11.60
MG	=	NA
MN	=	0.17
NA	=	102.00
BR	=	ND
FE	=	8.80
CL	=	30.00
HCO3	=	NA
NO3	=	34.30
PO4	=	0.74
S	=	ND
SO4	=	52.30
F	=	0.28
CACO3	=	341.00
SIO2	=	NA
DO	=	ND
ECOND	=	928.00
PH	=	7.60
REDOX	=	NA
TDS	=	559.00

ORGANICS

TRICHLOROETHENE	=	640.00
TETRACHLOROETHENE	=	180.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	30.00
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	5.20
BENZENE	=	19.00
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW1

DEPTH: 153.00

DATE SAMPLED: 10/18/88

SAMPLE CODE:

INORGANICS

CA	=	83.70
K	=	5.25
MG	=	21.70
MN	=	0.01
NA	=	31.30
BR	=	ND
FE	=	0.04
CL	=	23.40
HCO3	=	290.00
NO3	=	57.00
PO4	=	ND
S	=	ND
SO4	=	53.00
F	=	0.60
CACO3	=	238.00
SIO2	=	24.80
DO	=	NA
ECOND	=	704.00
PH	=	7.36
REDOX	=	124.00
TDS	=	486.00

ORGANICS

TRICHLOROETHENE	=	2520.00
TETRACHLOROETHENE	=	4604.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	12.00
ACETONE	=	27.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW1

DEPTH: 235.00

DATE SAMPLED: 10/18/88

SAMPLE CODE:

INORGANICS

CA	=	85.70
K	=	4.88
MG	=	22.50
MN	=	0.01
NA	=	32.50
BR	=	0.40
FE	=	0.07
CL	=	30.50
HCO3	=	293.00
NO3	=	59.50
PO4	=	ND
S	=	ND
SO4	=	58.90
F	=	0.69
CACO3	=	240.00
SIO2	=	25.00
DO	=	NA
ECOND	=	739.00
PH	=	7.40
REDOX	=	123.00
TDS	=	478.00

ORGANICS

TRICHLOROETHENE	=	550.00
TETRACHLOROETHENE	=	857.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW1

DEPTH: 297.00

DATE SAMPLED: 10/18/88

SAMPLE CODE:

INORGANICS

CA	=	84.00
K	=	4.75
MG	=	22.10
MN	=	0.01
NA	=	32.30
BR	=	0.20
FE	=	0.07
CL	=	31.40
HCO3	=	293.00
NO3	=	56.40
PO4	=	ND
S	=	ND
SO4	=	67.80
F	=	0.68
CACO3	=	240.00
SIO2	=	24.80
DO	=	NA
ECOND	=	731.00
PH	=	7.35
REDOX	=	118.00
TDS	=	466.00

ORGANICS

TRICHLOROETHENE	=	539.00
TETRACHLOROETHENE	=	826.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW1

DEPTH: 338.00

DATE SAMPLED: 10/18/88

SAMPLE CODE:

INORGANICS

CA	=	84.50
K	=	4.92
MG	=	22.10
MN	=	0.01
NA	=	32.30
BR	=	0.40
FE	=	0.09
CL	=	33.50
HCO3	=	293.00
NO3	=	57.80
PO4	=	ND
S	=	ND
SO4	=	57.70
F	=	0.66
CACO3	=	240.00
SIO2	=	24.60
DO	=	NA
ECOND	=	730.00
PH	=	7.36
REDOX	=	114.00
TDS	=	468.00

ORGANICS

TRICHLOROETHENE	=	256.00
TETRACHLOROETHENE	=	371.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW1

DEPTH: 441.00

DATE SAMPLED: 10/18/88

SAMPLE CODE:

INORGANICS

CA	=	84.30
K	=	4.72
MG	=	22.00
MN	=	0.02
NA	=	32.10
BR	=	ND
FE	=	0.07
CL	=	30.00
HCO3	=	264.00
NO3	=	56.00
PO4	=	0.02
S	=	ND
SO4	=	68.70
F	=	0.69
CACO3	=	216.00
SIO2	=	24.50
DO	=	NA
ECOND	=	730.00
PH	=	7.39
REDOX	=	116.00
TDS	=	468.00

ORGANICS

TRICHLOROETHENE	=	730.00
TETRACHLOROETHENE	=	1169.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW1

DEPTH: 482.00

DATE SAMPLED: 10/18/88

SAMPLE CODE:

INORGANICS

CA	=	83.60
K	=	4.72
MG	=	21.80
MN	=	0.01
NA	=	31.70
BR	=	0.30
FE	=	0.07
CL	=	31.00
HCO3	=	293.00
NO3	=	55.80
PO4	=	ND
S	=	ND
SO4	=	62.80
F	=	0.67
CACO3	=	240.00
SIO2	=	24.50
DO	=	NA
ECOND	=	726.00
PH	=	7.39
REDOX	=	96.00
TDS	=	478.00

ORGANICS

TRICHLOROETHENE	=	551.00
TETRACHLOROETHENE	=	826.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	13.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW2

DEPTH: 158.00

DATE SAMPLED: 08/23/88

SAMPLE CODE:

INORGANICS

CA	=	73.20
K	=	4.43
MG	=	18.60
MN	=	ND
NA	=	29.70
BR	=	0.80
FE	=	0.12
CL	=	21.70
HCO3	=	NA
NO3	=	65.60
PO4	=	0.09
S	=	ND
SO4	=	48.50
F	=	0.43
CACO3	=	270.00
SIO2	=	27.70
DO	=	NA
ECOND	=	740.00
PH	=	6.91
REDOX	=	54.00
TDS	=	482.00

ORGANICS

TRICHLOROETHENE	=	313.00
TETRACHLOROETHENE	=	585.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	10.00
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	22.00
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW2

DEPTH: 270.00

DATE SAMPLED: 08/23/88

SAMPLE CODE:

INORGANICS

CA	=	65.60
K	=	4.22
MG	=	16.80
MN	=	ND
NA	=	27.90
BR	=	0.40
FE	=	0.08
CL	=	19.60
HCO3	=	NA
NO3	=	32.80
PO4	=	0.02
S	=	ND
SO4	=	59.20
F	=	0.55
CACO3	=	189.00
SIO2	=	27.40
DO	=	NA
ECOND	=	598.00
PH	=	7.33
REDOX	=	66.00
TDS	=	402.00

ORGANICS

TRICHLOROETHENE	=	158.00
TETRACHLOROETHENE	=	488.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW2

DEPTH: 352.00

DATE SAMPLED: 08/23/88

SAMPLE CODE:

INORGANICS

CA	=	67.50
K	=	4.25
MG	=	17.40
MN	=	0.01
NA	=	29.00
BR	=	0.50
FE	=	0.27
CL	=	19.70
HCO3	=	NA
NO3	=	33.20
PO4	=	0.03
S	=	ND
SO4	=	64.80
F	=	0.53
CACO3	=	194.00
SIO2	=	27.40
DO	=	NA
ECOND	=	598.00
PH	=	7.44
REDOX	=	36.00
TDS	=	412.00

ORGANICS

TRICHLOROETHENE	=	229.00
TETRACHLOROETHENE	=	523.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW2

DATE SAMPLED: 08/23/88

DEPTH: 428.00

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: A1MW2

DATE SAMPLED: 08/22/88

DEPTH: 460.00

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: A1MW3

DEPTH: 168.00

DATE SAMPLED: 10/15/88

SAMPLE CODE: A

INORGANICS

CA	=	92.00
K	=	4.81
MG	=	22.70
MN	=	ND
NA	=	30.60
BR	=	1.00
FE	=	0.06
CL	=	27.80
HCO3	=	346.00
NO3	=	56.40
PO4	=	0.04
S	=	ND
SO4	=	43.50
F	=	0.59
CACO3	=	284.00
SIO2	=	25.40
DO	=	NA
ECOND	=	711.00
PH	=	7.18
REDOX	=	101.00
TDS	=	456.00

ORGANICS

TRICHLOROETHENE	=	338.00
TETRACHLOROETHENE	=	158.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	9.00
ACETONE	=	13.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	11.00
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW3

DEPTH: 168.00

DATE SAMPLED: 10/15/88

SAMPLE CODE: B

INORGANICS

CA	=	93.70
K	=	4.98
MG	=	22.90
MN	=	ND
NA	=	30.40
BR	=	0.90
FE	=	0.06
CL	=	26.60
HCO3	=	343.00
NO3	=	56.20
PO4	=	0.04
S	=	ND
SO4	=	50.00
F	=	0.59
CACO3	=	281.00
SIO2	=	25.70
DO	=	NA
ECOND	=	711.00
PH	=	7.18
REDOX	=	101.00
TDS	=	467.00

ORGANICS

TRICHLOROETHENE	=	284.00
TETRACHLOROETHENE	=	148.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	14.00
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW3

DEPTH: 219.00

DATE SAMPLED: 10/15/88

SAMPLE CODE:

INORGANICS

CA	=	92.70
K	=	5.03
MG	=	23.10
MN	=	0.04
NA	=	31.80
BR	=	1.00
FE	=	0.08
CL	=	19.60
HCO3	=	339.00
NO3	=	55.90
PO4	=	ND
S	=	ND
SO4	=	56.40
F	=	0.61
CACO3	=	278.00
SIO2	=	25.90
DO	=	NA
ECOND	=	689.00
PH	=	7.24
REDOX	=	104.00
TDS	=	442.00

ORGANICS

TRICHLOROETHENE	=	419.00
TETRACHLOROETHENE	=	335.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW3

DEPTH: 263.00

DATE SAMPLED: 10/16/88

SAMPLE CODE:

INORGANICS

CA	=	78.40
K	=	5.25
MG	=	19.90
MN	=	0.02
NA	=	30.60
BR	=	0.20
FE	=	0.08
CL	=	24.80
HCO3	=	280.00
NO3	=	43.20
PO4	=	ND
S	=	ND
SO4	=	60.40
F	=	0.66
CACO3	=	230.00
SIO2	=	25.40
DO	=	NA
ECOND	=	679.00
PH	=	7.16
REDOX	=	104.00
TDS	=	444.00

ORGANICS

TRICHLOROETHENE	=	602.00
TETRACHLOROETHENE	=	1103.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW3

DEPTH: 294.00

DATE SAMPLED: 10/16/88

SAMPLE CODE:

INORGANICS

CA	=	71.40
K	=	5.07
MG	=	18.20
MN	=	0.02
NA	=	29.30
BR	=	ND
FE	=	0.06
CL	=	24.80
HCO3	=	260.00
NO3	=	31.40
PO4	=	ND
S	=	ND
SO4	=	56.90
F	=	0.69
CACO3	=	213.00
SIO2	=	25.20
DO	=	NA
ECOND	=	634.00
PH	=	7.25
REDOX	=	89.00
TDS	=	398.00

ORGANICS

TRICHLOROETHENE	=	300.00
TETRACHLOROETHENE	=	506.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	16.00
ACETONE	=	45.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW3

DEPTH: 362.00

DATE SAMPLED: 10/16/88

SAMPLE CODE:

INORGANICS

CA	=	79.60
K	=	5.35
MG	=	20.10
MN	=	0.03
NA	=	30.70
BR	=	ND
FE	=	0.08
CL	=	23.60
HCO3	=	277.00
NO3	=	43.10
PO4	=	ND
S	=	ND
SO4	=	65.60
F	=	0.65
CACO3	=	227.00
SIO2	=	25.40
DO	=	NA
ECOND	=	673.00
PH	=	7.22
REDOX	=	74.00
TDS	=	418.00

ORGANICS

TRICHLOROETHENE	=	429.00
TETRACHLOROETHENE	=	626.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	14.00
ACETONE	=	36.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW3

DEPTH: 426.00

DATE SAMPLED: 10/17/88

SAMPLE CODE:

INORGANICS

CA	=	79.80
K	=	5.32
MG	=	20.10
MN	=	0.02
NA	=	30.60
BR	=	ND
FE	=	0.09
CL	=	18.40
HCO3	=	290.00
NO3	=	48.80
PO4	=	0.04
S	=	ND
SO4	=	55.80
F	=	0.64
CACO3	=	238.00
SIO2	=	25.40
DO	=	NA
ECOND	=	681.00
PH	=	7.30
REDOX	=	137.00
TDS	=	414.00

ORGANICS

TRICHLOROETHENE	=	472.00
TETRACHLOROETHENE	=	623.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	15.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DEPTH: 144.00

DATE SAMPLED: 10/18/88

SAMPLE CODE:

INORGANICS

CA	=	78.30
K	=	4.78
MG	=	20.40
MN	=	ND
NA	=	31.60
BR	=	0.40
FE	=	0.08
CL	=	25.90
HCO3	=	296.00
NO3	=	40.20
PO4	=	0.05
S	=	ND
SO4	=	53.80
F	=	0.63
CACO3	=	243.00
SIO2	=	24.60
DO	=	NA
ECOND	=	545.00
PH	=	7.48
REDOX	=	167.00
TDS	=	425.00

ORGANICS

TRICHLOROETHENE	=	418.00
TETRACHLOROETHENE	=	406.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	35.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DATE SAMPLED: 10/18/88

DEPTH: 208.00

SAMPLE CODE:

INORGANICS

CA	=	78.90
K	=	4.81
MG	=	20.60
MN	=	0.01
NA	=	31.80
BR	=	0.40
FE	=	0.07
CL	=	24.50
HCO3	=	296.00
NO3	=	39.60
PO4	=	0.03
S	=	ND
SO4	=	62.90
F	=	0.64
CACO3	=	243.00
SIO2	=	24.50
DO	=	NA
ECOND	=	521.00
PH	=	7.52
REDOX	=	116.00
TDS	=	428.00

ORGANICS

TRICHLOROETHENE	=	354.00
TETRACHLOROETHENE	=	535.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	15.00
ACETONE	=	21.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DATE SAMPLED: 10/19/88

DEPTH: 276.00

SAMPLE CODE:

INORGANICS

CA	=	76.80
K	=	4.63
MG	=	20.40
MN	=	0.01
NA	=	30.60
BR	=	0.40
FE	=	0.07
CL	=	22.80
HCO3	=	296.00
NO3	=	28.00
PO4	=	0.02
S	=	ND
SO4	=	51.30
F	=	0.70
CACO3	=	243.00
SIO2	=	24.70
DO	=	NA
ECOND	=	593.00
PH	=	7.63
REDOX	=	14.00
TDS	=	418.00

ORGANICS

TRICHLOROETHENE	=	274.00
TETRACHLOROETHENE	=	411.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	20.00
ACETONE	=	14.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DEPTH: 320.00

DATE SAMPLED: 10/19/88

SAMPLE CODE:

INORGANICS

CA	=	72.30
K	=	4.47
MG	=	19.10
MN	=	0.02
NA	=	30.30
BR	=	0.60
FE	=	0.10
CL	=	25.40
HCO3	=	280.00
NO3	=	26.30
PO4	=	ND
S	=	ND
SO4	=	63.80
F	=	0.68
CACO3	=	230.00
SIO2	=	24.60
DO	=	NA
ECOND	=	587.00
PH	=	7.59
REDOX	=	11.00
TDS	=	384.00

ORGANICS

TRICHLOROETHENE	=	234.00
TETRACHLOROETHENE	=	353.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	17.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DEPTH: 364.00

DATE SAMPLED: 10/19/88

SAMPLE CODE:

INORGANICS

CA	=	70.70
K	=	4.35
MG	=	18.50
MN	=	0.01
NA	=	30.20
BR	=	0.40
FE	=	0.11
CL	=	21.60
HCO3	=	273.00
NO3	=	21.30
PO4	=	ND
S	=	ND
SO4	=	55.20
F	=	0.70
CACO3	=	224.00
SIO2	=	24.50
DO	=	NA
ECOND	=	613.00
PH	=	7.44
REDOX	=	-69.00
TDS	=	380.00

ORGANICS

TRICHLOROETHENE	=	167.00
TETRACHLOROETHENE	=	230.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	42.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DATE SAMPLED: 10/19/88

DEPTH: 432.00

SAMPLE CODE:

INORGANICS

CA	=	68.80
K	=	4.13
MG	=	18.10
MN	=	0.01
NA	=	29.30
BR	=	0.40
FE	=	0.10
CL	=	24.30
HCO3	=	267.00
NO3	=	26.10
PO4	=	0.04
S	=	ND
SO4	=	53.20
F	=	0.68
CACO3	=	219.00
SIO2	=	24.40
DO	=	NA
ECOND	=	603.00
PH	=	7.44
REDOX	=	-54.00
TDS	=	368.00

ORGANICS

TRICHLOROETHENE	=	147.00
TETRACHLOROETHENE	=	209.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	37.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DEPTH: 476.00

DATE SAMPLED: 10/19/88

SAMPLE CODE:

INORGANICS

CA	=	62.00
K	=	2.81
MG	=	9.58
MN	=	0.16
NA	=	162.00
BR	=	1.10
FE	=	0.26
CL	=	219.00
HCO3	=	145.00
NO3	=	16.30
PO4	=	ND
S	=	ND
SO4	=	137.00
F	=	0.59
CACO3	=	119.00
SIO2	=	17.40
DO	=	NA
ECOND	=	1235.00
PH	=	7.58
REDOX	=	-67.00
TDS	=	690.00

ORGANICS

TRICHLOROETHENE	=	70.00
TETRACHLOROETHENE	=	97.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	31.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DEPTH: 520.00

DATE SAMPLED: 10/19/88

SAMPLE CODE:

INORGANICS

CA	=	58.80
K	=	2.25
MG	=	6.89
MN	=	0.18
NA	=	192.00
BR	=	0.20
FE	=	0.76
CL	=	312.00
HCO3	=	109.00
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	111.00
F	=	0.55
CACO3	=	89.10
SIO2	=	16.10
DO	=	NA
ECOND	=	1377.00
PH	=	7.90
REDOX	=	-29.00
TDS	=	758.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	22.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DEPTH: 600.00

DATE SAMPLED: 10/19/88

SAMPLE CODE:

INORGANICS

CA	=	60.00
K	=	2.38
MG	=	7.03
MN	=	0.42
NA	=	198.00
BR	=	1.30
FE	=	0.38
CL	=	313.00
HCO3	=	109.00
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	115.00
F	=	0.56
CACO3	=	89.10
SIO2	=	15.70
DO	=	NA
ECOND	=	1395.00
PH	=	7.64
REDOX	=	7.00
TDS	=	750.00

ORGANICS

TRICHLOROETHENE	=	9.00
TETRACHLOROETHENE	=	17.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	22.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DATE SAMPLED: 10/20/88

DEPTH: 692.00

SAMPLE CODE:

INORGANICS

CA	=	59.40
K	=	2.51
MG	=	6.70
MN	=	0.29
NA	=	195.00
BR	=	1.40
FE	=	0.41
CL	=	314.00
HCO3	=	109.00
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	130.00
F	=	0.54
CACO3	=	89.10
SIO2	=	16.00
DO	=	NA
ECOND	=	1395.00
PH	=	7.92
REDOX	=	5.00
TDS	=	766.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	16.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DATE SAMPLED: 10/20/88

DEPTH: 808.00

SAMPLE CODE:

INORGANICS

CA	=	69.90
K	=	4.25
MG	=	18.30
MN	=	0.53
NA	=	30.50
BR	=	ND
FE	=	0.10
CL	=	31.70
HCO3	=	270.00
NO3	=	24.00
PO4	=	ND
S	=	ND
SO4	=	55.70
F	=	0.66
CACO3	=	221.00
SIO2	=	21.10
DO	=	NA
ECOND	=	606.00
PH	=	7.42
REDOX	=	34.00
TDS	=	394.00

ORGANICS

TRICHLOROETHENE	=	188.00
TETRACHLOROETHENE	=	280.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DATE SAMPLED: 10/20/88

DEPTH: 949.00

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: A1MW4

DATE SAMPLED: 10/20/88

DEPTH: 1017.00

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: A1MW4

DATE SAMPLED: 10/20/88

DEPTH: 1157.00

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: B1CW1

DATE SAMPLED: 10/07/88

DEPTH: 580.00

SAMPLE CODE:

INORGANICS

CA	=	37.60
K	=	3.96
MG	=	10.90
MN	=	0.07
NA	=	58.70
BR	=	0.20
FE	=	0.12
CL	=	28.60
HCO3	=	208.00
NO3	=	4.70
PO4	=	ND
S	=	0.20
SO4	=	61.30
F	=	0.55
CACO3	=	170.00
SIO2	=	17.20
DO	=	NA
ECOND	=	515.00
PH	=	8.40
REDOX	=	-130.00
TDS	=	268.00

ORGANICS

TRICHLOROETHENE	=	10.00
TETRACHLOROETHENE	=	96.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1CW2

DATE SAMPLED: 10/06/88

DEPTH: 250.00

SAMPLE CODE: A

INORGANICS

CA	=	91.40
K	=	4.80
MG	=	28.10
MN	=	0.06
NA	=	35.60
BR	=	ND
FE	=	0.57
CL	=	31.20
HCO3	=	296.00
NO3	=	82.80
PO4	=	ND
S	=	ND
SO4	=	71.70
F	=	0.50
CACO3	=	243.00
SIO2	=	25.80
DO	=	NA
ECOND	=	815.00
PH	=	7.31
REDOX	=	-66.00
TDS	=	520.00

ORGANICS

TRICHLOROETHENE	=	127.00
TETRACHLOROETHENE	=	1652.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1CW2

DEPTH: 250.00

DATE SAMPLED: 10/06/88

SAMPLE CODE: B

INORGANICS

CA	=	89.70
K	=	4.55
MG	=	28.00
MN	=	0.06
NA	=	35.10
BR	=	ND
FE	=	0.53
CL	=	31.60
HCO3	=	300.00
NO3	=	82.80
PO4	=	ND
S	=	ND
SO4	=	68.10
F	=	0.49
CACO3	=	246.00
SIO2	=	25.90
DO	=	NA
ECOND	=	815.00
PH	=	7.31
REDOX	=	-66.00
TDS	=	488.00

ORGANICS

TRICHLOROETHENE	=	143.00
TETRACHLOROETHENE	=	1850.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1CW3

DATE SAMPLED: 10/06/88

DEPTH: 150.00

SAMPLE CODE:

INORGANICS

CA	=	94.10
K	=	8.38
MG	=	27.50
MN	=	0.04
NA	=	50.80
BR	=	0.60
FE	=	0.12
CL	=	29.70
HCO3	=	366.00
NO3	=	60.80
PO4	=	0.05
S	=	ND
SO4	=	86.30
F	=	0.47
CACO3	=	300.00
SIO2	=	23.30
DO	=	NA
ECOND	=	888.00
PH	=	7.59
REDOX	=	7.00
TDS	=	574.00

ORGANICS

TRICHLOROETHENE	=	1540.00
TETRACHLOROETHENE	=	5570.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 112.00

DATE SAMPLED: 08/29/88

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: B1MW1

DEPTH: 194.00

DATE SAMPLED: 08/09/88

SAMPLE CODE:

INORGANICS

CA	=	108.00
K	=	1.70
MG	=	25.70
MN	=	ND
NA	=	29.00
BR	=	ND
FE	=	0.13
CL	=	37.00
HCO3	=	315.00
NO3	=	19.30
PO4	=	ND
S	=	ND
SO4	=	68.00
F	=	0.41
CACO3	=	NA
SIO2	=	NA
DO	=	5.58
ECOND	=	859.00
PH	=	7.51
REDOX	=	155.00
TDS	=	523.00

ORGANICS

TRICHLOROETHENE	=	1200.00
TETRACHLOROETHENE	=	3000.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 194.00

DATE SAMPLED: 08/29/88

SAMPLE CODE:

INORGANICS

CA	=	96.80
K	=	5.11
MG	=	27.30
MN	=	0.01
NA	=	32.10
BR	=	0.30
FE	=	0.36
CL	=	28.50
HCO3	=	NA
NO3	=	76.80
PO4	=	0.08
S	=	ND
SO4	=	77.00
F	=	0.54
CACO3	=	259.00
SIO2	=	27.50
DO	=	NA
ECOND	=	814.00
PH	=	7.14
REDOX	=	109.00
TDS	=	494.00

ORGANICS

TRICHLOROETHENE	=	1130.00
TETRACHLOROETHENE	=	2354.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 235.00

DATE SAMPLED: 08/09/88

SAMPLE CODE: A

INORGANICS

CA	=	102.00
K	=	1.74
MG	=	26.00
MN	=	ND
NA	=	30.60
BR	=	ND
FE	=	0.14
CL	=	37.00
HCO3	=	309.00
NO3	=	18.40
PO4	=	ND
S	=	ND
SO4	=	65.00
F	=	0.41
CACO3	=	NA
SIO2	=	NA
DO	=	8.00
ECOND	=	867.00
PH	=	7.56
REDOX	=	144.00
TDS	=	505.00

ORGANICS

TRICHLOROETHENE	=	1300.00
TETRACHLOROETHENE	=	6000.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 235.00

DATE SAMPLED: 08/09/88

SAMPLE CODE: B

INORGANICS

CA	=	103.00
K	=	1.72
MG	=	27.00
MN	=	ND
NA	=	30.60
BR	=	ND
FE	=	0.08
CL	=	35.00
HCO3	=	310.00
NO3	=	18.40
PO4	=	ND
S	=	ND
SO4	=	64.00
F	=	0.41
CACO3	=	NA
SIO2	=	NA
DO	=	5.80
ECOND	=	864.00
PH	=	7.45
REDOX	=	144.00
TDS	=	501.00

ORGANICS

TRICHLOROETHENE	=	1100.00
TETRACHLOROETHENE	=	6500.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 235.00

DATE SAMPLED: 08/30/88

SAMPLE CODE:

INORGANICS

CA	=	91.60
K	=	4.86
MG	=	27.70
MN	=	ND
NA	=	33.60
BR	=	0.50
FE	=	0.24
CL	=	29.20
HCO3	=	NA
NO3	=	74.90
PO4	=	0.07
S	=	ND
SO4	=	75.60
F	=	0.53
CACO3	=	254.00
SIO2	=	28.80
DO	=	NA
ECOND	=	813.00
PH	=	7.31
REDOX	=	120.00
TDS	=	538.00

ORGANICS

TRICHLOROETHENE	=	579.00
TETRACHLOROETHENE	=	2295.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 338.00

DATE SAMPLED: 08/09/88

SAMPLE CODE: A

INORGANICS

CA	=	102.00
K	=	1.68
MG	=	26.70
MN	=	ND
NA	=	33.00
BR	=	ND
FE	=	0.45
CL	=	38.00
HCO3	=	310.00
NO3	=	18.40
PO4	=	ND
S	=	ND
SO4	=	67.00
F	=	0.36
CACO3	=	NA
SIO2	=	NA
DO	=	4.10
ECOND	=	853.00
PH	=	7.45
REDOX	=	131.00
TDS	=	498.00

ORGANICS

TRICHLOROETHENE	=	750.00
TETRACHLOROETHENE	=	4100.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 338.00

DATE SAMPLED: 08/09/88

SAMPLE CODE: B

INORGANICS

CA	=	103.00
K	=	1.74
MG	=	26.20
MN	=	ND
NA	=	32.80
BR	=	ND
FE	=	0.78
CL	=	36.00
HCO3	=	314.00
NO3	=	18.40
PO4	=	ND
S	=	ND
SO4	=	64.00
F	=	0.35
CACO3	=	NA
SIO2	=	NA
DO	=	6.58
ECOND	=	854.00
PH	=	7.41
REDOX	=	138.00
TDS	=	486.00

ORGANICS

TRICHLOROETHENE	=	720.00
TETRACHLOROETHENE	=	3600.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DATE SAMPLED: 08/30/88

DEPTH: 338.00

SAMPLE CODE:

INORGANICS

CA	=	92.80
K	=	5.00
MG	=	27.80
MN	=	ND
NA	=	33.90
BR	=	0.60
FE	=	0.49
CL	=	29.70
HCO3	=	NA
NO3	=	75.30
PO4	=	0.06
S	=	ND
SO4	=	76.30
F	=	0.54
CACO3	=	251.00
SIO2	=	28.60
DO	=	NA
ECOND	=	817.00
PH	=	7.27
REDOX	=	96.00
TDS	=	506.00

ORGANICS

TRICHLOROETHENE	=	471.00
TETRACHLOROETHENE	=	2242.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	79.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DATE SAMPLED: 08/09/88

DEPTH: 400.00

SAMPLE CODE:

INORGANICS

CA	=	105.00
K	=	1.82
MG	=	27.30
MN	=	ND
NA	=	32.20
BR	=	ND
FE	=	0.13
CL	=	38.00
HCO3	=	315.00
NO3	=	19.30
PO4	=	ND
S	=	ND
SO4	=	66.00
F	=	0.33
CACO3	=	NA
SIO2	=	NA
DO	=	5.70
ECOND	=	850.00
PH	=	7.39
REDOX	=	139.10
TDS	=	499.00

ORGANICS

TRICHLOROETHENE	=	270.00
TETRACHLOROETHENE	=	1700.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 400.00

DATE SAMPLED: 08/30/88

SAMPLE CODE: A

INORGANICS

CA	=	92.30
K	=	5.00
MG	=	27.50
MN	=	0.01
NA	=	33.60
BR	=	0.30
FE	=	0.34
CL	=	29.30
HCO3	=	NA
NO3	=	76.50
PO4	=	0.05
S	=	ND
SO4	=	76.00
F	=	0.54
CACO3	=	251.00
SIO2	=	28.80
DO	=	NA
ECOND	=	815.00
PH	=	7.24
REDOX	=	53.00
TDS	=	536.00

ORGANICS

TRICHLOROETHENE	=	432.00
TETRACHLOROETHENE	=	2122.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 400.00

DATE SAMPLED: 08/30/88

SAMPLE CODE: B

INORGANICS

CA	=	91.60
K	=	5.01
MG	=	27.50
MN	=	ND
NA	=	33.90
BR	=	0.50
FE	=	0.13
CL	=	29.50
HCO3	=	NA
NO3	=	75.70
PO4	=	0.06
S	=	ND
SO4	=	71.80
F	=	0.50
CACO3	=	248.00
SIO2	=	29.00
DO	=	NA
ECOND	=	815.00
PH	=	7.24
REDOX	=	53.00
TDS	=	536.00

ORGANICS

TRICHLOROETHENE	=	522.00
TETRACHLOROETHENE	=	1648.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DEPTH: 441.00

DATE SAMPLED: 08/09/88

SAMPLE CODE:

INORGANICS

CA	=	104.00
K	=	1.78
MG	=	27.00
MN	=	ND
NA	=	33.60
BR	=	ND
FE	=	0.14
CL	=	39.00
HCO3	=	312.00
NO3	=	19.30
PO4	=	ND
S	=	ND
SO4	=	65.00
F	=	0.40
CACO3	=	NA
SIO2	=	NA
DO	=	5.57
ECOND	=	853.00
PH	=	7.44
REDOX	=	146.20
TDS	=	503.00

ORGANICS

TRICHLOROETHENE	=	450.00
TETRACHLOROETHENE	=	2200.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW1

DATE SAMPLED: 08/30/88

DEPTH: 441.00

SAMPLE CODE:

INORGANICS

CA	=	91.10
K	=	4.96
MG	=	27.30
MN	=	0.03
NA	=	33.40
BR	=	0.50
FE	=	0.14
CL	=	29.80
HCO3	=	NA
NO3	=	79.50
PO4	=	0.09
S	=	ND
SO4	=	77.50
F	=	0.53
CACO3	=	248.00
SIO2	=	28.20
DO	=	NA
ECOND	=	813.00
PH	=	7.10
REDOX	=	70.00
TDS	=	546.00

ORGANICS

TRICHLOROETHENE	=	382.00
TETRACHLOROETHENE	=	1835.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW2

DEPTH: 150.00

DATE SAMPLED: 09/07/88

SAMPLE CODE: A

INORGANICS

CA	=	109.00
K	=	5.13
MG	=	29.70
MN	=	0.01
NA	=	33.00
BR	=	0.50
FE	=	0.02
CL	=	28.20
HCO3	=	NA
NO3	=	65.50
PO4	=	0.06
S	=	ND
SO4	=	93.60
F	=	0.41
CACO3	=	289.00
SIO2	=	27.60
DO	=	NA
ECOND	=	894.00
PH	=	7.09
REDOX	=	147.00
TDS	=	590.00

ORGANICS

TRICHLOROETHENE	=	2880.00
TETRACHLOROETHENE	=	9578.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW2

DEPTH: 150.00

DATE SAMPLED: 09/07/88

SAMPLE CODE: B

INORGANICS

CA	=	110.00
K	=	4.96
MG	=	29.30
MN	=	0.01
NA	=	32.40
BR	=	0.60
FE	=	ND
CL	=	27.40
HCO3	=	NA
NO3	=	65.70
PO4	=	0.06
S	=	ND
SO4	=	92.40
F	=	0.39
CACO3	=	289.00
SIO2	=	27.60
DO	=	NA
ECOND	=	894.00
PH	=	7.09
REDOX	=	147.00
TDS	=	526.00

ORGANICS

TRICHLOROETHENE	=	3142.00
TETRACHLOROETHENE	=	9564.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW2

DEPTH: 229.00

DATE SAMPLED: 09/07/88

SAMPLE CODE:

INORGANICS

CA	=	101.00
K	=	4.85
MG	=	28.00
MN	=	0.01
NA	=	33.30
BR	=	0.70
FE	=	ND
CL	=	28.70
HCO3	=	NA
NO3	=	68.00
PO4	=	0.08
S	=	ND
SO4	=	85.90
F	=	0.42
CACO3	=	273.00
SIO2	=	27.90
DO	=	NA
ECOND	=	854.00
PH	=	7.21
REDOX	=	133.00
TDS	=	548.00

ORGANICS

TRICHLOROETHENE	=	2100.00
TETRACHLOROETHENE	=	7726.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	10.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW2

DATE SAMPLED: 09/08/88

DEPTH: 318.00

SAMPLE CODE:

INORGANICS

CA	=	101.00
K	=	4.40
MG	=	28.20
MN	=	0.01
NA	=	33.50
BR	=	0.60
FE	=	0.02
CL	=	28.10
HCO3	=	NA
NO3	=	68.10
PO4	=	0.08
S	=	ND
SO4	=	85.50
F	=	0.40
CACO3	=	273.00
SIO2	=	27.90
DO	=	NA
ECOND	=	855.00
PH	=	7.24
REDOX	=	108.00
TDS	=	502.00

ORGANICS

TRICHLOROETHENE	=	1896.00
TETRACHLOROETHENE	=	6933.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	7.00
ACETONE	=	14.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW2

DEPTH: 380.00

DATE SAMPLED: 09/08/88

SAMPLE CODE:

INORGANICS

CA	=	103.00
K	=	4.62
MG	=	28.10
MN	=	0.01
NA	=	32.80
BR	=	0.50
FE	=	0.02
CL	=	27.30
HCO3	=	NA
NO3	=	67.00
PO4	=	0.06
S	=	ND
SO4	=	86.10
F	=	0.38
CACO3	=	275.00
SIO2	=	27.70
DO	=	NA
ECOND	=	864.00
PH	=	7.23
REDOX	=	104.00
TDS	=	538.00

ORGANICS

TRICHLOROETHENE	=	2146.00
TETRACHLOROETHENE	=	7944.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	14.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW2

DEPTH: 421.00

DATE SAMPLED: 09/08/88

SAMPLE CODE:

INORGANICS

CA	=	102.00
K	=	4.71
MG	=	28.00
MN	=	0.02
NA	=	32.50
BR	=	0.80
FE	=	0.06
CL	=	29.10
HCO3	=	NA
NO3	=	68.30
PO4	=	0.04
S	=	ND
SO4	=	92.10
F	=	0.39
CACO3	=	275.00
SIO2	=	27.50
DO	=	NA
ECOND	=	870.00
PH	=	7.24
REDOX	=	35.00
TDS	=	554.00

ORGANICS

TRICHLOROETHENE	=	2832.00
TETRACHLOROETHENE	=	9500.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	26.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW3

DEPTH: 102.00

DATE SAMPLED: 09/13/88

SAMPLE CODE:

INORGANICS

CA	=	106.00
K	=	5.21
MG	=	28.30
MN	=	0.01
NA	=	35.60
BR	=	0.50
FE	=	0.06
CL	=	35.80
HCO3	=	323.00
NO3	=	55.00
PO4	=	0.04
S	=	ND
SO4	=	92.40
F	=	0.60
CACO3	=	265.00
SIO2	=	27.20
DO	=	NA
ECOND	=	823.00
PH	=	7.25
REDOX	=	114.00
TDS	=	512.00

ORGANICS

TRICHLOROETHENE	=	470.00
TETRACHLOROETHENE	=	887.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	96.00
ACETONE	=	33.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	7.00
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW3

DEPTH: 174.00

DATE SAMPLED: 09/13/88

SAMPLE CODE:

INORGANICS

CA	=	98.60
K	=	4.93
MG	=	28.60
MN	=	0.02
NA	=	37.70
BR	=	0.70
FE	=	0.07
CL	=	31.80
HCO3	=	303.00
NO3	=	57.60
PO4	=	0.03
S	=	ND
SO4	=	90.00
F	=	0.62
CACO3	=	248.00
SIO2	=	27.50
DO	=	NA
ECOND	=	816.00
PH	=	7.25
REDOX	=	88.00
TDS	=	506.00

ORGANICS

TRICHLOROETHENE	=	438.00
TETRACHLOROETHENE	=	896.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	35.00
ACETONE	=	7.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW3

DEPTH: 236.00

DATE SAMPLED: 09/14/88

SAMPLE CODE:

INORGANICS

CA	=	90.30
K	=	3.87
MG	=	28.50
MN	=	0.01
NA	=	37.70
BR	=	0.50
FE	=	0.20
CL	=	33.00
HCO3	=	296.00
NO3	=	52.60
PO4	=	0.04
S	=	ND
SO4	=	74.10
F	=	0.65
CACO3	=	243.00
SIO2	=	28.40
DO	=	NA
ECOND	=	787.00
PH	=	7.34
REDOX	=	96.00
TDS	=	494.00

ORGANICS

TRICHLOROETHENE	=	27.00
TETRACHLOROETHENE	=	413.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	25.00
ACETONE	=	96.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW3

DATE SAMPLED: 09/14/88

DEPTH: 298.00

SAMPLE CODE:

INORGANICS

CA	=	90.40
K	=	3.87
MG	=	28.30
MN	=	ND
NA	=	37.80
BR	=	0.60
FE	=	0.07
CL	=	34.30
HCO3	=	293.00
NO3	=	51.50
PO4	=	0.05
S	=	ND
SO4	=	69.30
F	=	0.64
CACO3	=	240.00
SIO2	=	27.70
DO	=	NA
ECOND	=	784.00
PH	=	7.37
REDOX	=	67.00
TDS	=	490.00

ORGANICS

TRICHLOROETHENE	=	94.00
TETRACHLOROETHENE	=	402.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	17.00
ACETONE	=	15.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW3

DATE SAMPLED: 09/14/88

DEPTH: 339.00

SAMPLE CODE:

INORGANICS

CA	=	93.60
K	=	4.57
MG	=	28.60
MN	=	0.14
NA	=	37.20
BR	=	0.60
FE	=	0.11
CL	=	38.90
HCO3	=	290.00
NO3	=	51.80
PO4	=	0.02
S	=	ND
SO4	=	107.00
F	=	0.64
CACO3	=	238.00
SIO2	=	27.50
DO	=	NA
ECOND	=	781.00
PH	=	7.15
REDOX	=	73.00
TDS	=	486.00

ORGANICS

TRICHLOROETHENE	=	103.00
TETRACHLOROETHENE	=	390.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	12.00
ACETONE	=	11.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW3

DEPTH: 422.00

DATE SAMPLED: 09/14/88

SAMPLE CODE:

INORGANICS

CA	=	93.90
K	=	4.69
MG	=	28.70
MN	=	0.04
NA	=	37.90
BR	=	0.60
FE	=	0.08
CL	=	37.20
HCO3	=	300.00
NO3	=	52.00
PO4	=	0.03
S	=	ND
SO4	=	97.70
F	=	0.58
CACO3	=	246.00
SIO2	=	27.70
DO	=	NA
ECOND	=	786.00
PH	=	7.22
REDOX	=	73.00
TDS	=	512.00

ORGANICS

TRICHLOROETHENE	=	141.00
TETRACHLOROETHENE	=	480.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW4

DEPTH: 80.00

DATE SAMPLED: 09/11/88

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: B1MW4

DEPTH: 162.00

DATE SAMPLED: 09/11/88

SAMPLE CODE:

INORGANICS

CA	=	80.60
K	=	4.44
MG	=	24.70
MN	=	0.03
NA	=	36.50
BR	=	ND
FE	=	1.16
CL	=	27.00
HCO3	=	NA
NO3	=	51.10
PO4	=	ND
S	=	ND
SO4	=	81.50
F	=	0.49
CACO3	=	216.00
SIO2	=	28.80
DO	=	NA
ECOND	=	722.00
PH	=	7.31
REDOX	=	139.00
TDS	=	498.00

ORGANICS

TRICHLOROETHENE	=	181.00
TETRACHLOROETHENE	=	98.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW4

DEPTH: 214.00

DATE SAMPLED: 09/12/88

SAMPLE CODE:

INORGANICS

CA	=	68.40
K	=	3.80
MG	=	20.60
MN	=	0.04
NA	=	36.30
BR	=	0.40
FE	=	0.06
CL	=	24.60
HCO3	=	NA
NO3	=	28.00
PO4	=	ND
S	=	ND
SO4	=	82.70
F	=	0.52
CACO3	=	192.00
SIO2	=	26.00
DO	=	NA
ECOND	=	619.00
PH	=	7.51
REDOX	=	111.00
TDS	=	380.00

ORGANICS

TRICHLOROETHENE	=	55.00
TETRACHLOROETHENE	=	16.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	39.00
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW4

DATE SAMPLED: 09/12/88

DEPTH: 297.00

SAMPLE CODE: A

INORGANICS

CA	=	61.80
K	=	3.95
MG	=	19.00
MN	=	0.07
NA	=	42.00
BR	=	ND
FE	=	0.16
CL	=	27.00
HCO3	=	NA
NO3	=	17.00
PO4	=	ND
S	=	ND
SO4	=	108.00
F	=	0.57
CACO3	=	162.00
SIO2	=	24.90
DO	=	NA
ECOND	=	618.00
PH	=	7.55
REDOX	=	-14.00
TDS	=	388.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	8.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW4

DEPTH: 297.00

DATE SAMPLED: 09/12/88

SAMPLE CODE: B

INORGANICS

CA	=	63.30
K	=	3.95
MG	=	19.40
MN	=	0.07
NA	=	42.80
BR	=	0.10
FE	=	0.25
CL	=	28.20
HCO3	=	NA
NO3	=	17.20
PO4	=	0.02
S	=	ND
SO4	=	114.00
F	=	0.57
CACO3	=	159.00
SIO2	=	25.40
DO	=	NA
ECOND	=	618.00
PH	=	7.55
REDOX	=	-14.00
TDS	=	396.00

ORGANICS

TRICHLOROETHENE	=	6.00
TETRACHLOROETHENE	=	9.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW4

DEPTH: 411.00

DATE SAMPLED: 09/12/88

SAMPLE CODE:

INORGANICS

CA	=	66.00
K	=	4.02
MG	=	20.20
MN	=	0.03
NA	=	42.40
BR	=	0.30
FE	=	0.33
CL	=	28.70
HCO3	=	NA
NO3	=	24.50
PO4	=	0.02
S	=	ND
SO4	=	111.00
F	=	0.53
CACO3	=	170.00
SIO2	=	24.90
DO	=	NA
ECOND	=	651.00
PH	=	7.52
REDOX	=	6.00
TDS	=	430.00

ORGANICS

TRICHLOROETHENE	=	29.00
TETRACHLOROETHENE	=	17.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	8.00
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW5

DEPTH: 96.00

DATE SAMPLED: 09/09/88

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: B1MW5

DEPTH: 160.00

DATE SAMPLED: 09/09/88

SAMPLE CODE:

INORGANICS

CA	=	89.40
K	=	5.01
MG	=	25.50
MN	=	ND
NA	=	31.10
BR	=	0.20
FE	=	0.05
CL	=	23.10
HCO3	=	NA
NO3	=	63.10
PO4	=	0.04
S	=	ND
SO4	=	75.40
F	=	0.43
CACO3	=	224.00
SIO2	=	27.40
DO	=	NA
ECOND	=	764.00
PH	=	7.37
REDOX	=	136.00
TDS	=	510.00

ORGANICS

TRICHLOROETHENE	=	78.00
TETRACHLOROETHENE	=	131.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW5

DEPTH: 252.00

DATE SAMPLED: 09/10/88

SAMPLE CODE:

INORGANICS

CA	=	86.90
K	=	4.75
MG	=	24.80
MN	=	0.01
NA	=	32.50
BR	=	0.20
FE	=	0.07
CL	=	24.40
HCO3	=	NA
NO3	=	61.90
PO4	=	ND
S	=	ND
SO4	=	72.90
F	=	0.43
CACO3	=	224.00
SIO2	=	27.10
DO	=	NA
ECOND	=	758.00
PH	=	7.37
REDOX	=	202.00
TDS	=	508.00

ORGANICS

TRICHLOROETHENE	=	82.00
TETRACHLOROETHENE	=	132.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	22.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW5

DATE SAMPLED: 09/10/88

DEPTH: 296.00

SAMPLE CODE:

INORGANICS

CA	=	82.40
K	=	4.05
MG	=	22.30
MN	=	0.01
NA	=	32.60
BR	=	0.20
FE	=	0.04
CL	=	24.20
HCO3	=	NA
NO3	=	53.60
PO4	=	ND
S	=	ND
SO4	=	75.90
F	=	0.40
CACO3	=	221.00
SIO2	=	26.60
DO	=	NA
ECOND	=	721.00
PH	=	7.45
REDOX	=	199.00
TDS	=	480.00

ORGANICS

TRICHLOROETHENE	=	53.00
TETRACHLOROETHENE	=	174.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	65.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW5

DEPTH: 354.00

DATE SAMPLED: 09/10/88

SAMPLE CODE:

INORGANICS

CA	=	86.90
K	=	4.92
MG	=	24.60
MN	=	0.02
NA	=	32.70
BR	=	0.20
FE	=	0.06
CL	=	25.40
HCO3	=	NA
NO3	=	59.70
PO4	=	ND
S	=	0.30
SO4	=	76.60
F	=	0.42
CACO3	=	221.00
SIO2	=	26.80
DO	=	NA
ECOND	=	745.00
PH	=	7.39
REDOX	=	159.00
TDS	=	464.00

ORGANICS

TRICHLOROETHENE	=	69.00
TETRACHLOROETHENE	=	114.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	61.00
ACETONE	=	30.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW5

DEPTH: 422.00

DATE SAMPLED: 09/10/88

SAMPLE CODE:

INORGANICS

CA	=	84.20
K	=	4.59
MG	=	23.70
MN	=	0.09
NA	=	29.90
BR	=	0.20
FE	=	0.04
CL	=	24.40
HCO3	=	NA
NO3	=	60.30
PO4	=	ND
S	=	0.20
SO4	=	74.70
F	=	0.41
CACO3	=	216.00
SIO2	=	25.90
DO	=	NA
ECOND	=	736.00
PH	=	7.39
REDOX	=	155.00
TDS	=	452.00

ORGANICS

TRICHLOROETHENE	=	84.00
TETRACHLOROETHENE	=	151.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	20.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW6

DEPTH: 82.00

DATE SAMPLED: 08/31/88

SAMPLE CODE:

INORGANICS

CA	=	124.00
K	=	5.40
MG	=	36.40
MN	=	ND
NA	=	39.90
BR	=	0.40
FE	=	0.08
CL	=	42.80
HCO3	=	NA
NO3	=	59.20
PO4	=	0.07
S	=	ND
SO4	=	142.00
F	=	0.42
CACO3	=	297.00
SIO2	=	27.60
DO	=	NA
ECOND	=	1024.00
PH	=	7.05
REDOX	=	126.00
TDS	=	652.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	10.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW6

DEPTH: 160.00

DATE SAMPLED: 08/31/88

SAMPLE CODE:

INORGANICS

CA	=	123.00
K	=	5.70
MG	=	36.20
MN	=	0.01
NA	=	42.10
BR	=	0.70
FE	=	0.30
CL	=	43.90
HCO3	=	NA
NO3	=	61.50
PO4	=	0.03
S	=	ND
SO4	=	137.00
F	=	0.44
CACO3	=	294.00
SIO2	=	27.30
DO	=	NA
ECOND	=	1010.00
PH	=	7.13
REDOX	=	27.00
TDS	=	636.00

ORGANICS

TRICHLOROETHENE	=	13.00
TETRACHLOROETHENE	=	10.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW6

DEPTH: 286.00

DATE SAMPLED: 08/31/88

SAMPLE CODE:

INORGANICS

CA	=	97.60
K	=	4.59
MG	=	29.10
MN	=	0.10
NA	=	35.70
BR	=	0.80
FE	=	0.75
CL	=	33.90
HCO3	=	NA
NO3	=	44.30
PO4	=	0.02
S	=	ND
SO4	=	110.00
F	=	0.52
CACO3	=	267.00
SIO2	=	25.60
DO	=	NA
ECOND	=	852.00
PH	=	7.19
REDOX	=	-33.00
TDS	=	514.00

ORGANICS

TRICHLOROETHENE	=	5.00
TETRACHLOROETHENE	=	6.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	27.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW6

DEPTH: 354.00

DATE SAMPLED: 08/31/88

SAMPLE CODE:

INORGANICS

CA	=	121.00
K	=	5.34
MG	=	35.70
MN	=	0.04
NA	=	41.00
BR	=	0.60
FE	=	0.20
CL	=	41.90
HCO3	=	NA
NO3	=	58.20
PO4	=	0.02
S	=	ND
SO4	=	136.00
F	=	0.45
CACO3	=	300.00
SIO2	=	26.30
DO	=	NA
ECOND	=	1013.00
PH	=	7.47
REDOX	=	6.00
TDS	=	630.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW6

DEPTH: 398.00

DATE SAMPLED: 09/01/88

SAMPLE CODE:

INORGANICS

CA	=	121.00
K	=	5.54
MG	=	35.60
MN	=	0.04
NA	=	41.20
BR	=	0.20
FE	=	0.28
CL	=	42.60
HCO3	=	NA
NO3	=	57.20
PO4	=	0.03
S	=	ND
SO4	=	137.00
F	=	0.44
CACO3	=	297.00
SIO2	=	26.50
DO	=	NA
ECOND	=	1008.00
PH	=	7.41
REDOX	=	1.00
TDS	=	624.00

ORGANICS

TRICHLOROETHENE	=	5.00
TETRACHLOROETHENE	=	7.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW7

DEPTH: 101.00

DATE SAMPLED: 09/15/88

SAMPLE CODE:

INORGANICS

CA	=	77.60
K	=	5.05
MG	=	21.80
MN	=	0.01
NA	=	32.00
BR	=	0.40
FE	=	0.06
CL	=	30.30
HCO3	=	NA
NO3	=	42.60
PO4	=	ND
S	=	ND
SO4	=	92.50
F	=	0.68
CACO3	=	197.00
SIO2	=	27.60
DO	=	NA
ECOND	=	687.00
PH	=	7.43
REDOX	=	96.00
TDS	=	396.00

ORGANICS

TRICHLOROETHENE	=	2405.00
TETRACHLOROETHENE	=	250.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW7

DEPTH: 162.00

DATE SAMPLED: 09/15/88

SAMPLE CODE:

INORGANICS

CA	=	77.10
K	=	4.92
MG	=	22.20
MN	=	0.01
NA	=	31.10
BR	=	0.70
FE	=	0.02
CL	=	34.70
HCO3	=	NA
NO3	=	38.50
PO4	=	0.03
S	=	ND
SO4	=	78.30
F	=	0.65
CACO3	=	197.00
SIO2	=	NA
DO	=	NA
ECOND	=	684.00
PH	=	7.41
REDOX	=	95.00
TDS	=	439.00

ORGANICS

TRICHLOROETHENE	=	2008.00
TETRACHLOROETHENE	=	173.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	16.00
ACETONE	=	27.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW7

DEPTH: 234.00

DATE SAMPLED: 09/15/88

SAMPLE CODE:

INORGANICS

CA	=	77.60
K	=	4.67
MG	=	22.00
MN	=	0.13
NA	=	30.80
BR	=	0.70
FE	=	0.03
CL	=	27.80
HCO3	=	NA
NO3	=	39.20
PO4	=	ND
S	=	ND
SO4	=	84.30
F	=	0.68
CACO3	=	197.00
SIO2	=	26.30
DO	=	NA
ECOND	=	689.00
PH	=	7.34
REDOX	=	95.00
TDS	=	446.00

ORGANICS

TRICHLOROETHENE	=	2159.00
TETRACHLOROETHENE	=	204.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	14.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW7

DEPTH: 307.00

DATE SAMPLED: 09/16/88

SAMPLE CODE:

INORGANICS

CA	=	68.60
K	=	4.42
MG	=	19.50
MN	=	0.13
NA	=	29.40
BR	=	0.60
FE	=	0.14
CL	=	26.00
HCO3	=	NA
NO3	=	27.60
PO4	=	0.08
S	=	ND
SO4	=	82.90
F	=	0.65
CACO3	=	186.00
SIO2	=	25.50
DO	=	NA
ECOND	=	630.00
PH	=	7.31
REDOX	=	-40.00
TDS	=	404.00

ORGANICS

TRICHLOROETHENE	=	2153.00
TETRACHLOROETHENE	=	202.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	17.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW7

DEPTH: 337.00

DATE SAMPLED: 09/16/88

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	662.00
PH	=	7.40
REDOX	=	6.00
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: B1MW7

DEPTH: 410.00

DATE SAMPLED: 09/16/88

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: B1MW8

DEPTH: 95.00

DATE SAMPLED: 09/02/88

SAMPLE CODE:

INORGANICS

CA	=	57.10
K	=	4.14
MG	=	17.20
MN	=	0.01
NA	=	53.00
BR	=	0.40
FE	=	0.12
CL	=	23.70
HCO3	=	NA
NO3	=	17.90
PO4	=	0.10
S	=	ND
SO4	=	98.40
F	=	0.43
CACO3	=	184.00
SIO2	=	25.30
DO	=	NA
ECOND	=	680.00
PH	=	7.33
REDOX	=	89.00
TDS	=	270.00

ORGANICS

TRICHLOROETHENE	=	7.00
TETRACHLOROETHENE	=	6.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW8

DEPTH: 156.00

DATE SAMPLED: 09/02/88

SAMPLE CODE:

INORGANICS

CA	=	73.00
K	=	4.25
MG	=	20.80
MN	=	0.03
NA	=	44.40
BR	=	0.30
FE	=	0.27
CL	=	25.70
HCO3	=	NA
NO3	=	32.00
PO4	=	0.04
S	=	ND
SO4	=	101.00
F	=	0.46
CACO3	=	208.00
SIO2	=	25.60
DO	=	NA
ECOND	=	721.00
PH	=	7.15
REDOX	=	101.00
TDS	=	438.00

ORGANICS

TRICHLOROETHENE	=	43.00
TETRACHLOROETHENE	=	7.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW8

DATE SAMPLED: 09/02/88

DEPTH: 218.00

SAMPLE CODE:

INORGANICS

CA	=	58.50
K	=	3.93
MG	=	16.70
MN	=	0.05
NA	=	44.10
BR	=	0.40
FE	=	0.09
CL	=	23.20
HCO3	=	NA
NO3	=	20.10
PO4	=	ND
S	=	0.20
SO4	=	94.60
F	=	0.49
CACO3	=	189.00
SIO2	=	24.40
DO	=	NA
ECOND	=	629.00
PH	=	7.44
REDOX	=	60.00
TDS	=	364.00

ORGANICS

TRICHLOROETHENE	=	9.00
TETRACHLOROETHENE	=	5.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW8

DEPTH: 290.00

DATE SAMPLED: 09/03/88

SAMPLE CODE:

INORGANICS

CA	=	56.60
K	=	4.29
MG	=	17.60
MN	=	0.09
NA	=	55.00
BR	=	ND
FE	=	0.13
CL	=	27.10
HCO3	=	NA
NO3	=	20.20
PO4	=	ND
S	=	ND
SO4	=	109.80
F	=	0.51
CACO3	=	181.00
SIO2	=	24.90
DO	=	NA
ECOND	=	671.00
PH	=	7.54
REDOX	=	78.00
TDS	=	396.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	7.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW8

DEPTH: 363.00

DATE SAMPLED: 09/03/88

SAMPLE CODE:

INORGANICS

CA	=	52.00
K	=	3.72
MG	=	13.20
MN	=	0.04
NA	=	43.90
BR	=	0.40
FE	=	0.20
CL	=	19.00
HCO3	=	NA
NO3	=	12.00
PO4	=	ND
S	=	0.20
SO4	=	80.20
F	=	0.52
CACO3	=	170.00
SIO2	=	23.50
DO	=	NA
ECOND	=	531.00
PH	=	7.56
REDOX	=	-51.00
TDS	=	338.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW8

DEPTH: 404.00

DATE SAMPLED: 09/03/88

SAMPLE CODE:

INORGANICS

CA	=	54.70
K	=	4.11
MG	=	15.80
MN	=	0.03
NA	=	49.40
BR	=	0.40
FE	=	0.17
CL	=	24.00
HCO3	=	NA
NO3	=	17.40
PO4	=	0.06
S	=	ND
SO4	=	97.60
F	=	0.53
CACO3	=	176.00
SIO2	=	25.00
DO	=	NA
ECOND	=	632.00
PH	=	7.46
REDOX	=	-37.00
TDS	=	394.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	6.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW9

DEPTH: 138.00

DATE SAMPLED: 10/13/88

SAMPLE CODE:

INORGANICS

CA	=	120.00
K	=	5.09
MG	=	29.90
MN	=	ND
NA	=	32.90
BR	=	1.30
FE	=	0.14
CL	=	30.10
HCO3	=	368.00
NO3	=	98.50
PO4	=	0.05
S	=	ND
SO4	=	73.00
F	=	0.49
CACO3	=	302.00
SIO2	=	26.20
DO	=	NA
ECOND	=	941.00
PH	=	6.96
REDOX	=	139.00
TDS	=	568.00

ORGANICS

TRICHLOROETHENE	=	2388.00
TETRACHLOROETHENE	=	3653.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW9

DATE SAMPLED: 10/13/88

DEPTH: 264.00

SAMPLE CODE:

INORGANICS

CA	=	104.00
K	=	5.10
MG	=	30.60
MN	=	0.02
NA	=	34.80
BR	=	0.90
FE	=	0.79
CL	=	32.40
HCO3	=	333.00
NO3	=	86.50
PO4	=	0.02
S	=	ND
SO4	=	76.40
F	=	0.62
CACO3	=	273.00
SIO2	=	26.60
DO	=	NA
ECOND	=	879.00
PH	=	7.01
REDOX	=	-36.00
TDS	=	578.00

ORGANICS

TRICHLOROETHENE	=	536.00
TETRACHLOROETHENE	=	1011.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	32.00
ACETONE	=	12.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW9

DEPTH: 332.00

DATE SAMPLED: 10/13/88

SAMPLE CODE:

INORGANICS

CA	=	109.00
K	=	5.26
MG	=	29.90
MN	=	0.02
NA	=	33.70
BR	=	0.90
FE	=	0.44
CL	=	31.50
HCO3	=	343.00
NO3	=	89.00
PO4	=	0.03
S	=	ND
SO4	=	69.30
F	=	0.61
CACO3	=	281.00
SIO2	=	26.20
DO	=	NA
ECOND	=	905.00
PH	=	7.19
REDOX	=	-61.00
TDS	=	600.00

ORGANICS

TRICHLOROETHENE	=	634.00
TETRACHLOROETHENE	=	1107.00
1,1,1-TRICHLOROETHANE	=	30.00
METHYL CHLORIDE	=	35.00
ACETONE	=	74.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	9.00
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW9

DATE SAMPLED: 10/14/88

DEPTH: 386.00

SAMPLE CODE:

INORGANICS

CA	=	106.00
K	=	5.07
MG	=	29.80
MN	=	0.02
NA	=	34.00
BR	=	1.00
FE	=	0.73
CL	=	35.10
HCO3	=	343.00
NO3	=	81.40
PO4	=	0.03
S	=	ND
SO4	=	75.20
F	=	0.61
CACO3	=	281.00
SIO2	=	26.20
DO	=	NA
ECOND	=	898.00
PH	=	7.21
REDOX	=	-35.00
TDS	=	606.00

ORGANICS

TRICHLOROETHENE	=	716.00
TETRACHLOROETHENE	=	1544.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	28.00
ACETONE	=	25.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW9

DEPTH: 454.00

DATE SAMPLED: 10/15/88

SAMPLE CODE:

INORGANICS

CA	=	106.00
K	=	5.04
MG	=	30.00
MN	=	0.02
NA	=	33.90
BR	=	1.10
FE	=	0.64
CL	=	36.10
HCO3	=	346.00
NO3	=	81.40
PO4	=	0.03
S	=	ND
SO4	=	80.40
F	=	0.57
CACO3	=	284.00
SIO2	=	26.20
DO	=	NA
ECOND	=	1006.00
PH	=	6.78
REDOX	=	90.00
TDS	=	562.00

ORGANICS

TRICHLOROETHENE	=	1468.00
TETRACHLOROETHENE	=	4019.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	10.00
ACETONE	=	22.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW9

DEPTH: 498.00

DATE SAMPLED: 10/15/88

SAMPLE CODE: A

INORGANICS

CA	=	106.00
K	=	5.23
MG	=	29.80
MN	=	0.02
NA	=	33.60
BR	=	1.10
FE	=	0.53
CL	=	28.00
HCO3	=	346.00
NO3	=	76.00
PO4	=	ND
S	=	ND
SO4	=	92.10
F	=	0.56
CACO3	=	284.00
SIO2	=	26.30
DO	=	NA
ECOND	=	1026.00
PH	=	7.00
REDOX	=	92.00
TDS	=	656.00

ORGANICS

TRICHLOROETHENE	=	630.00
TETRACHLOROETHENE	=	1300.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	12.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW9

DEPTH: 498.00

DATE SAMPLED: 10/15/88

SAMPLE CODE: B

INORGANICS

CA	=	105.00
K	=	5.01
MG	=	29.90
MN	=	0.02
NA	=	34.20
BR	=	1.00
FE	=	0.52
CL	=	26.40
HCO3	=	343.00
NO3	=	68.10
PO4	=	ND
S	=	ND
SO4	=	83.10
F	=	0.59
CACO3	=	281.00
SIO2	=	26.40
DO	=	NA
ECOND	=	1026.00
PH	=	7.01
REDOX	=	92.00
TDS	=	608.00

ORGANICS

TRICHLOROETHENE	=	747.00
TETRACHLOROETHENE	=	1554.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	11.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B5CW1

DATE SAMPLED: 10/05/88

DEPTH: 542.00

SAMPLE CODE:

INORGANICS

CA	=	64.50
K	=	4.19
MG	=	15.30
MN	=	0.22
NA	=	38.50
BR	=	ND
FE	=	0.04
CL	=	13.90
HCO3	=	277.00
NO3	=	18.00
PO4	=	ND
S	=	ND
SO4	=	52.70
F	=	0.71
CACO3	=	227.00
SIO2	=	18.20
DO	=	NA
ECOND	=	588.00
PH	=	7.96
REDOX	=	-49.00
TDS	=	300.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	25.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B5CW2

DATE SAMPLED: 10/05/88

DEPTH: 339.00

SAMPLE CODE: A

INORGANICS

CA	=	58.30
K	=	4.60
MG	=	19.00
MN	=	0.12
NA	=	32.60
BR	=	ND
FE	=	0.02
CL	=	17.10
HCO3	=	264.00
NO3	=	20.80
PO4	=	ND
S	=	ND
SO4	=	50.10
F	=	0.62
CACO3	=	216.00
SIO2	=	17.20
DO	=	NA
ECOND	=	574.00
PH	=	7.47
REDOX	=	-110.00
TDS	=	284.00

ORGANICS

TRICHLOROETHENE	=	12.00
TETRACHLOROETHENE	=	42.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B5CW2

DATE SAMPLED: 10/05/88

DEPTH: 339.00

SAMPLE CODE: B

INORGANICS

CA	=	0.15
K	=	ND
MG	=	NA
MN	=	ND
NA	=	0.30
BR	=	ND
FE	=	0.07
CL	=	ND
HCO3	=	16.50
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	ND
F	=	0.04
CACO3	=	13.50
SIO2	=	NA
DO	=	NA
ECOND	=	574.00
PH	=	7.47
REDOX	=	-110.00
TDS	=	8.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B5CW3

DEPTH: 209.00

DATE SAMPLED: 10/04/88

SAMPLE CODE:

INORGANICS

CA	=	126.00
K	=	5.27
MG	=	31.00
MN	=	0.31
NA	=	33.10
BR	=	0.70
FE	=	0.08
CL	=	32.90
HCO3	=	412.00
NO3	=	83.90
PO4	=	ND
S	=	ND
SO4	=	72.30
F	=	0.53
CACO3	=	338.00
SIO2	=	24.80
DO	=	NA
ECOND	=	969.00
PH	=	7.33
REDOX	=	179.00
TDS	=	576.00

ORGANICS

TRICHLOROETHENE	=	87.00
TETRACHLOROETHENE	=	136.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW1

DEPTH: 580.00

DATE SAMPLED: 10/03/88

SAMPLE CODE:

INORGANICS

CA	=	21.00
K	=	3.34
MG	=	7.77
MN	=	0.09
NA	=	43.70
BR	=	0.10
FE	=	0.58
CL	=	18.70
HCO3	=	168.00
NO3	=	4.43
PO4	=	ND
S	=	3.30
SO4	=	31.00
F	=	0.52
CACO3	=	138.00
SIO2	=	10.00
DO	=	NA
ECOND	=	330.00
PH	=	8.91
REDOX	=	56.00
TDS	=	200.00

ORGANICS

TRICHLOROETHENE	=	236.00
TETRACHLOROETHENE	=	1303.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW2

DEPTH: 330.00

DATE SAMPLED: 10/03/88

SAMPLE CODE: A

INORGANICS

CA	=	86.70
K	=	5.17
MG	=	31.00
MN	=	0.06
NA	=	41.00
BR	=	0.90
FE	=	0.82
CL	=	32.00
HCO3	=	339.00
NO3	=	48.30
PO4	=	0.02
S	=	ND
SO4	=	80.80
F	=	0.49
CACO3	=	278.00
SIO2	=	27.00
DO	=	NA
ECOND	=	835.00
PH	=	7.29
REDOX	=	-70.00
TDS	=	472.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	23.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	10.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW2

DEPTH: 330.00

DATE SAMPLED: 10/03/88

SAMPLE CODE: B

INORGANICS

CA	=	87.10
K	=	4.22
MG	=	32.10
MN	=	0.06
NA	=	38.40
BR	=	0.50
FE	=	0.75
CL	=	33.10
HCO3	=	346.00
NO3	=	48.30
PO4	=	ND
S	=	ND
SO4	=	79.30
F	=	0.56
CACO3	=	284.00
SIO2	=	27.10
DO	=	NA
ECOND	=	835.00
PH	=	7.29
REDOX	=	-70.00
TDS	=	556.00

ORGANICS

TRICHLOROETHENE	=	121.00
TETRACHLOROETHENE	=	165.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW3

DEPTH: 195.00

DATE SAMPLED: 10/03/88

SAMPLE CODE:

INORGANICS

CA	=	103.00
K	=	4.85
MG	=	27.20
MN	=	0.03
NA	=	32.80
BR	=	0.50
FE	=	0.06
CL	=	31.40
HCO3	=	313.00
NO3	=	92.10
PO4	=	0.06
S	=	ND
SO4	=	74.80
F	=	0.46
CACO3	=	256.00
SIO2	=	28.20
DO	=	NA
ECOND	=	855.00
PH	=	7.19
REDOX	=	160.00
TDS	=	563.00

ORGANICS

TRICHLOROETHENE	=	199.00
TETRACHLOROETHENE	=	7380.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW4

DEPTH: 510.00

DATE SAMPLED: 09/29/88

SAMPLE CODE:

INORGANICS

CA	=	52.60
K	=	3.59
MG	=	15.20
MN	=	0.06
NA	=	88.60
BR	=	0.10
FE	=	0.11
CL	=	106.00
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	0.20
SO4	=	64.80
F	=	0.49
CACO3	=	127.00
SIO2	=	15.20
DO	=	NA
ECOND	=	855.00
PH	=	8.17
REDOX	=	-41.00
TDS	=	496.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW5

DATE SAMPLED: 09/28/88

DEPTH: 345.00

SAMPLE CODE:

INORGANICS

CA	=	89.20
K	=	4.36
MG	=	33.50
MN	=	0.04
NA	=	37.50
BR	=	0.50
FE	=	1.12
CL	=	28.70
HCO3	=	NA
NO3	=	40.80
PO4	=	ND
S	=	ND
SO4	=	79.50
F	=	0.42
CACO3	=	297.00
SIO2	=	30.60
DO	=	NA
ECOND	=	847.00
PH	=	7.09
REDOX	=	-65.00
TDS	=	530.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	20.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW6

DATE SAMPLED: 09/29/88

DEPTH: 215.00

SAMPLE CODE:

INORGANICS

CA	=	102.00
K	=	5.34
MG	=	29.10
MN	=	0.02
NA	=	35.20
BR	=	0.70
FE	=	0.05
CL	=	36.30
HCO3	=	NA
NO3	=	64.10
PO4	=	0.03
S	=	ND
SO4	=	82.30
F	=	0.50
CACO3	=	267.00
SIO2	=	26.90
DO	=	NA
ECOND	=	880.00
PH	=	7.11
REDOX	=	40.00
TDS	=	556.00

ORGANICS

TRICHLOROETHENE	=	66.00
TETRACHLOROETHENE	=	7.00
1,1,1-TRICHLOROETHANE	=	13.00
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	13.00
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW7

DEPTH: 492.00

DATE SAMPLED: 10/04/88

SAMPLE CODE: A

INORGANICS

CA	=	28.30
K	=	25.20
MG	=	9.20
MN	=	ND
NA	=	44.60
BR	=	ND
FE	=	0.13
CL	=	22.10
HCO3	=	178.00
NO3	=	3.60
PO4	=	ND
S	=	ND
SO4	=	47.60
F	=	0.74
CACO3	=	146.00
SIO2	=	16.60
DO	=	NA
ECOND	=	509.00
PH	=	10.10
REDOX	=	-58.00
TDS	=	218.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW7

DATE SAMPLED: 10/04/88

DEPTH: 492.00

SAMPLE CODE: B

INORGANICS

CA	=	28.20
K	=	25.40
MG	=	9.29
MN	=	ND
NA	=	44.90
BR	=	ND
FE	=	0.08
CL	=	22.90
HCO3	=	198.00
NO3	=	4.00
PO4	=	ND
S	=	ND
SO4	=	49.40
F	=	0.73
CACO3	=	162.00
SIO2	=	16.60
DO	=	NA
ECOND	=	509.00
PH	=	10.10
REDOX	=	-58.00
TDS	=	226.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW8

DEPTH: 361.00

DATE SAMPLED: 10/03/88

SAMPLE CODE:

INORGANICS

CA	=	74.80
K	=	4.16
MG	=	25.60
MN	=	0.03
NA	=	33.00
BR	=	ND
FE	=	0.14
CL	=	24.30
HCO3	=	283.00
NO3	=	37.80
PO4	=	ND
S	=	ND
SO4	=	80.50
F	=	0.56
CACO3	=	232.00
SIO2	=	26.20
DO	=	NA
ECOND	=	609.00
PH	=	7.37
REDOX	=	2.00
TDS	=	382.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	9.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW9

DEPTH: 242.00

DATE SAMPLED: 10/04/88

SAMPLE CODE:

INORGANICS

CA	=	73.10
K	=	4.65
MG	=	18.20
MN	=	0.04
NA	=	33.50
BR	=	0.80
FE	=	0.11
CL	=	23.30
HCO3	=	221.00
NO3	=	68.70
PO4	=	0.03
S	=	ND
SO4	=	68.80
F	=	0.43
CACO3	=	181.00
SIO2	=	25.30
DO	=	NA
ECOND	=	742.00
PH	=	7.34
REDOX	=	136.00
TDS	=	353.00

ORGANICS

TRICHLOROETHENE	=	30.00
TETRACHLOROETHENE	=	142.00
1,1,1-TRICHLOROETHANE	=	19.00
METHYL CHLORIDE	=	11.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	13.00
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW1

DEPTH: 200.00

DATE SAMPLED: 10/11/88

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: B6MW1

DEPTH: 272.00

DATE SAMPLED: 10/11/88

SAMPLE CODE:

INORGANICS

CA	=	77.00
K	=	4.84
MG	=	25.90
MN	=	0.02
NA	=	33.80
BR	=	0.70
FE	=	0.12
CL	=	24.60
HCO3	=	287.00
NO3	=	40.00
PO4	=	ND
S	=	ND
SO4	=	74.60
F	=	0.53
CACO3	=	235.00
SIO2	=	29.40
DO	=	NA
ECOND	=	726.00
PH	=	7.13
REDOX	=	97.00
TDS	=	448.00

ORGANICS

TRICHLOROETHENE	=	5.00
TETRACHLOROETHENE	=	23.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	37.00
ACETONE	=	21.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW1

DATE SAMPLED: 10/11/88

DEPTH: 334.00

SAMPLE CODE:

INORGANICS

CA	=	76.80
K	=	4.74
MG	=	26.70
MN	=	0.02
NA	=	34.20
BR	=	0.70
FE	=	0.05
CL	=	26.40
HCO3	=	287.00
NO3	=	38.10
PO4	=	0.04
S	=	ND
SO4	=	71.60
F	=	0.53
CACO3	=	235.00
SIO2	=	29.60
DO	=	NA
ECOND	=	726.00
PH	=	7.15
REDOX	=	63.00
TDS	=	436.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	16.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	38.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW1

DEPTH: 364.00

DATE SAMPLED: 10/11/88

SAMPLE CODE:

INORGANICS

CA	=	76.00
K	=	4.68
MG	=	26.30
MN	=	0.01
NA	=	33.60
BR	=	0.40
FE	=	0.04
CL	=	25.50
HCO3	=	287.00
NO3	=	38.60
PO4	=	0.04
S	=	ND
SO4	=	73.10
F	=	0.52
CACO3	=	235.00
SIO2	=	29.40
DO	=	NA
ECOND	=	731.00
PH	=	7.24
REDOX	=	37.00
TDS	=	448.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	14.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	64.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW1

DEPTH: 479.00

DATE SAMPLED: 10/12/88

SAMPLE CODE:

INORGANICS

CA	=	76.70
K	=	4.90
MG	=	26.80
MN	=	0.07
NA	=	34.40
BR	=	0.60
FE	=	1.88
CL	=	26.60
HCO3	=	290.00
NO3	=	33.60
PO4	=	ND
S	=	ND
SO4	=	78.30
F	=	0.52
CACO3	=	238.00
SIO2	=	28.00
DO	=	NA
ECOND	=	738.00
PH	=	7.01
REDOX	=	-87.00
TDS	=	460.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	13.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW1

DEPTH: 520.00

DATE SAMPLED: 10/12/88

SAMPLE CODE:

INORGANICS

CA	=	76.80
K	=	4.91
MG	=	27.00
MN	=	0.08
NA	=	35.00
BR	=	0.30
FE	=	1.92
CL	=	24.70
HCO3	=	287.00
NO3	=	36.50
PO4	=	ND
S	=	ND
SO4	=	74.10
F	=	0.52
CACO3	=	235.00
SIO2	=	27.80
DO	=	NA
ECOND	=	734.00
PH	=	7.05
REDOX	=	-84.00
TDS	=	440.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	9.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW1

DATE SAMPLED: 10/12/88

DEPTH: 624.00

SAMPLE CODE:

INORGANICS

CA	=	74.90
K	=	4.57
MG	=	24.10
MN	=	0.39
NA	=	37.00
BR	=	0.10
FE	=	1.60
CL	=	28.80
HCO3	=	287.00
NO3	=	28.20
PO4	=	ND
S	=	ND
SO4	=	75.60
F	=	0.40
CACO3	=	235.00
SIO2	=	21.70
DO	=	NA
ECOND	=	709.00
PH	=	7.04
REDOX	=	-110.00
TDS	=	412.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	6.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	14.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DATE SAMPLED: 08/20/88

DEPTH: 174.00

SAMPLE CODE:

INORGANICS

CA	=	96.60
K	=	5.06
MG	=	23.60
MN	=	0.01
NA	=	32.00
BR	=	0.80
FE	=	0.09
CL	=	22.20
HCO3	=	NA
NO3	=	59.50
PO4	=	0.03
S	=	ND
SO4	=	43.30
F	=	0.48
CACO3	=	275.40
SIO2	=	27.00
DO	=	NA
ECOND	=	817.00
PH	=	7.28
REDOX	=	111.00
TDS	=	526.00

ORGANICS

TRICHLOROETHENE	=	230.00
TETRACHLOROETHENE	=	353.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	8.00
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DEPTH: 235.00

DATE SAMPLED: 08/20/88

SAMPLE CODE:

INORGANICS

CA	=	67.40
K	=	4.25
MG	=	17.00
MN	=	0.01
NA	=	28.80
BR	=	0.50
FE	=	0.11
CL	=	18.20
HCO3	=	NA
NO3	=	31.20
PO4	=	0.03
S	=	ND
SO4	=	56.10
F	=	0.55
CACO3	=	194.40
SIO2	=	27.30
DO	=	NA
ECOND	=	631.00
PH	=	7.28
REDOX	=	115.00
TDS	=	404.00

ORGANICS

TRICHLOROETHENE	=	120.00
TETRACHLOROETHENE	=	323.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DEPTH: 276.00

DATE SAMPLED: 08/20/88

SAMPLE CODE: A

INORGANICS

CA	=	67.90
K	=	4.30
MG	=	17.50
MN	=	0.01
NA	=	28.80
BR	=	0.40
FE	=	0.16
CL	=	19.20
HCO3	=	NA
NO3	=	33.40
PO4	=	0.04
S	=	ND
SO4	=	57.30
F	=	0.55
CACO3	=	199.80
SIO2	=	27.40
DO	=	NA
ECOND	=	618.00
PH	=	7.43
REDOX	=	84.00
TDS	=	432.00

ORGANICS

TRICHLOROETHENE	=	125.00
TETRACHLOROETHENE	=	195.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	11.00
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DEPTH: 276.00

DATE SAMPLED: 08/20/88

SAMPLE CODE: B

INORGANICS

CA	=	68.20
K	=	4.34
MG	=	17.60
MN	=	0.01
NA	=	28.40
BR	=	0.40
FE	=	0.16
CL	=	19.00
HCO3	=	NA
NO3	=	30.20
PO4	=	0.04
S	=	ND
SO4	=	59.20
F	=	0.56
CACO3	=	199.80
SIO2	=	27.80
DO	=	NA
ECOND	=	618.00
PH	=	7.43
REDOX	=	84.00
TDS	=	430.00

ORGANICS

TRICHLOROETHENE	=	106.00
TETRACHLOROETHENE	=	174.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	11.00
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DEPTH: 338.00

DATE SAMPLED: 08/20/88

SAMPLE CODE:

INORGANICS

CA	=	69.30
K	=	4.19
MG	=	19.10
MN	=	0.02
NA	=	29.10
BR	=	0.80
FE	=	0.83
CL	=	20.60
HCO3	=	NA
NO3	=	19.60
PO4	=	0.09
S	=	ND
SO4	=	62.20
F	=	0.57
CACO3	=	207.90
SIO2	=	41.10
DO	=	NA
ECOND	=	6001.00
PH	=	7.41
REDOX	=	96.00
TDS	=	448.00

ORGANICS

TRICHLOROETHENE	=	6.00
TETRACHLOROETHENE	=	8.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DEPTH: 379.00

DATE SAMPLED: 08/19/88

SAMPLE CODE:

INORGANICS

CA	=	65.50
K	=	4.20
MG	=	17.10
MN	=	0.02
NA	=	28.50
BR	=	0.50
FE	=	0.09
CL	=	18.40
HCO3	=	NA
NO3	=	21.90
PO4	=	ND
S	=	ND
SO4	=	62.40
F	=	0.60
CACO3	=	199.80
SIO2	=	27.30
DO	=	NA
ECOND	=	6001.00
PH	=	7.39
REDOX	=	105.00
TDS	=	422.00

ORGANICS

TRICHLOROETHENE	=	31.00
TETRACHLOROETHENE	=	63.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DEPTH: 441.00

DATE SAMPLED: 08/17/88

SAMPLE CODE:

INORGANICS

CA	=	67.80
K	=	4.05
MG	=	18.40
MN	=	0.08
NA	=	33.20
BR	=	0.50
FE	=	0.08
CL	=	21.70
HCO3	=	NA
NO3	=	27.00
PO4	=	ND
S	=	ND
SO4	=	65.30
F	=	0.57
CACO3	=	218.70
SIO2	=	25.50
DO	=	NA
ECOND	=	625.00
PH	=	7.42
REDOX	=	21.00
TDS	=	420.00

ORGANICS

TRICHLOROETHENE	=	40.00
TETRACHLOROETHENE	=	84.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DEPTH: 470.00

DATE SAMPLED: 08/17/88

SAMPLE CODE:

INORGANICS

CA	=	69.30
K	=	4.37
MG	=	18.70
MN	=	0.09
NA	=	31.80
BR	=	0.50
FE	=	0.35
CL	=	24.40
HCO3	=	NA
NO3	=	37.60
PO4	=	ND
S	=	ND
SO4	=	67.50
F	=	0.56
CACO3	=	216.00
SIO2	=	25.90
DO	=	NA
ECOND	=	633.00
PH	=	7.50
REDOX	=	-10.00
TDS	=	452.00

ORGANICS

TRICHLOROETHENE	=	36.00
TETRACHLOROETHENE	=	56.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW1

DEPTH: 481.00

DATE SAMPLED: 09/23/88

SAMPLE CODE:

INORGANICS

CA	=	70.80
K	=	4.01
MG	=	19.00
MN	=	0.02
NA	=	33.80
BR	=	0.60
FE	=	0.09
CL	=	9.80
HCO3	=	316.00
NO3	=	11.10
PO4	=	ND
S	=	0.20
SO4	=	63.60
F	=	0.66
CACO3	=	259.00
SIO2	=	25.70
DO	=	NA
ECOND	=	593.00
PH	=	7.90
REDOX	=	-16.00
TDS	=	378.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	14.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW2

DATE SAMPLED: 09/23/88

DEPTH: 382.00

SAMPLE CODE:

INORGANICS

CA	=	73.80
K	=	4.26
MG	=	19.00
MN	=	0.03
NA	=	29.10
BR	=	0.60
FE	=	1.23
CL	=	10.90
HCO3	=	306.00
NO3	=	10.20
PO4	=	ND
S	=	ND
SO4	=	67.60
F	=	0.60
CACO3	=	251.00
SIO2	=	25.90
DO	=	NA
ECOND	=	608.00
PH	=	7.70
REDOX	=	-48.00
TDS	=	370.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW3

DATE SAMPLED: 09/22/88

DEPTH: 260.00

SAMPLE CODE:

INORGANICS

CA	=	88.80
K	=	5.04
MG	=	21.30
MN	=	0.05
NA	=	35.40
BR	=	0.60
FE	=	0.10
CL	=	14.20
HCO3	=	356.00
NO3	=	17.30
PO4	=	ND
S	=	ND
SO4	=	66.60
F	=	0.54
CACO3	=	292.00
SIO2	=	26.50
DO	=	NA
ECOND	=	692.00
PH	=	7.37
REDOX	=	101.00
TDS	=	426.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	16.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW4

DATE SAMPLED: 09/27/88

DEPTH: 652.00

SAMPLE CODE:

INORGANICS

CA	=	73.60
K	=	3.61
MG	=	18.50
MN	=	0.08
NA	=	31.20
BR	=	0.30
FE	=	0.38
CL	=	11.30
HCO3	=	NA
NO3	=	15.00
PO4	=	ND
S	=	ND
SO4	=	109.00
F	=	0.93
CACO3	=	205.00
SIO2	=	23.50
DO	=	NA
ECOND	=	634.00
PH	=	7.23
REDOX	=	-80.00
TDS	=	422.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	6.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	58.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW5

DEPTH: 376.00

DATE SAMPLED: 09/26/88

SAMPLE CODE:

INORGANICS

CA	=	68.70
K	=	3.26
MG	=	17.40
MN	=	0.04
NA	=	27.00
BR	=	ND
FE	=	0.08
CL	=	10.80
HCO3	=	NA
NO3	=	14.80
PO4	=	ND
S	=	ND
SO4	=	60.60
F	=	0.69
CACO3	=	227.00
SIO2	=	23.30
DO	=	NA
ECOND	=	586.00
PH	=	7.62
REDOX	=	15.00
TDS	=	344.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW6

DEPTH: 232.00

DATE SAMPLED: 09/27/88

SAMPLE CODE: A

INORGANICS

CA	=	121.00
K	=	5.25
MG	=	27.00
MN	=	0.02
NA	=	33.50
BR	=	0.40
FE	=	0.05
CL	=	40.00
HCO3	=	NA
NO3	=	103.00
PO4	=	ND
S	=	ND
SO4	=	81.20
F	=	0.51
CACO3	=	259.00
SIO2	=	24.80
DO	=	NA
ECOND	=	952.00
PH	=	7.02
REDOX	=	61.00
TDS	=	607.00

ORGANICS

TRICHLOROETHENE	=	6.00
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW6

DEPTH: 232.00

DATE SAMPLED: 09/27/88

SAMPLE CODE: B

INORGANICS

CA	=	118.00
K	=	5.02
MG	=	27.70
MN	=	0.02
NA	=	32.70
BR	=	0.10
FE	=	0.05
CL	=	39.70
HCO3	=	NA
NO3	=	102.00
PO4	=	ND
S	=	ND
SO4	=	79.40
F	=	0.50
CACO3	=	262.00
SIO2	=	24.80
DO	=	NA
ECOND	=	952.00
PH	=	7.02
REDOX	=	61.00
TDS	=	614.00

ORGANICS

TRICHLOROETHENE	=	8.00
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1MW1

DEPTH: 198.00

DATE SAMPLED: 10/12/88

SAMPLE CODE:

INORGANICS

CA	=	91.80
K	=	5.57
MG	=	23.20
MN	=	ND
NA	=	31.10
BR	=	0.90
FE	=	0.08
CL	=	20.10
HCO3	=	366.00
NO3	=	28.10
PO4	=	0.04
S	=	ND
SO4	=	57.20
F	=	0.50
CACO3	=	300.00
SIO2	=	25.90
DO	=	NA
ECOND	=	683.00
PH	=	7.52
REDOX	=	136.00
TDS	=	455.00

ORGANICS

TRICHLOROETHENE	=	11.00
TETRACHLOROETHENE	=	27.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1MW1

DATE SAMPLED: 10/12/88

DEPTH: 262.00

SAMPLE CODE:

INORGANICS

CA	=	89.00
K	=	5.28
MG	=	22.40
MN	=	0.01
NA	=	30.30
BR	=	0.70
FE	=	0.07
CL	=	15.20
HCO3	=	362.00
NO3	=	22.40
PO4	=	0.04
S	=	ND
SO4	=	53.00
F	=	0.54
CACO3	=	297.00
SIO2	=	26.00
DO	=	NA
ECOND	=	683.00
PH	=	7.52
REDOX	=	136.00
TDS	=	442.00

ORGANICS

TRICHLOROETHENE	=	10.00
TETRACHLOROETHENE	=	16.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1MW1

DEPTH: 350.00

DATE SAMPLED: 10/13/88

SAMPLE CODE:

INORGANICS

CA	=	80.40
K	=	5.14
MG	=	20.50
MN	=	0.02
NA	=	29.30
BR	=	0.80
FE	=	0.06
CL	=	12.40
HCO3	=	343.00
NO3	=	12.50
PO4	=	ND
S	=	ND
SO4	=	50.60
F	=	0.56
CACO3	=	281.00
SIO2	=	25.70
DO	=	NA
ECOND	=	664.00
PH	=	7.13
REDOX	=	75.00
TDS	=	386.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	12.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1MW1

DEPTH: 402.00

DATE SAMPLED: 10/13/88

SAMPLE CODE:

INORGANICS

CA	=	83.60
K	=	4.56
MG	=	21.00
MN	=	0.04
NA	=	29.60
BR	=	1.00
FE	=	0.61
CL	=	24.80
HCO3	=	300.00
NO3	=	15.00
PO4	=	ND
S	=	ND
SO4	=	64.00
F	=	0.70
CACO3	=	246.00
SIO2	=	24.60
DO	=	NA
ECOND	=	718.00
PH	=	5.80
REDOX	=	7.00
TDS	=	412.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	10.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	9.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1MW1

DEPTH: 470.00

DATE SAMPLED: 10/13/88

SAMPLE CODE:

INORGANICS

CA	=	84.50
K	=	4.66
MG	=	21.40
MN	=	0.07
NA	=	29.10
BR	=	0.90
FE	=	0.98
CL	=	35.60
HCO3	=	320.00
NO3	=	24.30
PO4	=	ND
S	=	ND
SO4	=	56.60
F	=	0.68
CACO3	=	262.00
SIO2	=	25.00
DO	=	NA
ECOND	=	724.00
PH	=	7.27
REDOX	=	-45.00
TDS	=	412.00

ORGANICS

TRICHLOROETHENE	=	6.00
TETRACHLOROETHENE	=	15.00
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	9.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1MW1

DATE SAMPLED: 10/14/88

DEPTH: 502.00

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	607.00
PH	=	7.13
REDOX	=	53.00
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: C1MW1

DATE SAMPLED: 10/14/88

DEPTH: 534.00

SAMPLE CODE:

INORGANICS

CA	=	NA
K	=	NA
MG	=	NA
MN	=	NA
NA	=	NA
BR	=	NA
FE	=	NA
CL	=	NA
HCO3	=	NA
NO3	=	NA
PO4	=	NA
S	=	NA
SO4	=	NA
F	=	NA
CACO3	=	NA
SIO2	=	NA
DO	=	NA
ECOND	=	NA
PH	=	NA
REDOX	=	NA
TDS	=	NA

ORGANICS

TRICHLOROETHENE	=	NA
TETRACHLOROETHENE	=	NA
1,1,1-TRICHLOROETHANE	=	NA
METHYL CHLORIDE	=	NA
ACETONE	=	NA
1,1-DICHLOROETHYLENE	=	NA
1,2-DICHLOROETHYLENE	=	NA
1,1-DICHLOROETHANE	=	NA
1,2-DICHLOROETHANE	=	NA
CHLOROFORM	=	NA
METHYLETHYL KETONE	=	NA
1,1,2-TRICHLOROETHANE	=	NA
CARBON TETRACHLORIDE	=	NA
BENZENE	=	NA
METHYLISOBUTYL KETONE	=	NA
TOLUENE	=	NA
CHLOROBENZENE	=	NA
ETHYLBENZENE	=	NA
XYLENES	=	NA

WELL ID: A1CW123

DEPTH: 0.00

DATE SAMPLED: 10/05/88

SAMPLE CODE: EB

INORGANICS

CA	=	1.77
K	=	ND
MG	=	0.17
MN	=	ND
NA	=	0.87
BR	=	ND
FE	=	0.10
CL	=	ND
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	ND
F	=	0.02
CACO3	=	ND
SIO2	=	ND
DO	=	NA
ECOND	=	8.00
PH	=	NA
REDOX	=	NA
TDS	=	ND

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW1

DEPTH: 0.00

DATE SAMPLED: 10/18/88

SAMPLE CODE: EB

INORGANICS

CA	=	0.35
K	=	0.80
MG	=	0.06
MN	=	ND
NA	=	0.80
BR	=	ND
FE	=	0.04
CL	=	ND
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	ND
F	=	0.03
CACO3	=	ND
SIO2	=	ND
DO	=	NA
ECOND	=	1.70
PH	=	NA
REDOX	=	NA
TDS	=	ND

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	15.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW2

DEPTH: 0.00

DATE SAMPLED: 08/22/88

SAMPLE CODE: EB

INORGANICS

CA	=	0.52
K	=	ND
MG	=	NA
MN	=	0.01
NA	=	0.91
BR	=	ND
FE	=	0.86
CL	=	ND
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	ND
F	=	0.03
CACO3	=	ND
SIO2	=	NA
DO	=	NA
ECOND	=	2.50
PH	=	ND
REDOX	=	NA
TDS	=	27.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	28.00
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW3

DEPTH: 0.00

DATE SAMPLED: 10/17/88

SAMPLE CODE: TB

INORGANICS

CA	=	0.25
K	=	0.90
MG	=	0.06
MN	=	ND
NA	=	0.81
BR	=	ND
FE	=	0.05
CL	=	1.90
HCO3	=	NA
NO3	=	0.60
PO4	=	ND
S	=	ND
SO4	=	5.20
F	=	0.02
CACO3	=	ND
SIO2	=	ND
DO	=	NA
ECOND	=	2.60
PH	=	NA
REDOX	=	NA
TDS	=	ND

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	16.00
ACETONE	=	22.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: A1MW4

DEPTH: 0.00

DATE SAMPLED: 10/18/88

SAMPLE CODE: EB

INORGANICS

CA	=	39.70
K	=	3.71
MG	=	19.40
MN	=	0.02
NA	=	76.50
BR	=	ND
FE	=	0.10
CL	=	87.50
HCO3	=	119.00
NO3	=	1.79
PO4	=	0.03
S	=	ND
SO4	=	114.00
F	=	0.24
CACO3	=	97.20
SIO2	=	11.20
DO	=	NA
ECOND	=	665.00
PH	=	ND
REDOX	=	NA
TDS	=	410.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	12.00
ACETONE	=	16.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW3

DEPTH: 0.00

DATE SAMPLED: 09/13/88

SAMPLE CODE: EB

INORGANICS

CA	=	2.07
K	=	ND
MG	=	0.13
MN	=	ND
NA	=	3.30
BR	=	ND
FE	=	0.10
CL	=	2.20
HCO3	=	NA
NO3	=	0.80
PO4	=	ND
S	=	ND
SO4	=	6.10
F	=	0.03
CACO3	=	ND
SIO2	=	NA
DO	=	NA
ECOND	=	3.90
PH	=	ND
REDOX	=	NA
TDS	=	ND

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	18.00
ACETONE	=	47.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	6.00
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW5

DEPTH: 0.00

DATE SAMPLED: 09/09/88

SAMPLE CODE: EB

INORGANICS

CA	=	0.31
K	=	ND
MG	=	NA
MN	=	ND
NA	=	0.91
BR	=	ND
FE	=	0.05
CL	=	0.40
HCO3	=	NA
NO3	=	1.90
PO4	=	ND
S	=	ND
SO4	=	4.80
F	=	ND
CACO3	=	ND
SIO2	=	NA
DO	=	NA
ECOND	=	2.20
PH	=	ND
REDOX	=	NA
TDS	=	4.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	6.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW6

DEPTH: 0.00

DATE SAMPLED: 08/31/88

SAMPLE CODE: TB

INORGANICS

CA	=	0.25
K	=	0.23
MG	=	NA
MN	=	ND
NA	=	0.84
BR	=	ND
FE	=	0.04
CL	=	2.80
HCO3	=	NA
NO3	=	5.80
PO4	=	ND
S	=	ND
SO4	=	ND
F	=	ND
CACO3	=	2.70
SIO2	=	NA
DO	=	NA
ECOND	=	2.10
PH	=	NA
REDOX	=	NA
TDS	=	3.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW7

DEPTH: 0.00

DATE SAMPLED: 09/15/88

SAMPLE CODE: TB

INORGANICS

CA	=	0.30
K	=	ND
MG	=	NA
MN	=	ND
NA	=	0.74
BR	=	ND
FE	=	0.02
CL	=	3.20
HCO3	=	NA
NO3	=	1.20
PO4	=	ND
S	=	ND
SO4	=	6.20
F	=	0.02
CACO3	=	ND
SIO2	=	NA
DO	=	NA
ECOND	=	2.90
PH	=	NA
REDOX	=	NA
TDS	=	ND

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	11.00
ACETONE	=	22.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B1MW8

DEPTH: 0.00

DATE SAMPLED: 09/02/88

SAMPLE CODE: EB

INORGANICS

CA	=	0.34
K	=	ND
MG	=	NA
MN	=	ND
NA	=	0.82
BR	=	ND
FE	=	0.09
CL	=	0.60
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	5.00
F	=	ND
CACO3	=	ND
SIO2	=	NA
DO	=	NA
ECOND	=	1.70
PH	=	ND
REDOX	=	NA
TDS	=	18.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW456

DATE SAMPLED: 09/28/88

DEPTH: 0.00

SAMPLE CODE: EB

INORGANICS

CA	=	0.58
K	=	ND
MG	=	NA
MN	=	0.01
NA	=	0.81
BR	=	ND
FE	=	0.04
CL	=	1.70
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	ND
F	=	ND
CACO3	=	2.70
SIO2	=	NA
DO	=	NA
ECOND	=	3.65
PH	=	NA
REDOX	=	NA
TDS	=	7.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6CW456

DEPTH: 0.00

DATE SAMPLED: 09/28/88

SAMPLE CODE: EB

INORGANICS

CA	=	0.62
K	=	ND
MG	=	NA
MN	=	0.01
NA	=	0.97
BR	=	ND
FE	=	0.05
CL	=	4.30
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	8.50
F	=	ND
CACO3	=	5.40
SIO2	=	NA
DO	=	NA
ECOND	=	32.60
PH	=	NA
REDOX	=	NA
TDS	=	27.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW1

DEPTH: 0.00

DATE SAMPLED: 10/11/88

SAMPLE CODE: EB

INORGANICS

CA	=	0.48
K	=	0.52
MG	=	0.08
MN	=	ND
NA	=	0.88
BR	=	ND
FE	=	0.07
CL	=	2.40
HCO3	=	NA
NO3	=	0.54
PO4	=	ND
S	=	ND
SO4	=	5.10
F	=	0.01
CACO3	=	ND
SIO2	=	ND
DO	=	NA
ECOND	=	2.90
PH	=	ND
REDOX	=	NA
TDS	=	ND

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	47.00
ACETONE	=	25.00
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: B6MW2

DATE SAMPLED: 08/18/88

DEPTH: 0.00

SAMPLE CODE: TB

INORGANICS

CA	=	0.28
K	=	ND
MG	=	NA
MN	=	ND
NA	=	0.24
BR	=	ND
FE	=	0.13
CL	=	0.83
HCO3	=	NA
NO3	=	ND
PO4	=	ND
S	=	ND
SO4	=	ND
F	=	ND
CACO3	=	ND
SIO2	=	NA
DO	=	NA
ECOND	=	1.40
PH	=	NA
REDOX	=	NA
TDS	=	16.00

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	54.00
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	75.00
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

WELL ID: C1CW123

DATE SAMPLED: 09/22/88

DEPTH: 0.00

SAMPLE CODE: EB

INORGANICS

CA	=	0.50
K	=	0.71
MG	=	NA
MN	=	ND
NA	=	0.20
BR	=	ND
FE	=	0.08
CL	=	0.60
HCO3	=	NA
NO3	=	2.30
PO4	=	ND
S	=	ND
SO4	=	4.90
F	=	0.02
CACO3	=	ND
SIO2	=	NA
DO	=	NA
ECOND	=	1.82
PH	=	NA
REDOX	=	NA
TDS	=	ND

ORGANICS

TRICHLOROETHENE	=	ND
TETRACHLOROETHENE	=	ND
1,1,1-TRICHLOROETHANE	=	ND
METHYL CHLORIDE	=	ND
ACETONE	=	ND
1,1-DICHLOROETHYLENE	=	ND
1,2-DICHLOROETHYLENE	=	ND
1,1-DICHLOROETHANE	=	ND
1,2-DICHLOROETHANE	=	ND
CHLOROFORM	=	ND
METHYLETHYL KETONE	=	ND
1,1,2-TRICHLOROETHANE	=	ND
CARBON TETRACHLORIDE	=	ND
BENZENE	=	ND
METHYLISOBUTYL KETONE	=	ND
TOLUENE	=	ND
CHLOROBENZENE	=	ND
ETHYLBENZENE	=	ND
XYLENES	=	ND

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW7

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	101-141	B1-MW7-01
2	162-182	02
3	234-254	03
4	307-327	04
~~5~~	~~337-357~~	~~05~~
~~6~~	Trip Blank	B1-MW7-TB

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53748-1
REPORTED 10/27/88

SAMPLE Water
RECEIVED 09/16/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW7-1, 17:00, 09/15/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	396	mg/l
Sulfate	92.5	mg/l
Alkalinity ($CaCO_3$)	197	mg/l
Chloride	30.3	mg/l
Fluoride	0.68	mg/l
Electrical Conductivity	685	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	42.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.06	mg/l
Manganese	0.01	mg/l
Sodium	32.0	mg/l
Calcium	77.6	mg/l
Potassium	5.05	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53748-2

REPORTED 10/27/88

SAMPLE Water

RECEIVED 09/16/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW7-2, 19:00, 09/15/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	439	mg/l
Sulfate	78.3	mg/l
Alkalinity ($CaCO_3$)	197	mg/l
Chloride	34.7	mg/l
Fluoride	0.65	mg/l
Electrical Conductivity	674	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	38.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.02	mg/l
Manganese	0.007	mg/l
Sodium	31.1	mg/l
Calcium	77.1	mg/l
Potassium	4.92	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53748-3

REPORTED 10/27/88

SAMPLE Water

RECEIVED 09/16/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW7-3, 21:00, 09/15/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	446	mg/l
Sulfate	84.3	mg/l
Alkalinity ($CaCO_3$)	197	mg/l
Chloride	27.8	mg/l
Fluoride	0.68	mg/l
Electrical Conductivity	671	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	39.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.03	mg/l
Manganese	0.13	mg/l
Sodium	30.8	mg/l
Calcium	77.6	mg/l
Potassium	4.67	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53748-4

REPORTED 10/27/88

SAMPLE Water

RECEIVED 09/16/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW7-4, 08:30, 09/15/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	404	mg/l
Sulfate	82.9	mg/l
Alkalinity ($CaCO_3$)	186	mg/l
Chloride	26.0	mg/l
Fluoride	0.65	mg/l
Electrical Conductivity	631	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	27.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.08	mg/l
Iron	0.14	mg/l
Manganese	0.13	mg/l
Sodium	29.4	mg/l
Calcium	68.6	mg/l
Potassium	4.42	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

B1-MW7
TRIP BLANK

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53748-5
REPORTED 10/27/88

SAMPLE Water
RECEIVED 09/16/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW7-TB, 11:00, 09/15/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	ND<10	mg/l
Sulfate	6.2	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	3.2	mg/l
Fluoride	0.024	mg/l
Electrical Conductivity	2.9	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	1.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.02	mg/l
Manganese	ND< 0.002	mg/l
Sodium	0.74	mg/l
Calcium	0.30	mg/l
Potassium	ND< 0.323	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
NOV 28 1988
Ans'd ..S.K.D.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53748
REPORTED 11/23/88

SAMPLE Water
IDENTIFICATION Proj. # 8803128.13
BASED ON SAMPLE As Submitted

RECEIVED 09/16/88

Purgeable Organics EPA 624	B1-MW7-01 @ 17:00	B1-MW7-02 @ 19:00	B1-MW7-03 @ 21:00
Methylene Chloride	* ND	16 µg/l	* ND
Acetone	* ND	27 µg/l	14 µg/l
Trichloroethene	2,405 µg/l	2,008 µg/l	2,159 µg/l
Tetrachloroethene	250 µg/l	173 µg/l	204 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

Purgeable Organics EPA 624	B1-MW7-04 @ 08:30	B1-MW7-TB @ 11:00
Methylene chloride	* ND	11 µg/l
Acetone	17 µg/l	22 µg/l
Trichloroethene	2,153 µg/l	* ND
Tetrachloroethene	202 µg/l	* ND

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
NOV 17 1988
Ans'd ...

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53748
REPORTED 11/14/88

SAMPLE Water
RECEIVED 09/16/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted 9/15 + 9/16

	B1-MW7-01 @ 17:00	B1-MW7-02 @ 19:00	B1-MW7-03 @ 21:00
Base/Neutrals EPA 625	* ND	* ND	* ND

	B1-MW7-04 @ 08:30	B1-MW7-TB @ 11:00
Base/Neutrals EPA 625		
Di-n-butylphthalate	56 µg/l	19 µg/l

* All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW8

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	95-135	B1-MW8-02
2	156-176	03
3	218-238	04
4	290-310	05
5	363-383	06
6	404-424	07
	Equipment Blank	B1-MW8-01

Equipment blank

RECEIVED

DEC 19 1988

Ans'd ....

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53207-1

REPORTED 10/24/88

SAMPLE Water

RECEIVED 09/03/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW8-01, 10:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	18	mg/l
Sulfate	6.6	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	3.0	mg/l
Fluoride	ND< 0.01	mg/l
Electrical Conductivity	1.7	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.09	mg/l
Manganese	0.003	mg/l
Sodium	0.82	mg/l
Calcium	0.34	mg/l
Potassium	ND< 0.32	mg/l

Purgeable Organics 624:

Trichloroethene	ND< 5	µg/l
Tetrachloroethene	ND< 5	µg/l
1,1,2,2-Tetrachloroethane	6	µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53207-2
REPORTED 10/24/88

SAMPLE Water
RECEIVED 09/03/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW8-02, 13:00
BASED ON SAMPLE As Submitted

Total Dissolved Solids	270	mg/l
Sulfate	98.4	mg/l
Alkalinity ($CaCO_3$)	184	mg/l
Chloride	23.7	mg/l
Fluoride	0.43	mg/l
Electrical Conductivity	632	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	17.9	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.10	mg/l
Iron	0.12	mg/l
Manganese	0.005	mg/l
Sodium	53.0	mg/l
Calcium	57.1	mg/l
Potassium	4.14	mg/l

Purgeable Organics 624:

Trichloroethene	7	µg/l
Tetrachloroethene	6	µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53207-3

REPORTED 10/24/88

SAMPLE Water

RECEIVED 09/03/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW8-03, 17:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	438	mg/l
Sulfate	101	mg/l
Alkalinity ($CaCO_3$)	208	mg/l
Chloride	25.7	mg/l
Fluoride	0.46	mg/l
Electrical Conductivity	715	µmhos/cm
Bromide	0.3	mg/l
Nitrate (NO_3)	32	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.27	mg/l
Manganese	0.03	mg/l
Sodium	44.4	mg/l
Calcium	73.0	mg/l
Potassium	4.25	mg/l

Purgeable Organics 624:

Trichloroethene	43	µg/l
Tetrachloroethene	7	µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53207-4
REPORTED 10/24/88

SAMPLE Water
RECEIVED 09/03/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW8-04, 19:00
BASED ON SAMPLE As Submitted

Total Dissolved Solids	364	mg/l
Sulfate	94.6	mg/l
Alkalinity ($CaCO_3$)	189	mg/l
Chloride	23.2	mg/l
Fluoride	0.49	mg/l
Electrical Conductivity	634	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	20.1	mg/l
Sulfide	0.2	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.09	mg/l
Manganese	0.05	mg/l
Sodium	44.1	mg/l
Calcium	58.5	mg/l
Potassium	3.93	mg/l

Purgeable Organics 624:

Trichloroethene	9 µg/l
Tetrachloroethene	5 µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53207-5
REPORTED 10/24/88

SAMPLE Water
RECEIVED 09/03/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW8-05, 8:30
BASED ON SAMPLE As Submitted

Total Dissolved Solids	396	mg/l
Sulfate	109.8	mg/l
Alkalinity ($CaCO_3$)	181	mg/l
Chloride	27.1	mg/l
Fluoride	0.51	mg/l
Electrical Conductivity	672	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	20.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.13	mg/l
Manganese	0.09	mg/l
Sodium	55.0	mg/l
Calcium	56.6	mg/l
Potassium	4.29	mg/l

Purgeable Organics 624:

Trichloroethene	ND< 5	µg/l
Tetrachloroethene	7	µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53207-6
REPORTED 10/24/88

SAMPLE Water
RECEIVED 09/03/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW8-06, 10:30
BASED ON SAMPLE As Submitted

Total Dissolved Solids	338	mg/l
Sulfate	80.2	mg/l
Alkalinity ($CaCO_3$)	170	mg/l
Chloride	19	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	550	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	12.0	mg/l
Sulfide	0.2	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.20	mg/l
Manganese	0.04	mg/l
Sodium	43.9	mg/l
Calcium	52.0	mg/l
Potassium	3.72	mg/l

Purgeable Organics 624:

Trichloroethene	ND< 5 µg/l
Tetrachloroethene	ND< 5 µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

B/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53207-7
REPORTED 10/24/88

SAMPLE Water
RECEIVED 09/03/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW8-07, 13:30
BASED ON SAMPLE As Submitted

Total Dissolved Solids	394	mg/l
Sulfate	97.6	mg/l
Alkalinity ($CaCO_3$)	176	mg/l
Chloride	24	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	628	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	17.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.06	mg/l
Iron	0.17	mg/l
Manganese	0.03	mg/l
Sodium	49.4	mg/l
Calcium	54.7	mg/l
Potassium	4.11	mg/l

Purgeable Organics 624:

Trichloroethene	ND< 5	µg/l
Tetrachloroethene	6	µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-mw9

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	138-178	B1-mw9-01
2	264-284	02
3	332-352	03
4	386-406	04
5	454-474	05
6	498-518	06
Duplicate of interval # 6		B1-mw9-07

B1-MW9.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54960

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/13/88

IDENTIFICATION Proj. # 8803128.13, 10/13/88, B1-MW9-01 @ 13:30
Sample Point B1-MW9

BASED ON SAMPLE As Submitted

Total Dissolved Solids	568	mg/l
Sulfate	73.0	mg/l
Alkalinity ($CaCo_3$)	302	mg/l
Alkalinity (Bicarbonate)	368	mg/l
Chloride	30.1	mg/l
Fluoride	0.49	mg/l
Electrical Conductivity	932	µmhos/cm
Bromide	1.3	mg/l
Nitrate (NO_3)	98.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.05	mg/l
Iron	0.14	mg/l
Manganese	0.003	mg/l
Sodium	32.9	mg/l
Calcium	120	mg/l
Potassium	5.09	mg/l
Magnesium	29.9	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

RECEIVED
NOV 21 1988
Ans'd ...SKD...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]

REPORTED 11/11/88

SAMPLE Water

RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.13, 10/13/88, B1-MW9-02 @ 15:30
[redacted]
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	578	mg/l
Sulfate	76.4	mg/l
Alkalinity ($CaCO_3$)	273	mg/l
Alkalinity (Bicarbonate)	333	mg/l
Chloride	32.4	mg/l
Fluoride	0.62	mg/l
Electrical Conductivity	854	µmhos/cm
Bromide	0.9	mg/l
Nitrate (NO_3)	86.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.79	mg/l
Manganese	0.02	mg/l
Sodium	34.8	mg/l
Calcium	104	mg/l
Potassium	5.10	mg/l
Magnesium	30.6	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

RECEIVED
NOV 21 1988
Ans'd ...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55006-[redacted]

REPORTED 11/11/88

SAMPLE Water

RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.13, 10/13/88, B1-MW9-03 @ 17:00
Sample Point - B1-MW9
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	600	mg/l
Sulfate	69.3	mg/l
Alkalinity ($CaCO_3$)	281	mg/l
Alkalinity (Bicarbonate)	343	mg/l
Chloride	31.5	mg/l
Fluoride	0.61	mg/l
Electrical Conductivity	908	µmhos/cm
Bromide	0.9	mg/l
Nitrate (NO_3)	89.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.44	mg/l
Manganese	0.02	mg/l
Sodium	33.7	mg/l
Calcium	109	mg/l
Potassium	5.26	mg/l
Magnesium	29.9	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
NOV 21 1988
Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F5500751
REPORTED 11/11/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13, 10/14-15/88, B1-MW9-04 @ 18:00
Sample Point - B1-MW9

BASED ON SAMPLE As Submitted

Total Dissolved Solids	606	mg/l
Sulfate	75.2	mg/l
Alkalinity ($CaCO_3$)	281	mg/l
Alkalinity (Bicarbonate)	343	mg/l
Chloride	35.1	mg/l
Fluoride	0.61	mg/l
Electrical Conductivity	880	µmhos/cm
Bromide	1.0	mg/l
Nitrate (NO_3)	81.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.73	mg/l
Manganese	0.02	mg/l
Sodium	34.0	mg/l
Calcium	106	mg/l
Potassium	5.07	mg/l
Magnesium	29.8	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

RECEIVED
NOV 21 1988
Ans'd ...SKD...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55007-2[redacted]

REPORTED 11/11/88

SAMPLE Water

RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.13 10/14-15/88, B1-MW9-05 @ 09:00
Sample Point - B1-MW9[redacted]

BASED ON SAMPLE As Submitted

Total Dissolved Solids	562	mg/l
Sulfate	80.4	mg/l
Alkalinity ($CaCO_3$)	284	mg/l
Alkalinity (Bicarbonate)	346	mg/l
Chloride	36.1	mg/l
Fluoride	0.57	mg/l
Electrical Conductivity	880	µmhos/cm
Bromide	1.1	mg/l
Nitrate (NO_3)	81.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.64	mg/l
Manganese	0.02	mg/l
Sodium	33.9	mg/l
Calcium	106	mg/l
Potassium	5.04	mg/l
Magnesium	30.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/gl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

:-1 10M

RECEIVED
NOV 21 1988
Ans'd .....

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/11/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13, [redacted] @ 11:00
Sample Point - B1-MW9

BASED ON SAMPLE As Submitted

Total Dissolved Solids	656	mg/l
Sulfate	92.1	mg/l
Alkalinity ($CaCO_3$)	284	mg/l
Alkalinity (Bicarbonate)	346	mg/l
Chloride	28.0	mg/l
Fluoride	0.56	mg/l
Electrical Conductivity	897	µmhos/cm
Bromide	1.1	mg/l
Nitrate (NO_3)	76.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.53	mg/l
Manganese	0.02	mg/l
Sodium	33.6	mg/l
Calcium	106	mg/l
Potassium	5.23	mg/l
Magnesium	29.8	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

KAC 12/7/88

Dup of B-1-MW9-07

RECEIVED
NOV 21 1988
Ans'd

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55008-1
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 88-03128.13, 10/15/88, B-1-MW9-07 @ 13:00
Sample Point - B-1-MW9 / A1-MW3

BASED ON SAMPLE As Submitted

Total Dissolved Solids	608	mg/l
Sulfate	83.1	mg/l
Alkalinity ($CaCO_3$)	281	mg/l
Alkalinity (Bicarbonate)	343	mg/l
Chloride	26.4	mg/l
Fluoride	0.59	mg/l
Electrical Conductivity	780	µmhos/cm
Bromide	1.0	mg/l
Nitrate (NO_3)	68.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.52	mg/l
Manganese	0.02	mg/l
Sodium	34.2	mg/l
Calcium	105	mg/l
Potassium	5.01	mg/l
Magnesium	29.9	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

1 10M

KDL 12/7/88

RECEIVED
NOV 23 1988
Ans'd ....S.K.D

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/13/88

IDENTIFICATION Proj. # 8803128.13, 10/13/88, [redacted] 13:30
Sample Point - B1-MW9
BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624

[redacted]

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55006
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.16

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:	B1-MW9-02 @ 15:30	B1-MW9-03 @ 17:00
Methylene chloride	32 µg/l	35 µg/l
Acetone	12 µg/l	74 µg/l
1,1,1-Trichloroethane	* ND	30 µg/l
Trichloroethene	536 µg/l	634 µg/l
Tetrachloroethene	1,011 µg/l	1,107 µg/l
Toluene	* ND	9 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
NOV 21 1988
Ans'd ....

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55007
REPORTED 11/17/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13, 10/14-15/88
Sample Point - B1-MW9

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624	B1-MW9-04 @ 18:00	B1-MW9-05 @ 09:00	B1-MW9-06 @ 11:00
Methylene chloride	28 µg/l	10 µg/l	12 µg/l
Acetone	25 µg/l	22 µg/l	* ND
Trichloroethene	716 µg/l	1,468 µg/l	630 µg/l
Tetrachloroethene	1,544 µg/l	4,019 µg/l	1,300 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]F55008[redacted]

REPORTED 11/16/88

SAMPLE Water

RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:	B1-MW9-07 @ 13:00	A1-MW3-01 @ 17:00	A1-MW3-02 @ 19:00
Methylene chloride	11 µg/l	9 µg/l	* ND
Acetone	* ND	13 µg/l	* ND
1,2-Dichloroethene	* ND	11 µg/l	14 µg/l
Trichloroethene	747 µg/l	338 µg/l	284 µg/l
Tetrachloroethene	1,554 µg/l	158 µg/l	148 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

RECEIVED
NOV 28 1988
Ans'd ...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54960

REPORTED 11/23/88

SAMPLE Water

RECEIVED 10/13/88

IDENTIFICATION Proj. # 8803128.13, 10/13/88, B1-MW9-01 @ 13:30

BASED ON SAMPLE Sample Point B1-MW9
As Submitted

Semi-Volatiles Organics 625

bis(2-Ethylhexyl)phthalate	11 µg/l
Di-n-octylphthalate	13 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55006
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.16

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625:	B1-MW9-02 @ 15:30	B1-MW9-03 @ 17:00
bis(2-Ethylhexyl)phthalate	12 µg/l	13 µg/l
Di-n-octylphthalate	12 µg/l	12 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
DEC 02 1988
Ans'd .....

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55007
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13, 10/14-15/88
Sample Point - B1-MW9

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	B1-MW9-04 @ 18:00	B1-MW9-05 @ 09:00	B1-MW9-06 @ 11:00
bis(2-Ethylhexyl)phthalate	* ND	16 µg/l	* ND
Di-n-octylphthalate	* ND	21 µg/l	* ND

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55008
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

Dup of B1-MW9-06

Semi-Volatile Organics EPA 625:	B1-MW9-07 @ 13:00	A1-MW3-01 @ 17:00	A1-MW3-02 @ 19:00
bis(2-Ethylhexyl)phthalate	23 µg/l	15 µg/l	19 µg/l
Di-n-octylphthalate	29 µg/l	18 µg/l	25 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B6-MW1

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
2	272-292	B6-MW1-02
3	334-354	03
4	364-384	04
5	479-499	05
6	520-540	06
7	624-644	07
Equipment Blank		B6-MW1-01

Equipment Blank

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917-1

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/~~05~~ 12/88 ?

as per Jim McCall (Assoc. Lab) 11/16/88 SKD

IDENTIFICATION Proj. # 8803128.13, B6-MW1-01 @ 10:00
Sampling Point - B6-MW1, 10/11/88-10/12/88
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	ND<10	mg/l
Sulfate	5.1	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	2.4	mg/l
Fluoride	0.01	mg/l
Electrical Conductivity	2.9	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	0.54	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.07	mg/l
Manganese	ND< 0.002	mg/l
Sodium	0.88	mg/l
Calcium	0.48	mg/l
Potassium	0.52	mg/l
Magnesium	0.08	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917-2

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/~~05~~ 12/88 ? Date sampled was 10/11/88

IDENTIFICATION Proj. # 8803128.13, B6-MW1-02 @ 14:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	448	mg/l
Sulfate	74.6	mg/l
Alkalinity ($CaCO_3$)	235	mg/l
Alkalinity (Bicarbonate)	287	mg/l
Chloride	24.6	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	698	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	40.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.12	mg/l
Manganese	0.02	mg/l
Sodium	33.8	mg/l
Calcium	77.0	mg/l
Potassium	4.84	mg/l
Magnesium	25.9	mg/l

ASSOCIATED LABORATORIES

Edward S. Benare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917-3

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/~~05~~ 18/88 ?

IDENTIFICATION Proj. # 8803128.13, B6-MW1-03 @ 15:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	436	mg/l
Sulfate	71.6	mg/l
Alkalinity ($CaCO_3$)	235	mg/l
Alkalinity (Bicarbonate)	287	mg/l
Chloride	26.4	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	704	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	38.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.05	mg/l
Manganese	0.02	mg/l
Sodium	34.2	mg/l
Calcium	76.8	mg/l
Potassium	4.74	mg/l
Magnesium	26.7	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917-4

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/~~05~~ 12/88

IDENTIFICATION Proj. # 8803128.13, B6-MW1-04 @ 17:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	448	mg/l
Sulfate	73.1	mg/l
Alkalinity ($CaCO_3$)	235	mg/l
Alkalinity (Bicarbonate)	287	mg/l
Chloride	25.5	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	709	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	38.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.04	mg/l
Manganese	0.01	mg/l
Sodium	33.6	mg/l
Calcium	76.0	mg/l
Potassium	4.68	mg/l
Magnesium	26.3	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917-5
REPORTED 11/02/88

SAMPLE Water
RECEIVED 10/~~05~~ 12/88

IDENTIFICATION Proj. # 8803128.13, B6-MW1-05 @ 11:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	460	mg/l
Sulfate	78.3	mg/l
Alkalinity ($CaCO_3$)	238	mg/l
Alkalinity (Bicarbonate)	290	mg/l
Chloride	26.6	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	710	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	33.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	1.88	mg/l
Manganese	0.07	mg/l
Sodium	34.4	mg/l
Calcium	76.7	mg/l
Potassium	4.90	mg/l
Magnesium	26.8	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917-6
REPORTED 11/02/88

SAMPLE Water
RECEIVED 10/~~05~~ 12/88

IDENTIFICATION Proj. # 8803128.13, B6-MW1-06 @ 13:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	440	mg/l
Sulfate	74.1	mg/l
Alkalinity ($CaCO_3$)	235	mg/l
Alkalinity (Bicarbonate)	287	mg/l
Chloride	24.7	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	686	µmhos/cm
Bromide	0.3	mg/l
Nitrate (NO_3)	36.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	1.92	mg/l
Manganese	0.08	mg/l
Sodium	35.0	mg/l
Calcium	76.8	mg/l
Potassium	4.91	mg/l
Magnesium	27.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917-7

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/05/88 12

IDENTIFICATION Proj. # 8803128.13, B6-MW1-07 @ 15:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	412	mg/l
Sulfate	75.6	mg/l
Alkalinity ($CaCO_3$)	235	mg/l
Alkalinity (Bicarbonate)	287	mg/l
Chloride	28.8	mg/l
Fluoride	0.40	mg/l
Electrical Conductivity	694	µmhos/cm
Bromide	0.1	mg/l
Nitrate (NO_3)	28.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	1.60	mg/l
Manganese	0.39	mg/l
Sodium	37.0	mg/l
Calcium	74.9	mg/l
Potassium	4.57	mg/l
Magnesium	24.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
NOV 17 1988
Ans'd ....SKD.

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917
REPORTED 11/14/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.13
Sampling Point - B6-MW1, 10/11/88-10/12/88

BASED ON SAMPLE As Submitted

Purgeable Organics 624	B6-MW1-01 @ 10:00	B6-MW1-02 @ 14:00	B6-MW1-03 @ 15:30
Methylene chloride	47 µg/l	37 µg/l	38 µg/l
Acetone	25 µg/l	21 µg/l	* ND
Trichloroethene	* ND	5 µg/l	* ND
Tetrachloroethene	* ND	23 µg/l	16 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

Purgeable Organics 624	B6-MW1-04 @ 17:30	B6-MW1-05 @ 11:00	B6-MW1-06 @ 13:00	B6-MW1-07 @ 15:00
Methylene chloride	64 µg/l	* ND	* ND	14 µg/l
Tetrachloroethene	14 µg/l	13 µg/l	9 µg/l	6 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SLD

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54917
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/12/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE Sampling Point - B6-MW1, 10/11/88-10/12/88
As Submitted

Semi-Volatile Organics EPA 625:	B6-MW1-01 @ 10:00	B6-MW1-02 @ 14:00	B6-MW1-03 @ 15:30
bis(2-Ethylhexyl)phthalate	18 µg/l	18 µg/l	18 µg/l
Di-n-octylphthalate	19 µg/l	20 µg/l	18 µg/l

Semi-Volatile Organics EPA 625:	B6-MW1-04 @ 17:30	B6-MW1-05 @ 11:00
bis(2-Ethylhexyl)phthalate	13 µg/l	13 µg/l
Di-n-octylphthalate	13 µg/l	12 µg/l

Semi-Volatile Organics EPA 625:	B6-MW1-06 @ 13:00	B6-MW1-07 @ 15:00
bis(2-Ethylhexyl)phthalate	12 µg/l	12 µg/l
Di-n-octylphthalate	19 µg/l	12 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

OM

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B6-MW2

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	174-214	108
2	235-255	107
3	276-296	106
Duplicate of interval # 3		105
4	338-358	104
5	379-399	103
6	441-461	102
7	470-490	101
Trip Blank		01-TB

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-1

REPORTED 09/26/88

SAMPLE Water

RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0101 @ 12:00 B-6-MW2 ~~01~~ 07 8-17-88 (Sample date)

BASED ON SAMPLE As Submitted
(sampled bottom to top)

Total Dissolved Solids	452	mg/l
Sulfate	67.5	mg/l
Alkalinity ($CaCO_3$)	216	mg/l
Chloride	24.4	mg/l
Fluoride	0.56	mg/l
Electrical Conductivity	610	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	37.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.35	mg/l
Manganese	0.09	mg/l
Sodium	31.8	mg/l
Calcium	69.3	mg/l
Potassium	4.37	mg/l

Purgeable Organics EPA 624:

Trichloroethylene	36	µg/l
Tetrachloroethylene	56	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

Client: Lockheed Aeronautical Systems
Lab No.: F52544-01
Date: September 26, 1988

Base/Neutrals EPA 625:

All compounds werre None Detected. See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	670 µg/l
Nonanamide	259 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-2
REPORTED 09/26/88

SAMPLE Water
RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0102 @ 18:00 B6-MW2-~~02~~ 06 Sample date 8-17-88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	420	mg/l
Sulfate	65.3	mg/l
Alkalinity ($CaCO_3$)	218.7	mg/l
Chloride	21.7	mg/l
Fluoride	0.57	mg/l
Electrical Conductivity	610	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	27.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	0.08	mg/l
Sodium	33.2	mg/l
Calcium	67.8	mg/l
Potassium	4.05	mg/l

Purgeable Organics EPA 624:

Trichloroethylene	40	µg/l
Tetrachloroethylene	84	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

Client: Lockheed Aeronautical Systems
Lab No.: F52544-02
Date: September 26, 1988

Base/Neutrals EPA 625:

2,6-Dinitrotoluene	11 µg/l

All other compounds were None Detected.
See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	136 µg/l
Nonanamide	386 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-3
REPORTED 09/26/88

SAMPLE Water
RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0103 @ 19:00 B6-MW2-03 8/19/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	422	mg/l
Sulfate	62.4	mg/l
Alkalinity ($CaCO_3$)	199.8	mg/l
Chloride	18.4	mg/l
Fluoride	0.60	mg/l
Electrical Conductivity	574	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	21.9	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.09	mg/l
Manganese	0.02	mg/l
Sodium	28.5	mg/l
Calcium	65.5	mg/l
Potassium	4.20	mg/l

Purgeable Organics EPA 624:

Trichloroethylene	31	µg/l
Tetrachloroethylene	63	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

Client: Lockheed Aeronautical Systems
Lab No.: F52544-03
Date: September 26, 1988

Base/Neutrals EPA 625:

All compounds werre None Detected. See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	109 µg/l
Nonanamide	466 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-4

REPORTED 09/26/88

SAMPLE Water

RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0104 @ 10:00 86-MW2-04 8/20/84

BASED ON SAMPLE As Submitted

Total Dissolved Solids	448	mg/l
Sulfate	62.2	mg/l
Alkalinity ($CaCO_3$)	207.9	mg/l
Chloride	20.6	mg/l
Fluoride	0.57	mg/l
Electrical Conductivity	601	µmhos/cm
Bromide	0.8	mg/l
Nitrate (NO_3)	19.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.09	mg/l
Iron	0.83	mg/l
Manganese	0.02	mg/l
Sodium	29.1	mg/l
Calcium	69.3	mg/l
Potassium	4.19	mg/l

Purgeable Organics EPA 624:

Trichloroethylene	6	µg/l
Tetrachloroethylene	8	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

Client: Lockheed Aeronautical Systems
Lab No.: F52544-04
Date: September 26, 1988

Base/Neutrals EPA 625:

All compounds werre None Detected. See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	398 µg/l
Nonanamide	148 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-5
REPORTED 09/26/88

SAMPLE Water
RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0105 @ 13:00
BASED ON SAMPLE As Submitted

B6-MW2-~~05~~ 03 8/20/88

Total Dissolved Solids	432	mg/l
Sulfate	57.3	mg/l
Alkalinity ($CaCO_3$)	199.8	mg/l
Chloride	19.2	mg/l
Fluoride	0.55	mg/l
Electrical Conductivity	594	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	33.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.16	mg/l
Manganese	0.01	mg/l
Sodium	28.8	mg/l
Calcium	67.9	mg/l
Potassium	4.30	mg/l

Purgeable Organics EPA 624:

Chloroform	11	µg/l
Trichloroethylene	125	µg/l
Tetrachloroethylene	195	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

Client: Lockheed Aeronautical Systems
Lab No.: F52544-05
Date: September 26, 1988

Base/Neutrals EPA 625:

2,6-Dinitrotoluene	11 µg/l

All other compounds were None Detected.
See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	195 µg/l
Nonanamide	603 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

B6-MW2-06
DUP-of [redacted]

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-6

REPORTED 09/26/88

SAMPLE Water

RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0106 @ 14:30

BASED ON SAMPLE As Submitted

B6-MW2-~~06~~ 03 8/20/88

Total Dissolved Solids	430	mg/l
Sulfate	59.2	mg/l
Alkalinity ($CaCO_3$)	199.8	mg/l
Chloride	19.0	mg/l
Fluoride	0.56	mg/l
Electrical Conductivity	594	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	30.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.16	mg/l
Manganese	0.01	mg/l
Sodium	28.4	mg/l
Calcium	68.2	mg/l
Potassium	4.34	mg/l

Purgeable Organics EPA 624:

Chloroform	11	µg/l
Trichloroethylene	106	µg/l
Tetrachloroethylene	174	µg/l

All other compounds were None Detected.
See attached list.

Good Precision between Sample 105 and 106

SKD
10/31/88

Cont. on page 2

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

-1 10M

Client: Lockheed Aeronautical Systems
Lab No.: F52544-06
Date: September 26, 1988

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	184 µg/l
Nonanamide	334 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-7
REPORTED 09/26/88

SAMPLE Water
RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0107 @ 18:30
BASED ON SAMPLE As Submitted

BG-MW2-~~07~~ 02 8/20/88

Total Dissolved Solids	404	mg/l
Sulfate	56.1	mg/l
Alkalinity ($CaCO_3$)	194.4	mg/l
Chloride	18.2	mg/l
Fluoride	0.55	mg/l
Electrical Conductivity	585	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	31.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.11	mg/l
Manganese	0.005	mg/l
Sodium	28.8	mg/l
Calcium	67.4	mg/l
Potassium	4.25	mg/l

Purgeable Organics EPA 624:

Trichloroethylene	120	µg/l
Tetrachloroethylene	323	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

Client: Lockheed Aeronautical Systems
Lab No.: F52544-07
Date: September 26, 1988

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	210 µg/l
Nonanamide	268 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-8
REPORTED 09/26/88

SAMPLE Water
RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #0108 @ 21:00
BASED ON SAMPLE As Submitted

B6-MW2-~~08~~ 01 8/20/88

Total Dissolved Solids	526	mg/l
Sulfate	43.3	mg/l
Alkalinity ($CaCO_3$)	275.4	mg/l
Chloride	22.2	mg/l
Fluoride	0.48	mg/l
Electrical Conductivity	778	µmhos/cm
Bromide	0.8	mg/l
Nitrate (NO_3)	59.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.09	mg/l
Manganese	0.003	mg/l
Sodium	32.0	mg/l
Calcium	96.6	mg/l
Potassium	5.06	mg/l

Purgeable Organics EPA 624:

Chloroform	8	µg/l
Trichloroethylene	230	µg/l
Tetrachloroethylene	353	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

Client: Lockheed Aeronautical Systems
Lab No.: F52544-08
Date: September 26, 1988

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	168 µg/l
Nonanamide	419 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

B6-MW2

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F52544-9
REPORTED 09/26/88

SAMPLE Water
RECEIVED 08/20/88

IDENTIFICATION Proj. # 8803128.13
Sample #01-TB @ 14:00 (Travel Blank) 8/18/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	16	mg/l
Sulfate	ND< 0.1	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	0.83	mg/l
Fluoride	0.002	mg/l
Electrical Conductivity	1.4	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.13	mg/l
Manganese	ND< 0.002	mg/l
Sodium	0.24	mg/l
Calcium	0.28	mg/l
Potassium	ND< 0.323	mg/l

Purgeable Organics EPA 624:

Methylene chloride	54	µg/l
Benzene	75	µg/l

All other compounds were None Detected.
See attached list.

Cont. on page 2

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

Client: Lockheed Aeronautical Systems
Lab No.: F52544-09
Date: September 26, 1988

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

Tentatively Identified Compounds:	Estimated Level
1,13-Tetradecadiene	181 µg/l
Nonanamide	380 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. C1-MW1

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	198 - 238	C1-MW1-01
2	262 - 302	02
3	350 - 390	03
4	402 - 422	04
5	470 - 490	05

C1-MW1-01

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54916

REPORTED 11/07/88

SAMPLE Water

RECEIVED 10/12/88

IDENTIFICATION Proj. # 8803128.13, 10/12/88, C1-MW1-01 @ 13:00
Sample Point - LASC
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	455	mg/l
Sulfate	57.2	mg/l
Alkalinity ($CaCO_3$)	300	mg/l
Alkalinity (Bicarbonate)	366	mg/l
Chloride	20.1	mg/l
Fluoride	0.50	mg/l
Electrical Conductivity	757	µmhos/cm
Bromide	0.9	mg/l
Nitrate (NO_3)	28.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.08	mg/l
Manganese	0.004	mg/l
Sodium	31.1	mg/l
Calcium	91.8	mg/l
Potassium	5.57	mg/l
Magnesium	23.2	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C1-MW1-02

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54961-1
REPORTED 11/07/88

SAMPLE Water
RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.13 10/12-10/13/88, C1-MW1-02 @ 16:00
Sampling Point - C1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	442	mg/l
Sulfate	53.0	mg/l
Alkalinity ($CaCO_3$)	297	mg/l
Alkalinity (Bicarbonate)	362	mg/l
Chloride	15.2	mg/l
Fluoride	0.54	mg/l
Electrical Conductivity	718	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	22.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.07	mg/l
Manganese	0.005	mg/l
Sodium	30.3	mg/l
Calcium	89.0	mg/l
Potassium	5.28	mg/l
Magnesium	22.4	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54961-2
REPORTED 11/07/88

SAMPLE Water
RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.13 10/12-10/13/88, C1-MW1-0~~2~~3 @ ~~16:00~~ 10:30 1/10/89 SKD
Sampling Point - C1-MW1
BASED ON SAMPLE As Submitted

Total Dissolved Solids	386	mg/l
Sulfate	50.6	mg/l
Alkalinity ($CaCO_3$)	281	mg/l
Alkalinity (Bicarbonate)	343	mg/l
Chloride	12.4	mg/l
Fluoride	0.56	mg/l
Electrical Conductivity	651	µmhos/cm
Bromide	0.8	mg/l
Nitrate (NO_3)	12.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.06	mg/l
Manganese	0.02	mg/l
Sodium	29.3	mg/l
Calcium	80.4	mg/l
Potassium	5.14	mg/l
Magnesium	20.5	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54999-1
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.13, 10/13/88, C1-MW1-04 @ 16:00
Sample Point - C1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	412	mg/l
Sulfate	64.0	mg/l
Alkalinity ($CaCO_3$)	246	mg/l
Alkalinity (Bicarbonate)	300	mg/l
Chloride	24.8	mg/l
Fluoride	0.70	mg/l
Electrical Conductivity	666	µmhos/cm
Bromide	1.0	mg/l
Nitrate (NO_3)	15.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.61	mg/l
Manganese	0.04	mg/l
Sodium	29.6	mg/l
Calcium	83.6	mg/l
Potassium	4.56	mg/l
Magnesium	21.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54999-2
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/14/88

IDENTIFICATION Proj. # 8803128.13, 10/13/88, C1-MW1-05 @ 18:00
Sample Point - C1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	412	mg/l
Sulfate	56.6	mg/l
Alkalinity ($CaCO_3$)	262	mg/l
Alkalinity (Bicarbonate)	320	mg/l
Chloride	35.6	mg/l
Fluoride	0.68	mg/l
Electrical Conductivity	687	µmhos/cm
Bromide	0.9	mg/l
Nitrate (NO_3)	24.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.98	mg/l
Manganese	0.07	mg/l
Sodium	29.1	mg/l
Calcium	84.5	mg/l
Potassium	4.66	mg/l
Magnesium	21.4	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54916

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/12/88

IDENTIFICATION Proj. # 8803128.13
C1-MW1-01 @ 13:00 LASC

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624

Trichloroethene	11 µg/l
Tetrachloroethene	27 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
NOV 17 1988
Ans'd .....SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54961
REPORTED 11/14/88

SAMPLE Water
RECEIVED 10/14/88
IDENTIFICATION Proj. # 8803128.13, 10/03/88 Dani's list says 10/13
BASED ON SAMPLE As Submitted

Purgeable Organics 624	C1-MW1-02 @ 16:00	C1-MW1-~~02~~ 03 @ ~~10:30~~ OK 10:30 SKD 11/10/88
Trichloroethene	10 µg/l	* ND
Tetrachloroethene	16 µg/l	12 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/gl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]

REPORTED 11/15/88

SAMPLE Water

RECEIVED 10/14/88

IDENTIFICATION Proj. #88-03128.13

BASED ON SAMPLE As Submitted

Purgeable Organics 624	[redacted] @ 16:00	[redacted] @ 18:00
Methylene chloride	9 µg/l	9 µg/l
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

RECEIVED
NOV 23 1988
Ans'd SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/12/88

IDENTIFICATION Proj. # 8803128.13, 10/12/88, [redacted] @ 13:00
Sample Point - LASC
BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625

bis(2-Ethylhexyl)phthalate	41 µg/l
Di-n-octylphthalate	40 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd ....S.K.D.

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54961
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/14/88
IDENTIFICATION Proj. # 8803128.13, 10/03/88
BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625:	C1-MW1-02 @ 16:00	C1-MW1-03 @ 10:30
bis(2-Ethylhexyl)phthalate	18 µg/l	17 µg/l
Di-n-octylphthalate	17 µg/l	17 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd ....

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54999
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/14/88

IDENTIFICATION Proj. #88-03128.13

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPa 625	C1-MW1-04 @ 16:00	C1-MW1-05 @ 18:00
bis(2-Ethylhexyl)phthalate	14 µg/l	12 µg/l
Di-n-octylphthalate	14 µg/l	11 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/gl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 1

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #	
B1-CW1	590-600	B1 Area 1	B1-CW1
B1-CW2	250-260	"	B1-CW2
Duplicate of	B1-CW2	B1-CW4	
B1-CW3	150-160	B1-CW3	

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54718
REPORTED 11/07/88

SAMPLE Water
RECEIVED 10/07/88

IDENTIFICATION Proj. # 8803128.13 10/7/88, ~~C1-MW1~~ B C - @ 11:00
B1 Area 1
BASED ON SAMPLE As Submitted

11/16/88 SKD as per Jim McCall (Assoc. lab)

Total Dissolved Solids	268	mg/l
Sulfate	61.3	mg/l
Alkalinity ($CaCO_3$)	170	mg/l
Alkalinity (Bicarbonate)	208	mg/l
Chloride	28.6	mg/l
Fluoride	0.55	mg/l
Electrical Conductivity	507	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	4.7	mg/l
Sulfide	0.2	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.12	mg/l
Manganese	0.07	mg/l
Sodium	58.7	mg/l
Calcium	37.6	mg/l
Potassium	3.96	mg/l
Magnesium	10.9	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

RECEIVED
NOV 21 1988
Ans'd .....

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54716-1

REPORTED 11/10/88

SAMPLE Water

RECEIVED 10/06/88

IDENTIFICATION Proj. # 8803128.13 B1-CW2 @ 15:00 10/6/88 B1 Area 1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	520	mg/l
Sulfate	71.7	mg/l
Alkalinity ($CaCO_3$)	243	mg/l
Alkalinity (Bicarbonate)	296	mg/l
Chloride	31.2	mg/l
Fluoride	0.50	mg/l
Electrical Conductivity	803	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	82.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.57	mg/l
Manganese	0.06	mg/l
Sodium	35.6	mg/l
Calcium	91.4	mg/l
Potassium	4.80	mg/l
Magnesium	28.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

1 10M

RECEIVED
NOV 21 1988
Ans'd ....SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]

REPORTED 11/10/88

SAMPLE Water

RECEIVED 10/06/88

IDENTIFICATION Proj. # 8803128.13 [redacted]
10/6/88, B1 Area 1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	574	mg/l
Sulfate	86.3	mg/l
Alkalinity ($CaCO_3$)	300	mg/l
Alkalinity (Bicarbonate)	366	mg/l
Chloride	29.7	mg/l
Fluoride	0.47	mg/l
Electrical Conductivity	876	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	60.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.05	mg/l
Iron	0.12	mg/l
Manganese	0.04	mg/l
Sodium	50.8	mg/l
Calcium	94.1	mg/l
Potassium	8.38	mg/l
Magnesium	27.5	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

OM

Duplicate of B1-CW2

RECEIVED
NOV 21 1988
Ans'd ...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54716-2
REPORTED 11/10/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION ~~Proj. # 8803128.13 B1-CW4 @ 17:00~~
10/6/88, B1 Area 1
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	488	mg/l
Sulfate	68.1	mg/l
Alkalinity ($CaCO_3$)	246	mg/l
Alkalinity (Bicarbonate)	300	mg/l
Chloride	31.6	mg/l
Fluoride	0.49	mg/l
Electrical Conductivity	804	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	82.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.53	mg/l
Manganese	0.06	mg/l
Sodium	35.1	mg/l
Calcium	89.7	mg/l
Potassium	4.55	mg/l
Magnesium	28.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

RECEIVED
JAN 17 1989
Ans'd SKD

OK
ME
1/23/89

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54718
REPORTED 10/24/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. #88-03128.13
B1-CW1 @ 11:00 B1 Area 1
As Submitted

BASED ON SAMPLE

Purgeable Organics 624:

Trichloroethene	10 µg/l
Tetrachloroethene	96 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

B1CW2b 257

RECEIVED
JAN 17 1989
Ans'd

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54716
REPORTED 10/24/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. #88-03128.13
B1 Area 1
As Submitted

BASED ON SAMPLE

Purgeable Organics 624	B1-CW2a @ 15:00	~~B1-CW4~~ B1CW2b @ 17:00	B1-CW3 @ 19:00
Trichloroethene	127 µg/l	143 µg/l	1,540 µg/l
Tetrachloroethene	1,652 µg/l	1,850 µg/l	5,570 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

RECEIVED
NOV 23 1988
Ans'd ...SKD...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54718
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 8803128.13. B1-CW1 @ 11:00
10/7/88. B1 Area 1
As Submitted

BASED ON SAMPLE

Semi-Volatile Organics EPA 625

bis(2-Ethylhexyl)phthalate	32 µg/l
Di-n-octylphthalate	32 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

RECEIVED ✓
NOV 23 1988
Ans'd ...SLD...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54716
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 8803128.13
10/6/88. B1 Area 1
As Submitted

BASED ON SAMPLE

Semi-Volatile Organics EPA 625	[redacted] @ 15:00	[redacted] @ 17:00 *	[redacted] @ 19:00
bis(2-Ethylhexyl)phthalate	24 µg/l	17 µg/l	16 µg/l
Di-n-octylphthalate	20 µg/l	16 µg/l	14 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 2

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
A1-CW1	560-570	A1-CW1
A1-CW2	350-360	A1-CW2
Equipment Blank		K0014

RECEIVED
NOV 21 1988
Ans'd ...S.L.D.

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54717
REPORTED 11/03/88

SAMPLE Water
RECEIVED 10/07/88

IDENTIFICATION ~~Proj. # 8803128~~
A1-CW1 @ 16:00, 10/6/88 LABC
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	220	mg/l
Sulfate	42.1	mg/l
Alkalinity ($CaCO_3$)	140	mg/l
Alkalinity (Bicarbonate)	171	mg/l
Chloride	21.4	mg/l
Fluoride	0.60	mg/l
Electrical Conductivity	401	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	5.8	mg/l
Sulfide	0.2	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.07	mg/l
Manganese	0.07	mg/l
Sodium	34.2	mg/l
Calcium	33.7	mg/l
Potassium	3.35	mg/l
Magnesium	10.3	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

NOV 21 1988
Ans'd ...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F5471[redacted]
REPORTED 11/03/88

SAMPLE Water
RECEIVED 10/07/88

IDENTIFICATION [redacted]
As Submitted
BASED ON SAMPLE

Total Dissolved Solids	376	mg/l
Sulfate	77.0	mg/l
Alkalinity ($CaCO_3$)	205	mg/l
Alkalinity (Bicarbonate)	250	mg/l
Chloride	28.6	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	653	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	33.7	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.56	mg/l
Manganese	0.09	mg/l
Sodium	37.9	mg/l
Calcium	65.1	mg/l
Potassium	5.99	mg/l
Magnesium	21.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

Equipment Blank
K0014

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/03/88

SAMPLE Water
RECEIVED 10/07/88

IDENTIFICATION [redacted]
As Submitted

BASED ON SAMPLE

K0014 SKD 11/22/88

Total Dissolved Solids	ND<10	mg/l
Sulfate	ND< 0.1	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	ND< 0.1	mg/l
Fluoride	0.02	mg/l
Electrical Conductivity	8.0	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.10	mg/l
Manganese	ND< 0.002	mg/l
Sodium	0.87	mg/l
Calcium	1.77	mg/l
Potassium	ND< 0.32	mg/l
Magnesium	0.17	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

KC 12/8/88

:-1 10M

RECEIVED
DEC 30 1988
Ans'd ....SKA

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54717
REPORTED 10/17/88

SAMPLE Water
RECEIVED 10/07/88

IDENTIFICATION Proj. # 88-03128.13
10/6/88. LASC
As Submitted

BASED ON SAMPLE

Purgeable Organics EPA 624:	A1-CW1 @ 16:00	A1-CW2 @ 21:30
Chloroform	10 µg/l	----
Acetone	----	92 µg/l
Trichloroethene	----	6 µg/l
Tetrachloroethene	----	15 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

AREA 2
Equipment
Blank

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54639-3
REPORTED 10/13/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 88-03128.13
Sample # K0014 @ 13:00, 10/05/88

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:

Trichloroethene	ND< 5 µg/l
Tetrachloroethene	ND< 5 µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

RECEIVED
NOV 23 1988
Ans'd ...SKD...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54717
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/07/88

IDENTIFICATION Proj. # 8803128.13
10/6/88. LASC

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	A1-CW1 @ 16:00	A1-CW2 [illegible]
bis(2-Ethylhexyl)phthalate	43 µg/l	111 µg/l
Di-n-octylphthalate	40 µg/l	103 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

RECEIVED
NOV 28 1988
Ans'd SED

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54639
REPORTED 11/18/88

SAMPLE Water
RECEIVED 10/06/88
IDENTIFICATION Proj. #88-03128.13
AREA 2
BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	K0012 @ 18:00	K0013 @ 20:10	K0014 Equipment Blan. @ 13:00
bis(2-Ethylhexyl)phthalate	28 µg/l	58 µg/l	25 µg/l
Di-n-octylphthalate	29 µg/l	63 µg/l	25 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 3

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
B6-CW1	580-590	B6-CW1
B6-CW2	330-340	B6-CW2
Duplicate of B6-CW2		B6-CW12
B6-CW3	195-215	B6-CW3

Received 11/10/88 SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54557-3
REPORTED 11/03/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128
B6-CW1 @ 20:30, Area 3, 10/3/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	200	mg/l
Sulfate	31.0	mg/l
Alkalinity ($CaCO_3$)	138	mg/l
Alkalinity (Bicarbonate)	168	mg/l
Chloride	18.7	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	330	µmhos/cm
Bromide	0.1	mg/l
Nitrate (NO_3)	4.43	mg/l
Sulfide	3.3	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.58	mg/l
Manganese	0.09	mg/l
Sodium	43.7	mg/l
Calcium	21.0	mg/l
Potassium	3.34	mg/l
Magnesium	7.77	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

Received 11/10/88
SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54557-2
REPORTED 11/03/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128
B6-CW2 @ 13:00, Area 3, 10/3/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	556	mg/l
Sulfate	79.3	mg/l
Alkalinity ($CaCO_3$)	284	mg/l
Alkalinity (Bicarbonate)	346	mg/l
Chloride	33.1	mg/l
Fluoride	0.56	mg/l
Electrical Conductivity	837	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	48.3	mg/l
Sulfide	ND< 0 1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.75	mg/l
Manganese	0.06	mg/l
Sodium	38.4	mg/l
Calcium	87.1	mg/l
Potassium	4.22	mg/l
Magnesium	31.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

Received 11/10/88
SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54557-1

REPORTED 11/03/88

SAMPLE Water

RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128
B6-CW3 @ 10:00, Area 3, 10/3/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	563	mg/l
Sulfate	74.8	mg/l
Alkalinity ($CaCO_3$)	256	mg/l
Alkalinity (Bicarbonate)	313	mg/l
Chloride	31.4	mg/l
Fluoride	0.46	mg/l
Electrical Conductivity	853	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	92.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.06	mg/l
Iron	0.06	mg/l
Manganese	0.03	mg/l
Sodium	32.8	mg/l
Calcium	103	mg/l
Potassium	4.85	mg/l
Magnesium	27.2	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

Received 11/10/88 SKD

Dup of Bk-CW2

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54561

REPORTED 11/02/88

SAMPLE Water

RECEIVED 10/05/88 ?

IDENTIFICATION Proj. # 8803128.13, Area 6, 9/30/88
B6-CW12 @ 15:00
As Submitted

BASED ON SAMPLE

Lab confirmed 11/16/88 SKD

Total Dissolved Solids	472	mg/l
Sulfate	80.8	mg/l
Alkalinity ($CaCO_3$)	278	mg/l
Alkalinity (Bicarbonate)	339	mg/l
Chloride	32.0	mg/l
Fluoride	0.49	mg/l
Electrical Conductivity	833	µmhos/cm
Bromide	0.9	mg/l
Nitrate (NO_3)	48.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.82	mg/l
Manganese	0.06	mg/l
Sodium	41.0	mg/l
Calcium	86.7	mg/l
Potassium	5.17	mg/l
Magnesium	32.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

✓ KL

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54557-3
REPORTED 10/27/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-6-CW1, 20:30, 10/03/88, Area 3
BASED ON SAMPLE As Submitted

10/20

Purgeable Organics (624)

Trichloroethene	236 µg/l
Tetrachloroethene	1,303 µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54557-2
REPORTED 10/27/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-6-CW2, 13:00, 10/03/88, Area 3
BASED ON SAMPLE As Submitted

10/20

Purgeable Organics (624)

Trichloroethene	121 µg/l
Tetrachloroethene	165 µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Benare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

AREA 3

*

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54557-1

REPORTED 10/27/88

SAMPLE Water

RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-6-CW3, 10:00, 10/03/88, Area 3

BASED ON SAMPLE As Submitted

10/17

Purgeable Organics (624)

Trichloroethene [redacted]

Tetrachloroethene [redacted]

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

*This sample is collected from a well located near a building where they keep DEGREASING solvents.

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
DEC 19 1988
Ans'd ...S.K.D.

Duplicate of B6-CW2

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54561
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.13, B6CW12 @ 15:00 Area 6
9/30/88

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624

Methylene Chloride	10 µg/l
Trichloroethene	ND< 5 µg/l
Tetrachloroethene	23 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
JAN 17 1989
Ans'd S.K.D

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54557
REPORTED 11/10/88

SAMPLE Water
RECEIVED 10/05/88
IDENTIFICATION Proj. # 8803128.13, 10/03/88, Area 3
BASED ON SAMPLE As Submitted

Base/Neutrals EPA 625	B6-CW3 @ 10:00	B6-CW2 @ 13:00	B6-CW1 @ 20:30
bis(2-Ethylhexyl)phthalate	15 µg/l	21 µg/l	20 µg/l
Di-n-octylphthalate	55 µg/l	16 µg/l	16 µg/l
Tentatively Identified Compounds			
Eicosane	-----	-----	50 µg/l
Pentatriacontane	-----	-----	42 µg/l
Sulfur	-----	-----	71 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54561
REPORTED 11/14/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.13, B6CW12 @ 15:00 Area 3 SKD
9/30/88

BASED ON SAMPLE As Submitted

Top B6-CW2

Semi-Volatiles Organics 625

Di-n-butylphthalate	11 µg/l
bis(2-Ethylhexyl)phthalate	26 µg/l
Di-n-octylphthalate	23 µg/l

Tentatively Identified Compounds

2-methoxyethyl hydrazine	57 µg/l
1-heptacosanol	27 µg/l
nonahexacontanoic acid	27 µg/l

All other compounds were None Detected.
See attached list.

These look like plastic products i.e. Tygon tubing may be used in the lab or at the sampling site.

TIC are most likely

OK-JFL 11/9/89

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be by appropriate disposal protocol 30 days from da

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 4

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
B6-CW4	510-520	B6-CW4
B6-CW5	345-355	B6-CW5
B6-CW6	215-235	B6-CW6
Equipment Blank		B6-CW10
" "		B6-CW11

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54363-1

REPORTED 10/27/88

SAMPLE Water

RECEIVED 10/01/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-6-CW4, 10:00, 09/29/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	496	mg/l
Sulfate	64.8	mg/l
Alkalinity ($CaCO_3$)	127	mg/l
Chloride	127	mg/l
Fluoride	0.49	mg/l
Electrical Conductivity	823	µmhos/cm
Bromide	0.1	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	0.2	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.11	mg/l
Manganese	0.06	mg/l
Sodium	88.6	mg/l
Calcium	52.6	mg/l
Potassium	3.59	mg/l

Purgeable Organics (624): All compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F54241-3
REPORTED 09/30/88

SAMPLE Water
RECEIVED 09/29/88

IDENTIFICATION Proj. # 88-03128.13
B6-CW5, 1800
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	530	mg/l
Sulfate	79.5	mg/l
Alkalinity ($CaCO_3$)	297	mg/l
Chloride	28.7	mg/l
Fluoride	0.42	mg/l
Electrical Conductivity	876	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	40.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	1.12	mg/l
Manganese	0.04	mg/l
Sodium	37.5	mg/l
Calcium	89.2	mg/l
Potassium	4.36	mg/l

Purgeable Organics EPA 624:

All compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54363-2
REPORTED 10/27/88

SAMPLE Water
RECEIVED 10/01/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-6-CW6, 15:00, 09/29/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	556	mg/l
Sulfate	82.3	mg/l
Alkalinity ($CaCO_3$)	267	mg/l
Chloride	36.3	mg/l
Fluoride	0.50	mg/l
Electrical Conductivity	870	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	64.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.05	mg/l
Manganese	0.02	mg/l
Sodium	35.2	mg/l
Calcium	102	mg/l
Potassium	5.34	mg/l

Purgeable Organics (624):

1,1-Dichloroethene	13	µg/l
1,1,1-Trichloroethane	13	µg/l
Trichloroethene	66	µg/l
Tetrachloroethene	7	µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

-1 10M

Resubmission SKD

EQUIPMENT BLANK

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F54241-1

REPORTED 09/30/88

SAMPLE Water

RECEIVED 09/29/88

IDENTIFICATION Proj. # 88-03128.13
B6-CW10, 1500 9/29
As Submitted

BASED ON SAMPLE

Total Dissolved Solids		7	mg/l
Sulfate	ND<	0.5	mg/l
Alkalinity ($CaCO_3$)		2.7	mg/l
Chloride		1.7	mg/l
Fluoride	ND<	0.01	mg/l
Electrical Conductivity		3.65	µmhos/cm
Bromide	ND<	0.1	mg/l
Nitrate (NO_3)	ND<	0.1	mg/l
Sulfide	ND<	0.1	mg/l
Phosphate, Total (P)	ND<	0.01	mg/l
Iron		0.04	mg/l
Manganese		0.006	mg/l
Sodium		0.81	mg/l
Calcium		0.58	mg/l
Potassium	ND<	0.3	mg/l

Purgeable Organics EPA 624:

All compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

OM

COMMENT
BLANK

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

LAB NO. F54241-2

REPORTED 09/30/88

Attn: Ron Helgerson

SAMPLE Water

RECEIVED 09/29/88

IDENTIFICATION Proj. # 88-03128.13
B6-CW11, 1650

BASED ON SAMPLE As Submitted

Total Dissolved Solids	27	mg/l
Sulfate	8.5	mg/l
Alkalinity ($CaCO_3$)	5.4	mg/l
Chloride	4.3	mg/l
Fluoride	ND< 0.01	mg/l
Electrical Conductivity	32.6	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.05	mg/l
Manganese	0.005	mg/l
Sodium	0.97	mg/l
Calcium	0.62	mg/l
Potassium	ND< 0.3	mg/l

Purgeable Organics EPA 624:

All compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds werre None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

RECEIVED
NOV 28 1988
Ans'd ...S.K.D.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54241
REPORTED 11/18/88

SAMPLE Water
RECEIVED 09/29/88

IDENTIFICATION Proj. #88-03128.13
B6-CW5 @ 18:00
As Submitted

BASED ON SAMPLE

Purgeable Organics EPA 624

Methylene chloride	20 µg/l
Trichloroethene	ND< 5 µg/l
Tetrachloroethene	ND< 5 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
JAN 17 1989
Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54363

REPORTED 11/09/88

RECEIVED 09/30/88

SAMPLE Water

IDENTIFICATION Project #8803128.13

BASED ON SAMPLE As Submitted

Base/Neutrals EPA 625	B-6-CW4 @ 10:00	B-6-CW6 @ 15:00
Di-n-butylphthalate	26 µg/l	32 µg/l
Butylbenzylphthalate	----	12 µg/l
bis(2-Ethylhexyl)phthalate	----	37 µg/l
Di-n-octylphthalate	----	25 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

RECEIVED
NOV 28 1988
Ans'd .....SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54241

REPORTED 11/18/88

SAMPLE Water

RECEIVED 09/29/88

IDENTIFICATION Proj. #88-03128.13

BASED ON SAMPLE As Submitted

equipment blanks

	B6-CW10 @ 15:00	B6-CW11 @ 16:50	B6-CW5 @ 18:00
Semi-Volatile Organics EPA 625	* ND	* ND	* ND
Tentatively Identified Compounds			
4-ethyl-2,2,6,6-tetramethyl heptane	----	----	186 µg/l
Dodecanoic acid	----	----	541 µg/l
1-nonadecene	----	----	238 µg/l
2,3,8-Trimethyl decane	----	----	577 µg/l

* All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 5

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
B6-CW7	492-502	K0012
Duplicate of B6-CW7		K0013
B6-CW8	361-371	K0010
B6-CW9	242-262	K0011

B6-CW8

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54562-1

REPORTED 11/03/88

SAMPLE Water

RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.16
K0010 @ 15:05, 10/3/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	382	mg/l
Sulfate	80.5	mg/l
Alkalinity ($CaCO_3$)	232	mg/l
Alkalinity (Bicarbonate)	283	mg/l
Chloride	24.3	mg/l
Fluoride	0.56	mg/l
Electrical Conductivity	713	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	37.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.14	mg/l
Manganese	0.03	mg/l
Sodium	33.0	mg/l
Calcium	74.8	mg/l
Potassium	4.16	mg/l
Magnesium	25.6	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

B6-CW9

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54562-2
REPORTED 11/03/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.16
K0011 @ 10:50, 10/4/88
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	353	mg/l
Sulfate	68.8	mg/l
Alkalinity ($CaCO_3$)	181	mg/l
Alkalinity (Bicarbonate)	221	mg/l
Chloride	23.3	mg/l
Fluoride	0.43	mg/l
Electrical Conductivity	661	µmhos/cm
Bromide	0.8	mg/l
Nitrate (NO_3)	68.7	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.11	mg/l
Manganese	0.04	mg/l
Sodium	33.5	mg/l
Calcium	73.1	mg/l
Potassium	4.65	mg/l
Magnesium	18.2	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

Area S
Routine

B6-CW7

RECEIVED
NOV 21 1988
Ans'd ...S.K.D.

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]

REPORTED 11/03/88

SAMPLE Water

RECEIVED [redacted]

IDENTIFICATION ~~Proj. # 8803128.13~~ [redacted]
As Submitted

?

BASED ON SAMPLE

Total Dissolved Solids	218	mg/l
Sulfate	47.6	mg/l
Alkalinity ($CaCO_3$)	146	mg/l
Alkalinity (Bicarbonate)	178	mg/l
Chloride	22.1	mg/l
Fluoride	0.74	mg/l
Electrical Conductivity	380	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	3.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.13	mg/l
Manganese	ND< 0.002	mg/l
Sodium	44.6	mg/l
Calcium	28.3	mg/l
Potassium	25.2	mg/l
Magnesium	9.2	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

Area S B6CW7
Dup of K0012

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54639-1
REPORTED 11/03/88

SAMPLE Water
RECEIVED 10/07/88

IDENTIFICATION Proj. # 8803128.13
K0013 @ 20:10, 10/4/88
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	226	mg/l
Sulfate	49.4	mg/l
Alkalinity ($CaCO_3$)	162	mg/l
Alkalinity (Bicarbonate)	198	mg/l
Chloride	22.9	mg/l
Fluoride	0.73	mg/l
Electrical Conductivity	388	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	4.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	0.004	mg/l
Sodium	44.9	mg/l
Calcium	28.2	mg/l
Potassium	25.4	mg/l
Magnesium	9.2	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

AREA 5

B6-CW8
B6-CW9

RECEIVED
NOV 17 1988
Ans'd ...SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54562
REPORTED 11/14/88

SAMPLE Water
RECEIVED 10/05/88
IDENTIFICATION Proj. # 8803128.13, 10/03/88
BASED ON SAMPLE As Submitted

Purgeable Organics 624	B6-CW8 K0010 @ 15:05	B6-CW9 K0011 @ 10:50
Methylene chloride	9 µg/l	11 µg/l
1,1-Dichloroethene	* ND	13 µg/l
1,1,1-Trichloroethane	* ND	19 µg/l
Trichloroethene	* ND	30 µg/l
Tetrachloroethene	* ND	142 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

B6-CW7

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54639-1
REPORTED 10/13/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 88-03128.13
Sample # K0012 @ 18:00, 10/04/88

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:

Trichloroethene	ND< 5 µg/l
Tetrachloroethene	ND< 5 µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

B6-CW7
Duplicate of
K0012

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54639-2
REPORTED 10/13/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 88-03128.13
Sample # K0013 @ 20:10, 10/04/88
BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:

Trichloroethene	ND< 5 µg/l
2-Hexanone	ND< 5 µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

RECEIVED
NOV 21 1988
Ans'd ...

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54562
REPORTED 11/17/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.16

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	K0010 @ 15:05	K0011 @ 10:50
bis(2-Ethylhexyl)phthalate	20 µg/l	* ND
Di-n-octylphthalate	58 µg/l	44 µg/l

* None Detected.

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
NOV 28 1988
Ans'd ...JVD...

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54639
REPORTED 11/18/88

SAMPLE Water
IDENTIFICATION Proj. #88-03128.13
BASED ON SAMPLE As Submitted

RECEIVED 10/06/88

Semi-Volatile Organics EPA 625	K0012 @ 18:00	K0013 @ 20:10	K0014 @ 13:00 Equipment Blank
bis(2-Ethylhexyl)phthalate	28 µg/l	58 µg/l	25 µg/l
Di-n-octylphthalate	29 µg/l	63 µg/l	25 µg/l

All other compounds were None Detected. See attached list. Belongs to Area 2 file

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 6

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
B5-CW1	542-552	B5-CW1
B5-CW2	339-349	B5-CW2
Duplicate of B5-CW2		B5-CW4
B5-CW3	209-229	B5-CW3

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/10/88

SAMPLE IDENTIFICATION BASED ON SAMPLE
Water
Proj. # 8803128.13, [redacted]
As Submitted

RECEIVED 10/06/88

Total Dissolved Solids	300	mg/l
Sulfate	52.7	mg/l
Alkalinity ($CaCO_3$)	227	mg/l
Alkalinity (Bicarbonate)	277	mg/l
Chloride	13.9	mg/l
Fluoride	0.71	mg/l
Electrical Conductivity	580	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	18.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.04	mg/l
Manganese	0.22	mg/l
Sodium	38.5	mg/l
Calcium	64.5	mg/l
Potassium	4.19	mg/l
Magnesium	15.3	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/10/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 8803128.13 [redacted]

BASED ON SAMPLE As Submitted

Total Dissolved Solids	284	mg/l
Sulfate	50.1	mg/l
Alkalinity ($CaCO_3$)	216	mg/l
Alkalinity (Bicarbonate)	264	mg/l
Chloride	17.1	mg/l
Fluoride	0.62	mg/l
Electrical Conductivity	553	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	20.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.02	mg/l
Manganese	0.12	mg/l
Sodium	32.6	mg/l
Calcium	58.3	mg/l
Potassium	4.60	mg/l
Magnesium	19.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

Shallow

RECEIVED
NOV 21 1988
Ans'd ...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]

REPORTED 11/10/88

SAMPLE Water

RECEIVED 10/06/88

IDENTIFICATION Proj. # 8803128.13, [redacted]

BASED ON SAMPLE As Submitted

Total Dissolved Solids	576	mg/l
Sulfate	72.3	mg/l
Alkalinity ($CaCO_3$)	338	mg/l
Alkalinity (Bicarbonate)	412	mg/l
Chloride	32.9	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	940	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	83.9	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	0.31	mg/l
Sodium	33.1	mg/l
Calcium	126	mg/l
Potassium	5.27	mg/l
Magnesium	31.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

Dup of B5-CW2

?

RECEIVED
DEC 02 1988
Ans'd SKB

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54641
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/06/88
IDENTIFICATION Proj. # 8803128.13, 10/06/88, B5-CW4 @ 18:00 *
BASED ON SAMPLE As Submitted

Total Dissolved Solids	8	mg/l
Sulfate	ND< 0.1	mg/l
Alkalinity ($CaCO_3$)	13.5	mg/l
Alkalinity (Bicarbonate)	16.5	mg/l
Chloride	ND< 0.1	mg/l
Fluoride	0.04	mg/l
Electrical Conductivity	23	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.07	mg/l
Manganese	ND< 0.001	mg/l
Sodium	0.30	mg/l
Calcium	0.15	mg/l
Potassium	ND< 0.23	mg/l
Magnesium	0.04	mg/l

prep blank has these values

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

* Inorganic data are suspect. Possible switched sample. [Based on QA evaluation]

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

AREA 6

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810

LAB NO. F54640-3
REPORTED 10/13/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 88-03128.13
Sample # B5-CW1 @ 15:00, 10/05/88

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:

Trichloroethene	ND< 5 µg/l
Tetrachloroethene	25 µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

AREA 6

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54640-2
REPORTED 10/13/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 88-03128.13
Sample # B5-CW2 @ 10:00, 10/05/88
BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:

Trichloroethene	12 µg/l
Tetrachloroethene	42 µg/l

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

Area 6

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54640-1
REPORTED 10/13/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 88-03128.13
Sample # B5-CW3 @ 19:00, ~~10/05/88~~
BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:

Trichloroethene	87 µg/l
Tetrachloroethene	136 µg/l

All other compounds were None Detected, see attached list

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

AREA 6 ✓

Dup of B5CW2

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54641

REPORTED 10/13/88

SAMPLE Water

RECEIVED 10/06/88

IDENTIFICATION Proj. # 88-03128.13
Sample # B5-CW4 @ 18:00, [redacted]

BASED ON SAMPLE As Submitted

Don's list reports 10/5/88

Purgeable Organics EPA 624:

Trichloroethene	ND< 5 µg/l
Tetrachloroethene	ND< 5 µg/l

OK

All other compounds were None Detected, see attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

RECEIVED
NOV 23 1988
Ans'd SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54640
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/06/88

IDENTIFICATION Proj. # 8803128.13
10/5/88.

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	B5-CW3 @ 19:00	B5-CW2 @ 10:00	B5-CW1 @ 15:00
bis(2-Ethylhexyl)phthalate	23 µg/l	21 µg/l	43 µg/l
Di-n-octylphthalate	22 µg/l	22 µg/l	41 µg/l
Tentatively Identified Compounds			
4-ethyl-2,2,6,6-tetra methyl heptane	-----	-----	71 µg/l
2,2-Dimethyl pentene	-----	-----	57 µg/l
1,13-Tetradecadiene	-----	-----	52 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

RECEIVED
NOV 21 1988
Ans'd

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54641

REPORTED 11/17/88

SAMPLE Water

RECEIVED [redacted]

IDENTIFICATION Proj. # 8803128.16
[redacted]
As Submitted

BASED ON SAMPLE

Semi-Volatile Organics EPA 625

bis(2-Ethylhexyl)phthalate	14 µg/l
Di-n-octylphthalate	12 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 7

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
C1-CW1	470-511	C1-CW1
C1-CW2	382-392	C1-CW2
C1-CW3	260-280	C1-CW3-02
Equipment Blank		C1-CW3-01

Equipment Blank

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54152-3

REPORTED 11/02/88

SAMPLE Water

RECEIVED 09/27/88

Sampling Date = 9/22/88

IDENTIFICATION Proj. # 8803128.13
C1-CW3-01, 15:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	ND<10	mg/l
Sulfate	5.4	mg/l
Alkalinity ($CaCo_3$)	ND< 1	mg/l
Chloride	3.2	mg/l
Fluoride	0.02	mg/l
Electrical Conductivity	1.82	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	5.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	ND< 0.002	mg/l
Sodium	2.34	mg/l
Calcium	0.50	mg/l
Potassium	0.71	mg/l
Magnesium	0.13	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

KL 2-3-88

1 10M

C1-CW1

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54152-2

REPORTED 11/02/88

SAMPLE Water

RECEIVED 09/27/88

IDENTIFICATION Proj.1# 8803128.13
C1-CW~~0~~, 16:00

BASED ON SAMPLE As Submitted

C1-CW1 as per
Jim McCall
(Assoc. lab)
11/16/88
SKD

Total Dissolved Solids	378	mg/l
Sulfate	63.6	mg/l
Alkalinity ($CaCo_3$)	259	mg/l
Alkalinity (Bicarbonate)	316	mg/l
Chloride	9.8	mg/l
Fluoride	0.66	mg/l
Electrical Conductivity	584	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO3)	11.1	mg/l
Sulfide	0.2	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.09	mg/l
Manganese	0.02	mg/l
Sodium	33.8	mg/l
Calcium	70.8	mg/l
Potassium	4.01	mg/l
Magnesium	19.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54152-1

REPORTED 11/02/88

SAMPLE Water

RECEIVED 09/27/88

IDENTIFICATION Proj. # 8803128.13
C1-CW2, 14:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	370	mg/l
Sulfate	67.6	mg/l
Alkalinity ($CaCo_3$)	251	mg/l
Alkalinity (Bicarbonate)	306	mg/l
Chloride	10.9	mg/l
Fluoride	0.60	mg/l
Electrical Conductivity	597	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	10.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	1.23	mg/l
Manganese	0.03	mg/l
Sodium	29.1	mg/l
Calcium	73.8	mg/l
Potassium	4.26	mg/l
Magnesium	19.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54152-4

REPORTED 11/02/88

SAMPLE Water

RECEIVED 09/27/88

IDENTIFICATION Proj. # 8803128.13
C1-CW3-02, 18:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	426	mg/l
Sulfate	66.6	mg/l
Alkalinity ($CaCo_3$)	292	mg/l
Alkalinity (Bicarbonate)	356	mg/l
Chloride	14.2	mg/l
Fluoride	0.54	mg/l
Electrical Conductivity	683	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	17.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.10	mg/l
Manganese	0.05	mg/l
Sodium	35.4	mg/l
Calcium	88.8	mg/l
Potassium	5.04	mg/l
Magnesium	21.3	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

Resubmission

RECEIVED
DEC 19 1988
Ans'd .....S.L.D

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

Attn: Ron Helgerson

LAB NO. F54152

REPORTED 09/28/88

SAMPLE Water

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

RECEIVED 09/~~27~~ 23/88

EPA Method 601:	C1-CW3-02, 18:00 (well ID (C1-CW3))	C1-CW1-[redacted], 16:00
Trichloroethylene	ND< 5 µg/l	ND< 5 µg/l
Tetrachloroethylene	ND< 5 µg/l	ND< 5 µg/l

EPA Method 624:	C1-CW3-01, 15:00 (Equipment blank)	C1-CW2, 14:30
Trichloroethylene	ND< 5 µg/l	ND< 5 µg/l
Tetrachloroethylene	ND< 5 µg/l	ND< 5 µg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

Resubmission
1-17-89
SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, CA 91520-5221

Attn: Ron Helgerson

LAB NO. F54152

REPORTED 01/13/89

SAMPLE Water

RECEIVED 09/23/88

IDENTIFICATION Project #8803128.13

BASED ON SAMPLE As Submitted

EPA Method 624:	C1-CW3-02, 18:00	C1-CW1-~~06~~ SKD, 16:00
Methylene Chloride	16 µg/l	14 µg/l
Trichloroethylene	ND< 5 µg/l	ND< 5 µg/l
Tetrachloroethylene	ND< 5 µg/l	ND< 5 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

RECEIVED
DEC 06 1988
Ans'd

ASSOCIATED LABORATORIES
806 North Batavia · Orange, California 92668 · 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO F54152
REPORTED 11/17/88

SAMPLE Water
RECEIVED 09/27/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625:	C1-CW2 @ 14:30	C1-CW1 @ 16:00
Di-n-butylphthalate	16 µg/l	11 µg/l

All other compounds were None Detected. See attached list.

Equipment blank

Semi-Volatile Organics EPA 625:	C1-CW3-01 @ 15:00	C1-CW3-02 @ 18:00
Di-n-butylphthalate	51 µg/l	52 µg/l
Butylbenzylphthalate	* ND	11 µg/l
bis(2-Ethylhexyl)phthalate	* ND	20 µg/l
Di-n-octylphthalate	* ND	23 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. CLUSTER AREA 8

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
C1-CW4	652-662	C1-CW4
C1-CW5	376-386	C1-CW5
C1-CW6	232-252	C1-CW6
Duplicate of	C1-CW6	C1-CW7

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54244-2
REPORTED 10/27/88

SAMPLE Water
RECEIVED 09/29/88

IDENTIFICATION Proj. # 8803128.13
Sample # C-1-CW4, 13:30, 09/27/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	422	mg/l
Sulfate	109	mg/l
Alkalinity ($CaCO_3$)	205	mg/l
Chloride	11.3	mg/l
Fluoride	0.93	mg/l
Electrical Conductivity	638	µmhos/cm
Bromide	0.3	mg/l
Nitrate (NO_3)	15.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.38	mg/l
Manganese	0.08	mg/l
Sodium	31.2	mg/l
Calcium	73.6	mg/l
Potassium	3.61	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54244-4
REPORTED 10/27/88

SAMPLE Water
RECEIVED 09/29/88

IDENTIFICATION Proj. # 8803128.13
Sample # C-1-CW5, 16:35, 09/27/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	344	mg/l
Sulfate	60.6	mg/l
Alkalinity ($CaCO_3$)	227	mg/l
Chloride	10.8	mg/l
Fluoride	0.69	mg/l
Electrical Conductivity	578	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	14.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	0.04	mg/l
Sodium	27.0	mg/l
Calcium	68.7	mg/l
Potassium	3.26	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54244-3

REPORTED 10/27/88

SAMPLE Water

RECEIVED 09/29/88

IDENTIFICATION Proj. # 8803128.13
Sample # C-1-CW6, 18:05, 09/27/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	614	mg/l
Sulfate	79.4	mg/l
Alkalinity ($CaCO_3$)	262	mg/l
Chloride	39.7	mg/l
Fluoride	0.50	mg/l
Electrical Conductivity	937	µmhos/cm
Bromide	0.1	mg/l
Nitrate (NO_3)	102	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.05	mg/l
Manganese	0.02	mg/l
Sodium	32.7	mg/l
Calcium	118	mg/l
Potassium	5.02	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

C1-CW7
Duplicate of C1-CW6

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54244-1
REPORTED 10/27/88

SAMPLE Water
RECEIVED 09/29/88

IDENTIFICATION Proj. # 8803128.13
Sample # C-1-CW7, 10:20, 09/27/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	607	mg/l
Sulfate	81.2	mg/l
Alkalinity ($CaCO_3$)	259	mg/l
Chloride	40.0	mg/l
Fluoride	0.51	mg/l
Electrical Conductivity	837	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	103	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.05	mg/l
Manganese	0.02	mg/l
Sodium	33.5	mg/l
Calcium	121	mg/l
Potassium	5.25	mg/l

ASSOCIATED LABORATORIES

Edward S. Benare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

Received
10/25/88
SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54244
REPORTED 10/20/88

SAMPLE Water
IDENTIFICATION Proj. #88-03128.13
BASED ON SAMPLE As Submitted

RECEIVED 09/29/88

Purgeable Organics EPA 624:	C1-CW7 @ 10:20	C1-CW4 @ 13:30
Acetone	---- ND	58 µg/l
Trichloroethene	6 µg/l	----
Tetrachloroethene	---- ND	6 µg/l

All other compounds were None Detected. See attached list.

Purgeable Organics EPA 624:	C1-CW6 @ 18:05	C1-CW5 @ 16:35
Trichloroethene	8 µg/l	----
PCE	ND	ND

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Benare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

RECEIVED
NOV 21 1988
Ans'd SKA

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F54244
REPORTED 11/17/88

SAMPLE Water
IDENTIFICATION Proj. #88-03128.13
BASED ON SAMPLE As Submitted

RECEIVED 09/29/88

Semi-Volatile Organics EPA 625:	C1-CW7 @ 10:20	Duplicate of C1-CW6 C1-CW4 @ 13:30
Di-n-butylphthalate	12 µg/l	12 µg/l

All other compounds were None Detected. See attached list.

Semi-Volatile Organics EPA 625:	C1-CW6 @ 18:05	C1-CW5 @ 16:35
Di-n-butylphthalate	10 µg/l	* ND
bis(2-Ethylhexyl)phthalate	* ND	15 µg/l
Di-n-octylphthalate	* ND	17 µg/l

* None Detected

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

APPENDIX F-2

ANALYTICAL TECHNOLOGIES, INC.
LABORATORY REPORTS

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. A1-MW1

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	153-193	A1-MW1-02
2	235-255	A1-MW1-03
3	297-317	" 04
4	338-378	" 05
5	441-461	" 06
6	482-502	" 07

Equipment Blank A1-MW1-01

A1-MW1-01
Equipment
Blank

RECEIVED
DEC 02 1988
Ans'd S.K.D.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55158-1
REPORTED 11/07/88

SAMPLE Water
RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW1-01 @ 10:00
Sample Point - A1-MW1
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	ND<10	mg/l
Sulfate	ND< 0.1	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	ND< 0.1	mg/l
Fluoride	0.025	mg/l
Electrical Conductivity	1.7	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.04	mg/l
Manganese	ND< 0.002	mg/l
Sodium	0.80	mg/l
Calcium	0.35	mg/l
Potassium	0.80	mg/l
Magnesium	0.06	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

A1-MW1-02

RECEIVED
DEC 02 1988
Ans'd SLD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55158-2

REPORTED 11/07/88

SAMPLE Water

RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW1-02 @ 12:00
Sample Point - A1-MW1
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	486	mg/l
Sulfate	53	mg/l
Alkalinity ($CaCO_3$)	238	mg/l
Alkalinity (Bicarbonate)	290	
Chloride	23.4	mg/l
Fluoride	0.60	mg/l
Electrical Conductivity	685	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	57.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.04	mg/l
Manganese	0.007	mg/l
Sodium	31.3	mg/l
Calcium	83.7	mg/l
Potassium	5.25	mg/l
Magnesium	21.7	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55213-1
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW1-03 @ 14:00
Sample Point - A1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	478	mg/l
Sulfate	58.9	mg/l
Alkalinity ($CaCO_3$)	240	mg/l
Alkalinity (Bicarbonate)	293	mg/l
Chloride	30.5	mg/l
Fluoride	0.69	mg/l
Electrical Conductivity	716	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	59.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.07	mg/l
Manganese	0.008	mg/l
Sodium	32.5	mg/l
Calcium	85.7	mg/l
Potassium	4.88	mg/l
Magnesium	22.5	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd .....

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55213-2
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW1-04 @ 16:00
Sample Point - A1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	466	mg/l
Sulfate	67.8	mg/l
Alkalinity ($CaCO_3$)	240	mg/l
Alkalinity (Bicarbonate)	293	mg/l
Chloride	31.4	mg/l
Fluoride	0.68	mg/l
Electrical Conductivity	710	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	56.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.07	mg/l
Manganese	0.01	mg/l
Sodium	32.3	mg/l
Calcium	84.0	mg/l
Potassium	4.75	mg/l
Magnesium	22.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55213-3
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW1-05 @ 18:00
Sample Point - A1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	468	mg/l
Sulfate	57.7	mg/l
Alkalinity ($CaCO_3$)	240	mg/l
Alkalinity (Bicarbonate)	293	mg/l
Chloride	33.5	mg/l
Fluoride	0.66	mg/l
Electrical Conductivity	706	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	57.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.09	mg/l
Manganese	0.007	mg/l
Sodium	32.3	mg/l
Calcium	84.5	mg/l
Potassium	4.92	mg/l
Magnesium	22.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

RECEIVED
DEC 02 1988
Ans'd .....

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55212-1
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW1-06 @ 20:00
Sample Point - A1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	468	mg/l
Sulfate	68.7	mg/l
Alkalinity ($CaCO_3$)	216	mg/l
Alkalinity (Bicarbonate)	264	mg/l
Chloride	30.0	mg/l
Fluoride	0.69	mg/l
Electrical Conductivity	700	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	56.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.07	mg/l
Manganese	0.02	mg/l
Sodium	32.1	mg/l
Calcium	84.3	mg/l
Potassium	4.72	mg/l
Magnesium	22.0	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
DEC 02 1988
Ans'd

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55212-2
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW1-07 @ 21:00
Sample Point - A1-MW1

BASED ON SAMPLE As Submitted

Total Dissolved Solids	478	mg/l
Sulfate	62.8	mg/l
Alkalinity ($CaCO_3$)	240	mg/l
Alkalinity (Bicarbonate)	293	mg/l
Chloride	31.0	mg/l
Fluoride	0.67	mg/l
Electrical Conductivity	700	µmhos/cm
Bromide	0.3	mg/l
Nitrate (NO_3)	55.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.07	mg/l
Manganese	0.01	mg/l
Sodium	31.7	mg/l
Calcium	83.6	mg/l
Potassium	4.72	mg/l
Magnesium	21.8	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

RECEIVED
NOV 23 1988
Ans'd ...S.K.D.

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/22/88

SAMPLE Water
RECEIVED 10/05/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
Sample Point - A1-MW1

BASED ON SAMPLE As Submitted

equip. blank

Purgeable Organics EPA 624:	[redacted] @ 10:00	[redacted] @ 12:00
Methylene chloride	15 µg/l	12 µg/l
Acetone	* ND	27 µg/l
Trichloroethene	ND< 5 µg/l	2,520 µg/l
Tetrachloroethene	ND< 5 µg/l	4,604 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

RECEIVED
NOV 28 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55213
REPORTED 11/23/88

SAMPLE Water
RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
Samplie Point - A1-MW1

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624	A1-MW1-03 @ 14:00	A1-MW1-04 @ 16:00	A1-MW1-0 @ 18:00
Trichloroethene	550 µg/l	539 µg/l	256 µg/l
Tetrachloroethene	857 µg/l	826 µg/l	371 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

RECEIVED
NOV 28 1988
Ans'd

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55212
REPORTED 11/23/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
BASED ON SAMPLE Samplie Point - A1-MW1
As Submitted

SKD 12/6/88

Purgeable Organics EPA 624	A1-MW1-06 @ 20:00	A1-MW1-07 @ 21:00
Methylene chloride	* ND	13 µg/l
Trichloroethene	730 µg/l	551 µg/l
Tetrachloroethene	1,169 µg/l	826 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
DEC 02 1988
Ans'd ....SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55158
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
Sample Point - A1-MW1

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625:	A1-MW1-01 @ 10:00	A1-MW1-02 @ 12:00
bis(2-Ethylhexyl)phthalate	12 µg/l	14 µg/l
Di-n-octylphthalate	18 µg/l	17 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans ..... SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55213
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
BASED ON SAMPLE Samplie Point - A1-MW1
As Submitted

Semi-Volatile Organics EPA 625	A1-MW1-03 @ 14:00	A1-MW1-04 @ 16:00	A1-MW1-05 @ 18:00
Di-n-octylphthalate	12 µg/l	10 µg/l	11 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

RECEIVED
DEC 02 1988
Ans'd ....S.K.D.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55212
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
Samplie Point - A1-MW1

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	A1-MW1-06 @ 20:00	A1-MW1-07 @ 21:00
Di-n-butylphthalate	17 µg/l	* ND
bis(2-Ethylhexyl)phthalate	14 µg/l	* ND
Di-n-octylphthalate	20 µg/l	19 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. A1-MW2

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	158 - 198	0202
2	270 - 290	0203
3	352 - 392	0204
Equipment Blank		0201

A1-MW2-01 ✓
Equipment Blank

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

LAB NO. F52638-1
REPORTED 10/03/88

Attn: Ron Helgerson

SAMPLE Water
RECEIVED 08/24/88

IDENTIFICATION Proj. # 8803128.13. Sample point #02
Sample #0201 @ 09:30 8/23
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	27	mg/l
Sulfate	ND< 0.5	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	ND< 0.1	mg/l
Fluoride	0.025	mg/l
Electrical Conductivity	2.5	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.8	mg/l
Manganese	0.005	mg/l
Sodium	0.91	mg/l
Calcium	0.52	mg/l
Potassium	ND< 0.3	mg/l

Purgeable Organics EPA 624:

Benzene	28	µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

A1-MW2-02

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

LAB NO. F52638-2
REPORTED 10/03/88

Attn: Ron Helgerson

SAMPLE Water
RECEIVED 08/24/88

IDENTIFICATION Proj. # 8803128.13. Sample point #02
Sample #0202 @ 16:00 8/23
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	482	mg/l
Sulfate	48.5	mg/l
Alkalinity ($CaCO_3$)	270	mg/l
Chloride	21.7	mg/l
Fluoride	0.43	mg/l
Electrical Conductivity	710	µmhos/cm
Bromide	0.8	mg/l
Nitrate (NO_3)	65.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.09	mg/l
Iron	0.12	mg/l
Manganese	0.004	mg/l
Sodium	29.7	mg/l
Calcium	73.2	mg/l
Potassium	4.43	mg/l

Purgeable Organics EPA 624:

1,1-Dichloroethylene	10	µg/l
Chloroform	22	µg/l
Trichloroethylene	313	µg/l
Tetrachloroethylene	585	µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

A1-MW2-03

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

LAB NO. F52638-3
REPORTED 10/03/88

Attn: Ron Helgerson

SAMPLE Water
RECEIVED 08/24/88

IDENTIFICATION Proj. # 8803128.13. Sample point #02
Sample #0203 @ 18:30 8\23
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	402	mg/l
Sulfate	59.2	mg/l
Alkalinity ($CaCO_3$)	189	mg/l
Chloride	19.6	mg/l
Fluoride	0.55	mg/l
Electrical Conductivity	571	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	32.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.016	mg/l
Iron	0.08	mg/l
Manganese	0.004	mg/l
Sodium	27.9	mg/l
Calcium	65.6	mg/l
Potassium	4.22	mg/l

Purgeable Organics EPA 624:

Trichloroethylene	158	µg/l
Tetrachloroethylene	488	µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

A1-MW2-04

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Burbank, Ca. 91520-5221

LAB NO. F52638-4
REPORTED 10/03/88

Attn: Ron Helgerson

SAMPLE Water
RECEIVED 08/24/88

IDENTIFICATION Proj. # 8803128.13. Sample point #02
Sample #0204 @ 20:30 8/23
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	412	mg/l
Sulfate	64.8	mg/l
Alkalinity ($CaCO_3$)	194	mg/l
Chloride	19.7	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	580	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	33.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.025	mg/l
Iron	0.27	mg/l
Manganese	0.007	mg/l
Sodium	29.0	mg/l
Calcium	67.5	mg/l
Potassium	4.25	mg/l

Purgeable Organics EPA 624:

Trichloroethylene	229	µg/l
Tetrachloroethylene	523	µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. A1-MW3

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	168-208	A1-MW3-01
Duplicate of interval # 1		A1-MW3-02
2	219-239	" 03
3	263-283	" 04
4	294-314	" 05
5	362-402	" 06
6	426-446	" 07
Trip Blank		A1-MW3-08

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55008-2
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 88-03128.13, 10/15/88, A-1-MW3-01 @ 17:00
Sample Point - B-1-MW9 / A1-MW3

BASED ON SAMPLE As Submitted

Dup of 02

Total Dissolved Solids	456	mg/l
Sulfate	43.5	mg/l
Alkalinity ($CaCO_3$)	284	mg/l
Alkalinity (Bicarbonate)	346	mg/l
Chloride	27.8	mg/l
Fluoride	0.59	mg/l
Electrical Conductivity	740	µmhos/cm
Bromide	1.0	mg/l
Nitrate (NO_3)	56.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.06	mg/l
Manganese	0.002	mg/l
Sodium	30.6	mg/l
Calcium	92.0	mg/l
Potassium	4.81	mg/l
Magnesium	22.7	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

✓ KAL 12-[illegible]-88

Duplicate of A-1-MW3-01

RECEIVED
NOV 21 1988
Ans'd ....SKD.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55008-3
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 88-03128.13, 10/15/88, A-1-MW3-02 @ 19:00
Sample Point - B-1-MW9 / A1-MW3

BASED ON SAMPLE As Submitted

Total Dissolved Solids	467	mg/l
Sulfate	50.0	mg/l
Alkalinity ($CaCO_3$)	281	mg/l
Alkalinity (Bicarbonate)	343	mg/l
Chloride	26.6	mg/l
Fluoride	0.59	mg/l
Electrical Conductivity	735	µmhos/cm
Bromide	0.9	mg/l
Nitrate (NO_3)	56.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.06	mg/l
Manganese	0.004	mg/l
Sodium	30.4	mg/l
Calcium	93.7	mg/l
Potassium	4.98	mg/l
Magnesium	22.9	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

RECEIVED
NOV 21 1988
Ans'd ...SKD...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55009

REPORTED 11/11/88

SAMPLE Water

RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13, 10/15/88, A1-MW3-03 @ 20:00
Sample Point - A1-MW3
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	442	mg/l
Sulfate	56.4	mg/l
Alkalinity ($CaCO_3$)	278	mg/l
Alkalinity (Bicarbonate)	339	mg/l
Chloride	19.6	mg/l
Fluoride	0.61	mg/l
Electrical Conductivity	720	µmhos/cm
Bromide	1.0	mg/l
Nitrate (NO_3)	55.9	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	0.04	mg/l
Sodium	31.8	mg/l
Calcium	92.7	mg/l
Potassium	5.03	mg/l
Magnesium	23.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

RECEIVED
NOV 21 1988
Ans'd .....

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55159-1

REPORTED 11/07/88

SAMPLE Water

RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/16/88, A1-MW3-04 @ 12:00
Sample Point - A1-MW3

BASED ON SAMPLE As Submitted

Total Dissolved Solids	444	mg/l
Sulfate	60.4	mg/l
Alkalinity ($CaCO_3$)	230	mg/l
Alkalinity (Bicarbonate)	280	mg/l
Chloride	24.8	mg/l
Fluoride	0.66	mg/l
Electrical Conductivity	665	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	43.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	0.02	mg/l
Sodium	30.6	mg/l
Calcium	78.4	mg/l
Potassium	5.25	mg/l
Magnesium	19.9	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55159-2

REPORTED 11/07/88

SAMPLE Water

RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/16/88, A1-MW3-05 @ 15:30
Sample Point - A1-MW3
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	398	mg/l
Sulfate	56.9	mg/l
Alkalinity ($CaCO_3$)	213	mg/l
Alkalinity (Bicarbonate)	260	mg/l
Chloride	24.8	mg/l
Fluoride	0.69	mg/l
Electrical Conductivity	612	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	31.4	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.06	mg/l
Manganese	0.02	mg/l
Sodium	29.3	mg/l
Calcium	71.4	mg/l
Potassium	5.07	mg/l
Magnesium	18.2	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55159-3

REPORTED 11/07/88

SAMPLE Water

RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/16/88, A1-MW3-06 @ 17:30
Sample Point - A1-MW3
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	418	mg/l
Sulfate	65.6	mg/l
Alkalinity ($CaCO_3$)	227	mg/l
Alkalinity (Bicarbonate)	277	mg/l
Chloride	23.6	mg/l
Fluoride	0.65	mg/l
Electrical Conductivity	658	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	43.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.08	mg/l
Manganese	0.03	mg/l
Sodium	30.7	mg/l
Calcium	79.6	mg/l
Potassium	5.35	mg/l
Magnesium	20.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55160-1
REPORTED 11/08/88

SAMPLE Water
RECEIVED 10/01/88

IDENTIFICATION Proj. # 8803128.13, 10/17/88, A1-MW3-07 @ 10:00
Sampoint Point - A1-MW3
BASED ON SAMPLE As Submitted

Total Dissolved Solids	414	mg/l
Sulfate	55.8	mg/l
Alkalinity ($CaCO_3$)	238	mg/l
Alkalinity (Bicarbonate)	290	mg/l
Chloride	18.4	mg/l
Fluoride	0.64	mg/l
Electrical Conductivity	661	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	48.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.09	mg/l
Manganese	0.02	mg/l
Sodium	30.6	mg/l
Calcium	79.8	mg/l
Potassium	5.32	mg/l
Magnesium	20.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

TRIP BLANK

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55160-2

REPORTED 11/08/88

11/16/88 SKD

SAMPLE Water

RECEIVED 10/~~01~~ 18/88

IDENTIFICATION Proj. # 8803128.13, 10/17/88, A1-MW3-08 @ 13:00
Sampoint Point - A1-MW3

BASED ON SAMPLE As Submitted

Total Dissolved Solids	ND<	10	mg/l
Sulfate		5.60	mg/l
Alkalinity ($CaCO_3$)	ND<	1	mg/l
Chloride		1.90	mg/l
Fluoride		0.018	mg/l
Electrical Conductivity		2.4	µmhos/cm
Bromide	ND<	0.1	mg/l
Nitrate (NO_3)		[illegible]	mg/l
Sulfide	ND<	0.1	mg/l
Phosphate, Total (P)	ND<	0.01	mg/l
Iron		0.05	mg/l
Manganese	ND<	0.002	mg/l
Sodium		0.81	mg/l
Calcium		0.25	mg/l
Potassium		0.90	mg/l
Magnesium		0.06	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson,

LAB NO. F55008
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:	B1-MW9-07 @ 13:00	A1-MW3-01 @ 17:00	A1-MW3-02 @ 19:00
Methylene chloride	11 µg/l	9 µg/l	* ND
Acetone	* ND	13 µg/l	* ND
1,2-Dichloroethene	* ND	11 µg/l	14 µg/l
Trichloroethene	747 µg/l	338 µg/l	284 µg/l
Tetrachloroethene	1,554 µg/l	158 µg/l	148 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

RECEIVED
NOV 21 1988
Ans'd SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55009

REPORTED 11/17/88

SAMPLE Water

RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13, 10/15/88, A1-MW3-03 @ 20:00
Sample Point - A1-MW3

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624

Trichloroethene	419 µg/l
Tetrachloroethene	335 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd ....S.W.D.

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55159
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/16/88
Sample Point - A1-MW3

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:	A1-MW3-04 @ 12:00	A1-MW3-05 @ 15:30	A1-MW3-06 @ 17:30
Methylene chloride	* ND	16 µg/l	14 µg/l
Acetone	* ND	45 µg/l	36 µg/l
Trichloroethene	602 µg/l	300 µg/l	429 µg/l
Tetrachloroethene	1,103 µg/l	506 µg/l	626 µg/l

* None Detected.
All other compounds were None Dectected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
NOV 28 1988
Ans'd ...SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55160

REPORTED 11/23/88

SAMPLE Water

RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/17/88

BASED ON SAMPLE Samplie Point - A1-MW3
As Submitted

Purgeable Organics EPA 624	A1-MW3-07 @ 10:00	A1-MW3-08 @ 13:00
Methylene Chloride	* ND	16 µg/l
Acetone	15 µg/l	22 µg/l
Trichloroethene	472 µg/l	ND<5 µg/l
Tetrachloroethene	623 µg/l	ND<5 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55008
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

Duplicates

Semi-Volatile Organics EPA 625:	B1-MW9-07 @ 13:00	A1-MW3-01 @ 17:00	A1-MW3-02 @ 19:00
bis(2-Ethylhexyl)phthalate	23 µg/l	15 µg/l	19 µg/l
Di-n-octylphthalate	29 µg/l	18 µg/l	25 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

RECEIVED
DEC 02 1988
Ans'd .....

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55009
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/15/88

IDENTIFICATION Proj. # 8803128.13, 10/15/88, A1-MW3-03 @ 20:00
Sample Point - A1-MW3

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625

bis(2-Ethylhexyl)phthalate	17 µg/l
Di-n-octylphthalate	22 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
DEC 08 1988
Ans'd ...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55159
REPORTED 12/05/88

SAMPLE Water
RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/16/88
Sample Point - A1-MW3

BASED ON SAMPLE As Submitted

Semi-Volatile Orgnaics EPA 625:	A1-MW3-04 @ 12:00	A1-MW3-05 @ 15:30	A1-MW3-06 @ 17:30
bis(2-Ethylhexyl)phthalate	* ND	* ND	10 µg/l
Di-n-octylphthalate	12 µg/l	16 µg/l	23 µg/l

* None Detected.
All other compounds were None Dectected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

RECEIVED
DEC 02 1988
Ans'd .....

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55160

REPORTED 11/30/88

SAMPLE Water

RECEIVED 10/18/88

IDENTIFICATION Proj. # 8803128.13, 10/17/88

BASED ON SAMPLE Samplie Point - A1-MW3
As Submitted

Semi-Volatile Organics EPA 625	A1-MW3-07 @ 10:00	A1-MW3-08 @ 13:00
bis(2-Ethylhexyl)phthalate	12 µg/l	14 µg/l
Di-n-octylphthalate	17 µg/l	16 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. A1-MW4

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	144-184	A1-MW4-01
2	208-228	03
3	276-296	04
4	320-340	05
5	364-384	06
6	432-452	07
7	476-496	08
8	520-540	09
9	600-620	10
10	692-712	11
11	808-828	12

Equipment Blank A1-MW4-02

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd ...SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55214-1
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW4-01 @ 11:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	425	mg/l
Sulfate	53.8	mg/l
Alkalinity ($CaCO_3$)	243	mg/l
Alkalinity (Bicarbonate)	296	mg/l
Chloride	25.9	mg/l
Fluoride	0.63	mg/l
Electrical Conductivity	652	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	40.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.05	mg/l
Iron	0.08	mg/l
Manganese	0.003	mg/l
Sodium	31.6	mg/l
Calcium	78.3	mg/l
Potassium	4.78	mg/l
Magnesium	20.4	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

Equipment Blank

* *

RECEIVED
DEC 02 1988
Ans'd SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55214-2
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW4-02 @ 13:00 ✓
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	410	mg/l
Sulfate	114	mg/l
Alkalinity ($CaCO_3$)	97.2	mg/l
Alkalinity (Bicarbonate)	119	mg/l
Chloride	87.5	mg/l
Fluoride	0.24	mg/l
Electrical Conductivity	*665	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	1.79	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.10	mg/l
Manganese	0.02	mg/l
Sodium	76.5	mg/l
Calcium	39.7	mg/l
Potassium	3.71	mg/l
Magnesium	19.4	mg/l

?

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

Mark group's documentation indicates that it is an equipment blank

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

Conductivity rechecked by Assoc. Labs (12/20/88) = 743 umho/cm

SKD 12/14/88

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

:-1 10M

** Flag these data as suspect. Assoc. Labs confirmed sample documentation

RECEIVED
DEC 02 1988
Ans'd S.K.D.

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55214-3

REPORTED 11/29/88

SAMPLE Water

RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88, A1-MW4-03 @ 16:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	428	mg/l
Sulfate	62.9	mg/l
Alkalinity ($CaCO_3$)	243	mg/l
Alkalinity (Bicarbonate)	296	mg/l
Chloride	24.5	mg/l
Fluoride	0.64	mg/l
Electrical Conductivity	654	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	39.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.07	mg/l
Manganese	0.007	mg/l
Sodium	31.8	mg/l
Calcium	78.9	mg/l
Potassium	4.81	mg/l
Magnesium	20.6	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

OM

RECEIVED
NOV 21 1988
Ans'd SKA

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55215-1

REPORTED 11/16/88

SAMPLE Water

RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-04 @ 10:00
Sample Point - A1-MW4-04

BASED ON SAMPLE As Submitted

Total Dissolved Solids	418	mg/l
Sulfate	51.3	mg/l
Alkalinity ($CaCO_3$)	243	mg/l
Alkalinity (Bicarbonate)	296	mg/l
Chloride	22.8	mg/l
Fluoride	0.70	mg/l
Electrical Conductivity	638	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	28.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.07	mg/l
Manganese	0.01	mg/l
Sodium	30.6	mg/l
Calcium	76.8	mg/l
Potassium	4.63	mg/l
Magnesium	20.4	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

1 10M

RECEIVED
NOV 21 1988
Ans'd

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55215-2
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-05 @ 12:00
Sample Point - A1-MW4-04

BASED ON SAMPLE As Submitted

Total Dissolved Solids	384	mg/l
Sulfate	63.8	mg/l
Alkalinity ($CaCO_3$)	230	mg/l
Alkalinity (Bicarbonate)	280	mg/l
Chloride	25.4	mg/l
Fluoride	0.68	mg/l
Electrical Conductivity	611	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	26.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.10	mg/l
Manganese	0.02	mg/l
Sodium	30.3	mg/l
Calcium	72.3	mg/l
Potassium	4.47	mg/l
Magnesium	19.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
NOV 21 1988
Ans'd ....

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55215-3
REPORTED 11/16/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-06 @ 13:30
Sample Point - A1-MW4-04
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	380	mg/l
Sulfate	55.2	mg/l
Alkalinity ($CaCO_3$)	224	mg/l
Alkalinity (Bicarbonate)	273	mg/l
Chloride	21.6	mg/l
Fluoride	0.70	mg/l
Electrical Conductivity	590	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	21.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.11	mg/l
Manganese	0.01	mg/l
Sodium	30.2	mg/l
Calcium	70.7	mg/l
Potassium	4.35	mg/l
Magnesium	18.5	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SLCD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55281-1
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-07 @ 16:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	368	mg/l
Sulfate	53.2	mg/l
Alkalinity ($CaCO_3$)	219	mg/l
Alkalinity (Bicarbonate)	267	mg/l
Chloride	24.3	mg/l
Fluoride	0.68	mg/l
Electrical Conductivity	587	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	26.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.10	mg/l
Manganese	0.01	mg/l
Sodium	29.3	mg/l
Calcium	68.8	mg/l
Potassium	4.13	mg/l
Magnesium	18.1	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

DM

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd S.K.D.

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55281-2
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-08 @ 18:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	690	mg/l
Sulfate	137	mg/l
Alkalinity ($CaCO_3$)	119	mg/l
Alkalinity (Bicarbonate)	145	mg/l
Chloride	219	mg/l
Fluoride	0.59	mg/l
Electrical Conductivity	1,220	µmhos/cm
Bromide	1.1	mg/l
Nitrate (NO_3)	16.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.26	mg/l
Manganese	0.16	mg/l
Sodium	162	mg/l
Calcium	62.0	mg/l
Potassium	2.81	mg/l
Magnesium	9.58	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd ...

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55281-3
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-09 @ 20:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	758	mg/l
Sulfate	111	mg/l
Alkalinity ($CaCO_3$)	89.1	mg/l
Alkalinity (Bicarbonate)	109	mg/l
Chloride	312	mg/l
Fluoride	0.55	mg/l
Electrical Conductivity	1,350	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.76	mg/l
Manganese	0.18	mg/l
Sodium	192	mg/l
Calcium	58.8	mg/l
Potassium	2.25	mg/l
Magnesium	6.89	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55281-4
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-10 @ 22:00
Sample Point - A1-MW4
BASED ON SAMPLE As Submitted

Total Dissolved Solids	750	mg/l
Sulfate	115	mg/l
Alkalinity ($CaCO_3$)	89.1	mg/l
Alkalinity (Bicarbonate)	109	mg/l
Chloride	313	mg/l
Fluoride	0.56	mg/l
Electrical Conductivity	1,350	µmhos/cm
Bromide	1.3	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.38	mg/l
Manganese	0.42	mg/l
Sodium	198	mg/l
Calcium	60.0	mg/l
Potassium	2.38	mg/l
Magnesium	7.03	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55281-5
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88, A1-MW4-11 @ 11:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	766	mg/l
Sulfate	130	mg/l
Alkalinity ($CaCO_3$)	89.1	mg/l
Alkalinity (Bicarbonate)	109	mg/l
Chloride	314	mg/l
Fluoride	0.54	mg/l
Electrical Conductivity	1,370	µmhos/cm
Bromide	1.4	mg/l
Nitrate (NO_3)	ND< 0.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.41	mg/l
Manganese	0.29	mg/l
Sodium	195	mg/l
Calcium	59.4	mg/l
Potassium	2.51	mg/l
Magnesium	6.70	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55366
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/21/88

IDENTIFICATION Proj. # 8803128.13, 10/20/88, A1-MW4-12 @ 20:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Total Dissolved Solids	394	mg/l
Sulfate	55.7	mg/l
Alkalinity ($CaCO_3$)	221	mg/l
Alkalinity (Bicarbonate)	270	mg/l
Chloride	31.7	mg/l
Fluoride	0.66	mg/l
Electrical Conductivity	594	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	24.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.10	mg/l
Manganese	0.53	mg/l
Sodium	30.5	mg/l
Calcium	69.9	mg/l
Potassium	4.25	mg/l
Magnesium	18.3	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

RECEIVED
DEC 02 1988
Ans'd ....

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55214
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
Sample Point - A1-MW4
BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624	A1-MW4-01 @ 11:00	A1-MW4-02 @ 13:00 (equipment blank)	A1-MW4-03 @ 16:00
Methylene chloride	35 µg/l J	120 µg/l	150 µg/l
Acetone	* ND	16 µg/l	21 µg/l
Trichloroethene	418 µg/l	ND< 5 µg/l	354 µg/l
Tetrachloroethene	406 µg/l	ND< 5 µg/l	535 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

* Flag data as suspect. Assoc. Labs confirmed sample documentation. May be sample other than equip. blank.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

OM

RECEIVED
DEC 02 1988
Ans'd .....

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55215

REPORTED 11/30/88

SAMPLE Water

RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:	A1-MW4-04 @ 10:00	A1-MW4-05 @ 12:00	A1-MW4-06 @ 13:30
Methylene chloride	20 µg/l	17 µg/l	42 µg/l
Acetone	14 µg/l	* ND	* ND
Trichloroethene	274 µg/l	234 µg/l	167 µg/l
Tetrachloroethene	411 µg/l	353 µg/l	230 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/gl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

e reports of the Associated Laboratories are confidential property of our clients and
ıy not be reproduced or used for publication in part or in full without our written
rmission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd ...SKD

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55281
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. #88-03128.13 - 10/19/88
Sample Point - A1-MW4
BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624	A1-MW4-07 @ 16:00	A1-MW4-08 @ 18:00	A1-MW4-09 @ 20:00
Methylene chloride	37 µg/l	31 µg/l	22 µg/l
Trichloroethene	147 µg/l	70 µg/l	ND<5 µg/l
Tetrachloroethene	209 µg/l	97 µg/l	ND<5 µg/l

All other compounds were None Detected. See attached list.

Purgeable Organics EPA 624	A1-MW4-10 @ 22:00	A1-MW4-11 @ 11:00
Methylene chloride	22 µg/l	-----
Trichloroethene	9 µg/l	ND<5 µg/l
Tetrachloroethene	17 µg/l	16 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
OK Ans'd SKD

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55366
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. #88-03128.13 - 10/20/88, A1-MW4-12 @ 20:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Purgeable Organics EPA 624:

Trichloroethene	188 µg/l
Tetrachloroethene	280 µg/l

All other compounds werre None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

RECEIVED
DEC 08 1988
Ans'd SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55214
REPORTED 12/05/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/18/88
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Equip Blank

Semi-Volatile Organics EPA 625	A1-MW4-01 @ 11:00	A1-MW4-02 @ 13:00	A1-MW4-03 @ 16:00
bis(2-Ethylhexyl)phthalate	13 µg/l	* ND	10 µg/l
Di-n-octylphthalate	15 µg/l	11 µg/l	12 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

RECEIVED
DEC 02 1988
Ans'd ...SKD

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55215
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/19/88

IDENTIFICATION Proj. # 8803128.13, 10/19/88
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	A1-MW4-04 @ 10:00	A1-MW4-05 @ 12:00	A1-MW4-06 @ 13:30
bis(2-Ethylhexyl)phthalate	11 µg/l	* ND	* ND
Di-n-octylphthalate	15 µg/l	* ND	12 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd ....

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55281
REPORTED 11/30/88

SAMPLE Water
RECEIVED 10/20/88

IDENTIFICATION Proj. #88-03128.13 - 10/19/88
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625	A1-MW4-07 @ 16:00	A1-MW4-08 @ 18:00	A1-MW4-09 @ 20:00
bis(2-Ethylhexyl)phthalate	11 µg/l	19 µg/l	23 µg/l
Di-n-octylphthalate	14 µg/l	20 µg/l	28 µg/l

All other compounds were None Detected. See attached list.

Semi-Volatile Organics EPA 625	A1-MW4-10 @ 22:00	A1-MW4-11 @ 11:00
bis(2-Ethylhexyl)phthalate	16 µg/l	22 µg/l
Di-n-octylphthalate	17 µg/l	22 µg/l

All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 02 1988
Ans'd SKB

Analysis limit data

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F55366
REPORTED 11/29/88

SAMPLE Water
RECEIVED 10/21/88

IDENTIFICATION Proj. # 8803128.13, 10/20/88, A1-MW4-12 @ 20:00
Sample Point - A1-MW4

BASED ON SAMPLE As Submitted

Semi-Volatile Organics EPA 625

Di-n-octylphthalate 12 µg/l

All other compounds were None Detected.
See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW1

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
2	194-214	B1-MW1-01
3	235-275	02
4	338-358	03
5	400-420	04
Duplicate of interval # 5		05
6	441-461	06

Received ✓
10/25/88
SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F52991-1

REPORTED 10/18/88

SAMPLE Water

RECEIVED 08/31/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW1-01, 20:30, 08/29/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	494	mg/l
Sulfate	77.0	mg/l
Alkalinity ($CaCO_3$)	259	mg/l
Chloride	28.5	mg/l
Fluoride	0.54	mg/l
Electrical Conductivity	797	µmhos/cm
Bromide	0.3	mg/l
Nitrate (NO_3)	76.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.08	mg/l
Iron	0.36	mg/l
Manganese	0.005	mg/l
Sodium	32.1	mg/l
Calcium	96.8	mg/l
Potassium	5.11	mg/l

Purgeable Organics 624:

Trichloroethene	1,130 µg/l
Tetrachloroethene	2,354 µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F52991-2
REPORTED 10/18/88

SAMPLE Water
RECEIVED 08/31/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW1-02, 8:30, 08/30/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	538	mg/l
Sulfate	75.6	mg/l
Alkalinity ($CaCO_3$)	254	mg/l
Chloride	29.2	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	813	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	74.9	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.07	mg/l
Iron	0.24	mg/l
Manganese	0.003	mg/l
Sodium	33.6	mg/l
Calcium	91.6	mg/l
Potassium	4.86	mg/l

Purgeable Organics 624:

Trichloroethene	579 µg/l
Tetrachloroethene	2,295 µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F52991-3
REPORTED 10/18/88

SAMPLE Water
RECEIVED 08/31/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW1-03, 10:00, 08/30/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	506	mg/l
Sulfate	76.3	mg/l
Alkalinity ($CaCO_3$)	251	mg/l
Chloride	29.7	mg/l
Fluoride	0.54	mg/l
Electrical Conductivity	822	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	75.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.06	mg/l
Iron	0.49	mg/l
Manganese	0.004	mg/l
Sodium	33.9	mg/l
Calcium	92.8	mg/l
Potassium	5.00	mg/l

Purgeable Organics 624:

Acetone	79	µg/l
Trichloroethene	471	µg/l
Tetrachloroethene	2,242	µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F52991-4

REPORTED 10/18/88

SAMPLE Water

RECEIVED 08/31/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW1-04, 12:00, 08/30/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	536	mg/l
Sulfate	76.0	mg/l
Alkalinity ($CaCO_3$)	251	mg/l
Chloride	29.3	mg/l
Fluoride	0.54	mg/l
Electrical Conductivity	813	µmhos/cm
Bromide	0.3	mg/l
Nitrate (NO_3)	76.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.05	mg/l
Iron	0.34	mg/l
Manganese	0.005	mg/l
Sodium	33.6	mg/l
Calcium	92.3	mg/l
Potassium	5.00	mg/l

Purgeable Organics 624:

Trichloroethene	432 µg/l
Tetrachloroethene	2,122 µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

DUP OF B1-MW1-04

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F52991-5
REPORTED 10/18/88

SAMPLE Water
RECEIVED 08/31/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW1-05, 13:00, 08/30/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	536	mg/l
Sulfate	71.8	mg/l
Alkalinity ($CaCO_3$)	248	mg/l
Chloride	29.5	mg/l
Fluoride	0.50	mg/l
Electrical Conductivity	828	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	75.7	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.06	mg/l
Iron	0.13	mg/l
Manganese	0.004	mg/l
Sodium	33.9	mg/l
Calcium	91.6	mg/l
Potassium	5.01	mg/l

Purgeable Organics 624:

Trichloroethene	522 µg/l
Tetrachloroethene	1,648 µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F52991-6
REPORTED 10/18/88

SAMPLE Water
RECEIVED 08/31/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW1-06, 16:30, 08/30/88
BASED ON SAMPLE As Submitted

Total Dissolved Solids	546	mg/l
Sulfate	77.5	mg/l
Alkalinity ($CaCO_3$)	248	mg/l
Chloride	29.8	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	822	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	79.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.09	mg/l
Iron	0.14	mg/l
Manganese	0.03	mg/l
Sodium	33.4	mg/l
Calcium	91.1	mg/l
Potassium	4.96	mg/l

Purgeable Organics 624:

Trichloroethene	382 µg/l
Tetrachloroethene	1,835 µg/l

All other compounds were None Detected, see attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW2

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
2	150-170	B1-MW2-01
Duplicate of interval # 2		02
3	229-249	03
4	318-338	04
5	380-400	05
6	421-441	06

RECEIVED
DEC 19 1988
Ans'd ...S.K.D.

Routine

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53371-1

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/09/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW2-01, 17:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	590	mg/l
Sulfate	93.6	mg/l
Alkalinity ($CaCO_3$)	289	mg/l
Chloride	28.2	mg/l
Fluoride	0.41	mg/l
Electrical Conductivity	890	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	65.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.06	mg/l
Iron	0.02	mg/l
Manganese	0.005	mg/l
Sodium	33.0	mg/l
Calcium	109	mg/l
Potassium	5.13	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

Dup of
B1-MW2-01

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53371-2
REPORTED 10/20/88

SAMPLE Water
RECEIVED 09/09/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW2-02, 18:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	526	mg/l
Sulfate	92.4	mg/l
Alkalinity ($CaCO_3$)	289	mg/l
Chloride	27.4	mg/l
Fluoride	0.39	mg/l
Electrical Conductivity	890	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	65.7	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.06	mg/l
Iron	ND< 0.005	mg/l
Manganese	0.005	mg/l
Sodium	32.4	mg/l
Calcium	110	mg/l
Potassium	4.96	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53371-3

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/09/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW2-03, 20:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	548	mg/l
Sulfate	85.9	mg/l
Alkalinity ($CaCO_3$)	273	mg/l
Chloride	28.7	mg/l
Fluoride	0.42	mg/l
Electrical Conductivity	850	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	68.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.08	mg/l
Iron	ND< 0.005	mg/l
Manganese	0.01	mg/l
Sodium	33.3	mg/l
Calcium	101	mg/l
Potassium	4.85	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53371-4
REPORTED 10/20/88

SAMPLE Water
RECEIVED 09/09/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW2-04, 09:00
BASED ON SAMPLE As Submitted

Total Dissolved Solids	502	mg/l
Sulfate	85.5	mg/l
Alkalinity ($CaCO_3$)	273	mg/l
Chloride	28.1	mg/l
Fluoride	0.40	mg/l
Electrical Conductivity	852	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	68.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.08	mg/l
Iron	0.02	mg/l
Manganese	0.008	mg/l
Sodium	33.5	mg/l
Calcium	101	mg/l
Potassium	4.40	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53371-5
REPORTED 10/20/88

SAMPLE Water
RECEIVED 09/09/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW2-05, 12:00
BASED ON SAMPLE As Submitted

Total Dissolved Solids	538	mg/l
Sulfate	86.1	mg/l
Alkalinity ($CaCO_3$)	275	mg/l
Chloride	27.3	mg/l
Fluoride	0.38	mg/l
Electrical Conductivity	864	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	67.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.06	mg/l
Iron	0.02	mg/l
Manganese	0.01	mg/l
Sodium	32.8	mg/l
Calcium	103	mg/l
Potassium	4.62	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53371-6
REPORTED 10/20/88

SAMPLE Water
RECEIVED 09/09/88

IDENTIFICATION Proj. # 8803128.13
Sample # B1-MW2-06, 15:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	554	mg/l
Sulfate	92.1	mg/l
Alkalinity ($CaCO_3$)	275	mg/l
Chloride	29.1	mg/l
Fluoride	0.39	mg/l
Electrical Conductivity	868	µmhos/cm
Bromide	0.8	mg/l
Nitrate (NO_3)	68.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.06	mg/l
Manganese	0.02	mg/l
Sodium	32.5	mg/l
Calcium	102	mg/l
Potassium	4.71	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

RECEIVED
NOV 23 1988
Ans'd ...S.K.D.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/22/88

SAMPLE Water
IDENTIFICATION Proj. # 8803128.13
BASED ON SAMPLE As Submitted

RECEIVED 09/09/88

Purgeable Organics EPA 624:	[redacted] @ 17:00	[redacted] @ 18:30	[redacted] @ 20:00
Methylene chloride	* ND	* ND	10 µg/l
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

* None Detected.
All other compounds were None Detected. See attached list.

Purgeable Organics EPA 624:	[redacted] @ 09:00	[redacted] @ 12:00	[redacted] @ 15:00
Methylene chloride	7 µg/l	* ND	26 µg/l
Acetone	14 µg/l	14 µg/l	* ND
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

* None Detected.
All other compounds were None De

PLEASE RE-SUBMIT CORRECT ANALYSIS DATES.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing d
by appropriate disposal pr ted.

The reports of the Associated Laboratories are confidential property
may not be reproduced or used for publication in part or in full withc
permission. This is for the mutual protection of the public, our clients,

& CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53371

REPORTED 11/07/88

SAMPLE Water

RECEIVED 09/09/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

	Base/Neutrals EPA Method 625
B1-MW2-01 @ 17:00	* ND
B1-MW2-02 @ 18:30	* ND
B1-MW2-03 @ 20:00	* ND
B1-MW2-04 @ 09:00	* ND
B1-MW2-05 @ 12:00	* ND
B1-MW2-06 @ 15:00	* ND

* All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW3

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	102-142	B1-MW3-02
2	174-194	03
3	236-256	04
4	298-318	05
5	339-359	06
6	422-442	07
Equipment Blank		B1-MW3-01

Equipment Blank

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53742-1
REPORTED 11/02/88

SAMPLE Water
RECEIVED 09/14/88

IDENTIFICATION Proj. # 8803128.13, B1-MW3-01 @ 11:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	ND<10	mg/l
Sulfate	6.1	mg/l
Alkalinity ($CaCO_3$)	ND< 1	mg/l
Chloride	2.2	mg/l
Fluoride	0.03	mg/l
Electrical Conductivity	3.9	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	0.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.10	mg/l
Manganese	ND< 0.002	mg/l
Sodium	3.30	mg/l
Calcium	2.07	mg/l
Potassium	ND< 0.32	mg/l
Magnesium	0.13	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53742-2
REPORTED 11/02/88

SAMPLE Water
RECEIVED 09/14/88

IDENTIFICATION Proj. # 8803128.13, B1-MW3-02 @ 14:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	512	mg/l
Sulfate	92.4	mg/l
Alkalinity ($CaCO_3$)	265	mg/l
Alkalinity (Bicarbonate)	323	mg/l
Chloride	35.8	mg/l
Fluoride	0.60	mg/l
Electrical Conductivity	733	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	55.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.06	mg/l
Manganese	0.01	mg/l
Sodium	35.6	mg/l
Calcium	106	mg/l
Potassium	5.21	mg/l
Magnesium	28.3	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/gl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53742-3

REPORTED 11/02/88

SAMPLE IDENTIFICATION BASED ON SAMPLE: Water

Proj. # 8803128.13, B1-MW3-03 @ 20:30

As Submitted

RECEIVED 09/14/88

Total Dissolved Solids	506	mg/l
Sulfate	90.0	mg/l
Alkalinity ($CaCO_3$)	248	mg/l
Alkalinity (Bicarbonate)	303	mg/l
Chloride	31.8	mg/l
Fluoride	0.62	mg/l
Electrical Conductivity	814	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	57.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.07	mg/l
Manganese	0.02	mg/l
Sodium	37.7	mg/l
Calcium	98.6	mg/l
Potassium	4.93	mg/l
Magnesium	28.6	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53742-4
REPORTED 11/02/88

SAMPLE Water
RECEIVED 09/14/88

IDENTIFICATION Proj. # 8803128.13, B1-MW3-04 @ 08:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	494	mg/l
Sulfate	74.1	mg/l
Alkalinity ($CaCO_3$)	243	mg/l
Alkalinity (Bicarbonate)	296	mg/l
Chloride	33.0	mg/l
Fluoride	0.65	mg/l
Electrical Conductivity	791	µmhos/cm
Bromide	0.5	mg/l
Nitrate (NO_3)	52.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.20	mg/l
Manganese	0.01	mg/l
Sodium	37.7	mg/l
Calcium	90.3	mg/l
Potassium	3.87	mg/l
Magnesium	28.5	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53742-5

REPORTED 11/02/88

SAMPLE Water

RECEIVED 09/14/88

IDENTIFICATION Proj. # 8803128.13, B1-MW3-05 @ 10:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	490	mg/l
Sulfate	69.3	mg/l
Alkalinity ($CaCO_3$)	240	mg/l
Alkalinity (Bicarbonate)	293	mg/l
Chloride	34.3	mg/l
Fluoride	0.64	mg/l
Electrical Conductivity	773	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	51.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.05	mg/l
Iron	0.07	mg/l
Manganese	0.003	mg/l
Sodium	37.8	mg/l
Calcium	90.4	mg/l
Potassium	3.87	mg/l
Magnesium	28.3	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53742-6

REPORTED 11/02/88

SAMPLE Water

RECEIVED 09/14/88

IDENTIFICATION Proj. # 8803128.13, B1-MW3-06 @ 12:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	486	mg/l
Sulfate	107	mg/l
Alkalinity ($CaCO_3$)	238	mg/l
Alkalinity (Bicarbonate)	290	mg/l
Chloride	38.9	mg/l
Fluoride	0.64	mg/l
Electrical Conductivity	772	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	51.8	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.11	mg/l
Manganese	0.14	mg/l
Sodium	37.2	mg/l
Calcium	93.6	mg/l
Potassium	4.57	mg/l
Magnesium	28.6	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53742-7

REPORTED 11/02/88

SAMPLE Water

RECEIVED 09/14/88

IDENTIFICATION Proj. # 8803128.13, B1-MW3-07 @ 16:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	512	mg/l
Sulfate	97.7	mg/l
Alkalinity ($CaCO_3$)	246	mg/l
Alkalinity (Bicarbonate)	300	mg/l
Chloride	37.2	mg/l
Fluoride	0.58	mg/l
Electrical Conductivity	782	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	52.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.08	mg/l
Manganese	0.04	mg/l
Sodium	37.9	mg/l
Calcium	93.9	mg/l
Potassium	4.69	mg/l
Magnesium	28.7	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

RECEIVED
NOV 28 1988
Ans'd ...SAC

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/22/88

SAMPLE Water
RECEIVED 09/14/88
IDENTIFICATION Proj. # 8803128.13
BASED ON SAMPLE As Submitted

mB [illegible]

Purgeable Organics EPA 624:	[redacted]	[redacted]	[redacted]
Methylene chloride	18 µg/l	96 µg/l	35 µg/l
Acetone	47 µg/l	33 µg/l	7 µg/l
Chloroform	6 µg/l	* ND	* ND
[redacted]	ND< 5 µg/l	470 µg/l	438 µg/l
Tetrachloroethene	ND< 5 µg/l	887 µg/l	896 µg/l
Toluene	* ND	7 µg/l	* ND

Purgeable Organics EPA 624:	[redacted]	[redacted]	[redacted]
Methylene chloride	25 µg/l	17 µg/l	12 µg/l
Acetone	96 µg/l	15 µg/l	11 µg/l
[redacted]	27 µg/l	94 µg/l	103 1g/l
Tetrachloroethene	413 µg/l	402 µg/l	390 µg/l

Purgeable Organics EPA 624	[redacted]
[redacted]	141 µg/l
[redacted]	480 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
NOV 21 1988
Ans'd ...SKD

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]F53742[redacted]

REPORTED 11/11/88

SAMPLE IDENTIFICATION BASED ON SAMPLE

Water

LOCKHEED SAMPLE ID: ?

Proj. # 8803128.13

As Submitted

RECEIVED 09/14/88

Base/Neutrals EPA 625	B1-MW3-1 @ 11:30	B1-MW3-2 @ 14:30	B1-MW3-3 @ 20:30	[redacted] @ 08:00
bis(2-Ethylhexyl)phthalate	* ND	* ND	* ND	63 µg/l

Base/Neutrals EPA 625	B1-MW3-5 @ 10:30	B1-MW3-6 @ 12:30	B1-MW3-7 @ 16:00
	* ND	* ND	* ND

* All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW4

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
2	162-182	B1-MW4-01
3	214-234	02
4	297-317	03
Duplicate of interval #4		04
5	411-431	05

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

RECEIVED
DEC 19 1988
Ans'd SKD

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53545-1
REPORTED 10/20/88

SAMPLE Water
RECEIVED 09/12/88

IDENTIFICATION Proj. # 8803128.13
B1-MW4-01 @ 19:00
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	498	mg/l
Sulfate	81.5	mg/l
Alkalinity ($CaCO_3$)	216	mg/l
Chloride	27.0	mg/l
Fluoride	0.49	mg/l
Electrical Conductivity	690	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	51.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	1.16	mg/l
Manganese	0.03	mg/l
Sodium	36.5	mg/l
Calcium	80.6	mg/l
Potassium	4.44	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53545-2
REPORTED 10/20/88

SAMPLE Water
RECEIVED 09/12/88

IDENTIFICATION Proj. # 8803128.13
B1-MW4-02 @ 09:00
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	380	mg/l
Sulfate	82.7	mg/l
Alkalinity ($CaCO_3$)	192	mg/l
Chloride	24.6	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	606	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	28.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.06	mg/l
Manganese	0.04	mg/l
Sodium	36.3	mg/l
Calcium	68.4	mg/l
Potassium	3.80	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

Routine

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53545-3

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/12/88

IDENTIFICATION Proj. # 8803128.13
B1-MW4-03 @ 10:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	388	mg/l
Sulfate	108	mg/l
Alkalinity ($CaCO_3$)	162	mg/l
Chloride	27.0	mg/l
Fluoride	0.57	mg/l
Electrical Conductivity	606	µmhos/cm
Bromide	ND< 0.1	mg/l
Nitrate (NO_3)	17.0	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.16	mg/l
Manganese	0.07	mg/l
Sodium	42.0	mg/l
Calcium	61.8	mg/l
Potassium	3.95	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

OM

Dup of B1-MW4-03

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53545-4

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/12/88

IDENTIFICATION Proj. # 8803128.13
B1-MW4-04 @ 11:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	396	mg/l
Sulfate	114	mg/l
Alkalinity ($CaCO_3$)	159	mg/l
Chloride	28.2	mg/l
Fluoride	0.57	mg/l
Electrical Conductivity	605	µmhos/cm
Bromide	0.1	mg/l
Nitrate (NO_3)	17.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.25	mg/l
Manganese	0.07	mg/l
Sodium	42.8	mg/l
Calcium	63.3	mg/l
Potassium	3.95	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53545-5

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/12/88

IDENTIFICATION Proj. # 8803128.13
B1-MW4-05 @ 13:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	430	mg/l
Sulfate	111	mg/l
Alkalinity ($CaCO_3$)	170	mg/l
Chloride	28.7	mg/l
Fluoride	0.53	mg/l
Electrical Conductivity	635	µmhos/cm
Bromide	0.3	mg/l
Nitrate (NO_3)	24.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.33	mg/l
Manganese	0.03	mg/l
Sodium	42.4	mg/l
Calcium	66.0	mg/l
Potassium	4.02	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
NOV 23 1988
Ans'd ...SKD...

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/22/88

SAMPLE Water
IDENTIFICATION Proj. # 8803128.13
BASED ON SAMPLE As Submitted

RECEIVED 09/12/88

Purgeable Organics EPA 624:	[redacted] @ 19:00	[redacted] @ 09:00	[redacted] @ 10:00
1,2-Dichloroethene	* ND	39 µg/l	* ND
Trichloroethene	181 µg/l	55 µg/l	ND< 5 µg/l
Tetrachloroethene	98 µg/l	16 µg/l	8 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

Purgeable Organics EPA 624:	[redacted] @ 11:00	[redacted] @ 13:30
1,2-Dichloroethene	* ND	8 µg/l
Trichloroethene	6 µg/l	29 µg/l
Tetrachloroethene	9 µg/l	17 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

10M

RECEIVED
NOV 21 1988
Ans'd ...

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53545
REPORTED 11/17/88

SAMPLE Water
RECEIVED 09/12/88

IDENTIFICATION Proj. # 8803128.13

BASED ON SAMPLE As Submitted

	Semi-Volatile Organics EPA 625
B1-MW4-01 @ 19:00	* ND
B1-MW4-02 @ 09:00	* ND
B1-MW4-03 @ 10:00	* ND
B1-MW4-04 @ 11:00	* ND
B1-MW4-05 @ 13:30	* ND

* All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

-1 10M

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW5

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
2	160-180	B1-MW5-02
3	252-272	03
4	296-316	04
5	354-374	05
6	422-442	06
Equipment	Blank	B1-MW5-01

Equipment Blank

RECEIVED

DEC 19 1988

Ans'd .....

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank CA 91520-5221
Attn: Ron Helgerson

LAB NO. F53533-1

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/10/88

IDENTIFICATION Proj. # 8803128.13
B1-MW5-01 @ 15:00 a/a
As Submitted

BASED ON SAMPLE

1-19-89
Reanalysis:
KaC

Total Dissolved Solids	32.0	mg/l	→ 4.0
Sulfate	8.4	mg/l	→ 4.8
Alkalinity ($CaCO_3$)	ND< 1	mg/l	
Chloride	4.0	mg/l	→ 0.4
Fluoride	ND< 0.01	mg/l	
Electrical Conductivity	1.8	µmhos/cm	→ 2.2
Bromide	ND< 0.1	mg/l	
Nitrate (NO_3)	7.7	mg/l	→ 1.9
Sulfide	ND< 0.1	mg/l	
Phosphate, Total (P)	ND< 0.01	mg/l	
Iron	0.05	mg/l	
Manganese	ND< 0.002	mg/l	
Sodium	0.91	mg/l	
Calcium	0.31	mg/l	
Potassium	ND< 0.32	mg/l	

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank CA 91520-5221
Attn: Ron Helgerson

LAB NO. F53533-2

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/10/88

IDENTIFICATION Proj. # 8803128.13
B1-MW5-02 @ 19:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	510	mg/l
Sulfate	75.4	mg/l
Alkalinity ($CaCO_3$)	224	mg/l
Chloride	23.1	mg/l
Fluoride	0.43	mg/l
Electrical Conductivity	744	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	63.1	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.04	mg/l
Iron	0.05	mg/l
Manganese	0.004	mg/l
Sodium	31.1	mg/l
Calcium	89.4	mg/l
Potassium	5.01	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank CA 91520-5221
Attn: Ron Helgerson

LAB NO. F53533-3

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/10/88

IDENTIFICATION Proj. # 8803128.13
B1-MW5-03 @ 10:30
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	508	mg/l
Sulfate	72.9	mg/l
Alkalinity ($CaCO_3$)	224	mg/l
Chloride	24.4	mg/l
Fluoride	0.43	mg/l
Electrical Conductivity	740	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	61.9	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.07	mg/l
Manganese	0.005	mg/l
Sodium	32.5	mg/l
Calcium	86.9	mg/l
Potassium	4.75	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank CA 91520-5221
Attn: Ron Helgerson

LAB NO. F53533-4

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/10/88

IDENTIFICATION Proj. # 8803128.13
B1-MW5-04 @ 12:00

BASED ON SAMPLE As Submitted

Total Dissolved Solids	480	mg/l
Sulfate	75.9	mg/l
Alkalinity ($CaCO_3$)	221	mg/l
Chloride	24.2	mg/l
Fluoride	0.40	mg/l
Electrical Conductivity	709	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	53.6	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.04	mg/l
Manganese	0.007	mg/l
Sodium	32.6	mg/l
Calcium	82.4	mg/l
Potassium	4.05	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank CA 91520-5221
Attn: Ron Helgerson

LAB NO. F53533-5

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/10/88

IDENTIFICATION Proj. # 8803128.13
B1-MW5-05 @ 14:30

BASED ON SAMPLE As Submitted

Total Dissolved Solids	464	mg/l
Sulfate	76.6	mg/l
Alkalinity ($CaCO_3$)	221	mg/l
Chloride	25.4	mg/l
Fluoride	0.42	mg/l
Electrical Conductivity	730	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	59.7	mg/l
Sulfide	0.3	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.06	mg/l
Manganese	0.02	mg/l
Sodium	32.7	mg/l
Calcium	86.9	mg/l
Potassium	4.92	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank CA 91520-5221
Attn: Ron Helgerson

LAB NO. F53533-6

REPORTED 10/20/88

SAMPLE Water

RECEIVED 09/10/88

IDENTIFICATION Proj. # 8803128.13
B1-MW5-06 @ 16:30
As Submitted

BASED ON SAMPLE

Total Dissolved Solids	452	mg/l
Sulfate	74.7	mg/l
Alkalinity ($CaCO_3$)	216	mg/l
Chloride	24.4	mg/l
Fluoride	0.41	mg/l
Electrical Conductivity	720	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	60.3	mg/l
Sulfide	0.2	mg/l
Phosphate, Total (P)	ND< 0.01	mg/l
Iron	0.04	mg/l
Manganese	0.09	mg/l
Sodium	29.9	mg/l
Calcium	84.2	mg/l
Potassium	4.59	mg/l

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

RECEIVED
NOV 28 1988
Ans'd SKA

ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. [redacted]
REPORTED 11/18/88

SAMPLE Water
IDENTIFICATION Proj. #88-03128.13
BASED ON SAMPLE As Submitted

RECEIVED 09/29/88

Purgeable Organics EPA 624:	B1-MW5-01 @ 15:00	B1-MW5-02 @ 19:00	B1-MW5-03 @ 10:00
Methylene chloride	6 µg/l	* ND	22 µg/l
Trichloroethene	ND<5 µg/l	78 µg/l	82 µg/l
Tetrachloroethene	ND<5 µg/l	131 µg/l	132 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

Purgeable Organics EPA 624:	B1-MW5-04 @ 12:00	B1-MW5-05 @ 14:30	B1-MW5-06 @ 16:30
Methylene chloride	65 µg/l	61 µg/l	20 µg/l
Acetone	* ND	30 µg/l	* ND
Trichloroethene	53 µg/l	69 µg/l	84 µg/l
Tetrachloroethene	174 µg/l	114 µg/l	151 µg/l

* None Detected.
All other compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

C-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53533

REPORTED 11/09/88

SAMPLE Water

RECEIVED 09/10/88

IDENTIFICATION Project #8803128.13

BASED ON SAMPLE As Submitted

	B1-MW5-01 @ 15:00	B1-MW5-02 @ 19:00	B1-MW5-03 @ 10:30
Base/Neutrals EPA 625	* ND	* ND	* ND

	B1-MW5-04 @ 12:00	B1-MW5-05 @ 14:30	B1-MW5-06 @ 16:30
Base/Neutrals EPA 625			
1,4-Dichlorobenzene	12 µg/l	* ND	* ND
bis(2-Ethylhexyl)phthalate	27 µg/l	* ND	* ND

* All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

LASC-BURBANK
PHASE 3 SAMPLING
WELL I.D. B1-MW6

INTERVAL #	DEPTH	ASSOCIATED LAB IDENTIFICATION #
1	82 - 122	B1-MW6-01
2	160 - 180	02
3	286 - 306	03
4	354 - 374	04
5	398 - 418	05

Travel Blank

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53205-1
REPORTED 10/19/88

SAMPLE Water
RECEIVED 09/01/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW6-01, 14:30, 08/31/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	652	mg/l
Sulfate	142	mg/l
Alkalinity ($CaCO_3$)	297	mg/l
Chloride	42.8	mg/l
Fluoride	0.42	mg/l
Electrical Conductivity	1,070	µmhos/cm
Bromide	0.4	mg/l
Nitrate (NO_3)	59.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.07	mg/l
Iron	0.08	mg/l
Manganese	ND< 0.002	mg/l
Sodium	39.9	mg/l
Calcium	124	mg/l
Potassium	5.40	mg/l

Purgeable Organics 624:

Trichloroethene	ND <5	µg/l
Tetrachloroethene	10	µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

.1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53205-2

REPORTED 10/19/88

SAMPLE Water

RECEIVED 09/01/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW6-02, 16:30, 08/31/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	636	mg/l
Sulfate	137	mg/l
Alkalinity ($CaCO_3$)	294	mg/l
Chloride	43.9	mg/l
Fluoride	0.44	mg/l
Electrical Conductivity	1,050	µmhos/cm
Bromide	0.7	mg/l
Nitrate (NO_3)	61.5	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.30	mg/l
Manganese	0.01	mg/l
Sodium	42.1	mg/l
Calcium	123	mg/l
Potassium	5.70	mg/l

Purgeable Organics 624:

Trichloroethene	13 µg/l
Tetrachloroethene	10 µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53205-3

REPORTED 10/19/88

SAMPLE Water

RECEIVED 09/01/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW6-03, 20:30, 08/31/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	514	mg/l
Sulfate	110	mg/l
Alkalinity ($CaCO_3$)	267	mg/l
Chloride	33.9	mg/l
Fluoride	0.52	mg/l
Electrical Conductivity	877	µmhos/cm
Bromide	0.8	mg/l
Nitrate (NO_3)	44.3	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.75	mg/l
Manganese	0.10	mg/l
Sodium	35.7	mg/l
Calcium	97.6	mg/l
Potassium	4.59	mg/l

Purgeable Organics 624:

Methylene Chloride	27 µg/l
Trichloroethene	5 µg/l
Tetrachloroethene	6 µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53205-4
REPORTED 10/19/88

SAMPLE Water
RECEIVED 09/01/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW6-04, 22:00, 08/31/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	630	mg/l
Sulfate	136	mg/l
Alkalinity ($CaCO_3$)	300	mg/l
Chloride	41.9	mg/l
Fluoride	0.45	mg/l
Electrical Conductivity	970	µmhos/cm
Bromide	0.6	mg/l
Nitrate (NO_3)	58.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.02	mg/l
Iron	0.20	mg/l
Manganese	0.04	mg/l
Sodium	41.0	mg/l
Calcium	121	mg/l
Potassium	5.34	mg/l

Purgeable Organics 624:

Trichloroethene	ND <5 µg/l
Tetrachloroethene	ND <5 µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

:-1 10M

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53205-5

REPORTED 10/19/88

SAMPLE Water

RECEIVED 09/01/88

IDENTIFICATION Proj. # 8803128.13
Sample # B-1-MW6-05, 02:00, 08/31/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	624	mg/l
Sulfate	137	mg/l
Alkalinity ($CaCO_3$)	297	mg/l
Chloride	42.6	mg/l
Fluoride	0.44	mg/l
Electrical Conductivity	1,030	µmhos/cm
Bromide	0.2	mg/l
Nitrate (NO_3)	57.2	mg/l
Sulfide	ND< 0.1	mg/l
Phosphate, Total (P)	0.03	mg/l
Iron	0.28	mg/l
Manganese	0.04	mg/l
Sodium	41.2	mg/l
Calcium	121	mg/l
Potassium	5.54	mg/l

Purgeable Organics 624:

Trichloroethene	5 µg/l
Tetrachloroethene	7 µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

1 10M

TRAVEL BLANK

There is no record of this sample (TRAVEL BLANK) in the field log books.
[illegible]

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
Lockheed Aeronautical Systems (2809)
P.O. Box 551
Dept. 38-10, Bldg. 76
Burbank, CA 91520-3810
Attn: Ron Helgerson

LAB NO. F53205-6
REPORTED 10/19/88

SAMPLE Water
RECEIVED 09/01/88

IDENTIFICATION Proj. # 8803128.13
Sample Travel Blank, 8/31/88

BASED ON SAMPLE As Submitted

Total Dissolved Solids	3	mg/l
Sulfate	ND <0.5	mg/l
Alkalinity ($CaCO_3$)	2.7	mg/l
Chloride	2.8	mg/l
Fluoride	ND <0.01	mg/l
Electrical Conductivity	2.1	µmhos/cm
Bromide	ND <0.1	mg/l
Nitrate (NO_3)	5.8	mg/l
Sulfide	ND <0.1	mg/l
Phosphate, Total (P)	ND <0.01	mg/l
Iron	0.04	mg/l
Manganese	ND <0.002	mg/l
Sodium	0.84	mg/l
Calcium	0.25	mg/l
Potassium	0.23	mg/l

Purgeable Organics 624:

Trichloroethene	ND <5 µg/l
Tetrachloroethene	ND <5 µg/l

All other compounds were None Detected. See attached list.

Base/Neutrals EPA 625:

All compounds were None Detected. See attached list.

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

10M

APPENDIX G

REPORT OF GROUNDWATER SAMPLE ANALYSIS
OF A1 - CW3
by
URS CONSULTANTS, INC.,
OCTOBER 22, 1988

URS
A PROFESSIONAL SERVICES ORGANIZAT

URS CONSULTANTS, INC.
401 EAST OCEAN BOULEVARD
MEZZANINE LEVEL
LONG BEACH, CALIFORNIA 90802
TEL: (213) 436-9386
FAX: (213) 436-2029

OFFICES
SAN FRANCISCO
SEATTLE
DENVER
SANTA BARBARA
COLORADO SPRINGS
SACRAMENTO
PORTLAND
ANCHORAGE
SAN BERNARDINO
LONG BEACH
PHOENIX
LAS VEGAS
NEW YORK
CLEVELAND
COLUMBUS
PARAMUS
AKRON
BUFFALO
NEW ORLEANS
ATLANTA
BOSTON
VIRGINIA BEACH
SAN ANTONIO
PITTSBURGH

March 9, 1989

MAR 9 - 1989
The Mark Group

Mr. Gary J. Halbert
Senior Hydrogeologist
The Mark Group
1221 East Dyer Road, Suite 110
Santa Ana, California 92705-5605

RE: Groundwater Sample Analysis of A-1-CW3 at LASC Facility

Dear Mr. Halbert:

As requested by Steve Dickey of Lockheed Aeronautical Systems Company, enclosed is a letter report describing the method of sampling, results of analysis, and chain of custody for a groundwater sample of well A-1-CW3 (shallow depth cluster well in Area 2).

If you need any further information, please do not hesitate to call me.

Sincerely,

Ramesh Shah

for Ramesh J. Shah
Senior Hydrogeologist

/dc

cc: Steve Dickey (w/o enclosures)
Masood Ghassemi (w/o attachments)
Michael Teubner (w/o attachments)

MEMORANDUM

From: Ramesh Shah

To: Steve Dickey

Date: December 5, 1988

Copy: Ron Helgerson
Masood Ghassemi

Subject: Groundwater sample analysis of A-l-CW3

Attached are the results of the chemical analysis of the groundwater sample from well A-l-CW3 located in a parking lot on the north side of Thornton Avenue. The sample was analyzed for metals and general chemistry and for volatile and semi-volatile organics by EPA Methods 624 and 625. A signed chain of custody form is also included.

Per your direction, URS Consultants collected a water sample from cluster well A-1-CW3 (the shallow well in Area 2) and had it analyzed, after the Mark Group reported that, because of the shallow depth of the standing water in this well (about 7 feet), they had been unable to obtain a sample using the "Hydrostar" pump system.

On October 21, 1988, URS evacuated the well with the use of a teflon bailer. On this date, the depth to the water level in the well was 188.48 feet, (well A-1-CW3 is 195 feet deep). The well was evacuated to a depth of approximately 193.30 feet from the top of the casing. Consequently, less than one foot of standing water was left in the well. The water level recovery was very slow, with recovery of only 2.6 feet after more than 2-1/2 hours. Data on water level vs. time are given in Table 1.

Due to very slow recovery, the well was sampled on the next working day, October 24, 1988 with the use of a teflon bailer. At this time the well was not evacuated, but a water sample was collected with minimum disturbance of standing water. The discharge water was brownish in color and had a strong odor. The well did not register any value on Hnu photoionization detector for organic vapors.

The laboratory analyses of the A-l-CW3 groundwater sample indicate the presence of the semi-volatile organic compound Di-N-Butylphthalate and the following volatile organic compounds -carbon tetrachloride, chloroform, benzene, TCE, and PCE.

/dc

Attachments

TABLE 1

WATER LEVEL DATA

WELL A-1-CW3

Date	Time	Water Level	Remark
10/21/88	7:57	188.48	
	10:05	193.3	Water level after bailing the well
	10:19	193.3	
	11:03	191.92	
	11:42	191.25	
	12:43	190.70	
10/24/88	11:28	188.57	started collecting water sample
	13:18	189.47	after sample collection

CERTIFICATE OF ANALYSIS

LAB I.D.: P-71818
SAMPLE LOCATION: A-1-CW-3
COLLECTED BY: Client
DATE COLLECTED: October 24, 1988

RUSH
(gold)

DATE RECEIVED: October 28, 1988
DATE STARTED: October 28, 1988
DATE COMPLETED: October 29, 1988
DATE REPORTED: October 31, 1988

copy only
faxed 11-14-88

CLIENT: URS Consultants
STREET: 249 E Ocean Blvd. #910
CITY: Long Beach
STATE: CA ZIP: 98802

PURCHASE ORDER: N/A
OFW #: L0341
COPY TO: No cc Req.

NOV 21 1988

EPA Method 624 VOLATILE ORGANICS by GC/MS

Analyte	Result (ug/L)	Detection Limit (ug/L)	Analyte	Result (ug/L)	Detection Limit (ug/L)
Chloromethane	ND	5.0	Dibromochloromethane	ND	1.0
Bromomethane	ND	5.0	1,1,2 - Trichloroethane	ND	1.0
Vinyl Chloride	ND	5.0	Benzene	19	1.0
Chloroethane	ND	5.0	Cis-1,3-Dichloropropene	ND	2.0
Methylene Chloride	ND	2.0	2 - Chloroethylvinyl Ether	ND	5.0
Trichlorofluoromethane	ND	2.0	Bromoform	ND	2.0
1,1 - Dichloroethene	ND	2.0	Tetrachloroethene	180	1.0
1,1 - Dichloroethane	ND	2.0	1,1,2,2 - Tetrachloroethane	ND	2.0
1,2-Dichloroethene (Total)	ND	1.0	Toluene	ND	2.0
Chloroform	30	1.0	Chlorobenzene	ND	1.0
1,2 - Dichloroethane	ND	1.0	Ethylbenzene	ND	1.0
1,1,1 - Trichloroethane	ND	1.0	Styrene	ND	1.0
Carbon Tetrachloride	5.2	1.0	Xylenes (Total)	ND	3.0
Bromodichloromethane	ND	1.0	1,2 - Dichlorobenzene	ND	1.0
1,2 - Dichloropropane	ND	2.0	1,3 - Dichlorobenzene	ND	1.0
Trans-1,3-Dichloropropene	ND	2.0	1,4 - Dichlorobenzene	ND	1.0
Trichloroethene	640	1.0			

APPROVED: Mehdi Sirani

CWL.624

CERTIFICATE OF ANALYSIS

LAB I.D.: P-71818
SAMPLE LOCATION: A-1-CW3
COLLECTED BY: Client
DATE COLLECTED: October 24, 1988

RUSH
(gold)

Copy only faxed 11-14-88

DATE RECEIVED: October 28, 1988
DATE STARTED: October 29, 1988
DATE COMPLETED: October 31, 1988
DATE REPORTED: October 31, 1988

CLIENT: URS Consultants
STREET: 249 E. Ocean Blvd. #910
CITY: Long Beach
STATE: CA ZIP: 90802

PURCHASE ORDER: N/A
OFW #: L8341
COPY TO: No cc Req.

EPA Method 625 SEMI VOLATILE ORGANICS by GC/MS

Analyte	Result (ug/L)	Detection Limit (ug/L)	Analyte	Result (ug/L)	Detection Limit (ug/L)
Phenol	ND	10	3-Nitroaniline	ND	50
Bis (2-Chloroethyl) Ether	ND	10	Acenaphthene	ND	10
2-Chlorophenol	ND	10	2,4 - Dinitrophenol	ND	50
1,3 - Dichlorobenzene	ND	10	4 - Nitrophenol	ND	50
1,4 - Dichlorobenzene	ND	10	Dibenzofuran	ND	10
Benzyl Alcohol	ND	10	2,4 - Dinitrotoluene	ND	10
1,2 - Dichlorobenzene	ND	10	Diethyl Phthalate	ND	10
2 - Methyl Phenol (O-Cresol)	ND	10	Fluorene	ND	10
Bis (2-Chloroisopropyl) Ether	ND	10	4 - Chlorophenyl Phenyl Ether	ND	10
4 - Methylphenol (P-Cresol)	ND	10	4 - Nitroaniline	ND	50
N-Nitroso-Di-N-Propylamine	ND	10	2-Methyl-4,6-Dinitrophenol	ND	50
Hexachloroethane	ND	10	N-Nitrosodiphenylamine	ND	10
Nitrobenzene	ND	10	4 - Bromophenyl Phenyl Ether	ND	10
Isophorone	ND	10	Hexachlorobenzene	ND	10
2 - Nitrophenol	ND	10	Pentachlorophenol	ND	50
2,4 - Dimethylphenol	ND	10	Phenanthrene	ND	10
Bis (2-Chloroethoxy) Methane	ND	10	Anthracene	ND	10
Benzoic Acid	ND	50	Di-N-Butylphthalate	140	10
2,4 - Dichlorophenol	ND	10	Fluoranthene	ND	10
1,2,4 - Trichlorobenzene	ND	10	Pyrene	ND	10
Naphthalene	ND	10	Butyl Benzyl Phthalate	ND	10
4-Chloroaniline	ND	10	3,3' - Dichlorobenzidene	ND	20
Hexachlorobutadiene	ND	10	Benzo (A) Anthracene	ND	10
4-Chloro-3-Methyl Phenol	ND	10	Chrysene	ND	10
2 - Methylnaphthalene	ND	10	Bis (2-Ethylhexyl) Phthalate	ND	10
Hexachlorocyclopentadiene	ND	10	Di-N-Octyl Phthalate	ND	10
2,4,6 - Trichlorophenol	ND	10	Benzo (B) Fluoranthene	ND	10
2,4,5 - Trichlorophenol	ND	50	Benzo (K) Fluoranthene	ND	10
2 - Chloronaphthalene	ND	10	Benzo (A) Pyrene	ND	10
2 - Nitroaniline	ND	50	Indeno (1,2,3-CD) Pyrene	ND	10
Dimethyl Phthalate	ND	10	Dibenz (A,H) Anthracene	ND	10
Acenaphthylene	ND	10	Benzo (G,H,I) Perylene	ND	10
2,6 - Dinitrotoluene	ND	10			

*Other compounds found but not reported.

APPROVED: Mehdi Sirani

CWL.625

LAB I.D.: P-71818
PLE LOCATION: A-1-CW3
COLLECTED BY: Client
TE COLLECTED: October 24, 1988

DATE RECEIVED: October 28, 1988
DATE STARTED: October 28, 1988
DATE COMPLETED: November 4, 1988
DATE REPORTED: November 9, 1988

CLIENT: URS Consultants
STREET: 249 E. Ocean Blvd. #910
CITY: Long Beach
STATE: CA ZIP: 90802

PURCHASE ORDER: N/A
OFW #: L0341
COPY TO: No cc Req.

URS Corporation
LC Angeles
NOV 14 1988
FILE

INDIVIDUAL DETERMINATIONS

Method	Analyte	Result (mg/L)	Det. Limit (mg/L)	Accuracy (% Rec.)	Precision (% RPD)
160.1	Total Dissolved Solids (TDS)	559.	10.	100.2	0.0
300.0	Sulfate (SO4)	52.3	1.0	99.4	4.4
300.0	Nitrate (NO3)	34.3	1.0	97.0	1.0
310.1	Bicarbonate Alkalintiy (CaCO3)	341.	1.0	100.0	0.3
365.3	Phosphate (P)	0.74	0.01	105.6	0.6
340.2	Fluoride (F)	0.28	0.1	119.0	0.3
AES0029	Calcium (Ca)	51.5	1.0	95.7	2.4
AES0029	Manganese (Mn)	0.17	0.01	101.0	1.6
AES0029	Sodium (Na)	102.	1.0	101.1	4.4
AES0029	Boron (B)	0.31	0.05	101.4	2.4
AES0029	Potassium (K)	11.6	1.0	99.3	0.9
120.1	Specific Conductance (umhos/cm)	928.	0.1	102.8	0.0
360.1	Dissolved Oxygen (O2)	ND	1.0	N/A	0.0
AES0029	Iron (Fe)	0.0	0.1	100.5	2.3
150.1	pH (Std. Units)	7.6	0.1	100.0	0.3
*	Redox Potential	---	---	---	---

*Unable to perform analysis.

APPROVED Scott Freeman

XIX

CERTIFICATE OF ANALYSIS

LAB I.D.:	P-71818	DATE RECEIVED:	October 28, 1988
PLE LOCATION:	A-1-CW3	DATE STARTED:	November 18, 1988 (Requested
COLLECTED BY:	Client	DATE COMPLETED:	November 29, 1988
TE COLLECTED:	October 24, 1988	DATE REPORTED:	December 1, 1988

DEC 5 1988

CLIENT:	URS - Ramesh Shaw	PROJECT #:	64857.01
STREET:	249 E. Ocean Blvd. #910	OFW #:	L0341
CITY:	Long Beach	COPY TO:	No cc Req.
STATE:	CA ZIP: 90802		

INDIVIDUAL DETERMINATIONS

Method	Analyte	Result (mg/L)	Det. Limit (mg/L)	Accuracy (% Rec.)	Precision (% RPD)
300.0	Chloride (Cl)	30.0	1.0	102.2	0.9
AES0029	Magnesium (Mg)	18.6	1.0	100.4	0.8
AES0029	Dissolved Silica (Si)	9.7	1.0	100.6	0.6

APPROVED: Scott Foster

..XXX

METHODS
REFERENCE GUIDE

1. Methods for Chemical Analysis of Water and Wastes EPA 600/4-79-020, 3/83.

2. Code of Federal Regulations (CFR 40) PROTECTION OF ENVIRONMENT.

3. Test Methods for Evaluating Solid Waste
   EPA Office of Solid Waste SW-846 11/86, 3rd Edition.

4. The determination of Inorganic Anions in water by Ion Chromotography, Method 300.0 EPA 600/4-84-017.

5. Direct Current Plasma (DCP) Optical Emission Spectrometric Method for Trace Elemental Analysis of Water and Wastes Beckman Method AES0029 interim rule CFR 40 part 136, September 3, 1987.

6. Standard methods for the Examination of Water and Wastewater, 16th Edition.

7. National Institute of Occupational Safety and Health (NIOSH), 3rd Edition Volume 1, 2/84
   Manual of Analytical Methods

8. California Administrative Code (CAC) Title 22, Environmental Health Register 85, No. 2-1-12-85 P. 1800.76 Section 66700.

DEFINITIONS

%	-	Percent or part per one hundred
mg/L	-	Milligrams per liter or parts per million (ppm) Volume basis
mg/kg	-	Milligrams per kilogram or parts per million (ppm) Weight basis
ug/L	-	Micrograms per liter or parts per billion (ppb) Volume basis
ug/kg	-	Micrograms per kilogram or parts per billion (ppb) Weight basis
ND	-	Not detected (value was below the detection limit)
NA	-	Not applicable or not available
Acc.	-	Accuracy
%Rec.	-	Percent recovery of a spike
Prec.	-	Precision
%RPD	-	Relative percent difference of duplicate readings
MBAS	-	Methylene Blue Activated Substance (Surfactants/foaming agents)
NTU	-	Nephelometric Tubidity units
TON	-	Threshold Odor Number
MCL	-	Maximum Contaminant Level
Det. Limit	-	Lowest practical level of quantitation

LOCKHEED AERONAUTICAL SYSTEMS COMPANY

CHAIN OF CUSTODY RECORD

PROJECT: LASC

SAMPLERS: (Signature) SP/RS

SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	NO. CONTAINERS	Sample Type: 40-ml bottles	for 624/625	METAL	Gen. chem	1 liter-amber	H_2S (!)	25 500 ml plastic				REMARKS OR SAMPLE LOCATION	PRESERVATION: ICED	SPECIFY CHEMICALS ADDED AND FINAL pH IF KNOWN
A-1-CW3	10/24			X	3	X											X	
A-1-CW3	10/24/88			X	1			X								HNO_3, not filtered	X	HNO_3
A-1-CW3	10/24			X	2				X								X	
A-1-CW3	10/24			X	1						X					Zinc Acetate	X	Zn Acetate
A-1-CW3	10/24			X	1							X						

Relinquished by: (Signature) ①	Date / Time	Received by: (Signature)	Relinquished by: (Signature) ④	Date / Time	Shipped via:
Steven Park	10/24/88 1254				
Relinquished by: (Signature) ②	**Date / Time**	**Received by: (Signature)**	**Received for Laboratory by: (Signature)**	**Date / Time**	**Shipping Ticket No.**
Relinquished by: (Signature) ③	**Date / Time**	**Received by: (Signature)**	**Remarks** Sent to Cal. Water Lab by		

Figure B-3 Example Chain-of Custody Form

2166-03829

13

UST CORRELATION CHART
("TANK" INVENTORY)

Prepared For:

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
BURBANK, CA

Prepared By:

ROY F. Weston, Inc.
6400 Canoga Avenue, Suite 100
Woodland Hills CA 91367

W.O. 5703-01-07-0002
Doc. No. 5/03.0001

May 1990

COPY NO. 5

ROY F. WESTON, INC.
6400 CANOGA AVENUE
SUITE 100
WOODLAND HILLS, CA 91367
(818) 596-6900

03 May 1990

Mr. Ron Helgerson
Environmental Technical Services
D/38-30, B/U33, P/B-1
Lockheed Aeronautical Systems Company
P.O. Box 551
Burbank, CA 91520

Subject: Tank Inventory

Dear Mr. Helgerson:

The enclosed inventory is part of the WESTON technical support effort to LASC's comprehensive Underground Storage Tank (UST) Management Program. Based on an extensive review of LASC's internal documentation and public agency files, this inventory establishes a correlation of tank identifications and descriptions previously developed by LASC on its contractors. This inventory was initially compiled by WESTON in mid March and has been a useful working tool for both WESTON and Bill Robinson of LASC in determining the status of the LASC tanks (underground and aboveground), clarifiers, sumps and pits at all LASC facilities.

The April 2, 1990 tank inventory presented here (with Appendix C, a Lockheed update dated April 11, 1990) represents our combined efforts with Lockheed to create an accurate "tank inventory". In addition, an initial evaluation pertaining to tank status is provided.

This document will become a part of the WESTON proposed UST Management Program Plan completed in May 1990.

Sincerely,

ROY F. WESTON, INC.

Dr. C. Hugh Thompson, P.E.
Vice President

cc: Bil Robinson
lockheed3\klc\ustltr.503

UST CORRELATION CHART
("TANK" INVENTORY)
AT
LOCKHEED AERONAUTICAL SYSTEMS COMPANY
(ALL FACILITIES), CALIFORNIA

SUBMITTED TO:
LOCKHEED AERONAUTICAL SYSTEMS COMPANY

PREPARED BY:
ROY F. WESTON, INC.
WOODLAND HILLS, CALIFORNIA

By: Cheri L. Garlinger, Geologist

Reviewed by: Michael S. Foster, Ph.D.
Senior Project Manager

John E. Cromwell, Ph.D.
UST Task Manager

APRIL 2, 1990

lasc/ustinv.wp

TABLE OF CONTENTS

Section	Title	Page #
1.0	Introduction	1
1.1	Purpose	1
1.2	Background	1
1.3	Utilization	2
1.4	Conclusion	3
2.0	Attachment #1: Additional Background	5
3.0	UST Correlation Chart/"Tank" Inventory	7
4.0	Bibliography	17

Appendices:

Appendix A: Plant Locations and Tank Totals

Appendix B: Phases I through VII (From the Underground Storage Tank Management Plan).

Appendix C: Update on the "LASC'ALL'" column, 04/11/90 (Updates regarding the Burbank facility)

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART/"TANK" INVENTORY
04/02/90

1.0 INTRODUCTION

With the onset of our contract with Lockheed Aeronautical Systems Company (LASC), WESTON prepared the **Underground Storage Tank Management Plan** for the LASC Burbank facility. A total of seven (7) phases were identified in the plan. Each phase represents an order of action that must be taken to formulate a strong underground storage tank (UST) program and to ensure that all LASC USTs are brought into compliance, as requested by LASC, according to all applicable UST regulations.

This report, entitled the **UST Correlation Chart/"Tank" Inventory**, is a product of phase I which calls for an "audit of existing and removed/retrofitted UST". We began with an overall listing of 174 "tanks" provided by LASC. Our research yielded an additional 104 "tanks" which brings a total of 278 "tanks" throughout all LASC facilities (with 191 of these "tanks" located at the Burbank facility). This comprehensive inventory includes past and present "tanks" at the Burbank LASC facility as well as "tanks" at the following LASC facilities: Plant 2 (Rye Canyon); Plant 9 (Helendale); Plant 10 (Palmdale); Plant 12 (Lynwood/Watts); Plant 42, Sites 1,2,5, and 7 (USAF Palmdale); and Unit 41 (Sun Valley). Refer to Appendix A, "Plant Locations and Tank Totals", for additional information regarding these sites.

1.1 PURPOSE

The purpose of this assignment was to compile a comprehensive UST database for use as both a historical reference as well as for a working inventory tool. It includes structures known to be classified under the UST regulations, and it also lists structures that may represent candidate USTs. Therefore, the word "tank(s)" has been placed in quotations in our inventory in order to indicate that the "tank" column may represent tanks, clarifiers, sumps, or pits (and, in a couple of cases, drums). Although some of the structures on the inventory may not be categorized under the UST regulations for compliance, they may still represent environmental and liability concerns that require their incorporation into the UST Management Program. A determination as to the type of "tank" and its compliance classification will be made on a "tank" by "tank" basis as the UST program progresses.

1.2 BACKGROUND

Various methods of research were incorporated in order to create this UST inventory. Included in our research were interviews with LASC staff, review of available blueprints and property maps, comprehensive review of all LASC and contractors' reports, interviews with government officials, and review of all available government files on LASC. In result, a great amount of information was obtained. For the purposes of this report, we have focused on only those details needed to create a complete UST inventory. (Refer also to **Attachment #1,** "Additional Background").

1.3 UTILIZATION

This report has been entitled **UST Correlation Chart/ "Tank" Inventory** because it can be used as an UST inventory, and was also created to identify and resolve the differences between sources in factual information about each "tank". (The bibliography located at the end of this report lists each source which we have included in the headings of our inventory). The two ways in which this report can be utilized are noted below with examples:

1. For use as an **UST "tank" inventory**, for example, one can note the following:

   - there are a total of 278 "tanks" which we have discovered throughout the LASC facilities/plants.

   - there are 50 "tanks" at Plant A-1; 87 "tanks" at Plant B-1; 53 "tanks" at Plant B-6; and 1 "tank" at Plant C-1. Therefore, it is apparent that there is a total of 191 "tanks" at the LASC Burbank facility (Similar calculations can be made for the remaining LASC facilities).

   - general information: (a) "tank" A-1-A is located at plant A-1,in building 68. The sources note differing information on this "tank". (b) "tank" B-1-A is located at plant B-1, in building 173 (this building number is questionable and must be verified by a site visit). Only one (1) source notes "tank" B-1-A's existence. (c) "Tank" B-6-F2 is located at plant B-6, in building 360; and the "F" in B-6-F2 indicates a "Fuel tank". In addition, six (6) sources note its presence, and two of the sources (1989 LASC "Alltanks" and 1989 LASC property map) show that monitoring systems were installed in 1989. (Details on corresponding plant locations can be found in Appendix A).

2. For use as a **Correlation Chart:**

   - a comparison of facts supplied for each "tank" can be made between sources:

     - e.g. "tank" A-1-A is noted as a "pit" in the 1983 LASC Groundwater Investigation report, as a "sump" in a 1987 Gregg & Associates report, and as a "clarifier" in the 1989 LASC property map and a 1989 ENSR report. Furthermore, only the 1989 ENSR report and 1989 LASC "Alltanks" file noted this structure as "removed in 1986".
       Review: We can safely assume that a notation as to removal was not made by the 1983 LASC source since the tank was removed at a later date (1986). It is unclear as to why the 1987 Gregg & Associates report did not note the removal. It is also difficult to explain why such discrepancies between sources as to the type of "tank" occur. A

physical inspection of the "tank" will need to be made for accuracy of the record.

- e.g., "tank" A-1-D is noted as a tank uniformly under all six (6) sources in the inventory. One source, LASC "All tanks" file, also notes that this tank was removed in 1988. No other sources note this.

  Review: We can probably assume that this "tank" is indeed a tank; but a physical investigation will be required to be sure of the type of structure and to verify that the tank has been removed as noted.

- e.g., "tank" A-1-H is only noted as existing in one (1) source of the six (6) sources, and it is noted as a tank. Also, the building location of A-1-H is uncertain, therefore the building number was not included in our inventory.

  Review: The only source noting "tank" A-1-H's presence is a LASC source created in September of 1983 (refer to bibliography). Therefore, it may be true that this tank has been since removed. A physical investigation of the site will be necessary for an accurate determination of the "tank's" existence, tank type, and building location.

1.4 CONCLUSIONS

This UST Correlation Chart/"Tank" Inventory will serve as a useful reference guide for the UST program, both as a historical record and as a working tool when developing the remaining phases II through VII of the UST program. (Refer to Appendix B for a recap of phases I through VII). Please note that, because this inventory is a working tool, the contents are subject to change as new information is obtained. The research and preparation of this inventory has brought to our attention a variety of information and with the conclusion of this research, a variety of UST program needs have become evident:

- The need for an accurate property map showing specific individual tank locations in accordance with the California State Coordinate System.

- Physical "walk-through" investigations must be performed for many of the "tanks" to determine with accuracy the following:

  - type of "tank" (tank, sump, pit, clarifier, drum?)
  - status of "tank" (existing, removed, etc.)
  - monitoring devices present?/sensors?
  - % of "tank" and its piping underground
  - any connections to city sewer lines

- UST Regulatory permits must be renewed and/or submitted for those "tanks" that have been categorized as USTs which fall under the UST regulations for compliance.

- A "tank" numbering policy should be created for numbering future structures. The numbering policy must discriminate between underground storage tanks (UST), aboveground storage tanks, clarifiers, sumps, and pits.

To conclude, with this UST Correlation Chart "Tank" Inventory report is an attachment entitled "Additional Background" regarding the creation of this inventory (**Attachment #1**), a list of "Plant Locations and Tank Totals" (**Appendix A**), a recap of "Phases I through VII" from the Underground Storage Tank Management Plan (**Appendix B**), an "Update on the LASC 'ALL' column, 04/11/90" (Appendix C), and a **Bibliography** of those sources used in the headings of this **UST Correlation Chart/"Tank" Inventory report**.

2.0 ADDITIONAL BACKGROUND

By the request of Lockheed Aeronautical Systems Company (LASC), WESTON began researching all available information on LASC underground storage tanks (UST) in order to ultimately bring all LASC USTs into regulatory compliance. It quickly became apparent that there was a great need for a comprehensive "tank" inventory list since all available information was difficult to obtain as it was spread throughout a wide variety of sources. This need was verified by Bill Robinson, the Environmental Facilities Coordinator of LASC; and he proceeded to provide us with a partial list of "tanks" which he had created called "Alltanks".

With this helpful start of 174 "tanks"(94 of which are located at the Burbank facility), we then began our comprehensive research of all Lockheed files, library reports (approximately 500), blueprints, and government agency files in order to discover any additional tanks not noted on the "Alltanks" list. In result, our research yielded an additional 104 tanks. When we add this to the original 174, the "tank" total is 278 (191 of the 278 "tanks" are located at the LASC Burbank facility). For a breakdown of "tank" totals according to each LASC Plant location, refer to Appendix A.

Please note that we have placed the word "TANK(S)" in quotations, here and in our inventory list, in order to indicate that some of the "tanks" in our inventory represent structures other than **tanks.** To list the structures, our inventory includes **tanks, clarifiers, sumps, pits, and drums** which may or may not be classified as underground storage tanks (UST). Until a determination as to the type of structure and its compliance requirements is made on a "tank" by "tank" basis, we will continue to include all structures in our inventory.

Prior to the 1980s, LASC "tanks" were not assigned specific identification numbers for record keeping. Old permits and reports (ie: from the 1940s to the early 1980s) merely referred to various tanks by assigning them temporary numbers according to the day's workload or according to general locations. The descriptions of location given were often sketchy, providing only general locations in relation to neighboring buildings or other "tanks". Of course, if a building or "tank" were removed, it would prove very difficult, if not impossible, to relocate the position of an underground "tank". **In our inventory, we have only noted the "tank" building numbers for those locations which LASC has verified as accurate**. Consequently, these problems bring to mind two needs: 1. the need for all existing structures ("tanks") to be assigned an identification number; 2. the need for an accurate "to scale" property map (which does not exist at the present time. This second problem will not be addressed here).

The need for a "tank" numbering system was addressed by LASC in the early 1980s. As "tanks" were found or newly placed by various contractors, a number was assigned; yet, research was not performed to locate all existing LASC "tanks". In result, only a sampling of the LASC owned "tanks" were numbered. Also, a complete record of those "tank" numbers assigned was not made. This "tank" inventory represents the compilation of our research of the previously assigned "tank" numbers. **(Please note that this inventory is subject to change as new facts are presented with the continuing efforts of WESTON and LASC)**.

Although the previously assigned numbers did not always follow a regular pattern, it is clear that the first letter and number of each "tank" represents the facility plant, and it is also clear that those tanks with an "F" within their number indicate a "FUEL" tank, while those without the "F" most often denote a "NON-FUEL" tank (e.g.: B-1-F2 -- this number reveals that the tank is located in plant B-1 and is also a "FUEL" tank). In addition, there are some numbers that were chosen more or less at random; for example, B-1-100 is very different from the other numbers which have only a one or two digit ending, not three. In reviewing the final compilation, a number of gaps are apparent in the numbering (e.g.: A-1-R is missing from the list, as well as others). This could mean a number of things, but we would only be speculating at this point.

Please note that the list identifies pertinent tank information about Plant 42 (Sites 1, 2, 5, and 7) under the "OTHER" heading at the end of the inventory. This plant is Air Force/Government owned. The "tank" information for Plant 42 was collected from various loose sheets of information in a LASC file (refer to the **Bibliography** for details).
As LASC is an "operator"-- not property "owner"--at Plant 42, it is likely that the responsibility for UST compliance may belong to the US Air Force.

To conclude, during our research to piece together the tank inventory list, we found many discrepancies between various records, maps, consultants' reports, and government agency files as to the type of "tank" (whether a tank, clarifier, sump, pit, or drum), and even regarding the very existence of a "tank". We have, therefore, created this tank inventory in the form of an **UST CORRELATION CHART/"TANK"INVENTORY** in order to note many of the discrepancies while including as many facts as possible about each tank. In addition to this inventory, we have included **Appendix A** (Plant Locations and Tank Totals), **Appendix B** (Phase I through VII from the WESTON **UST MANAGEMENT POLICY** to indicate that this inventory report is part of Phase I), **Appendix C (Update on the "LASC'ALL'" column, dated 04/11/90), and a Bibliography** explaining each source found in the column headings of this inventory.

3.0 UST CORRELATION CHART/"TANK" INVENTORY:

NOTE: This list is a working list—it is subject to change as WESTON continues the research on a "tank" by "tank" basis in unison with LASC to determine the present status of each structure.

Please refer to Section 1.0 and 2.0 included with this report for an explanation regarding the creation and meaning of the assigned "TANK" numbers and letters. Also attached is a list describing the Lockheed plant locations with a summation of tanks at each location. (Appendix A)

Refer to the attached Bibliography for an explanation of the data sources found in the column headings to follow. Please note that the column heading entitled "LASC'ALL'" represents data as of December, 1989. Lockheed has since updated their "ALLTANKS" file on April 11, 1990. (Please refer to Appendix C for details).

KEY:

C =	CLARIFIER		ab	=	ABANDONED
D =	DRUM		cd	=	CLOSED IN PLACE
P =	PIT		ms	=	MONITORING SYSTEM INSTALLED
S =	SUMP		rm	=	REMOVED
T =	TANK		rp	=	REPLACED
			ren	=	RENAMED BY LASC
			arpt	=	TRANSFERRED TO AIRPORT PROPERTY

tasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
PLANT A-1:							
A-1-A	A1/68	P	C	S	C rm'86	C rm'86	C
A-1-B	A1/32	T	T	T	T	T ms	T ms'89
A-1-C	A1/32	T	T	T	T	T	T
A-1-D	A1/70	T	T	T	T	T rm'88	T
A-1-E	A1/70	T	T	T	T	T rm'88	T
A-1-F	A1/65	T	T	T	T	T cd	T cd'89
A-1-F 1	A1/71	T	T	T	T	T cd	T cd'89
A-1-F 2	A1/71	T	T	T	T	T cd	T cd'89
A-1-F 3	A1/71	T	T	T	T	T (A1F300)	T rp/ms
A-1-F 4	A1/79	T	—	—	—	—	—
A-1-F 5	A1/79	T	—	—	—	—	—
A-1-F 6	A1/98	T	—	—	—	—	—
A-1-F 7	A1/98	T	—	—	—	—	—
A-1-F 8	A1/76	T	T	T	T	T ms	T ms'89
A-1-F 9	A1/76	T	T	T	T	T ms	T ms'89
A-1-F10	A1/76	T	T	T	T	T ms	T ms'89
A-1-F11	A1/68	T	—	—	—	—	—
A-1-F100	A1/63	—	—	—	T to rm	T	T
A-1-F101	A1/61	—	—	—	T to rm	T	T
A-1-F12	A1/71	—	T	T	T	T rm'89	T rm'89
A-1-F13	A1/68	—	T	T	T	T ms	T ms'89
A-1-F14	A1/92	—	T	T	T	T ms	T ms'89
A-1-F300	A1/71	—	—	—	T	T rp A1F3	—
A-1-G	A1/69	P	—	—	—	—	—
A-1-H	A1/68	T	—	—	—	—	—
A-1-I	A1/68	T	—	—	—	—	—
A-1-J	A1/93	T	T	T	—	—	T
A-1-K	A1/U32	T	—	—	—	—	—
A-1-L	A1/68	T	—	—	—	—	—
A-1-M	A1/68	C	C	C	C rm'86	C rm'86	C
A-1-N	A1/76	T	T	T	T	T ms	T ms'89
A-1-O	A1/90	T	—	—	—	—	—
A-1-P	A1/32	C	C	C	C	C	C

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
A-1-Q	A1/85	T	T	T	T rm'88	T rm'86	—
A-1-S	A1/69	—	C	C	C	C	C
A-1-T	A1/68	—	C ab?	C	C	C	C
A-1-U	A1/U35A	—	T rm?	T	—	T	—
A-1-V	A1/35A	—	C	C	—	C	—
A-1-W	A1/69	—	S ab?	C	C	C	C
A-1-X	A1/69	—	S	S	S	S rm'89	S rm'89
A-1-Y	A1/69	—	C	S	—	S	C
A-1-Z	A1/67	—	C	S	—	S	C
A-1-ZA	A1/68	—	T	—	—	T	T
A-1-ZB	A1/93	—	S	—	—	S	S
A-1-ZC	A1/93	—	S	—	S	P	S
A-1-ZD	A1/93	—	T	—	T	P	T
A-1-ZE	A1/69	—	S	S	S	P	S
A-1-ZF	A1/68	—	S	T	—	—	—
A-1-ZG	A1/68	—	C	C	—	—	C
A-1-ZH	A1/93	—	—	P rm'84	—	P	—
PLANT B-1:							
B-1-F100	B1/199?	—	—	—	T	—	—
B-1-F103	B1/ ?	—	—	—	T rm?	—	—
B-1-300	B1/199	—	—	—	T	T	—
B-1-301	B1/199	—	—	—	T	T	—
B-1-302	B1/199	—	—	-	T	T	—
B-1-AA	B1/173	—	T	T	T	T	T rm?
B-1-AC	B1/140B	—	C	C	—	C	C
B-1-AD	B1/140B	—	C	—	—	C	C
B-1-AE	B1/153	—	T	T	T	T rm'89	T rm'89
B-1-AH	B1/141	—	C	C	—	C	C
B-1-AI	B1/141	—	C	C	—	C	C
B-1-AJ	B1/194?	—	T	T	T rm'88	T rm'88	T
B-1-AK	B1/149	—	C	C	—	C	S
B-1-AL	B1/149	—	C	C	—	C	S
B-1-AM	B1/149	—	S	S	S	S	S

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
B-1-AN	B1/175	—	C	C	—	C	C
B-1-AO	B1/110	—	S	S	P	P	S
B-1-AP	B1/179	—	C	C	—	C	C
B-1-AQ	B1/175	—	S	—	—	S	S
B-1-AR	B1/108	—	C	C	—	C	C
B-1-AS	B1/111	—	S	S	—	S	S
B-1-AT	B1/111	—	S	—	—	S	S
B-1-AU	B1/195?	—	T	T	T	T ms	T ms
B-1-AV	B1/180	—	T	T	—	—	S
B-1-AW	B1/149	—	—	S	—	—	—
B-1-A	B1/114	T	—	—	—	—	—
B-1-B	B1/1130	T	—	—	—	—	—
B-1-C	B1/166	T	T	T	T	T	T
B-1-D	B1/141	T	—	—	—	—	—
B-1-E	B1/151	T	—	—	—	—	—
B-1-F	B1/1408	T	—	T	—	—	—
B-1-F 1	B1/140	T	T	T	T	T ms	T ms
B-1-F 2	B1/140	T	T	T	T	T ms	T ms
B-1-F 3	B1/170	T	T	T	T	T rm'89	—
B-1-F 4	B1/116	T	T	T	T	T ms	T ms
B-1-F 5	B1/128	T	—	—	T	—	—
B-1-F 6	B1/128	T	—	—	T	—	—
B-1-F 7	B1/125A	T	—	—	—	—	—
B-1-F 8	B1/175	T	—	—	—	—	—
B-1-F 9	B1/175	T	—	—	—	—	—
B-1-F10	B1/180	T	—	—	—	—	—
B-1-F11	B1/199	T	—	—	—	—	—
B-1-F12	B1/125	T	—	—	—	—	—
B-1-F13	B1/U33	T	T	T	T	T rm	T rm'89
B-1-F14	B1/173	—	T	T	T	T rm'89	T rm'89
B-1-F15	B1/125A	—	—	T	—	T	—
B-1-G	B1/199	T	—	—	—	—	—
B-1-H	B1/153	T	T	T	T	T rm'89	T rm'88
B-1-I	B1/153	T	—	T	T	T rm'89	T rm'88

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
B-1-J	B1/149	T	S	S	S	S	S
B-1-K	B1/125	T	—	—	—	—	—
B-1-L	B1/125	T	T	T	—	—	—
B-1-M	B1/125	C	—	—	—	—	—
B-1-N	B1/125	T	—	—	—	—	—
B-1-O	B1/125	T	—	—	—	—	—
B-1-P	B1/ 2	P	S	—	C	C	T
B-1-Q	B1/155	T	—	—	—	—	—
B-1-R	B1/155	T	—	—	—	—	—
B-1-S	B1/108	T	S	—	C	C	T
B-1-T	B1/125	T	—	—	—	—	—
B-1-U	B1/125	C	C	C	C	P	C
B-1-V	B1/125	C	—	—	S	S	—
B-1-W	B1/125	C	—	—	S	S	—
B-1-X	B1/125	C	—	—	S	S	—
B-1-Y	B1/125A	C	C	—	—	C	C
B-1-Z	B1/125A	C	C	C	—	C	C
B-1-ZA	B1/125A	C	C	—	—	C	C
B-1-ZB	B1/175	C	C	C	—	C	C
B-1-ZC	B1/175	C	S	C	—	C	S
B-1-ZD	B1/125A	T	—	—	—	—	—
B-1-ZE	B1/141	C	C	C	—	C	C
B-1-ZF	B1/140B	C	C	C	—	C	C
B-1-ZG	B1/140B	C	C	C	—	C	C
B-1-ZH	B1/160	C	C	C	—	C	C
B-1-ZI	B1/151A	C	C	C	—	C	C
B-1-ZJ	B1/147	C	C	C	—	C	C
B-1-ZK	B1/ 2	C	C	—	—	C	C
B-1-ZL	B1/179	—	T	T	—	T	T
B-1-ZM	B1/180	—	C	C	—	C	C
B-1-ZN	B1/125A	—	S	S	—	S	S
B-1-ZO	B1/119	—	—	—	—	S	S
B-1-ZP	B1/140B	—	S	S	—	P	S
B-1-ZQ	B1/140B	—	S	T	T	T	S

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
B-1-ZR	B1/140B	—	S	S	—	P	S
B-1-ZS	B1/140B	—	S	T	T	T	S
B-1-ZT	B1/140	—	S	S	P	P	S
B-1-ZY	B1/140	—	C	C	—	C	C
PLANT B-6:							
B-6-A	B6/345	T	—	—	—	—	—
B-6-B	B6/84	T	T	—	T	T	T
B-6-C	B6/353	T	C	—	S	S	C
B-6-D	B6/349	T	—	—	—	—	—
B-6-E	B6/349	P	C	—	T	T	T
B-6-F	B6/353	C	T	C	C	C	T
B-6-F 1	B6/ ?	T	—	—	—	—	—
B-6-F 2	B6/360	T	T	T	T	T ms'89	T ms'89
B-6-F 3	B6/332	T	—	T	—	T rm'89	T rm'89
B-6-F 4	B6/333	T	—	—	T	T rm'89	T rm'89
B-6-F 5	B6/83	T	—	T	T	T ms'89	T ms'89
B-6-F 6	B6/88	T	T	—	T	T rm'89	T rm'89
B-6-F 7	B6/88	T	T	—	T	T rm'89	T rm'89
B-6-F 8	B6/88	T	T	T	T	T cd'89	T cd'89
B-6-F 9	B6/309	—	—	T	T	T cd'89	T cd'89
B-6-F10	B6/309	—	—	T	T	T cd'89	T cd'89
B-6-F11	B6/309	—	—	T	T	T cd'89	T cd'89
B-6-F12	B6/309	—	T	T	T	T cd'89	T cd'89
B-6-F13	B6/309	—	T	T	T	T cd'89	T cd'89
B-6-F14	B6/309	—	T	T	T	T cd'89	T cd'89
B-6-F15	B6/310	—	T	T	T	T cd'89	T cd'89
B-6-F16	B6/310	—	T	T	T	T cd'89	T cd'89
B-6-F17	B6/310	—	T	T	T	T cd'89	T cd'89
B-6-F18	B6/310	—	T	T	T	T cd'89	T cd'89
B-6-F19	B6/310	—	T	T	T	T cd'89	T cd'89
B-6-F20	B6/310	—	T	T	T	T cd'89	T cd'89
B-6-F21	B6/311	—	T	T	T	T rm'89	T rm'89
B-6-F22	B6/362	—	T	T	T	T ms'89	T ms'89

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
B-6-F23	B6/362	—	T	T	T	T ms'89	T ms'89
B-6-F25	B6/304	—	T	—	T	T rm'89	T rm'89
B-6-F26	B6/322	—	T	—	—	T rm'89	—
B-6-F27	B6/371	—	T	—	—	T rm'89	T rm'89
B-6-F28	B6/343	—	T	T	T rm'89	T cd'89	T rm'89
B-6-F29	B6/343	—	T	T	T	T ms'89	T ms'89
B-6-F30	B6/343	—	T	T	T	T ms'89	T ms'89
B-6-F31	B6/339	—	T	T	T	T rm'89	T rm'89
B-6-F32	B6/332	—	—	T	T	T rm'89	T rm'89
B-6-F33	B6/363	—	T	T	T	T rm'89	T ms'89
B-6-G	B6/371	C	C	—	—	—	C
B-6-H	B6/371	C	C	—	—	—	C
B-6-I	B6/360	C	C	C	—	—	C
B-6-J	B6/83	—	C	—	—	—	C
B-6-K	B6/360	—	C	—	T	T	C
B-6-L	B6/357	—	S	—	T	T	T rm'89
B-6-M	B6/304	—	T	T	T	T rm'89	T rm'89
B-6-N	B6/304	—	T	T	D	T rm'89	T rm'89
B-6-O	B6/332	—	T	T	T	T	T rm'89
B-6-P	B6/371	—	C	—	T	T	C
B-6-Q	B6/88	—	S	S	D	D	S
B-6-R	B6/357	—	T	—	S	S rm	T rm'89
B-6-S	B6/378	—	T	T	T	T rm 88/89	T rm'89
B-6-T	ARPT	—	C	—	T	T arpt	T arpt
B-6-U	B6/371	—	T	T	T	T rm'89	—
PLANT C-1:							
C-1-A	C1/44	T	—	T	T	T cd'88	—
PLANT 2:							
P-2-A	P2/?	C	—	—	—	—	—
P-2-F 1	P2/?	T	—	—	—	—	—
P-2-F 2	P2/?	T	—	—	—	—	—

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
PLANT 9:							
HAF-F1	P9/?	—	—	—	—	T	—
HAF-F2	P9/?	—	—	—	—	T	—
HAF-F3	P9/960	—	—	—	—	T	—
PLANT 10:							
P-10-A	P10/610	T	—	—	—	T	—
P-10-B	P10/602	T	—	—	—	T	—
P-10-C	P10/610	T	—	—	—	T	—
P-10-D	P10/610	T	—	—	—	T	—
P-10-E	P10/610	C	—	—	—	T	—
P-10-F	P10/617	T	—	—	—	T	—
P-10-F 1	P10/610	T	—	—	—	T	—
P-10-F 2	P10/617	T	—	—	—	T	—
P-10-F 3	P10/617	T	—	—	—	T	—
P-10-F 4	P10/617	T	—	—	—	T	—
P-10-F 5	P10/?	T	—	—	—	—	—
P-10-F 6	P10/?	T	—	—	—	—	—
P-10-F 7	P10/?	T	—	—	—	—	—
P-10-F 8	P10/?	T	—	—	—	—	—
P-10-F 9	P10/?	T	—	—	—	—	—
P-10-F10	P10/?	T	—	—	—	—	—
P-10-F11	P10/?	T	—	—	—	—	—
P-10-F12	P10/?	T	—	—	—	—	—
P-10-F13	P10/?	T	—	—	—	—	—
P-10-F14	P10/?	T	—	—	—	—	—
P-10-F15	P10/?	T	—	—	—	—	—
P-10-F16	P10/?	T	—	—	—	—	—
P-10-F17	P10/?	T	—	—	—	—	—
P-10-F18	P10/?	T	—	—	—	—	—
P-10-F19	P10/?	T	—	—	—	—	—
P-10-F20	P10/?	T	—	—	—	—	—
P-10-F21	P10/?	T	—	—	—	—	—
P-10-F22	P10/?	T	—	—	—	—	—

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	PROPERTY MAP
		1983	1984	1984-87	1988-90	1988-90	1989-90
P-10-F23	P10/?	T	—	—	—	—	—
P-10-F24	P10/?	T	—	—	—	—	—
P-10-F25	P10/?	T	—	—	—	—	—
P-10-F26	P10/?	T	—	—	—	—	—
P-10-F27	P10/?	T	—	—	—	—	—
P-10-F28	P10/?	T	—	—	—	—	—
P-10-F29	P10/?	T	—	—	—	—	—
P-10-F30	P10/?	T	—	—	—	—	—
P-10-G	P10/601	C	—	—	—	—	—
P-10-H	P10/604	C	—	—	—	T	—
P-10-I	P10/612	C	—	—	—	T ab	—
P-10-J	P10/?	T	—	—	—	T	—
P-10-K	P10/?	T	—	—	—	—	—
P-10-L	P10/603	C	—	—	—	—	—
P-10-M	P10/10?	C	—	—	—	T	—
P-10-N	P10/602	—	—	—	—	T	—
P-10-O	P10/604	—	—	—	—	T	—
				—	—	T	—
PLANT 12:							
P-12-A	P12/761	P	—	—	C	C	—

"TANK" #	PLANT/ BLDG	LASC INV	G & A RPTS	G & A RPTS	ENSR RPTS	LASC ALL"	OTHER**
		1983	1984	1984-87	1988-90	1988-90	UP TO 1990
PLANT 42: *							
S-1-F0101	P42/?	—	—	—	—	—	T ren T1-1
S-1-F0102	P42/?	—	—	—	—	—	T ren T1-2
S-1-F0103	P42/?	—	—	—	—	—	T ren T1-3
S-1-F0104	P42/?	—	—	—	—	—	T ren T1-4
S-1-F0105	P42/?	—	—	—	—	—	T ren T1-5
S-1-F0106	P42/?	—	—	—	—	—	T ren T1-6
S-1-F0109	P42/?	—	—	—	—	—	T ren T1-8
S-1-F0110	P42/?	—	—	—	—	—	T ren T1-9
S-1-F0111	P42/?	—	—	—	—	—	T ren T1-10

lasc/final.wk1

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
UST CORRELATION CHART--"TANK" INVENTORY
04/02/90

"TANK" #	PLANT/ BLDG	LASC INV	G & A B.PRNT	G & A RPTS	ENSR RPTS	LASC 'ALL'	OTHER**
		1983	1984	1984-87	1988-90	1988-90	UP TO 1990
S-1-F0112	P42/?	—	—	—	—	—	T ren T1-11
S-1-F0113	P42/?	—	—	—	—	—	T ren T1-12
S-2-A	P42/?	T	—	—	—	T	—
S-2-B	P42/?	T	—	—	—	T	T ren T2-11
S-2-C	P42/211	T	—	—	—	T	T ren T2-12
S-2-D	P42/?	T	—	—	—	—	—
S-2-E	P42/?	T	—	—	—	—	—
S-2-F 1	P42/?	T	—	—	—	T	T ren T2-1
S-2-F 2	P42/?	T	—	—	—	T	T ren T2-2
S-2-F 3	P42/214	T	—	—	—	T	T ren T2-3
S-2-F 4	P42/?	T	—	—	—	—	—
S-2-F 5	P42/?	T	—	—	—	—	—
S-2-F 6	P42/?	T	—	—	—	—	—
S-2-F 7	P42/210	T	—	—	—	T	T ren T2-4
S-2-F 8	P42/210	T	—	—	—	T	T ren T2-5
S-2-F 9	P42/210	T	—	—	—	T	—
S-2-F10	P42/?	—	—	—	—	—	T cd ren T2-7
S-2-F11	P42/?	—	—	—	—	—	T cd ren T2-8
S-2-F12	P42/?	—	—	—	—	—	T cd ren T2-9
S-2-F13	P42/?	—	—	—	—	—	T cd ren T2-10
S-5-A	P42/?	T	—	—	—	—	—
S-5-F 1	P42/?	T	—	—	—	—	—
S-5-F 2	P42/?	T	—	—	—	—	—
S-7-A	P42/?	—	—	—	—	T	—
S-7-F 5	P42/720	—	—	—	—	T	—
SUN VALLEY PLANT:							
U-41-A	UNIT 41A	T	—	—	—	—	—

*Refer to Section 2.0 attached for details on Air Force Plant 42—Sites 1, 2, 5, and 7 above.

**The information listed in the column, "OTHER", was gathered from a Lockheed file which contained loose sheets of miscellaneous information (refer to the Bibliography for details).

lasc/final.wk1

4.0 BIBLIOGRAPHY

The following bibliography refers to the sources located in the column headings on the UST Correlation Chart/"Tank" Inventory and are listed here alphabetically.

1. **"ENSR RPTS"** -- 1988-1990 (ENSR Reports) The data found in this column was extracted from numerous reports written by a previous contractor, ENSR. The reports reviewed also included field logs and lab data.

2. **"G & A B.PRNT"** -- 1984 (Gregg and Associates Blueprints) These blueprints were created by Gregg and Associates, a previous contractor. There are three (3) blueprints of three plants (A-1, B-1, and B-6) located at the LASC Burbank facility. The blueprints include a partial listing of tanks, sumps, and clarifiers with their general locations. These blueprints are not accurate "to scale" maps.

3. **"G & A RPTS"** -- 1984-1987 (Gregg and Associates Reports) Data was collected from various reports written by a previous contractor, Gregg and Associates.

4. **"LASC 'ALL'"** -- 1988-1990 (Lockheed Aeronautical Systems Company 'Alltanks'). This is a computer generated file created by Bill Robinson of LASC called 'Alltanks'. The LASC property map (below) was used by Mr. Robinson to locate the tanks included in this file. It includes a partial listing of LASC tanks **as of December, 1989** with building numbers, comments as to status, capacities, contents, County file numbers, and incomplete information on permits. (Refer also to Appendix C for an Update on the "LASC'ALL'" column, 04/11/90).

5. **"LASC INV."** -- 1983 (Lockheed Aeronautical Systems Company Investigations): Ground Water Protection Program--Underground Tank Investigation; submitted to the California Regional Water Quality Control Board of the Los Angeles Region by LASC on September, 1983.

6. **"OTHER"** -- (Up to 1990) The information located under this column heading was collected from a variety of loose sheets of information contained in a LASC file obtained from Bill Robinson, LASC. The file included information on Plant 42 from a report by Hargis & Associates (date of report was not present), and old County permit information. New permit information from LASC provided additional details.

7. **"PROPERTY MAP"** -- 1989-1990, LASC property map of the Burbank facility including all plants: A-1, B-1, B-6, and C-1. It is entitled Location Plan by LASC, and was created on 7/31/89 (it is a revision of an old LASC property map). It was developed by Lockheed's Graphic Services department for the purpose of quick site reference only--it is not an accurate "to scale" map.

APPENDIX A

PLANT LOCATIONS AND TANK TOTALS

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
PLANT LOCATIONS AND TANK TOTALS
04/02/90

APPENDIX A: PLANT LOCATIONS AND TANK TOTALS

TOTAL NUMBER OF "TANKS" PER PLANT/LOCATION: (with 1990 Thomas Guide reference page/grid location of tanks)			
PLANT A-1:	2555 N. Hollywood Way Burbank, CA 91505	50	Los Angeles County (ref: PG 17, A4-B4)
PLANT B-1:	1705 Victory Place Burbank, CA 91504	87	Los Angeles County (ref: PG 17, B4-D5)
PLANT B-4:	(SEE SITE 5 BELOW)	--	----------
PLANT B-6: (City of Burbank) (City of L.A.)	2801 N. Hollywood Way Burbank, CA 91505 7575 N. San Fernando Rd. Los Angeles, CA 91352	53	Los Angeles County (ref: PG 17, A2-A3)
PLANT C-1:	10720 Sherman Way Burbank, CA 91505	1	Los Angeles County (ref: PG 16, F3-F4)
PLANT 2:	Rye Canyon Road Saugus, CA 91322	3	Los Angeles County (ref: PG 123, D7)
PLANT 9:	17452 Wheeler Road Helendale, CA 92342	3	San Bernardino County (ref: PG 704, H9) (ref: PG 282, B3)
PLANT 10:	1011 Lockheed Way Palmdale, CA 93550	45	Los Angeles County (ref: PG 172, C4)
PLANT 12:	11950 Mona Blvd. Lynwood, CA 90059 (Near Watts/Willowbrook)	1	Los Angeles County (ref: PG 58, F5)
PLANT 42: SITE 1--	(2000 E. Ave. M) 1500 East Avenue M Palmdale, CA 93550	11	(Air Force/Gov't Owne Los Angeles County (ref: PG 172, E1)
SITE 2--	20th St. East & Avenue M Palmdale, CA 93550	18	Los Angeles County (ref: PG 172, E1)
SITE 5-- (ALSO CALLED B-4)	20th St. East & Avenue O Palmdale, CA 93550	3	Los Angeles County (ref: PG 172, E4-E5)
SITE 7--	Palmdale, CA 93550	2	Los Angeles County (ref: PG 172)
UNIT 41 A:	9175 San Fernando Road Sun Valley, CA 91352	1	Los Angeles County (ref: PG 9, B6)
TOTAL NUMBER OF "TANKS" =		278	

lasc/location.wk1

APPENDIX B

PHASES I THROUGH VII

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
PHASES I THROUGH VII
04/02/90

APPENDIX B: PHASES I THROUGH VII

(Taken from the Underground Storage Tank Management Plan by Roy F. Weston, Inc.)

1. Phase I	--	Audit of Existing and Removed/Retrofitted UST
2. Phase II	--	Define UST Policy for LASC Facilities
3. Phase III	--	Identify Priority Mitigation Actions
4. Phase IV	--	Categorize Underground Storage Tanks
5. Phase V	--	Develop and Implement Immediate Action Plans
6. Phase VI	--	Develop UST Compliance Plans
7. Phase VII	--	Develop UST Management Plan for long term Operations and Maintenance of UST

APPENDIX C

UPDATE ON "LASC'ALL'" COLUMN, 04/11/90

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
04/02/90

APPENDIX C: UPDATE ON THE "LASC'ALL'" COLUMN, APRIL 11, 1990

The following data represents an April, 1990 update by Lockheed to the December, 1989 "LASC'ALL'" column found in the UST CORRELATION CHART/"TANK" INVENTORY report. (The updated column is enlarged here and refers to the Burbank facility only)

KEY:

C = CLARIFIER	si = SENSORS INSTALLED	ms = MONITORING SYSTEM INSTALLED
D = DRUM	tt = TANK TESTED	rm = REMOVED
P = PIT	st = SYSTEM TESTED	rp = REPLACED
S = SUMP	ab = ABONDONED	ren = RENAMED BY LASC
T = TANK	agt = ABOVEGROUND TANK	arpt = L.A.T. TRANSFER TO AIRPORT
	cd = CLOSED IN PLACE	-- = EXISTENCE NOT NOTED

"TANK" #	PLANT/ BUILDING #	LASC 'ALL' 12/1/89	LASC 'ALL' 04/11/90
PLANT A-1:			
A-1-A	A1/68	C rm'86	C rm'86
A-1-B	A1/32	T ms	T tt /no sensors
A-1-C	A1/32	T	T
A-1-D	A1/70	T rm'88	T rm'88
A-1-E	A1/70	T rm'88	T rm'88
A-1-F	A1/65	T cd	T cd
A-1-F 1	A1/71	T cd	T cd
A-1-F 2	A1/71	T cd	T cd
A-1-F 3	A1/71	T rp by(A1F300)	T rp by(A1F300)
A-1-F 4	A1/79	--	T agt
A-1-F 5	A1/79	--	T agt
A-1-F 6	A1/98	--	T agt
A-1-F 7	A1/98	--	T agt
A-1-F 8	A1/76	T ms	T ms tested/ si
A-1-F 9	A1/76	T ms	T ms tested/ si
A-1-F10	A1/76	T ms	T ms tested/ si
A-1-F11	A1/68	--	T agt rm'85
A-1-F100	A1/63	T	T tested/no sensors

"TANK" #	PLANT/ BUILDING #	LASC 'ALL' 12/1/89	LASC 'ALL' 04/11/90
A-1-F101	A1/61	T	T tested/no sensors
A-1-F12	A1/71	T rm'89	T rm'89
A-1-F13	A1/68	T ms	T ms tested/si
A-1-F14	A1/92	T ms	T ms tested/si
A-1-F300	A1/71	T rp A1F3	T rp F-3
A-1-G	A1/69	--	P (tanks rm)
A-1-H	A1/68	--	T rm'86
A-1-I	A1/68	--	T rm'86
A-1-J	A1/93	--	T agt(bermed)
A-1-K	A1/U32	--	T agt
A-1-L	A1/68	--	T rm'88
A-1-M	A1/68	C rm'86	C rm'86
A-1-N	A1/76	T ms	T ms tested/si
A-1-O	A1/90	--	T agt
A-1-P	A1/32	C	C
A-1-Q	A1/85	T rm'86	T rm'88
A-1-S	A1/69	C	C rm'86
A-1-T	A1/68	C	C rm'88
A-1-U	A1/U35A	T	T agt
A-1-V	A1/35A	C	C
A-1-W	A1/69	C	C to rm
A-1-X	A1/69	S rm'89	C rm'89
A-1-Y	A1/69	S	C
A-1-Z	A1/67	S	S to rm
A-1-ZA	A1/68	T	T rm'86
A-1-ZB	A1/93	S	S
A-1-ZC	A1/93	P	P
A-1-ZD	A1/93	P	P
A-1-ZE	A1/69	P	P rm
A-1-ZF	A1/68	--	C rm'86
A-1-ZG	A1/68	--	C
A-1-ZH	A1/93	P	C rm'85
PLANT B-1:			
B-1-F100	B1/199	--	T to rm

APPENDIX C: UPDATE ON THE "LASC'ALL'" COLUMN, APRIL 11, 1990
(2 of 7)

"TANK" #	PLANT/ BUILDING #	LASC 'ALL' 12/1/89	LASC 'ALL' 04/11/90
B-1-F101	B1/199	--	T to rm
B-1-F102	B1/199	--	T to rm
B-1-AA	B1/173	T	T rm'89
B-1-AC	B1/140B	C	C out of service
B-1-AD	B1/140B	C	C
B-1-AE	B1/153	T rm'89	T rm'89
B-1-AH	B1/141	C	C
B-1-AI	B1/141	C	C out of service
B-1-AJ	B1/194	T rm'88	T rm'88
B-1-AK	B1/149	C	C rm'85
B-1-AL	B1/149	C	C rm'85
B-1-AM	B1/149	S	S
B-1-AN	B1/175	C	C to rm
B-1-AO	B1/110	P	P to rm
B-1-AP	B1/179	C	C to rm
B-1-AQ	B1/175	S	S
B-1-AR	B1/108	C	C
B-1-AS	B1/111	S	S
B-1-AT	B1/111	S	S
B-1-AU	B1/195	T ms	T ms/si
B-1-AV	B1/180	--	C
B-1-AW	B1/149	--	S
B-1-A	B1/114	--	T agt rm'84
B-1-B	B1/1130	--	T agt
B-1-BA	B1/166	--	NEW C
B-1-BB	B1/194	--	NEW C
B-1-BC	B1/194	--	NEW C
B-1-BD	B1/194	--	NEW C
B-1-C	B1/166	T	T tt
B-1-D	B1/141	--	T agt
B-1-E	B1/151	--	T agt
B-1-F	B1/140B	--	T agt
B-1-F 1	B1/140	T ms	T ms/si
B-1-F 2	B1/140	T ms	T ms/si

APPENDIX C: UPDATE ON THE "LASC'ALL'" COLUMN, APRIL 11, 1990
(3 of 7)

"TANK" #	PLANT/ BUILDING #	LASC 'ALL' 12/1/89	LASC 'ALL' 04/11/90
B-1-F 3	B1/170	T rm'89	T rm'89
B-1-F 4	B1/116	T ms	T ms/si
B-1-F 5	B1/128	--	T agt
B-1-F 6	B1/128	--	T agt
B-1-F 7	B1/125A	--	T agt
B-1-F 8	B1/175	--	T agt
B-1-F 9	B1/175	--	T agt
B-1-F10	B1/180	--	T agt
B-1-F11	B1/199	--	T agt
B-1-F12	B1/125	--	T agt
B-1-F13	B1/U33	T rm	T rm'89
B-1-F14	B1/173	T rm'89	T rm'89
B-1-G	B1/199	--	T agt
B-1-H	B1/153	T rm'89	T rm'89
B-1-I	B1/153	T rm'89	T tm'89
B-1-J	B1/149	S	S
B-1-K	B1/125	--	T agt
B-1-L	B1/125	--	T agt
B-1-M	B1/125	--	T agt
B-1-N	B1/125	--	T agt
B-1-O	B1/125	--	T agt
B-1-P	B1/2	C	C
B-1-Q	B1/155	--	T agt
B-1-R	B1/155	--	T agt
B-1-S	B1/108	C	C
B-1-T	B1/125	--	T agt
B-1-U	B1/125	P	C
B-1-V	B1/125	S	C of B-1-U
B-1-W	B1/125	S	C of B-1-U
B-1-X	B1/125	S	C of B-1-U
B-1-Y	B1/125A	C	C
B-1-Z	B1/125A	C	C
B-1-ZA	B1/125A	C	C
B-1-ZB	B1/175	C	C rm'85/covered

APPENDIX C: UPDATE ON THE "LASC'ALL'" COLUMN, APRIL 11, 1990
(4 of 7)

"TANK" #	PLANT/ BUILDING #	LASC 'ALL' 12/1/89	LASC 'ALL' 04/11/90
B-1-ZC	B1/175	C	C
B-1-ZD	B1/175	--	T agt
B-1-ZE	B1/141	C	C
B-1-ZF	B1/140B	C	C out of service
B-1-ZG	B1/140B	C	C
B-1-ZH	B1/160	C	C
B-1-ZI	B1/151A	C	C
B-1-ZJ	B1/147	C	C
B-1-ZK	B1/2	C	C
B-1-ZL	B1/179	T	T rm'81
B-1-ZM	B1/180	C	C
B-1-ZN	B1/125A	S	S
B-1-ZO	B1/119	S	S
B-1-ZP	B1/140B	P	P
B-1-ZQ	B1/140B	T	P
B-1-ZR	B1/140B	P	P
B-1-ZS	B1/140B	T	P
B-1-ZT	B1/140	P	P
B-1-ZY	B1/140	C	C
PLANT B-6:			
B-6-A	B6/345	--	T agt
B-6-B	B6/84	T	T
B-6-C	B6/353	S	S
B-6-D	B6/349	--	T agt
B-6-E	B6/349	T	T rm'85
B-6-F	B6/353	C	C
B-6-F 1	B6/?	--	T rm before '83
B-6-F 2	B6/360	T ms'89	T ms/si(LA CITY ZONE)
B-6-F 3	B6/332	T rm'89	T rm'89
B-6-F 4	B6/333	T rm'89	T rm'89
B-6-F 5	B6/83	T ms'89	T ms/si
B-6-F 6	B6/88	T rm'89	T rm'89
B-6-F 7	B6/88	T rm'89	T rm'89
B-6-F 8	B6/88	T cd'89	T cd'89

APPENDIX C: UPDATE ON THE "LASC'ALL'" COLUMN, APRIL 11, 1990
(5 of 7)

"TANK" #	PLANT/ BUILDING #	LASC 'ALL' 12/1/89	LASC 'ALL' 04/11/90
B-6-F 9	B6/309	T cd'89	T cd'89
B-6-F10	B6/309	T cd'89	T cd'89
B-6-F11	B6/309	T cd'89	T cd'89
B-6-F12	B6/309	T cd'89	T cd'89
B-6-F13	B6/309	T cd'89	T cd'89
B-6-F14	B6/309	T cd'89	T cd'89
B-6-F15	B6/310	T cd'89	T cd'89
B-6-F16	B6/310	T cd'89	T cd'89
B-6-F17	B6/310	T cd'89	T cd'89
B-6-F18	B6/310	T cd'89	T cd'89
B-6-F19	B6/310	T cd'89	T cd'89
B-6-F20	B6/310	T cd'89	T cd'89
B-6-F21	B6/311	T rm'89	T rm'89
B-6-F22	B6/362	T ms'89	T si(LA CITY ZONE)
B-6-F23	B6/362	T ms'89	T si(LA CITY ZONE)
B-6-F25	B6/304	T rm'89	T rm'89
B-6-F26	B6/322	T rm'89	T rm'89
B-6-F27	B6/371	T rm'89	T rm'89
B-6-F28	B6/343	T cd'89	T cd'89
B-6-F29	B6/343	T ms'89	T ms/si
B-6-F30	B6/343	T ms'89	T ms/si
B-6-F31	B6/339	T rm'89	T rm'89
B-6-F32	B6/332	T rm'89	T rm'89
B-6-F33	B6/363	T rm'89	T ms/si
B-6-G	B6/371	—	C
B-6-H	B6/371	—	C
B-6-I	B6/360	—	C (LA CITY ZONE)
B-6-J	B6/83	—	C ab/concrete filled
B-6-K	B6/360	T	C (LA CITY ZONE)
B-6-L	B6/357	T	T rm'89
B-6-M	B6/304	T rm'89	T rm'89
B-6-N	B6/304	T rm'89	T rm'89
B-6-O	B6/332	T	T rm'89
B-6-P	B6/371	T	C rm'87

APPENDIX C: UPDATE ON THE "LASC'ALL'" COLUMN, APRIL 11, 1990
(6 of 7)

"TANK" #	PLANT/ BUILDING #	LASC 'ALL' 12/1/89	LASC 'ALL' 04/11/90
B-6-Q	B6/88	D	C
B-6-R	B6/357	S rm	T rm'89
B-6-S	B6/378	T rm 88/89	T rm'89
B-6-T	ARPT	T arpt	S arpt
B-6-U	B6/371	T rm'89	T rm'89
B-6-V	B6/371	—	NEW C
B-6-W	B6/371	—	NEW C
B-6-X	B6/371	—	NEW C
B-6-Y	B6/379	—	NEW C
B-6-Z	B6/345	--	NEW C agt
B-6-ZA	B6/360	—	NEW C
PLANT C-1:			
C-1-A	C1/44	T cd'88	T cd'89

APPENDIX C: UPDATE ON THE "LASC'ALL'" COLUMN, APRIL 11, 1990
(7 of 7)

2166-03829

LOCKHEED AERONAUTICAL SYSTEMS COMPANY

Plant C-1
10720 Sherman Way
Burbank, California

ENSR

Underground Storage Tank Closure Report Tank C-1-A

ENSR Consulting and Engineering
(Formerly ERT)

May 1990

Document Number C88046

12

ENSR

PLANT C-1
10720 Sherman Way
Burbank, California 91520
UNDERGROUND STORAGE TANK C-1-A
CLOSURE REPORT

Prepared for

LOCKHEED AERONAUTICAL SYSTEMS COMPANY
Burbank, California 91520

Prepared by

ENSR CONSTRUCTORS
19782 MacArthur Boulevard, Suite 365
Irvine, California 92715

May, 1990

Document No. C88046

CONTENTS

1.0 INTRODUCTION 1-1
1.1 Site Description 1-1

2.0 BACKGROUND AND PREVIOUS INVESTIGATIONS 2-1
2.1 Gregg and Associates, Leak Detection Investigation Results 2-1
2.2 ENSR Investigations 2-1

3.0 REGULATORY COMPLIANCE AND PERMITS 3-1

4.0 FIELD OPERATIONS 4-1
4.1 Tank Decontamination 4-1
4.2 Tank Fill Slurry Mix 4-1

5.0 SITE SECURITY 5-1

6.0 CONCLUSIONS 6-1

7.0 REPORT LIMITATIONS 7-1

8.0 CERTIFICATION 8-1

CONTENTS
(Cont'd)

APPENDICES

Appendix A	HMUSP Permit for the Storage of Hazardous Materials
Appendix B	Photographic Documentation of Building 44
Appendix C	Gregg and Associates Report 1986
Appendix D	ENSR Tank C-1-A Plot Plans
Appendix E	Acurex Laboratory Analytical Report
Appendix F	ENSR Leak Detection Investigation Report dated July, 1989 (Doc. No. 9500-064)
Appendix G	Tank Closure Permit
Appendix H	Request and Approval for Closure-in-Place Permits
Appendix I	Hazardous Waste Manifests
Appendix J	Associated Laboratories Analytical Results
Appendix K	Approved Tank Filling Procedures and Slurry Mixtures, and Concrete Mix Design.

1.0 INTRODUCTION

Lockheed Aeronautical Systems Company (LASC), Burbank, California, contracted ENSR Constructors to bring underground storage tank (UST) C-1-A, into compliance with State and local tank monitoring regulations. Tank C-1-A is located at Plant C-1 Building 44, 10720 Sherman Way, Burbank, California. Tank C-1-A was originally investigated by Gregg and Associates, (GA), in 1986, under the direction of California Regional Water Quality Control Board-Los Angeles Region (RWQCB). ENSR resumed this UST compliance program in 1988.

ENSR was directed by Lockheed to obtain approval to close tank C-1-A. Operations were carried out pursuant to UST regulations of the County of Los Angeles Department of Public Works, Waste Management Division (LACDPW), and the City of Burbank Fire Department (CBFD), Fire Prevention Bureau regulations.

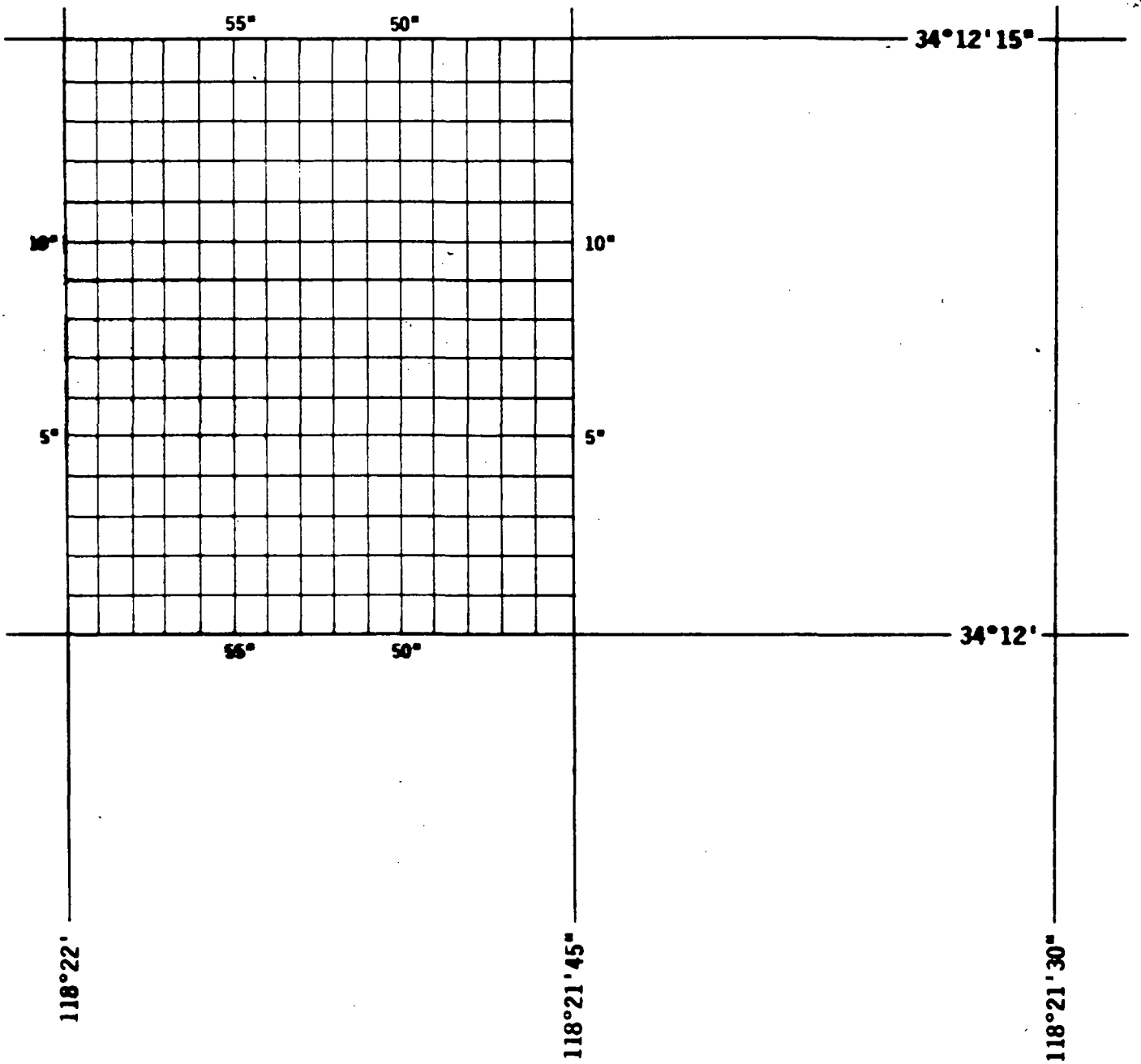
1.1 Site Description

The configuration of Plant C-1 is shown on Figures 1 through 4, as indicated below.

SITE PLAN OVERLAYS

FIGURE 1	SITE PLAN DEPICTING PLANT C-1
FIGURE 2	PROPERTY BOUNDARY
FIGURE 3	BUILDING 44
FIGURE 4	TRANSVERSE MERCATOR PROJECTION LATITUDE AND LONGITUDE

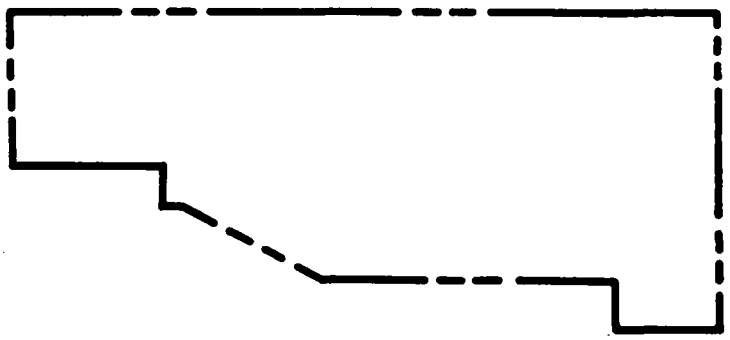
The site is bordered on the north by Sherman Way and on the south by the Burbank Airport. Vineland Avenue is on the west side of Plant C-1. The site is located within an industrial area associated with airport facilities and various aircraft manufacturing plants.



TRANSVERSE MERCATOR PROJECTION

LONGITUDE & LATITUDE FIGURE 4

BUILDING 44 FIGURE 3



PROPERTY BOUNDARY FIGURE 2

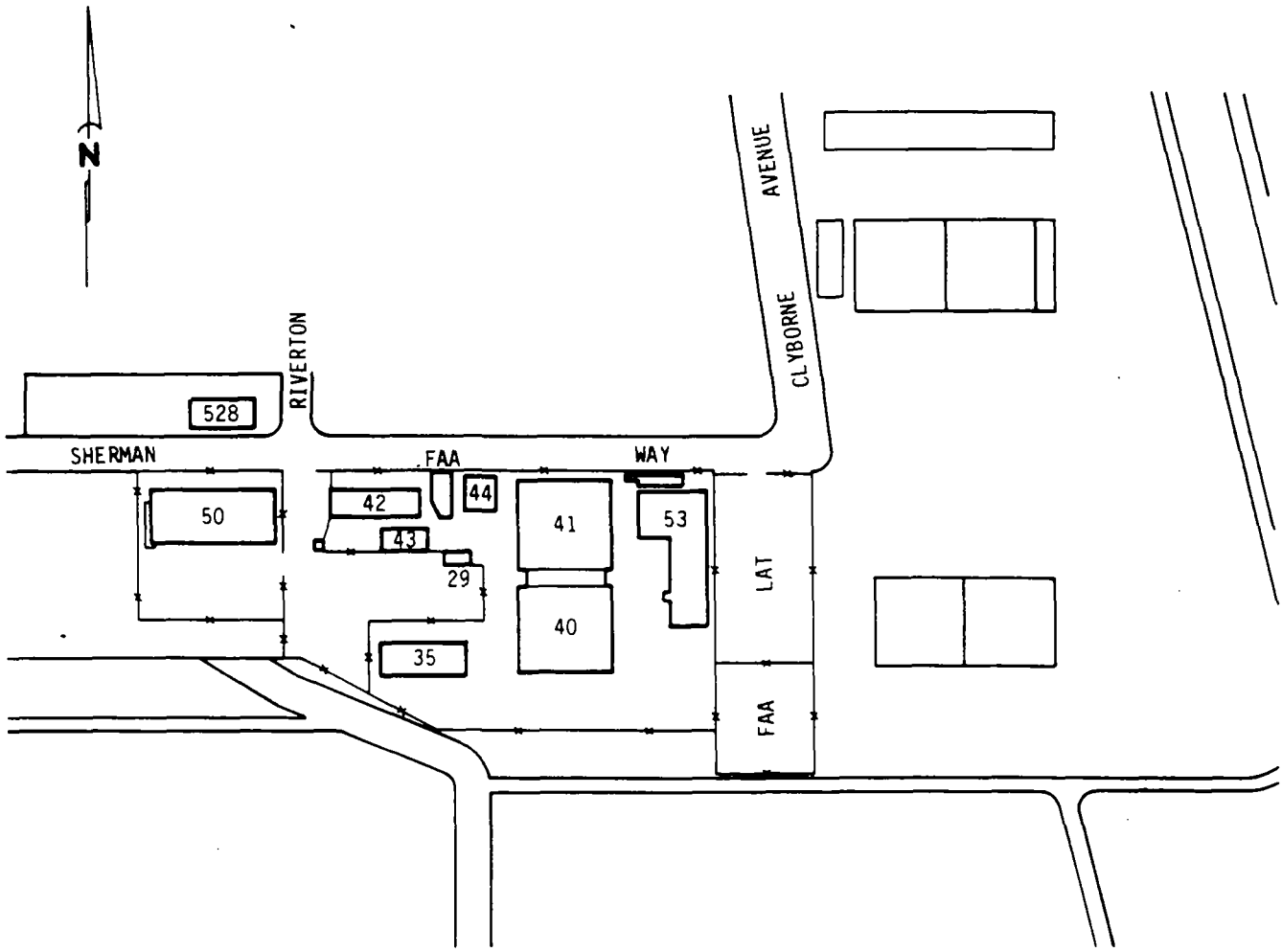


FIGURE 1

SCALE

0 200 400 800 1200 FEET

REFERENCE: LOCKHEED AERONAUTICAL SYSTEMS COMPANY, FACILITIES BRANCH, APRIL 1989, DEDICATED PUMPS/WELLS

ENSR™

SITE PLAN DEPICTING PLANT C-1
UNDERGROUND STORAGE TANK C-1-A
10720 SHERMAN WAY

DRAWN BY: BM/ES	DATE: 3/19/90	PROJECT NO.: C88-046
CHK'D BY	REVISED:	DWG.NO.: FIGURE 1

The permit for the use of tank C-1-A for storage of hazardous materials and wastes was issued under LACDPW Hazardous Materials Underground Storage Program. Permit Number 1078, File Number 9779, 3E (refer to Appendix A).

2.0 BACKGROUND AND PREVIOUS INVESTIGATIONS

Tank C-1-A is an 8,000-gallon, single-wall, steel tank, 8 feet in diameter and 21 feet in length. Tank C-1-A is located 4 feet below the floor of Building 44 (refer to Appendix B, photographic documentation from Lockheed, with taped delineation based on geophysical data by sub-contractor Spectrum ESI). Building 44 is reported by LASC to have been built in 1953 and used as a maintenance service building for aircraft repair operations. Tank C-1-A was reported in the Gregg and Associate's (GA) report of January 27, 1986 (refer to Appendix C), to originally contain diesel fuel. The tank was converted from diesel fuel storage to waste oil storage in the late 1960's. A dispenser like tray for the deposit of waste oil is connected to the tank outside of the north side of Building 44 (refer to Appendix D, ENSR Plot Plans). The tank's contents were occassionly removed by a certified waste hauler when full.

2.1 Gregg and Associates, Leak Detection Investigation Results

GA initiated the UST Compliance Program in 1984 with the original leak detection investigation (LDI). Soil borings were completed outside of Building 44 in the assumed location of the tank. ENSR believes that the location of the waste delivery sump led GA to believe this was the tank fill tube location and therefore located the tank at the orientation found in Appendix D, within the stippled area indicated on the site plot plan. Soil borings were attempted at the north side of Building 44, to a depth of 3 feet. GA later completed soil borings to a depth of 15 feet and converted them to vadose zone monitoring wells MV1 and MV2. GA's findings at the above-referenced locations based on analysis of soil samples by EPA Test Method 418.1 as reported by Acurex Laboratory on August 15, 1985 (refer to Appendix E) indicated total petroleum hydrocarbons as non-detected at less than 10 milligrams per kilogram.

2.2 ENSR Investigations

ENSR met with LACDPW and reviewed the GA data of 1986 with LACDPW representatives Blair Burgess II in 1988 and John Huff in 1989. LACDPW approved the location of the soil borings required to close the tank in place. In order to accurately place a boring under the tank, geophysical investigations were conducted by ENSR/Spectrum ESI to locate tank C-1-A and utilities adjacent to the tank. ENSR's investigation determined the tank's size, orientation, and location to be different than that originally reported by GA in 1986 (refer to Appendix F).

Because of difficulties related to underground obstructions and drilling below the low ceiling inside Building 44, only a single slant boring was preotical. It was drilled at 15 degrees from vertical to a depth of 45 feet. The findings by Associated Labs, dated January 27, 1986 reported 43 mg/kg total petroleum hydrocarbons at 20 feet and 210 mg/kg at 45 feet depth. Because of access restrictions to drilling equipment within the building and outside of the building due to water lines, additional borings next to the tank cavity were not possible.

ENSR's findings of lower than 1000 parts per million of TPH, indicates a minimal release of waste oil at the area of investigation. Refer to the ENSR's Leak Detection Investigation Report dated July, 1989 (Attachment F) for summaries of field investigations. The report was submitted to regulating agencies by Lockheed in 1989.

3.0 REGULATORY COMPLIANCE AND PERMITS

ENSR Constructors obtained the permits for closure of Tank C-1-A, on November 16, 1989, from LACDPW, Waste Management Division (refer to Appendix G). Pursuant to requirements of the City of Burbank Fire Department (CBFD) regulations, approval for closure in place (CIP) may be obtained when physical removal of a tank by excavation is deemed impractical because of the location of the tank. Tank C-1-A was determined to be located under Building 44 at Plant C-1, and its removal would require demolition of the building, thus meeting the requirements of CBFD.

CBFD required a certified professional engineer's report on the evaluation of removal or CIP of tank C-1-A. ENSR's professional engineers reviewed the feasibility of removing tank C-1-A and submitted a report requesting permission for CIP of tank C-1-A, in April of 1989, to CBFD and LACDPW. Upon review by CBFD, the Request for Closure-In-Place of Tank C-1-A was granted by CBFD Inspector Solares. LACDPW also issued a permit based upon CBFD's approval.

4.0 FIELD OPERATIONS

The tank was emptied of its contents by United Pumping, a certified hazardous waste hauler. Waste oils and metal particulates were transported to Chem Tech, a hazardous waste recycler and California Department of Health Services licensed facility. Hazardous waste manifests were completed by Lockheed and are on file with DHS (refer to Appendix I).

4.1 Tank Decontamination

Potential flammable vapors from the tank were sampled using a Photovac Tip I photo-ionizing detector, and the lower explosive limit (LEL) was monitored using a Mine Safety Appliance "gas tech" oxygen and flammable vapor detector. CBFD regulations required that all tank activities be performed with flammable vapor levels below four percent LEL. Tank C-1-A was observed to have an oily waste with zero percent LEL.

Under the approval of the CBFD Inspector Solares, the tank was purged of all potential flammable vapors using dry ice at a rate of 15 pounds per 1000 gallons of tank capacity. The tank was rinsed using a high power rinse process that was repeated fifteen (15) times, in accordance with the CBFD's specifications for preparation of tank filling by slurry mix.

Tank C-1-A was inaccessible (the tank being below ground under Building 44's foundation) for examination to determine the state of decontamination and certification as clean by a marine chemist. Therefore, CBFD required the final rinsate, upon removal by a United Pumping vacuum truck, to be visibly inspected and sampled by the CBFD inspector on-site. The final rinsate was removed and a sample was collected of the liquid and transported to Associated Laboratories for analyses of total petroleum hydrocarbons (TPH) by EPA Test Method 418.1. The rinsate had a reported concentration of 1,100 mg/kg (refer to Appendix J).

4.2 Tank Fill Slurry Mix

Under the direction of a CBFD Inspector, ENSR was given approval to close-in-place tank C-1-A. Pursuant to the Burbank Fire Prevention Code, an approved slurry mix was used to fill tank C-1-A. Record number 890216 was issued by Livingston-Graham (LG), the concrete supplier for the slurry, to ENSR, that identifies the mix specification blended at the batch plant. Daravair, an air entraining admix, and WRDA, a water wetting admix, were added to prevent hardening of the

slurry and to allow easy flow into the tanks. The mixtures were made at the batch plant under the direction of the LG chemist.

The record of slurry tank fill mix, dated May 3, 1989, accounts for the exact water/cement ratio (Portland cement Type 2), and amounts of admixtures per volume of Portland cement. CBFD inspector approved this record as applicable mix in accordance with the CBFD's regulations governing tank slurry mixes and delivery to C-1-A was initiated on May 10, 1989. Slurry was introduced into the tank and tank piping cavities by use of a concrete pump that was motor-driven and supplied sufficient pressure to the hydrated concrete mix. Four inch diameter hoses were connected to the fill tube, which delivered the slurry mix into the tank. Numerous entry points at the vent line and product lines are typically used to distribute the slurry throughout the tank. Approximately 8,000 gallons of slurry mix was used to fill C-1-A, as reported by ENSR's superintendent, and other field personnel. This amount is slightly greater than the tank capacity because of the filling of all underground and above ground pipelines and fill tubes as required by CBFD regulations. A record of approved tank filling procedures and slurry mixtures, and specifications of the slurry mixture provided by the supplier, are presented in Appendix K.

5.0 SITE SECURITY

Site safety was secured using fixed barriers to prevent Lockheed employees from entering the Building 44 lunch room. South Coast Air Quality Rule 1166 was complied with and all vapor levels were under the 50 parts per million limit.

The product delivery and vent pipe lines were capped at the building using "Dynamite", a pipeline sealant material made of clay/resin hardeners and approved by the agencies. The application of tank fill slurry mix required splash guards, eye protection, nitrile-butyl gloves, and hard hat protection during delivery operations. Tailgate safety meetings were held in accordance with ENSR and California Occupational Safety Health Administration health and safety protocols.

Minimal risk was determined by the ENSR Site Safety Officer and Superintendent. Pursuant to CBFD regulations, grounding and bonding of the concrete pumper was implemented for ENSR by Livingston-Graham. Delivery was secured by fixing pumper hoses to the ground by barricades as slurry was conveyed to the tank.

6.0 CONCLUSIONS

ENSR concludes that Tank C-1-A has been effectively taken out of operation and closed by completely filling the entire tank system consisting of tank and piping with an approved slurry mix.

7.0 REPORT LIMITATIONS

ENSR has completed the closure of Tank C-1-A in a professional manner using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. ENSR shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that the evaluation was performed.

The Report was gathered and/or prepared by ENSR in accordance with the above-described scope of work and generally accepted engineering and scientific practice in effect at the time of ENSR's services. The statements, opinions, and conclusions contained in the Report are only meant to give approximations of the environmental condition of the Site and are limited to (1) the particular contaminant(s) and/or environmental compliance issues actually targeted by ENSR's investigation, (2) compliance issues actually targeted by ENSR's investigation, and (3) the portions of the Site actually investigated, sampled or tested by ENSR. It is, therefore, possible that the Site contains other types and/or quantities of contaminants that were either not specifically included in the investigation of the site or were not included as elements of the Underground Storage Tank Leak Detection Investigation or included in the Work Plan Division adopted by the County of Los Angeles Department of Public Works Waste Management in 1988. The statements, opinions, and conclusions contained in the Report and other information gathered and/or prepared by ENSR should not be construed to guarantee the existence, non-existence, or exact extent of environmental contamination actually present in or around the specific facility or the potential environmental liability associated therewith.

The statements, opinions, and conclusions contained in the Report are time sensitive. Depending upon the nature of the particular contaminants involved and the nature of the activities or events that occur on the Property or on surrounding properties, the existence, non-existence, extent, and location of contamination could substantially change over time. There is the further possibility that the major sources of future environmental liability have yet to manifest themselves to the point where they are reasonably identifiable through an external investigation such as was conducted by ENSR.

8.0 CERTIFICATION

I have reviewed the activities regarding closure of underground storage tanks at Lockheed Aeronautical Systems Company Plant C-1 in Burbank, California. Based upon discussions with ENSR Corporation personnel directly involved in implementing closure, project correspondence, and my review of this Closure Report, I believe that these activities are in substantial compliance with both the intent and the procedures of the approved Closure Plan.

Based upon information which I have personally reviewed, I hereby certify that, to the best of my knowledge, the activities described in this Closure Report were performed in accordance with the approved Closure Plan.

5-10-90

Date

Richard O. Richter, Ph.D.,P.E
Registered Civil Engineer
State of California No. C-039090

Mark R. Wood R.G. for

Kenneth W. Pitchford
California Certified Engineering Geologist
No. 1461

REGISTERED PROFESSIONAL ENGINEER
RICHARD O. RICHTER
C 039090
EXP. 6/30/93
CIVIL
STATE OF CALIFORNIA

APPENDIX A

HMUSP PERMIT FOR THE STORAGE OF HAZARDOUS MATERIALS

PART B — TANK DATA

HAZARDOUS MATERIALS UNDERGROUND STORAGE PERMIT NO. 1078

AUTHORIZED HAZARDOUS MATERIAL STORAGE TANKS

TANK NUMBER	CAPACITY (GALLONS)	CONTENTS
C-1-A	6,000	soluble oil

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION OF BUILDING 44

89A
139
32

894
139
33

89A
139
29

APPENDIX C

GREGG AND ASSOCIATES REPORT 1986

RESULTS OF
UNDERGROUND TANK LEAK DETECTION PROGRAM
FOR LOCKHEED-CALIFORNIA COMPANY PLANT C-1
BURBANK, CALIFORNIA

SUBMITTED TO
CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD - LOS ANGELES REGION
107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012-4596

FROM
LOCKHEED-CALIFORNIA COMPANY
BURBANK, CALIFORNIA 91520

PREPARED BY
GREGG & ASSOCIATES, INC.

JANUARY 27, 1986

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
	1.1 Site Description	1
	1.2 Description of Underground Storage Tank	2
2.0	SUBSURFACE INVESTIGATION	3
	2.1 Field Investigation	3
	2.2 Drilling Equipment and Sampling Procedures	4
	2.3 Vapor Monitoring Well Construction	5
3.0	LABORATORY ANALYSES	7
4.0	FINDINGS	8
5.0	CONCLUSIONS/RECOMMENDATIONS	9

LIST OF TABLES

TABLE 1 - RESULTS OF LABORATORY ANALYSES OF SOIL SAMPLES

LIST OF ILLUSTRATIONS

FIGURE 1 - MAP SHOWING THE LOCATION OF CALAC PLANT C-1
FIGURE 2 - MAP SHOWING THE LOCATION OF TANK C-1-A
FIGURE 3 - TYPICAL GROUND-WATER MONITORING WELL INSTALLATION
FIGURE 4 - BORING LOG FOR BORING C-1-A-MV1
FIGURE 5 - BORING LOG FOR BORING C-1-A-MV2

APPENDIX - LABORATORY REPORTS

1.0 INTRODUCTION

This report presents the results of an underground storage tank leak detection program performed at Lockheed- California Company's (CALAC) Plant C-1 located in in Burbank, California. Plant C-1 has one underground storage tank that is used to store waste oil. This report is in response to a directive issued by the California Regional Water Quality Control Board - Los Angeles Region (CRWQCB) requiring CALAC to conduct an underground tank leak detection program at its 8 plants located in Los Angeles County.

CALAC retained Gregg & Associates, Inc., a Huntington Beach, California firm specializing in hydrology, soil and ground-water contamination, and underground tank investigations, to assist them with the underground tank leak detection program. The objectives of the program were to determine: 1) if leakage from the underground tank had occurred; 2) if contamination is present in the subsurface; 3) to install a permanent monitoring system; and 4) to establish a monitoring program.

1.1 Site Description

As indicated above, Plant C-1 is located in the City of Burbank (see Figure 1). The site is bounded by Sherman Way to the north, the Hollywood-Burbank Airport on the east and south sides and Vineland Avenue to the west. The area can be characterized largely as industrial and commercial. CALAC is one of the largest industries in the area but there are numerous satellite industries locally.

The elevation of the site is between 730 and 740 feet above mean sea level (MSL). The land surface in the area slopes to the southeast at about 70 to 80 feet per mile. City of Los Angeles Department of Water and Power well records indicate that ground water is almost 200 feet below land surface beneath Plant C-1.

The site is underlain by thick deposits of younger alluvium of Recent (Holocene) and Pleistocene age. The alluvium consists principally of stream channel, fan, and basin deposits. Much of the deposits of Recent age are probably fan deposits from La Tuna Canyon in the Verdugo Mountains northeast of the plant. A drillers log of a well owned by the City of Burbank and located near the intersection of Vanowen Street and Hollywood Way indicates that the subsurface soils are largely granular to a substantial depth. Typically, soils in the San Fernando Valley are sandy silts, sands and sandy gravels. Any clays are usually discontinuous and not extensive.

1.2 Description of Underground Storage Tank

CALAC Plant C-1 has one underground storage tank, Tank C-1-A, that is currently used to store waste oil. Tank C-1-A was originally used to store diesel fuel. The location of the tank is shown relative to surrounding structures on Figure 2. The tank has a 10,000 gallon capacity, a length of 21 feet and a diameter of 9 feet. The length was estimated by measuring the distance between fill tubes and the diameter was estimated using the relationship between the tanks capacity and length. The waste oil in the tank is periodically removed by vacuum pump and a licensed waste handler.

2.0 SUBSURFACE INVESTIGATION

2.1 Field Investigation

The field investigation consisted of drilling and sampling two borings and installing a vapor monitoring well in each boring. Boring/Vapor Monitoring Well C-1-A-MV1 was drilled and installed on July 25, 1985 and Boring/Vapor Monitoring Well C-1-A-MV2 was drilled and installed on October 10, 1985. The locations of the monitoring wells are shown on Figure 2.

The boring for vapor monitoring well C-1-A-MV1 was drilled to a depth of 15 feet and a 12 foot deep vapor monitoring well was installed. A soil sample was collected from the bottom of the boring at a depth of 15 feet below the ground surface. Several attempts to collect soil samples at depths less than 15 feet were unsuccessful due to the presence of numerous cobbles throughout the boring. The boring for vapor monitoring well C-1-A-MV2 was drilled to a depth of 15 feet and an 11 foot deep vapor monitoring well was installed. Soil samples were collected from the boring at depths of 5,10, and 15 feet. The depths of both the vapor monitoring wells were less than the total depths of the borings due to hole caving; however, the 12 and 11 foot depths for C-1-A-MV1 and C-1-A-MV2, respectively, are sufficiently deep to adequately monitor the tank. A typical design for a vapor monitoring well installation is shown in Figure 3. The boring logs for C-1-A-MV1 and C-1-A-MV2 are shown in Figures 4 and 5 respectively.

2.2 Drilling Equipment and Sampling Procedures

All drilling was performed by Gregg Drilling & Testing of Huntington Beach, California, under the supervision of personnel from Gregg & Associates, Inc. The equipment used for drilling C-1-A-MV1 was a Mobile Drilling Company Minuteman auger drilling rig and C-1-A-MV2 was drilled using a Mobile Drilling Company Model B-24 auger drilling rig. The Minuteman drilling rig is a small hand-portable drilling rig and was used because space limitations prevented using a conventional truck-mounted drilling rig. The auger flights are hollow (hollow-stem). The Minuteman augers have an inside diameter of 2.5 inches and an outside diameter of about 4.5 inches. The individual auger flights are in 2.5-foot lengths. The B-24 augers have an inside diameter of 3.25 inches and an outside diameter of 8 inches. The individual auger flights are in 5-foot lengths. The type of equipment used and the method for collecting soil samples are very similar for both rigs. A retractable plug prevents soil from entering into the auger flights during the boring process. The plug is at the end of a string of AW size steel rods that are manually inserted and retrieved from the hole. A Modified California Sampler is placed at the bottom of the AW rods when a target depth is reached and a soil sample is to be collected.

A Modified California Sampler, consisting of an outer sampler barrel and an inner thin-walled liner or set of rings, was used for sampling. The sampler was manually driven with a hand-held hammer. As the sampler was driven ahead of the hollow-stem auger flights, the soil sample was collected in the inner liner or

rings. After the sampler was driven 12 inches, it was retrieved and the rings were removed. For this application, two 6-inch long rings placed end to end were used. The bottom ring containing the soil sample was removed from the sampler, it's ends were sealed with aluminum foil and plastic end caps, then secured with duct tape. The sample was then labeled and placed in an ice chest for cold storage. These soil samples were later placed in a freezer for storage and were shipped frozen by courier to Acurex Corporation, of Mountain View California, for testing. The soil samples were accompanied by a chain-of-custody manifest. The soil in the top 6-inch ring was examined in the field for lithologic description and was visually inspected for contamination.

Before the Modified California sampler and rings were assembled and put in the boring, they were cleansed to avoid cross-contamination between samples or borings. The equipment was washed with soap and water, rinsed with tap water, dipped in methanol and allowed to air dry.

2.3 Vapor Monitoring Well Construction

A permanent vapor monitoring well was installed in each of the borings. The wells were constructed of 2-inch ID PVC blank pipe and screen. The screen was factory machine slotted with openings of about 0.020 inch. The annulus between the sides of the boring (about 2.5-inches for C-1-A-MV1 and about 6-inches for C-1-A-MV2) and the 2-inch ID screen was filled with a clean sand pack (Lone Star #3 sand). The remainder of the annular space was filled with bentonite and concrete.

Vapor monitoring well C-1-A-MV1 was screened from 12 feet to 5 feet and blank pipe was placed from 5 feet to the surface. The sand pack was placed from the bottom of the well to a point above the uppermost slots (4.5 feet). Bentonite was placed from 4.5 to 3 feet and the remainder of the annulus was filled with concrete.

Vapor monitoring well C-1-A-MV2 was screened from 11 feet to 7 feet and blank pipe was placed from 7 feet to the surface. The sand pack was placed from the bottom of the boring to a depth of 6 feet. Bentonite was placed from 6 to 5 feet and the remainder of the annulus was filled with concrete.

Vapor Monitoring Well C-1-A-MV1 is housed at the surface with a cast-iron meter box and epoxied to the paving. Vapor Monitoring Well C-1-A-MV2 is housed at the surface in a precast concrete meter box concreted in place to the surrounding pavement and soil. Both meter boxes have cast iron lids that are set 0.5 inches above the paved surface.

All joints or lengths of pipe, blank and slotted, were connected by threaded joints. No glued joints were used. Further, all well casing, screen, and caps placed in the holes were washed with an aqueous solution of detergent and rinsed with tapwater to preclude contamination by hydrocarbons.

3.0 LABORATORIES AND TEST PROCEDURES

The chemical analyses of the soil samples were performed by the Acurex Corporation. The samples were analyzed for the constituent stored in the underground tanks, oil. The samples were analyzed using IR (infrared spectrophotometry), EPA Method 418.1. Two samples were analyzed: the 15-foot sample from the boring for vapor monitoring well C-1-A-MV1 and a composite sample of the three samples from the boring for vapor monitoring well C-1-A-MV2. The results of the laboratory analyses are shown on Table 1.

TABLE 1

RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES

Soil Samples	Petroleum Hydrocarbon Concentrations
C-1-A-MV1 15 ft.	<10 mg/kg
C-1-A-MV2 composite	<10 mg/kg

note: detection limit for soil samples is 10 mg/kg

4.0 FINDINGS

The soil at the site consists of predominantly medium to coarse grain sand with abundant pebbles and cobbles. The sand ranges in color from brown to variegated brown, is moist and has a loose relative density. No field indications of subsurface contamination such as odor or discoloration were observed during drilling, nor was any contamination found in the laboratory analyses of the soil samples. However, the field engineer noted that the concrete pad overlaying the tank had numerous oil stains.

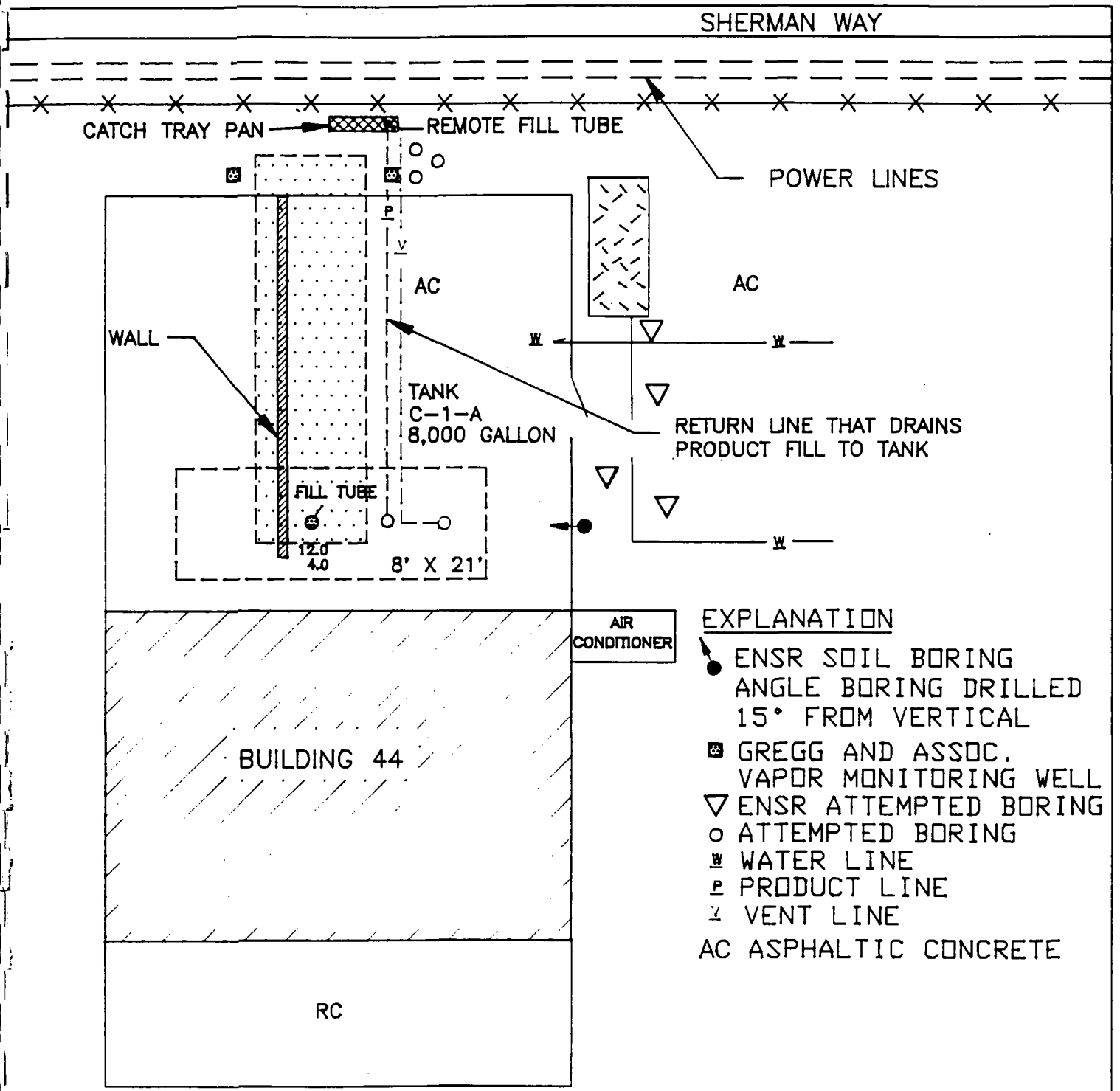
5.0 CONCLUSIONS/RECOMMENDATIONS

No petroleum hydrocarbons were detected in either of the soil samples collected in Borings C-1-A-MV1 and C-1-A-MV2. Further, no field indications of soil contamination were observed during the drilling of the borings. It is concluded that the underground storage tank C-1-A at CALAC Plant C-1 does not leak. It is recommended that quarterly soil vapor monitoring of the monitoring wells be conducted.

The oil stains on the concrete pad overlaying the tank are the probable result of spillage during tank filling and pumping procedures. It is recommended that greater care should be exercised during tank filling and pumping of the tank.

APPENDIX D

ENSR TANK C-1-A PLOT PLANS



EXPLANATION

- ENSR SOIL BORING ANGLE BORING DRILLED 15° FROM VERTICAL
- GREGG AND ASSOC. VAPOR MONITORING WELL
- ENSR ATTEMPTED BORING
- ATTEMPTED BORING
- W WATER LINE
- P PRODUCT LINE
- V VENT LINE
- AC ASPHALTIC CONCRETE

N

LOCKHEED

1"=10'

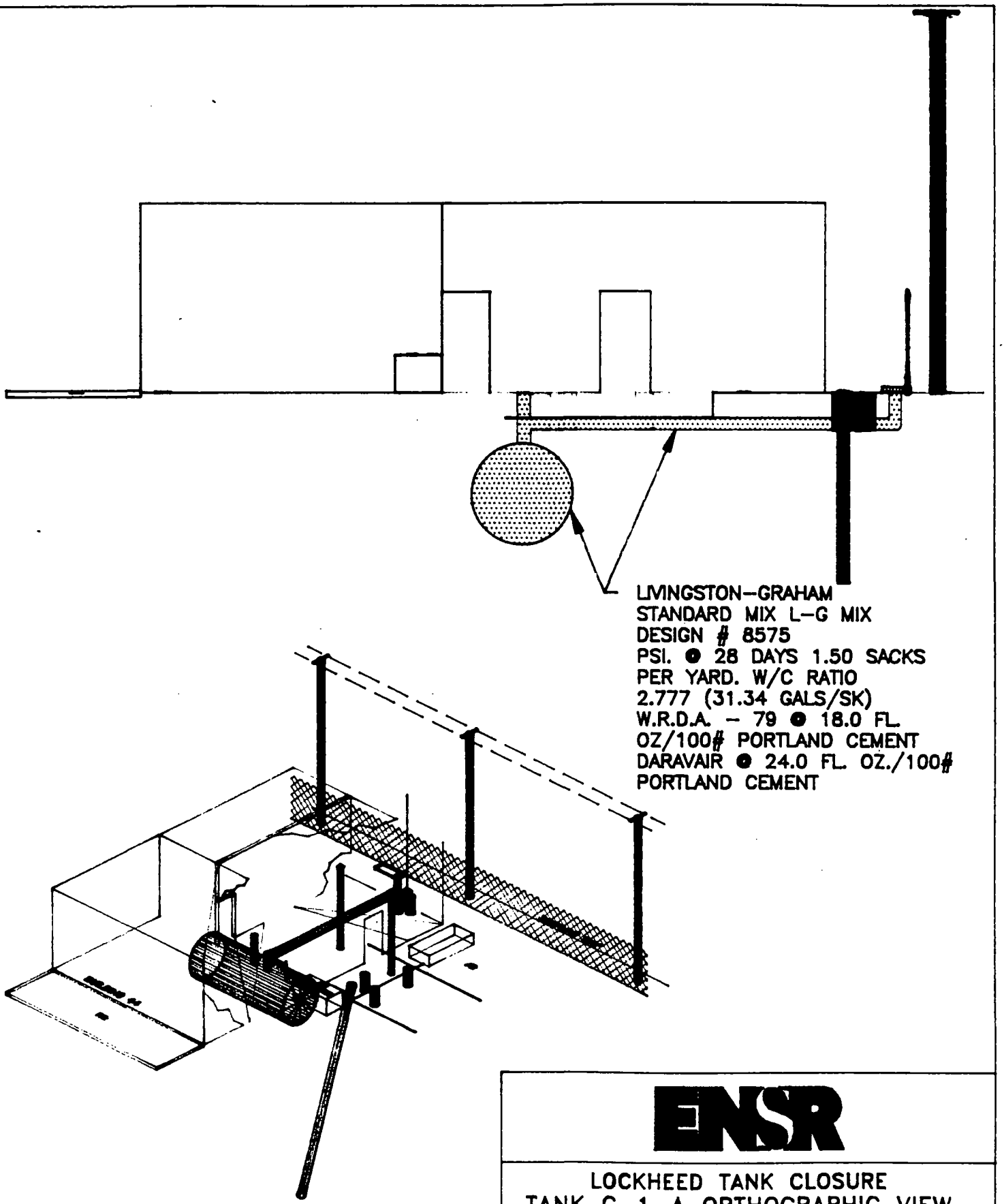
0 5 10

APPROXIMATE SCALE

ENSR

LOCKHEED TANK CLOSURE
TANK C-1-A PLOT PLAN
PLANT C-1, BUILDING 44

DRAWN BY: R&L SYSTEMS	DATE: 3-7-90	PROJECT NO. C 88046
CHK'D BY:	REV: A	DWG NO. C-1-A



ENSR

LOCKHEED TANK CLOSURE
TANK C–1–A ORTHOGRAPHIC VIEW
SHOWING SLURRY FILLED TANK SYSTEM
PLANT C–1, BUILDING 44

DRAWN BY: RAL SYSTEMS	DATE: 3–30–90	PROJECT NO. C 88046
CHK'D BY: RJB	REV:	DWG NO. C–1–A–3

APPENDIX E

ACUREX LABORATORY ANALYTICAL REPORT

ACUREX Corporation

Energy & Environmental Division

Gregg & Associates
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

August 15, 1985
Acurex ID#: 8508-009
Client PO#:84-106-002

Attention: Ed Baquerizo

Subject: One Soil for Analysis, Received 8/7/85, Project Lockheed #84-106-002

The above sample was analyzed for petroleum hydrocarbons by EPA method 418.1 as applied to soil. The results are presented below.

Sample Identification	Petroleum Hydrocarbons, mg/kg
C-1-A-MV1-15 ft.	<10
C-1-A-MV1-15 ft. duplicate	<10
C-1-A-MV1-15 ft. spike	82% Recovery

Prepared by: Patrick M. Hirata
Patrick M. Hirata
Chemist

Approved by: Greg Nicoll
Greg Nicoll
Manager, Inorganic Chemistry

PMH/GN/kek

These results were obtained using accepted laboratory practices; the liability of Acurex Corporation shall not exceed the amount paid for this report. In no event shall Acurex be liable for special or consequential damages.

Table 2. Petroleum Hydrocarbon Results

Sample ID		Concentration (mg/Kg)
C-1-MV2	5'	
C-1-MV2	10'	< 10
C-1-MV2	15'	

Table 2. Petroleum Hydrocarbon Results

Sample ID		Concentration (mg/Kg)
C-1-MV2	5'	
C-1-MV2	10'	< 10
C-1-MV2	15'	

APPENDIX F

ENSR LEAK DETECTION INVESTIGATION REPORT DATED JULY, 1989 (DOC. NO. 9500-064)

LOCKHEED AERONAUTICAL SYSTEMS COMPANY BURBANK, CALIFORNIA

ENSR

LEAK DETECTION INVESTIGATION SECTION 3.0 LEAK DETECTION FIELD DATA

VOLUME II

ENSR CONSULTING AND ENGINEERING

(FORMERLY ERT)

JULY 1989

DOCUMENT NO. 9500-064

2.30 TANK C1-A

Tank C1-A is a 6,000-gallon waste hydraulic coolant-oil tank located beneath Building 44 (Section 3.30.1). Gregg and Associates drilled two 15-foot soil borings and converted the borings into 11- and 12-foot vapor monitoring wells. Gregg and Associates observed non-detectable levels of petroleum hydrocarbons in the soils adjacent to tank C1-A. Gregg and Associates report and lab results are included in Section 4.28.

2.30.1 Field Activities

On January 6, 1989, boring EC1-A was drilled, at an angle of 15 degrees from vertical, adjacent to tank C1-A. Soil samples were collected at 5-foot intervals to a depth of 20 feet and at 10-foot intervals to a depth of 40 feet (Sec. 3.30.2). A soil sample was then collected at the bottom of the boring at 45 feet. Soil samples were screened in the field with a portable gas chromatograph using an ambient temperature headspace (ATH) method (Sec. 3.30.3). Two soil samples, from the 20- and 45-foot sample intervals, were delivered to a California-certified laboratory for analysis using EPA Method 418.1 (Sec. 3.30.5).

2.30.2 Results

Non-detectable hydrocarbon vapor levels were detected by ATH analysis in soil samples to the total depth of 45 feet. Laboratory analysis indicate 43 mg/kg at TPH 20 feet and 210 mg/kg TPH at 45 feet (sec. 3.30.4).

2.30.3 Conclusions and Recommendations

The levels of TPH observed in the samples analyzed are below 1000 ppm, a generally applicable enforcement criteria. No further investigations are recommended at this time for tank C1-A.

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT

ENSR, Consulting & Engineering (2013)
19782 MacArthur Blvd.
Suite 365
Irvine, CA 92715
Attn: Charles Keller

LAB NO. F59705
REPORTED 02/07/89

SAMPLE Soil
RECEIVED 01/31/89

IDENTIFICATION Proj. # 9500-064, Lockheed, Burbank

BASED ON SAMPLE As Submitted

	Hydrocarbons (418.1) (mg/kg)
EC1-A-20	43
EC1-A-45	210

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900

CLIENT
ENSR, Consulting & Engineering (2013)
19782 MacArthur Blvd.
Suite 365
Irvine, CA 92715
Attn: Mark Wood

LAB NO. F58691-01
REPORTED 01/27/89

SAMPLE Soil
RECEIVED 01/06/89

IDENTIFICATION Proj. No. 9500-064, Lockheed, Burbank CA

BASED ON SAMPLE As Submitted

	Hydrocarbons (418.1) (mg/kg)
B6-U-20	ND< 10
B6-U-45	40
* B6-U-02	3,580

	Total Hydrocarbons (TPH - DHS) (mg/kg)
EB6-F33-20	ND< 10
EB6-F33-40	ND< 10

	MBAS
EC1-A-20	0.30 mg/kg
EC1-A-45	0.20 mg/kg
B6-U-20	0.26 mg/kg
* - Chromium, Total	9.98 mg/kg

ASSOCIATED LABORATORIES

Robert A. Stahler for
Edward S. Behare, Ph.D.

ESB/hl

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
Lockheed	Burbank, CA

Project No.	Field Logbook No.
9500-064	

Sampler: (Signature)	Chain of Custody Tape No.
Mark Wood	

ANALYSES

Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample	8015(m)	8020	8240	MBAS	Cl (Total)	418.1	REMARKS
EB6-F33-20	1/5/89	9:33		S	X						
EB6-F33-40	1/5/89	9:54			X						
B6E-20	1/5/89	11:47				X	X				
B6E-40	1/5/89	12:01				X	X				
EC1-A-20	1/6/89	9:35						X	X	X	
EC1-A-45	1/6/89	10:30						X	X	X	
B6-U-20	1/6/89	12:08					X	X	X	X	8020 if TPH > 1000ppm
B6-U-45	1/6/89	12:47					X			X	" " " "

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Mark Wood	1/6/89	15:30			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received for Laboratory: (Signature)	Date	Time
			Kep A. Smith	1/6/89	15:30

Sample Disposal Method:	Disposed of by: (Signature)	Date	Time

SAMPLE COLLECTOR	ANALYTICAL LABORATORY	ERT
		№

1974-3-84

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
LOCKHEED UST	BURBANK CA

Project No.	Field Logbook No.
C88046	

Sampler: (Signature)	Chain of Custody Tape No.
David C Schanken	

ANALYSES

Sample No./ Identification	Date	Time	Lab Sample Number	Type of Sample	8240	8015 E	Chromat (total)	TPH			REMARKS
A-1-X-1	5/12/89	0700		SOLID	X	X	X				SUSPECT P.E.R.C.
A-1-X-2	5/12/89	0700		SOLID	X	X	X				" DICHLOROMETHANE
											" TRICHLOROMETHANE
C-1-A	5/12/89	0900		LIQUID				X			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
David C Schanken	5/12/89	1600	David Howard	5-12-89	16:00
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
David Howard	5-12-89	4:15			
Relinquished by: (Signature)	Date	Time	Received for Laboratory: (Signature)	Date	Time
			[illegible]	5-12-89	4:15
Sample Disposal Method:	Disposed of by: (Signature)			Date	Time

SAMPLE COLLECTOR
DAVID C SCHANKIN - SUPERINTENDENT
ENSR CONSTRUCTORS
714-476-0321

ANALYTICAL LABORATORY
ASSOCIATED LABS
806 N BATAVIA
ORANGE CA 92668
714-771-6900

ENSR

1974-3-84

QA/QC REPORT

Lab Sample No. F 65471-22 Spk (1) Date 5/17/89

Sample Log IN/OUT 5/15/89 → 5/17/89 Page No.

Instrument Log Book Type

I. L. B. Page No. Disk No.

Chromatogram Location Shell oil company

Sample Analyses Worksheet Attached yes

MODIFIED 8015 - PETROLEUM HYDROCARBON

mg/kg

COMPOUND	SR	SR_1	RPD	BLK	SA	SSR	% RECOVERY	SAMPLE RETN TIME	SPIKE RETN TIME	MDL
DIESEL										
GASOLINE	ND	ND			200	217	109%			<10 mg/kg

MDL = 10 x baseline

$$RPD = \frac{SR - SR_1}{\frac{(SR + SR_1)}{2}} \times 100$$

MDL= 3 x Std. Dev. of replicate measurements

$$\% \text{ Recovery} = \frac{SSR - SR}{SA} \times 100$$

PASS/NO PASS Pass

Action Taken

Source of Spike UNOCAL's DIESEL
(EPA QA/QC, EPA Repository, Supelco, Sigma, Etc.)

Analyst, Quat

QA/QC Compiler

CONSULTING AND ENGINEERING

SUBSURFACE EXPLORATION — LITHOLOGIC LOG OF EC1-A

Client : LOCKHEED/BURBANK
Project Name : LEAK DETECTION INVESTIGATION
Project Location : BURBANK, CALIFORNIA
Job Number : 9500-064 Boring No : EC1-A
Logged By : M. WOOD
Approved By : K. PITCHFORD, R.G.
Drilled By : A&R DRILLING

DRILLING AND SAMPLING INFORMATION
Date Started : 1/6/89 Date Completed : 1/6/89
Method : HSA Total Depth : 46 FEET

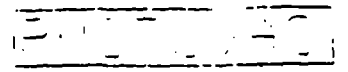
WELL COMPLETION INFORMATION
Screen Dia : Length :
Slot Size : Type :
Casing Dia : Length :

SURFACE ELEVATION : 670 FEET, U.S.G.S. BURBANK, CA

DEPTH IN FEET	DESCRIPTION	SAMPLE NO.	SAMPLE TYPE	RECOVERY (FEET)	BLOW COUNT	PID *	TIME	GRAPHIC LOG	WELL COMPLETION	WATER LEVEL
	asphalt upper 2 inches SAND (SP) brown, moist, loose, coarse to very fine grained sand, with a trace of cobbles to 4.5 inches diameter, 1-2% fine gravel									
5										
10		10	SS	1.5	2	X	0920			
15		15	SS	1.5	2	X	0928			
20	continued SAND (SP) becomes dense	20	SS	1.5	41	X	0935			
25										
30		30	SS	1.5	37	X	0950			
35										
40	continued SAND (SP) becomes dense	40	SS	1.5	57	X	1015			
45		45	SS	1.5	54	X	1030			
50	Bottom of boring at 46 feet. No groundwater encountered. No odor or staining encountered.									
55	* PID: PHOTO-IONIZATION DETECTOR VALUE (eV)									

SAMPLER TYPE
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE
RC - ROCK CORE
CT - CONTINUOUS TUBE

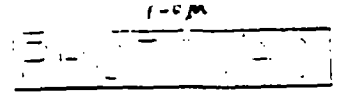
BORING METHOD
HSA - HOLLOW STEM AUGER
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING



START

STOP @ 45.4
SAMPLE LIBRARY 1 JAN 5 1993 12:31
ANALYSIS # 1 LOCKHEED
INTERNAL TEMP 18 SAMPLE
GAIN 2

COMPOUND NAME PEAK R.T. AREA/PPM

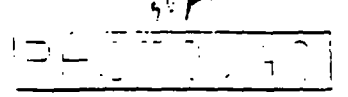


START

STOP @ 138.3
SAMPLE LIBRARY 1 JAN 5 1993 12:34
ANALYSIS # 2 LOCKHEED
INTERNAL TEMP 17 SAMPLE
GAIN 50 BENZENE 1PPM

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	2	17.2	133.7 mVS
UNKNOWN	3	19.4	184.3 mVS
UNKNOWN	4	21.8	82.1 mVS
UNKNOWN	5	24.4	45.3 mVS
UNKNOWN	6	33.5	387.6 mVS
UNKNOWN	8	68.5	78.8 mVS

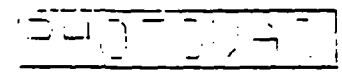


START

STOP @ 87.3
SAMPLE LIBRARY 1 JAN 6 1993 5:12
ANALYSIS # 3 LOCKHEED
INTERNAL TEMP 17 SAMPLE
GAIN 50 BENZENE 1PPM

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	16.1	78.3 mVS
UNKNOWN	2	28.8	79.8 mVS

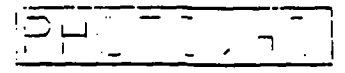


START

STOP @ 188.7
SAMPLE LIBRARY 1 JAN 6 1993 5:13
ANALYSIS # 4 LOCKHEED
INTERNAL TEMP 18 SAMPLE
GAIN 50 BENZENE 1PPM

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	2	16.3	183.8 mVS
UNKNOWN	3	17.8	73.4 mVS
UNKNOWN	5	28.3	237.7 mVS
UNKNOWN	7	43.2	87.5 mVS

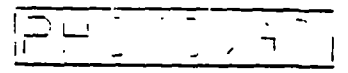


START

STOP @ 333.8
SAMPLE LIBRARY 1 JAN 6 1993 5:21
ANALYSIS # 5 LOCKHEED
INTERNAL TEMP 17 PURGE
GAIN 50 EC1-A-13

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	1	22.8	31.3 mVS

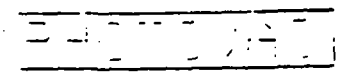


START

STOP @ 182.7
SAMPLE LIBRARY 1 JAN 6 1993 5:40
ANALYSIS # 6 LOCKHEED
INTERNAL TEMP 19 PURGE
GAIN 50 EC1-A-10

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	2	18.8	29.8 mVS
UNKNOWN	3	17.9	21.2 mVS



START

STOP @ 158.8
SAMPLE LIBRARY 1 JAN 6 1993 5:54
ANALYSIS # 7 LOCKHEED
INTERNAL TEMP 19 SAMPLE
GAIN 50 EC1-A-10

COMPOUND NAME PEAK R.T. AREA/PPM

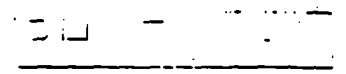
UNKNOWN	1	15.7	189.1 mVS

START

STOP @ 72.4
SAMPLE LIBRARY 1 JAN 6 1993 5:58
ANALYSIS # 3 LOCKHEED
INTERNAL TEMP 15 SAMPLE
GAIN 50 EC1-A-10

COMPOUND NAME PEAK R.T. AREA/PPM

UNKNOWN	2	17.3	213.1 mVS
UNKNOWN	3	18.9	124.6 mVS

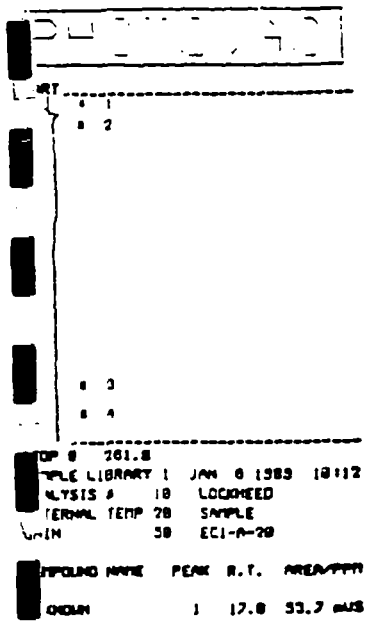


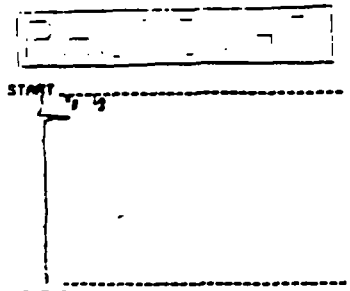
START

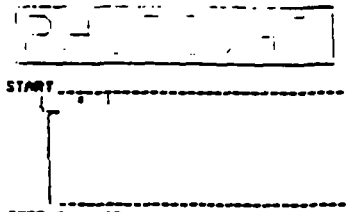
STOP @ 381.9
SAMPLE LIBRARY 1 JAN 6 1993 10: 3
ANALYSIS # 9 LOCKHEED
INTERNAL TEMP 19 SAMPLE
GAIN 50 EC1-A-13

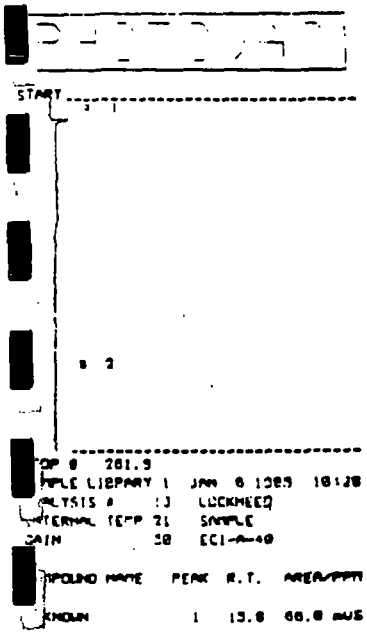
COMPOUND NAME PEAK R.T. AREA/PPM

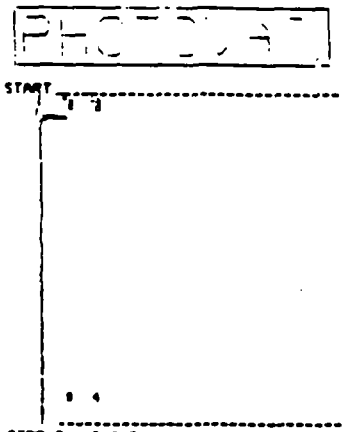
UNKNOWN	1	16.4	79.3 mVS

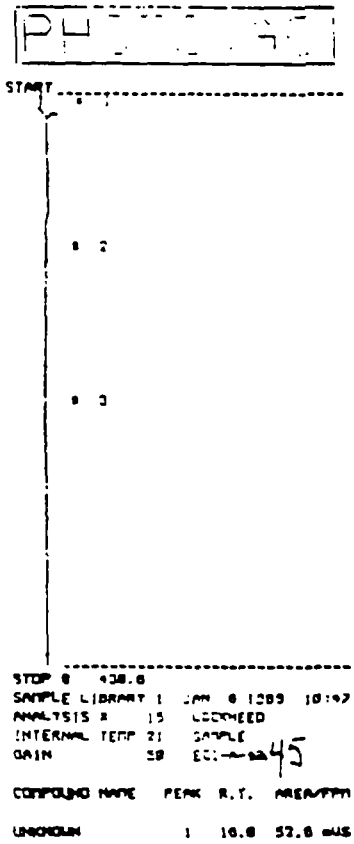

START
STOP @ 281.8
SAMPLE LIBRARY 1 JAN 6 1983 18:12
ANALYSIS # 10 LOCKHEED
INTERNAL TEMP 20 SAMPLE
GAIN 50 ECI-A-20
COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 17.0 53.7 mVS


START
STOP @ 140.9
SAMPLE LIBRARY 1 JAN 6 1983 18:15
ANALYSIS # 11 LOCKHEED
INTERNAL TEMP 21 SAMPLE
GAIN 50 ECI-A-20
COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 2 17.3 84.6 mVS
UNKNOWN 3 18.8 65.5 mVS


START
STOP @ 83.1
SAMPLE LIBRARY 1 JAN 6 1983 18:13
ANALYSIS # 12 LOCKHEED
INTERNAL TEMP 21 SAMPLE
GAIN 50 ECI-A-30
COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 15.8 58.9 mVS


START
STOP @ 281.9
SAMPLE LIBRARY 1 JAN 6 1983 18:28
ANALYSIS # 13 LOCKHEED
INTERNAL TEMP 21 SAMPLE
GAIN 50 ECI-A-40
COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 15.8 66.0 mVS


START
STOP @ 248.6
SAMPLE LIBRARY 1 JAN 6 1983 18:35
ANALYSIS # 14 LOCKHEED
INTERNAL TEMP 21 SAMPLE
GAIN 50 ECI-A-40
COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 2 17.2 63.2 mVS
UNKNOWN 3 18.8 63.3 mVS


START
STOP @ 438.6
SAMPLE LIBRARY 1 JAN 6 1983 18:42
ANALYSIS # 15 LOCKHEED
INTERNAL TEMP 21 SAMPLE
GAIN 50 ECI-A-45
COMPOUND NAME PEAK R.T. AREA/PPM
UNKNOWN 1 16.8 52.8 mVS

LACDPW MATRIX SUMMARY OF LOCKHEED UST COMPLIANCE PROGRAM

PLANT BUILDING	SIZE GL	CONTENTS	CLOSURE	TIT	RESULTS	FIELD DATA	SAMPLE METHOD	LAB REPORT	SITE ASSESSMENT	REMEDIATION PLAN	TANK NO.
C1/144	6K	SOLUBLE OIL	LDI/CIP	NA	ND	LOW	418.1	ND	NA	NA	C1A
A1/65A	8K	WASTE OIL	REMOVE	—	SA	GC,TIPI	8240E 8015E	2070 PPM AT 5 FEET	3- 20' BORINGS	BIO - IN SITU	A1F
A1/71	10K	DIESEL #2	CIP	PIPING LEAK	SA	GC,TIP 1	8015E 8020E	ND <10PPM	NOT NEEDED	SOIL REMOVAL	A1F1
A1/71	10K	DIESEL #2	CIP	PIPING LEAK	SA	GC,TIP 1	8015E 8020	ND > 10	NOT NEEDED	SOIL REMOVAL	A1F2
A1/71	20K	DIESEL #2	CIP	PIPING LEAK	SA	GC,TIP 1	8015E 8020	1140PPM AT 40' 25,900 PPM AT 15'	2-60' BORINGS	SOIL REMOVAL	A1F3
A1/71	1K	START UP FUEL	REMOVED	PIPING LEAK	ND	GC,TIP 1	8015E 8020E	ND	NOT NEEDED	SOIL REMOVAL	A1F12
A1/32	6K	WASTE DEVELOPER	ND	PASS	ND	LOW	8015M 8010	ND	NOT NEEDED	ND	A1B
A1/GAS	12K	UNLEADED GAS	LDI/CIP	PASSED ALL TESTS	NEW TURBINES	HIGH	8015E 8240E	2.5-41.5 PPM PCE	3-40' BORINGS	IN SITU VES	A1F8
A1/GAS	12K	UNLEADED GAS	NO	PASS	NEW TURBINES	HIGH	8015E 8240E			IN-SITU VES	A1F9
A1/GAS	12K	DIESEL #2	NO	PASSED ALL TESTS	NEW TURBINES	HIGH	8015E 8240E	2,980 PPM TPH	2- 40' BORINGS	IN-SITU VES	A1F10
A1/GAS	12K	PCE	LDI	PASSED ALL LINE TEST	NEW TURBINES	GC, HIGH	8015E 8240E	7 PPM PCE	3-40'BORINGS	IN SITU VES	AIN
A1/68	300	REG GAS	LDI	PASSED ALL	ND	GC,LOW	8015E 8240E	ND	NA	NA	A1F13
A1/92	1K	REG GASOLINE	LDI	PASSED	ND	GC,LOW	8015E 8020E	ND	NA	NA	A1F14
A1/33	150	GASOLINE	NO	PASSED	ND	CLEAN	8015E 8020E	ND	NA	NA	A1F100
A1/31	130	DIESEL	NO	PASSED	ND	CLEAN	8015E 8020E	ND	NA	NA	A1F10
B1/194	6K	WASTE COOLANT	LDI	PASSED	ND	CLEAN	418.1	ND	NA	NA	B1AU
B1/166	6K	RAON WASTE CLEANER	LDI	PASSED	ND	CLEAN	PH	ND	NA	NA	B1C
B1/140	20K	DIESEL	LDI	PASSED FIXED	HIGH LEVELS	HIGH	8015E 8020E	14700 @ 18' 19 @ 40'	5-40' BORINGS	BIO-IN SITU	B1F1
B1/LD	20K	DIESEL	LDI		ND	CLEAN	8015E 8020E	ND	NA	NA	B1F2

APPENDIX G

TANK CLOSURE PERMIT

DOUS MATERIALS UNDER GROUND STORAGE
OF LOS ANGELES-DEPARTMENT OF PUBLIC WORKS
MANAGEMENT DIVISION
FREMONT AVENUE
ADENA, CALIFORNIA 91803-1331

Permit 5019 B
File 9779 R/C 3E
Fee $ 141.00
Check [✓] Cash [ ]

Name LOCKHEED AERONAUTICAL SYSTEMS CO. Phone 818-847-5144
Mailing Address 2311 HOLLYWOOD WAY City BURBANK State CA Zip 91520

SITE:
Occupant Name LOCKHEED. PLANT C-1. Phone
Site Address 10720 SHERMAN WAY City BURBANK Zip 91520
Mailing Address DEPT 38-15 B-76 PLANT A1 City State Zip
Contact Person WENDELL SUYAMA Title ENV. ENGR.

CONTRACTOR [ ], complete below: OWNER/OPERATOR AS CONTRACTOR [ ]
Name EWSR CONSTRUCTORS Phone 714 4760321
State License No. 537220 Class A

TYPE REQUESTED:
[ ] PERMANENT, TANK REMOVAL (See Conditions A and C Attached)
How many underground tanks will remain after this closure?
[✓] PERMANENT, CLOSURE IN PLACE (See Conditions A and D Attached)
[ ] TEMPORARY (See Conditions A and B Attached)

DESCRIPTION: PLOT PLAN ATTACHED [ ] EXISTING HMUSP NO.

No.	Construction Material	Age (Years)	Capacity (gal)	Materials Stored (Past/Present)
-A	STEEL	29	6,000	SOLUABLE OIL

ANSWER THE FOLLOWING:

	YES	NO
Has an unauthorized release ever occurred at this site?	[✓]	[ ]
Have structural repairs ever been made to these tanks?	[ ]	[✓]
Will new underground tanks be installed after closure?	[ ]	[✓]
Will any wells, including monitoring wells, be abandoned?	[✓]	[ ]

CONTAMINATED TANKS AND RESIDUES THAT MAY BE LEFT IN TANKS TO BE CLOSED ARE A HAZARDOUS WASTE WHICH MUST BE TRANSPORTED AND DISPOSED OF PURSUANT TO CHAPTER 6.5, CALIFORNIA HEALTH & SAFETY CODE. FAILURE TO COMPLY MAY BE PUNISHED AS A FELONY VIOLATION.

By signature below the applicant certifies that all statements and disclosures above are true and correct and that they have read and agree to abide by this permit and all conditions and limitations attached.

Applicant's Signature Thomas J Owen Date 11/15/88
(Print Name) Phone 714-4760321
Owner [ ] Operator [ ] Contractor [✓]

==========TO BE COMPLETED BY THE DEPARTMENT OF PUBLIC WORKS==========
PURSUANT TO SECTION 11.80.070B, LOS ANGELES COUNTY CODE, PERMISSION IS HEREBY GRANTED TO PROCEED WITH THE CLOSURE DESCRIBED ABOVE SUBJECT TO THE ATTACHED CONDITIONS AND LIMITATIONS [X]. THIS PERMIT EXPIRES 180 DAYS FROM THE DATE ISSUED.

Contact - RANDY MacDonald (805) 945-6416
8-9 AM 72 HRS

T.A. TIDEMANSON
Director of Public Works

By [signature] Date 11-16-88

DOUS MATERIALS UNDERGROUND STORAGE
ELES COUNTY
ENT OF PUBLIC WORKS
MANAGEMENT DIVISION
CAZAR STREET
ELES, CALIFORNIA 90033

Closure Permit
No. 5019 B
File No.
I-9774-3E

sfy the permanent closure requirements for underground storage tanks usly storing hazardous materials, site integrity must be demonstrated analysis of soil samples and, if applicable, groundwater samples as d below. These requirements are in addition to the conditions listed Application fo Closure or contained in an approved Closure Plan.

ples shall be obtained at the sampling points (SP) indicated on the ached plot plan.

each SP, samples shall be obtained at the following depths:

SP	Depth(s)	Compounds	Analysis Method
	5, 10, 20, 30, 40 Ft. deep	T.P.H.	EPA 418.1

soil samples obtained shall be undisturbed and unexposed prior to alysis. The method used to obtain the samples and the date of pling shall be included in the final report.

groundwater is encountered during sampling, a groundwater monitoring l shall be established at the most downgradient sampling point. The l shall be developed by removing a minimum of four well volumes and groundwater sample shall be obtained and analyzed.

analysis results for all soil samples shall be expressed in lligrams per kilogram (mg/kg). Analysis results for groundwater ples shall be expressed in parts per billion (ppb).

alysis results shall be reported on laboratory letterhead and shall clude the following information: a) The date the analysis was ducted; b) The method of extraction (if applicable); c) The method analysis.

soil/groundwater samples obtained shall be handled and transported a laboratory in strict accordance with applicable EPA regulations tilizing chain-of-custody procedures. Chain-of-custody documentation l be included in the final report.

the soil/groundwater analysis indicates undefined contamination at facility, additional sampling shall be required to define the tical and lateral extent present.

final report that contains all of the above required information l be submitted to the office above within one (1) month from the ampling date or 180 days from the date of this permit, whichever

F - D - 8

BURBANK FIRE DEPARTMENT
353 East Olive Avenue
Burbank, Calif. 91502

PERMIT

- [ ] Public Assembly
- [ ] Flammable Liquids
- [x] Hazardous Processes
- [ ] Hazardous Materials
- [ ] Compressed Gases
- [ ] Other

Date issued 4-19-85 Expiration Date 5-19-85

In accordance with Sec. 4.101 of the Uniform Fire Code, a permit is issued to:

Name: E.N.S.R. Corporation (Contractor's License # 537220)

Address: 19782 MacAthur Blvd. Suite #365 Irvine California 92715 Phone # (714) 476-0321

For: Permanent, CLOSURE IN PLACE of a U.S.T. identified as (C-1A) located at 2311 Hollywood Way Burbank Calif. In the Lockheed Aeronautical Systems Company. Said CLOSURE IN PLACE shall be done in a manner approved by the Burbank Fire Dept. and Los Angeles County Waste Management Div. Fire Dept. Field Inspector shall be on site during the filling of said U.S.T.

This permit is valid until its expiration date or until the limits are exceeded or the requirements are violated.

Curtis V. Reynolds, Fire Chief

By Josef Solares, Inspector
Authorized Representative

This permit does not take the place of any License required by law and is not transferable. Any change in the use or occupancy of premises shall require a new permit.

THIS PERMIT MUST BE PROMINENTLY DISPLAYED ON THE PREMISES AT ALL TIMES

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

№- 0526813

PERMIT

It is the Division's policy to send copies of permits and job notifications to the appropriate Fed/OSHA office.

Permit Issued To
(Insert Employer's Name, Address and Telephone No.)

ENSR Corp.
19782 MacArthur, Suite 365
Irvine, CA 92715
(714) 476-0321

No. _____

Date February 28, 1989

Region 4

District 3 Van Nuys

Tel. (818) 901-5403

Type of Permit Excavation

Pursuant to Labor Code Sections 6500 and 6502, this Permit is issued to the above-named employer for the projects described below.

State Contractor's License Number	Permit Valid through
537220	May 1989 or completion at jobsite

Description of Project	Location Address	City and County	Anticipated Dates	
			Starting	Completion
Underground storage tank removal	Lockheed Aeronautical Systems Co. 2311 Hollywood Way	Burbank, L.A. Co.	2/28/89	May 1989

This Permit is issued upon the following conditions:

1. That the work is performed by the same employer. If this is an annual permit the appropriate District Office shall be notified, in writing, of dates and location of job site prior to commencement.
2. That employer will comply with all occupational safety and health standards or orders applicable to the above projects, and any other lawful orders of the Division.
3. That if any unforeseen condition causes deviation from the plans or statements contained in the Permit Application Form the employer will notify the Division immediately.
4. Any variation from the specification and assertions of the Permit Application Form or violation of safety orders may be cause to revoke the permit.
5. This permit shall be posted at or near each place of employment as provided in 8 CAC 341.4.

Received From	Received By	
same	jr	
☐ Cash	Amount	Date
☑ Check 3395	50.00	2/28/89

Investigated by Steven Yeoman 2-28-89
Safety Engr. Date

Approved by Richard C. Dow 2-28-89
Dist. Manager Date

EMPLOYER ORIGINAL—GREEN
ACCOUNTING COPY—CANARY
DISTRICT COPY—PINK
REGION COPY—WHITE

-690 (Rev. 2-81)

86 95218

DUE JANUARY 1, 1989

Check one
☐ New Registration
☐ Renewal
☐ Change(s)

City of Burbank
Building Division
275 East Olive Avenue

Please mail to:
P.O. Box 6459
Burbank, CA 91510
(818) 953-9541

CONTRACTOR'S REGISTRATION (or RENEWAL) AND BUSINESS TAX

(BURBANK BASED CONTRACTOR'S ONLY) DELINQUENT 1/31/89 - Penalties will apply (Sec. 14, BMC 120.3, 14.122.1, 14.122.2)

INSTRUCTIONS:
1. **IMPORTANT!** Contractor **MUST SUBMIT PROOF OF CURRENT** State Contractor's License for **New and Renewals.**
2. Renewals add $5.00 for change of address, etc. to your previous registration, (item number 6 below).
3. New **STATE NUMBER** requires **NEW** registration.
4. Workers' Comp. Certificate to our Bldg. Dept. required for any employee on the job.
5. Separate checks required for Permit and License. 6. Type or print information clearly.

9/27/89 — Date
ENSR Constructors — Business Name
714-476-0321 — Business Phone

19782 MacArthur Boulevard, Suite 365 — Business Address
Irvine, CA — City
92715 — Zip

Same as above — Mailing Address
City
Zip

ate License # 537220 Expires: 8/31/90 Classifications: A

heck one: ☐ Corporation ☐ Partnership ☐ Sole owner
Fed. Emp. ID# 06-0852759 SS# SS#

st all officers, partners, or owner(s) with titles: Robert Stiles, President, Richard Berry, V.P.
Charles N. Parris, Vice President

BUSINESS TAX COMPUTATION TABLE Jan. 1, 1989 through Dec. 31, 1989

ANNUAL VALUATION OF WORK	TAX	ANNUAL VALUATION OF WORK	TAX
Less than $ 50,000	= $ 54.00	$ 300,001 to $ 400,000	= $162.00
$ 50,001 to $100,000	= $ 80.95	$ 400,001 to $ 500,000	= $216.00
$100,001 to $200,000	= $108.00	$ 500,001 to $1,000,000	= $270.00
$200,001 to $300,000	= $135.00	$1,000,001 & over	= $321.95

A. $366,000..... Estimate VALUATION of all jobs anticipated to which you will be a party THIS YEAR -- in Burbank ONLY ..... A.

EW REGISTRATION

Business Tax due on amount u estimated A. (see table) $ 162.00

dd the Fee r New Registration $ +25.00

otal amount e for New egistration $ 187.00

RENEWALS ONLY

1. Business Tax due on amount you estimated in A. for THIS YEAR? $
2. What VALUATION did you estimate for LAST calendar year:
3. What did you pay for last calendar year: $
4. What valuation did you actually do year:
5. Business Tax you should have paid last year (Refer to LAST year's Computation Table) $
   What do you owe? (#5 minus #3) $
6. Do you wish to make any changes to your file? If yes, add $5. (see Item 2. top of this form) $

Total amount due for Renewal $

ave you complied with **important instructions 1. through 6.** at top of this form?

certify or declare under penalty of perjury that the above information is true and correct.

Charles N. Parris — Vice President
SIGNATURE OF OFFICER OR OWNER LISTED ABOVE — TITLE

★★★★★ FOR OFFICE USE ONLY ★★★★★

ob idress — Waiver ☐ Workers' Compensation Insurance 8-12-89 expires

ite logged — Cash Log # — BT# 22093 Approved by [illegible]

20-13 12/88

CONTRACTORS STATE LICENSE BOARD

Building Quality

ISSUED 08-05-88

No. 537220

This license is the property of the Registrar of Contractors, is not transferable, and shall be returned to the Registrar upon demand when suspended, revoked, or invalidated for any reason. It becomes void if not renewed.

Contractor's License

Pursuant to the provisions of Chapter 9 of Division 3 of the Business and Professions Code and the Rules and Regulations of the Contractors State License Board, the Registrar of Contractors does hereby issue this license to:

E N S R CORPORATION

to engage in the business or act in the capacity of a contractor in the following classification(s):

A GENERAL ENGINEERING CONTRACTOR

David R Phillips

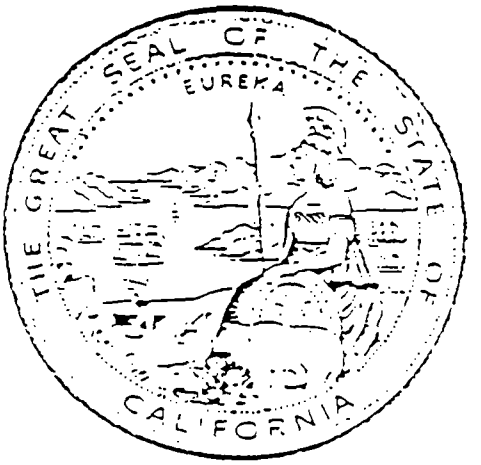
Registrar of Contractors

WITNESS *my hand and sealed this* 17TH *day of* AUGUST 1988.

[redacted]

THE GREAT SEAL OF THE STATE OF CALIFORNIA

EUREKA



Signature of Licensee

Thomas J Owen

Signature of person who qualified on behalf of the licensee

STATE AND CONSUMER SERVICES AGENCY
DEPARTMENT OF CONSUMER AFFAIRS

13L-24 (Rev. 11-83)

APPENDIX H

REQUEST AND APPROVAL FOR CLOSURE-IN-PLACE PERMITS

LOCKHEED AERONAUTICAL SYSTEM COMPANY

Burbank, California

REQUEST FOR CLOSURE-IN-PLACE OF USTs

A-1-F
B-6-F-8
B-6-U
C-1-A
A-1-F-1, A-1-F-2

ENSR Constructors

April 1989

Document Number C 88046, CO # 011

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

December 11, 1989

IN REPLY PLEASE REFER TO FILE.

I-9781-3E
I-9779-3E

Lockheed Aeronautical
System Company
P.O. Box 551
Burbank, CA 91520-3903

HAZARDOUS MATERIALS UNDERGROUND STORAGE PERMIT
PERMIT NO. 1080, 1078
FACILITY AT: Burbank Airport

The Hazardous Materials Underground Storage Provisional Permit sent to you in connection with the above facility is modified as follows:

[ ] The permit is void as of the date of this letter.

[ ] The permit is void as of the date of this letter and replaced by the enclosed permit.

[ ] The enclosed Part D, Special Conditions and Limitations, is now part of your permit.

[ ] The enclosed Part B, Authorized Hazardous Material Storage Tanks, is now part of your permit, replacing the previous Part B.

[x] Other: Your request for closure in Place of underground storage tanks at the Burbank facility has been granted. However, your are required to submit application for closure permit addendum.

If you have any questions concerning this matter, please contact Mr. Thierno Diallo at (818) 458- 3513.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

By Thierno Diallo
Waste Management Division

PP802 Rev. 3/88
CC: Ensr Constructors
Letter # 8901780

APPENDIX I

HAZARDOUS WASTE MANIFESTS

California—Health and Welfare Agency
Approved OMB No. 2050—0039 (Expires 9-30-91)
Print or type. (Form designed for use on elite (12-pitch typewriter).

U-6

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD008255283
Manifest Document No.: 17366

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Lockheed A.S.C.
P.O. Box 551 Burbank, CA 91520
Generator's Phone (818) 847-6144 C-1A

A. State Manifest Document Number: 89417366
B. State Generator's ID: HYHQ36-005217

5. Transporter 1 Company Name: United Pumping Service
6. US EPA ID Number: CAD072953771
C. State Transporter's ID: 063-011746
D. Transporter's Phone: (818) 961-9326

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
USPCI
3 miles East, 7 miles North Exit 41 off I -80
Clive, Utah
10. US EPA ID Number: UTD991301748
G. State Facility's ID:
H. Facility's Phone: (805) 534-0054

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. California Regulated Waste only, Oil Contaminated Soil	001	DT	00018 RCRA	Y	State 611 / EPA/Other RCRA exempt
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
A. Contaminated soil with diesel profile 27521

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Gloves and Glasses

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: W.R. Robinson
Signature: W R Robinson
Month Day Year: 09 25 89

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Hector Santana
Signature: Hector Santana
Month Day Year: 09 25 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Month Day Year:

22 A (1/88)
00—22
9-88) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

APPENDIX J

ASSOCIATED LABORATORIES ANALYTICAL RESULTS

OCT 2 5 P.M.

Ans'd .....

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92668 - 714/771-6900
FAX 714/538-1209

CLIENT

ENSR Constructors
19782 MacArthur Blvd.
Suite 365
Irvine, CA 92715
Attn: Tom Owens

(2013)

LAB NO F65447-01

REPORTED 05/31/89

SAMPLE Liquid

RECEIVED 05/12/89

IDENTIFICATION Lockheed UST, Proj. No. C88046, Burbank

BASED ON SAMPLE As Submitted

	C-1-A
Total Hydrocarbons (TPH DHS)	1,100 mg/kg

ASSOCIATED LABORATORIES

Edward S. Behare, Ph.D.

ESB/ql

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical •
Microbiological •
Environmental •

CITY OF BURBANK

353 EAST OLIVE AVENUE, P.O. BOX 6459
BURBANK, CALIFORNIA 91502

FIRE DEPARTMENT

PROCEDURE FOR CONTRACTOR WORK
REMOVAL OF UNDERGROUND STORAGE TANKS

A. Permits

Permits for the removal of underground storage tanks are required from the following agencies:

1. Los Angeles County, Department of Public Works
2. Burbank Building Department (Business License)
3. Burbank Fire Department
4. Appropriate State Contractors License
5. Generator (tank owner) must obtain EPA Identification Number.

B. Procedure for Obtaining Permits:

1. Obtain "Application for Closure, Hazardous Materials Underground Storage" from the County of Los Angeles. Department of Public Works, Waste Management Division. This office is located at 2250 Alcazar Street, Los Angeles, California 90033. Phone (213) 226-4000.

2. Obtain City of Burbank Business License through the Building Department, City Hall Annex Building, 275 East Olive Avenue, second floor.

3. Apply to the Bureau of Fire Prevention, 353 East Olive Avenue for approval and the issuance of necessary Fire Department permits. NOTE: You will need to provide all other necessary permits at this time including Los Angeles County, City of Burbank Business License and State of California Contractors License Number, type and expiration date.

4. Generator (tank owner) may obtain EPA Identification number from the State of California, Department of Health Services by telephone - (916) 324-1781.

5. Obtain all approved necessary permits/license(s) prior to commencement of work. No on-site work shall be initiated until all necessary permits have been obtained and are in evidence at the site.

UNDERGROUND STORAGE TANK(S) REMOVAL PROCEDURE

The Burbank Fire Department approves two (2) separate methods for the removal and transportation of underground storage tanks:

METHOD #1 The tank is removed from the ground and transported before being cleaned. In this method the tank must be "manifested" and transported as a "hazardous waste" and must be removed to a recognized TSD facility by a Licensed Hazardous Waste Transporter, subject to all applicable governmental regulations.

METHOD #2 The tank is cleaned "on-site", "certificated" by a certified Marine Chemist (or similarly qualified person) as clean, vapor free, and "safe for hot work". The cleaned tank(s) can then be transported (with their respective certifications) for material recycling or salvage.

The following steps are required in the location, excavation, removal, cleaning and handling of Underground Storage Tanks. These steps also apply to the contents, residue and tank disposition.

METHOD #1 "TANK IS REMOVED AND TRANSPORTED BEFORE BEING CLEANED".

NOTE: It is mandatory that a properly calibrated flammable/ combustible gas analyzer and oxygen meter be on the job site from start to finish. Calibration of the units must be within the last three months with approved sticker or tag on the unit.

1. No on-site work shall be initiated until all necessary permits have been obtained and in evidence at the site. Tank owners must obtain the generator's U.S. EPA Identification Number. Any hazardous waste removed from the site must be transported under manifest by registered transporter using certified containers and subject to all applicable governmental regulations.

2. Identify the size and location of the tank(s). When available and obtainable, plot plans or site drawings can be obtained either from the owners or from local Fire Department, Building or Engineering Department records.

3. Notify Fire Department and/or any other governmental inspectors having jurisdiction 48 hours in advance of proceeding with tank removal to obtain proper clearance to proceed with work and arrange for required inspections.

4. Prior to large equipment moving to the tank location, observe ingress and egress including any overhead wiring and other possible obstructions relative to safety, persons and equipment.

5. All tanks shall be checked for flammability and oxygen content. Use a flammable/combustible gas analyzer and oxygen meter. Log the time and LEL (Lower Explosive Limit) and oxygen percentage on job paperwork. If contents are unknown, a sample should be drawn and subject to analysis for constituency. Only trained personnel schooled in the use of such meter shall perform this operation.

6. All electricity, supply lines and like items known to be associated with tank shall be "Locked Out" or disconnected. Barriers, colored tape and signs shall be installed and any source of ignition shall be at least 50 feet away from the excavation. Signs shall state NO SMOKING OR OPEN FLAME.

7. Remove all possible remaining liquid via the use of an appropriate vacuum truck and hose(s). Observe grounding and bonding procedures. The liquid, if hazardous, must be transported to an appropriate reclaiming, recycling or TSD facility. Manifesting procedures must be followed.

8. Disconnect all piping other than fill pipe and vent pipes. Cap all unused openings.

9. With the Burbank Fire Department Inspector on site to witness the procedure, place a minimum of 15 pounds of crushed dry ice (carbon dioxide) per 1,000 gallon capacity of tank(s) through the fill pipe. Cap fill pipe and dissipate the vapors through the vent pipe for a **minimum of two (2) hours** until the Inspector is satisfied that oxygen level is at or below five (5) %.

10. Saw cut asphalt pavement if necessary to minimize the amount of asphalt removed to accommodate the tank removal.

11. Break out and remove asphalt pavement, concrete slabs, etc. and dispose of in a lawful manner in an approved disposal area.

12. Complete balance of excavation necessary to remove the tank(s).

13. Disconnect all piping from the tank(s) and loosely plug all tank openings allowing for venting of vapors.

14. Re-inert tank(s) with dry ice (15 pounds per thousand).

15. Record the tank numbers and furnish the same to the Burbank Fire Department Inspector.

16. After approval of Burbank Fire Department Inspector has been obtained, complete removal of underground tank(s). Tank(s) shall be removed by crane only unless contractor at time of permit application can show the Inspector that another piece of equipment is acceptable and safe.

CONCRETE MIX DESIGN

LIVINGSTON-GRAHAM

LAB ID. CUSTOMER DESIGN
LAB MIX# SLURRY MIX

DATE MAY 03 1989

RECORD NUMBER 890216

* P U M P M I X *
****

STANDARD MIX
L-G MIX
DESIGN# 8575

JOB NAME LOCKHEED CORP.
ADDRESS ON HOLLYWOOD WAY
BURBANK, CALIF.
CONTRACTOR JONES CONSTRUCTION & MAINT.
ADDRESS 4708 AUTRY
LONG BEACH, CALIF. 90808

REMARKS: TANK FILL SLURRY MIX

BATCH PLANT DATA

RECOMMENDED STRENGTH PSI. @ 28 DAYS
CEMENT CONTENT 1.50 SACKS PER YARD

MAX. SIZE AGG. SAND
SLUMP RANGE 9.9 INCH
DESIGN WATER 47.0 GALS./CU.YD.
W/C RATIO 2.777 (31.34 GALS/SK)

MATERIAL SOURCE
SAND SAN FERNANDO VALLEY
AGGREGATE
WATER LOCAL
COARSE AGG. ABSORPTION 1.0 %
FINE AGG. ABSORPTION 1.5 %

	S.S.D. WT.	% AGG.	ABS. VOL.	% MOISTURE	BATCH WEIGHT
SAND	3325	100.0	20.109	6	3525
#4 GRAVEL					
#3 GRAVEL					
#2 GRAVEL					
#1 GRAVEL					
WATER	392		6.274		
CEMENT	141		.717		
% AIR					
TOTAL			27.100		

AGENCY

ADMIX W.R.D.A. - 79 @ 18.0 FL.OZ./100# PORTLAND CEMENT
DARAVAIR @ 24.0 FL.OZ./100# PORTLAND CEMENT

DESIGN WATER 47.0
WATER IN AGG. 23.9
BATCH WATER 23.1
TOT. ALLOW. WATER .0
BRAND & TYPE CEMENT TYPE 2 CEMENT

APPENDIX K

APPROVED TANK FILLING PROCEDURES AND SLURRY MIXTURES AND CONCRETE MIX DESIGN

CITY OF BURBANK

353 EAST OLIVE AVENUE, P.O. BOX 6459
BURBANK, CALIFORNIA 91502
(818) 953-8771

FIRE DEPARTMENT

RECEIVED
MAR 2 5 1989
Ans'd .....

March 24, 1989

E.N.S.R. Constructors
Thomas J. Owen
19782 MacArthur Blvd.
Suite 365
Irvine, CA. 92715

Subject: Abandonment of underground storage tanks (U.S.T.'S)

Dear Mr. Owen:

In response to your letter dated March 16, 1989, requesting a change to the policy of the Burbank Fire Department for the closure in place of an U.S.T., the certification by a marine chemist or industrial hygenist that the U.S.T. is clean has been addressed.

The City of Burbank Fire Department and Lockheed Aeronautical Systems Company have mutually agreed to the procedures outlined in the attached letter dated March 20, 1989 submitted to the Fire Department by Mr. Wendell Suyama, Senior Regulatory Compliance Specialist for Lockheed.

In brief this procedure will include the following steps:

1. Tank vacuumed, product removed
2. Tank triple rinsed
3. Last rinse water visually inspected
4. Tank filled with a concrete slurry mix within 24 hours, when final rinse passes the visual inspection.
5. Copies of the analytical results will be submitted to the Fire Department.
6. Lockheed will continue to assume the responsibility for the tanks that are closed in place.

The steps in the above mentioned procedure will continue to be witnessed by a Burbank Fire Department stand-by Safety Officer.

Should you have any questions, please do not hesitate to contact my office.

Sincerely,

M.W. Johnson, Battalion Chief
Fire Marshal

MWJ:bjs
/5L ENSR

cc: Mr. Wendell Suyama, Lockheed
Mr. John Huff, Los Angeles County
Department of Public Works

FIRE PREVENTION BUREAU

LIST OF APPROVED MIXTURES USED TO ABANDON UNDERGROUND ATMOSPHERIC TANKS

Based on Tons of Sand

12 oz. of W.R.D.A.*
16 oz. of DAREX-AEA**
94 lbs. of Portland Cement
31.2 gals. of water
1 ton of sand

Based on Cu. Yards of Sand

18 oz. of W.R.D.A.*
24 oz. of DAREX-AEA**
1.5 sacks of Portland Cement
47 gals of water
1 cu. yard of sand

* W.R.D.A. - Water wetting admix
** DAREX-AEA - Air entraining admix

Based on Cu. Yards of Sand

4.5 fl. oz. of Pozzolith 300-N*
1 fl. oz. of M.B.V.R.**
1.5 sacks of Portland Cement
47 gals. of water
3022 lbs. of sand at 6% moisture

* Pozzolith 300 - water wetting admix
** M.B.V.R - air entraining admix

Method of Mixing:

Ingredients may be loaded into the transit truck and mixed, except the DAREX-AEA or the M.B.V.R. which must not be used until permission is given by the Fire Inspector. It is recommended that drum revolutions of 6-10 RPM be used after the DAREX-AEA or M.B.V.R. is added. Approximately 60 revolutions are required to properly loosen the material. Periodic drum reversal to aid flow of material may be necessary.

The total water content is very critical. This requires proper computation of the free-moisture content of the sand and in order to provide the specified amount in the formula.

Approximately 1 cu. yd. will fill a 202-gallon container.
Approximately 3 cu. yds. will fill a 550-gallon tank.
Approximately 6 cu. yds. will fill a 1000-gallon tank.

NS:mt
5-11-82

17. If the tank is to be removed and transported as hazardous waste, place on a flat bed trailer or other appropriate equipment and transport immediately to a recognized TSD facility under a hazardous waste manifest.

18. Clear excavation of all loose soil before proceeding with backfill.

19. Excavation shall be backfilled under the supervision of an accredited soils laboratory engaged by contractor. Only nonexpansive soils will be permitted to be used for backfill purposes. Existing soil can be used only if it satisfies this stipulation and is approved by the soils laboratory; otherwise, the material shall be removed and nonexpansive material shall be imported for backfill.

20. Fill must be placed in level, loose layers and six (6) inches in thickness, moistened near optimum moisture and properly compacted. Succeeding layers of fill shall be similarly placed and compacted during the placement of the backfill, the upper portion of the excavation's sidewalls shall be broken down (benched) to provide a transition between the compacted fill and adjoining ground.

21. If asphalt pavement is not to be replaced, the excavated area shall be smoothly graded to provide a clear, even surface. All excess materials shall be removed and the area shall be left in a broom clean condition.

22. If asphalt pavement is to be replaced, backfill shall be placed and compacted to subgrade elevation after which paving section shall be installed providing a neat and smooth transition with existing pavement surfaces and area shall be properly broom cleaned.

23. Upon request, contractor shall furnish certified compaction report from the soils laboratory acknowledging that a minimum of 90% of maximum density has been obtained. Copies of the compaction report shall also be forwarded to the proper building department in addition to the two copies furnished to the owner.

24. Should the excavation be left open, security of the site shall be maintained.

25. The contractor shall schedule his work so that it can be completed between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday. If it becomes necessary for the work to extend beyond these time limitations, the contractor will be charged an hourly fee equal to the inspector's hourly rate based on time and one half. This fee shall be for a minimum of four (4) hours based on the above rate.

METHOD #2 "CLEANING TANK ON-SITE"

1. No on-site work shall be initiated until all necessary permits have been obtained and in evidence at the site. Tank owners must obtain the generator's U.S. EPA Identification Number. Any hazardous waste removed from the site must be transported under manifest by registered transporter using certified containers and subject to all applicable governmental regulations.

2. Identify the size and location of the tank(s). When available and obtainable, plot plans or site drawings can be obtained either from the owners or from local Fire Department, Building or Engineering Department records.

3. Notify Fire Department and/or any other governmental inspectors having jurisdiction 48 hours in advance of proceeding with tank removal to obtain proper clearance to proceed with work and arrange for required inspections.

4. Prior to large equipment moving to the tank location, observe ingress and egress including any overhead wiring and other possible obstructions relative to safety, persons and equipment.

5. All tanks shall be checked for flammability and oxygen content. Use a flammable/combustible gas analyzer and oxygen meter. Log the time and LEL (Lower Explosive Limit) and oxygen percentage on job paperwork. If contents are unknown, a sample should be drawn and subject to analysis for constituency. Only trained personnel schooled in the use of such meter shall perform this operation.

6. All electricity, supply lines and like items known to be associated with tank shall be "Locked Out" or disconnected. Barriers, colored tape and signs shall be installed and any source of ignition shall be at least 50 feet away from the excavation. Signs shall state NO SMOKING OR OPEN FLAME.

7. Remove all possible remaining liquid via the use of an appropriate vacuum truck and hose(s). Observe grounding and bonding procedures. The liquid, if hazardous must be transported to an appropriate reclaiming, recycling or TSD facility. Manifesting procedures must be followed.

8. With the Burbank Fire Department Inspector on site to witness the procedure, place a minimum of 15 pounds of crushed dry ice (carbon dioxide) per 1,000 gallon capacity of tank(s) through the fill pipe. Cap fill pipe and dissipate the vapors through the vent pipe for a minimum of two (2) hours until the Inspector is satisfied that oxygen level is at or below five (5) %.

9. Saw cut asphalt pavement if necessary to minimize the amount of asphalt removed to accommodate the tank removal.

10. Break out and remove asphalt pavement, concrete slabs, etc. and dispose of in a lawful manner in an approved disposal area.

11. Uncover the underground tank(s) completely. This will allow Inspector and Marine Chemist to inspect complete tank(s). Disconnect all associated piping, electrical lines, and in-tank pumps taking safety precautions to disconnect said piping from tank(s) intact.

12. Air purging to the tank shall begin whenever the product is found within its explosive range. Continue purging until readings are at or below 20% of the LEL of the contents of the tank(s). This can be accomplished using an air compressor and a venturi unit or air eductor. Electrical bonding is to be observed. Log the time and readings on job records.

13. Install vacuum truck equipment following bonding procedures. If necessary, evacuate the atmosphere from the tank as described in number 14 above. Continuous air purging may be necessary.

14. Begin water blasting the tank interior using a minimum of 2,000 psi of water and detergent if necessary. Loose scale, sludge and rinse water are to be removed and deposited in the vacuum truck. When the sludge and other debris has been removed, and the LEL reading is 0%, the washing may cease. NOTE: Other cleaning methods as per NFPA #327 may be permitted at the Fire Inspector's discretion. **Grounding and Bonding procedures shall be followed.**

15. Should there be no installed manhole in the tank, a pneumatic cold cutting tool will cut the manhole at the appropriate location. Use only beryllium or approved non-sparking tools. The minimum sized hole will be 24" x 24". Confined space safety procedures shall be followed. LEL readings shall be logged before any cutting begins.

16. All interior rinse water and sludge, if hazardous, shall be manifested and transported to a fully approved and permitted TSD facility by a licensed hazardous waste transporter, subject to all applicable governmental regulations.

17. Complete balance of excavation necessary to remove the tank(s).

18. Record the tank numbers and furnish the same to the Burbank Fire Department Inspector.

19. After approval of Burbank Fire Department Inspector has been obtained, complete removal of underground tank(s). Tank(s) shall be removed by **crane** only unless contractor, at time of permit application, can show the Inspector that another piece of equipment is acceptable and safe.

20. A certified marine chemist or similarly qualified person shall inspect the tank and issue a "certificate stating that the tank is safe for hot work".

21. The chemist or other qualified person shall apply an identification number and the date that corresponds to the "certification" with a can of spray paint to the tank exterior. The certification must be kept with the tank. This can be accomplished by affixing the certificate to the tank with tape or by other means. Log this certification in the job paperwork.

22. Load and secure the tank(s) on appropriate transporting equipment and remove from the premises. The cleansed tank(s) can be transported with their respective certifications for material recycling or salvage.

23. Should additional soil, dirt or hazardous debris require removal, it shall be done in a safe manner, manifested and transported in certified containers and receipted at the appropriate facility.

24. Clear excavation of all loose soil before proceeding with backfill.

25. Excavation shall be backfilled under the supervision of an accredited soils laboratory engaged by contractor. Only nonexpansive soils will be permitted to be used for backfill purposes. Existing soil can be used only if it satisfies this stipulation and is approved by the soils laboratory; otherwise, the material shall be removed and nonexpansive material shall be imported for backfill.

26. Fill must be placed in level, loose layers and six (6) inches in thickness, moistened near optimum moisture and properly compacted. Succeeding layers of fill shall be similarly placed and compacted during the placement of the backfill, the upper portion of the excavation's sidewalls shall be broken down (benched) to provide a transition between the compacted fill and adjoining ground.

27. If asphalt pavement is not to be replaced, the excavated area shall be smoothly graded to provide a clear, even surface. All excess materials shall be removed and the area shall be left in a broom clean condition.

28. If asphalt pavement is to be replaced, backfill shall be placed and compacted to subgrade elevation after which paving section shall be installed providing a neat and smooth transition with existing pavement surfaces and area shall be properly broom cleaned.

29. Upon request, contractor shall furnish certified compaction report from the soils laboratory acknowledging that a minimum of 90% of maximum density has been obtained. Copies of the compaction report shall also be forwarded to the Burbank Building Department in addition to the two copies furnished to the owner.

30. Should the excavation be left open, security of the site shall be maintained.

31. The contractor shall schedule his work so that it can be completed between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday. If it becomes necessary for the work to extend beyond these time limitations, the contractor will be charged an hourly fee equal to the inspector's hourly rate based on time and one half. This fee shall be for a minimum of four (4) hours based on the above rate.

/6 STORAGETANK

ENSR

ENSR Corporation Offices

Alaska	Anchorage
California	Los Angeles
	Orange County
	Ventura County
	San Francisco
Colorado	Fort Collins
Connecticut	Hartford
Dist. of Columbia	
Georgia	Atlanta
Illinois	Chicago
Louisiana	New Orleans
Massachusetts	Boston
Minnesota	Minneapolis
New Jersey	New Brunswick
Ohio	Canton
Pennsylvania	Philadelphia
	Pittsburgh
Texas	Dallas
	Houston
Washington	Seattle
Puerto Rico	San Juan
Ontario, Canada	Toronto

2166-03829

PLANT C-1

UNDERGROUND STORAGE TANK C-1-A REMOVAL REPORT

#11

Submitted to:

Lockheed Engineering & Sciences Company
Environmental Technical Services

Submitted by:

URS Consultants, Inc.

401 E. Ocean Boulevard, Mezzanine
Long Beach, California 90802

March 12, 1992

CONFIDENTIAL INFORMATION

Table of Contents

1.0 Introduction

1.1 Background

2.0 URS Consultants Investigation

2.1 Site Hydrogeology
2.2 Field Operation
2.2.1 Tank Removal
2.2.2 Soil Sampling

3.0 Analytical Results

3.1 Waste Profile Samples
3.2 Soil Samples
3.3 Laboratory Quality Assurance

4.0 Summary

Appendix A - Grab Sample Logs
Appendix B - Chain of Custody Records
Appendix C - Laboratory Analytical Results
Appendix D - Closure Permits/Tank Destruction Certification

1. Introduction

URS Consultants was retained by Lockheed Engineering and Sciences Company (Lockheed) to provide professional environmental services for the decommissioning of its Plant C-1 facility located in Burbank, California. As part of the decommissioning project, URS conducted a subsurface investigation during the removal of an underground storage tank located at Building 44. URS was responsible for monitoring the removal of the tank and for collecting soil samples from the tank excavation area. The following report outlines the method of the tank removal and the results of soil samples obtained from the tank excavation area.

1.1 Background

The Plant C-1 site is located on the northwest side of the Burbank Airport near the intersection of Sherman Way and Clybourne Avenue (see Figure 1). The Plant C-1 facility was used for a variety of industrial and commercial purposes, most of which were related to the development and construction of aircraft materials. Operations at the facility ceased in 1989. In 1991, Lockheed began decommissioning activities at Plant C-1. Included in the decommissioning process was the excavation and removal of Tank C-1-A at Building 44. Building 44, which recently underwent demolition, was located in the north central portion of the Plant C-1 site (see Figure 2). Building 44 was reportedly built in 1953 and used as a maintenance service building for aircraft repair operations.

Tank C-1-A was a single-walled steel tank initially used to store diesel fuel. The tank was converted to waste oil storage sometime in the 1960's. The tank measured approximately 7 feet in diameter and 24 feet in length. It's capacity was calculated to be just under 7,000 gallons. Previous reports estimated the dimensions of the tank to be 21 feet long and 8 feet in diameter, with a capacity of 8,000 gallons[1]. The tank was located approximately 4 feet below the foundation of Building 44. The tank was orientated in an east-west direction in an area approximately 20 feet south of the northern Lockheed property fence, and approximately 20 feet east of the Federal Aviation Association (FAA) tower enclosure.

The tank was originally investigated as part of an underground leak detection program at Lockheed by their environmental consultant, Gregg and Associates (1986). The investigation was performed under the direction of the California Regional Water Quality Control Board. Two soil boreholes were drilled, sampled, and converted into vapor monitoring wells at Tank C-1-A. According to the subsequent Gregg and Associates investigation report, "... no petroleum hydrocarbons were detected in either of the soils samples collected from [the borings]. Further, no field indications of soils contamination were observed during the drilling of the borings. It is concluded that [Tank C-1-A] does not leak."[2]

The tank was formally closed in place in May 1989 by Lockheed's environmental consultant, ENSR Consulting. Samples collected from soil borings during the closure indicated low-level concentrations of total petroleum hydrocarbons at 20 feet (43 mg/kg) and 45 feet (210 mg/kg), respectively. These concentrations were below the apparent enforcement standard of 1,000

---

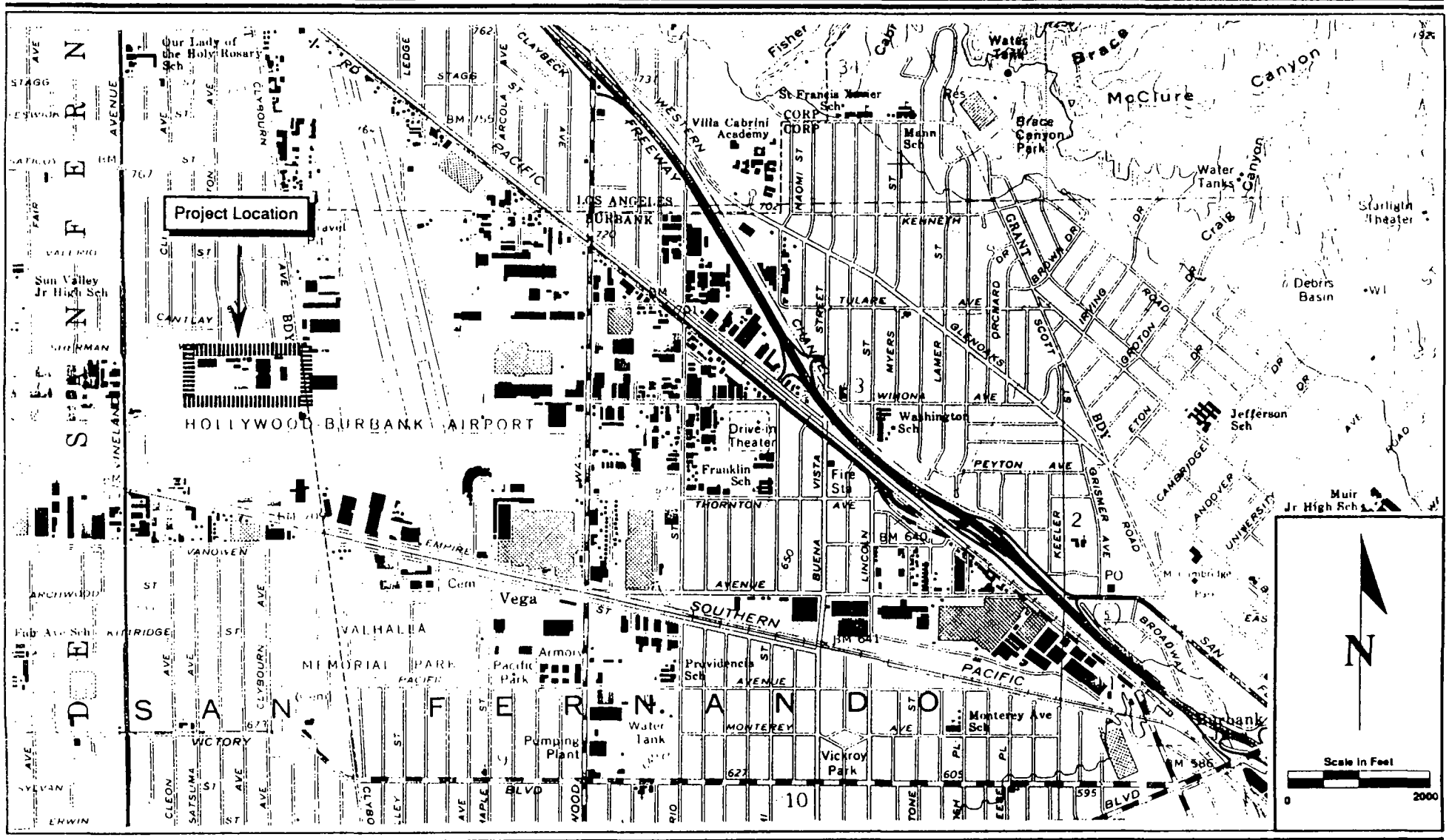
1 ENSR Consulting and Engineering. *Underground Storage Tank Closure Report Tank C-1-A*. Document Number C88046. May, 1990.

2 Ibid.

Lockheed

Figure 1

Project Location Map



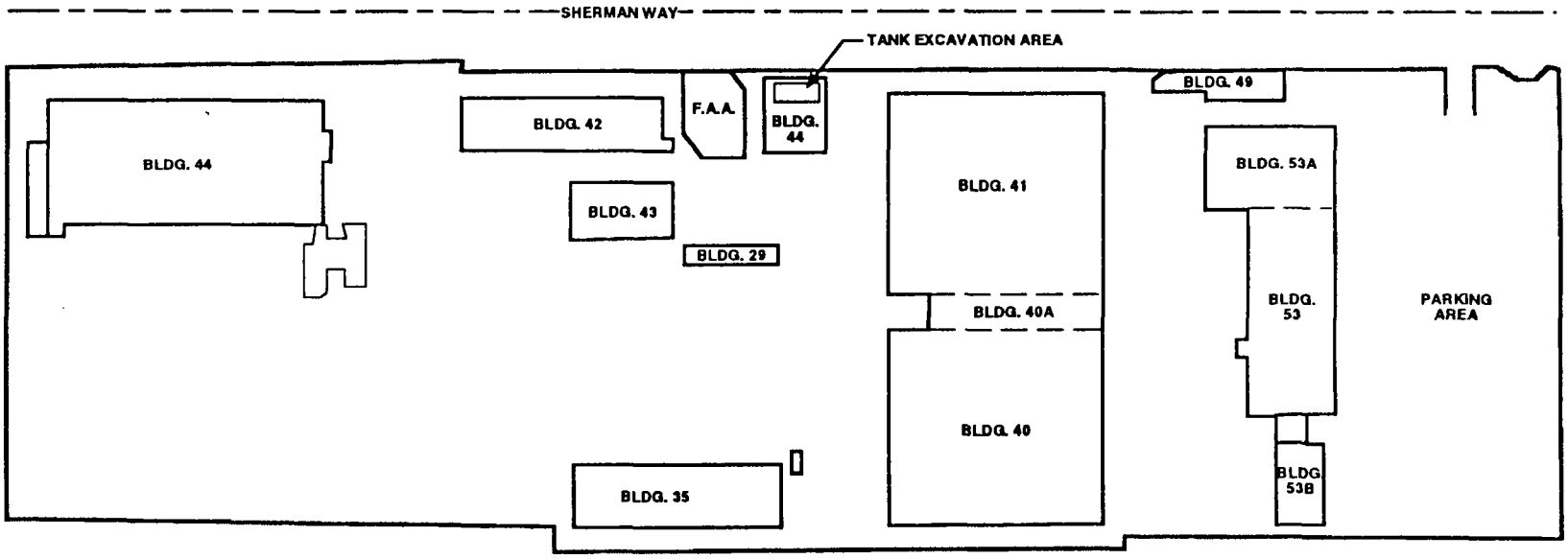
URS Consultants, Inc.
401 East Ocean Boulevard
Long Beach, CA 90802

Source: U.S.G.S. 7.5 minute topographic quadrangle, Burbank, California, Photorevised 1972.

Lockheed

Plant C-1

Figure 2
Plot Plan



URS Consultants
401 East Ocean Boulevard
Long Beach, California 90802

Source: Lockheed Files

mg/kg total petroleum hydrocarbons[3]. Thus, the closure-in-place was approved by the City of Los Angeles Department of Public Works[4]. A copy of the closure permit is provided in Appendix D. The initial investigation by Gregg and Associates and the ENSR tank closure are documented in the ENSR report entitled, *Underground Storage Closure Tank Report, Tank C-1-A*, May 1990[5].

2.0 URS Consultants Investigation

2.1 Site Hydrogeology

The Plant C-1 site is located in the San Fernando Valley. This valley is an interior coastal basin located at the southern edge of the east-west trending California Transverse Ranges. The geology of the area consists of the younger alluvium deposits that are composed of coarse, thick accumulations of boulders, gravels and sand deposited in coalescing alluvial fans[6] The soil encountered at the site consists of tan colored, unconsolidated, rounded to sub-rounded, coarse Sand and Gravels. These soil deposits are classified under the Unified Soil Classification System as SW/GW.

The Plant C-1 facility is located in the San Fernando Groundwater Basin. The depth to groundwater surface under the facility was 246.78 feet below ground surface (Lockheed monitoring well C-1-MW1, sampled December 16, 1991). Ground elevation at the former tank location averages 730 feet above mean sea level.

2.2 Field Operation

2.2.1 Tank Removal

The soil around the tank was excavated on January 20, 1992. The tank was subsequently cut open from the top to expose the grout that was pumped into the tank during the closure-in-place operation. The grout and some residual sludge and liquids were removed and placed into appropriate disposal containers. Lockheed's environmental consultant, JCI Environmental, was responsible for profiling these waste materials. At Lockheed's request, URS obtained grout and sludge samples as a secondary profiling measure. These samples were analyzed for total petroleum hydrocarbons by EPA Method 8015M-Diesel. Petroleum hydrocarbons were detected in the grout sample at a moderate concentration (650 mg/kg). Petroleum hydrocarbons were detected at significant concentrations in the two sludge samples collected (45,000 mg/kg and 28,000 mg/kg, respectively). A summary of waste profile analytical results are provided in Table 1. At the time of this report, the containers of grout, sludge and liquid remain on-site pending JCI Environmental waste profile results. Upon receipt of the waste profile results, JCI Environmental will be responsible for the ultimate off-site disposal of the containers.

---

3 Ibid

4 City of Los Angeles, Department of Public Works. Permit Number 5019B, File I-9779-3E.

5 Op cit, ENSR.

6 URS Consultants, Inc., *Lockheed Aeronautical Systems Company, Burbank Facility, Site Assessment Report.* September 1989.

Lockheed's decommissioning contractor, Bierlein, removed the tank from the ground on January 27, 1992. Inspector Josef R. Solares of the City of Burbank Fire Department observed the tank removal. The subsequent excavation pit had approximate dimensions of 40 feet long x 22 feet wide x 18 feet deep (see Figure 3). The excavation pit was partially back-filled with the excavated soil. The remaining majority of soil was back-filled into the excavation pit upon authorization by Inspector Solares and Lockheed on February 13, 1992. The tank was cleaned, rendered unusable, and disposed of at the Alameda Street Metal Corporation in Lynwood, California. A copy of the Tank Destruction Certification is provided in Appendix D.

Inspector Solares, Lockheed personnel and URS personnel visually inspected the tank upon removal to determine its structural integrity. No holes were identified in the tank but signs of rust and pitting were observed. Overall, the tank appeared to be in good condition. The tank was imbedded in rounded to sub-rounded coarse sand and pea gravels. No organic odors were noticed in the tank fill material, or in the native soils below and surrounding the tank. The soils in the excavation area were moist, but no groundwater was encountered.

2.2.2 Soil Sampling

Two soil grab samples were collected from locations approximately 3 to 4 feet beneath the tank invert: one from the east end and one from the west end of the excavation area. The excavated soil was very loose and soil along the excavation face was continually sloughing into the pit. The grab samples were collected from a backhoe bucket as directed by Inspector Solares. Samples were collected in wide mouth glass jars that were then sealed, labeled and placed on blue ice in a sample cooler. Sample collection procedures, sample locations and other pertinent sample data were recorded on sampling logs (see Appendix A). All sampling equipment was properly cleaned between sample collections. Samples were sent to a California Department of Health Services Certified Laboratory under strict chain of custody procedures. Soil samples were analyzed for total recoverable petroleum hydrocarbon by EPA Method 418.1, and halogenated and aromatic volatile organic compounds by EPA Method 8010/8020. Chain of custody documentation and analytical laboratory results are provided in Appendices B and C, respectively.

3.0 Analytical Results

3.1 Waste Profile Samples

Sludge samples were collected from the contents of the east and west ends of the tank. The grout sample was collected from inside the center of the tank. Sludge and grout samples were analyzed for total petroleum hydrocarbons by EPA Method 3550/8015 Modified. Total petroleum hydrocarbons were detected in all three waste profile samples. The sludge samples indicated significant concentrations of petroleum hydrocarbons in the heavier hydrocarbon range (C12-C30). Analytical results from the sludge sample collected at the east end of the tank were 28,000 mg/kg total petroleum hydrocarbons. Analytical results from the sludge sample collected at the west end of the tank were 45,000 mg/kg total petroleum hydrocarbons. Analytical results of the grout sample indicated 650 mg/kg total petroleum hydrocarbons. A summary of these results are provided in Table 1.

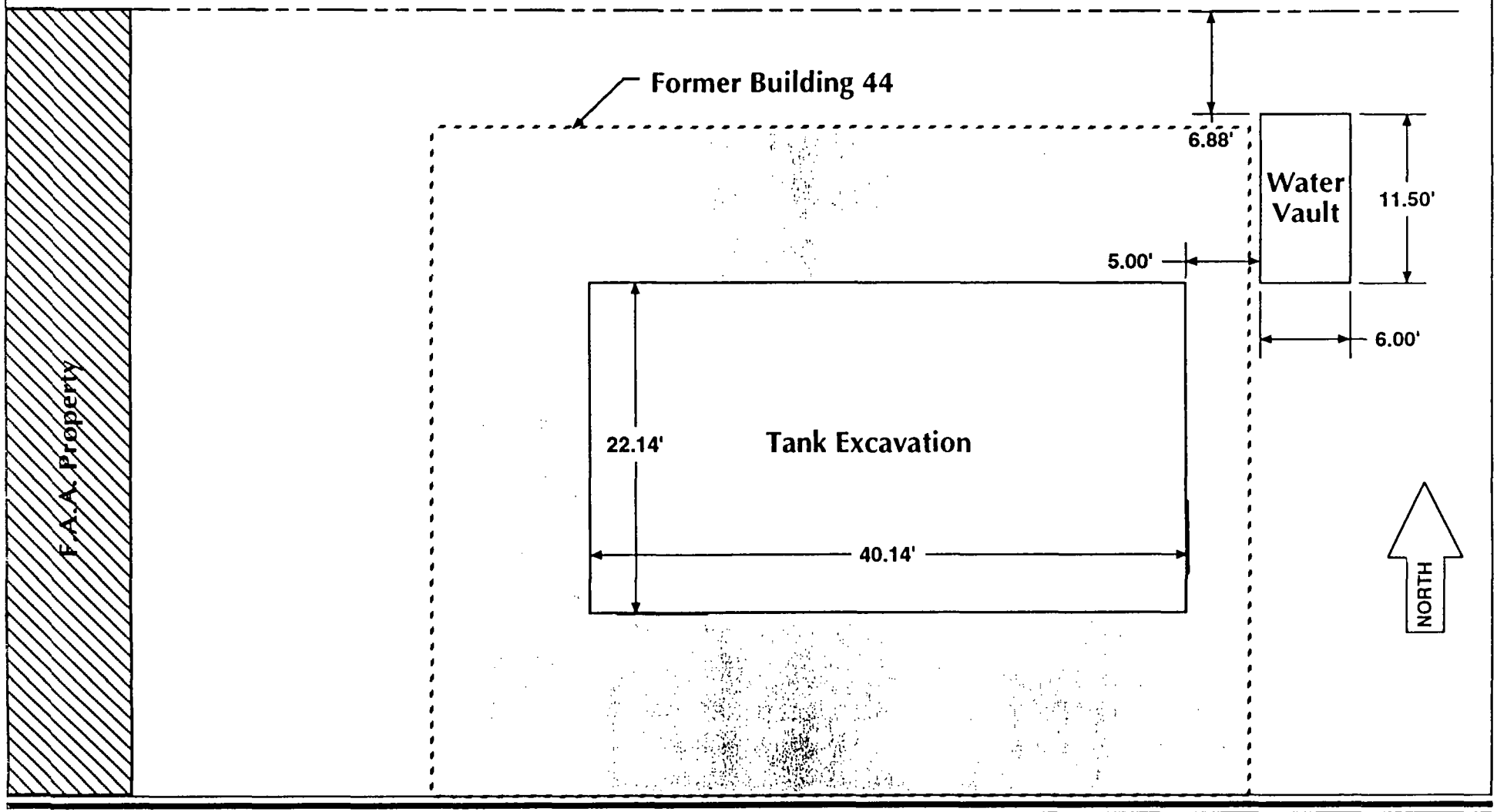
3.2 Soil Samples

Two soil samples were submitted for halogenated and aromatic volatile organics and for total recoverable petroleum hydrocarbons analyses, as directed by Inspector Solares. No halogenated or aromatic volatile organic compounds were detected in soil samples. Low-level concentrations of total recoverable petroleum hydrocarbons were detected in the sample collected from the

Lockheed

Figure 3

UST Excavation Plot Plan



URS Consultants
401 East Ocean Boulevard
Long Beach, California 90802

Source: Lockheed Files

east end of the excavation area (10 mg/kg), and in the sample collected from the west end of the excavation area (60 mg/kg). Analytical results for total recoverable petroleum hydrocarbons are summarized in Table 2.

3.3 Laboratory Quality Assurance

Laboratory quality assurance data were evaluated for compliance with the appropriate, respective method procedures. Methylene chloride was detected in the halogenated and aromatic volatiles (EPA Method 8010/8020) method blank. Methylene chloride is a common laboratory contaminant. Corresponding environmental samples were "blank corrected": if methylene chloride was present in the environmental samples above the amount detected in the method blank, the values would have been reported in the environmental sample results. However, methylene chloride was not detected in the environmental samples at or above the amount detected in the method blank sample. All other quality assurance data were within acceptable method control limits. The analytical data generated during the subsurface investigation are considered valid and usable.

4.0 Summary

URS Consultants was contracted by Lockheed to conduct a subsurface investigation during the removal of an underground storage tank (Tank C-1-A) at the former Building 44, Lockheed Plant C-1, Burbank, California. The tank removal project was conducted under the supervision of Inspector Josef R. Solares of the City of Burbank Fire Department and Lockheed personnel. URS monitored the removal of the tank and collected waste profile and soil samples. Secondary waste profile samples were collected and analyzed for total petroleum hydrocarbons. Significant concentrations of total petroleum hydrocarbons were detected in the waste profile samples. Soil samples were collected and analyzed for halogenated and aromatic volatile organics and total recoverable petroleum hydrocarbons analysis. No halogenated and aromatic volatile organic compounds were detected. Low-level concentrations of total recoverable petroleum hydrocarbons were detected in both soil samples (10 mg/kg and 60 mg/kg, respectively). Quality assurance data were evaluated for compliance with established analytical standards. A minor quality assurance discrepancy was identified; however, this discrepancy does not jeopardize the quality or usability of the environmental data collected. The tank excavation area was back-filled upon approval from Inspector Solares and Lockheed. The tank underwent visual inspection upon removal by Inspector Solares, Lockheed and URS personnel. Evidence of rust and pitting were observed in some areas of the tank; however, no holes were identified in the tank. The tank was subsequently cleaned, rendered unusable, and disposed of at a local facility.

Table 1
Summary of Total Petroleum Hydrocarbons Detected in Waste Profile Samples

Sample Number	Sample Location and Description	*Total Petroleum Hydrocarbons* EPA Method 8015M-Diesel
02-AOC041-01-01	*Waste Profile - Sludge Sample from West End of Underground Storage Tank at Building 44*	45,000
02-AOC-041-02-01	*Waste Profile - Sludge Sample from East End of Underground Storage Tank at Building 44*	28,000
02-AOC-041-03-01	*Waste Profile - Grout Sample from Center Portion of Underground Storage Tank at Building 44*	650

All values reported in mg/kg

Table 2
Summary of Total Recoverable Petroleum Hydrocarbons Detected in Soil Samples

Sample Number	Sample Location and Description	*Total Petroleum Hydrocarbons* EPA Method 418.1
02-AOC041-04-01	*Soil Sample - East End of Underground Storage Tank at Building 44*	10
02-AOC041-05-01	*Soil Sample - West End of Underground Storage Tank at Building 44*	60

All values reported in mg/kg

Appendix A

Grab Sample Logs

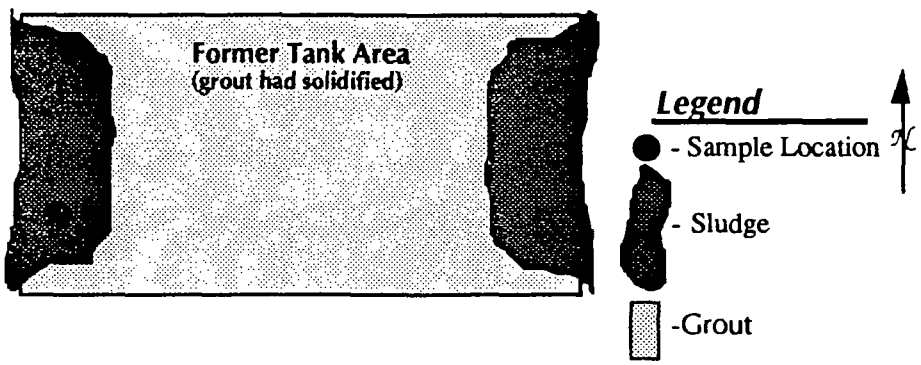
URS Consultants, Inc.	Grab Sample Log	Records Management Data

Project Number	Project Name	
64203.02	Lockheed Facilities Assessment Plant C-1 Demolition	
Field Investigator	**Date/Time Started**	**Date/Time Completed**
Bauman, Swaton	01/22/92 14:36	01/22/92 14:40
Building Number/Floor	**Location Number**	**Location Description**
UST Below Building 44	AOC-041	Northeast portion of building 44

Sample Number	Sample Description/Type	
02-AOC-041-01-01	Sludge gathered from the west end of the tank	
Sampling Method	**Sampling Equipment**	**Sampling Medium**
Sludge into jar with spatula	Spatula & 8 oz. Glass Jar	Sludge
Sample Container	**Sampling Analyses**	
8 oz. Glass Jar	☐ Metals ☐ VOA ☐ Semi-VOA ☐ PCB ☒ TPH ☐ BTXE ☐ Other	

Comments

Sample was collected from the west end of the UST



Recorded By	Date	Checked By	Date
Cheryl L. Swaton	02/18/92	Larry Bauman	

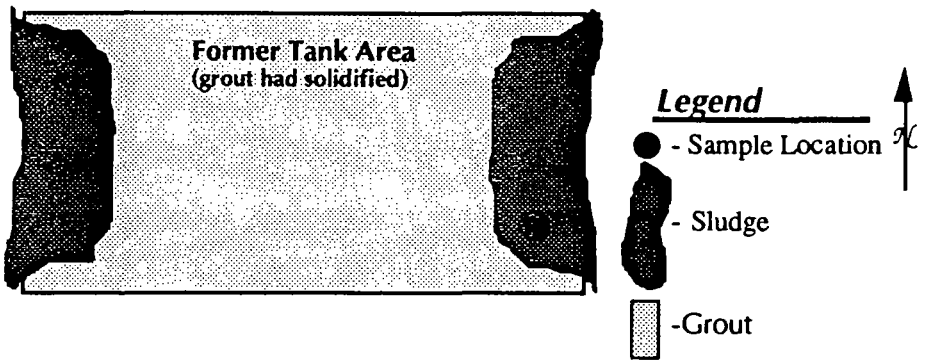
URS Consultants, Inc.	Grab Sample Log	Records Management Data

Project Number	Project Name	
64203.02	Lockheed Facilities Assessment Plant C-1 Demolition	
Field Investigator	**Date/Time Started**	**Date/Time Completed**
Bauman	01/22/92 14:36	01/22/92 14:40
Building Number/Floor	**Location Number**	**Location Description**
UST Below Building 44	AOC-041	Northeast portion of building 44

Sample Number	Sample Description/Type	
02-AOC-041-02-01	Sludge gathered in the from the east end of the tank	
Sampling Method	**Sampling Equipment**	**Sampling Medium**
Scooped sludge into jar w/spatula	Spatula & 8 oz. Glass Jar	Sludge
Sample Container	**Sampling Analyses**	
8 oz. Glass Jar	☐ Metals ☐ VOA ☐ Semi-VOA ☐ PCB ☒ TPH ☐ BTXE ☐ Other	

Comments

This sample was collected from the drum which the sludge was being pumped into.



Recorded By	Date	Checked By	Date
Cheryl L. Swaton	02/18/92	Larry Bauman	

URS Consultants, Inc.

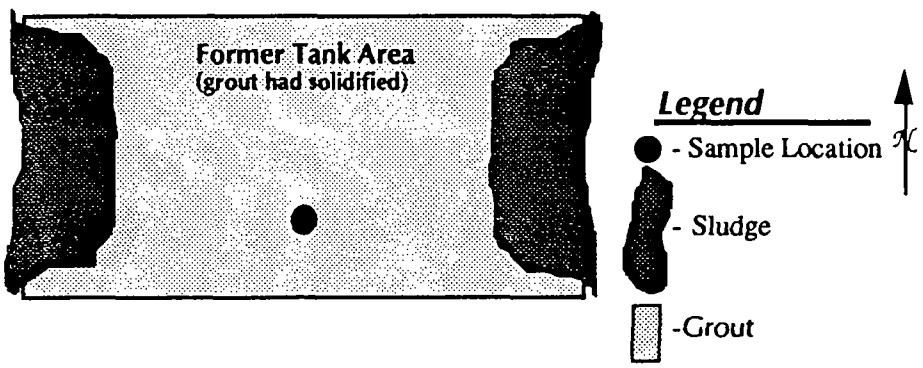
Grab Sample Log

Records Management Data

Project Number: 64203.02	Project Name: Lockheed Facilities Assessment Plant C-1 Demolition	
Field Investigator: Bauman	Date/Time Started: 01/22/92 14:36	Date/Time Completed: 01/22/92 14:40
Building Number/Floor: UST Below Building 44	Location Number: AOC-041	Location Description: Northeast portion of building 44

Sample Number: 02-AOC-041-03-01	Sample Description/Type: Grout from center portion of tank	
Sampling Method: Scooped grout into jar w/spatula	Sampling Equipment: Spatula & 8 oz. Glass Jar	Sampling Medium: Grout
Sample Container: 8 oz. Glass Jar	Sampling Analyses: ☐ Metals ☐ VOA ☐ Semi-VOA ☐ PCB ☒ TPH ☐ BTXE ☐ Other	

Comments



Recorded By	Date	Checked By	Date
Cheryl L. Swaton	02/18/92	Larry Bauman	

URS Consultants, Inc.	Grab Sample Log	Records Management Data

Project Number	Project Name	
64203.02	Lockheed Facilities Assessment Plant C-1 Demolition	
Field Investigator: R. Shah	Date/Time Started: 01/27/92 14:09	Date/Time Completed: 01/27/92 14:10
Building Number/Floor: 6" Overflow Drain Pipe	Location Number: AOC-041	Location Description: West End of UST

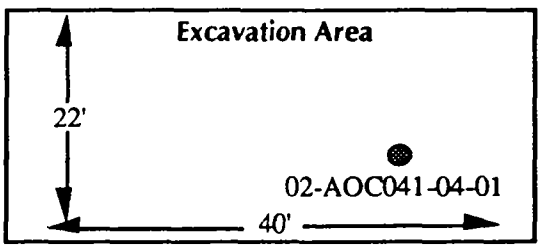
Sample Number	Sample Description/Type	
02-AOC-041-04-01	See Comments	
Sampling Method: Grab Sample	Sampling Equipment: Spatula	Sampling Medium: Soil
Sample Container: 8 oz. Glass Jar	Sampling Analyses: ☐ Metals ☐ VOA ☐ Semi-VOA ☐ PCB ☐ TPH ☐ BTXE ☒ Other	

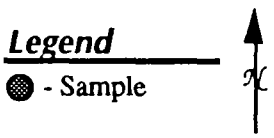
Comments

Soil Type: Brown, coarse sand, gravel, smooth semi-rounded.

Sample Depth ~ 18 feet.

Sampling Analyses: Sample was analyzed for total recoverable petroleum hydrocarbons (TRPH), and halogenated and aromatic volatile organic compounds.





Recorded By	Date	Checked By	Date
Cheryl L. Swaton	02/07/92	Larry Bauman	02/13/92

URS Consultants, Inc.	Grab Sample Log	Records Management Data:

Project Number	Project Name	
64203.02	Lockheed Facilities Assessment Plant C-1 Demolition	
Field Investigator: R. Shah	Date/Time Started: 01/27/92 14:20	Date/Time Completed: 01/27/92 14:22
Building Number/Floor: 6" Overflow Drain Pipe	Location Number: AOC-041	Location Description: East End of UST

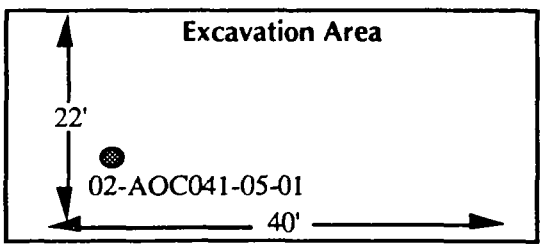
Sample Number	Sample Description/Type	
02-AOC-041-05-01	See Comments	
Sampling Method: Grab Sample	Sampling Equipment: Spatula	Sampling Medium: Soil
Sample Container: 8 oz. Glass Jar	Sampling Analyses: ☐ Metals ☐ VOA ☐ Semi-VOA ☐ PCB ☐ TPH ☐ BTXE ☒ Other	

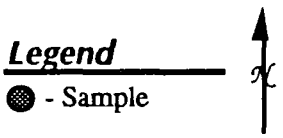
Comments

Soil Type: Brown, coarse sand, gravel, smooth semi-rounded.

Sample Depth ~ 18 feet.

Sampling Analyses: Sample was analyzed for total recoverable petroleum hydrocarbons (TRPH), and halogenated and aromatic volatile organic compounds.





Recorded By	Date	Checked By	Date
Cheryl L. Swaton	02/07/92	Larry Bauman	02/13/92

Appendix B
Chain of Custody

URS Consultants
401 E. Ocean Blvd., Mezz. Level/Long Beach, CA 90802
(213) 436-9386 (213) 436-2029 (fax)

Chain of Custody/ Request for Analysis Record

CC#
LB– 89573

Client: LOCKHEED
Project Number: 64203.02
Sampler Name(s)/Signature(s): L. Bauman & C. Swaton / C. Swaton

AOC 041
Oil sludge from UST
AOC 040
Yellow stained concrete

Sample Number	Date	Time	Material Sampled: S = Soil; L = Liquid; G = Gas	Sample Type*	Container Type: G = Glass; P = Plastic; M = Metal	Number of Containers	8015M	CAC Metals	Remarks or Sample Location	Iced	Preservation: Specify Preservative Added and Final pH, If Known
02-AOC041-01-01	1/22/92	14:40	O	G	G	1	✓		1x40ml amber vial	✓	NONE
02-AOC041-02-01	1/22/92	14:40	O	G	G	1	✓		1x40ml amber vial	✓	NONE
02-AOC041-03-01	1/22/92	15:15	O	G	G	1	✓		1x8oz glass jar	✓	NONE
02-AOC040-11-01	1/21/92	16:05	O	G	G	1		✓	1x8oz glass jar	✓	NONE

↑ Tank C-1-A Report
Note:
sample
02-AOC040-11-01
for CAC metals not
part of the tank
removal report – [illegible] 3/12/92

Four (4) samples submitted

Relinquished by (Signature):	Date	Time	Received by (Signature):	Relinquished by (Signature):	Date	Time	Shipped Via:
① Cheryl L. Swaton	1/23/92	14:40	[illegible]	④ [illegible]	1-23	5:30	Del Mar Courier
Relinquished by (Signature): ②	Date	Time	Received by (Signature):	Received for Laboratory by (Signature):	Date	Time	Shipping Ticket No:
				[illegible]	1-23-92	5:30	N/A
Relinquished by (Signature): ③	Date	Time	Received by (Signature):	Name of Laboratory: Del Mar Analytical			Laboratory Control Number:

*G = Grab; C = Composite; S = Split Spoon; ST = Shelby Tube; O = Other

White = Original (To Accompany Sample); Yellow = Main Office; Pink = Field Copy

URS Consultants
401 E. Ocean Blvd., Mezz. Level/Long Beach, CA 90802
(213) 436-9386 (213) 436-2029 (fax)

Chain of Custody/ Request for Analysis Record

CC#
LB- 89576

Client: LUCKHEED
Project Number: 64203.02
Sampler Name(s)/Signature(s): C. Swaton / C. Swaton

Sample Number	Date	Time	Material Sampled: S = Soil; L = Liquid; G = Gas	Sample Type*	Container Type: G = Glass; P = Plastic; M = Metal	Number of Containers	8010 Halocarbons	8020 BTEX	418.1 TRPH								Remarks or Sample Location	Iced	Specify Preservative Added and Final pH, If Known
02-AOC041-04-01	1/27/92	14:10	S	G	G	1	✓	✓	✓								1 x 8oz glass jar	✓	NONE
02-AOC041-05-01	1/27/92	14:22	S	G	G	1	✓	✓	✓								1 x 8oz glass jar	✓	NONE

AOC 041
East & West end under UST Bldg 44

two (2) samples submitted

Relinquished by (Signature):	Date	Time	Received by (Signature):	Relinquished by (Signature):	Date	Time	Shipped Via:
① Cheryl S. Swaton	1/27/92	17:53	J. Bauman	④			Del Mar C...
② J. Bauman	1/28/92	16:00	Cheryl S. Swaton	Received for Laboratory by (Signature):	Date	Time	Shipping Ticket No: N/A
③ Cheryl S. Swaton	1/28/92	16:10	[illegible]	Name of Laboratory: Del Mar Analytical			Laboratory Control Number:

*G = Grab; C = Composite; S = Split Spoon; ST = Shelby Tube; O = Other

White = Original (To Accompany Sample); Yellow = Main Office; Pink = Field Copy

Appendix C
Laboratory Analytical Results

Del Mar Analytical

2852 Alton Avenue, Irvine, California 92714 (714) 261-1022, FAX (714) 261-1228

URS Consultants	Client Project ID:	#64203.02	Sampled:	Jan 27, 1992
401 E. Ocean Blvd., Mezz. Level		Lockheed	Received:	Jan 28, 1992
Long Beach, CA 90802	Analysis Method:	EPA 418.1 (I.R. with clean-up)	Analyzed:	Jan 29, 1992
Attention: Carrie Taylor	First Sample #:	BA01700	Reported:	Jan 31, 1992

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Sample Number	Sample Description Soils	Petroleum Hydrocarbons mg/Kg (ppm)
BA01700	02-AOC041-04-01	10
BA01701	02-AOC041-05-01	60

Detection Limits:	**5.0**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

BA01700.URS

Del Mar Analytical

2852 Alton Avenue, Irvine, California 92714, (714) 261-1022, FAX (714) 261-1228

URS Consultants	Client Project ID:	#64203.02	Sampled:	Jan 22, 1992
401 E. Ocean Blvd., Mezz. Level		Lockheed	Received:	Jan 23, 1992
Long Beach, CA 90802	Analysis Method:	EPA 3550/8015	Analyzed:	Jan 24, 1992
Attention: Carrie Taylor	First Sample #:	BA01381	Reported:	Jan 27, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description Sludge	Extractable Hydrocarbons mg/kg (ppm)	Hydrocarbon Type
BA01381	02-AOC041-01-01	45,000	C12-C30
BA01382	02-AOC041-02-01	28,000	C12-C30

Detection Limits:	**5.0**

Extractable Hydrocarbons are quantitated against a diesel fuel standard. Hydrocarbons detected by this method range from C7 to C30. Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

Del Mar Analytical

2852 Alton Avenue, Irvine, California 92714, (714) 261-1022, FAX (714) 261-1228

URS Consultants	Client Project ID:	#64203.02	Sampled:	Jan 22, 1992
401 E. Ocean Blvd., Mezz. Level		Lockheed	Received:	Jan 23, 1992
Long Beach, CA 90802	Analysis Method:	EPA 3550/8015	Analyzed:	Jan 24, 1992
Attention: Carrie Taylor	First Sample #:	BA01383	Reported:	Jan 27, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description Solid	Extractable Hydrocarbons mg/kg (ppm)	Hydrocarbon Type
BA01383	02-AOC041-03-01	650	C12-C30

Detection Limits:	**5.0**

Extractable Hydrocarbons are quantitated against a diesel fuel standard. Hydrocarbons detected by this method range from C7 to C30. Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

Del Mar Analytical

2852 Alton Avenue, Irvine, California 92714, (714) 261-1022, FAX (714) 261-1228

URS Consultants
401 E. Ocean Blvd., Mezz. Level
Long Beach, CA 90802
Attention: Carrie Taylor

Method Blank

Analyzed: Jan 29, 1992
Reported: Jan 31, 1992
Matrix: Soil

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

Sample Number	Petroleum Hydrocarbons mg/Kg (ppm)
Method Blank	N.D.

Detection Limit:	**5.0**

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

Del Mar Analytical

2852 Alton Avenue, Irvine, California 92714, (714) 261-1022, FAX (714) 261-1228

URS Consultants
401 E. Ocean Blvd., Mezz. Level
Long Beach, CA 90802
Attention: Carrie Taylor

Method Blank

Analyzed: Jan 24, 1992
Reported: Jan 27, 1992
Matrix: Solid

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Hydrocarbon Type
Method Blank	N.D.	N.A.

Detection Limit:	**5.0**

Extractable Hydrocarbons are quantitated against a diesel fuel standard. Hydrocarbons detected by this method range from C7 to C30. Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

Del Mar Analytical
2852 Alton Avenue, Irvine, California 92714 (714) 261-1022 FAX (714) 261-1228

QC DATA REPORT

DATE: 1/24/92

EPA METHOD: 8015 by extraction

matrix: soil

SAMPLE # Blank

Analyte	R1 ppm	Sp ppm	MS ppm	MSD ppm	PR1 %	PR2 %	RPD %	MEAN PR %
Hydrocarbons	0	100	87	89	87%	89%	2.3%	88%

Definition of Terms:

R1. . . . . Result of Sample Analysis

Sp. . . . . Spike Concentration Added to Sample

MS. . . . . Matrix Spike Result

MSD. . . . . Matrix Spike Duplicate Result

PR1. . . . . Percent Recovery of MS; ((MS-R1) / SP) X 100

PR2. . . . . Percent Recovery of MSD; ((MSD-R1) / SP) X 100

RPD. . . . . Relative Percent Difference; ((MS-MSD)/(MS+MSD)/2)) X 100

Del Mar Analytical

Del Mar Analytical

2852 Alton Avenue, Irvine, California 92714 (714) 261-1022, FAX (714) 261-1228

URS Consultants	Client Project ID:	#64203.02	Sampled:	Jan 27, 1992
401 E. Ocean Blvd., Mezz. Level		Lockheed	Received:	Jan 28, 1992
Long Beach, CA 90802	Sample Descript:	Soil, 02-A0C041-04-01	Analyzed:	Jan 30, 1992
Attention: Carrie Taylor	Lab Number:	BA01700	Reported:	Jan 31, 1992

VOLATILE ORGANIC COMPOUNDS (EPA 8010/8020)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chloroethane	25.0	N.D.
2-Chloroethylvinyl ether	25.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	10.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10.0	N.D.
1,3-Dichlorobenzene	10.0	N.D.
1,4-Dichlorobenzene	10.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis- 1,2-Dichloroethene	5.0	N.D.
trans- 1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	10.0	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl Chloride	5.0	N.D.
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
Ethylbenzene	5.0	N.D.
Toluene	5.0	N.D.
Xylenes	10.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

Del Mar Analytical

2652 Alton Avenue, Irvine, California 92714 (714) 261-1022 FAX (714) 261-1228

URS Consultants	Client Project ID:	#64203.02	Sampled:	Jan 27, 1992
401 E. Ocean Blvd., Mezz. Level		Lockheed	Received:	Jan 28, 1992
Long Beach, CA 90802	Sample Descript:	Soil, 02-A0C041-05-01	Analyzed:	Jan 30, 1992
Attention: Carrie Taylor	Lab Number:	BA01701	Reported:	Jan 31, 1992

VOLATILE ORGANIC COMPOUNDS (EPA 8010/8020)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chloroethane	25.0	N.D.
2-Chloroethylvinyl ether	25.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	10.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10.0	N.D.
1,3-Dichlorobenzene	10.0	N.D.
1,4-Dichlorobenzene	10.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis- 1,2-Dichloroethene	5.0	N.D.
trans- 1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	10.0	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl Chloride	5.0	N.D.
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
Ethylbenzene	5.0	N.D.
Toluene	5.0	N.D.
Xylenes	10.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

BA01700.URS

Del Mar Analytical

2852 Alton Avenue, Irvine, California 92714 (714) 261-1022, FAX (714) 261-1228

URS Consultants
401 E. Ocean Blvd., Mezz. Level
Long Beach, CA 90802
Attention: Carrie Taylor

Method Blank

Analyzed: Jan 30, 1992
Reported: Jan 31, 1992
Matrix: Soil

VOLATILE ORGANIC COMPOUNDS (EPA 8010/8020)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chloroethane	25.0	N.D.
2-Chloroethylvinyl ether	25.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	10.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10.0	N.D.
1,3-Dichlorobenzene	10.0	N.D.
1,4-Dichlorobenzene	10.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis- 1,2-Dichloroethene	5.0	N.D.
trans- 1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	10.0	64
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl Chloride	5.0	N.D.
Benzene	5.0	N.D.
Chlorobenzene	5.0	N.D.
Ethylbenzene	5.0	N.D.
Toluene	5.0	N.D.
Xylenes	10.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL

Gary Steube
Laboratory Director

Appendix D

Closure Permit/Tank Destruction Certification

...S MATERIALS UNDER GROUND STORAGE
... OF LOS ANGELES-DEPARTMENT OF PUBLIC WORKS
... ANAGEMENT DIVISION
... FREMONT AVENUE
...BRA, CALIFORNIA 91803-1331

Permit [illegible]
File [illegible] R/C [illegible]
Fee $ 141.[illegible]
Check [✓] Cash [ ]

: Name LOCKHEED AERONAUTICAL SYSTEMS CO. Phone 818-847-5144
M ailing Address 2311 HOLLYWOOD WAY City BURBANK State CA Zip 91520

ITY:
C cupant Name LOCKHEED. PLANT C-1. Phone
S te Address 10720 SHERMAN WAY City BURBANK Zip 91520
Mailing Address DEPT 38-15 B-76 PLANT A1 City State Zip
Contact Person WENDELL SUYAMA Title ENV. ENGR.

ACTOR [ ], complete below: OWNER/OPERATOR AS CONTRACTOR [ ]
Name EMSR CONSTRUCTORS Phone 714 4760321
S ate License No. 537220 Class A

RE REQUESTED:
[ ] PERMANENT, TANK REMOVAL (See Conditions A and C Attached)
How many underground tanks will remain after this closure?
[✓] PERMANENT, CLOSURE IN PLACE (See Conditions A and D Attached)
[ ] TEMPORARY (See Conditions A and B Attached)

DESCRIPTION: PLOT PLAN ATTACHED [ ] EXISTING HMUSP NO.

No.	Construction Material	Age (Years)	Capacity (gal)	Materials Stored (Past/Present)
-A	STEEL	29	6,000	SOLUABLE OIL

.E THE FOLLOWING:

	YES	NO
Has an unauthorized release ever occurred at this site?	[✓]	[ ]
H ve structural repairs ever been made to these tanks?	[ ]	[✓]
ll new underground tanks be installed after closure?	[ ]	[✓]
Will any wells, including monitoring wells, be abandoned?	[✓]	[ ]

CONTAMINATED TANKS AND RESIDUES THAT MAY BE LEFT IN TANKS TO BE CLOSED E A HAZARDOUS WASTE WHICH MUST BE TRANSPORTED AND DISPOSED OF PURSUANT TO ER 6.5, CALIFORNIA HEALTH & SAFETY CODE. FAILURE TO COMPLY MAY BE ITED AS A FELONY VIOLATION.

By signature below the applicant certifies that all statements and sclosures above are true and correct and that they have read and agree abide by this permit and all conditions and limitations attached.

cant's Signature Thomas J Owen Date 11/15/88
(Print Name) Phone 714-4760321
Owner [ ] Operator [ ] Contractor [✓]

==========TO BE COMPLETED BY THE DEPARTMENT OF PUBLIC WORKS==========
ANT TO SECTION 11.80.070B, LOS ANGELES COUNTY CODE, PERMISSION IS HEREBY NTED TO PROCEED WITH THE CLOSURE DESCRIBED ABOVE SUBJECT TO THE ATTACHED DITIONS AND LIMITATIONS [X]. THIS PERMIT EXPIRES 180 DAYS FROM THE DATE D.

Contact - Randy MacDonald (805) 945-6416
8-9 AM 72 hrs

T.A. TIDEMANSON
Director of Public Works

By [signature] Date 11-16-88

DOUS MATERIALS UNDERGROUND STORAGE
ELES COUNTY
ENT OF PUBLIC WORKS
MANAGEMENT DIVISION
CAZAR STREET
ELES, CALIFORNIA 90033

Closure Permit
No. 5019 B
File No.
I-9774-3E

sfy the permanent closure requirements for underground storage tanks usly storing hazardous materials, site integrity must be demonstrated e analysis of soil samples and, if applicable, groundwater samples as d below. These requirements are in addition to the conditions listed e Application fo Closure or contained in an approved Closure Plan.

ples shall be obtained at the sampling points (SP) indicated on the ached plot plan.

each SP, samples shall be obtained at the following depths:

SP	Depth(s)	Compounds	Analysis Method
	5, 10, 20, 30, 40 Ft. deep	T. P. H.	EPA 415-1

l soil samples obtained shall be undisturbed and unexposed prior to nalysis. The method used to obtain the samples and the date of a pling shall be included in the final report.

f groundwater is encountered during sampling, a groundwater monitoring e l shall be established at the most downgradient sampling point. The e l shall be developed by removing a minimum of four well volumes and groundwater sample shall be obtained and analyzed.

analysis results for all soil samples shall be expressed in illigrams per kilogram (mg/kg). Analysis results for groundwater amples shall be expressed in parts per billion (ppb).

nalysis results shall be reported on laboratory letterhead and shall nclude the following information: a) The date the analysis was ducted; b) The method of extraction (if applicable); c) The method f analysis.

l soil/groundwater samples obtained shall be handled and transported a laboratory in strict accordance with applicable EPA regulations tilizing chain-of-custody procedures. Chain-of-custody documentation ll be included in the final report.

f the soil/groundwater analysis indicates undefined contamination at facility, additional sampling shall be required to define the tical and lateral extent present.

final report that contains all of the above required information ll be submitted to the office above within one (1) month from the

F - D - B

BURBANK FIRE DEPARTMENT
353 East Olive Avenue
Burbank, Calif. 91502

PERMIT

- [ ] Public Assembly
- [ ] Flammable Liquids
- [X] Hazardous Processes
- [ ] Hazardous Materials
- [ ] Compressed Gases
- [ ] Other

Date issued 4-19-85 Expiration Date 5-19-85

In accordance with Sec. 4.101 of the Uniform Fire Code, a permit is issued to:

Name: E.N.S.R. Corporation (Contractor's License # 537220)

Address: 19782 MacAthur Blvd. Suite #365 Irvine California 92715 Phone # (714) 476-0321

For: Permanent, CLOSURE IN PLACE of a U.S.T. identified as (C-1A) located at 2311 Hollywood Way Burbank Calif. In the Lockheed Aeronautical Systems Company. Said CLOSURE IN PLACE shall be done in a manner approved by the Burbank Fire Dept. and Los Angeles County Waste Management Div. Fire Dept. Field Inspector shall be on site during the filling of said U.S.T.

This permit is valid until its expiration date or until the limits are exceeded or the requirements are violated.

Curtis V. Reynolds, Fire Chief

By Josef Solares, Inspector
Authorized Representative

This permit does not take the place of any License required by law and is not transferable. Any change in the use or occupancy of premises shall require a new permit.

THIS PERMIT MUST BE PROMINENTLY DISPLAYED ON THE PREMISES AT ALL TIMES

TATE OF CALIFORNIA
EPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

№- 0526813

PERMIT

It is the Division's policy to send copies of permits and job notifications to the appropriate Fed/OSHA office.

No. _____

Date February 28, 1989

Region 4

District 3 Van Nuys

Tel. (818) 901-5403

Permit Issued To
(Insert Employer's Name, Address and Telephone No.)

ENSR Corp.
19782 MacArthur, Suite 365
Irvine, CA 92715
(714) 476-0321

Type of Permit Excavation

Pursuant to Labor Code Sections 6500 and 6502, this Permit is issued to the above-named employer for the projects described below.

State Contractor's License Number		Permit Valid through		
537220		May 1989 or completion at jobsite		
Description of Project	Location Address	City and County	Anticipated Dates	
			Starting	Completion
Underground storage tank removal	Lockheed Aeronautical Systems Co. 2311 Hollywood Way	Burbank, L.A. Co.	2/28/89	May 1989

This Permit is issued upon the following conditions:

1. That the work is performed by the same employer. If this is an annual permit the appropriate District Office shall be notified, in writing, of dates and location of job site prior to commencement.
2. That employer will comply with all occupational safety and health standards or orders applicable to the above projects, and any other lawful orders of the Division.
3. That if any unforeseen condition causes deviation from the plans or statements contained in the Permit Application Form the employer will notify the Division immediately.
4. Any variation from the specification and assertions of the Permit Application Form or violation of safety orders may be cause to revoke the permit.
5. This permit shall be posted at or near each place of employment as provided in 8 CAC 341.4.

Received From		Received By	
same		jr	
☐ Cash	Amount	Date	
☒ Check 3395	50.00	2/28/89	

Investigated by Steven Yeoman 2-28-89
Safety Engr. Date

Approved by Richard C. Davis 2-28-89
Dist. Manager Date

EMPLOYER ORIGINAL—GREEN
ACCOUNTING COPY—CANARY
DISTRICT COPY—PINK
REGION COPY—WHITE

690 (Rev. 2-81)

86 95216

Bierlein

TANK DESTRUCTION CERTIFICATION

By virtue of signators, this certifies that (1) 10,000 Gallon underground storage tank(s) were removed from 10720 Sherman Way, Burbank, CA 91505 (address) for Lockheed Engineering & Science Co. (owner).

The aforementioned tank(s) were cleaned, rendered unuseable, and disposed of at Alameda Street Metal Corp.
10313 S. Alameda Street
Lynwood, CA 90002.

Disposal Facility Representative	2/10/92 Date
Bierlein Delivery Representative	2-6-92 Date
Bierlein Project Manager	2-6-92 Date

2166-03829

GREGG
GREGG & ASSOCIATES, INC.
18351 BEACH BOULEVARD, SUITE L
HUNTINGTON BEACH, CA 92648 □ 714-841-2019

#10

May 12, 1987

Mr. Terry Carberry, Environmental Engineer
Lockheed-California Company
P.O. Box 551
Burbank, California 91520

SUBJECT: Sample Collection and Laboratory Analysis of Soil Underlying a Leaking Transformer at Building 35, Plant C-1, Burbank, California.

Dear Mr. Carberry:

Lockheed-California Company (CALAC) recently discovered a leaking transformer near Building 35 at Plant C-1. The transformer contained a polychlorinated biphenyl (PCB) based cooling oil. The purpose of the sampling program was to determine if the soil underlying the leaking transformer contains concentrations of PCB oil. This letter report presents the results of this sampling program.

The scope of work consisted of manually excavating a trench adjacent to the west side of the transformer pad and collecting samples of the soil underlying the pad. In addition, one soil sample (Sample 030-1) was collected 15-inches from the east side of the transformer pad, where the transformer will be relocated. Figure 1 shows the locations of where the soil samples were collected in relation to the transformer. Four soil samples (Samples 030-2, 030-3, 030-4, and 030-5) were collected from under the pad by hand augering into the side of the trench adjacent to the pad and a fifth soil sample (Sample 030-6) was collected from discolored soil in the south wall of the trench (Figure 2). The soil was removed from the auger and placed in a glass laboratory collection bottle, labeled and placed in an ice chest for temporary storage. The soil samples were sent to Analytical Technologies, Inc., of San Diego, California for analyses. The samples were analyzed for PCBs using gas chromatography/electron capture in accordance with EPA Method 8080.

Concentrations of PCBs were detected in two of the samples collected from soil directly underlying the pad (see Table 1). The PCB Aroclor 1254 was detected in Sample 031-4 at a concentration of 0.27 milligrams per kilogram (mg/kg) and the PCB Aroclor 1248 was detected in Sample 031-5 at a concentration of 25 mg/kg. No other PCB compounds were detected in any of the samples.

TABLE 1: SOIL SAMPLE ANALYSES FOR PCBs
(mg/kg)

PCB COMPOUND	SAMPLE NUMBER					
	031-1	031-2	031-3	031-4	031-5	031-6
AROCLOR 1016	ND	ND	ND	ND	ND	ND
AROCLOR 1221	ND	ND	ND	ND	ND	ND
AROCLOR 1232	ND	ND	ND	ND	ND	ND
AROCLOR 1242	ND	ND	ND	ND	ND	ND
AROCLOR 1248	ND	ND	ND	ND	25.0	ND
AROCLOR 1254	ND	ND	ND	0.27	ND	ND
AROCLOR 1260	ND	ND	ND	ND	ND	ND

Note: ND - not detected

The detection limit for the analysis was 0.017 mg/kg for samples 031-1, 031-2, 031-3, 031-4, and 031-6. Due to a sample dilution, the detection limit for Sample 031-5 was 1.7 mg/kg.

The two samples containing PCB compounds were collected from immediately underneath the pad, indicating that the soil directly underneath the pad contains low concentrations of PCB compounds. The vertical extent of contamination is probably limited to the upper 1 foot of soil underlying the pad, as the samples collected from lower depths did not contain any PCB compounds. Typically, the California Department of Health Services requires the clean-up of all soil and other material containing greater than 5 mg/kg of PCBs.

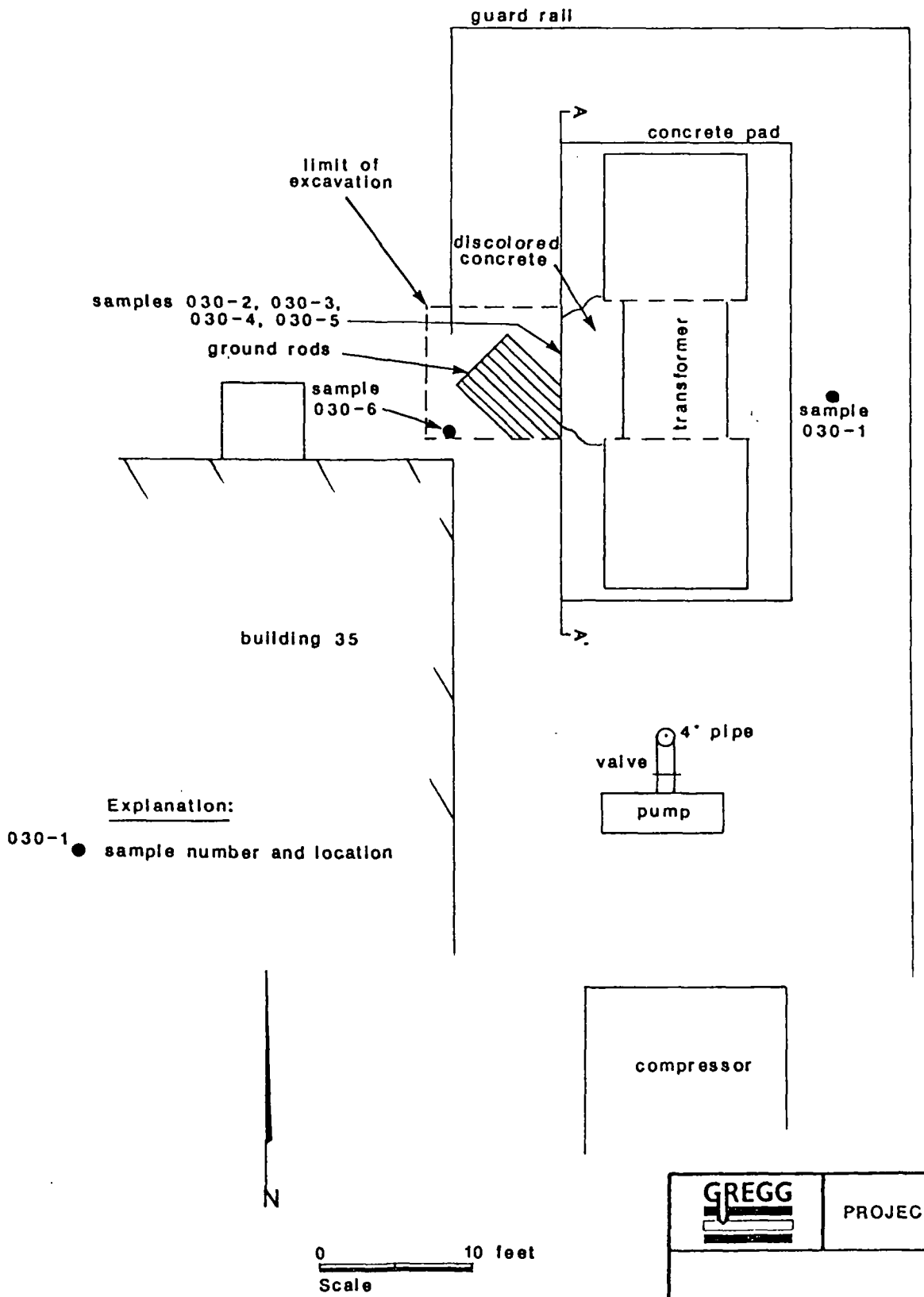
o o O o o

It has been Gregg & Associates, Inc.'s pleasure in conducting this sampling program for CALAC. If you have any questions please, do not hesitate to contact me or Mary Kling, Project Hydrogeologist at (714) 841-2019.

Very truly yours,
Gregg & Associates, Inc.

Dean O. Gregg, P.E., R.G.
President

Attachments
DOG/mfk



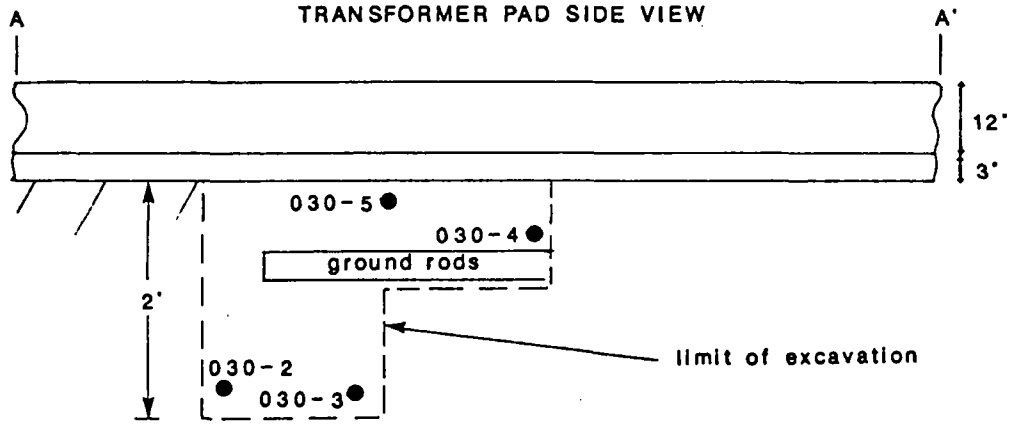
GREGG

PROJECT NO 87-106-031

SITE MAP

5/87

FIGURE 1



Explanation:

030-2 ● sample number and location

NOT TO SCALE

GREGG

PROJECT NO 87-106-031

SECTION A-A'
SAMPLE LOCATIONS

5/87

FIGURE 2

RECEIVED MAR 2 6 1987

AnalyticalTechnologies, Inc. Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141

ATI I.D.# 703043

March 25, 1987

Gregg & Associates
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

Project: CALAC 86-106-031

Attention: Ferol Kimble

On March 5, 1987, Analytical Technologies, Inc. received six (6) soil samples for analyses. Five (5) samples were analyzed for polychlorinated biphenyls.

The polychlorinated biphenyls were analyzed using gas chromatography/electron capture detection in accordance with EPA method 8080.

The results of these analyses and the quality control data are enclosed.

Patricia A. Schroder
GC Supervisor

Richard M. Amano
Laboratory Manager

PAS:mag

Note: The samples from this project will be disposed of thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ATI I.D.# 70304301

ORGANIC ANALYSIS DATA SHEET
PCB

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: 031-01
METHOD NO.: EPA 8080
TECHNIQUE: GC/ECD
SAMPLE MATRIX: SOIL
DILUTION: 1

DATE SAMPLED: 3-04-87
DATE RECEIVED: 3-05-87
DATE EXTRACTED: 3-09-87
DATE ANALYZED: 3-19-87
UNITS: mg/Kg

PARAMETER	DETECTION LIMIT	RESULT
AROCLOR 1016	0.017	U
AROCLOR 1221	0.017	U
AROCLOR 1232	0.017	U
AROCLOR 1242	0.017	U
AROCLOR 1248	0.017	U
AROCLOR 1254	0.017	U
AROCLOR 1260	0.017	U

U indicates the compound was analyzed for but not detected.

ATI I.D.# 70304302

ORGANIC ANALYSIS DATA SHEET
PCB

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: 031-03
METHOD NO.: EPA 8080
TECHNIQUE: GC/ECD
SAMPLE MATRIX: SOIL
DILUTION: 1

DATE SAMPLED: 3-04-87
DATE RECEIVED: 3-05-87
DATE EXTRACTED: 3-09-87
DATE ANALYZED: 3-19-87
UNITS: mg/Kg

PARAMETER	DETECTION LIMIT	RESULT
AROCLOR 1016	0.017	U
AROCLOR 1221	0.017	U
AROCLOR 1232	0.017	U
AROCLOR 1242	0.017	U
AROCLOR 1248	0.017	U
AROCLOR 1254	0.017	U
AROCLOR 1260	0.017	U

U indicates the compound was analyzed for but not detected.

ATI I.D.# 70304303

ORGANIC ANALYSIS DATA SHEET
PCB

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: 031-04
METHOD NO.: EPA 8080
TECHNIQUE: GC/ECD
SAMPLE MATRIX: SOIL
DILUTION: 1

DATE SAMPLED: 3-04-87
DATE RECEIVED: 3-05-87
DATE EXTRACTED: 3-11-87
DATE ANALYZED: 3-19-87
UNITS: mg/Kg

PARAMETER	DETECTION LIMIT	RESULT
AROCLOR 1016	0.017	U
AROCLOR 1221	0.017	U
AROCLOR 1232	0.017	U
AROCLOR 1242	0.017	U
AROCLOR 1248	0.017	U
AROCLOR 1254	0.017	0.27
AROCLOR 1260	0.017	U

U indicates the compound was analyzed for but not detected.

ATI I.D.# 70304304

ORGANIC ANALYSIS DATA SHEET
PCB

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: 031-05
METHOD NO.: EPA 8080
TECHNIQUE: GC/ECD
SAMPLE MATRIX: SOIL
DILUTION: 100

DATE SAMPLED: 3-04-87
DATE RECEIVED: 3-05-87
DATE EXTRACTED: 3-09-87
DATE ANALYZED: 3-19-87
UNITS: mg/Kg

PARAMETER	DETECTION LIMIT	RESULT
AROCLOR 1016	1.7	U
AROCLOR 1221	1.7	U
AROCLOR 1232	1.7	U
AROCLOR 1242	1.7	U
AROCLOR 1248	1.7	25.0
AROCLOR 1254	1.7	U
AROCLOR 1260	1.7	U

U indicates the compound was analyzed for but not detected.

ATI I.D.# 70304305

ORGANIC ANALYSIS DATA SHEET
PCB

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: 031-06
METHOD NO.: EPA 8080
TECHNIQUE: GC/ECD
SAMPLE MATRIX: SOIL
DILUTION: 10

DATE SAMPLED: 3-04-87
DATE RECEIVED: 3-05-87
DATE EXTRACTED: 3-09-87
DATE ANALYZED: 3-19-87
UNITS: mg/Kg

PARAMETER	DETECTION LIMIT	RESULT
AROCLOR 1016	0.17	U
AROCLOR 1221	0.17	U
AROCLOR 1232	0.17	U
AROCLOR 1242	0.17	U
AROCLOR 1248	0.17	U
AROCLOR 1254	0.17	U
AROCLOR 1260	0.17	U

U indicates the compound was analyzed for but not detected.

ATI I.D.# 703043RB

ORGANIC ANALYSIS DATA SHEET
PCB

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: REAGENT BLANK
METHOD NO.: EPA 8080
TECHNIQUE: GC/ECD
SAMPLE MATRIX: SOIL
DILUTION: 1

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 3-09-87
DATE ANALYZED: 3-19-87
UNITS: mg/Kg

PARAMETER	DETECTION LIMIT	RESULT
AROCLOR 1016	0.017	U
AROCLOR 1221	0.017	U
AROCLOR 1232	0.017	U
AROCLOR 1242	0.017	U
AROCLOR 1248	0.017	U
AROCLOR 1254	0.017	U
AROCLOR 1260	0.017	U

U indicates the compound was analyzed for but not detected.

ATI I.D.# 703043RB

ORGANIC ANALYSIS DATA SHEET
PCB

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: REAGENT BLANK
METHOD NO.: EPA 8080
TECHNIQUE: GC/ECD
SAMPLE MATRIX: SOIL
DILUTION: 1

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 3-11-87
DATE ANALYZED: 3-19-87
UNITS: mg/Kg

PARAMETER	DETECTION LIMIT	RESULT
AROCLOR 1016	0.017	U
AROCLOR 1221	0.017	U
AROCLOR 1232	0.017	U
AROCLOR 1242	0.017	U
AROCLOR 1248	0.017	U
AROCLOR 1254	0.017	U
AROCLOR 1260	0.017	U

U indicates the compound was analyzed for but not detected.

ATI I.D.# 703043

QUALITY CONTROL DATA
MATRIX SPIKE/MATRIX SPIKE DUPLICATES

CLIENT: GREGG & ASSOCIATES
PROJECT: CALAC 86-106-031
SAMPLE I.D.: 02

SAMPLE MATRIX: SOIL
DATE ANALYZED: 3-09-87
UNITS: mg/Kg

COMPONENT	SPIKE ADDED	1ST RESULT	1ST RESULT'S % RECOVERY *	2ND RESULT	2ND RESULT'S % RECOVERY	RPD **
PCB 1260	0.167	0.192	115	0.164	98	15.7

$$* \ \% \text{ RECOVERY} = \frac{(\text{SPIKE SAMPLE RESULT} - \text{SAMPLE RESULT})}{\text{SPIKE ADDED}} \times 100$$

$$** \ \text{RPD (RELATIVE PERCENT DIFFERENCE)} = \frac{\text{1ST RESULT} - \text{2ND RESULT}}{\text{AVERAGE RESULT}} \times 100$$

AnalyticalTechnologies, Inc.
San Diego • Phoenix • Seattle

Chain of Custody

DATE March 5 1987 PAGE 1 OF 1

PROJ. MGR. Earl Kimblet
COMPANY Gregg Assoc.
ADDRESS 18351 Beach Blvd Ste. L
Huntington Beach 92647

SAMPLERS (SIGNATURE) (PHONE NO.) 714-841-3011

ANALYSIS REQUEST

	SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	BASE/NEU/ACID CMPDS. GC/MS/ 625/8270	VOLATILE CMPDS. GC/MS/ 624/8240	PESTICIDES/PCB 608/8080	POLYNUCLEAR AROMATIC 610/8310	PHENOLS, SUB PHENOLS 604/8040	HALOGENATED VOLATILES 601/8010	AROMATIC VOLATILES 602/8020	TOTAL ORGANIC CARBON 415/9060	TOTAL ORGANIC HALIDES 9020	PETROLEUM HYDROCARBONS 418			PRIORITY POLLUTANT METALS (13)	CAM METALS (18) TTLC/STLC	EP TOX METALS (8)	SWDA-INORGANICS PRIMARY/SECONDARY	HAZARDOUS WASTE PROFILE				NUMBER OF CONTAINERS
1	031-01	3/4/87	[illegible]	soil				X																	1
02	031-03	"	"	"				X																	1
03	031-04	"	"	"				X																	1
04	031-05	"	"	"				X																	1
05	031-06	"	"	"				X																	1
06	031-02	"	"	"																					1

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT: GRAC 86-106-031	TOTAL NO. OF CONTAINERS	6
PO NO.	CHAIN OF CUSTODY SEALS	
SHIPPING ID. NO.	REC'D GOOD CONDITION/COLD	
VIA: Red Express	CONFORMS TO RECORD	
	LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS:
Analyze for PCB only
archive 031-02, do not analyze (GAN)

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
(Signature) (Time)	(Signature) (Time)	(Signature) (Time)
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (Date)
(Company)	(Company)	(Company)
RECEIVED BY 1.	RECEIVED BY 2.	RECEIVED BY (LABORATORY) 3.
1:30 pm		
(Signature) (Time) 3/5/87	(Signature) (Time)	(Signature) (Time)
(Printed Name) (Date) Red Express	(Printed Name) (Date)	(Printed Name) ATI 3/5/87
(Company)	(Company)	ANALYTICAL TECHNOLOGIES, INC

ATI LABORATORIES: SAN DIEGO (619) 458-9141 PHOENIX (602) 438-1530

DISTRIBUTION: WHITE, CANARY - ANALYTICAL TECHNOLOGIES, INC • PINK - ORIGINATOR

GREGG

LOG OF EXPLORATORY BORING

Project No. 87-106-035 Date 6/12/87

Client SALAC

Location BUILDING 146

Logged By P.KEATING Driller C.LEMMONS

Boring No. B-3

Sheet 1 of 1

Field location of boring:

Drilling Method

Hole Dia. 8"

Installation Data

Water Level				
Time				
Date				

DEPTH	GRAPHIC LOG	BLOW/ft	VAPOR CONCEN-TRATION	SAMPLE TYPE AND DEPTH	SOIL GROUP SYMBOL (U.S.C.S.)	DESCRIPTION
					SW	SAND MED. TO COARSE, GRAVEL, COBBLES
2		37		6" RING		
4						
6		30		6" RING		SAME AS ABOVE
8						
10						
		22		6" RING		
12						
14						
16		35		6" RING		

2166-03829

RESULTS OF UNDERGROUND TANK LEAK DETECTION PROGRAM FOR LOCKHEED-CALIFORNIA COMPANY PLANT C-1 BURBANK, CALIFORNIA

SUBMITTED TO
CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD - LOS ANGELES REGION
107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012-4596

FROM
LOCKHEED-CALIFORNIA COMPANY
BURBANK, CALIFORNIA 91520

PREPARED BY
GREGG & ASSOCIATES, INC.

9

JANUARY 27, 1986

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
1.1	Site Description	1
1.2	Description of Underground Storage Tank	2
2.0	SUBSURFACE INVESTIGATION	3
2.1	Field Investigation	3
2.2	Drilling Equipment and Sampling Procedures	4
2.3	Vapor Monitoring Well Construction	5
3.0	LABORATORY ANALYSES	7
4.0	FINDINGS	8
5.0	CONCLUSIONS/RECOMMENDATIONS	9

LIST OF TABLES

TABLE 1 - RESULTS OF LABORATORY ANALYSES OF SOIL SAMPLES

LIST OF ILLUSTRATIONS

FIGURE 1 - MAP SHOWING THE LOCATION OF CALAC PLANT C-1
FIGURE 2 - MAP SHOWING THE LOCATION OF TANK C-1-A
FIGURE 3 - TYPICAL GROUND-WATER MONITORING WELL INSTALLATION
FIGURE 4 - BORING LOG FOR BORING C-1-A-MV1
FIGURE 5 - BORING LOG FOR BORING C-1-A-MV2

APPENDIX - LABORATORY REPORTS

1.0 INTRODUCTION

This report presents the results of an underground storage tank leak detection program performed at Lockheed- California Company's (CALAC) Plant C-1 located in in Burbank, California. Plant C-1 has one underground storage tank that is used to store waste oil. This report is in response to a directive issued by the California Regional Water Quality Control Board - Los Angeles Region (CRWQCB) requiring CALAC to conduct an underground tank leak detection program at its 8 plants located in Los Angeles County.

CALAC retained Gregg & Associates, Inc., a Huntington Beach, California firm specializing in hydrology, soil and ground-water contamination, and underground tank investigations, to assist them with the underground tank leak detection program. The objectives of the program were to determine: 1) if leakage from the underground tank had occurred; 2) if contamination is present in the subsurface; 3) to install a permanent monitoring system; and 4) to establish a monitoring program.

1.1 Site Description

As indicated above, Plant C-1 is located in the City of Burbank (see Figure 1). The site is bounded by Sherman Way to the north, the Hollywood-Burbank Airport on the east and south sides and Vineland Avenue to the west. The area can be characterized largely as industrial and commercial. CALAC is one of the largest industries in the area but there are numerous satellite industries locally.

The elevation of the site is between 730 and 740 feet above mean sea level (MSL). The land surface in the area slopes to the southeast at about 70 to 80 feet per mile. City of Los Angeles Department of Water and Power well records indicate that ground water is almost 200 feet below land surface beneath Plant C-1.

The site is underlain by thick deposits of younger alluvium of Recent (Holocene) and Pleistocene age. The alluvium consists principally of stream channel, fan, and basin deposits. Much of the deposits of Recent age are probably fan deposits from La Tuna Canyon in the Verdugo Mountains northeast of the plant. A drillers log of a well owned by the City of Burbank and located near the intersection of Vanowen Street and Hollywood Way indicates that the subsurface soils are largely granular to a substantial depth. Typically, soils in the San Fernando Valley are sandy silts, sands and sandy gravels. Any clays are usually discontinuous and not extensive.

1.2 Description of Underground Storage Tank

CALAC Plant C-1 has one underground storage tank, Tank C-1-A, that is currently used to store waste oil. Tank C-1-A was originally used to store diesel fuel. The location of the tank is shown relative to surrounding structures on Figure 2. The tank has a 10,000 gallon capacity, a length of 21 feet and a diameter of 9 feet. The length was estimated by measuring the distance between fill tubes and the diameter was estimated using the relationship between the tanks capacity and length. The waste oil in the tank is periodically removed by vacuum pump and a licensed waste handler.

2.0 SUBSURFACE INVESTIGATION

2.1 Field Investigation

The field investigation consisted of drilling and sampling two borings and installing a vapor monitoring well in each boring. Boring/Vapor Monitoring Well C-1-A-MV1 was drilled and installed on July 25, 1985 and Boring/Vapor Monitoring Well C-1-A-MV2 was drilled and installed on October 10, 1985. The locations of the monitoring wells are shown on Figure 2.

The boring for vapor monitoring well C-1-A-MV1 was drilled to a depth of 15 feet and a 12 foot deep vapor monitoring well was installed. A soil sample was collected from the bottom of the boring at a depth of 15 feet below the ground surface. Several attempts to collect soil samples at depths less than 15 feet were unsuccessful due to the presence of numerous cobbles throughout the boring. The boring for vapor monitoring well C-1-A-MV2 was drilled to a depth of 15 feet and an 11 foot deep vapor monitoring well was installed. Soil samples were collected from the boring at depths of 5,10, and 15 feet. The depths of both the vapor monitoring wells were less than the total depths of the borings due to hole caving; however, the 12 and 11 foot depths for C-1-A-MV1 and C-1-A-MV2, respectively, are sufficiently deep to adequately monitor the tank. A typical design for a vapor monitoring well installation is shown in Figure 3. The boring logs for C-1-A-MV1 and C-1-A-MV2 are shown in Figures 4 and 5 respectively.

2.2 Drilling Equipment and Sampling Procedures

All drilling was performed by Gregg Drilling & Testing of Huntington Beach, California, under the supervision of personnel from Gregg & Associates, Inc. The equipment used for drilling C-1-A-MV1 was a Mobile Drilling Company Minuteman auger drilling rig and C-1-A-MV2 was drilled using a Mobile Drilling Company Model B-24 auger drilling rig. The Minuteman drilling rig is a small hand-portable drilling rig and was used because space limitations prevented using a conventional truck-mounted drilling rig. The auger flights are hollow (hollow-stem). The Minuteman augers have an inside diameter of 2.5 inches and an outside diameter of about 4.5 inches. The individual auger flights are in 2.5-foot lengths. The B-24 augers have an inside diameter of 3.25 inches and an outside diameter of 8 inches. The individual auger flights are in 5-foot lengths. The type of equipment used and the method for collecting soil samples are very similar for both rigs. A retractable plug prevents soil from entering into the auger flights during the boring process. The plug is at the end of a string of AW size steel rods that are manually inserted and retrieved from the hole. A Modified California Sampler is placed at the bottom of the AW rods when a target depth is reached and a soil sample is to be collected.

A Modified California Sampler, consisting of an outer sampler barrel and an inner thin-walled liner or set of rings, was used for sampling. The sampler was manually driven with a hand-held hammer. As the sampler was driven ahead of the hollow-stem auger flights, the soil sample was collected in the inner liner or

rings. After the sampler was driven 12 inches, it was retrieved and the rings were removed. For this application, two 6-inch long rings placed end to end were used. The bottom ring containing the soil sample was removed from the sampler, it's ends were sealed with aluminum foil and plastic end caps, then secured with duct tape. The sample was then labeled and placed in an ice chest for cold storage. These soil samples were later placed in a freezer for storage and were shipped frozen by courier to Acurex Corporation, of Mountain View California, for testing. The soil samples were accompanied by a chain-of-custody manifest. The soil in the top 6-inch ring was examined in the field for lithologic description and was visually inspected for contamination.

Before the Modified California sampler and rings were assembled and put in the boring, they were cleansed to avoid cross-contamination between samples or borings. The equipment was washed with soap and water, rinsed with tap water, dipped in methanol and allowed to air dry.

2.3 Vapor Monitoring Well Construction

A permanent vapor monitoring well was installed in each of the borings. The wells were constructed of 2-inch ID PVC blank pipe and screen. The screen was factory machine slotted with openings of about 0.020 inch. The annulus between the sides of the boring (about 2.5-inches for C-1-A-MV1 and about 6-inches for C-1-A-MV2) and the 2-inch ID screen was filled with a clean sand pack (Lone Star #3 sand). The remainder of the annular space was filled with bentonite and concrete.

Vapor monitoring well C-1-A-MV1 was screened from 12 feet to 5 feet and blank pipe was placed from 5 feet to the surface. The sand pack was placed from the bottom of the well to a point above the uppermost slots (4.5 feet). Bentonite was placed from 4.5 to 3 feet and the remainder of the annulus was filled with concrete.

Vapor monitoring well C-1-A-MV2 was screened from 11 feet to 7 feet and blank pipe was placed from 7 feet to the surface. The sand pack was placed from the bottom of the boring to a depth of 6 feet. Bentonite was placed from 6 to 5 feet and the remainder of the annulus was filled with concrete.

Vapor Monitoring Well C-1-A-MV1 is housed at the surface with a cast-iron meter box and epoxied to the paving. Vapor Monitoring Well C-1-A-MV2 is housed at the surface in a precast concrete meter box concreted in place to the surrounding pavement and soil. Both meter boxes have cast iron lids that are set 0.5 inches above the paved surface.

All joints or lengths of pipe, blank and slotted, were connected by threaded joints. No glued joints were used. Further, all well casing, screen, and caps placed in the holes were washed with an aqueous solution of detergent and rinsed with tapwater to preclude contamination by hydrocarbons.

3.0 LABORATORIES AND TEST PROCEDURES

The chemical analyses of the soil samples were performed by the Acurex Corporation. The samples were analyzed for the constituent stored in the underground tanks, oil. The samples were analyzed using IR (infrared spectrophotometry), EPA Method 418.1. Two samples were analyzed: the 15-foot sample from the boring for vapor monitoring well C-1-A-MV1 and a composite sample of the three samples from the boring for vapor monitoring well C-1-A-MV2. The results of the laboratory analyses are shown on Table 1.

TABLE 1

RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES

Soil Samples	Petroleum Hydrocarbon Concentrations
C-1-A-MV1 15 ft.	<10 mg/kg
C-1-A-MV2 composite	<10 mg/kg

note: detection limit for soil samples is 10 mg/kg

4.0 FINDINGS

The soil at the site consists of predominantly medium to coarse grain sand with abundant pebbles and cobbles. The sand ranges in color from brown to variegated brown, is moist and has a loose relative density. No field indications of subsurface contamination such as odor or discoloration were observed during drilling, nor was any contamination found in the laboratory analyses of the soil samples. However, the field engineer noted that the concrete pad overlaying the tank had numerous oil stains.

5.0 CONCLUSIONS/RECOMMENDATIONS

No petroleum hydrocarbons were detected in either of the soil samples collected in Borings C-1-A-MV1 and C-1-A-MV2. Further, no field indications of soil contamination were observed during the drilling of the borings. It is concluded that the underground storage tank C-1-A at CALAC Plant C-1 does not leak. It is recommended that quarterly soil vapor monitoring of the monitoring wells be conducted.

The oil stains on the concrete pad overlaying the tank are the probable result of spillage during tank filling and pumping procedures. It is recommended that greater care should be exercised during tank filling and pumping of the tank.

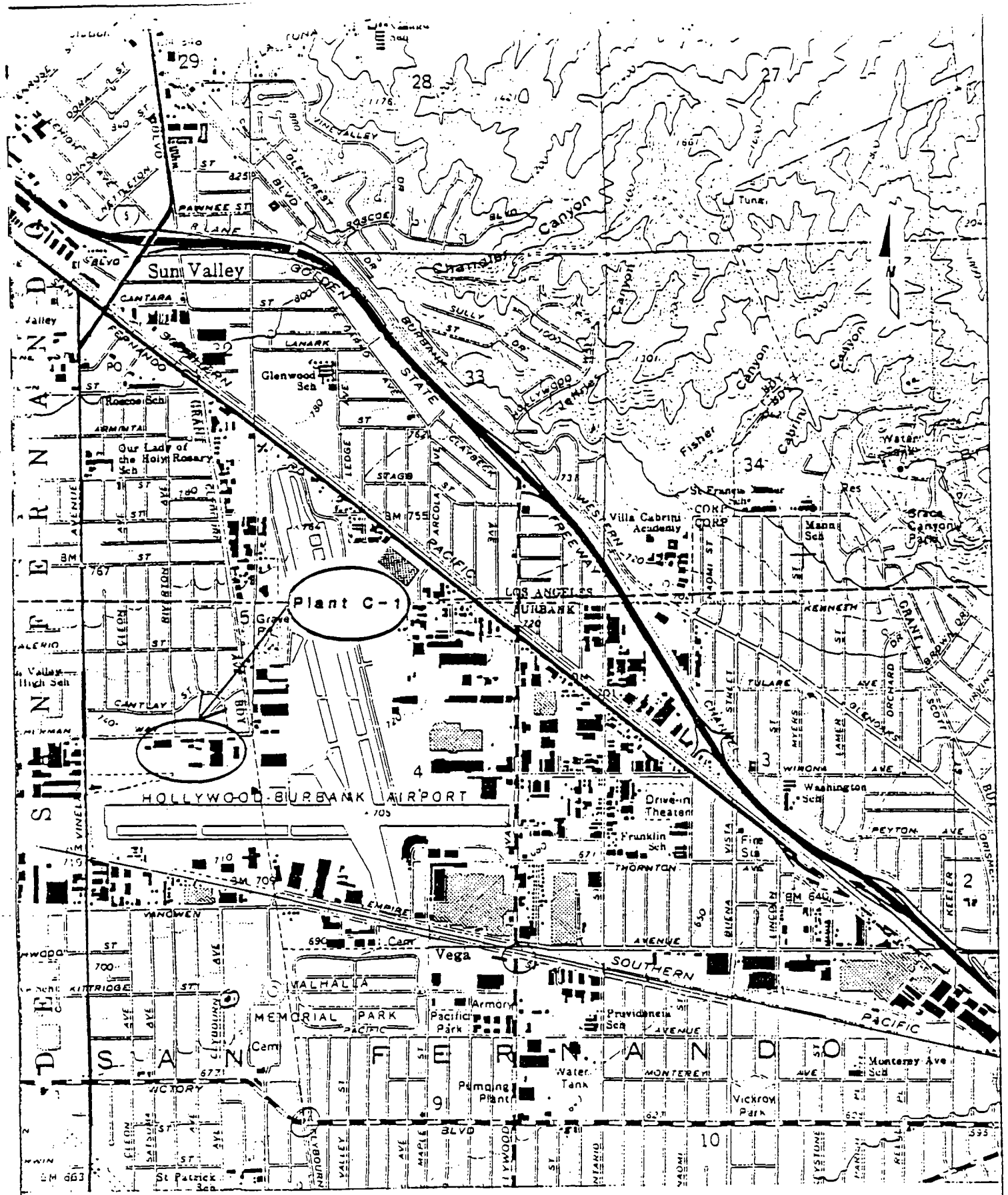
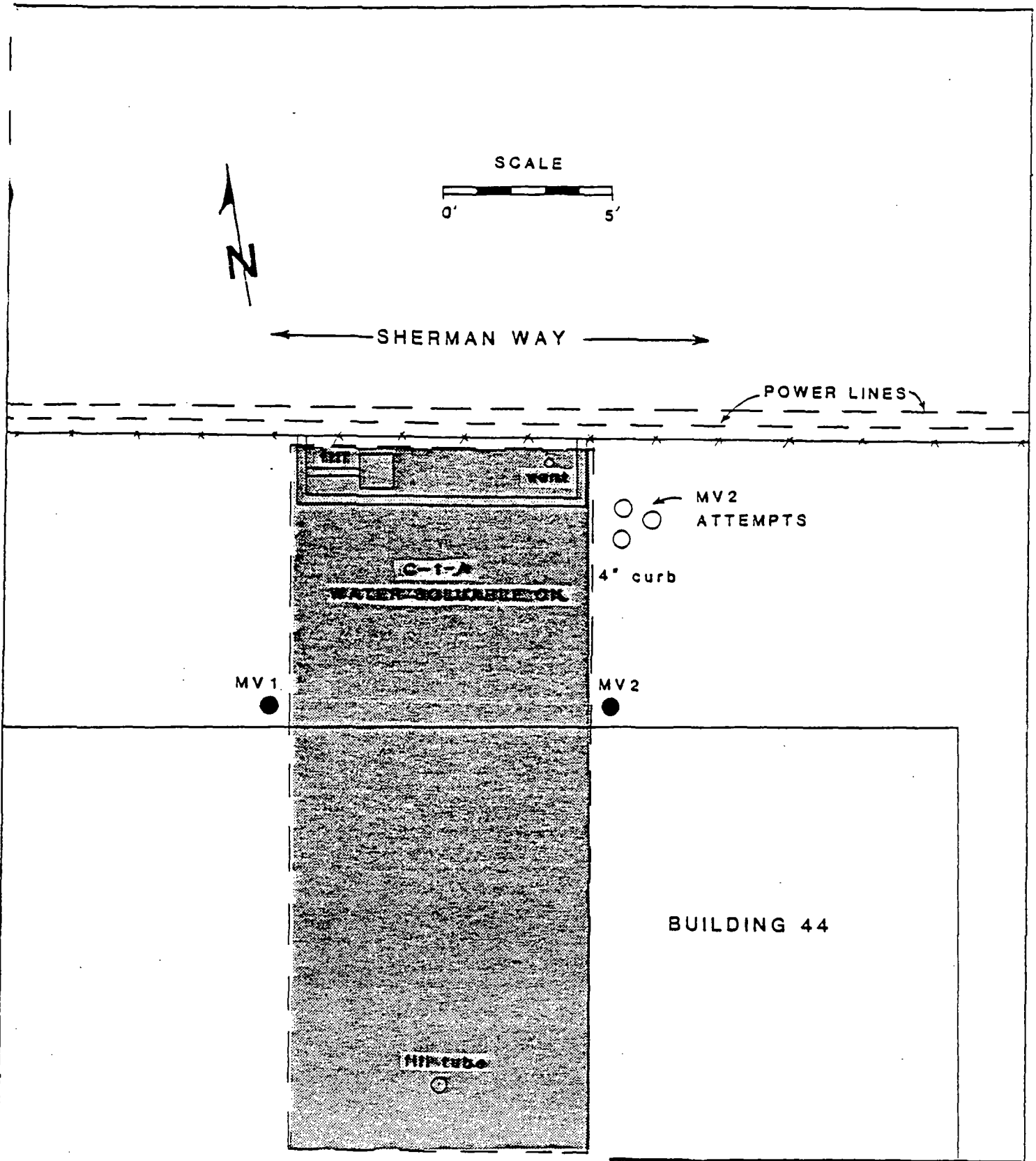


FIGURE 1 - LOCATION LOCKHEED-CALIFORNIA PLANT C-1

Gregg & Associates, Inc.



GREGG

PROJECT NO.84-106-002
LOCKHEED-CALIFORNIA COMPANY

SITE MAP OF
TANK NO. C-1-A

1/86

FIGURE 2

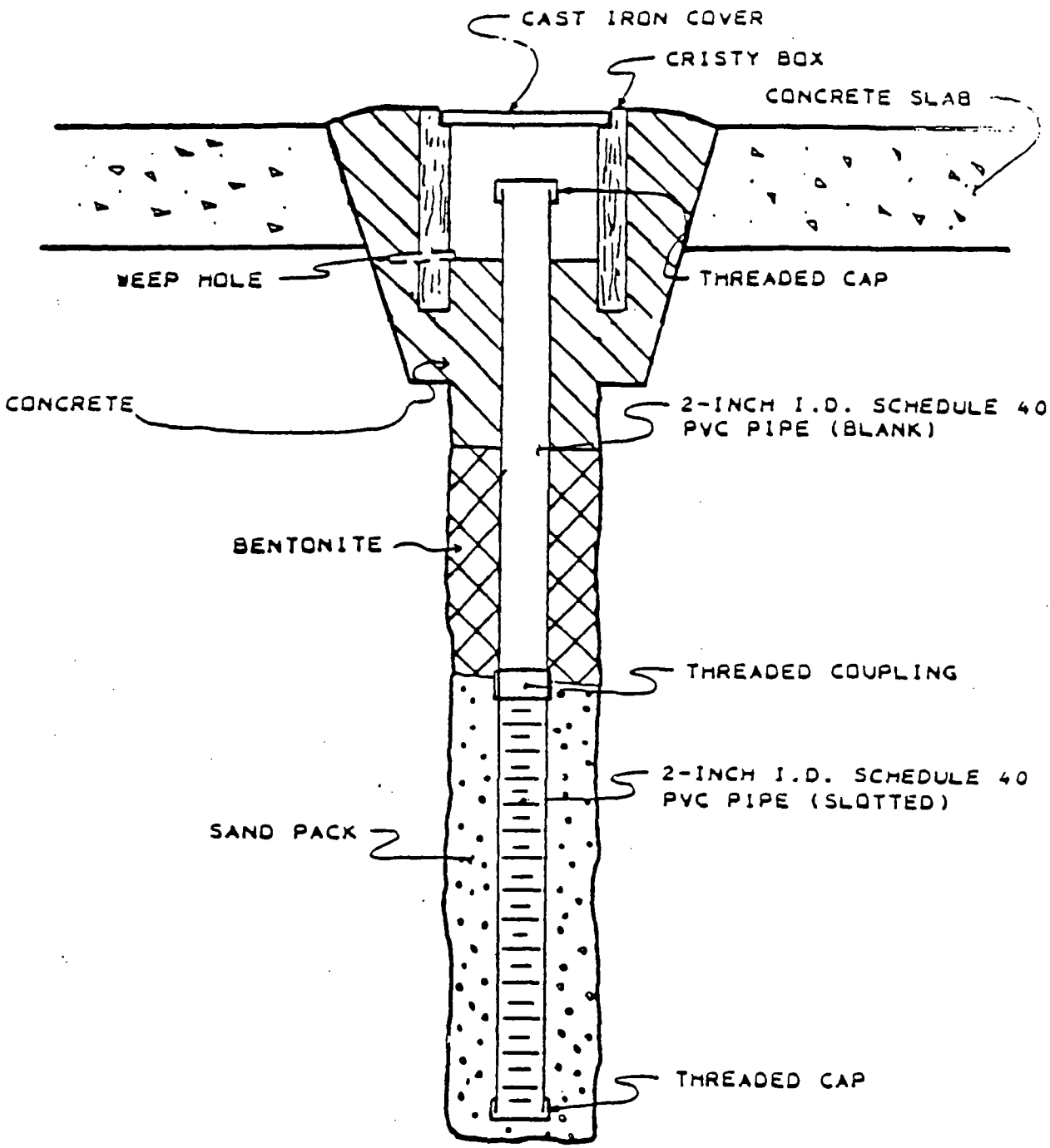
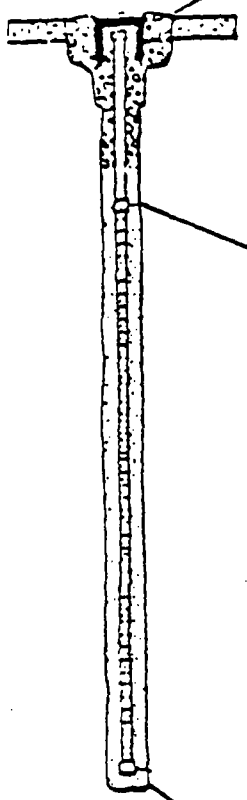


FIGURE 3

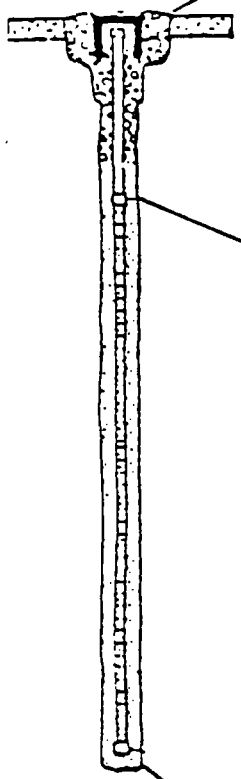
TYPICAL GROUND WATER MONITORING WELL INSTALLATION

CONSTRUCTION DETAIL	DEPTH	LOG	BLOW CNTS	LITHOLOGIC DESCRIPTION
	- 0 -			-Concrete
				-Sand,medium grained, pebble and large cobble at 8",brown
	- 1 -			
	- 2 -			-Sandy clay,brown,moist, cohesive,gap graded,soft, no odor
	- 3 -			-Sand,coarse,brown,soft, moist,no odor
	- 4 -			
	- 5 -			-Sand,medium well graded, brown,soft,no cohesion, pebbles to cobbles common,no odor
	- 6 -			
	- 7 -			
	- 8 -			
	- 9 -			
	- 10 -			
	- 11 -			
	- 12 -			-Sand,coarse,poorly graded,multicolored browns,moist,loose,no odor
	- 13 -			
	- 14 -			
	- 15 -			- TOTAL DEPTH OF BORING
				BORING NUMBER C-1-AMV1

COMPLETION & BACKFILL
-Blank 2" I.D. PVC pipe,0' - 5'
-Screened 2" I.D. PVC pipe,5' - 12'
-Sand 5' - 12'
-Bentonite 3' - 5'
-Concrete 0' - 3'

Prepared for
LOCKHEED CAL. COMP.
by
GREGG & ASSOCIATES,INC.

FIGURE 4

CONSTRUCTION DETAIL	DEPTH	LOG	BLOW CNTS	LITHOLOGIC DESCRIPTION
	- 0 -			-Concrete
	- 1 -			-Sand,medium grained, pebble and large cobble at 8",brown
	- 2 -			-Sandy clay,brown,moist, cohesive,gap graded,soft, no odor
	- 3 -			-Sand,coarse,brown,soft, moist,no odor
	- 4 -			
	- 5 -			-Sand,medium well graded, brown,soft,no cohesion, pebbles to cobbles common,no odor
	- 6 -			
	- 7 -			
	- 8 -			
	- 9 -			
	- 10 -			
	- 11 -			
	- 12 -			-Sand,coarse,poorly graded,multicolored browns,moist,loose,no odor
	- 13 -			
	- 14 -			
	- 15 -			- TOTAL DEPTH OF BORING
				BORING NUMBER C-1-AMV1

COMPLETION & BACKFILL
-Blank 2" I.D. PVC pipe,0' - 5'
-Screened 2" I.D. PVC pipe,5' - 12'
-Sand 5' - 12'
-Bentonite 3' - 5'
-Concrete 0' - 3'

Prepared for
LOCKHEED CAL. COMP.
by
GREGG & ASSOCIATES,INC.

FIGURE 4

APPENDIX

LABORATORY REPORTS

ACUREX Corporation

Energy & Environmental Division

Gregg & Associates
18351 Beach Blvd., Suite L
Huntington Beach, CA 92647

August 15, 1985
Acurex ID#: 8508·009
Client PO#:84-106-002

Attention: Ed Baquerizo

Subject: One Soil for Analysis, Received 8/7/85, Project Lockheed #84-106-002

The above sample was analyzed for petroleum hydrocarbons by EPA method 418.1 as applied to soil. The results are presented below.

Sample Identification	Petroleum Hydrocarbons, mg/kg
C-1-A-MV1-15 ft.	<10
C-1-A-MV1-15 ft. duplicate	<10
C-1-A-MV1-15 ft. spike	82% Recovery

Prepared by: Patrick M. Hirata
Patrick M. Hirata
Chemist

Approved by: Greg Nicoll
Greg Nicoll
Manager, Inorganic Chemistry

PMH/GN/kek

These results were obtained using accepted laboratory practices; the liability of Acurex Corporation shall not exceed the amount paid for this report. In no event shall Acurex be liable for special or consequential damages.

2166-03829

REPORT STATING THE RESULTS OF FIELD INVESTIGATIONS CONDUCTED AT THE LOCKHEED FACILITY BURBANK, CALIFORNIA

December 5, 1988 through February 3, 1989

by

SPECTRUM E.S.I.

ENVIRONMENTAL GEOPHYSICAL SURVEYS & UNDERGROUND LOCATION

Table of Contents | Page

Introduction	2
Methods	2
Site Conditions	2
Report Considerations	2
Results	3
Considerations	12
Appendix A.....Lockheed Tank Data	13
Appendix B.....Facility Diagrams of Tank Areas	20

REPORT STATING THE RESULTS OF FIELD INVESTIGATIONS CONDUCTED AT THE LOCKHEED FACILITY BURBANK, CALIFORNIA

Introduction From December 5, 1988 to February 3, 1989 Spectrum Environmental Services, Inc. conducted subsurface investigations at Lockheed in Burbank, California. The purpose of the investigations was to determine the size and orientation of specified underground fuel tanks and to investigate proposed exploratory boring sites (PEBS) in the immediate vicinity of these tanks for possible subsurface interferences.

Methods Spectrum's tank probing techniques were employed as site and tank conditions permitted. Tank associated conduits and utilities were identified and delineated using electromagnetic line locating instruments. Those tanks which were difficult to delineate using standard methods were investigated using ground penetrating radar (GPR) with a 300 MHz antenna in an effort to determine their orientation and size. If site conditions prohibited the application of GPR at a particular tank area then a steel probe was hammered through the asphalt to physically touch objects of interest. All PEBS were investigated with GPR so as to provide the most complete characterization of possible below ground interferences as is possible. Each tank area was mapped with an accuracy of plus or minus 6 inches.

Site Conditions Site conditions and problems at the tank areas within Lockheed varied from site to site. Typical problems incurred included traffic, parked cars, time limitations, surface metal debris, obstructions over the tanks which prevented probing, and personnel restrictions in security areas.

Report Considerations The text of this report describes the activities of Spectrum personnel and is presented by date of investigation and addresses the number and size of each tank investigated, problems encountered, and other activities. Complete tank data is presented in Appendix A and the field diagrams of each investigated site are presented in Appendix B.

Results

December 5 and 6, 1988

At Site 1 Spectrum personnel delineated four 12,000 gallon underground storage tanks (A-1-F 08, A-1-F 09, A-1-F 10, and A-1-N) located adjacent and perpendicular to Building 76 A. Four PEBS were investigated around the tanks. No problems were encountered at this site and a facility diagram was completed on December 6, 1988 (Appendix B).

At Site 2 one 20,000 gallon tank (A-1-F 03), two 10,000 gallon tanks (A-1-F 01 and A-1-F 02) and one 1,000 gallon tank (A-1-F 12) were delineated adjacent to Building 71. Three PEBS were investigated at this site. Spectrum incurred problems with one of the 10,000 gallon tanks (A-1-F 01) because the tank extended under Building 71 which made probing difficult. Furthermore, investigation of the area was delayed because of heavy traffic and parked cars. A facility diagram of this area was completed on December 6, 1988 (Appendix B).

At Site 3 a 300 gallon tank (A-1-F 13) adjacent and parallel to Buildings 68 and 66A was delineated in the alley. Spectrum incurred problems with this tank because the drop pipe was not removeable. This prevented the probing of the tank to delineate its surface trace and GPR was utilized to determine the tank size. One PEBS was investigated and a facility diagram of the area was completed on December 6, 1988 (Appendix B).

At Site 4 Spectrum delineated a 1,000 gallon tank (A-1-F 14) located adjacent and parallel to Building 92. The drop pipe was not removeable which prevented the probing of the tank to delineate its surface trace. GPR was utilized to determine the tank size and one PEBS was investigated. No Lockheed documentation of this site was available. A facility diagram was completed on December 6, 1988 (Appendix B).

At Site 5 Spectrum delineated a 5,000 gallon tank (B-1-C) located adjacent and parallel to Building 166. Two PEBS were investigated at this site. Problems included the physical removal of transportation carts on top of the tank pad and carts covering the fill box. A facility diagram of this area was completed on December 6, 1988 (Appendix B).

Spectrum was scheduled to investigate Tanks B-1-F 1, B-1-F 2 and B-1-F 4 prior to Tank B-1-C. However when we arrived at these tank sites, tank integrity tests were being conducted preventing us from conducting our investigations. This resulted in the rescheduling of the investigation of Tank B-1-C.

December 7, 1988

At Site 6 Spectrum delineated two 3,000 gallon tanks (B-6-F 9 and B-6-F 10) on the south side of Building 309 and three 3,000 gallon tanks (B-6-F 15, B-6-F 16, and B-6-F 17) on the south side of Building 310. A 3,000 gallon tank (B-6-F 20) on the north side of Building 310 was also delineated. At each tank site one PEBS was investigated. Spectrum encountered problems with pedestrian and loading dock traffic as well as limited time allowances. Tank B-6-F 11 was not accessible because the fill was covered by a vending machine. As the tank was not accessible, it could not be delineated or PEBS investigated at this time (see December 15, 1988 and January 30, 1989 results). Tank B-6-F 19 was not investigated at this time as it appeared that the tank surroundings had already been investigated with a drill rig (see January 4, 1989). Previous Lockheed supplied tank volume documentation was incorrect pertaining to Tanks B-6-F 9, B-6-F 10, B-6-F 15, B-6-F 16, and B-6-F 17. A facility diagram of this area was completed on January 9, 1989 (Appendix B).

At Site 7 Spectrum delineated two 160 gallon tanks (B-6-N and B-6-M) north of Building 304. The tanks may possibly be concrete although we suspect they are constructed of steel. One PEBS per tank was investigated. No problems were encountered at this site. Previous Lockheed supplied documentation incorrectly noted that tanks B-6-N and B-6-M are 2,500 gallons in volume. A facility diagram of this area was completed on January 9, 1989 (Appendix B).

At Site 8 Spectrum personnel investigated three PEBS adjacent to three tanks (B-6-F 8, B-6-F 29, and B-6-F 30) and one waste oil sump (B-6-Q) south of Building 88. Because of the time consideration of ENSR's drilling program, Spectrum was not able to delineate Tanks B-6-F 8, B-6-F 29, and B-6-F 30 (see January 6 & 20, 1989). However, the surface trace of two 750 gallon tanks (B-6-F 6 and B-6-F 7) was determined for subsequent excavation. Previous Lockheed supplied documentation incorrectly noted that Tanks B-6-F 6 and B-6-F 7 were 5,000 gallon in volume. Problems encountered included delays in gaining site access due to security protocol. A facility diagram was completed on January 20, 1989 (Appendix B).

At Site 9 Spectrum personnel did not delineate Tank B-6-B which is located south of Building 84 because of time considerations (see January 11, 1989 results). However, a PEBS was investigated at this site with no other problems encountered.

At Site 10 Spectrum delineated a 10,000 gallon tank (B-6-F 5) which is located parallel and adjacent to Building 83. One PEBS was investigated at this site. Delayed access due to security protocol was a problem. A diagram of this area was completed on January 20, 1989 (Appendix B).

At Site 11 Spectrum delineated one vertical concrete 1,775 gallon tank (B-6-F 32) and one 70 gallon tank (B-6-O) near Building 332. This area was extremely difficult to investigate because Tank B-6-F 32 is oriented vertically, and because of fire suppression lines in place in the immediate vicinity of the tanks. Previous Lockheed supplied documentation incorrectly indicated that Tanks B-6-F 3, B-6-F 32, and B-6-O had volumes of 2,500, 2,500, and 1,000 gallons, respectively. Spectrum found no evidence of Tank B-6-F 3 and believes it to be non-existent. One PEBS was investigated adjacent to each identified tank. A facility diagram was completed on December 7, 1988 (Appendix B).

At Site 12 Spectrum delineated one 200 gallon tank (B-6-F 22) and one 184 gallon tank (B-6-F 23) located parallel and adjacent to Building 362. One PEBS was investigated near each tank. No problems were encountered. Previous Lockheed supplied documentation incorrectly noted each tank's volume. A facility diagram was completed on December 7, 1988 (Appendix B).

December 8, 1988

At Site 13 Spectrum delineated two 20,000 gallon tanks (B-1-F 1 and B-1-F 2) west of Building 140. This area was very complex below ground and required exceptional efforts because of an abundance of industrial gas, water, and electric lines in close proximity to the tanks. Two PEBS were investigated at this site. A facility diagram of this site was completed on January 12, 1989 (Appendix B).

At Site 14 Spectrum had difficulty in accessing Tank B-1-F 4 south of Building 116 because the vault lid was cemented over. After great effort chipping off the cement to access the tank it was determined that the tank had a welded drop pipe which prevented probing of its interior. A GPR investigation was then conducted which indicated that the tank has a volume of 3,000 gallons. One PEBS was investigated at this site. A facility diagram was completed on January 12, 1989 (Appendix B).

At Site 15 Spectrum investigated a PEBS south of Building 149 and adjacent to an hydraulic oil sump (B-1-J). A full investigation was not completed due to time limitations. A facility diagram of this area was completed on January 12, 1989 (Appendix B).

At Site 16 Spectrum delineated a 6,000 gallon waste oil tank (B-1-AU) south of Building 195. One PEBS was investigated at this site. Access to the tank was delayed because of surface metal debris and machinery obstructions. Previous Lockheed supplied documentation incorrectly indicated this tank to have a volume of 10,000 gallons. A diagram of this area was completed on January 12, 1989 (Appendix B).

At Site 17 Spectrum delineated a 10,000 gallon tank (B-6-F 2) north of Building 360. The tank interior was not accessible for probing due to a welded drop-pipe. Therefore, a GPR investigation was conducted to determine orientation and volume. One PEBS was investigated and a facility diagram was completed on December 8, 1988 (Appendix B).

At Site 18 Spectrum delineated what appeared to be a 12,000 gallon tank adjacent and parallel to Building U-33. Inconsistencies in data required that this site be re-investigated (see January 11, 1989).

December 14, 1988

At Site 19 Spectrum delineated three 3,000 gallon tanks (B-6-F 12, B-6-F 13, and B-6-F 14) on the north side of Building 309 and one 3,000 gallon tank (B-6-F 18) on the north side of Building 310. One PEBS was investigated near each tank. This site was extremely difficult to investigate because of the abundance of industrial lines and interferences from the foundations of buildings flanking both sides of the alley in which the tanks are located. Spectrum also encountered delays because of security protocol. Previous Lockheed supplied documentation incorrectly indicated Tanks B-6-F 12, B-6-F 13, B-6-F 14, and B-6-F 18 each had volumes of 2,500 gallons. A facility diagram of Tank B-6-F-12 was completed on January 12, 1989, while facility diagrams of Tanks B-6-F 13, B-6-F 14, and B-6-F 18 were completed on January 30, 1989 (Appendix B).

At Site 20 Spectrum delineated one 350 gallon solvent tank (B-6-S) located parallel and adjacent to Building 378. One PEBS was investigated south of Building 378 near the tank. Access to the area was delayed because of security protocol. Previous Lockheed supplied documentation incorrectly indicated that this tank had a volume of 500 gallons. A facility diagram was completed on January 20, 1989 (Appendix B).

At Site 21 Spectrum personnel approximated the surface trace of Tank B-6-U on the south-east side of Building 371. This tank was filled with waste oil sludge which prevented us from determining the actual length and volume. The tank was partially situated under the building and, because access to the building was denied, GPR could not be used to confirm the tank end location. The tank differs in orientation from the Lockheed supplied documentation by 90 degrees. A facility diagram was completed January 20, 1989 (Appendix B).

December 15, 1988

Spectrum personnel returned to Site 6 to investigate a PEBS situated adjacent to the loading dock south of Building 309. The PEBS is located due south of Tank B-6-F 11 in the asphalt adjacent to the loading dock and allows clearance for slant drilling. No PEBS was investigated next to Tank B-6-F 11 because the tank was covered by a vending machine (see January 30, 1989). A facility diagram of the area was completed on January 9, 1989 and updated on January 30, 1989 (Appendix B).

At Site 22 Spectrum personnel determined the surface trace of a 7,000 gallon tank (A-1-C) east of Building 32. The tank associated conduits were not located because the tank is scheduled for removal. Rain hampered Spectrum's progress in the detailed probing of the tank. A facility diagram was completed on January 11, 1989 (Appendix B).

January 4, 1989

At Site 23 Spectrum delineated three waste oil tanks: B-1-H, B-1-I, and B-1-AE with volumes of 1,000, 2,000, and 6,000 gallons, respectively. The tanks are located adjacent to Building 153 in the B-1 complex. Previous Lockheed supplied documentation incorrectly indicated Tanks B-1-H and B-1-I had volumes of 2,000 gallons and were oriented 180 degrees from their actual position. Ground penetrating radar was used to identify and delineate Tank B-1-AE because the fill pipe was not accessible for probing the interior. Previous Lockheed supplied documentation incorrectly indicated Tank B-1-AE is 5,000 gallons in volume oriented 90 degrees from its actual position. Spectrum encountered problems in delineating Tanks B-1-H and B-1-I because they are under a fence and overlain by metal debris. A facility diagram of this site was completed on January 12, 1989 (Appendix B).

At Site 24 Spectrum delineated a 5,000 gallon storage tank (C-1-A) located completely under Building 44 in the C-1 complex. Previous Lockheed supplied documentation incorrectly indicated a 6,000 gallon tank oriented 90 degrees from its actual position. Access to this area was delayed due to security protocol. A facility diagram of this site was completed on January 20, 1989 (Appendix B).

At Site 25 Spectrum delineated a 10,000 gallon storage tank (B-6-F 33) located adjacent and parallel to Building 363. The surface trace of the tank associated conduits could not be delineated because they are constructed of fiberglass and are not detectable. Access to this area was delayed due to security protocol. A facility diagram of this site was completed on January 30, 1989 (Appendix B).

Spectrum re-investigated Site 6 and delineated a 3,000 gallon storage tank (B-6-F 19) located adjacent and parallel to Building 310. The tank associated vent line was delineated as well as nearby electric, water, and sewer lines. Previous Lockheed supplied documentation incorrectly noted this tank as having a volume of 2,500 gallons. A facility diagram of this site was completed on January 10, 1989 (Appendix B).

At Site 26 Spectrum delineated a 10,000 gallon storage tank (B-6-F 21) located adjacent and parallel to Building 311. The tank associated vent line was delineated. Access to this area was delayed due to security protocol. A facility diagram of this site was completed on January 12, 1989 (Appendix B).

At Site 27 Spectrum delineated a 1,500 gallon concrete storage tank or sump (B-6-E) located adjacent to Building 349. The conduits associated with this tank appeared to be plastic buried in concrete between the tank and the building. Access to this area was delayed due to security protocol. A facility diagram of this site was completed on January 30, 1989 (Appendix B).

At Site 28 Spectrum delineated a 20,000 gallon waste oil tank (B-6-R), which is scheduled for removal, located near Building 357. The tank associated vent was delineated. Previous Lockheed supplied documentation incorrectly noted that this tank was a waste oil sump which had a volume of 1,000 gallons (see January 27, 1989). A facility diagram of this site was completed on January 11, 1989 (Appendix B).

January 5, 1989

At Site 29 Spectrum delineated a 5,000 gallon storage tank (B-1-F 3) located parallel and adjacent to Building 170. The presence of a vent pipe indicated that we might expect a tank to exist in this vicinity. The vent line was traced until it terminated at about 15 feet from Building 170. We experienced considerable difficulty in delineating this tank because its fill vault box was covered with asphalt. A GPR investigation at the termination of the vent line indicated a cryptic tank was present. A facility diagram of this site was completed on January 12, 1989 (Appendix B).

At Site 30 Spectrum delineated two tanks (B-1-AA and B-1-F 14) with volumes of 1,000 and 1,600 gallons, respectively. Tank B-1-AA is located adjacent and parallel to Building 173, while Tank B-1-F-14 is perpendicular to Building 173. A visual inspection of the entire Tank B-1-AA was possible through the tank access vault. The tank associated vents of both tanks were delineated. Previous Lockheed supplied documentation incorrectly noted that Tanks B-1-AA and B-1-F 14 had volumes of 3,500 and 2,500 gallons, respectively and were 90 degrees from their actual orientations. A facility diagram of this site was completed on January 12, 1989 (Appendix B).

At Site 31 Spectrum delineated a 120 gallon storage tank (A-1-F 101) adjacent to Building 61. The tank associated vent line was delineated. Access to this area was delayed due to security protocol and no Lockheed documentation was available. A facility diagram of this site was completed on January 30, 1989 (Appendix B).

At Site 32 Spectrum delineated a 5,000 gallon storage tank (B-6-L) near Building 357. The tank associated conduits were not located because the tank is scheduled for removal. Previous Lockheed supplied documentation incorrectly noted that this tank had a volume of 2,000 gallons. A facility diagram of this site was completed on January 11, 1989 (Appendix B).

January 6, 1989

Spectrum re-investigated Site 8 to delineate two jet fuel tanks (B-6-F 8 and B-6-F 28) with volumes of 8,000 and 8,500 gallons, respectively. The tanks are located adjacent and parallel to Building 88. The tank associated conduits were not located because of time considerations (see January 20, 1989). Previous Lockheed supplied documentation of Tank B-6-F 8 incorrectly noted a volume of 15,000 gallons. No previous Lockheed supplied documentation for Tank B-6-F 28 was available. Access to this area was delayed due to security protocol. A facility diagram of this site was completed on January 20, 1989 (Appendix B).

At Site 33 Spectrum delineated a 150 gallon storage tank (A-1-F 100) near Building 63. We experienced difficulty in delineating the surface trace of this tank due to its extreme depth (14 feet below ground level) and its unexpectedly small size. No associated conduits were found for this tank nor was any Lockheed documentation of this site available. A facility diagram of this site was completed on January 30, 1989 (Appendix B).

January 9, 1989

At Site 34 Spectrum delineated an 850 gallon storage tank (B-6-F 31) adjacent and parallel to Building 339. The tank associated vent was delineated. Previous Lockheed supplied documentation incorrectly noted that this tank had a volume of 500 gallons. A facility diagram of this site was completed on January 11, 1989 (Appendix B).

At Site 35 Spectrum delineated a 1,600 gallon storage tank (B-6-F 4) adjacent and parallel to Building 333. We experienced difficulty in delineating the surface trace of this tank because the tank fill pipe was welded in place and this prevented us from probing the interior. The interfering effects of the stem wall foundation prohibited using GPR to determine the tank ends. The ends were located by inserting a probe through the asphalt until the tank was encountered. Previous Lockheed supplied documentation incorrectly noted that this tank had a volume of 2,500 gallons. A facility diagram of this site was completed on January 11, 1989 (Appendix B).

At Site 36 Spectrum delineated a 1,750 gallon storage tank (B-6-F 25) adjacent and perpendicular to Building 304 and underlying a fence separating Burbank Airport and Lockheed. We experienced difficulty in delineating the surface trace of this tank because the vault lid was welded to the vault box. Once the vault lid was opened the tank was probed and delineated. The tank associated vent and a nearby telephone line were also delineated. Previous Lockheed supplied documentation incorrectly noted that this tank had a volume of 2,500 gallons. A facility diagram of this site was completed on January 9, 1989 (Appendix B).

January 11, 1989

Spectrum re-investigated Site 9 to delineate a 5,000 gallon storage tank (B-6-B) near Building 84. The tank associated vent line was located as well as a conduit in the vicinity of the boring site. A facility diagram of this site was completed on January 11, 1989 (Appendix B).

At Site 37 Spectrum delineated a 6,000 gallon fiberglass storage tank (A-1-B) adjacent and parallel to Building 97A. The tank associated vent line was visually located by inspecting the tank vault. In the tank vicinity a sewer line and a conduit from the clarifier were also delineated. Previous Lockheed supplied documentation incorrectly noted that this tank had a volume of 6,800 gallons. A facility diagram of this site was completed on January 11, 1989 (Appendix B).

Spectrum re-investigated Site 15 (Tank B-1-F 13) located near the loading dock of Building 33. During the initial investigation on December 8, 1988 the measurements of the uppermost and lower levels of the tank suggested a diameter of 8 feet and a volume of 12,000 gallons. A re-investigation of this tank revealed that the welded sections which comprise the drop-pipe had caused the top of the tank to be measured at 3.3 feet rather than 4.75 feet. The actual diameter of this tank was subsequently determined to be 6.25 feet resulting in a change in calculated volume from 12,000 gallons to 7,800 gallons and the tank length being 4 feet longer than previously determined.

Above the southern end of this tank is a vault lid which looks sewer-related. Upon further investigation the vault lid was determined to be an access point to the product lines and manway to the tank. The vault was also found to be nearly full of product which prevented a detailed inspection of the vault interior and the tank lines.

January 20, 1989

Spectrum re-investigated Site 8 and delineated Tanks B-6-F 29 and B-6-F 30 with volumes determined to be 5,000 gallons and 15,000 gallons, respectively. The tanks are located near Building 88 and in close proximity to Tanks B-6-F 6, B-6-F 7, B-6-F 8, and B-6-F28. All tank associated conduits were located and 16 soil/gas PEBS were investigated at the site. No previous Lockheed documentation was available. Access to the site was delayed because of security protocol. A facility diagram was completed on January 20, 1989 (Appendix B).

January 27, 1989

Spectrum re-investigated Site 27 to reconfirm the 20,000 gallon volume of tank B-6-R. Spectrum utilized GPR and probed the tank interior reconfirming the initial investigation results that this was a 20,000 gallon storage tank. After numerous probings of the tank we suspect that the end-most fill pipe may be associated with a water/oil separator, possibly with gate valves at the bottom.

January 30, 1989

Spectrum re-investigated Site 6 to delineate Tank B-6-F 11 which was previously covered by a vending machine. Spectrum determined the tank to be 3,000 gallons in volume and oriented adjacent and parallel to Building 309. No problems were encountered and a facility diagram was updated and completed on January 30, 1989 (Appendix B).

At Site 38 Spectrum delineated an 8,000 gallon storage tank (A-1-F) located normal to Building 65A approximately half way into the entry of the hanger. Spectrum investigated two PEBS adjacent to the tank. Problems included waiting for debris to be moved off the tank with a fork lift, and access delays because of security protocol. Previous Lockheed supplied documentation incorrectly indicated that the tank was 12,000 gallons in volume. A facility diagram was completed on January 30, 1989 (Appendix B).

February 3, 1989

At Site 39 Spectrum delineated a 10,000 gallon storage tank (B-6-F 26) located adjacent and parallel to Building 322. Spectrum had problems in removing the fill cap of the tank because it had rusted onto the fill pipe. After extreme effort, Spectrum was able to twist off the fill cap and probe the tank. The tank associated conduits were located as well as nearby fire suppression, telephone, and electrical lines. Previous Lockheed supplied documentation incorrectly noted a 2,500 gallon tank. A facility diagram was completed on February 3, 1989 (Appendix B).

Considerations

Despite difficult site conditions and tank configurations Spectrum has conducted each of the above site investigations in the most professional manner possible, sparing no effort or equipment to acquire reliable data of below ground facilities.

It is important to note that the location of subsurface objects is dependent upon the recognition of physical phenomena at the ground surface. These phenomena can be magnetic fields or electro-magnetic or acoustic waves which give rise to a surface expression which in turn is interpreted as representative of subsurface objects or hazards. These waves may be attenuated and/or distorted by factors such as moisture due to rain or high humidity, corrosion, orientation, the geological composition of the surrounding material and proximity to other facilities or other subsurface objects.

In practical terms, the investigations completed by Spectrum serve to reduce the chance of accidental damage during drilling or excavation operations. As with any remote sensing investigation of underground characteristics not all objects below ground are detectable and Spectrum cannot guarantee that all existing below ground facilities have been identified. Spectrum generated documents noting the location of below ground facilities should not be considered all-inclusive because serious time constraints allowed only the delineation of priority conduits.

Spectrum strongly suggests that no soil boring be installed anywhere at Lockheed unless its location has been specifically investigated by Spectrum for below ground interferences.

John Bollier
Staff Geophysicist

Dana LeTourneau
Field Operations Director

APPENDIX A

Lockheed Tank Data*

Tank data presented as: Sorted by Tank Number
Sorted by Spectrum Site Number
Sorted by Building Number

*Note: The top and bottom tank levels below ground are field measurements and are used to approximate the tank diameter. The actual top of the tank below ground level can be determined by subtracting the tank diameter from the bottom tank level.

Tank Number	Site Number	Near	Secured Area	Tank Contents	Tank Volume	Dimensions	Bottom of Tank	Top of Tank	Product Level	Investigated by	Survey Date	Site Mapped
A-1-B	37	Building 97A	No	Spent developer	6,000 g	8.0 x 19.5 ft	16.0 ft	8.0 ft		Probe	1/11/89	1/11/89
A-1-C	22	Building 32	No	Sodium chloride	7,000 g	8.0 x 18.5 ft	13.5 ft	5.5 ft		Probe	12/15/88	1/11/89
A-1-F	38	Building 65A	Yes	Waste oil	8,000 g	8.0 x 22.0 ft	12.2 ft	4.3 ft		Probe	1/30/89	1/30/89
A-1-F 01	2	Building 71	No	Diesel	10,000 g	8.0 x 28.0 ft	14.2 ft	5.4 ft		Probe	12/5,6/88	12/6/88
A-1-F 02	2	Building 71	No	Diesel	10,000 g	8.0 x 28.0 ft	12.9 ft	5.0 ft		Probe	12/5,6/88	12/6/88
A-1-F 08	1	Building 76A	No	Diesel	12,000 g	8.0 X 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
A-1-F 09	1	Building 76A	No	Gasoline	12,000 g	8.0 X 32.0 ft	12.0 ft	4.3 ft		Probe	12/5-6/88	12/6/88
A-1-F 10	1	Building 76A	No	Diesel	12,000 g	8.0 X 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
A-1-F 100	33	Building 63	No	Gasoline	150 g	2.0 x 6.0 ft	16.2 ft	14.6 ft		Probe	1/6/89	1/30/89
A-1-F 101	31	Building 61	Yes	Diesel	130 g	2.0 x 5.0 ft	4.4 ft	2.4 ft		Probe	1/5/89	1/30/89
A-1-F 12	2	Building 71	No	Diesel	1,000 g	4.0 x 10.0 ft	8.0 ft	4.7 ft		Probe	12/5-6/88	12/6/88
A-1-F 13	3	Building 68	No	Gasoline	300 g	2.0 x 13.0 ft	5.8 ft	3.8 ft		GPR	12/5,6/88	12/6/88
A-1-F 14	4	Building 92	No	Gasoline	1,000 g	4.0 x 10.0 ft	8.5 ft	6.4 ft		GPR	12/5,6/88	12/6/88
A-1-F 03	2	Building 71	No	Diesel	20,000 g	9.5 x 37.0 ft	16.1 ft	6.6 ft		Probe	12/5,6/88	12/6/88
A-1-N	1	Building 76A	No	PCE solvent	12,000 g	8.0 x 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
B-1-AA	30	Building 173	No	unknown	1,000 g	4.0 x 11.0 ft	6.7 ft	2.9 ft		Probe	1/5/89	1/12/89
B-1-AE	23	Building 153	No	Waste oil	6,000 g	8.0 x 17.0 ft	12.5 ft	N.A.	2.4 ft	GPR	1/4/89	1/12/89
B-1-AU	16	Building 195	No	Waste oil	6,000 g	8.0 x 17.0 ft	12.8 ft	5.1 ft		Probe	12/8/88	1/12/89
B-1-C	5	Building 166	No	Sodium hydroxide	6,000 g	8.0 x 17.0 ft	13.1 ft	5.1 ft		Probe	12/5,6/88	12/6/88
B-1-F 01	13	Building 140	No	Diesel	20,000 g	9.5 x 37.0 ft	15.0 ft	5.5 ft		Probe	12/8/88	1/12/89
B-1-F 02	13	Building 140	No	Diesel	20,000 g	9.5 x 37.0 ft	15.0 ft	5.5 ft		Probe	12/8/88	1/12/89
B-1-F 03	29	Building 170	No	Diesel	5,000 g	8.0 x 14.0 ft	N.A.	N.A.		GPR	1/5/89	1/12/89
B-1-F 04	14	Building 116	No	Diesel	3,000 g	6.5 x 13.0 ft	11.6 ft	N.A.		GPR	12/8/88	1/12/89
B-1-F 13	18	Building 33	No	Diesel	7,800 g	6.25 x 34.0 ft	10.8 ft	4.6 ft		Probe	1/11/89	1/11/89
B-1-F 14	30	Building 173	No	Diesel	1,600 g	5.0 x 11.0 ft	9.8 ft	4.8 ft		Probe	1/5/89	1/12/89
B-1-H	23	Building 153	No	Waste oil	1,000 g	4.0 x 10.0 ft	8.1 ft	4.7 ft	1.8 ft	Probe	1/4/89	1/12/89
B-1-I	23	Building 153	No	Waste oil	1,500 g	5.0 x 10.0 ft	9.2 ft	4.3 ft	4.5 ft	Probe	1/4/89	1/12/89
B-1-J	15	Building 149	No	Sump	N.A.	N.A.	N.A.	N.A.		N.A.	12/8/89	1/12/89
B-6-B	9	Building 84	No	Diesel	5,000 g	8.0 x 14.0 ft	12.1 ft	4.3 ft		Probe	1/11/89	1/11/89
B-6-E	27	Building 349	Yes	Solvent	1,500 g	5.0 x 10.0 ft	7.0 ft	2.4 ft	Full	Probe	1/4/89	1/30/89
B-6-F 02	17	Building 360	No	Diesel	10,000 g	8.0 x 28.0 ft	12.2 ft	4.5 ft		GPR	12/8/88	12/08/88
B-6-F 03	11	Building 332	No	N.A.	N.A.	N.A.	N.A.	N.A.		Non-existent	12/7/88	N.A.
B-6-F 04	35	Building 333	No	Diesel	1,500 g	5.0 x 10.0 ft	6.8 ft	2.5 ft	Full	Probe	1/9/89	1/11/89
B-6-F 05	10	Building 83	No	Diesel	10,000 g	8.0 x 28.0 ft	12.9 ft	5.0 ft		Probe	12/7/88	1/20/89
B-6-F 06	8	Building 88	Yes	Jet fuel	750 g	4.0 x 8.0 ft	8.5 ft	4.5 ft		Probe	12/7/88	1/20/89
B-6-F 07	8	Building 88	Yes	Jet fuel	750 g	4.0 x 8.0 ft	8.5 ft	4.5 ft		Probe	12/7/88	1/20/89
B-6-F 08	8	Building 88	Yes	Jet fuel	8,000 g	8.0 x 22.0 ft	12.5 ft	5.0 ft	0.3 ft	Probe	1/6/89	1/20/89
B-6-F 09	6	Building 309	No	Diesel	3,000 g	6.5 x 13.0 ft	10.0 ft	4.3 ft		Probe	12/7/88	1/9/89
B-6-F 10	6	Building 309	No	Diesel	3,000 g	6.5 x 13.0 ft	10.1 ft	4.1 ft		Probe	12/7/88	1/9/89
B-6-F 11	6	Building 309	No	Diesel	3,000 g	6.5 x 13.0 ft	10.5 ft	4.8 ft		Probe	1/30/89	1/30/89
B-6-F 12	19	Building 309	Yes	Diesel	3,000 g	6.5 x 13.0 ft	10.1 ft	4.3 ft		Probe	12/14/88	1/12/89

Tank Number	Site Number	Near	Secured Area	Tank Contents	Tank Volume	Dimensions	Bottom of Tank	Top of Tank	Product Level	Investigated by	Survey Date	Site Mapped
B-6-F 13	19	Building 309	Yes	Diesel	3,000 g	6.5 x 13.0 ft	10.7 ft	4.2 ft		Probe	12/14/88	1/30/89
B-6-F 14	19	Building 309	Yes	Diesel	3,000 g	6.5 x 13.0 ft	9.8 ft	3.3 ft		Probe	12/14/88	1/30/89
B-6-F 15	6	Building 310	No	Diesel	3,000 g	6.5 x 13.0 ft	9.6 ft	3.7 ft		Probe	12/7/88	1/9/89
B-6-F 16	6	Building 310	No	Diesel	3,000 g	6.5 x13.0 ft	10.0 ft	4.0 ft		Probe	12/7/88	1/9/89
B-6-F 17	6	Building 310	No	Diesel	3,000 g	6.5 x 13.0 ft	10.5 ft	4.6 ft		Probe	12/7/88	1/9/89
B-6-F 18	20	Building 310	Yes	Diesel	3,000 g	6.5 x 13.0 ft	9.8 ft	3.9 ft		Probe	1/4/89	1/30/89
B-6-F 19	6	Building 310	No	Diesel	3,000 g	6.5 x 13.0 ft	9.5 ft	3.6 ft	5.8 ft	Probe	1/10/89	1/10/89
B-6-F 20	6	Building 310	No	Diesel	3,000 g	6.5 x 13.0 ft	10.0 ft	4.0 ft		Probe	12/7/88	1/9/89
B-6-F 21	26	Building 311	Yes	Gasoline	10,000 g	8.0 x 28.0 ft	12.4 ft	4.8 ft	3.5 ft	Probe	1/4/89	1/12/89
B-6-F 22	12	Building 362	No	Gasoline	200 g	2.5 x 5.5 ft	3.8 ft	1.5 ft	2.3 ft	Probe	12/7/88	12/7/88
B-6-F 23	12	Building 362	No	Gasoline	184 g	2.5 x 5.0 ft	3.8 ft	1.4 ft	1.8 ft	Probe	12/7/88	12/7/88
B-6-F 25	36	Building 304	No	Diesel	1,750 g	5.0 x 12.0 ft	9.5 ft	4.5 ft	Full	Probe	1/9/89	1/9/89
B-6-F 26	39	Building 322	No	Diesel	10,000 g	8.0 x 27.0 ft	11.0 ft	3.0 ft		Probe	2/3/89	2/3/89
B-6-F 28	8	Building 88	Yes	Jet fuel	8,500 g	9.0 x 18.0 ft	13.2 ft	4.2 ft	0.1 ft	Probe	1/6/89	1/20/89
B-6-F 29	8	Building 88	Yes	Jet fuel	5,000 g	8.0 x 14.0 ft	13.3 ft	5.3 ft		Probe	12/7,1/20/89	1/20/89
B-6-F 30	8	Building 88	Yes	Jet fuel	15,000 g	9.5 x 28.0 ft	18.8 ft	9.5 ft		Probe	12/7,1/20/89	1/20/89
B-6-F 31	34	Building 339	No	Gasoline	850 g	4.0 x 9.0 ft	8.2 ft	4.9 ft	Full	Probe	1/9/89	1/11/89
B-6-F 32	11	Building 332	No	Diesel	1,775 g	5.0 x 8.0 ft	9.8 ft	4.8 ft	1.8 ft	Probe	12/7/88	12/7/88
B-6-F 33	25	Building 363	Yes	Jet fuel	10,000 g	8.0 x 32.0 ft	11.9 ft	4.3 ft	0.6 ft	Probe	1/4/89	1/30/89
B-6-L	32	Building 357	No	Oil/water	5,000 g	8.0 x 14.0 ft	12.5 ft	4.5 ft		Probe	1/5/89	1/11/89
B-6-M	7	Building 304	No	Solvent	160 g	3.2 x 3.0 ft	5.1 ft	1.9 ft		Probe	12/7/88	1/9/89
B-6-N	7	Building 304	No	Solvent	160 g	3.2 x 3.0 ft	5.4 ft	2.3 ft		Probe	12/7/88	1/9/89
B-6-O	11	Building 332	No	Diesel	70 g	2.0 x 3.0 ft	6.0 ft	4.0 ft	Full	Probe	12/7/88	12/7/88
B-6-R	28	Building 357	No	Waste oil	20,000 g	10.0 x 37.0 ft	14.9 ft	5.5 ft	Full	Probe	1/4/89	1/11/89
B-6-S	19	Building 378	Yes	Solvent	350 g	3.0 x 6.5 ft	6.2 ft	3.3 ft		Probe	12/14/88	1/20/89
B-6-U	21	Building 371	Yes	Waste oil	undeterminable	undeterminable	11.2 ft	5.3 ft		Probe	12/14/88	1/20/89
C-1-A	24	Building 44	Yes	Waste coolant	5,000 g	8.0 x 14.0 ft	12.0 ft	4.0 ft	3.0 ft	Probe	1/4/89	1/20/89

Site Number	Near	Secured Area	Tank Number	Tank Contents	Tank Volume	Dimensions	Bottom of Tank	Top of Tank	Product Level	Investigated by	Survey Date	Site Mapped
1	Building 76A	No	A-1-F 08	Diesel	12,000 g	8.0 X 32.0 FT	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
1	Building 76A	No	A-1-F 09	Gasoline	12,000 g	8.0 X 32.0 FT	12.0 ft	4.3 ft		Probe	12/5-6/88	12/6/88
1	Building 76A	No	A-1-F 10	Diesel	12,000 g	8.0 X 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
1	Building 76A	No	A-1-N	PCE solvent	12,000 g	8.0 x 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
2	Building 71	No	A-1-F 12	Diesel	1,000 g	4.0 x 10.0 ft	8.0 ft	4.7 ft		Probe	12/5-6/88	12/6/88
2	Building 71	No	A-1-F 01	Diesel	10,000 g	8.0 x 28.0 ft	14.2 ft	5.4 ft		Probe	12/5,6/88	12/6/88
2	Building 71	No	A-1-F 02	Diesel	10,000 g	8.0 x 28.0 ft	12.9 ft	5.0 ft		Probe	12/5,6/88	12/6/88
2	Building 71	No	A-1-F 03	Diesel	20,000 g	9.5 x 37.0 ft	16.1 ft	6.6 ft		Probe	12/5,6/88	12/6/88
3	Building 68	No	A-1-F 13	Gasoline	300 g	2.0 x 13.0 ft	5.8 ft	3.8 ft		GPR	12/5,6/88	12/6/88
4	Building 92	No	A-1-F 14	Gasoline	1,000 g	4.0 x 10.0 ft	8.5 ft	6.4 ft		GPR	12/5,6/88	12/6/88
5	Building 166	No	B-1-C	Sodium hydroxide	6,000 g	8.0 x 17.0 ft	13.1 ft	5.1 ft		Probe	12/5,6/88	12/6/88
6	Building 309	No	B-6-F 11	Diesel	3,000 g	6.5 x 13.0 ft	10.5 ft	4.8 ft		Probe	1/30/89	1/30/89
6	Building 309	No	B-6-F 09	Diesel	3,000 g	6.5 x 13.0 ft	10.0 ft	4.3 ft		Probe	12/7/88	1/9/89
6	Building 309	No	B-6-F 10	Diesel	3,000 g	6.5 x 13.0 ft	10.1 ft	4.1 ft		Probe	12/7/88	1/9/89
6	Building 310	No	B-6-F 15	Diesel	3,000 g	6.5 x 13.0 ft	9.6 ft	3.7 ft		Probe	12/7/88	1/9/89
6	Building 310	No	B-6-F 16	Diesel	3,000 g	6.5 x13.0 ft	10.0 ft	4.0 ft		Probe	12/7/88	1/9/89
6	Building 310	No	B-6-F 17	Diesel	3,000 g	6.5 x 13.0 ft	10.5 ft	4.6 ft		Probe	12/7/88	1/9/89
6	Building 310	No	B-6-F 20	Diesel	3,000 g	6.5 x 13.0 ft	10.0 ft	4.0 ft		Probe	12/7/88	1/9/89
6	Building 310	No	B-6-F 19	Diesel	3,000 g	6.5 x 13.0 ft	9.5 ft	3.6 ft	5.8 ft	Probe	1/10/89	1/10/89
7	Building 304	No	B-6-N	Solvent	160 g	3.2 x 3.0 ft	5.4 ft	2.3 ft		Probe	12/7/88	1/9/89
7	Building 304	No	B-6-M	Solvent	160 g	3.2 x 3.0 ft	5.1 ft	1.9 ft		Probe	12/7/88	1/9/89
8	Building 88	Yes	B-6-F 29	Jet fuel	5,000 g	8.0 x 14.0 ft	13.3 ft	5.3 ft		Probe	12/7,1/20/89	1/20/89
8	Building 88	Yes	B-6-F 30	Jet fuel	15,000 g	9.5 x 28.0 ft	18.8 ft	9.5 ft		Probe	12/7,1/20/89	1/20/89
8	Building 88	Yes	B-6-F 06	Jet fuel	750 g	4.0 x 8.0 ft	8.5 ft	4.5 ft		Probe	12/7/88	1/20/89
8	Building 88	Yes	B-6-F 07	Jet fuel	750 g	4.0 x 8.0 ft	8.5 ft	4.5 ft		Probe	12/7/88	1/20/89
8	Building 88	Yes	B-6-F 28	Jet fuel	8,500 g	9.0 x 18.0 ft	13.2 ft	4.2 ft	0.1 ft	Probe	1/6/89	1/20/89
8	Building 88	Yes	B-6-F 08	Jet fuel	8,000 g	8.0 x 22.0 ft	12.5 ft	5.0 ft	0.3 ft	Probe	1/6/89	1/20/89
9	Building 84	No	B-6-B	Diesel	5,000 g	8.0 x 14.0 ft	12.1 ft	4.3 ft		Probe	1/11/89	1/11/89
10	Building 83	No	B-6-F 05	Diesel	10,000 g	8.0 x 28.0 ft	12.9 ft	5.0 ft		Probe	12/7/88	1/20/89
11	Building 332	No	B-6-F 32	Diesel	1,775 g	5.0 x 8.0 ft	9.8 ft	4.8 ft	1.8 ft	Probe	12/7/88	12/7/88
11	Building 332	No	B-6-O	Diesel	70 g	2.0 x 3.0 ft	6.0 ft	4.0 ft	Full	Probe	12/7/88	12/7/88
11	Building 332	No	B-6-F 03	N.A.	N.A.	N.A.	N.A.	N.A.		Non-existent	12/7/88	N.A.
12	Building 362	No	B-6-F 22	Gasoline	200 g	2.5 x 5.5 ft	3.8 ft	1.5 ft	2.3 ft	Probe	12/7/88	12/7/88
12	Building 362	No	B-6-F 23	Gasoline	184 g	2.5 x 5.0 ft	3.8 ft	1.4 ft	1.8 ft	Probe	12/7/88	12/7/88
13	Building 140	No	B-1-F 01	Diesel	20,000 g	9.5 x 37.0 ft	15.0 ft	5.5 ft		Probe	12/8/88	1/12/89
13	Building 140	No	B-1-F 02	Diesel	20,000 g	9.5 x 37.0 ft	15.0 ft	5.5 ft		Probe	12/8/88	1/12/89
14	Building 116	No	B-1-F 04	Diesel	3,000 g	6.5 x 13.0 ft	11.6 ft	N.A.		GPR	12/8/88	1/12/89
15	Building 149	No	B-1-J	Sump	N.A.	N.A.	N.A.	N.A.		N.A.	12/8/89	1/12/89
16	Building 195	No	B-1-AU	Waste oil	6,000 g	8.0 x 17.0 ft	12.8 ft	5.1 ft		Probe	12/8/88	1/12/89
17	Building 360	No	B-6-F 02	Diesel	10,000 g	8.0 x 28.0 ft	12.2 ft	4.5 ft		GPR	12/8/88	12/08/88
18	Building 33	No	B-1-F 13	Diesel	7,800 g	6.25 x 34.0 ft	10.8 ft	4.6 ft		Probe	1/11/89	1/11/89

Sorted by Spectrum Site Number

APPENDIX A Lockheed Tank Data

Site Number	Near	Secured Area	Tank Number	Tank Contents	Tank Volume	Dimensions	Bottom of Tank	Top of Tank	Product Level	Investigated by	Survey Date	Site Mapped
19	Building 309	Yes	B-6-F 12	Diesel	3,000 g	6.5 x 13.0 ft	10.1 ft	4.3 ft		Probe	12/14/88	1/12/89
19	Building 309	Yes	B-6-F 13	Diesel	3,000 g	6.5 x 13.0 ft	10.7 ft	4.2 ft		Probe	12/14/88	1/30/89
19	Building 309	Yes	B-6-F 14	Diesel	3,000 g	6.5 x 13.0 ft	9.8 ft	3.3 ft		Probe	12/14/88	1/30/89
19	Building 378	Yes	B-6-S	Solvent	350 g	3.0 x 6.5 ft	6.2 ft	3.3 ft		Probe	12/14/88	1/20/89
20	Building 310	Yes	B-6-F 18	Diesel	3,000 g	6.5 x 13.0 ft	9.8 ft	3.9 ft		Probe	1/4/89	1/30/89
21	Building 371	Yes	B-6-U	Waste oil	undeterminable	undeterminable	11.2 ft	5.3 ft		Probe	12/14/88	1/20/89
22	Building 32	No	A-1-C	Sodium chloride	7,000 g	8.0 x 18.5 ft	13.5 ft	5.5 ft		Probe	12/15/88	1/11/89
23	Building 153	No	B-1-H	Waste oil	1,000 g	4.0 x 10.0 ft	8.1 ft	4.7 ft	1.8 ft	Probe	1/4/89	1/12/89
23	Building 153	No	B-1-I	Waste oil	1,500 g	5.0 x 10.0 ft	9.2 ft	4.3 ft	4.5 ft	Probe	1/4/89	1/12/89
23	Building 153	No	B-1-AE	Waste oil	6,000 g	8.0 x 17.0 ft	12.5 ft	N.A.	2.4 ft	GPR	1/4/89	1/12/89
24	Building 44	Yes	C-1-A	Waste coolant	5,000 g	8.0 x 14.0 ft	12.0 ft	4.0 ft	3.0 ft	Probe	1/4/89	1/20/89
25	Building 363	Yes	B-6-F 33	Jet fuel	10,000 g	8.0 x 32.0 ft	11.9 ft	4.3 ft	0.6 ft	Probe	1/4/89	1/30/89
26	Building 311	Yes	B-6-F 21	Gasoline	10,000 g	8.0 x 28.0 ft	12.4 ft	4.8 ft	3.5 ft	Probe	1/4/89	1/12/89
27	Building 349	Yes	B-6-E	Solvent	1,500 g	5.0 x 10.0 ft	7.0 ft	2.4 ft	Full	Probe	1/4/89	1/30/89
28	Building 357	No	B-6-R	Waste oil	20,000 g	10.0 x 37.0 ft	14.9 ft	5.5 ft	Full	Probe	1/4/89	1/11/89
29	Building 170	No	B-1-F 03	Diesel	5,000 g	8.0 x 14.0 ft	N.A.	N.A.		GPR	1/5/89	1/12/89
30	Building 173	No	B-1-AA	unknown	1,000 g	4.0 x 11.0 ft	6.7 ft	2.9 ft		Probe	1/5/89	1/12/89
30	Building 173	No	B-1-F 14	Diesel	1,600 g	5.0 x 11.0 ft	9.8 ft	4.8 ft		Probe	1/5/89	1/12/89
31	Building 61	Yes	A-1-F 101	Diesel	130 g	2.0 x 5.0 ft	4.4 ft	2.4 ft		Probe	1/5/89	1/30/89
32	Building 357	No	B-6-L	Oil/water	5,000 g	8.0 x 14.0 ft	12.5 ft	4.5 ft		Probe	1/5/89	1/11/89
33	Building 63	No	A-1-F 100	Gasoline	150 g	2.0 x 6.0 ft	16.2 ft	14.6 ft		Probe	1/6/89	1/30/89
34	Building 339	No	B-6-F 31	Gasoline	850 g	4.0 x 9.0 ft	8.2 ft	4.9 ft	Full	Probe	1/9/89	1/11/89
35	Building 333	No	B-6-F 04	Diesel	1,500 g	5.0 x 10.0 ft	6.8 ft	2.5 ft	Full	Probe	1/9/89	1/11/89
36	Building 304	No	B-6-F 25	Diesel	1,750 g	5.0 x 12.0 ft	9.5 ft	4.5 ft	Full	Probe	1/9/89	1/9/89
37	Building 97A	No	A-1-B	Spent developer	6,000 g	8.0 x 19.5 ft	16.0 ft	8.0 ft		Probe	1/11/89	1/11/89
38	Building 65A	Yes	A-1-F	Waste oil	8,000 g	8.0 x 22.0 ft	12.2 ft	4.3 ft		Probe	1/30/89	1/30/89
39	Building 322	No	B-6-F 26	Diesel	10,000 g	8.0 x 27.0 ft	11.0 ft	3.0 ft		Probe	2/3/89	2/3/89

Sorted by Spectrum Site Number

Near	Tank Number	Site Number	Secured Area	Tank Contents	Tank Volume	Dimensions	Bottom of Tank	Top of Tank	Product Level	Investigated by	Survey Date	Site Mapped
Building 116	B-1-F 04	14	No	Diesel	3,000 g	6.5 x 13.0 ft	11.6 ft	N.A.		GPR	12/8/88	1/12/89
Building 140	B-1-F 01	13	No	Diesel	20,000 g	9.5 x 37.0 ft	15.0 ft	5.5 ft		Probe	12/8/88	1/12/89
Building 140	B-1-F 02	13	No	Diesel	20,000 g	9.5 x 37.0 ft	15.0 ft	5.5 ft		Probe	12/8/88	1/12/89
Building 149	B-1-J	15	No	Sump	N.A.	N.A.	N.A.	N.A.		N.A.	12/8/89	1/12/89
Building 153	B-1-AE	23	No	Waste oil	6,000 g	8.0 x 17.0 ft	12.5 ft	N.A.	2.4 ft	GPR	1/4/89	1/12/89
Building 153	B-1-H	23	No	Waste oil	1,000 g	4.0 x 10.0 ft	8.1 ft	4.7 ft	1.8 ft	Probe	1/4/89	1/12/89
Building 153	B-1-I	23	No	Waste oil	1,500 g	5.0 x 10.0 ft	9.2 ft	4.3 ft	4.5 ft	Probe	1/4/89	1/12/89
Building 166	B-1-C	5	No	Sodium hydroxide	6,000 g	8.0 x 17.0 ft	13.1 ft	5.1 ft		Probe	12/5,6/88	12/6/88
Building 170	B-1-F 03	29	No	Diesel	5,000 g	8.0 x 14.0 ft	N.A.	N.A.		GPR	1/5/89	1/12/89
Building 173	B-1-AA	30	No	unknown	1,000 g	4.0 x 11.0 ft	6.7 ft	2.9 ft		Probe	1/5/89	1/12/89
Building 173	B-1-F 14	30	No	Diesel	1,600 g	5.0 x 11.0 ft	9.8 ft	4.8 ft		Probe	1/5/89	1/12/89
Building 195	B-1-AU	16	No	Waste oil	6,000 g	8.0 x 17.0 ft	12.8 ft	5.1 ft		Probe	12/8/88	1/12/89
Building 304	B-6-F 25	36	No	Diesel	1,750 g	5.0 x 12.0 ft	9.5 ft	4.5 ft	Full	Probe	1/9/89	1/9/89
Building 304	B-6-M	7	No	Solvent	160 g	3.2 x 3.0 ft	5.1 ft	1.9 ft		Probe	12/7/88	1/9/89
Building 304	B-6-N	7	No	Solvent	160 g	3.2 x 3.0 ft	5.4 ft	2.3 ft		Probe	12/7/88	1/9/89
Building 309	B-6-F 09	6	No	Diesel	3,000 g	6.5 x 13.0 ft	10.0 ft	4.3 ft		Probe	12/7/88	1/9/89
Building 309	B-6-F 10	6	No	Diesel	3,000 g	6.5 x 13.0 ft	10.1 ft	4.1 ft		Probe	12/7/88	1/9/89
Building 309	B-6-F 11	6	No	Diesel	3,000 g	6.5 x 13.0 ft	10.5 ft	4.8 ft		Probe	1/30/89	1/30/89
Building 309	B-6-F 12	19	Yes	Diesel	3,000 g	6.5 x 13.0 ft	10.1 ft	4.3 ft		Probe	12/14/88	1/12/89
Building 309	B-6-F 13	19	Yes	Diesel	3,000 g	6.5 x 13.0 ft	10.7 ft	4.2 ft		Probe	12/14/88	1/30/89
Building 309	B-6-F 14	19	Yes	Diesel	3,000 g	6.5 x 13.0 ft	9.8 ft	3.3 ft		Probe	12/14/88	1/30/89
Building 310	B-6-F 15	6	No	Diesel	3,000 g	6.5 x 13.0 ft	9.6 ft	3.7 ft		Probe	12/7/88	1/9/89
Building 310	B-6-F 16	6	No	Diesel	3,000 g	6.5 x13.0 ft	10.0 ft	4.0 ft		Probe	12/7/88	1/9/89
Building 310	B-6-F 17	6	No	Diesel	3,000 g	6.5 x 13.0 ft	10.5 ft	4.6 ft		Probe	12/7/88	1/9/89
Building 310	B-6-F 18	20	Yes	Diesel	3,000 g	6.5 x 13.0 ft	9.8 ft	3.9 ft		Probe	1/4/89	1/30/89
Building 310	B-6-F 19	6	No	Diesel	3,000 g	6.5 x 13.0 ft	9.5 ft	3.6 ft	5.8 ft	Probe	1/10/89	1/10/89
Building 310	B-6-F 20	6	No	Diesel	3,000 g	6.5 x 13.0 ft	10.0 ft	4.0 ft		Probe	12/7/88	1/9/89
Building 311	B-6-F 21	26	Yes	Gasoline	10,000 g	8.0 x 28.0 ft	12.4 ft	4.8 ft	3.5 ft	Probe	1/4/89	1/12/89
Building 32	A-1-C	22	No	Sodium chloride	7,000 g	8.0 x 18.5 ft	13.5 ft	5.5 ft		Probe	12/15/88	1/11/89
Building 322	B-6-F 26	39	No	Diesel	10,000 g	8.0 x 27.0 ft	11.0 ft	3.0 ft		Probe	2/3/89	2/3/89
Building 33	B-1-F 13	18	No	Diesel	7,800 g	6.25 x 34.0 ft	10.8 ft	4.6 ft		Probe	1/11/89	1/11/89
Building 332	B-6-F 03	11	No	N.A.	N.A.	N.A.	N.A.	N.A.		Non-existent	12/7/88	N.A.
Building 332	B-6-F 32	11	No	Diesel	1,775 g	5.0 x 8.0 ft	9.8 ft	4.8 ft	1.8 ft	Probe	12/7/88	12/7/88
Building 332	B-6-O	11	No	Diesel	70 g	2.0 x 3.0 ft	6.0 ft	4.0 ft	Full	Probe	12/7/88	12/7/88
Building 333	B-6-F 04	35	No	Diesel	1,500 g	5.0 x 10.0 ft	6.8 ft	2.5 ft	Full	Probe	1/9/89	1/11/89
Building 339	B-6-F 31	34	No	Gasoline	850 g	4.0 x 9.0 ft	8.2 ft	4.9 ft	Full	Probe	1/9/89	1/11/89
Building 349	B-6-E	27	Yes	Solvent	1,500 g	5.0 x 10.0 ft	7.0 ft	2.4 ft	Full	Probe	1/4/89	1/30/89
Building 357	B-6-L	32	No	Oil/water	5,000 g	8.0 x 14.0 ft	12.5 ft	4.5 ft		Probe	1/5/89	1/11/89
Building 357	B-6-R	28	No	Waste oil	20,000 g	10.0 x 37.0 ft	14.9 ft	5.5 ft	Full	Probe	1/4/89	1/11/89
Building 360	B-6-F 02	17	No	Diesel	10,000 g	8.0 x 28.0 ft	12.2 ft	4.5 ft		GPR	12/8/88	12/08/88
Building 362	B-6-F 22	12	No	Gasoline	200 g	2.5 x 5.5 ft	3.8 ft	1.5 ft	2.3 ft	Probe	12/7/88	12/7/88

APPENDIX A Lockheed Tank Data

Near	Tank Number	Site Number	Secured Area	Tank Contents	Tank Volume	Dimensions	Bottom of Tank	Top of Tank	Product Level	Investigated by	Survey Date	Site Mapped
Building 362	B-6-F 23	12	No	Gasoline	184 g	2.5 x 5.0 ft	3.8 ft	1.4 ft	1.8 ft	Probe	12/7/88	12/7/88
Building 363	B-6-F 33	25	Yes	Jet fuel	10,000 g	8.0 x 32.0 ft	11.9 ft	4.3 ft	0.6 ft	Probe	1/4/89	1/30/89
Building 371	B-6-U	21	Yes	Waste oil	undeterminable	undeterminable	11.2 ft	5.3 ft		Probe	12/14/88	1/20/89
Building 378	B-6-S	19	Yes	Solvent	350 g	3.0 x 6.5 ft	6.2 ft	3.3 ft		Probe	12/14/88	1/20/89
Building 44	C-1-A	24	Yes	Waste coolant	5,000 g	8.0 x 14.0 ft	12.0 ft	4.0 ft	2.0 ft	Probe	1/4/89	1/20/89
Building 61	A-1-F 101	31	Yes	Diesel	130 g	2.0 x 5.0 ft	4.4 ft	2.4 ft		Probe	1/5/89	1/30/89
Building 63	A-1-F 100	33	No	Gasoline	150 g	2.0 x 6.0 ft	16.2 ft	14.6 ft		Probe	1/6/89	1/30/89
Building 65A	A-1-F	38	Yes	Waste oil	8,000 g	8.0 x 22.0 ft	12.2 ft	4.3 ft		Probe	1/30/89	1/30/89
Building 71	A-1-F 01	2	No	Diesel	10,000 g	8.0 x 28.0 ft	14.2 ft	5.4 ft		Probe	12/5,6/88	12/6/88
Building 71	A-1-F 02	2	No	Diesel	10,000 g	8.0 x 28.0 ft	12.9 ft	5.0 ft		Probe	12/5,6/88	12/6/88
Building 71	A-1-F 12	2	No	Diesel	1,000 g	4.0 x 10.0 ft	8.0 ft	4.7 ft		Probe	12/5-6/88	12/6/88
Building 71	A-1-F 03	2	No	Diesel	20,000 g	9.5 x 37.0 ft	16.1 ft	6.6 ft		Probe	12/5,6/88	12/6/88
Building 76A	A-1-F 08	1	No	Diesel	12,000 g	8.0 X 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
Building 76A	A-1-F 09	1	No	Gasoline	12,000 g	8.0 X 32.0 ft	12.0 ft	4.3 ft		Probe	12/5-6/88	12/6/88
Building 76A	A-1-F 10	1	No	Diesel	12,000 g	8.0 X 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
Building 76A	A-1-N	1	No	PCE solvent	12,000 g	8.0 x 32.0 ft	12.1 ft	4.3 ft		Probe	12/5-6/88	12/6/88
Building 83	B-6-F 05	10	No	Diesel	10,000 g	8.0 x 28.0 ft	12.9 ft	5.0 ft		Probe	12/7/88	1/20/89
Building 84	B-6-B	9	No	Diesel	5,000 g	8.0 x 14.0 ft	12.1 ft	4.3 ft		Probe	1/11/89	1/11/89
Building 88	B-6-F 06	8	Yes	Jet fuel	750 g	4.0 x 8.0 ft	8.5 ft	4.5 ft		Probe	12/7/88	1/20/89
Building 88	B-6-F 07	8	Yes	Jet fuel	750 g	4.0 x 8.0 ft	8.5 ft	4.5 ft		Probe	12/7/88	1/20/89
Building 88	B-6-F 08	8	Yes	Jet fuel	8,000 g	8.0 x 22.0 ft	12.5 ft	5.0 ft	0.3 ft	Probe	1/6/89	1/20/89
Building 88	B-6-F 28	8	Yes	Jet fuel	8,500 g	9.0 x 18.0 ft	13.2 ft	4.2 ft	0.1 ft	Probe	1/6/89	1/20/89
Building 88	B-6-F 29	8	Yes	Jet fuel	5,000 g	8.0 x 14.0 ft	13.3 ft	5.3 ft		Probe	12/7,1/20/89	1/20/89
Building 88	B-6-F 30	8	Yes	Jet fuel	15,000 g	9.5 x 28.0 ft	18.8 ft	9.5 ft		Probe	12/7,1/20/89	1/20/89
Building 92	A-1-F 14	4	No	Gasoline	1,000 g	4.0 x 10.0 ft	8.5 ft	6.4 ft		GPR	12/5,6/88	12/6/88
Building 97A	A-1-B	37	No	Spent developer	6,000 g	8.0 x 19.5 ft	16.0 ft	8.0 ft		Probe	1/11/89	1/11/89
Building 68	A-1-F 13	3	No	Gasoline	300 g	2.0 x 13.0 ft	5.8 ft	3.8 ft		GPR	12/5,6/88	12/6/88

Sorted by Building Number

APPENDIX B

Facility Diagrams of Tank Areas*
Presented in Alpha-Numeric Order

*Note: The following facility diagrams are copies of maps generated in the field. As recommended by ENSR no further formalization of the diagrams was done and they are therefore presented in rough field form.

SPECTRUM E.S.I.

ENVIRONMENTAL GEOPHYSICAL SURVEYS
& UNDERGROUND LOCATION

12423 GLADSTONE AVE. #5, SYLMAR, CA 91342 (818) 365-9371
P.O. BOX 1706 PLEASANTON, CA 94566 (415) 847-9462

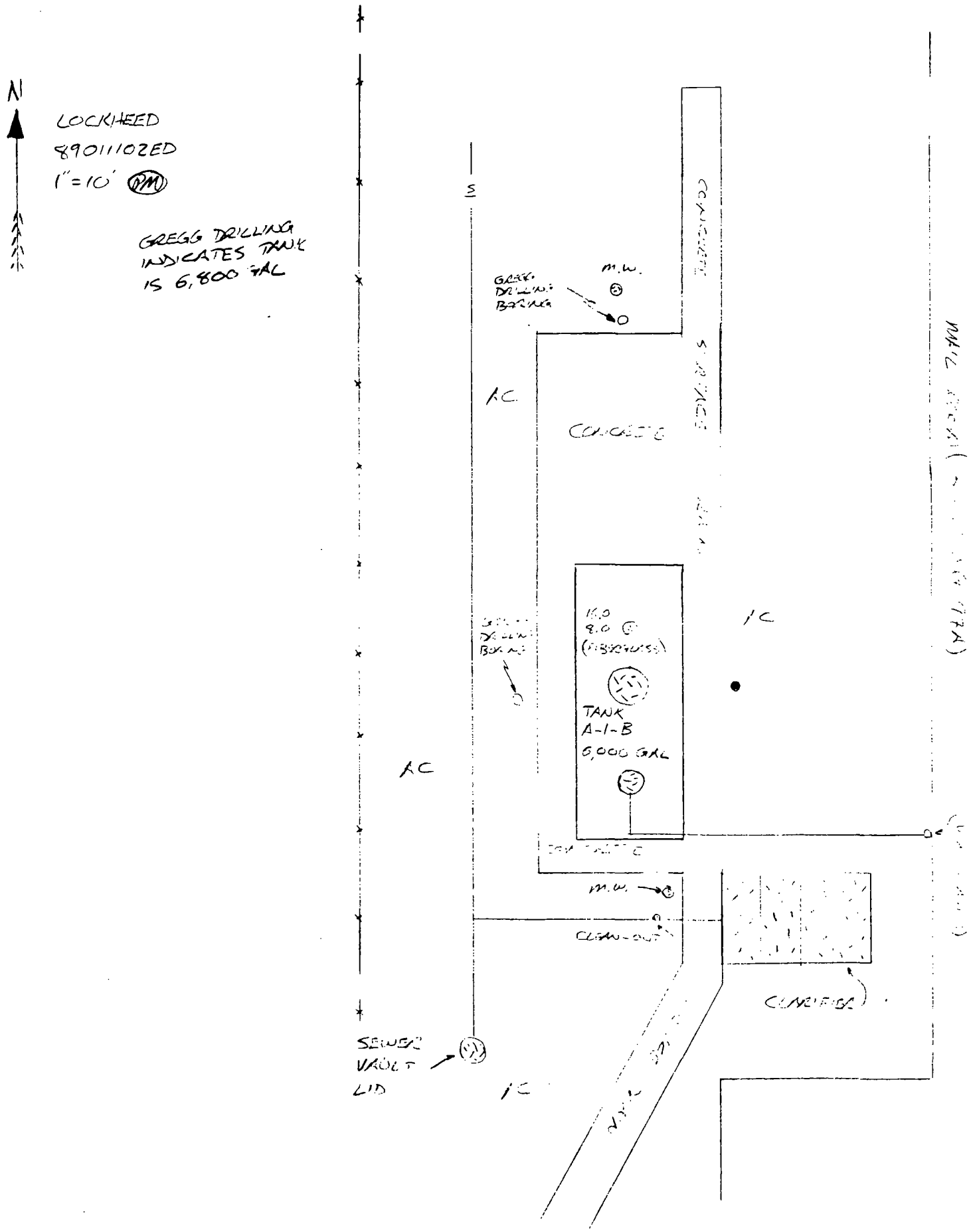
EXPLANATION OF MAP SYMBOLS

mw	Monitoring Well
●	Proposed Exploratory Boring Site
▨	Vault Lid
—x—	Fence
RC	Reinforced Concrete
AC	Asphalt

CONDUITS

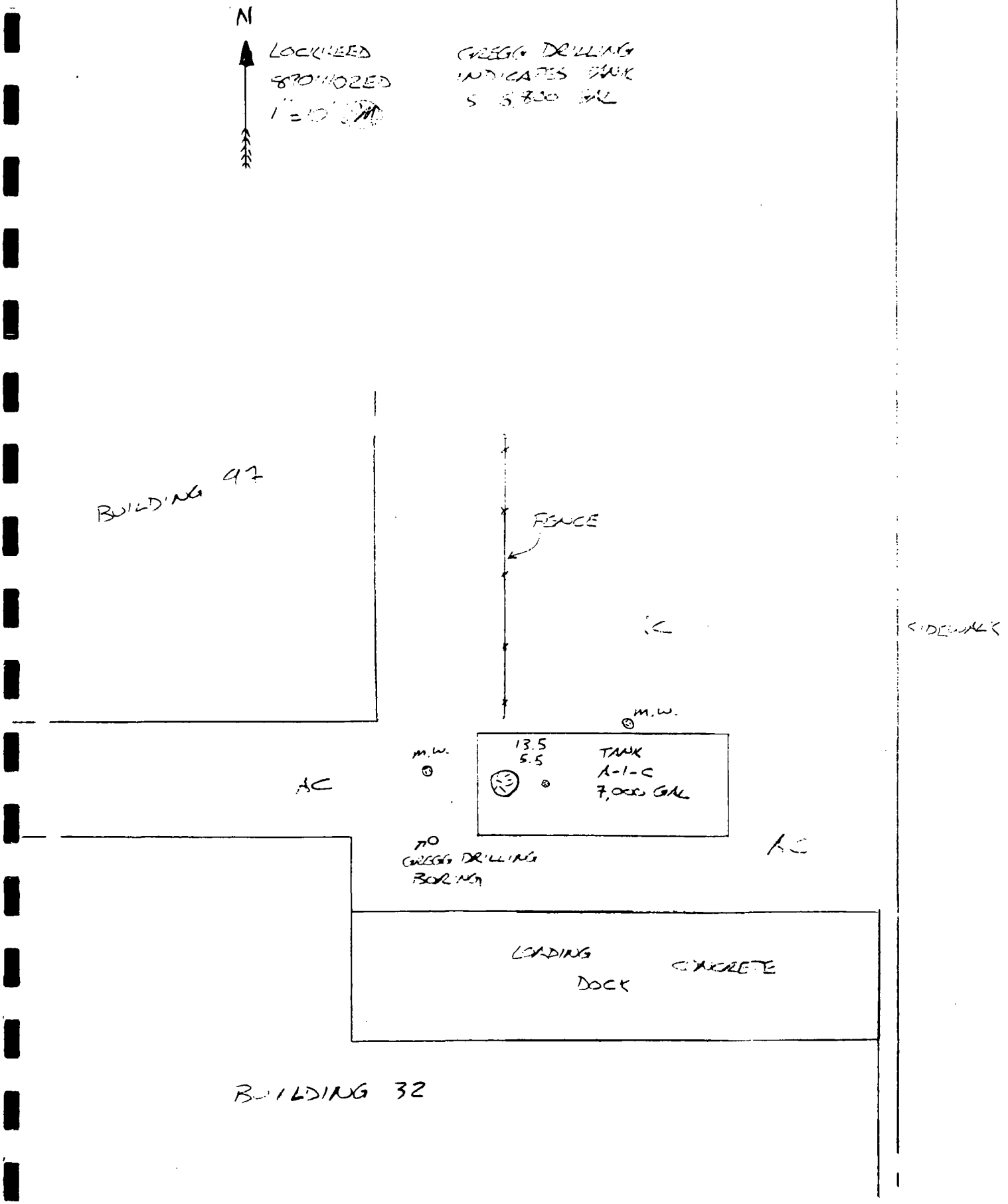
p	Product
v	Vent
e	Electric
w	Water
s	Sewer
ng	Natural gas
t	Telephone
c	Conduit

A 1 B

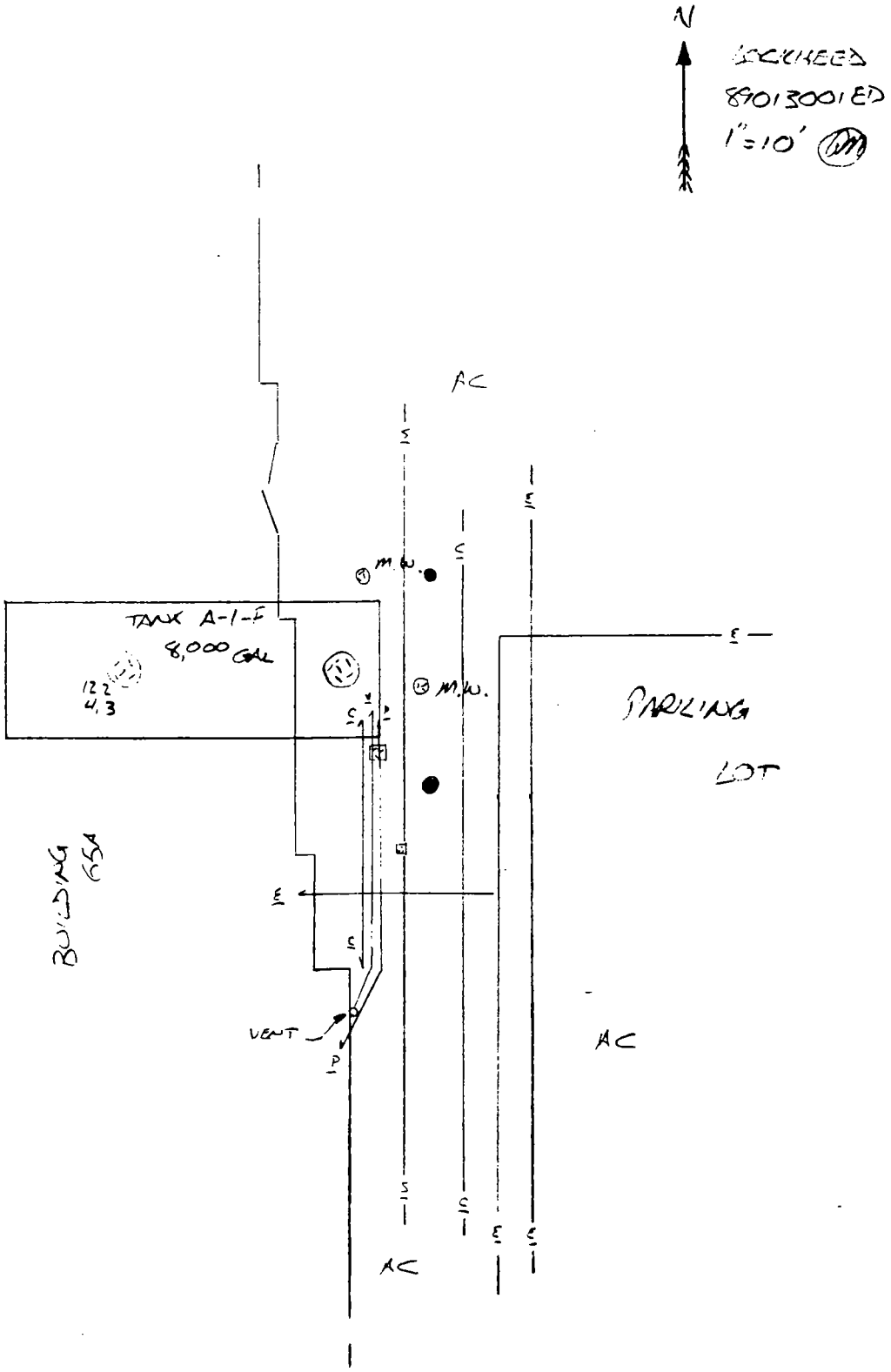

N
LOCKHEED
89011102ED
1"=10' PM
GREGG DRILLING INDICATES TANK IS 6,800 GAL
M.W.
GREGG DRILLING BORING
AC
CONCRETE
15.0
8.0
(FIBERGLASS)
TANK
A-1-B
6,000 GAL
AC
M.W.
CLEAN-OUT
CLARIFIER
SEWER VAULT LID
AC

A 1 C

TANK SCHEMA

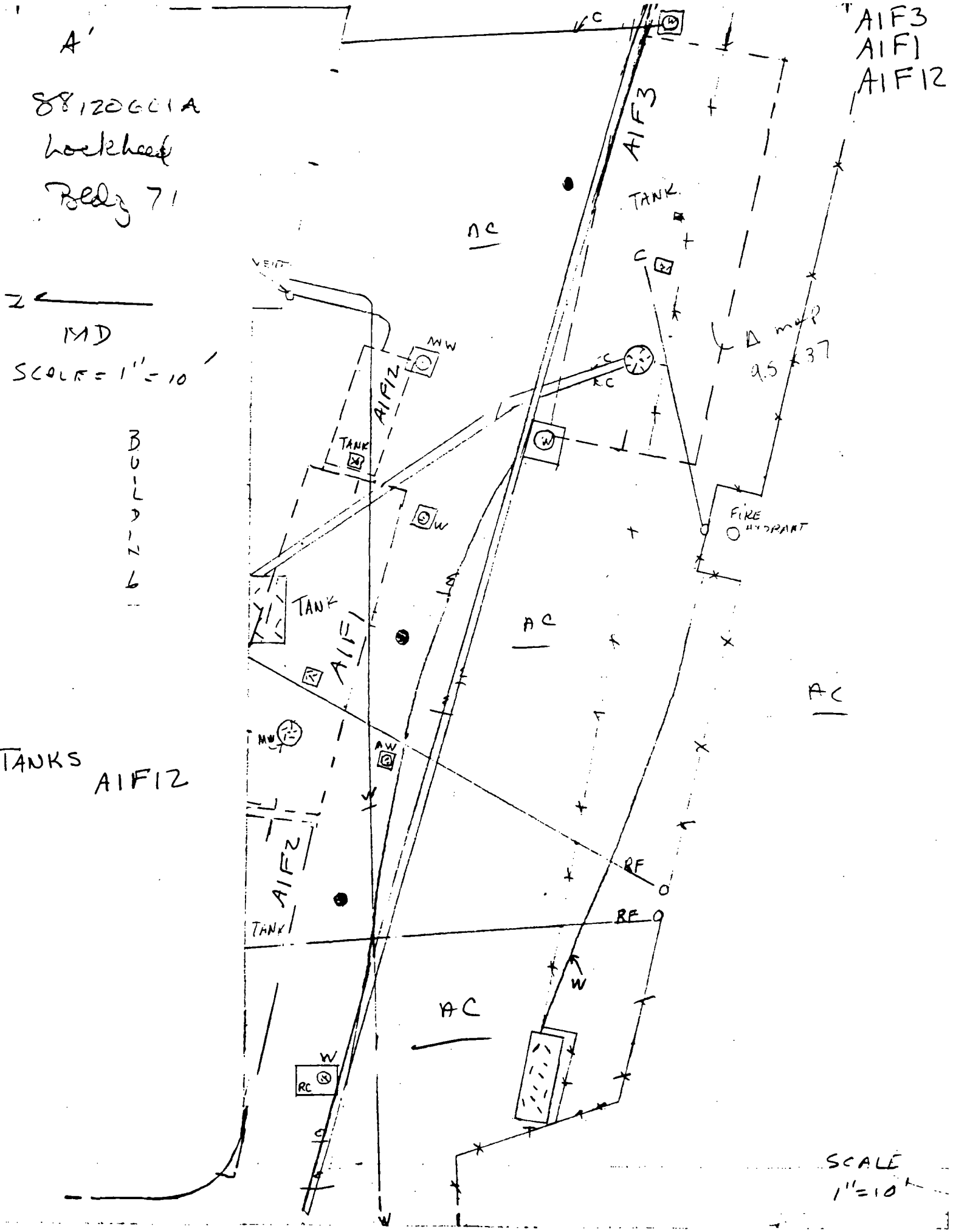


A1F


N
LOCKHEED
8901300 1ED
1"=10'
AC
M.W.
TANK A-1-F
8,000 GAL
12.2
4.3
M.W.
PARKING
LOT
BUILDING
65A
VENT
P
AC
AC

A'

88120GC1A
Lockheed
Bldg 71

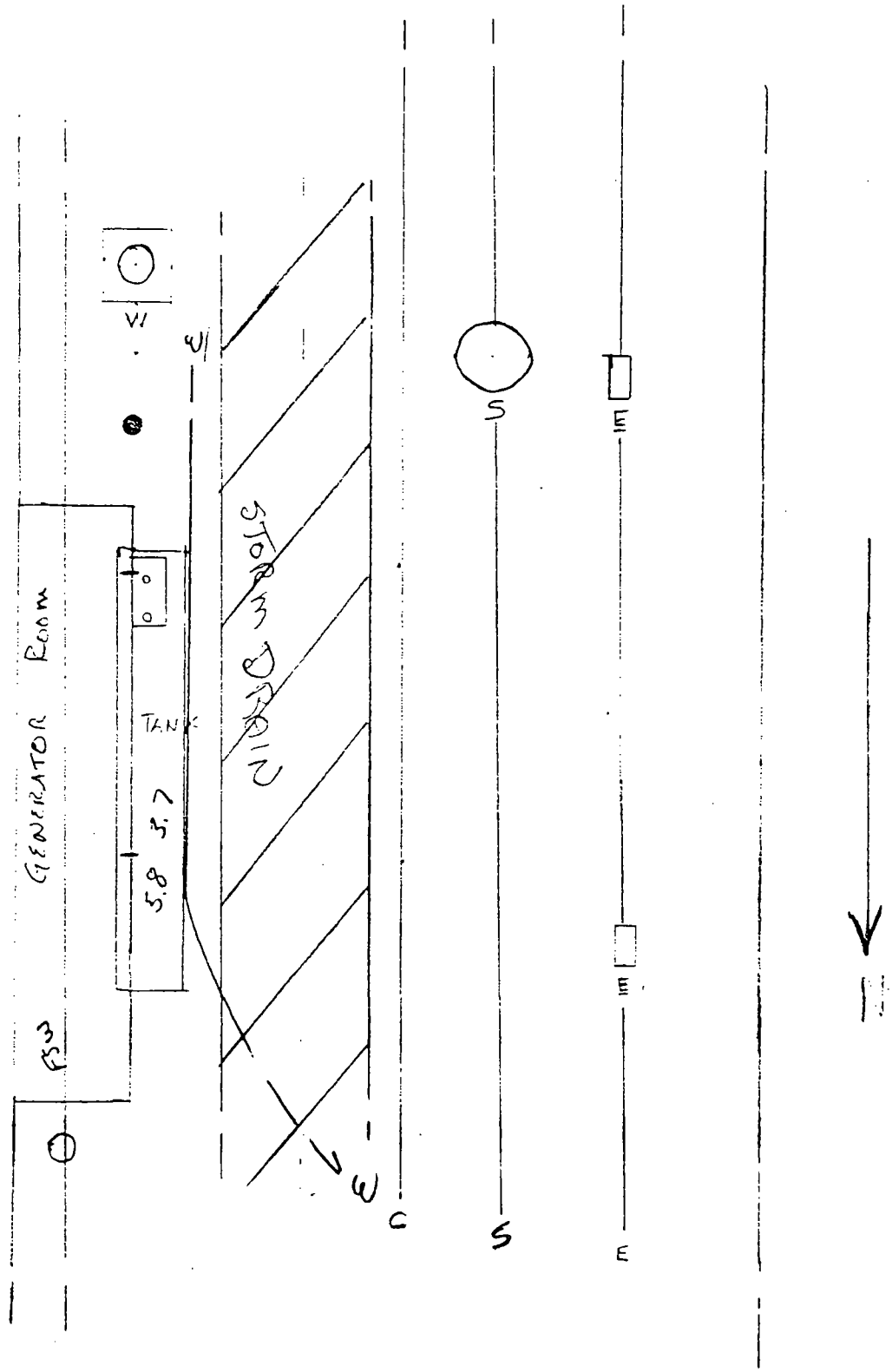


A1F8
A1F9
A1F10
A1N

A1F13

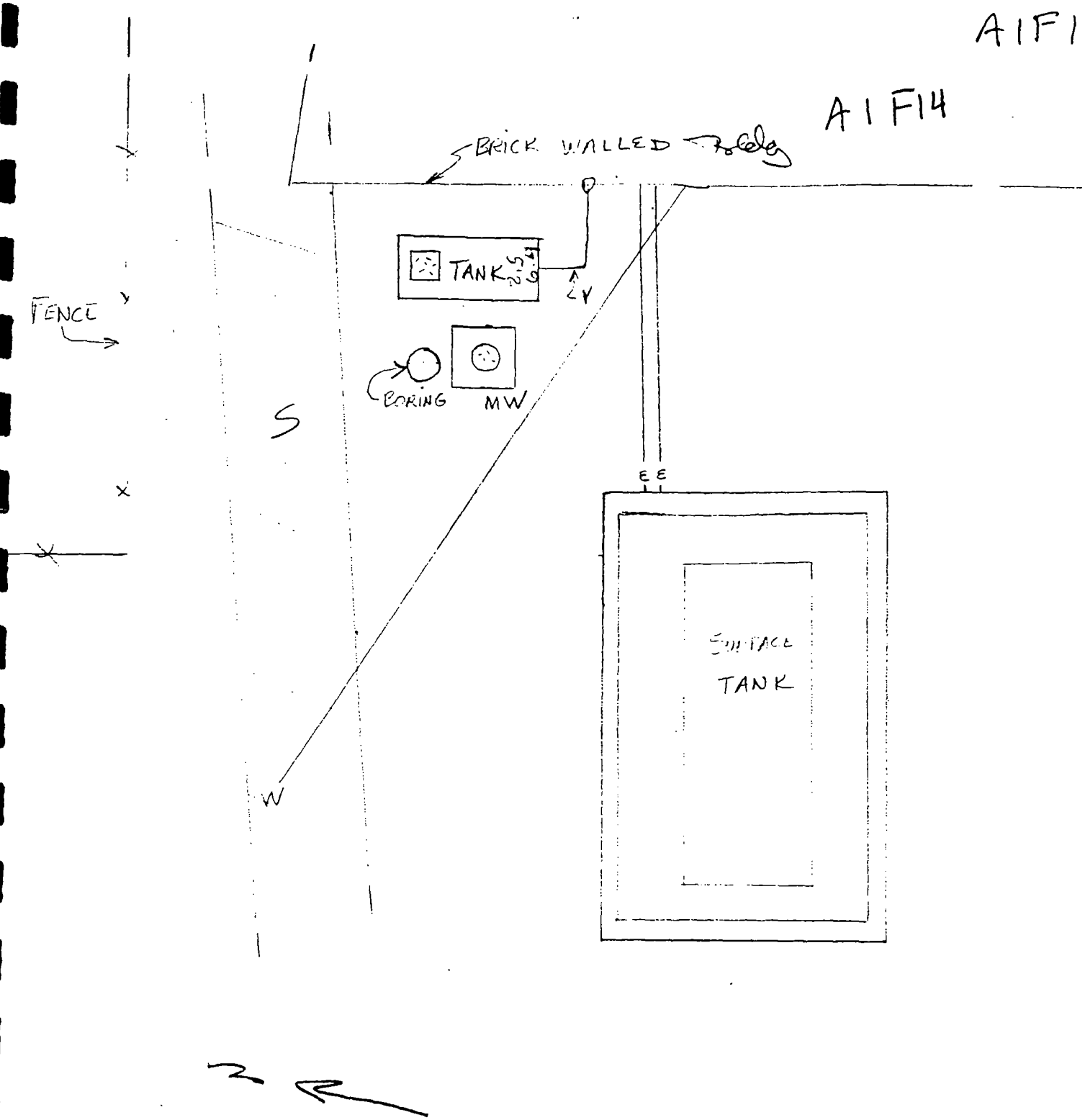
88120601A
Bldg 66A & 68

A1F13



SCALE 1" = 5'

A1F14



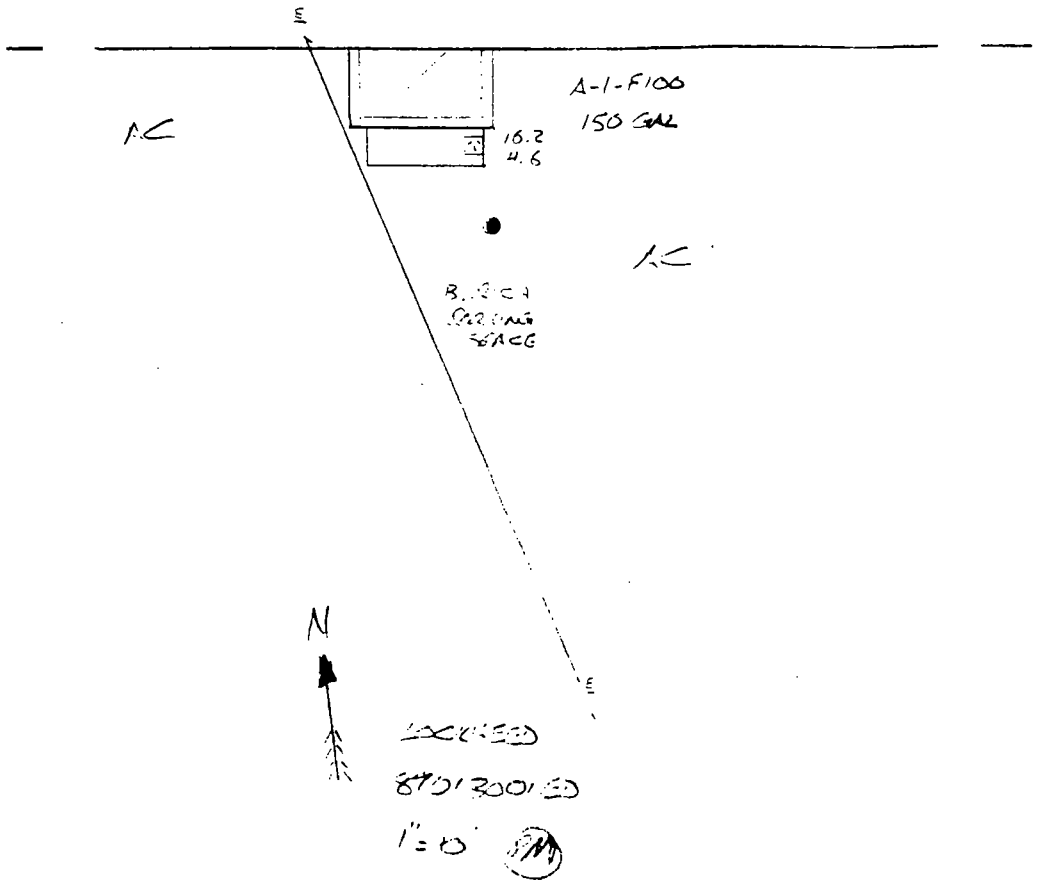
88120601A

T A1F14

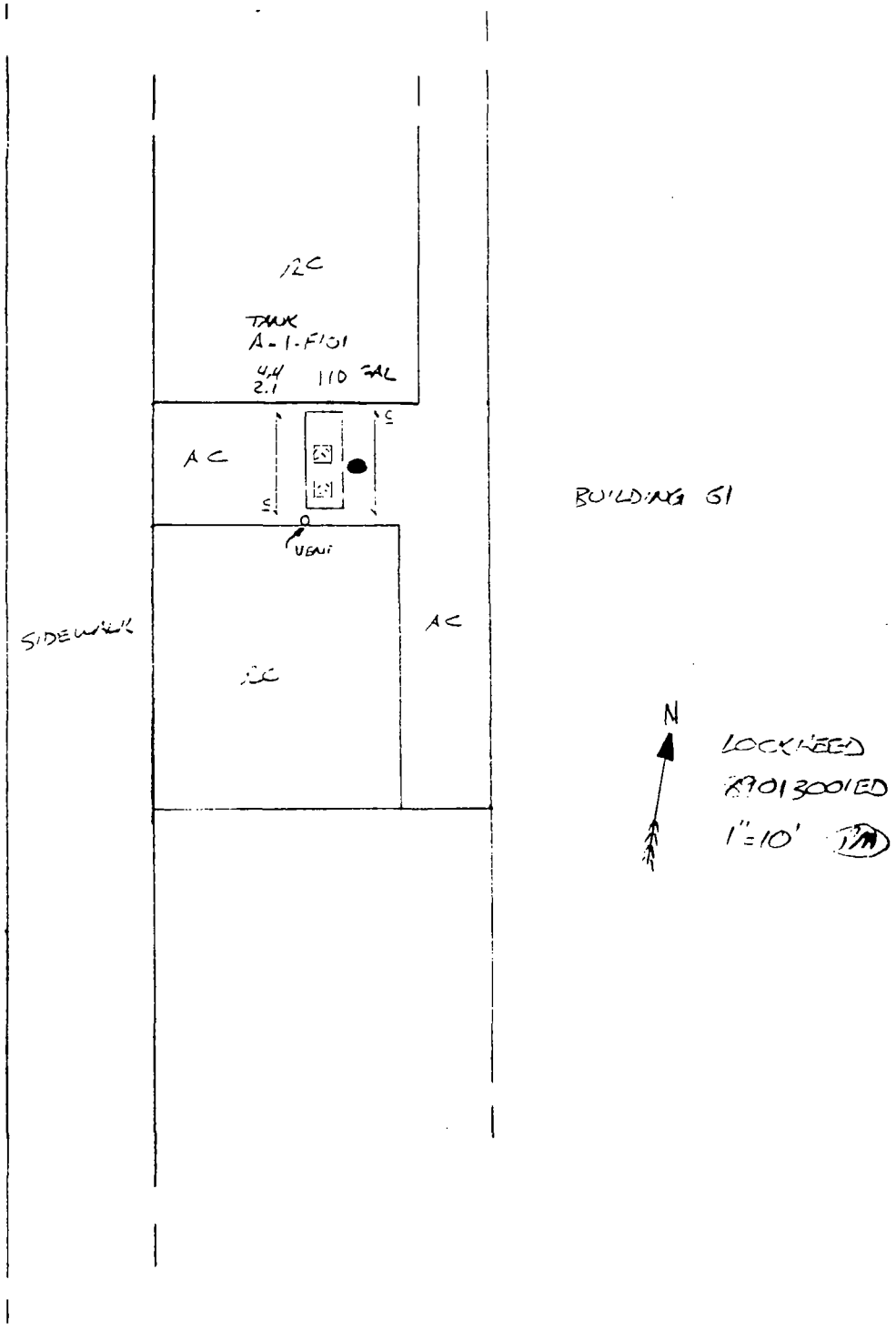
SCALE 1" = 5'

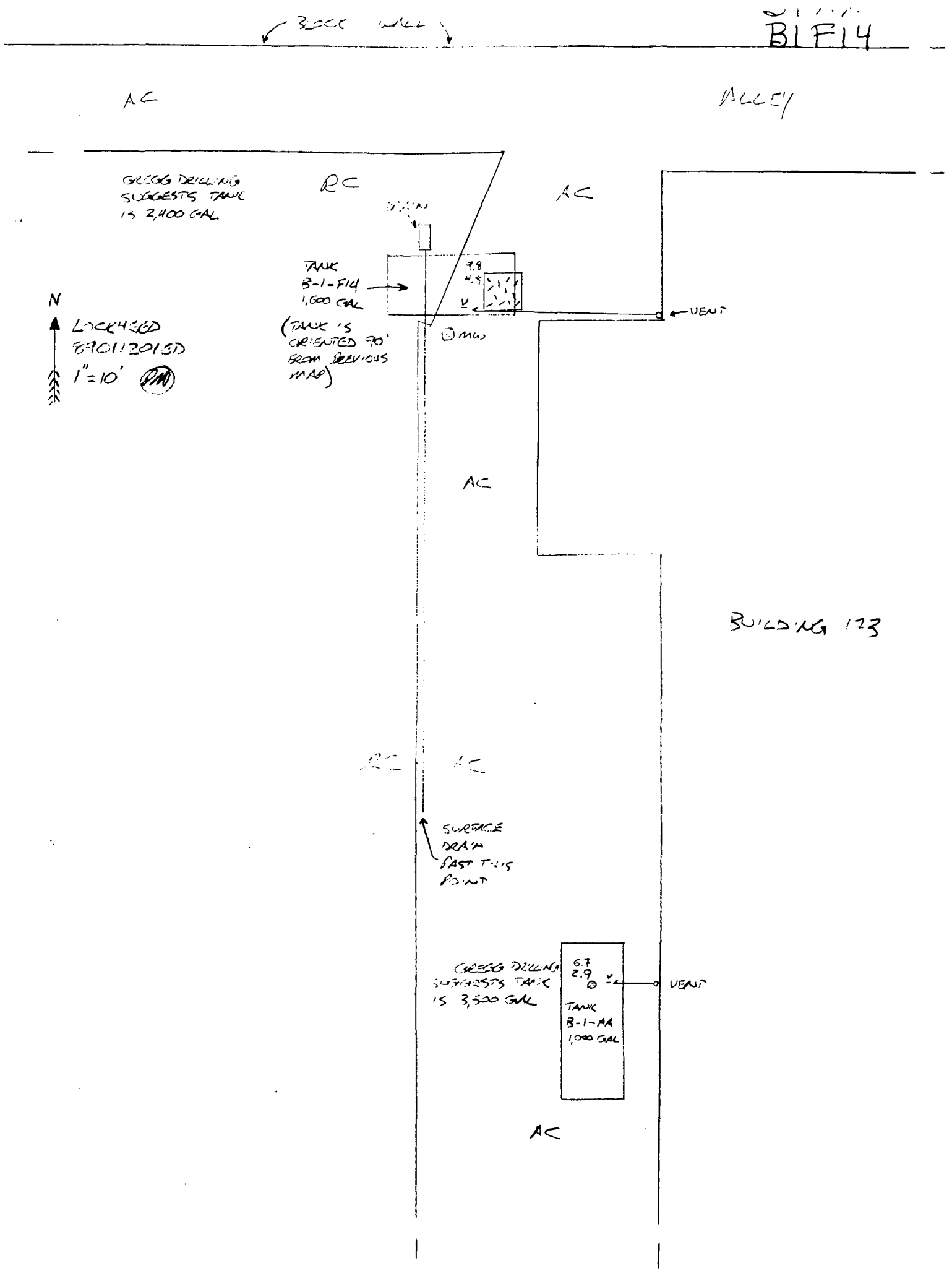
A1F100

BUILDING 63

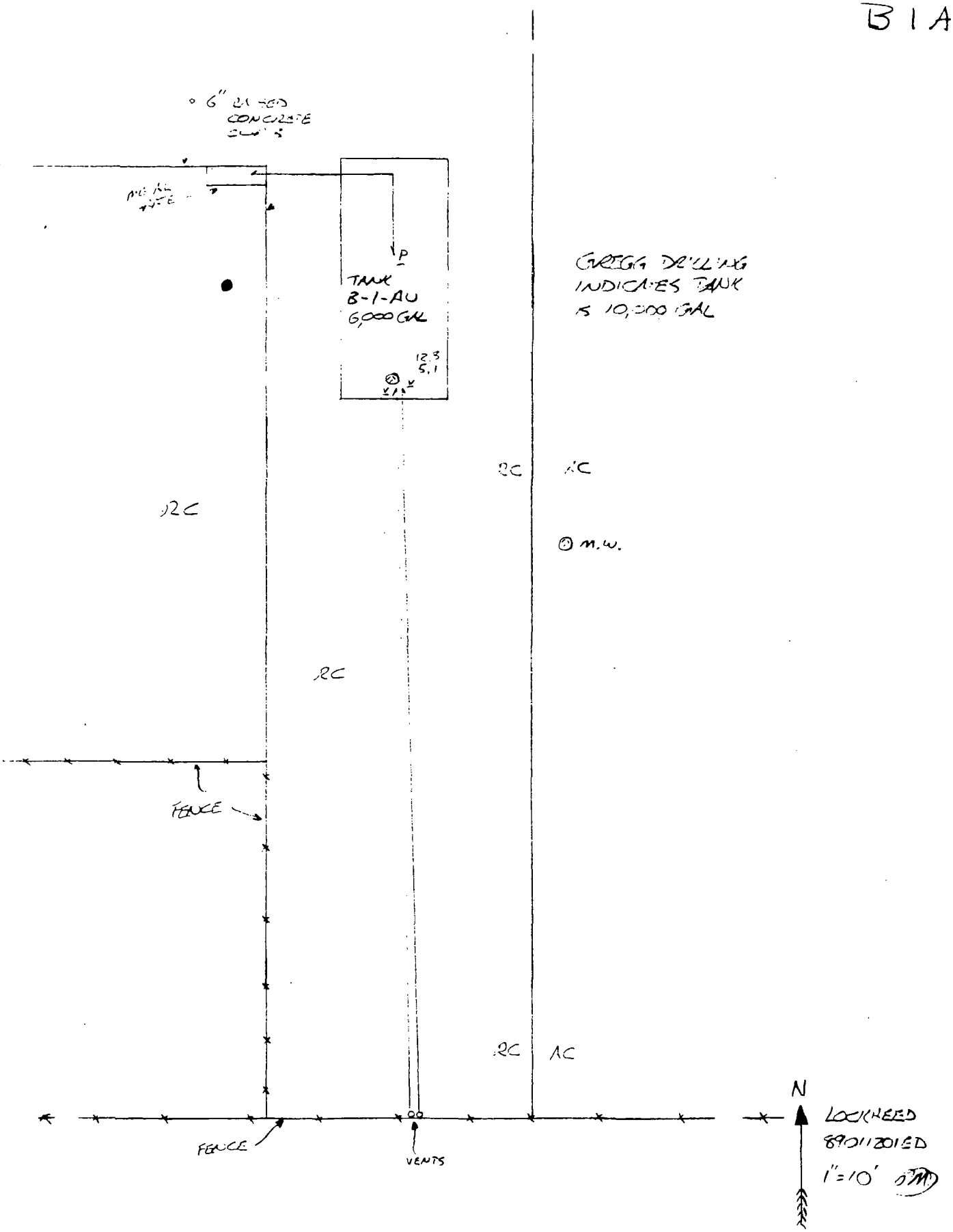


A1F101

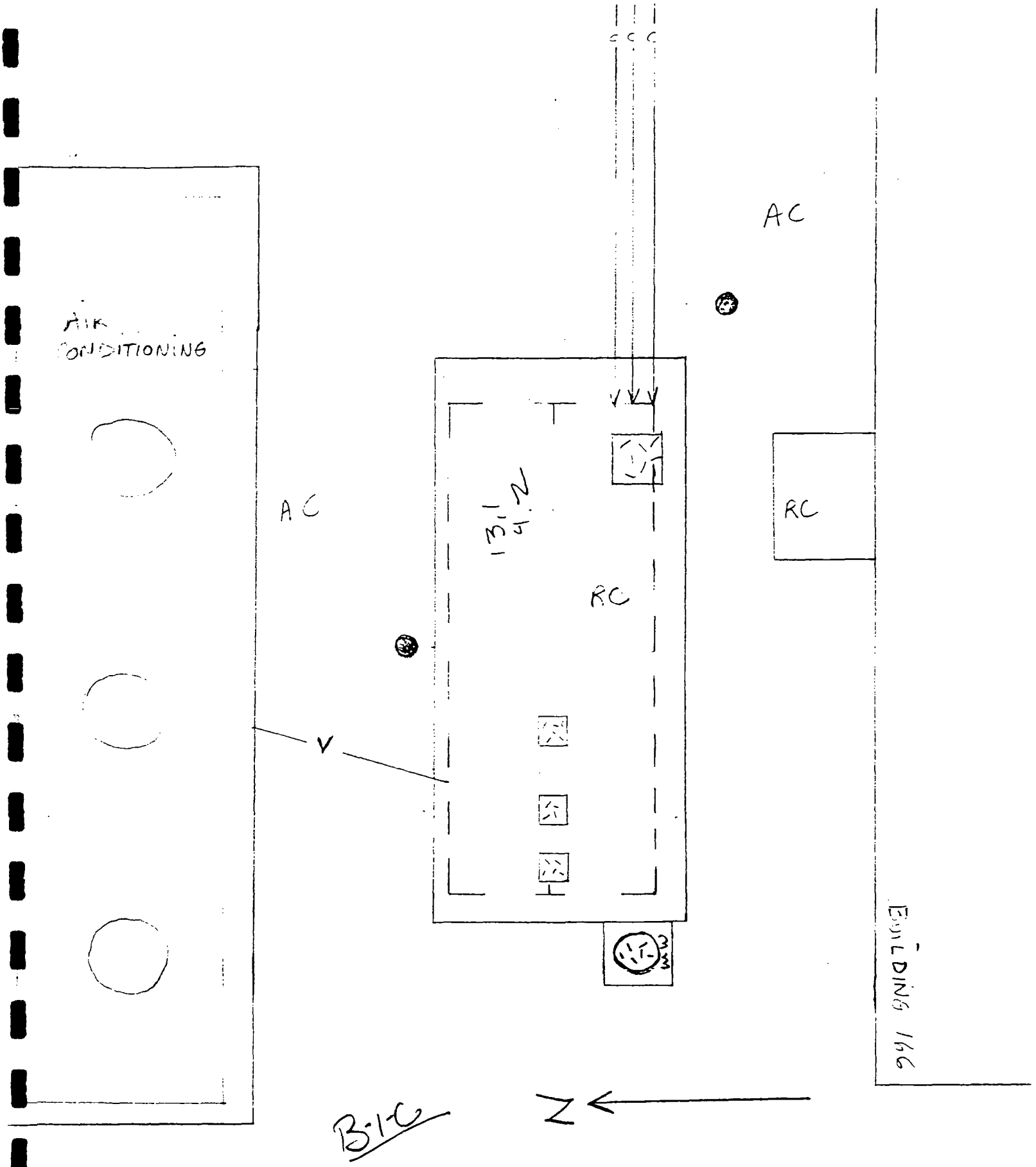

12C
TANK
A-1-F101
4.4
2.1
110 GAL
AC
5
5
VENT
BUILDING 61
SIDEWALK
AC
12C
N
LOCKHEED
X9013001ED
1"=10'


BLOCK WALL
B1F14
AC
ALLEY
GREGG DRILLING SUGGESTS TANK IS 2,400 GAL
RC
AC
DRAIN
TANK B-1-F14 1,600 GAL
9.8
4.4
V
VENT
MW
(TANK IS ORIENTED 90° FROM PREVIOUS MAP)
N
LOCKHEED 890112015D
1"=10'
AC
BUILDING 123
AC
AC
SURFACE DRAIN EAST THIS POINT
GREGG DRILLING SUGGESTS TANK IS 3,500 GAL
6.7
2.9
V
VENT
TANK B-1-AA 1,000 GAL
AC

B1AU

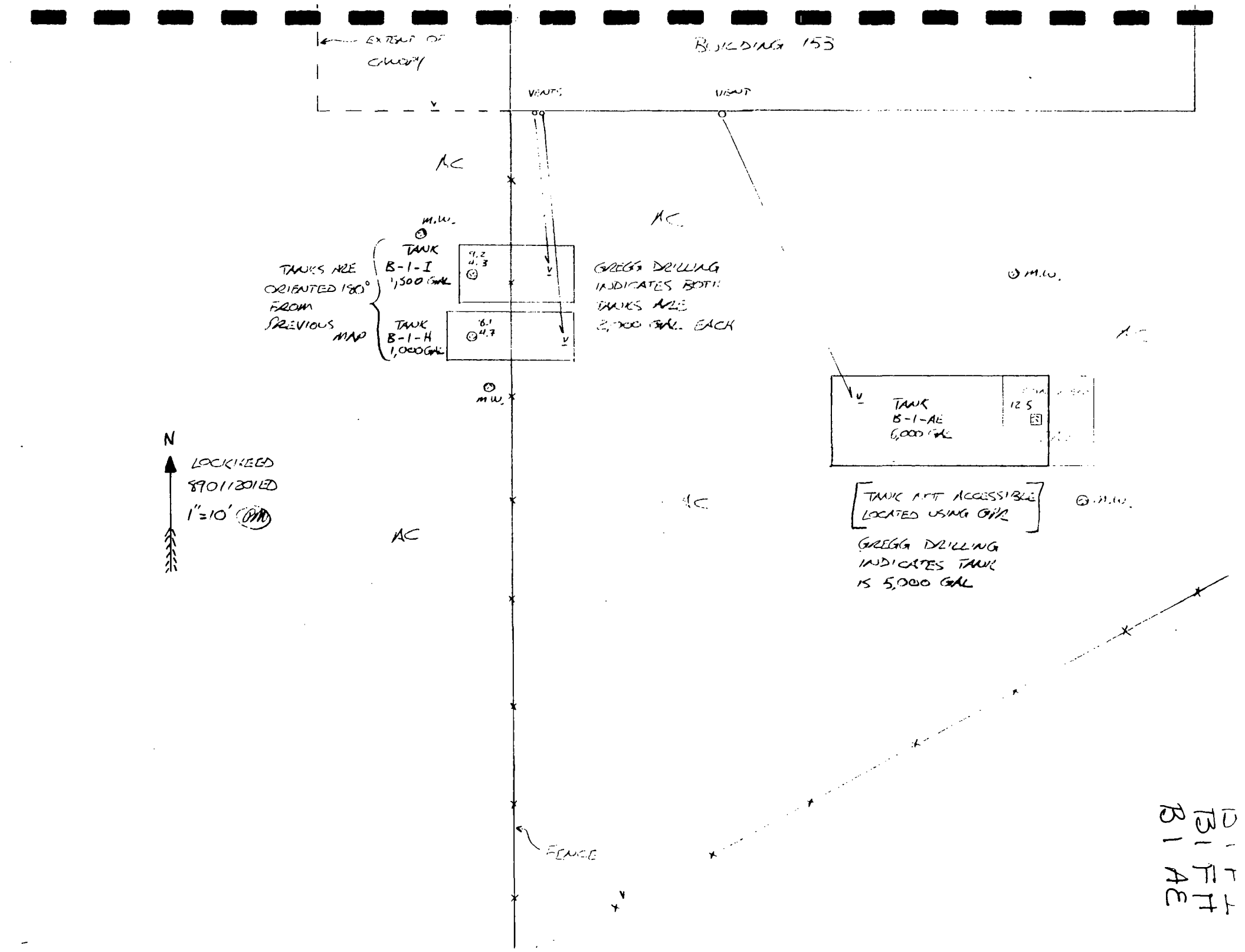

6" RAISED CONCRETE CURB
P
TANK
B-1-AU
6,000 GAL
12.3
5.1
GREGG DRILLING INDICATES TANK IS 10,000 GAL
RC
AC
M.W.
FENCE
VENTS
N
LOCKHEED
89011201ED
1"=10'

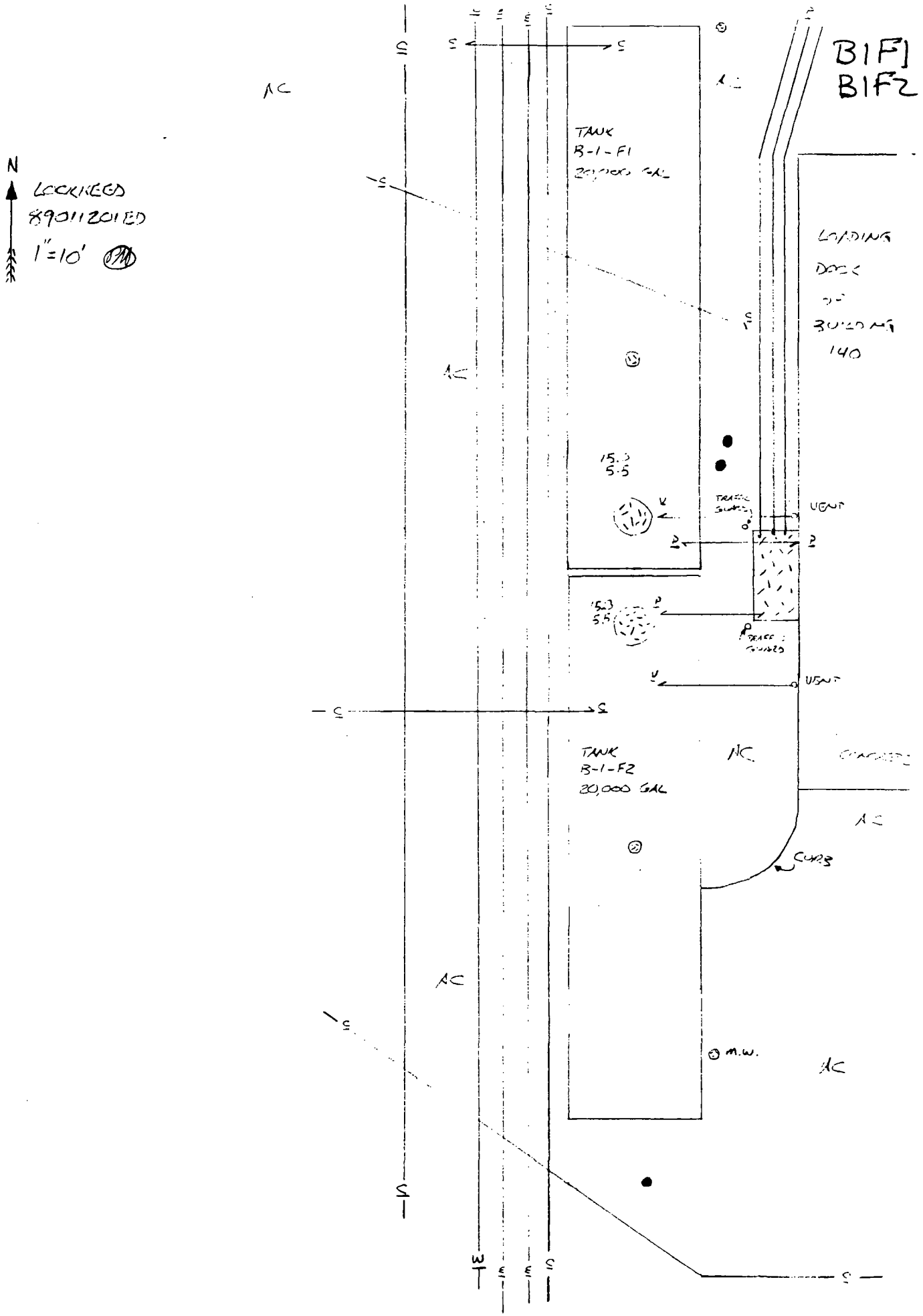
B-1C



B-1C

SCALE 1" = 5'

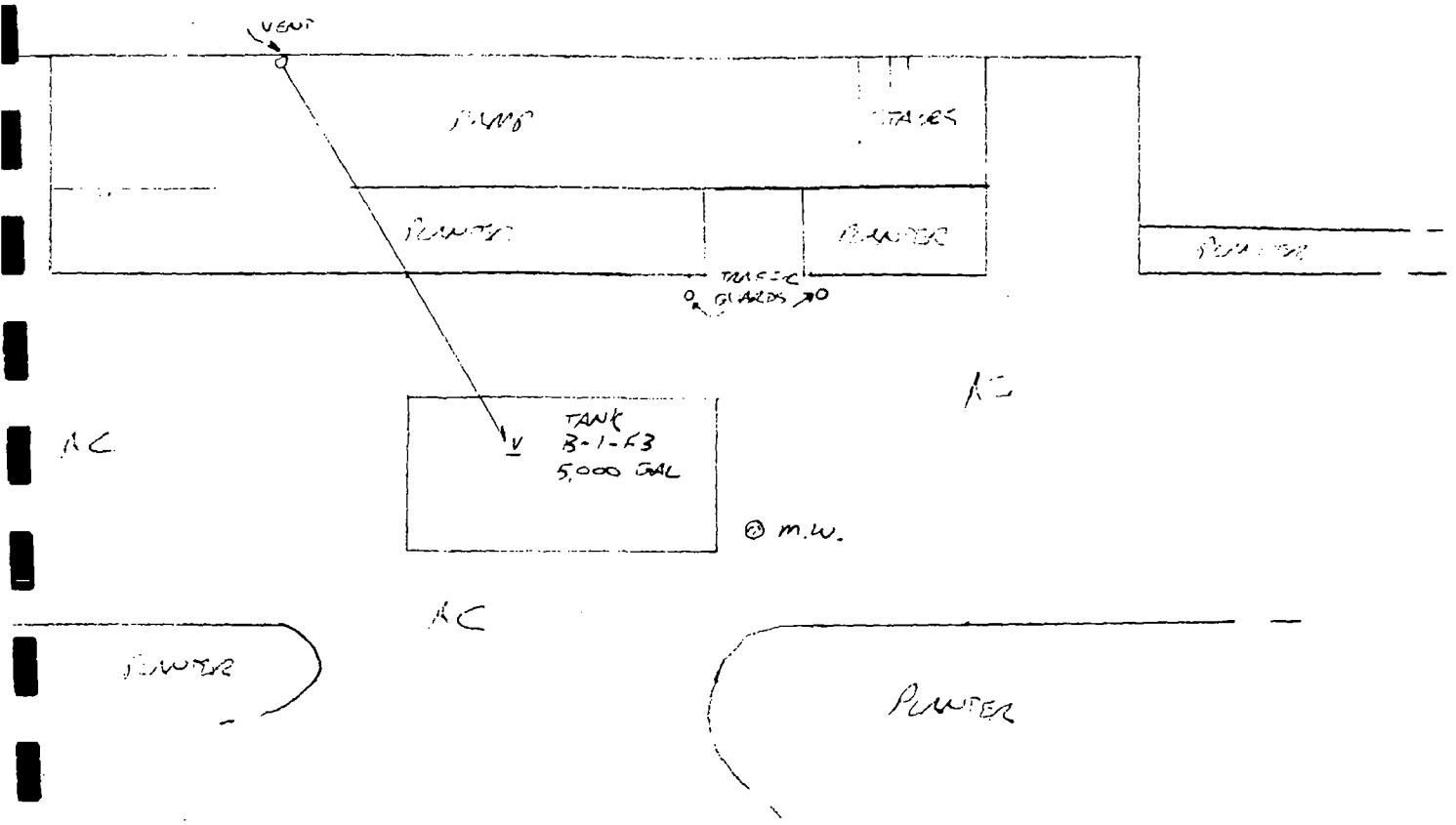

EXTENT OF CANOPY
BUILDING 153
VENTS
VENT
AC
AC
M.W.
TANK B-1-I 1,500 GAL
9.2
4.3
TANKS ARE ORIENTED 180° FROM PREVIOUS MAP
TANK B-1-H 1,000 GAL
8.1
4.7
GREGG DRILLING INDICATES BOTH TANKS ARE 2,000 GAL EACH
M.W.
M.W.
TANK B-1-AE 6,000 GAL
12.5
TANK NOT ACCESSIBLE LOCATED USING GPR
GREGG DRILLING INDICATES TANK IS 5,000 GAL
M.W.
N
LOCKHEED
89011201ED
1"=10'
AC
AC
FENCE
B1 FH
B1 AE



B1F1
B1F2
N
LOCKHEED
89011201ED
1"=10'
AC
TANK
B-1-F1
20,000 GAL
LOADING
DOCK
OF
BUILDING
140
15.3
5.5
VENT
TRAFFIC GUARD
TANK
B-1-F2
20,000 GAL
CURB
M.W.

B1F3

BUILDING 170

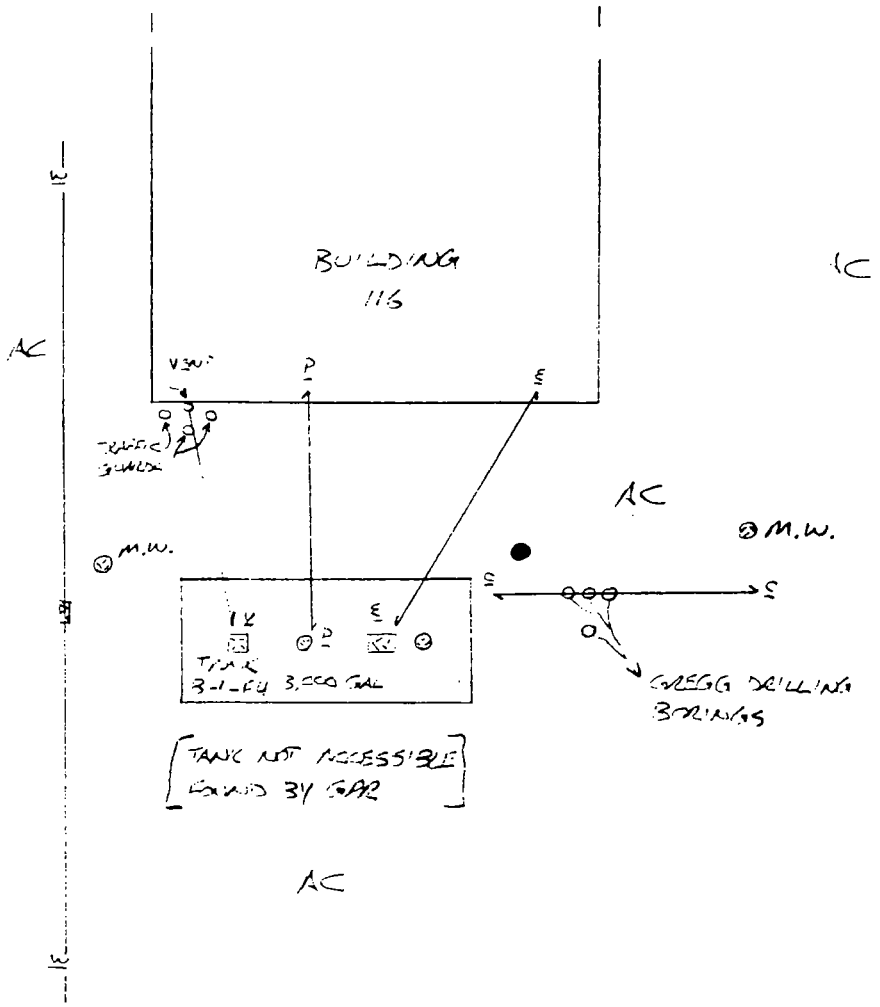


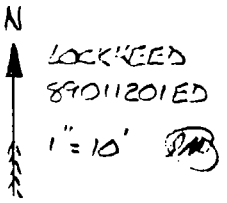
N

LOCKHEED
6901120ED
1" = 10'

[CRYPTIC TANK
NOT ACCESSIBLE
FOUND USING GPR]

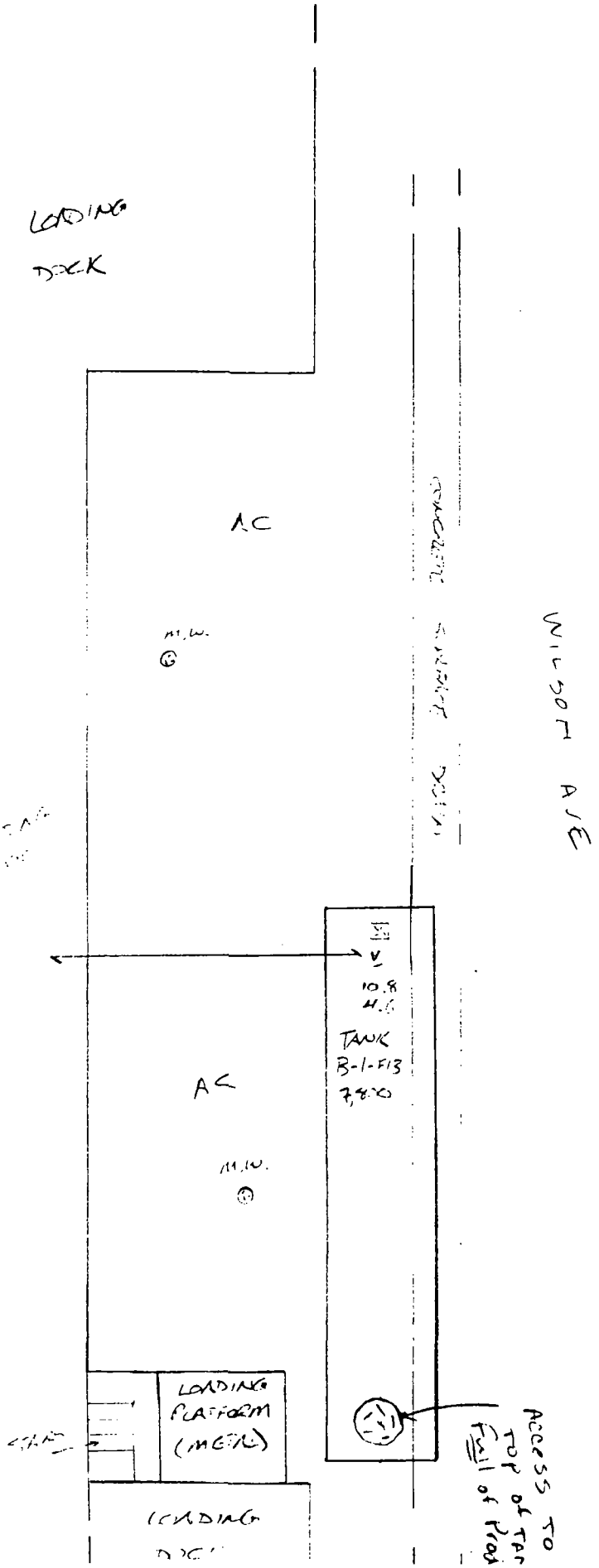
B1F4


BUILDING
116
AC
AC
AC
AC
M.W.
M.W.
TANK
3-1-E4 3,000 GAL
TANK NOT ACCESSIBLE
FOUND BY CAR
GREGG DRILLING
BORINGS


N
LOCKHEED
890112O1ED
1" = 10'

B1F13

TANK REMOVAL



N

LOCKHEED
89011102ED
1"=10'

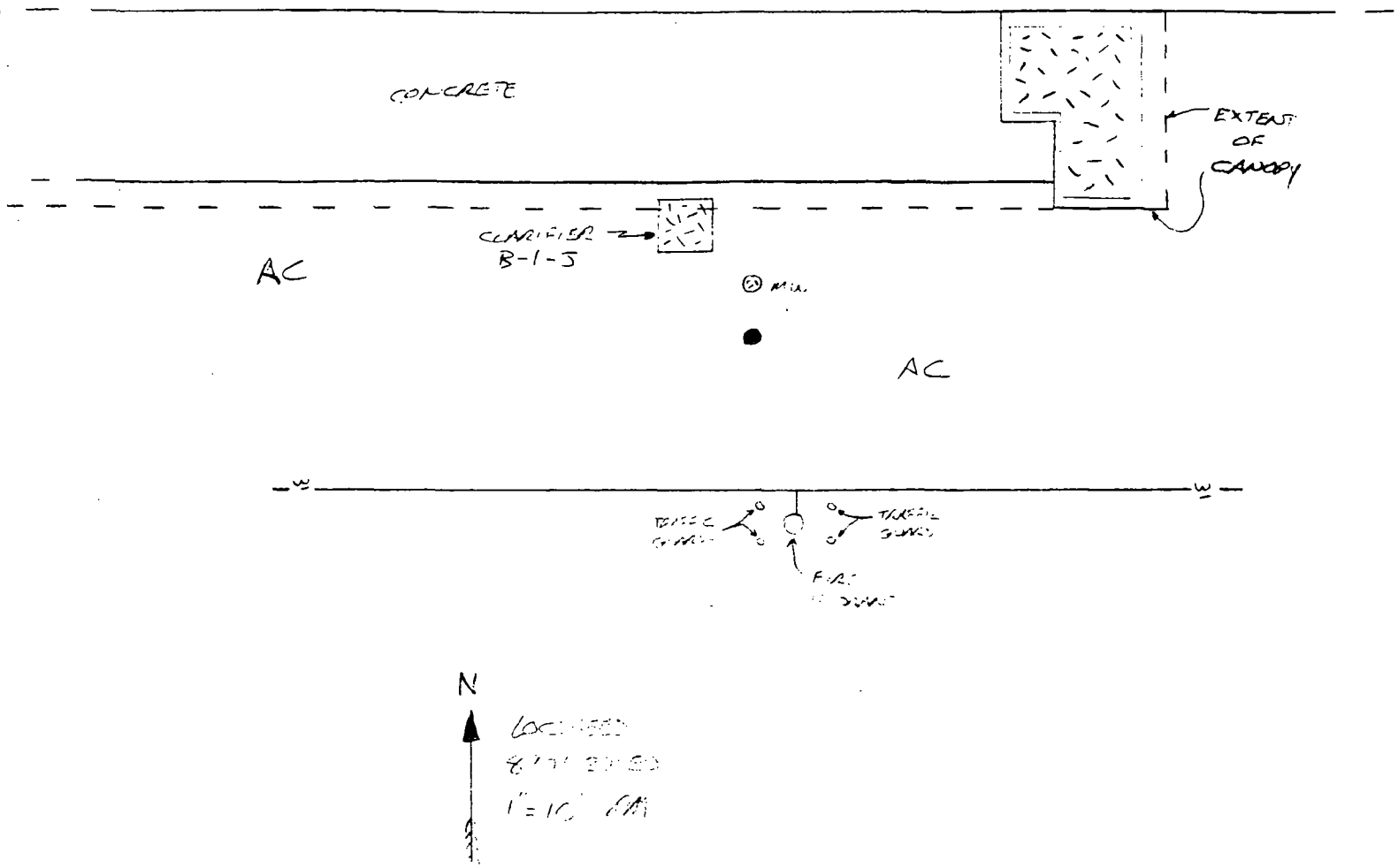
AC- Asphaltic concrete

Previous records indicate a 7,600 gal tank

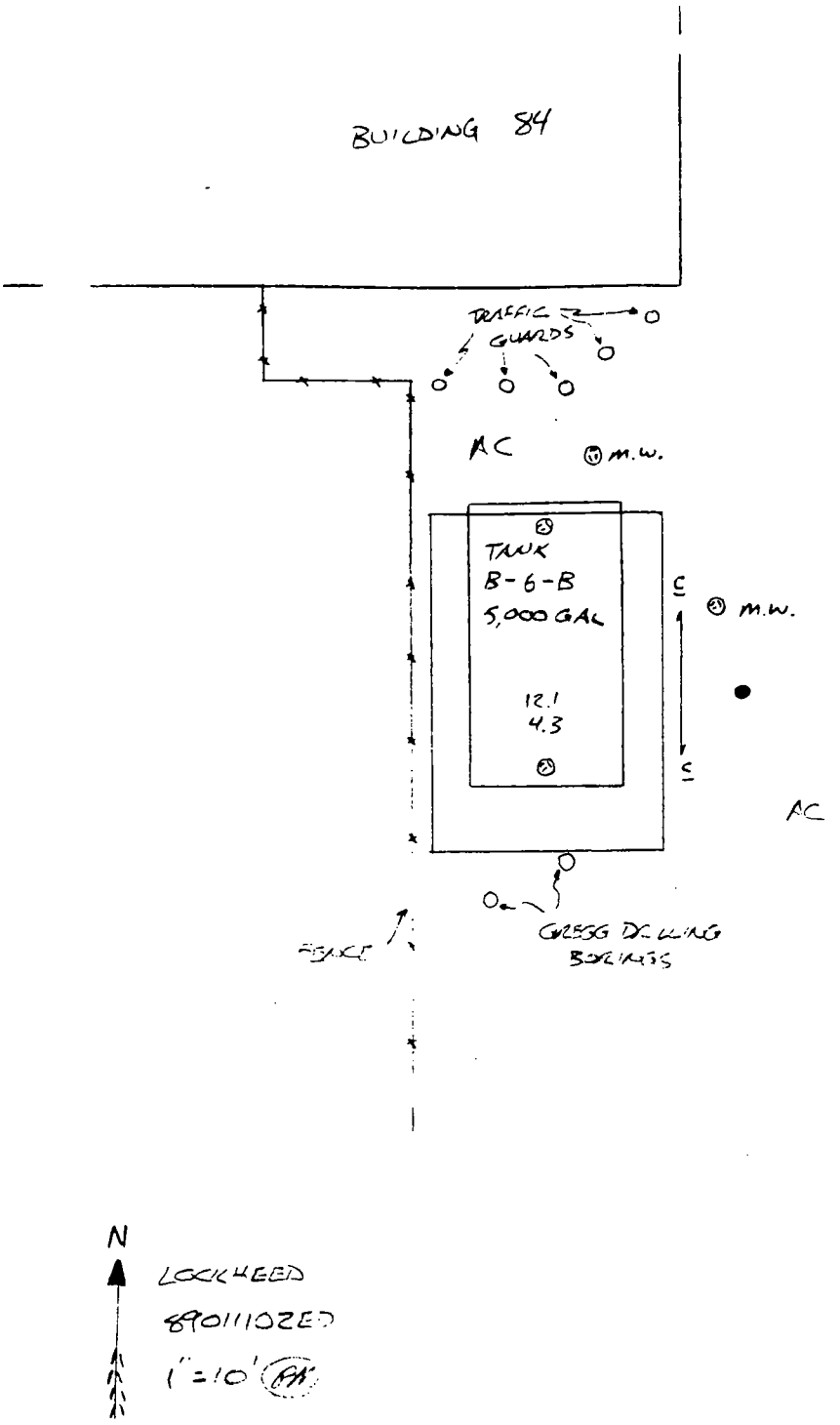
M.W. monitoring well

B 1 J

BUILDING 149

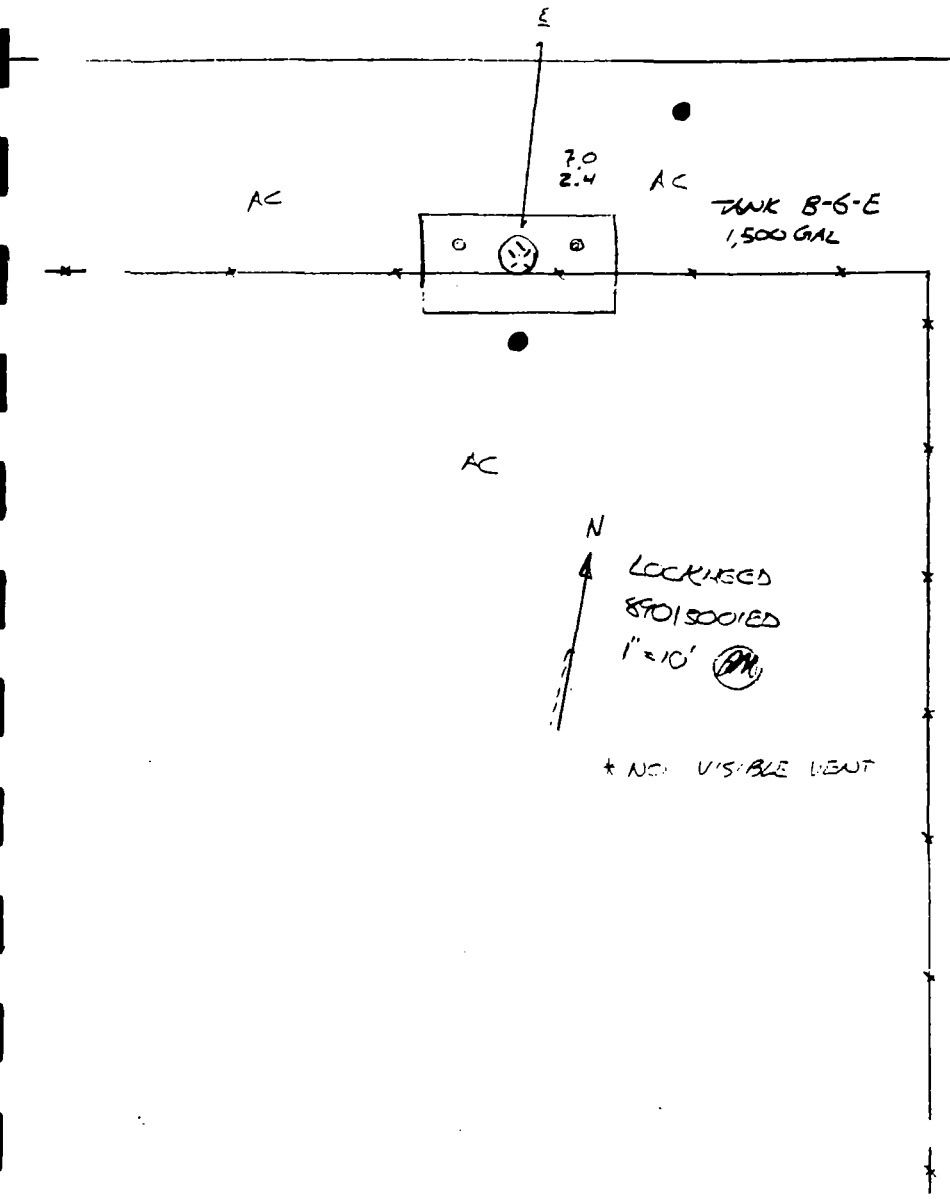


B6B

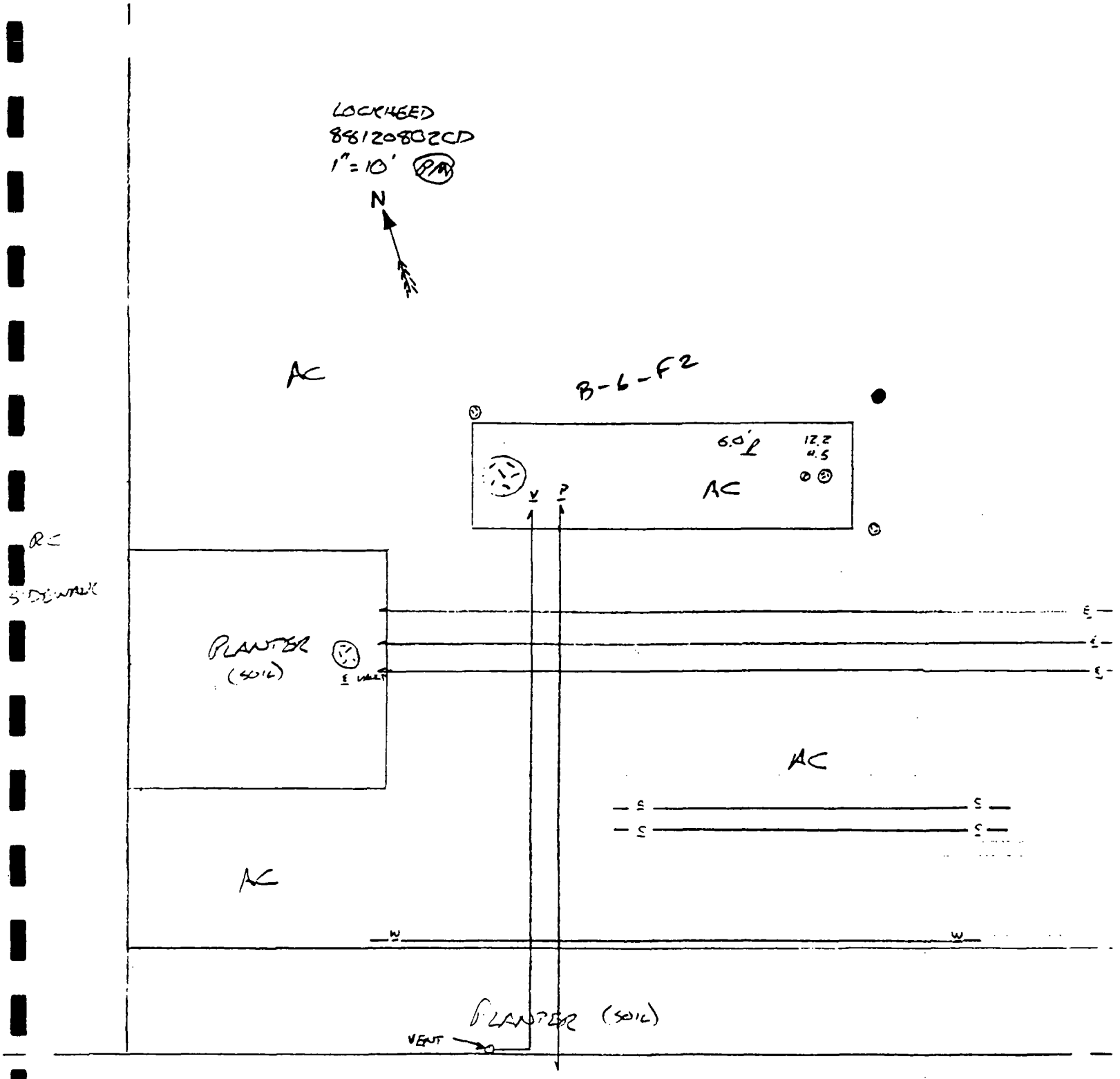

BUILDING 84
TRAFFIC GUARDS
AC
M.W.
TANK
B-6-B
5,000 GAL
12.1
4.3
M.W.
AC
FENCE
GREGG DRILLING BORINGS
N
LOCKHEED
89011102ED
1"=10'

B6E

BUILDING 349



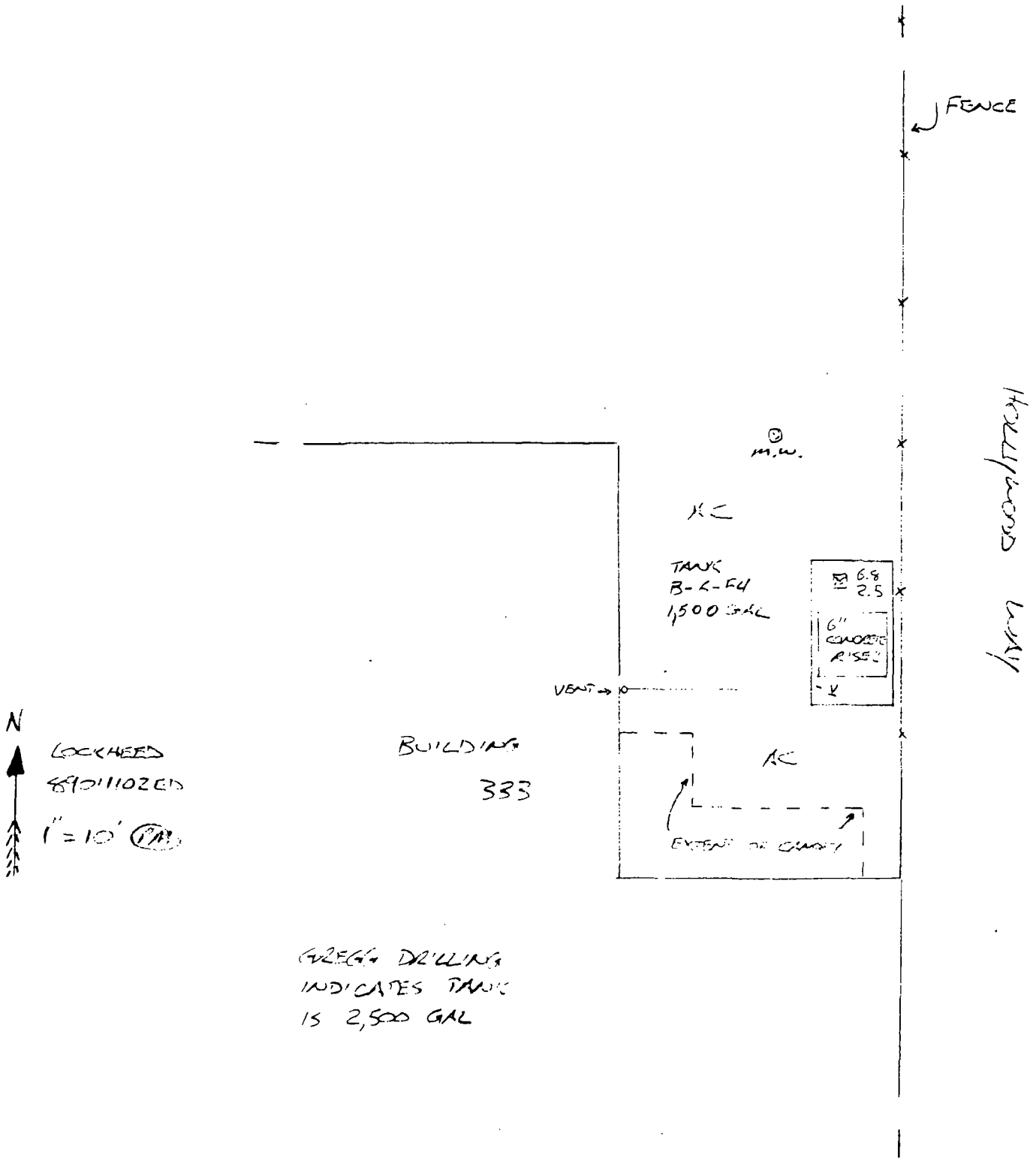
B6F2



BUILDING 360

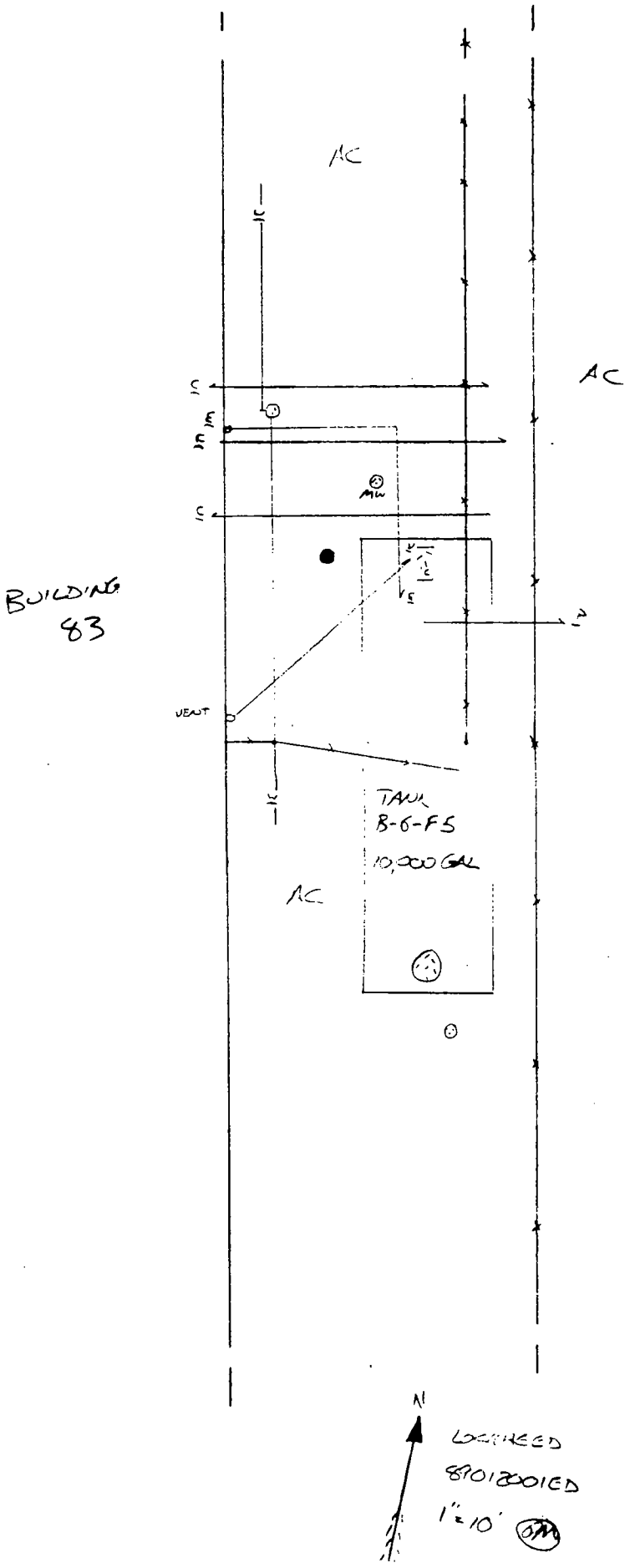
7575 SAN FERNANDO ROAD

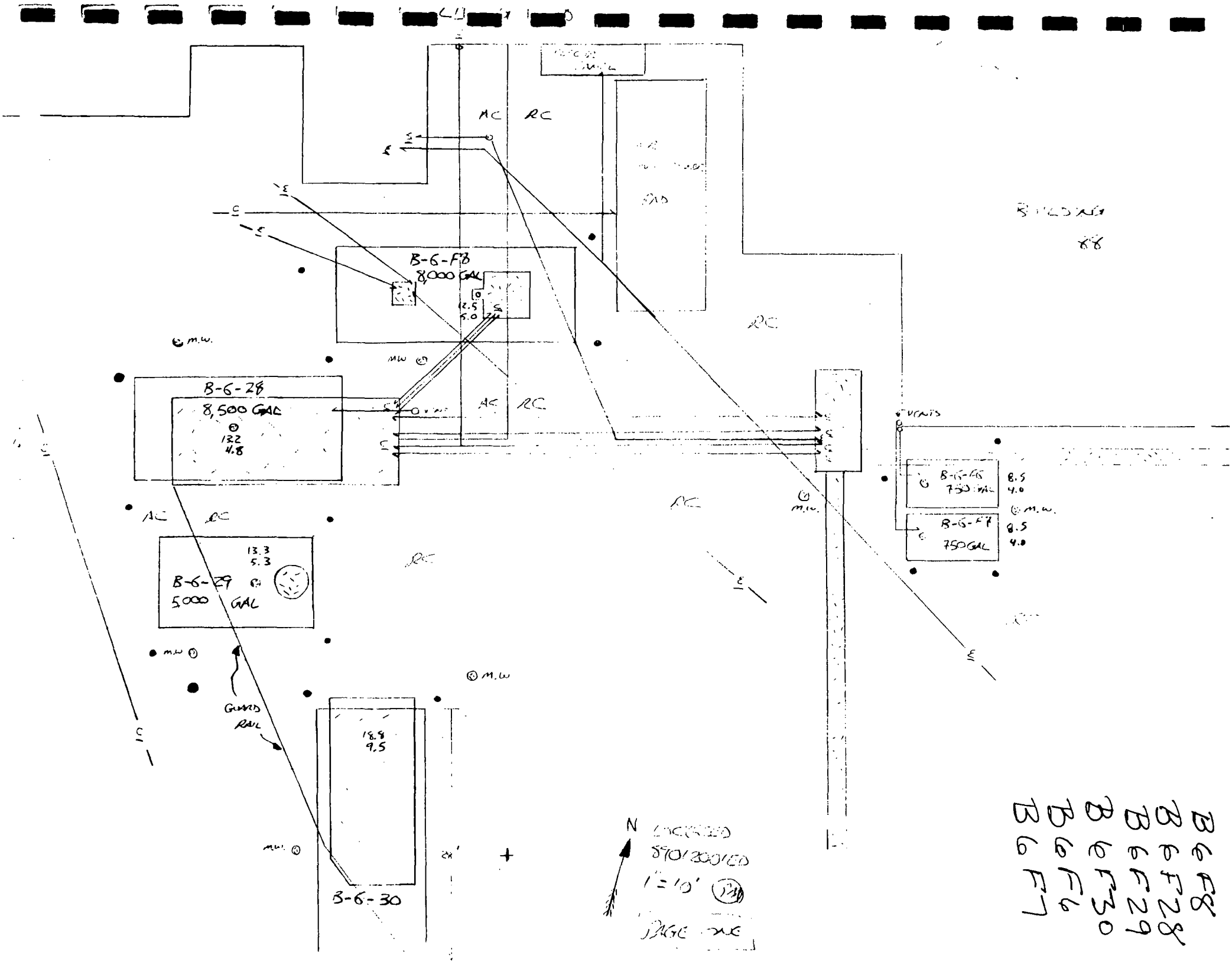
~~B6F4~~
B6F4



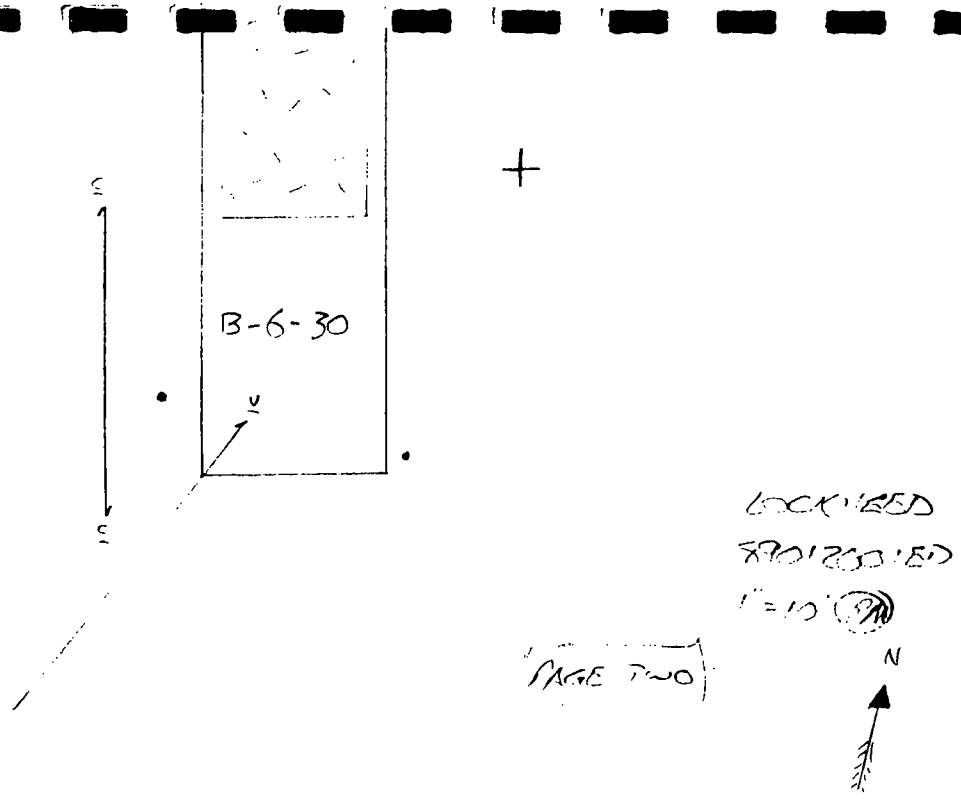
GREGG DRILLING
INDICATES TANK
IS 2,500 GAL

B6F35


AC
AC
AC
BUILDING
83
VENT
TANK
B-6-F5
10,000 GAL
N
LOCKHEED
8901280016D
1" = 10'

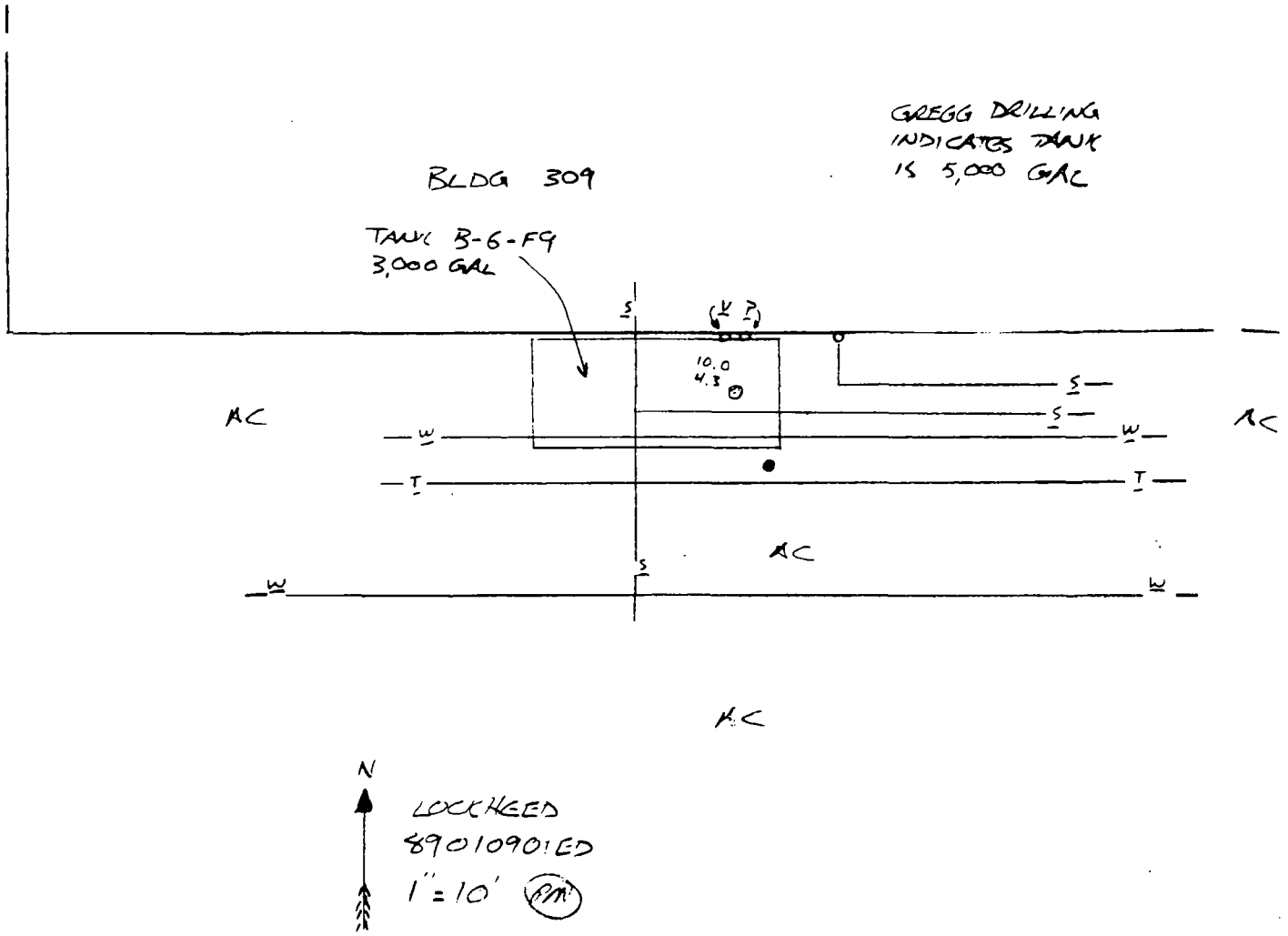


AC
RC
B-6-F8
8,000 GAL
12.5
5.0
B-6-28
8,500 GAL
13.2
4.8
B-6-29
5,000 GAL
13.3
5.3
B-6-30
18.8
9.5
B-6-F6
750 GAL
8.5
4.0
B-6-F7
750 GAL
8.5
4.0
M.W.
GUARD RAIL
VENTS
N
1" = 10'
B6F8
B6F28
B6F29
B6F30
B6F6
B6F7



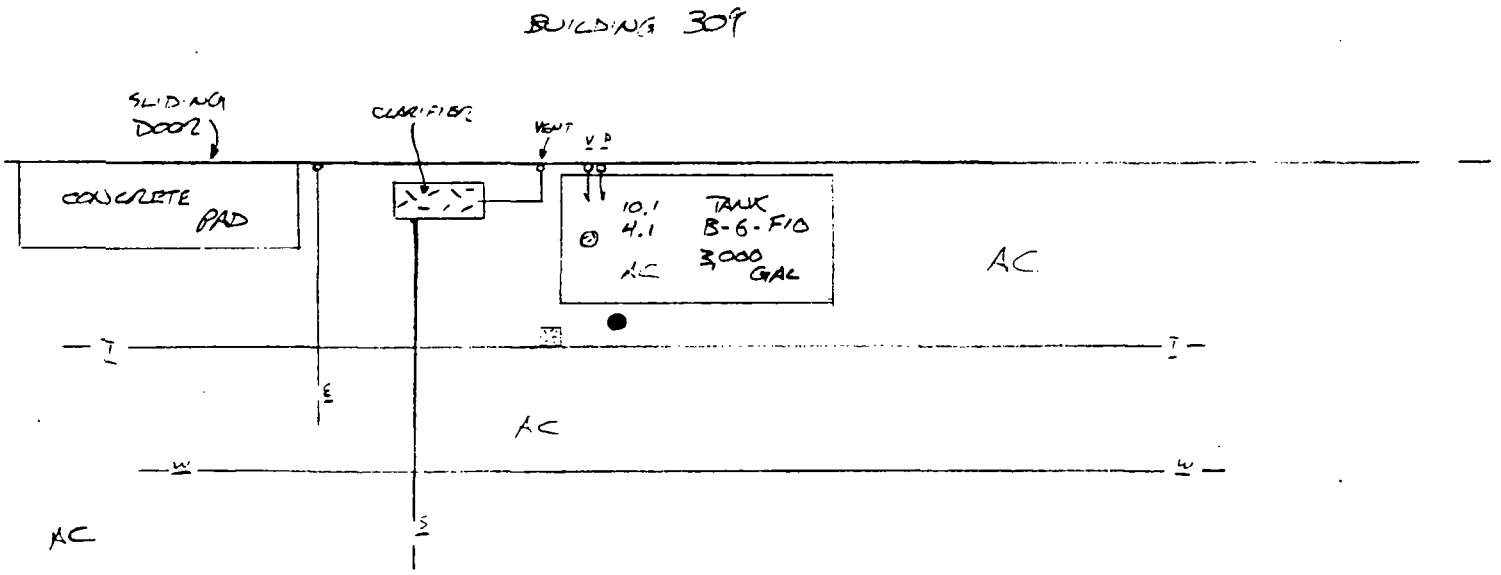
B6 F30

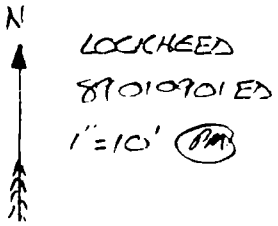
B6F9


GREGG DRILLING
INDICATES TANK
IS 5,000 GAL
BLDG 309
TANK B-6-F9
3,000 GAL
S
V
P
10.0
4.3
S
S
W
W
T
T
AC
AC
AC
S
W
W
AC
N
LOCKHEED
89010901ED
1" = 10'

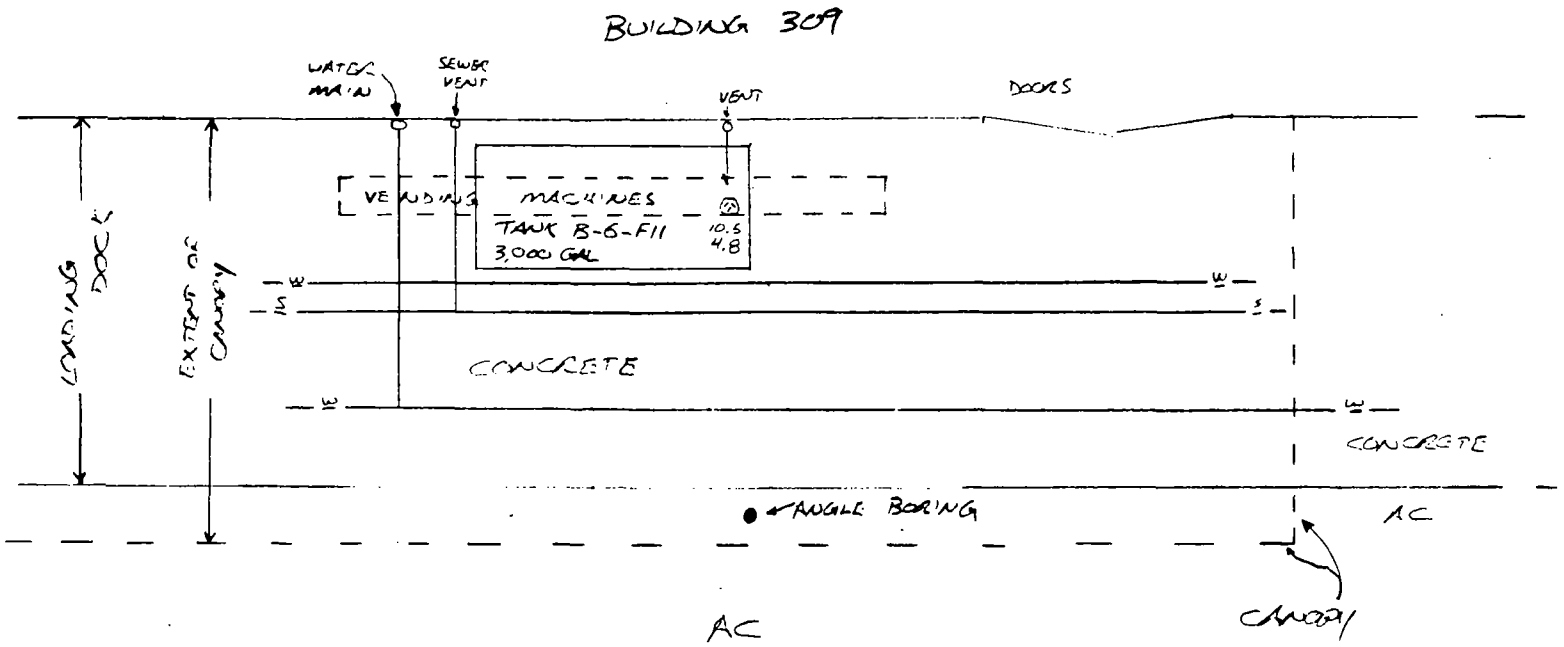
B6F10

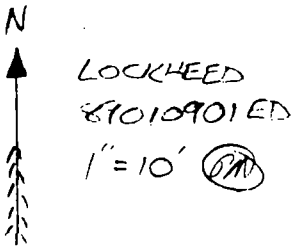
GREGG DRILLING
INDICATES TANK
IS 2,500 GAL





B6 F11


BUILDING 309
WATER MAIN
SEWER VENT
VENT
DOORS
VENDING
MACHINES
TANK B-6-F11
3,000 GAL
10.5
4.8
LOADING DOCK
EXTENT OF CANOPY
CONCRETE
CONCRETE
ANGLE BORING
AC
AC
CANOPY

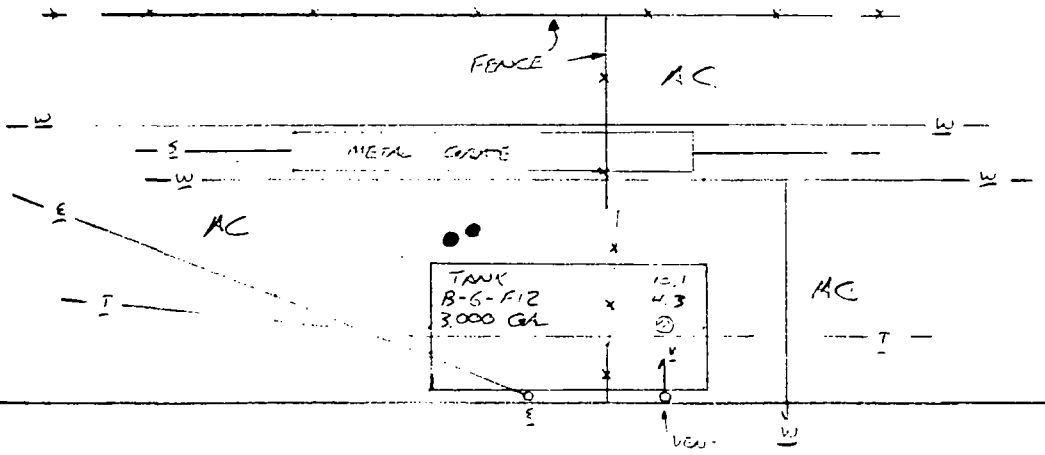

N
LOCKHEED
8101090 1 ED
1" = 10'

B6F12

N

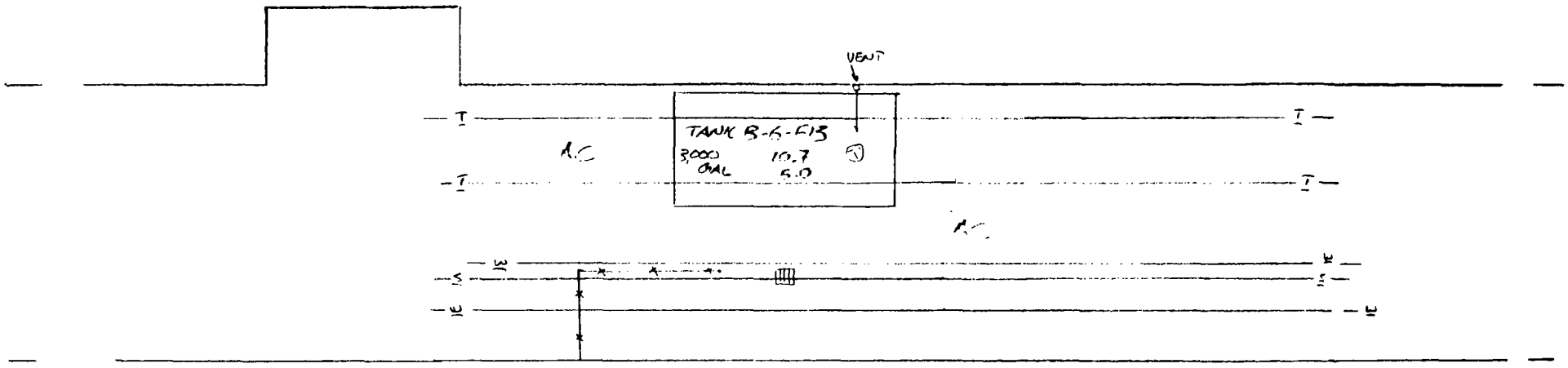
LOCKHEED
890112010ED
1" = 10'

GREGG DRILLING
INDICATES TANK
IS 2,500 GAL

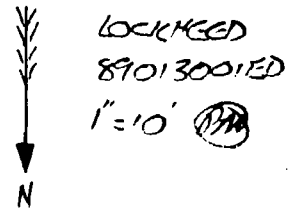


BUILDING 309

BUILDING 307

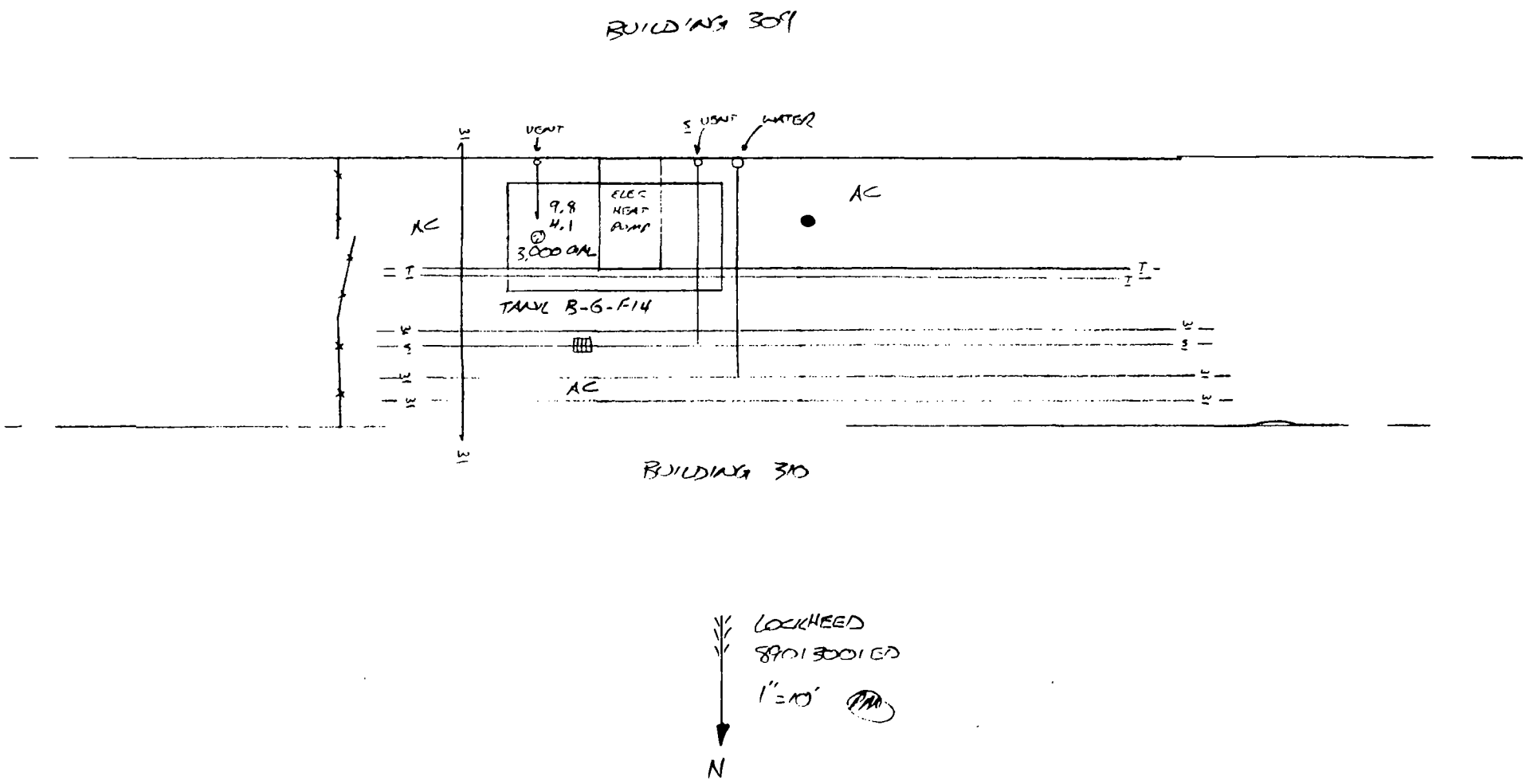


BUILDING 310



LOCKHEED
89013001ED
1" = 10'

B6 F13

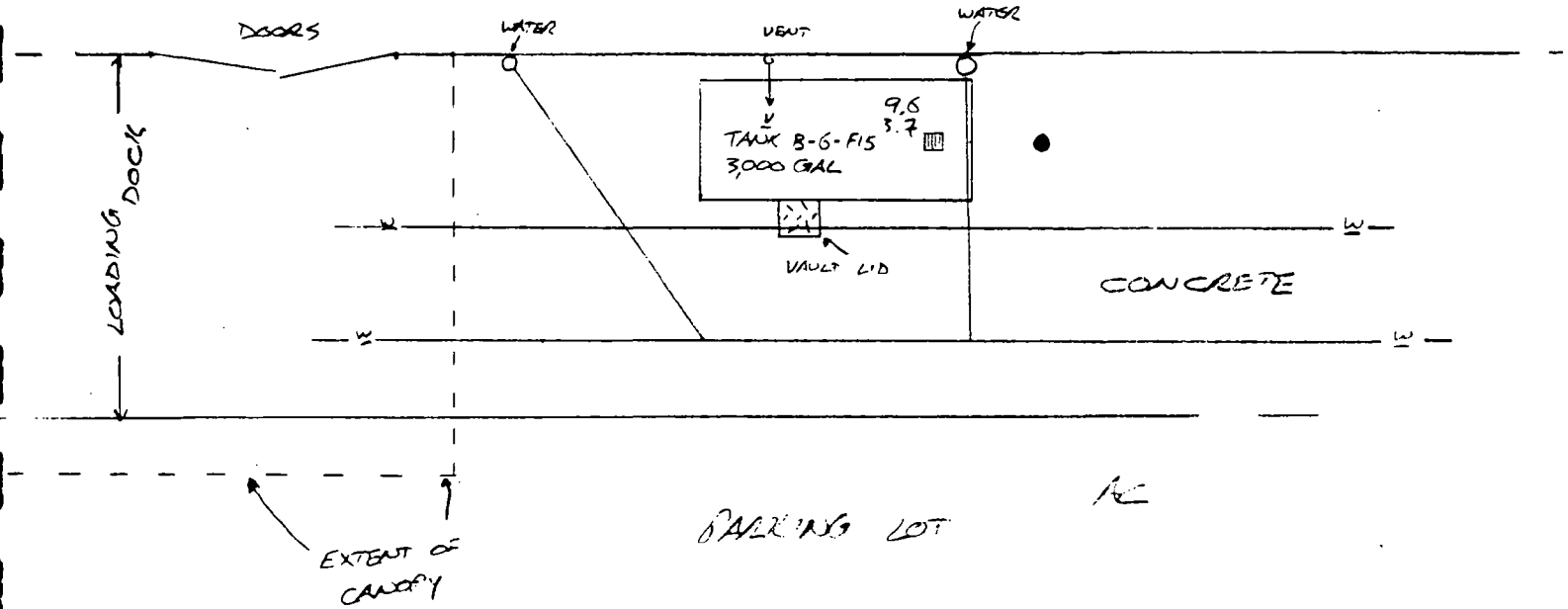

BUILDING 309
VENT
VENT
WATER
AC
AC
AC
9.8
4.1
3,000 GAL
ELEC
HEAT
PUMP
TANK B-6-F14
BUILDING 310
LOCKHEED
89013001ED
1"=10'
N

B6F14

B6F15

GREGG DRILLING
INDICATES TANK
IS 2,500 GAL

BLDG 309



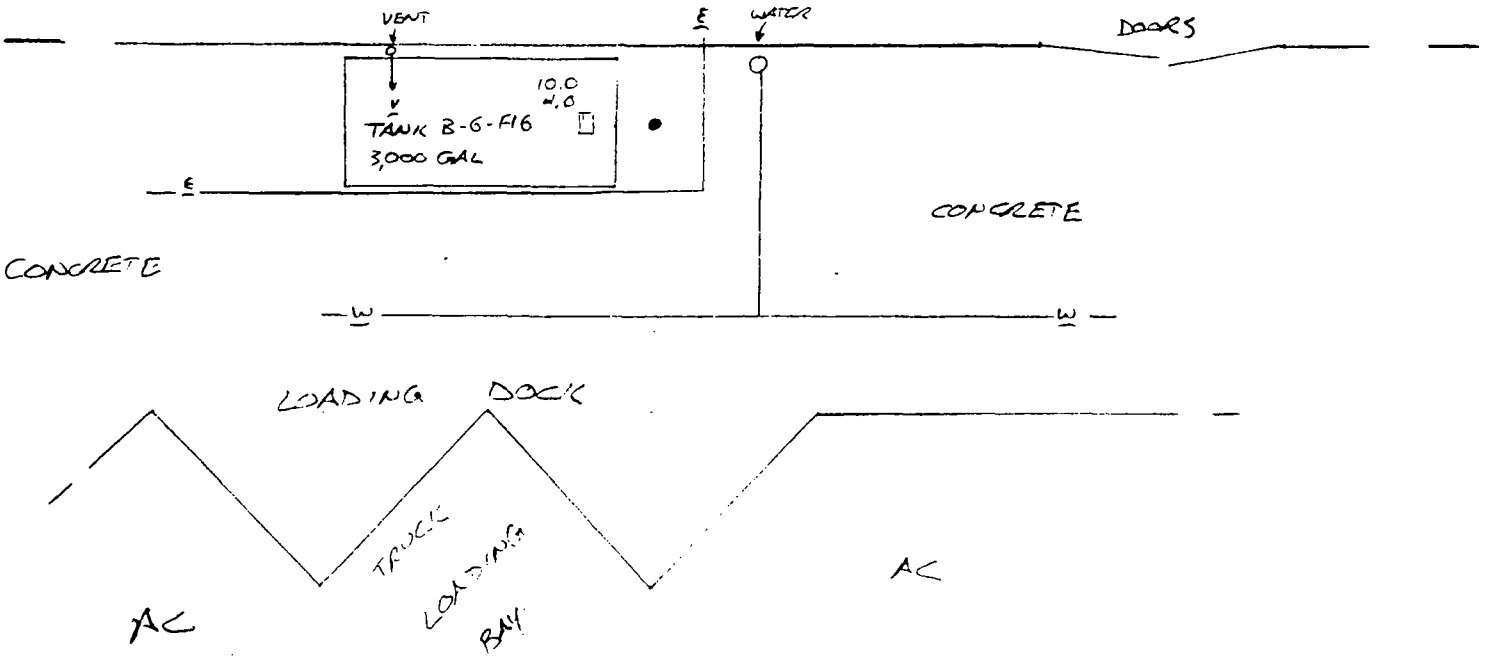
N

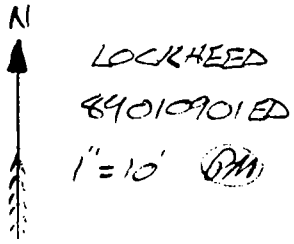
LOCKHEED
8901090-ED
1" = 10'

B6F16

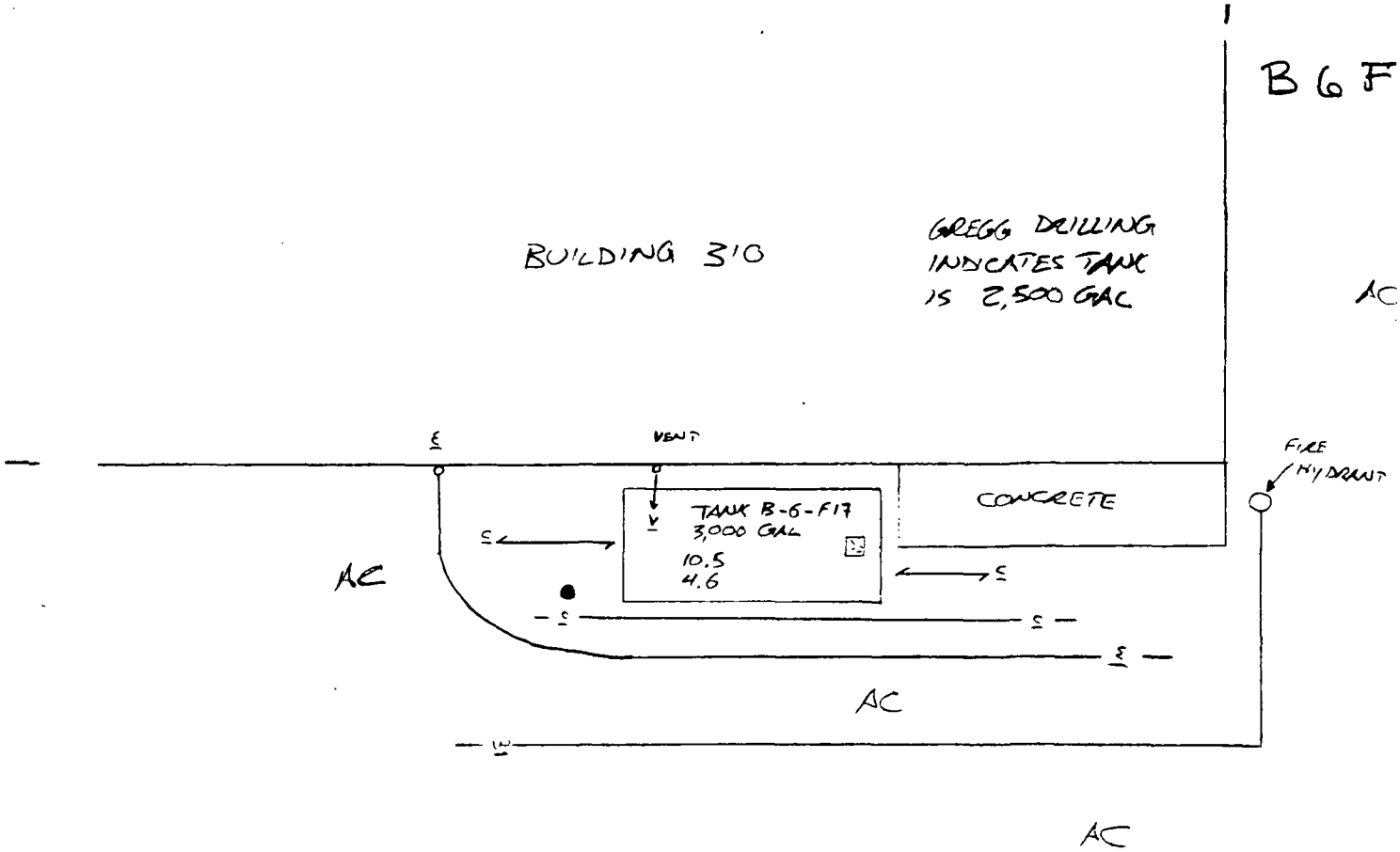
GREGG DRILLING
INDICATES TANK IS
2,500 GAL

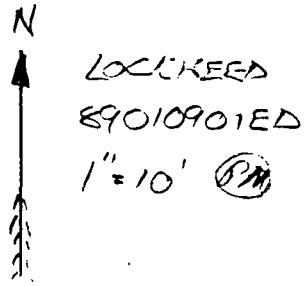
BUILDING 510



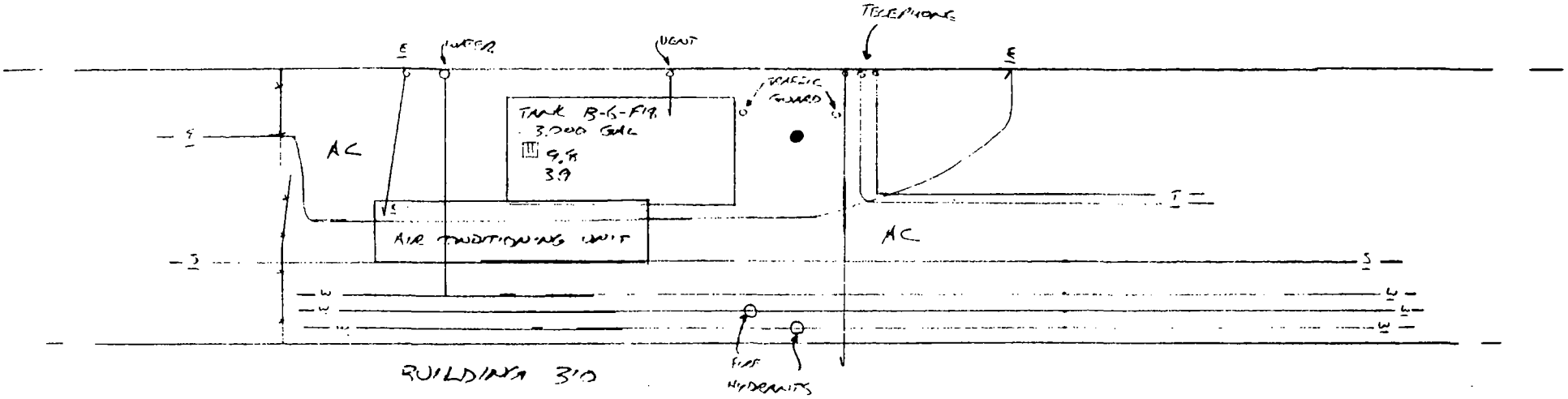


B 6 F17

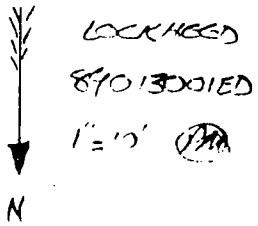

BUILDING 310
GREGG DRILLING INDICATES TANK IS 2,500 GAL
AC
VENT
FIRE HYDRANT
CONCRETE
TANK B-6-F17
3,000 GAL
10.5
4.6
AC
AC
AC


N
LOCKEED
89010901ED
1" = 10'

BUILDING 309



BUILDING 310



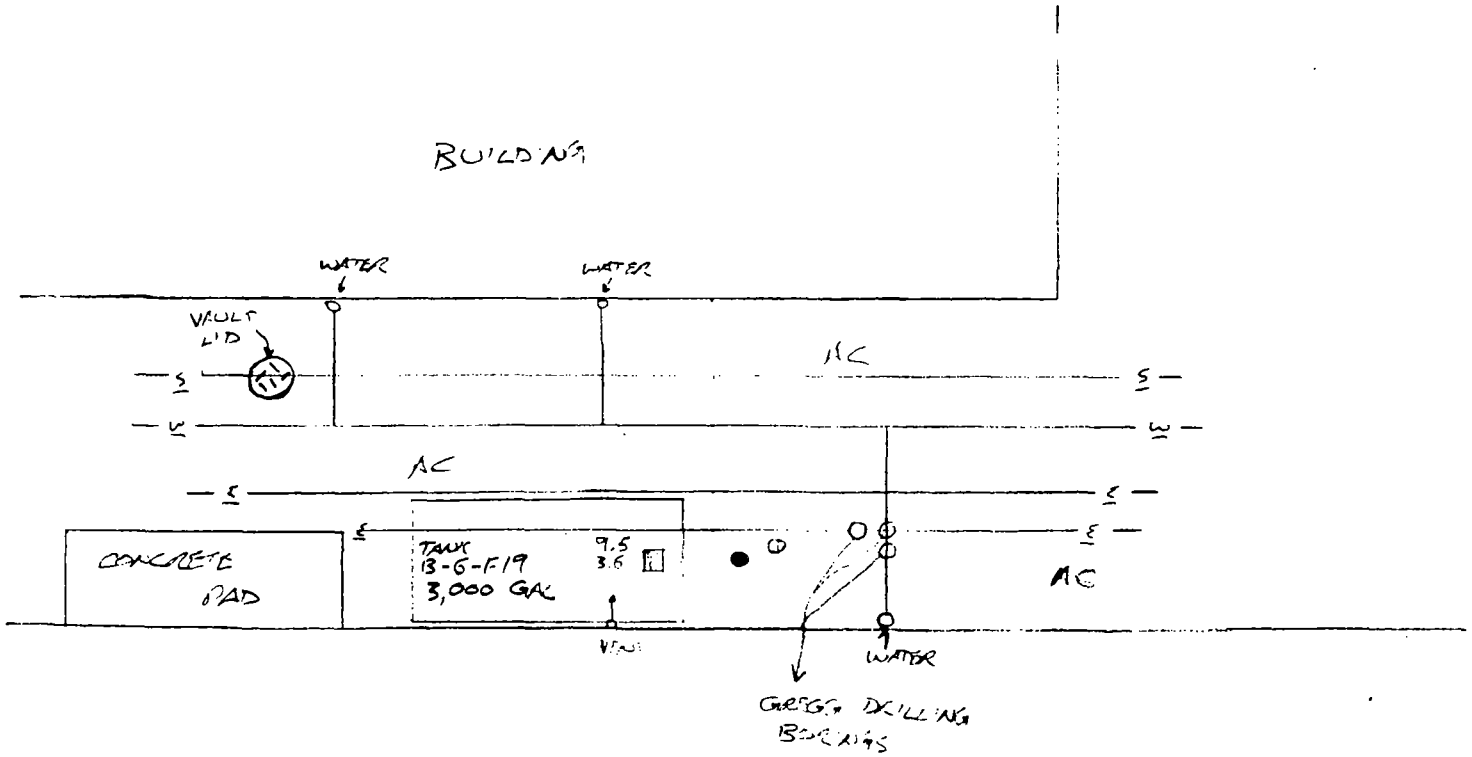
B6F18

B 6 F19

N

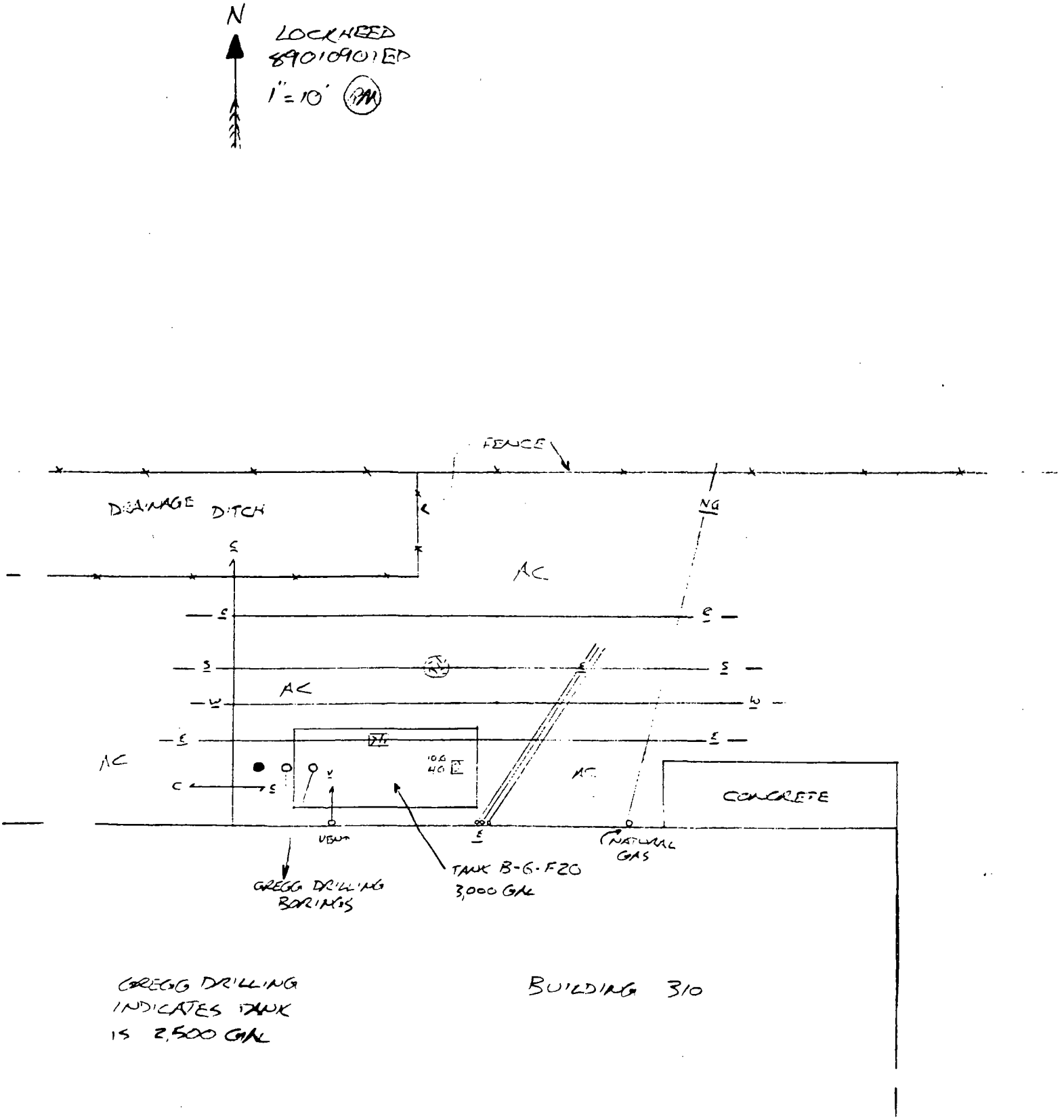
LOCKHEED
89011001ED
1"=10' PM

GREGG DRILLING
INDICATES TANK
IS 2,500 GAL

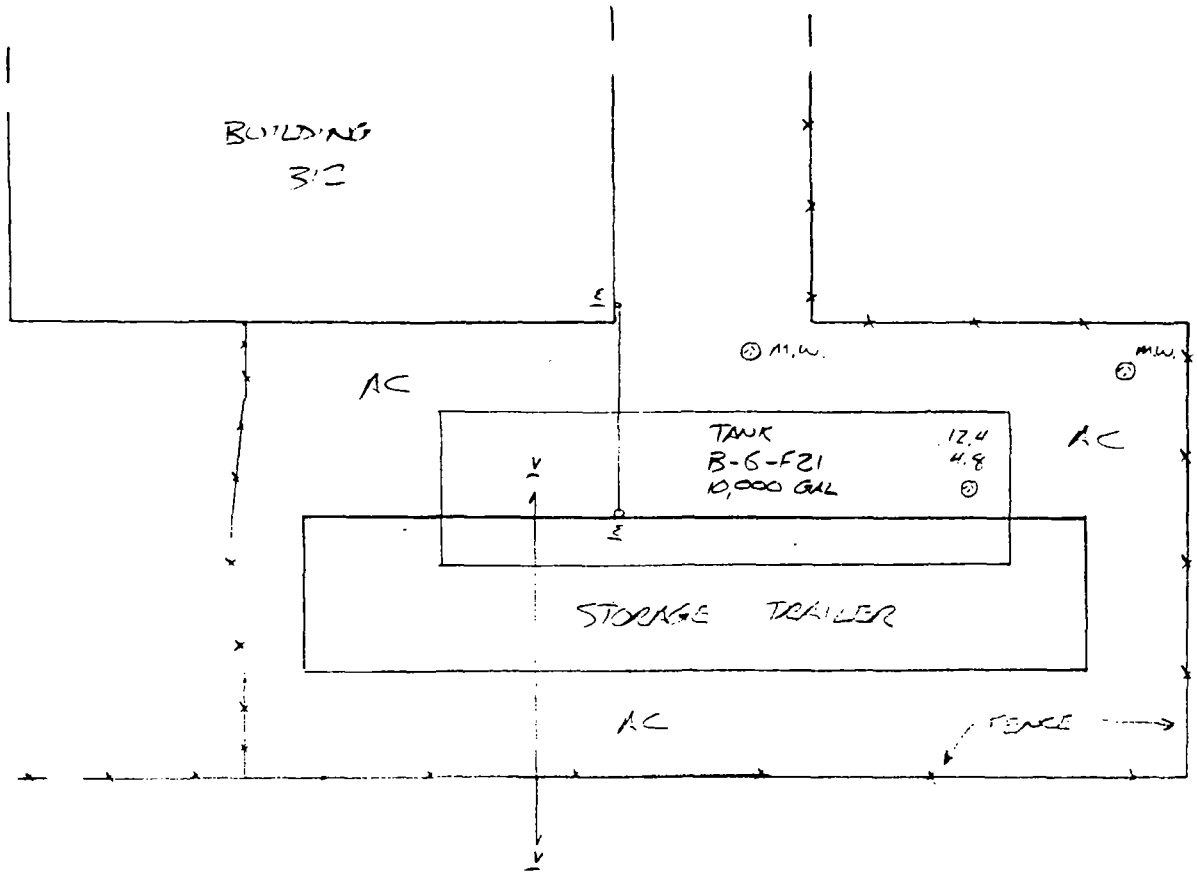


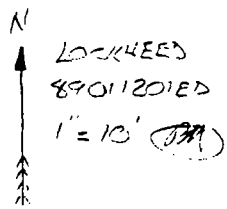
BUILDING 310

B6F20

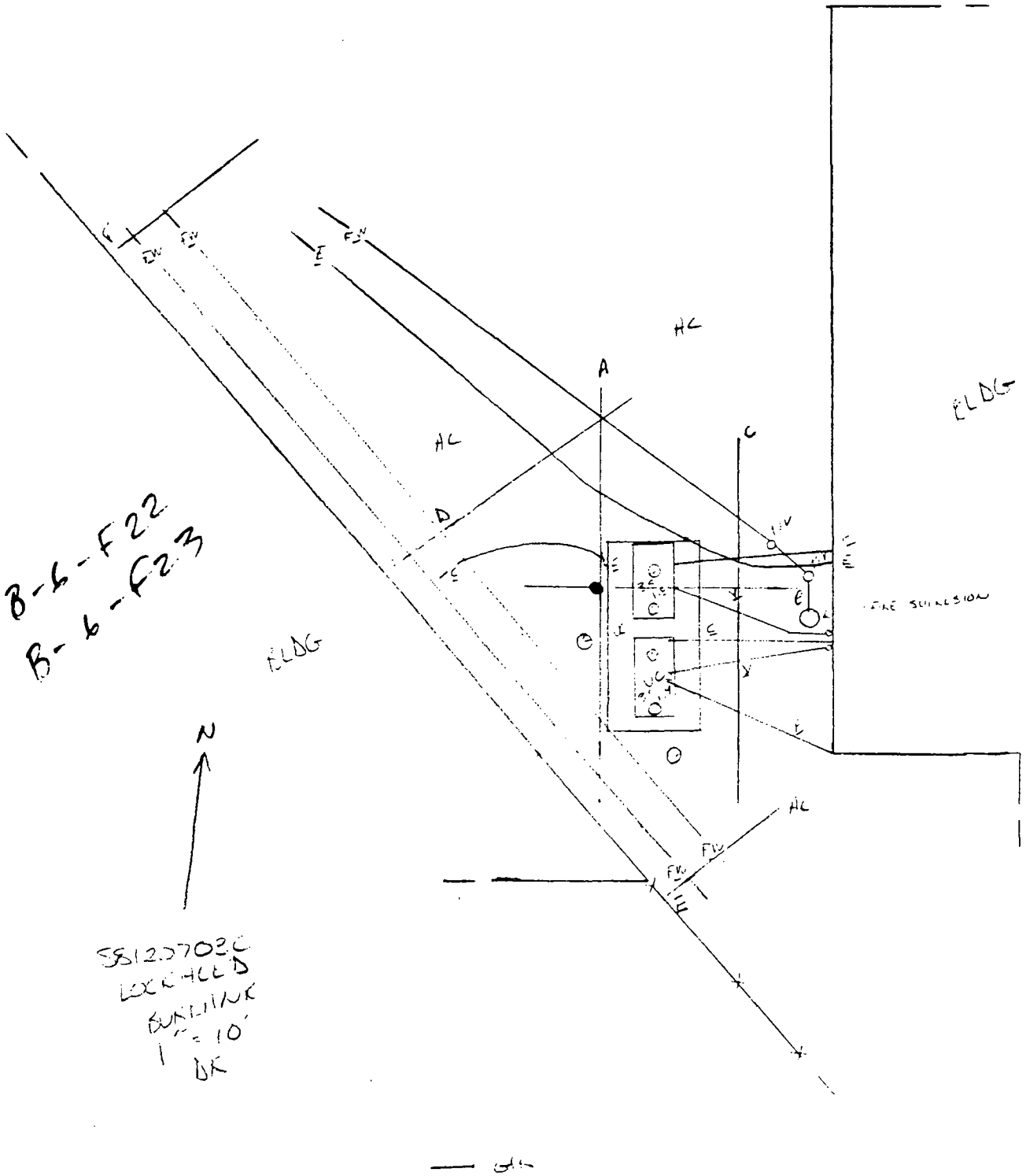

N
LOCKHEED
890109011ED
1" = 10'
FENCE
DRAINAGE DITCH
NG
AC
AC
AC
AC
CONCRETE
VENT
NATURAL GAS
GREGG DRILLING BORINGS
TANK B-6-F20
3,000 GAL
GREGG DRILLING INDICATES TANK IS 2,500 GAL
BUILDING 310

B6F21


BUILDING
3:2
AC
M.W.
M.W.
TANK
B-6-F21
10,000 GAL
12.4
4.8
AC
STORAGE TRAILER
AC
FENCE


N
LOCKHEED
890112D1ED
1" = 10'

B6F22
B6F23

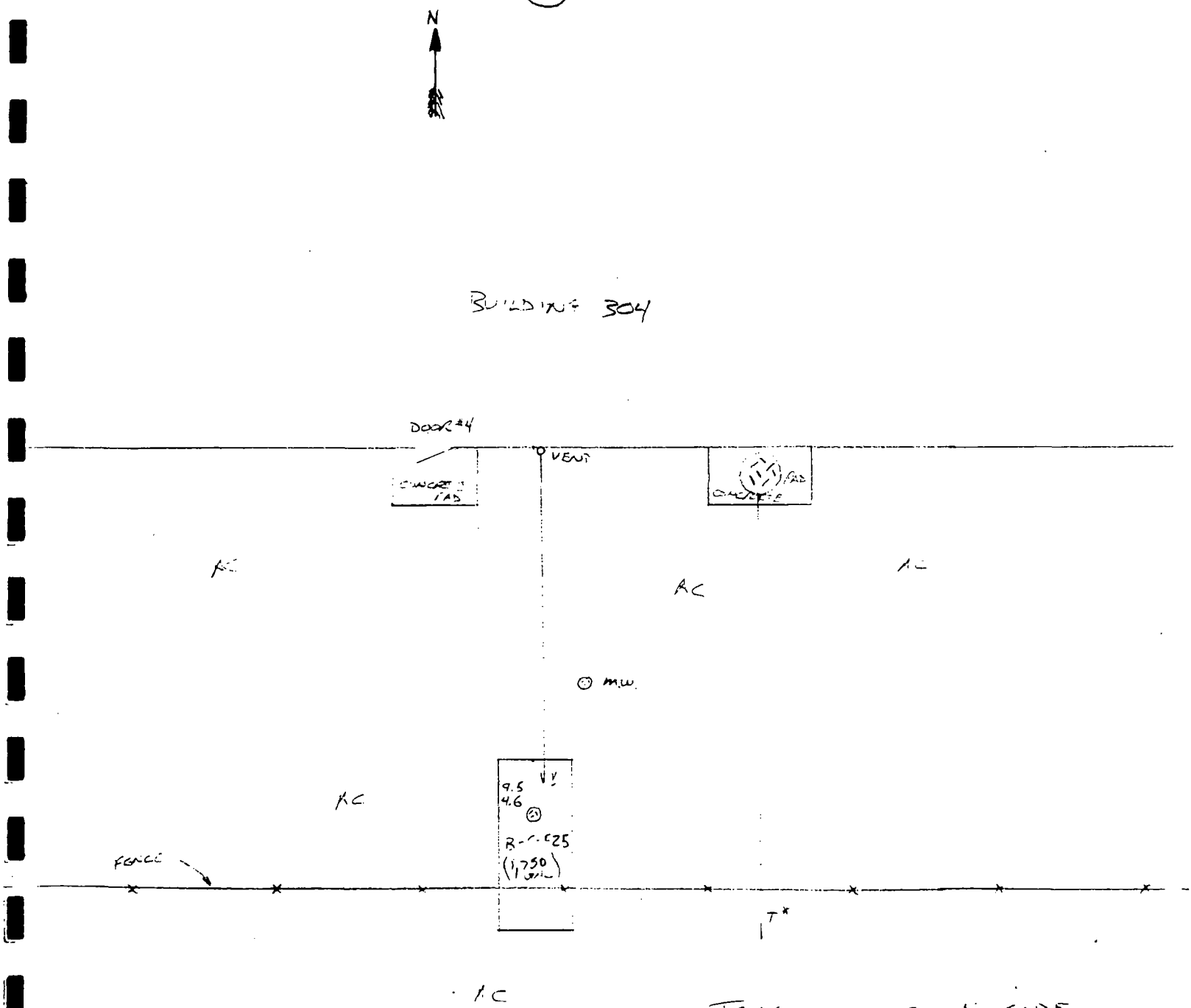


B-6-F22
B-6-F23

SS120703C
LOCKHEED
BURBANK
1" = 10'
DK

B 6F25

LOCKHEED
89010901ED
1"=10' (PM)



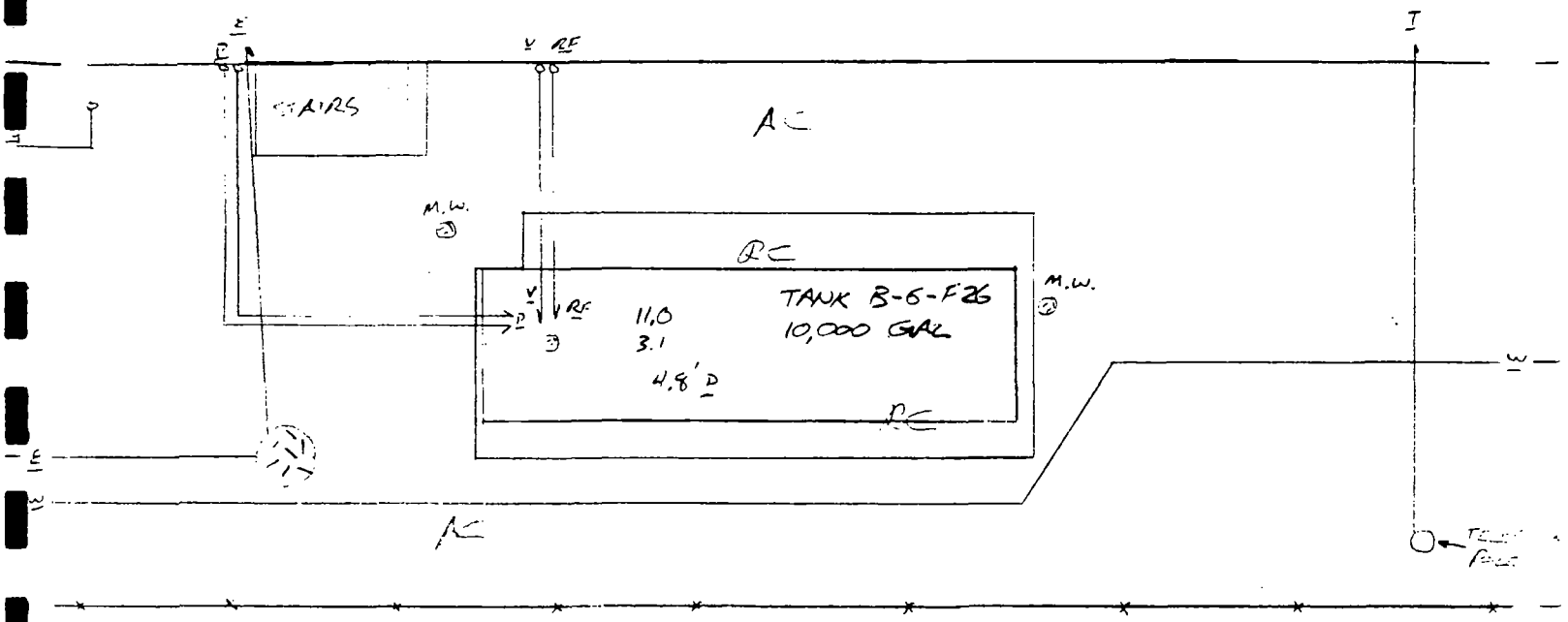
TANK ON SOUTH SIDE
of BUILDING 304.

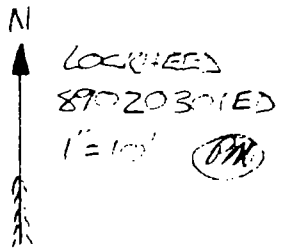
BURBANK
AIRPORT
PARKING LOT

* LOCATED BY USA/OC [illegible]

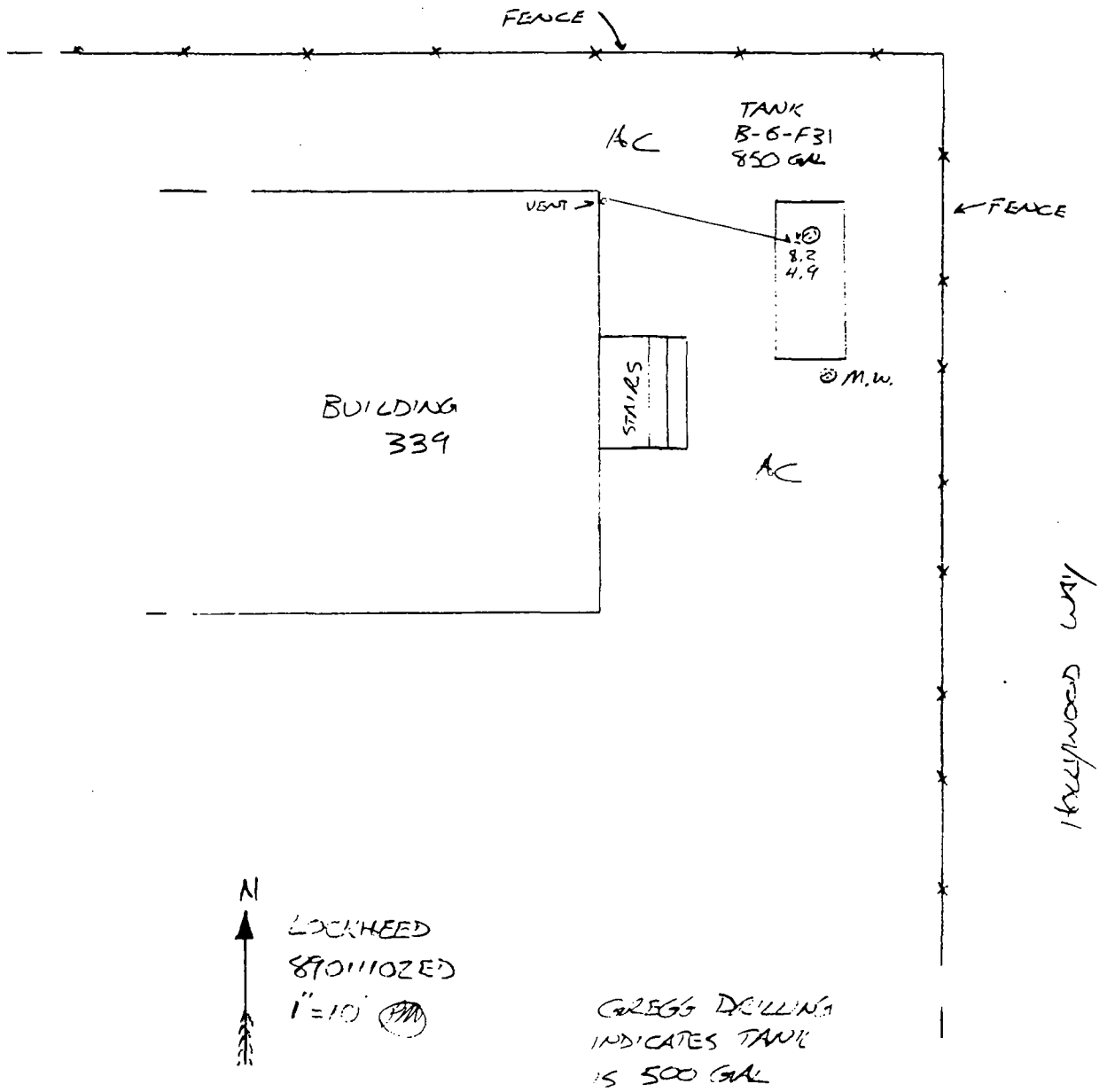
B6F26

BUILDING 322

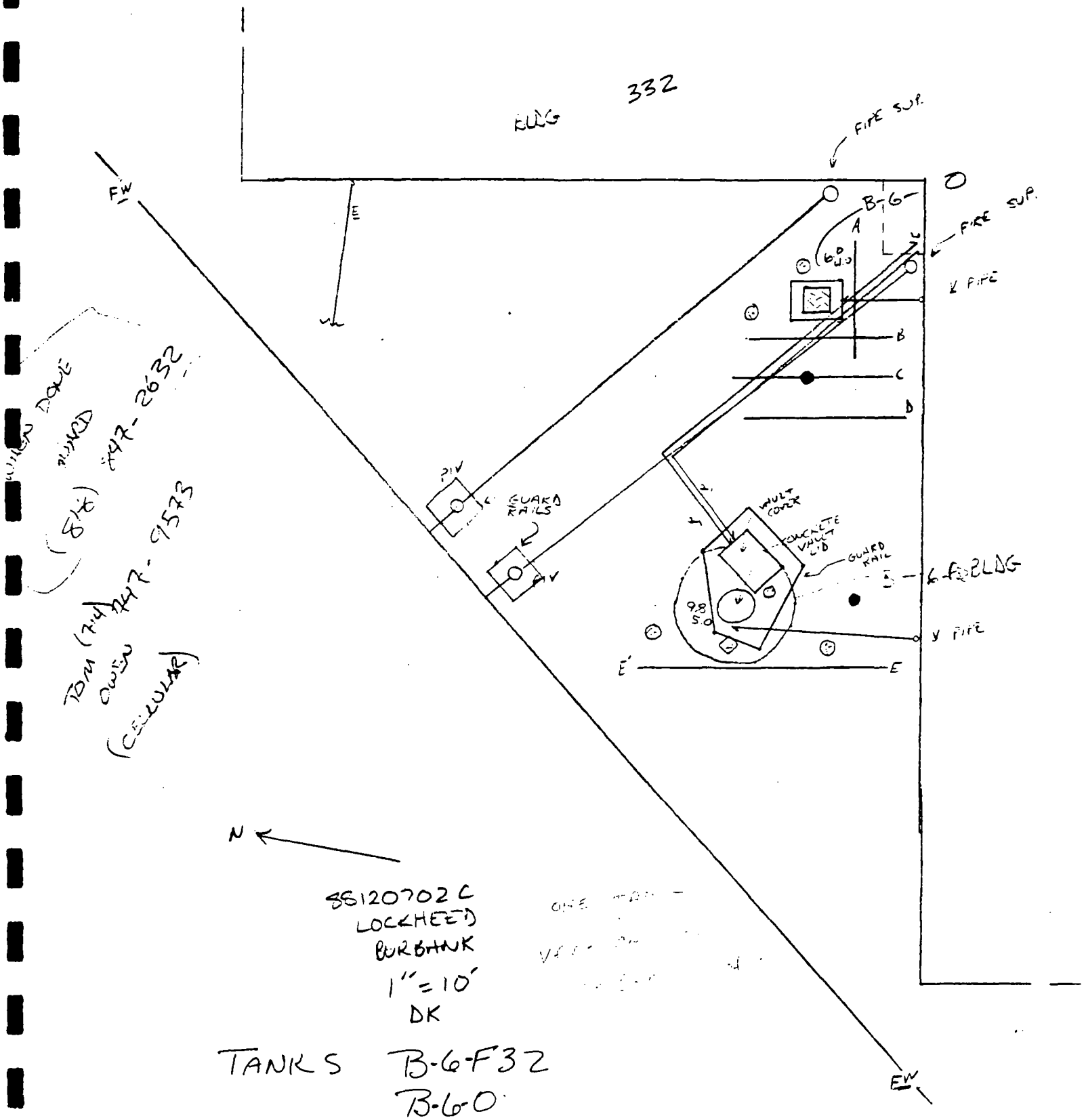




B6 F31


FENCE
TANK
B-6-F31
850 GAL
AC
VENT
FENCE
8.2
4.9
M.W.
STAIRS
BUILDING
339
AC
HOLLYWOOD WAY
N
LOCKHEED
89011102ED
1"=10'
GREGG DRILLING
INDICATES TANK
IS 500 GAL

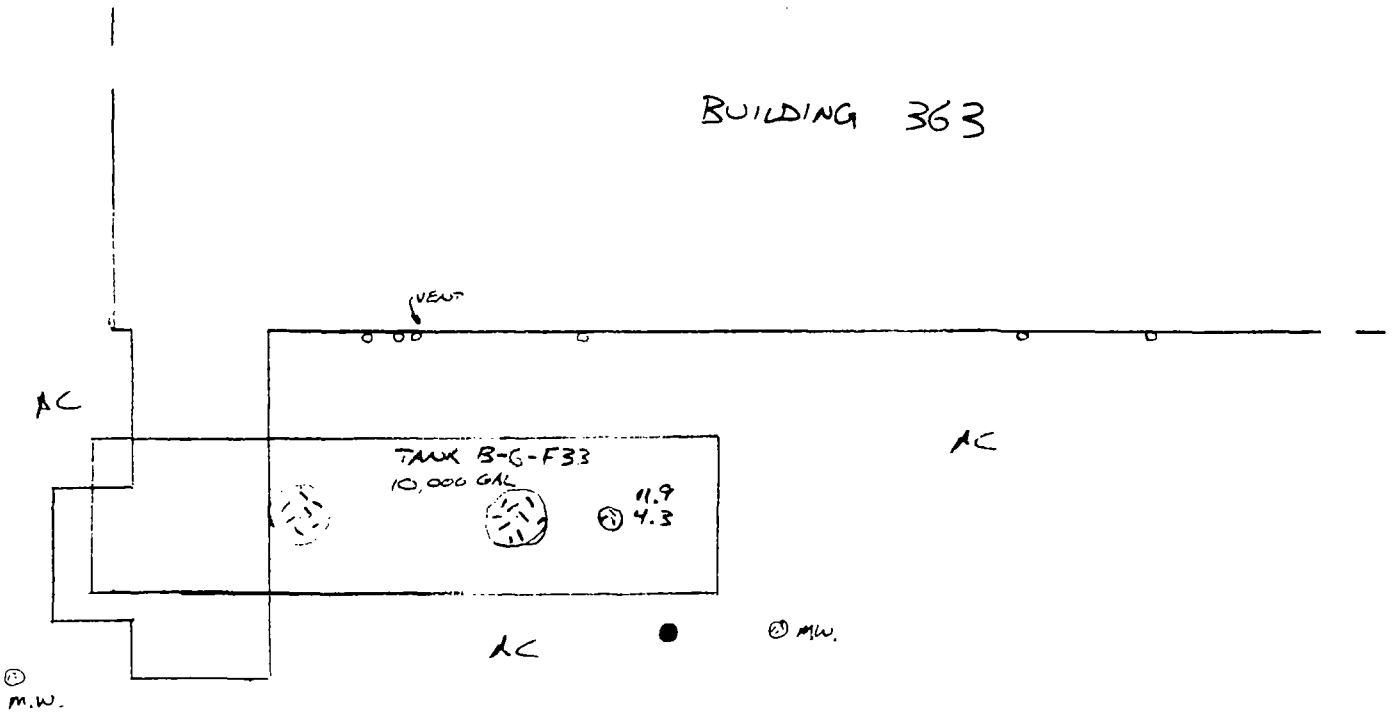
B 6 O
B 6 F32

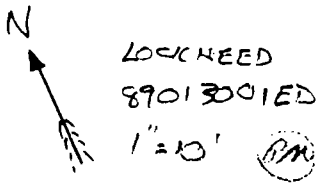


SS120702C
LOCKHEED
BURBANK
1" = 10'
DK

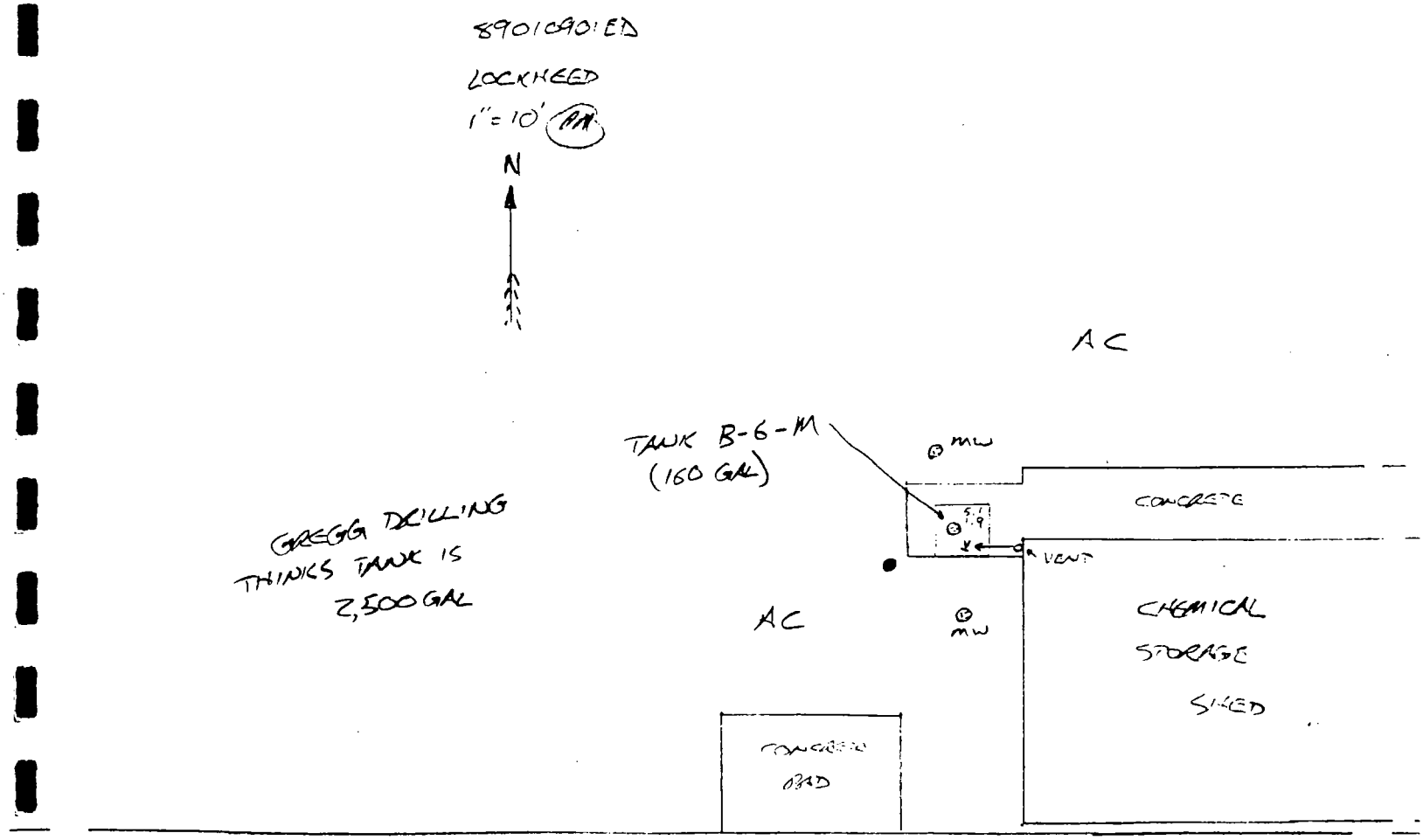
TANKS B-6-F32
B-6-O

B6 F33


BUILDING 363
VENT
AC
AC
TANK B-6-F33
10,000 GAL
11.9
4.3
AC
MW.
M.W.

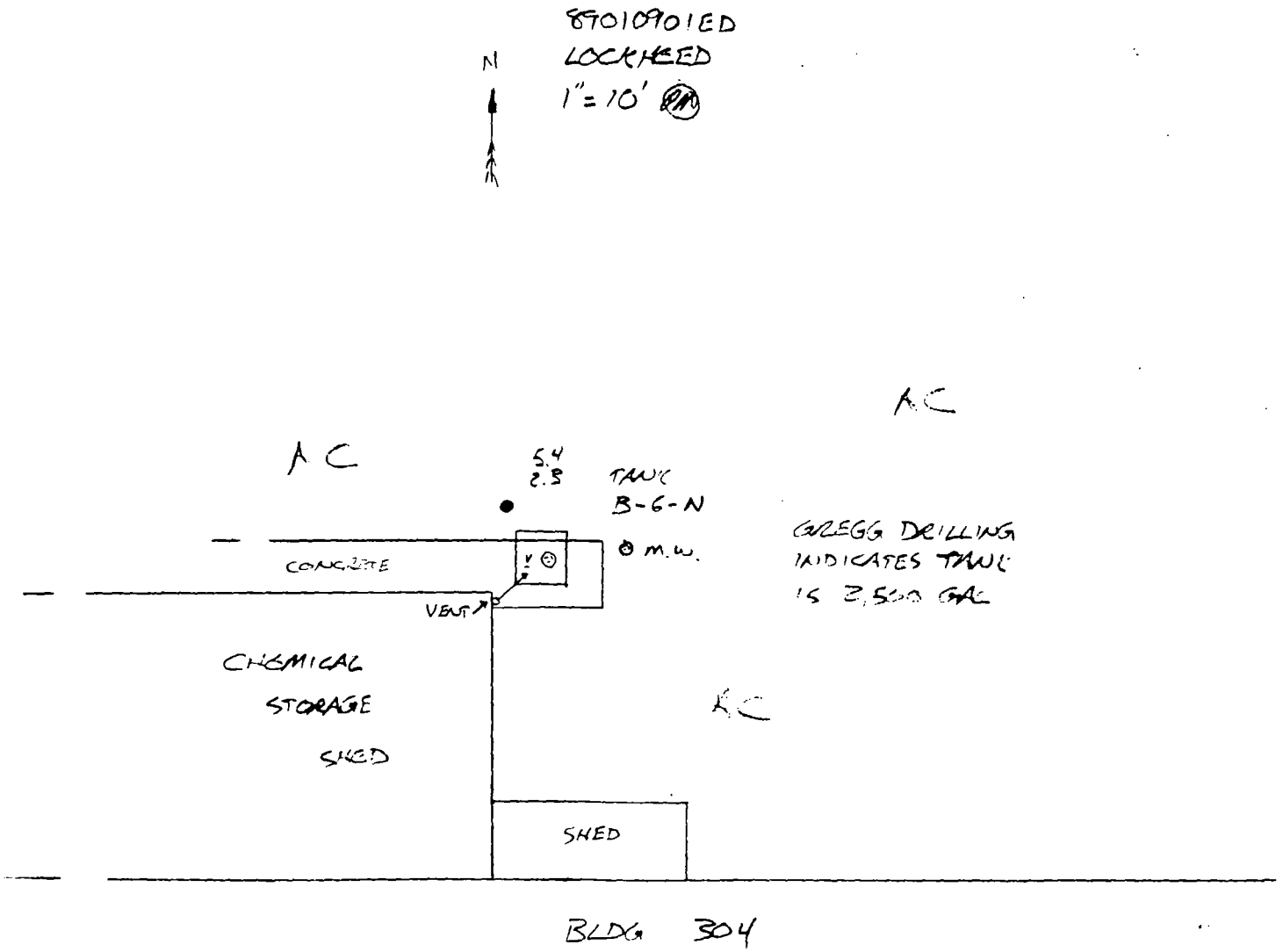

N
LOCKHEED
89013001ED
1" = 10'
RM

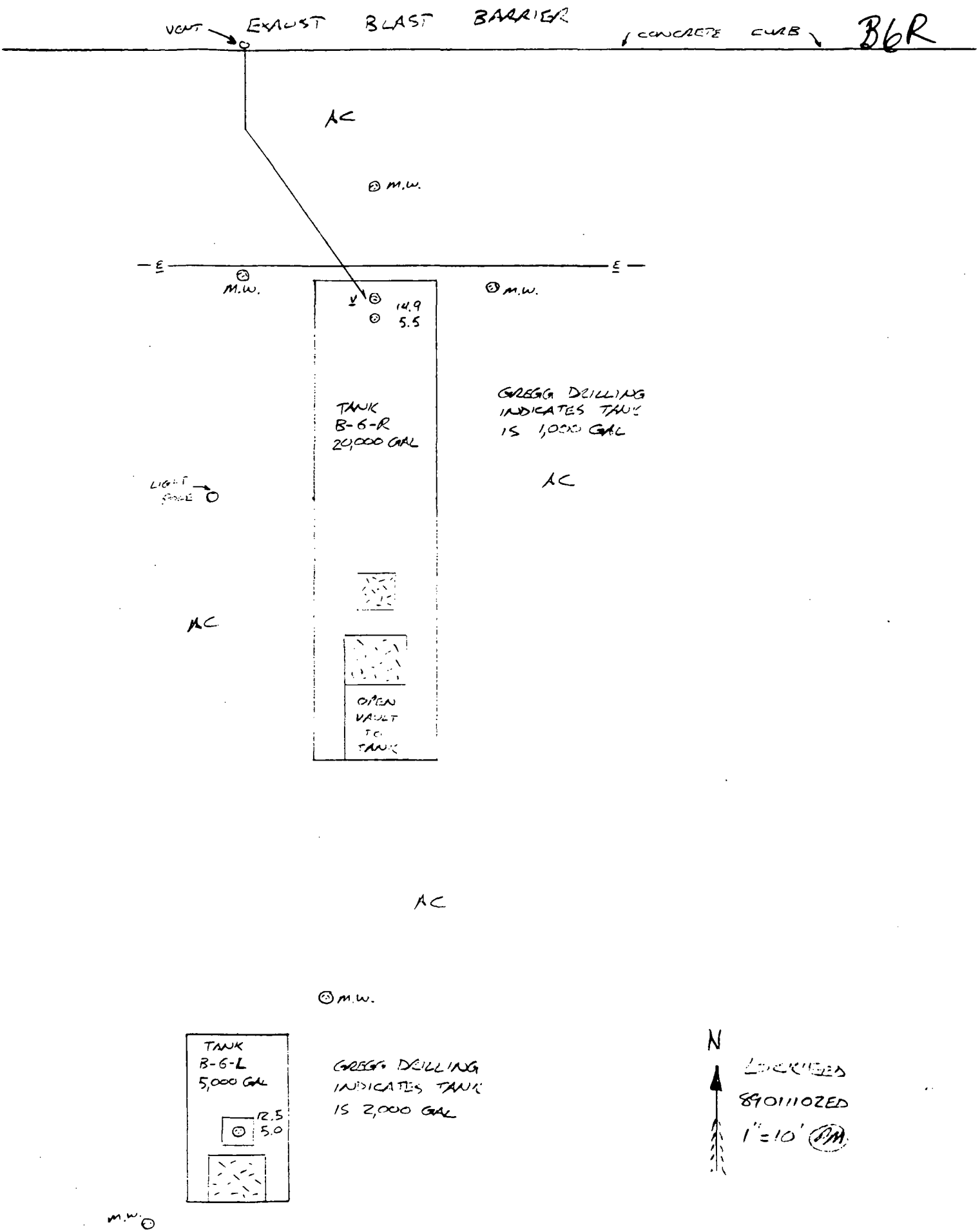
B 6 M



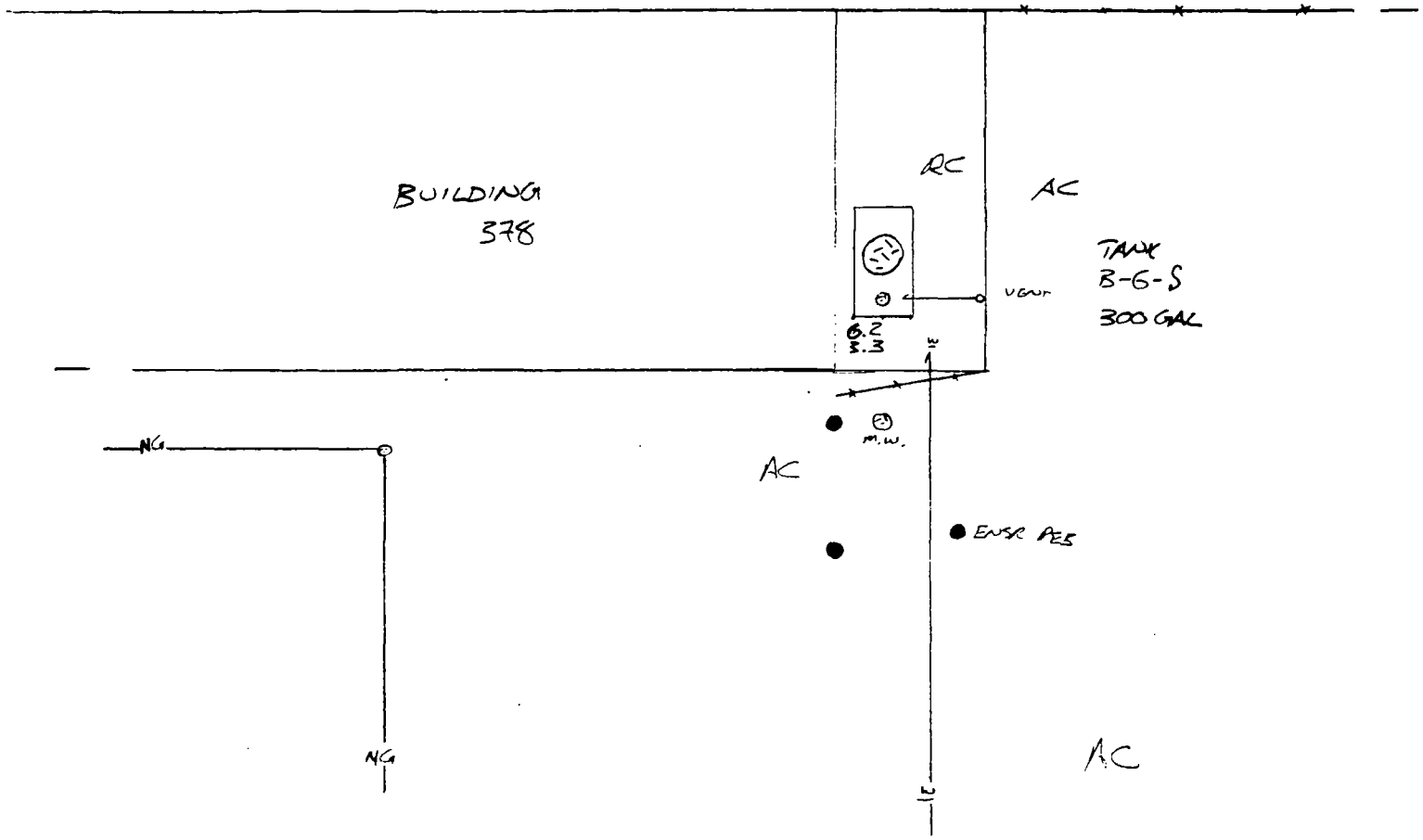
BUILDING 304

B6


8701090101ED
LOCKHEED
1" = 10'
N
AC
AC
5.4
2.5
TANK
B-6-N
m.w.
GREGG DRILLING
INDICATES TANK
IS 2,500 GAL
CONCRETE
VENT
CHEMICAL
STORAGE
SHED
AC
SHED
BLDG 304


VENT
EXAUST BLAST BARRIER
CONCRETE CURB
B6R
AC
M.W.
E
E
M.W.
M.W.
V
14.9
5.5
TANK
B-6-R
20,000 GAL
GREGG DRILLING
INDICATES TANK
IS 1,000 GAL
AC
LIGHT POLE
AC
OPEN
VAULT
TO
TANK
AC
M.W.
TANK
B-6-L
5,000 GAL
12.5
5.0
GREGG DRILLING
INDICATES TANK
IS 2,000 GAL
N
LOCKHEED
89011102ED
1" = 10'
M.W.

~~B6S~~
B6S

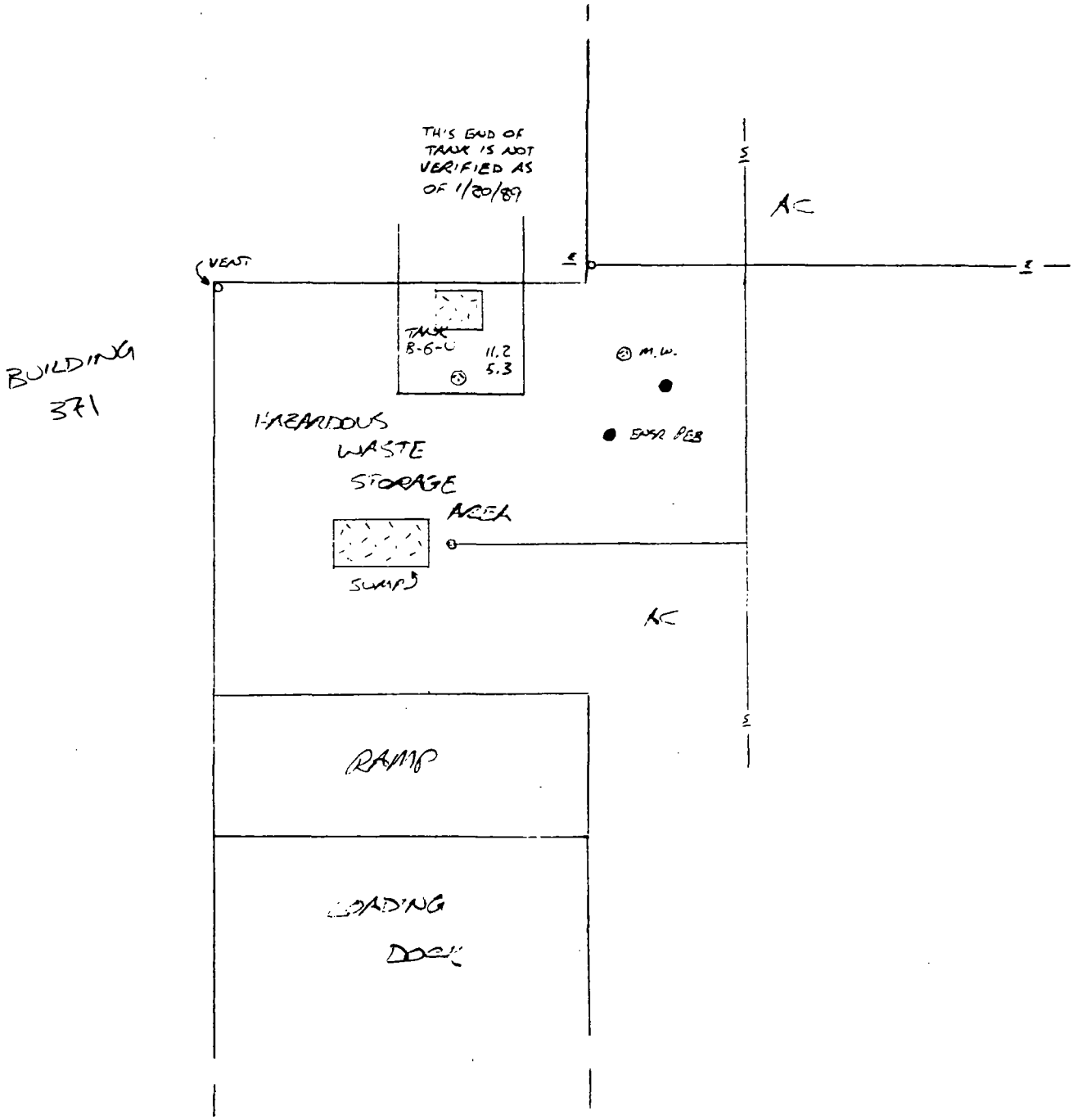


PREVIOUS RECORDS
INDICATE TANK IS
500 GAL

N

LOCKHEED
89012001ED
1" = 10'

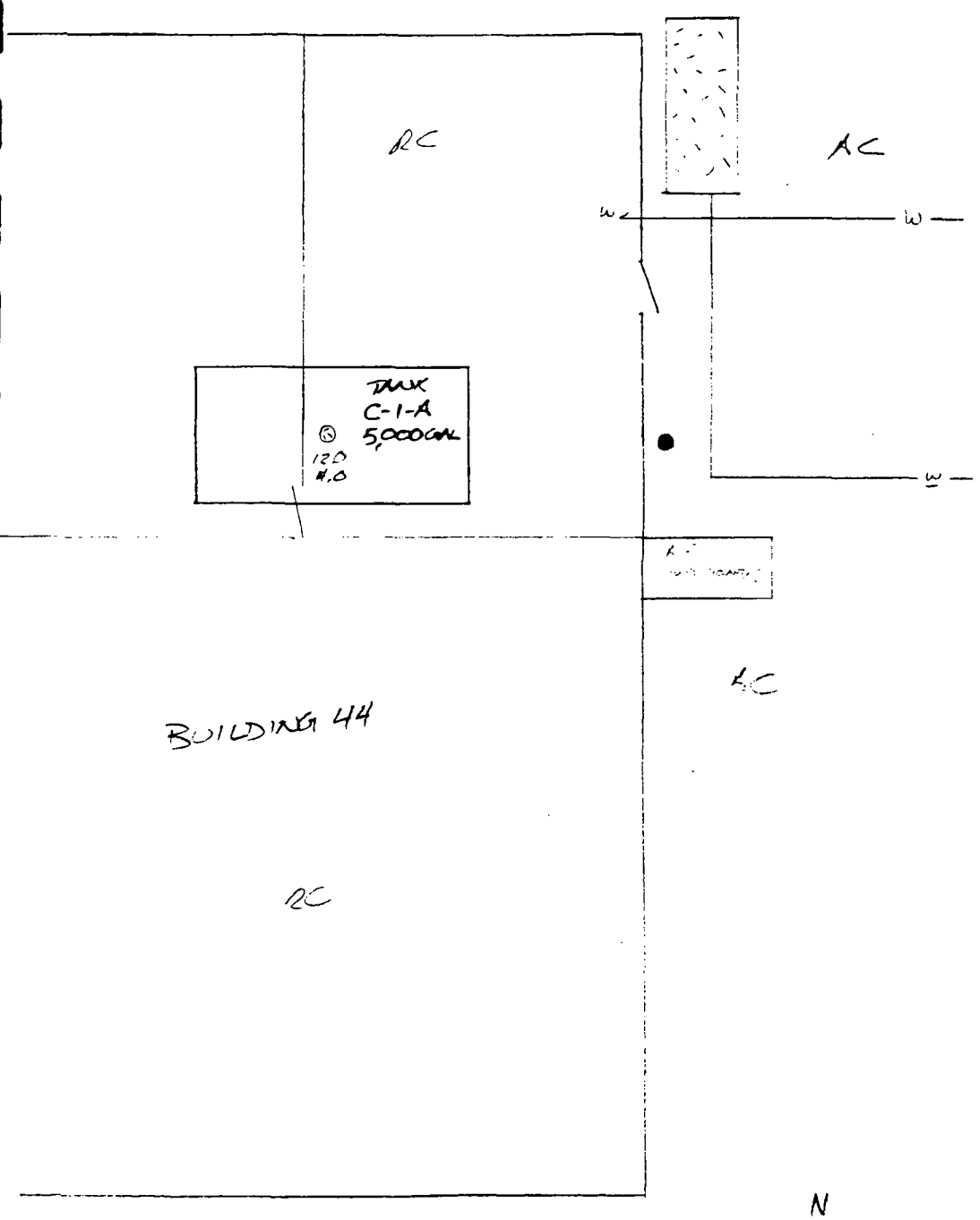
B6U



TANK IS 90° OFF OF PREVIOUS MAP

LOCKHEED
8901200IED
1" = 10'

C1A



N

LOCKHEED
890120001ED
1"=10'

TANK IS 90° OFF OF PREVIOUS MAP