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REMEDIAL INVESTIGATION REPORT

FOR

FISHER-CALO CHEMICAL SITE

APRIL 1989

VOLUME III OF III

R E M II

PERFORMANCE OF REMEDIAL RESPONSE ACTIVITIES AT UNCONTROLLED HAZARDOUS WASTE SITES

U.S. EPA CONTRACT NO. 68-01-6939

CDM Federal Programs Corporation
CAMP DRESSER & McKEE INC.
ROY F. WESTON INC.
WOODWARD-CLYDE CONSULTANTS
CLEMENT ASSOCIATES, INC.
ICF INCORPORATED
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REMEDIAL INVESTIGATION REPORT

FOR

FISHER-CALO CHEMICAL SITE

APRIL 1989

VOLUME III OF III

VOLUME III

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3 - A.3 Soil Gas Survey

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APPENDIX A

Technical Memorandum

TECHNICAL MEMORANDUM
PHASE I AND II REMEDIAL INVESTIGATION
HYDROGEOLOGIC TECHNICAL ACTIVITIES

CONDUCTED

JULY - AUGUST, 1987
AND
MAY - SEPTEMBER, 1988

FOR

FISHER-CALO CHEMICAL
KINGSBURY, INDIANA

APRIL 1989

Prepared for:

U.S. Environmental Protection Agency
Emergency and Remedial Response Branch
Region V
230 South Dearborn Street
Chicago, Illinois 60604

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HYDROGEOLOGIC TECHNICAL ACTIVITIES

I. DRILLING AND INSTALLATION OF MONITORING WELLS

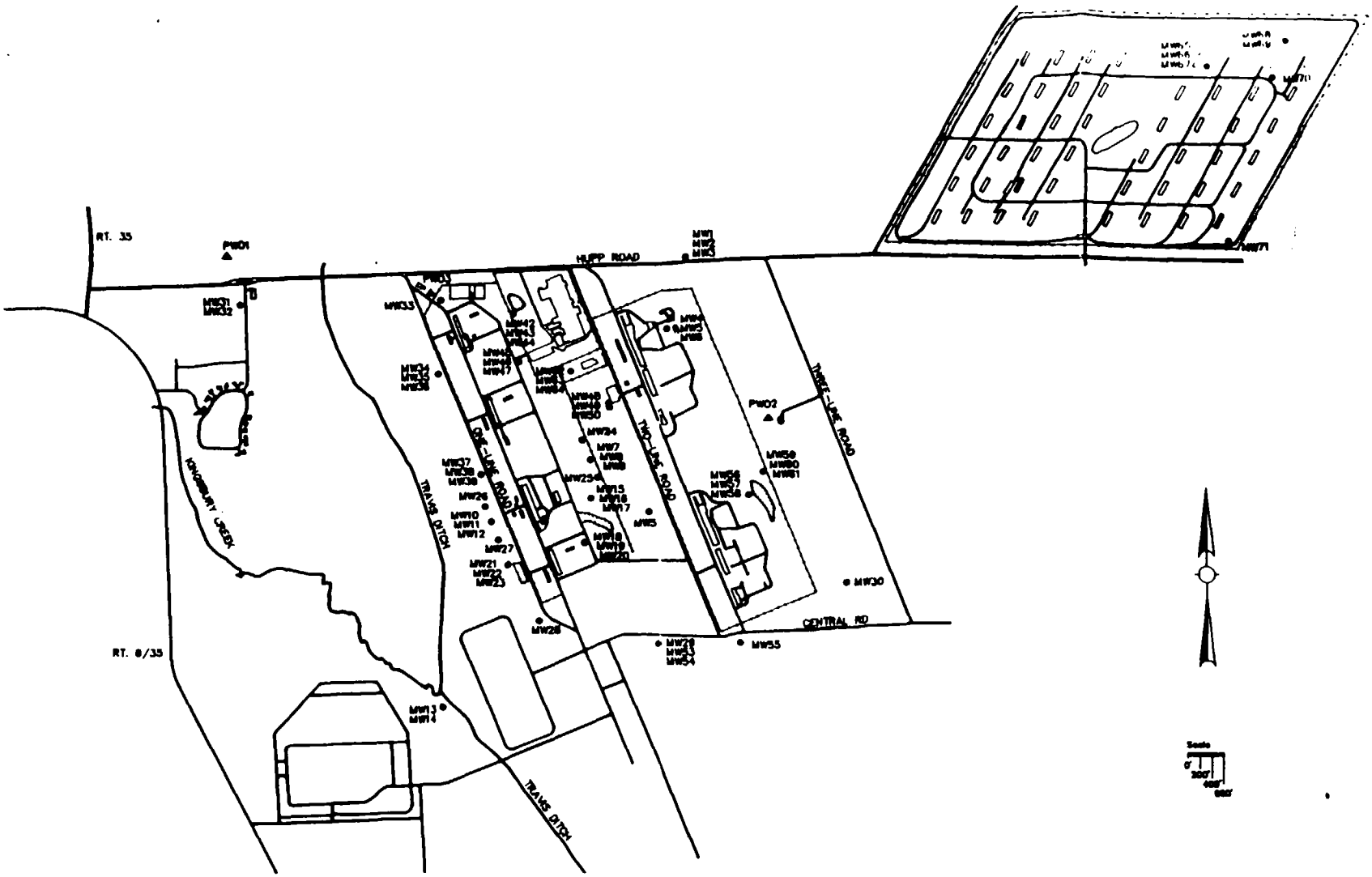
A. INTRODUCTION

Hydrogeologic work at the Fisher-Calo study area was conducted in two phases. The purpose of the Phase I Investigation was to further define the extent and source of a contaminant plume outlined in a 1982 U.S. EPA Field Investigation Team (FIT) Study. The Phase II Investigation expanded the scope of the study area in order to isolate upgradient sources of the contaminant plume, identify the extent of contamination from previous owners, and to further characterize the hydrogeologic setting of the study area.

B. WELL PLACEMENT

From July through August 1987, twenty-five monitoring wells were drilled during Phase I of the investigation by Engineering and Testing Services, Inc. (ETS), Indianapolis, Indiana. The distribution of these wells included 5 nests of 3 wells, 1 nest of 2 wells, and 8 single wells. From May through June 1988, forty-three wells were drilled during Phase II of the investigation by ATEC and Associates, Inc. (ATEC), Griffith, Indiana. Well placement of the second drilling phase included 10 nests of 3 wells, 3 nests of 2 wells, and 7 single wells. The location of the Phase I and II monitoring wells is shown in Figure 1-1. Specific well installation details are shown in well construction summary logs attached in Attachment A.

The number and location of the monitoring wells installed at the Fisher-Calo site are consistent with the overall objectives outlined in the Phase



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MONITORING WELL LOCATION MAP

FIGURE NO.

1-1

I Work Plan, Phase II Work Assignment Amendment, and SAP/QAPP. The locations of some Phase I and II wells differ from those shown in the above documents as a result of changes in well placement strategies determined in the field and the inaccessibility of certain areas due to access problems. Monitoring wells MW-29 and MW-30 were installed in addition to the proposed wells drilled during Phase I field operations. These wells were installed to provide better data control over the study area. Monitoring wells MW-10 and MW-13, proposed for Phase I drilling, were installed later during Phase II operations.

Phase II monitoring wells MW-53 and MW-54 were installed next to MW-29 (Phase I) instead of the 3-well nest location (MW-52, 53, 54) proposed in the QAPP/SAP. This change was required as a result of property access problems which arose during well installation activities. The proposed location of MW-70 was changed because a medium and deep well was sufficient to monitor the relatively thin saturated thickness of the aquifer at that location and to provide better data control in the area. Monitoring well (MW-71) was also installed to provide better data control and to determine if a recharge divide was present in the northeastern portion of the site study area. The location of one 3-well nest (MW-67, MW-63, and MW-64) was changed from its proposed upgradient location to a location immediately downgradient from a suspected contaminant source at the FCC Two-Line facility. Lastly, the location of MW-33 was changed in order to monitor conditions adjacent to a suspected contaminated production well (PW-03).

C. DRILLING AND SAMPLING

The Phase I and II monitoring wells were installed using mud-rotary, hollow-stem auger, and a combination of the two drilling methods. Medium and shallow depth wells were drilled with hollow-stem augers. Phase I and II deep wells were drilled exclusively by mud-rotary methods. Sand heaving into the auger flights made the use of hollow-stem augers ineffective at

depths of 70 feet or greater. Five shallow monitoring wells were installed during Phase I using the drive-point method. Drilling of Phase II deep wells using the Christensen HW Casing Advancer was initially attempted, but proved to be ineffective. One deep well (MW-48) was installed using the casing advancer; all other deep wells were installed using mud-rotary methods.

Decontamination of the drilling and sampling equipment was performed to prevent the introduction of offsite contaminants to the site and cross-contamination between drilling locations. All drilling tools, including the back of the rig, were decontaminated prior to and at the completion of well installation activities at each well location. Sampling equipment used at each drilling location was decontaminated prior to, and after use at each sample interval. Decontamination procedures were performed in accordance with the protocol presented in the U.S. EPA-approved QAPP/SAP for this site.

The water supply used for Phase I and II geotechnical activities was primarily obtained from the Kingsbury Municipal water supply treatment plant. Samples of the drilling water were taken periodically (usually on a weekly basis) to determine the levels of contamination in the water. Drilling water samples were collected from the circulation system pump on the drill rig, in order to obtain water quality data representative of the water being introduced during the well drilling and installation process. The samples were sent to a CLP lab and analyzed for routine organic and inorganic parameters. Water used for development of monitoring wells MW-18, MW-29, and MW-30 was obtained from the Griffith, Indiana Municipal Water Supply. The water used for well development was also sampled and shipped to a CLP Laboratory for routine organic and inorganic analysis. No significant levels of contamination were detected in the samples collected from drilling and well development water.

The use of drilling muds represented a necessary alternative for deep drilling in the site area. Use of drilling mud was necessary in order to:

1) maintain circulation in the borehole; 2) enhance the removal of drill cuttings from the borehole; and 3) maintain the integrity of the borehole wall (i.e., inhibit caving of the formation). Drilling mud used for mud-rotary drilling during Phase I and II consisted of a mixture of Aqua-gel Gold Seal (a powered natural bentonite containing no polymers or additives) and water. Supermud, a drilling mud containing organics and polymers, was accidentally used in the first 47 feet of drilling at MW-48. The out-of-spec drilling mud was pumped out, drummed, and removed from the well location.

A drilling mud containing organic polymers is more suited to drilling in saturated sands and gravels, but the addition of organics to the borehole is an unacceptable alternative when monitoring wells are involved. The use of a straight bentonite mud in this investigation, however, resulted in minimal caving of coarse-grained formation materials when circulation was halted to perform sampling. Therefore, in order to prevent caving of the borehole wall, it was necessary at times to circulate the drilling mud in the borehole for a longer than normal period of time prior to sampling.

Phase I and II subsurface samples were collected at twenty deep well locations using large, 3-inch (I.D.) split spoon samplers. Samples at each location were collected from both unsaturated and saturated materials at depth intervals as specified in the QAPP/SAP (refer to boring logs in Attachment A for sample interval depths at each well). All Phase I and II shallow and medium depth wells were drilled and installed without sampling.

D. SCREEN PLACEMENT

The placement of well screens was selected in order to monitor the deep, middle, and upper portions of the unconfined aquifer. The deep wells were screened at or near the base (basal portion) of the aquifer/silty clay layer interface. Several boreholes (MW-01, 07, 13, 15, 18, 21, 29, 30, and 68) were advanced past the fine-grained (silty clay) units to determine their thickness and the presence of other confined aquifers. This was

conducted in order to provide a better understanding of the boundary conditions below the unconfined aquifer. These deeper boreholes were then backfilled to allow placement of the screens at specific depths. Phase I wells were back-filled using bentonite chips (hole plug). Phase II wells were backfilled using a combination of natural sand cave, silica sand, and bentonite pellets. Screen intervals for MW-13, MW-18, and MW-21 were placed below localized confining beds in order to monitor the locally confined aquifer. Specific details of screen placement with relation to stratigraphy are outlined in Attachment A.

Medium depth wells were screened at depths ranging from 48 to 58 feet. The average depth of medium well screen is 53 feet. Screen depth placement of the medium wells was determined by setting the well screen at a point approximately halfway between the top of the water table and the base of the deep well. Three 2-well nests consisted of a deep and medium depth well and one nest consisted of a shallow and medium depth well.

All single and shallow depth wells, with the exception of MW-30, were set 15 feet below the water table in order to monitor upper groundwater flow conditions and to allow for water table fluctuations. The depths of the shallow wells ranged from 23 to 35 feet deep.

E. WELL CONSTRUCTION

Phase I and II monitoring wells were constructed of 2-inch (I.D.) flush jointed, threaded, Type 304 stainless-steel well casing. The casing was connected to a ten-foot, wire-wound stainless-steel well screen with a slot size of .010 inch. Phase I wells MW-03, MW-09, MW-17, MW-18, MW-20, and MW-25 were constructed using five-foot well screens of similar design. Successive ten-foot sections of well casing were attached to the well screen and lowered down into the borehole to the proper depth interval. At least 1.0 to 3.0 foot of well casing was left above the ground surface (stick-up).

A natural sand pack was emplaced around the screened interval by allowing caving of the sandy aquifer material around the well screen. This was accomplished by jetting water through the bottom of a one-inch tremie pipe into the formation in the screened interval. This jetting action eventually broke down the mudcake that had formed on the walls of the borehole during drilling. The walls of the borehole caved as the mudcake broke down, and the sand sloughed to the bottom of the hole. This process was continued until the caved sand filled the annular space to form a filter pack to at least three feet above the top of the well screen. A clean medium to coarse grained silica sand was added when the natural sand pack did not completely cover the screen. A filter pack consisting of pea-sized gravel was used for all of the deep Phase I wells.

A bentonite well seal was emplaced above the sand or gravel pack in the Phase I wells. The well seal consisted of a 2 to 3 foot layer of bentonite pellets. A cement/bentonite grout (100 lbs of Portland Cement and 20 lbs bentonite per 15 gallons of water) was then emplaced into the remaining annular space, via a tremie pipe, displacing drilling fluid out of the hole as the grout column rose.

Phase II well seals were completed using Volclay[R] grout above the sand pack to within two feet below the ground surface. The grout consisted of a mixture of 100 lbs of powdered bentonite per 25 gallons of water. The mixture made for a thick grout with a density of approximately 9.4 lb/gal. measured in the field with a mud balance. The slow-swelling bentonite ensured a positive seal. Finally, a concrete seal was emplaced from the top of the Volclay seal to the ground surface.

All Phase I wells installed by the drive point method (MW-12, 24, 26, 27, and 28) were constructed of ten-foot sections of well casing and five-foot well screens. A section of casing was attached to the well screen with a drive point at one end. To protect the threaded portion at the top of the casing from the driving tool (hammer), a malleable iron drive cap was screwed to the top of the casing. The casing and screen was driven into

the ground with a hydraulic hammer suspended from the drill rig-mast. Additional casing was added until the well point was driven to the proper depth interval. Depth of the well points ranged from 23 to 38 feet deep. A one to three-foot grout seal, below the ground surface, was emplaced within an annular space dug around the well casing. At least 2.0 to 3.0 feet of well casing was left above the ground surface (stick-up).

To complete well construction, a five-foot long, five-inch (I.D.), protective steel casing with locking cap was emplaced over the exposed well casing (stick-up). The protector casing was set in a concrete plug, one to two-feet thick, and surrounded by a concrete pad that sloped away from the well head. Concrete pads were not established around several well heads because of limitations in the access agreement with the property owner. Finally, concrete filled posts (bumper guards) were installed around individual wells and nests.

F. BORING LOGS

Boring logs (contained in Attachment A) of each deep borehole were developed using information obtained from split-spoon samples, drill cuttings, and driller's interpretation of drilling rates. The information presented in the boring logs was recorded during drilling activities by a CDM geologist.

II. WELL DEVELOPMENT

Development of Phase I wells was initiated from August 27 to August 31, 1987. It was postponed when project work stopped as a result of an arson fire that occurred on August 31, 1987. Wells MW-21 and MW-22, however, were developed during that time by a modified surge-block method. In this method, a Geoguard® pump assembly was lowered into the well down to the well screen. The pump, with a diameter slightly less than the well casing, was lowered and raised rapidly throughout the screened interval to produce a surge motion while pumping. The surging action loosened fine material around the well screen which was simultaneously removed from the well by

the pump. Development of the wells was completed when the well water was visibly clear of fine-material. Development of the remaining Phase I wells was postponed until the completion of Phase II drilling activities.

Development of all Phase I and II wells was conducted from July 11 to September 6, 1988. The air-lift pumping method was used to develop these wells. Air was supplied at 100 to 120 psi by a diesel powered air compressor. A 5 micron filter was attached to the air flow output nozzle to ensure against introducing contaminants (oil) into the aquifer. Air-lift pumping of MW-18, MW-29, and MW-30 proved ineffective because the air pressure (100 psi) exceeded the recharge rate of these wells. Recharge of these wells was still insufficient when the air pressure was reduced to 40 psi. An alternative development method, using water to flush these wells, proved very effective. In order to verify that the recharge problem was not due to mud cake around the screen, air-lift pumping was re-initiated but with similar unsatisfactory results.

The procedures utilized during well development were as follows:

- An air line (5-10 foot segments, 3/4 inch I.D. PVC pipe) was lowered into the well casing down to the upper portion of the screen.

- The air pipe was connected to an eductor system at the top of the well. The eductor is a 2 inch I.D. channeling device mounted at the top of the well head that introduces compressed air into and allows a controlled discharge of well water out of the well.

- Air was injected into the well slowly in order to control the initial upsurge of well water.

- Air pressure was increased as needed until a steady discharge of water was achieved. The well water was monitored frequently for organic vapors and clarity.

- As the drilling muds were flushed out, and the water became clear, the air line was lowered throughout the screen interval to insure adequate screen development.

- A minimum of ten well volumes was purged from each well. At wells where more than 10 volumes were purged, water was discharged until it was consistently clear.

- The air compressor was periodically turned off in order to allow water in the well to surge back into the formation. This promoted the removal of fine materials from the vicinity of the well screen.

- Water discharge was periodically scanned with an HNu during the development phase. Water registering elevated readings above background was drummed and placed in a secure drum storage area.

The air-lift development method cleared the screened interval of fine grained material, except for very small amounts of bentonite and traces of silt. The Phase I wells typically required longer development times and removal of up to 30 purge volumes as a result of the length of time between well installation and development.

III. MONITORING WELL SAMPLING

Groundwater sampling of Phase I and II wells was conducted from August 8 through 25 and November 7 through November 24, 1988. Groundwater sampling was not conducted during Phase I activities. A detailed summary of the well sampling procedures is discussed in a Technical Memorandum, included in Volume III of the RI report, Appendix A - Task A.6.

IV. WATER LEVEL MEASUREMENTS

Water level measurements were taken on October 7, November 3, and November 15, 1988, at 68 Phase I AND II monitoring wells. Water levels

were also measured during both rounds of groundwater sampling. A comprehensive list of these measurements is presented in Attachment B, Table 1. Water level measurements were not taken during Phase I activities.

V. HYDRAULIC CONDUCTIVITY TESTING - SLUG TESTS

Hydraulic conductivity testing was performed using a rising/falling head slug test method. Tests were conducted on all Phase I and II monitoring wells from August 30 through September 20, 1988 in order to provide an estimate of the hydraulic conductivity at the screened portion of each well. Equipment used during slug tests included an In-Situ Hermit Data Logger, pressure transducer (50 psi), and a PVC slug. The sand filled PVC slug was 5 feet in length (1 1/4 inch O.D.), and provided a displacement of 1.5 to 2.0 feet. The results of the hydraulic conductivity testing are shown in Table 2, Attachment B.

Each slug test was performed as follows:

1) The pressure transducer was lowered into the well and suspended 10 to 15 feet below static water level; the water level was allowed to stabilize.

2) The slug was quickly lowered into the well, raising the water level to approximately 0.5 feet. Subsequently, the data logger was started when the top of the slug reached the static water level. This procedure provided crucial early time data which normally would be lost due to water agitation caused by the slug impacting the water.

3) The data logger continuously measured, stored in memory, and recorded the falling water levels (within $\pm$.017 feet of accuracy) until the static water level was reached. Most wells reached equilibrium (static water level) from within seconds to 5 minutes. Only a few wells took longer than 10 minutes to equilibrate.

4) The slug was then quickly pulled out of the water, lowering the water level in the well by approximately 1.5 to 2.0 feet;

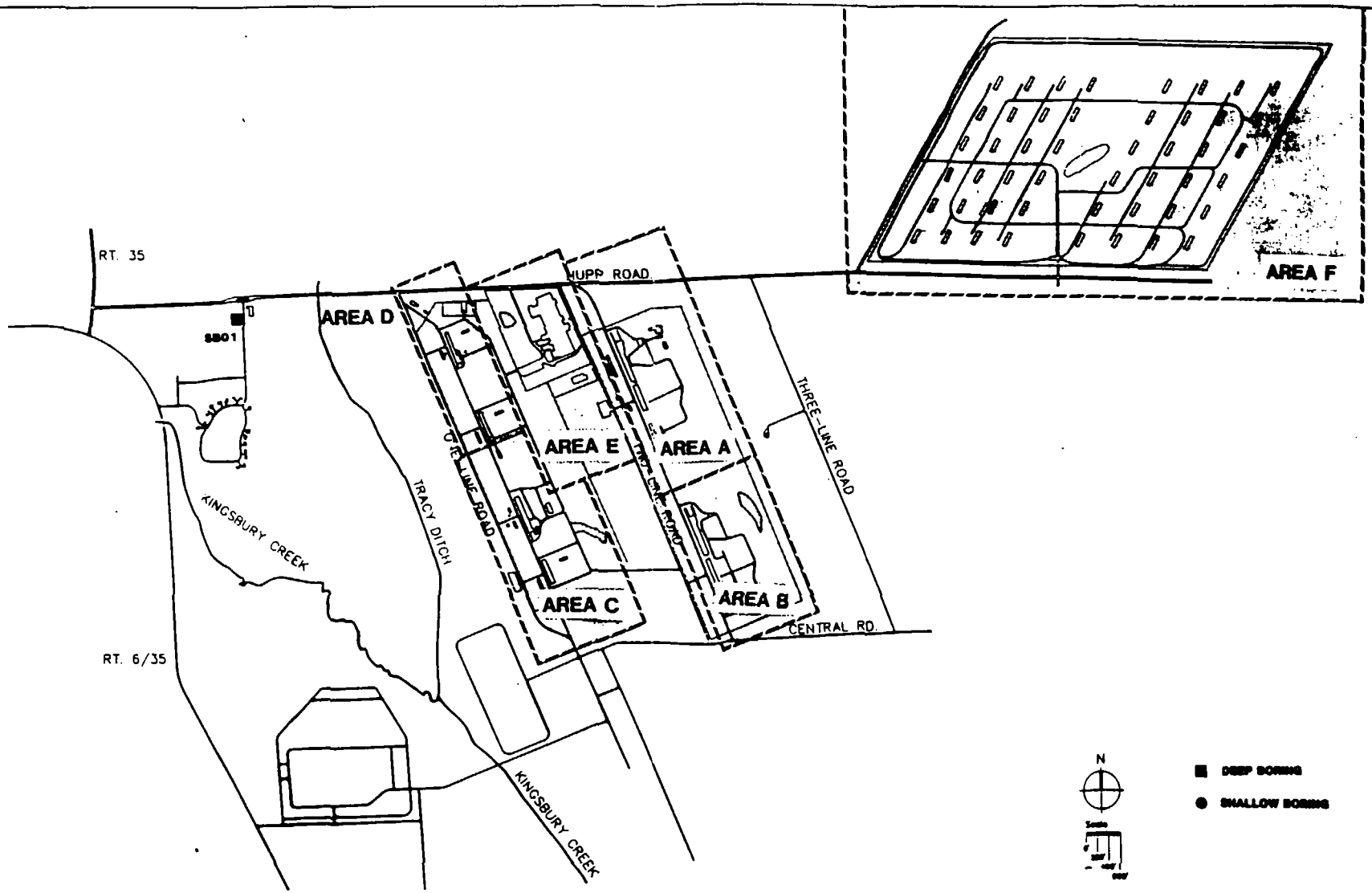
5) The data logger continuously measured the rising water levels until the static water level was reached. Relatively similar equilibration times were observed.

VI. SURVEYING

Elevations and locations of all wells were surveyed in order to provide vertical and horizontal control of data points in the study area. Survey activities were conducted by Lang, Feeney and Associates from October 11 through October 13 and November 16 through November 18, 1988. In addition, a permanent benchmark was established at the northeast corner of the Fisher-Calo property. The locations and elevations surveyed are presented in Figure 1-1 and in Table 1 (Attachment B), respectively.

VII. SOIL BORINGS

Additional subsurface soil samples were obtained from 33 borings using a split spoon sampler at depth intervals as specified in QAPP/SAP. The purpose of the subsurface borings was to document the extent of soil contamination at depth; to monitor the levels of cleanup effected by prior remedial actions; and to isolate potential point sources of contamination from previous and present owners. Eighteen soil borings were drilled to an approximate depth of 20 feet, or until the water-table was encountered. Fifteen additional soil borings were drilled to a depth of 4.5 feet. The location of all soil borings is shown in Figures 1-2 through 1-8. A detailed summary of the sampling technique and sample depth intervals is provided in the sampling technical memorandum enclosed in Volume III of the FCC RI report, Appendix A.5.

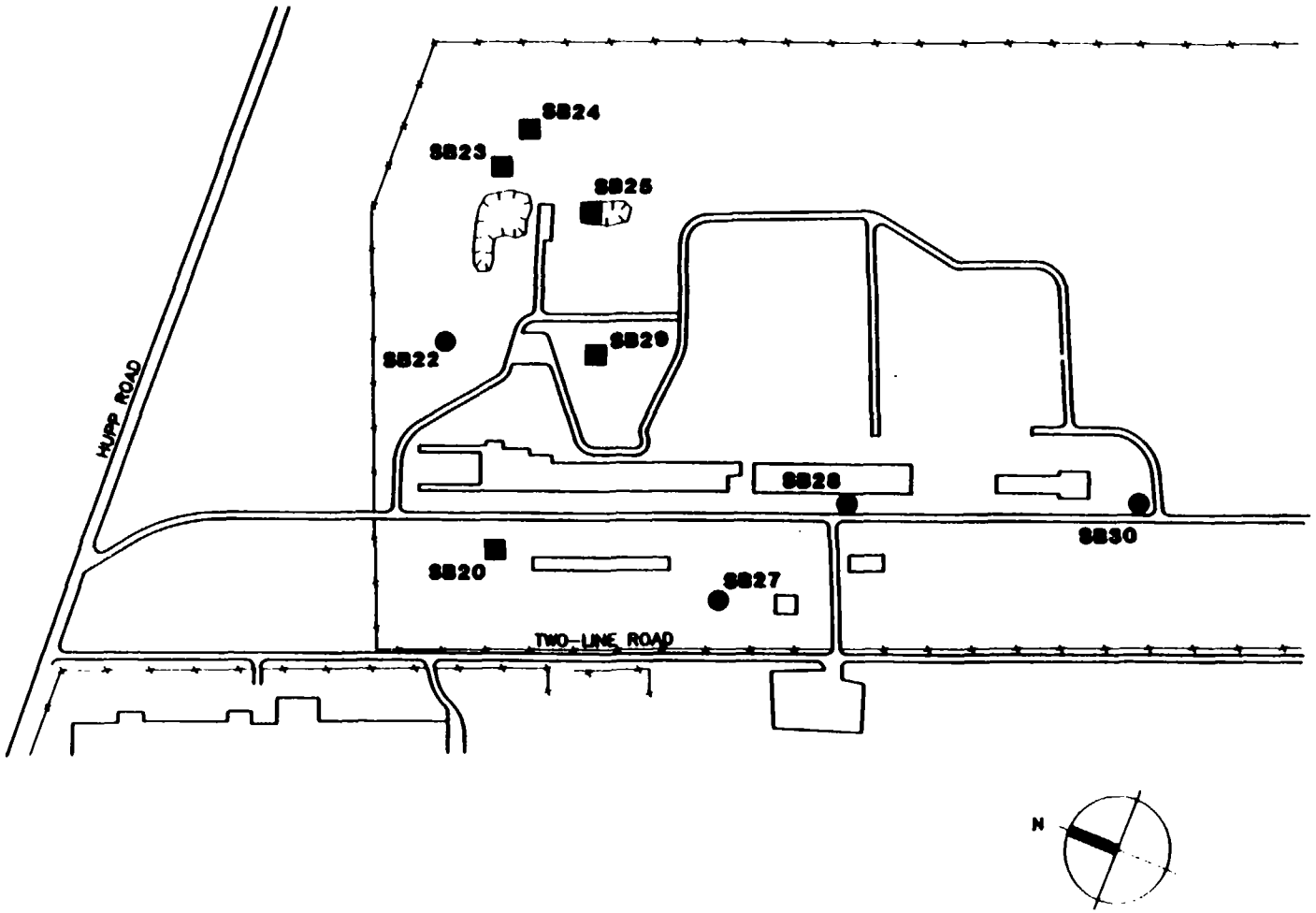


CDM

SITE AREA MAP

FIGURE NO.

1-2



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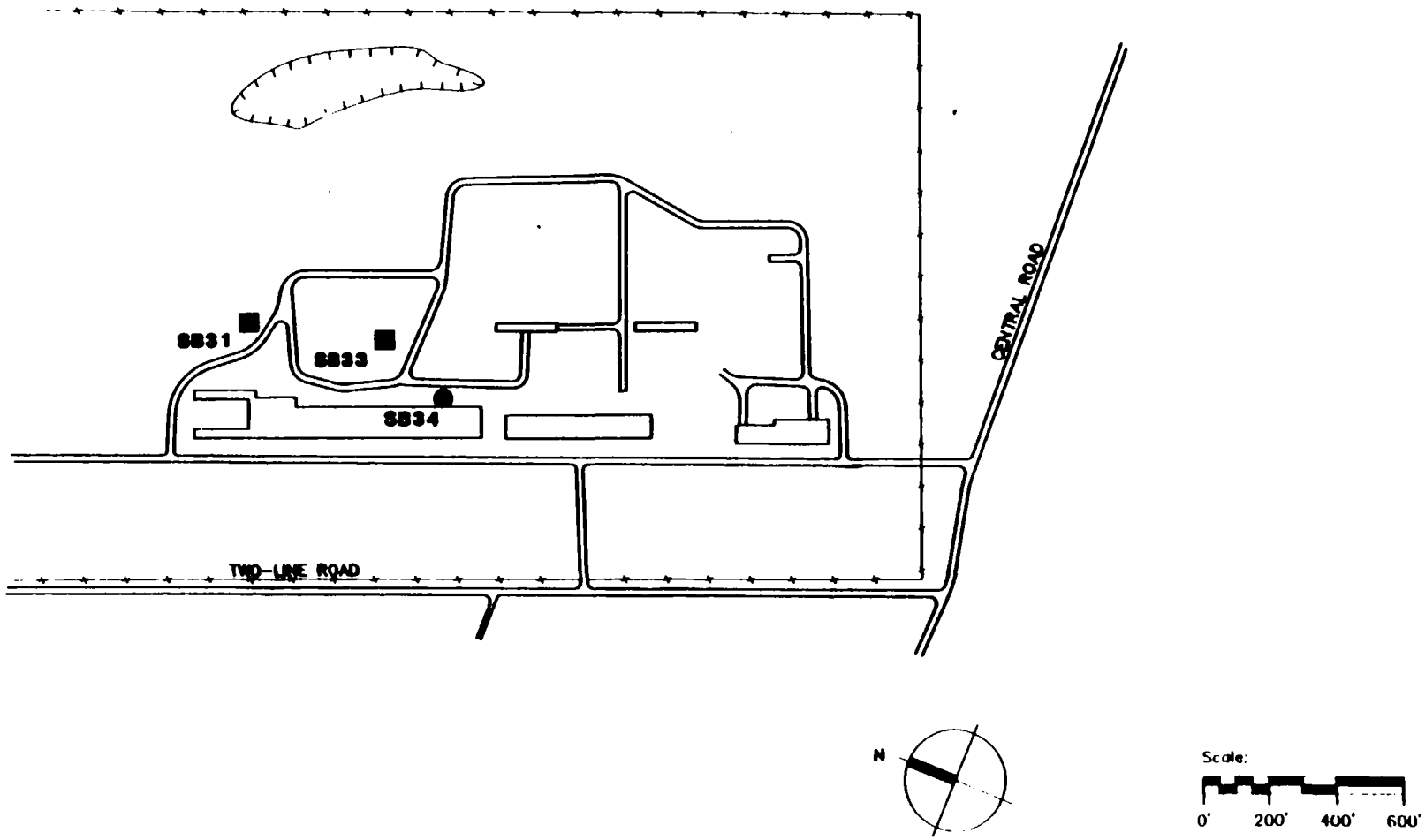
STUDY AREA A –
FISHER–CALO PLANT

FIGURE NO.
1-3



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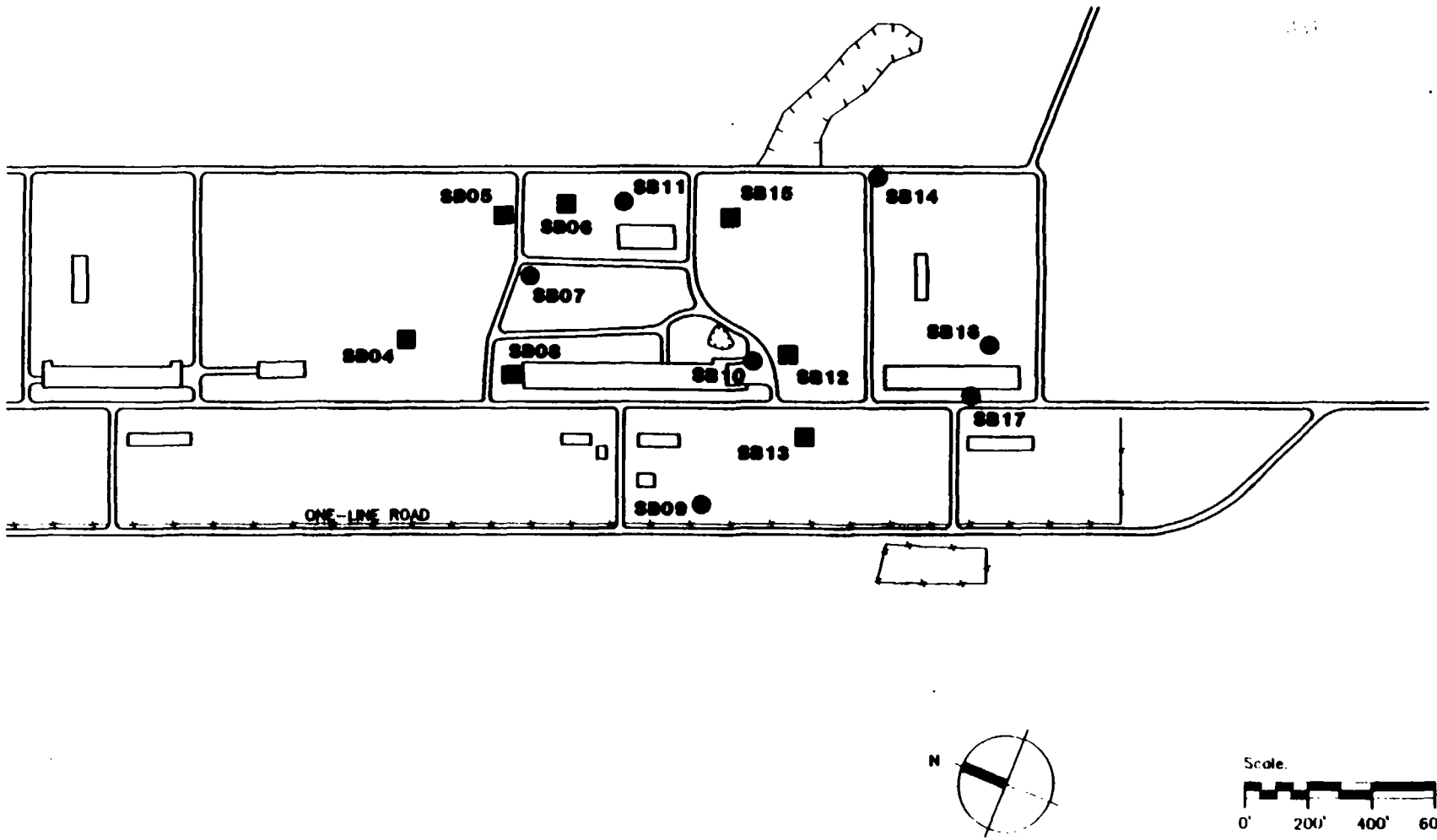
STUDY AREA B –
NEW PLANT LIFE

FIGURE NO
1-4



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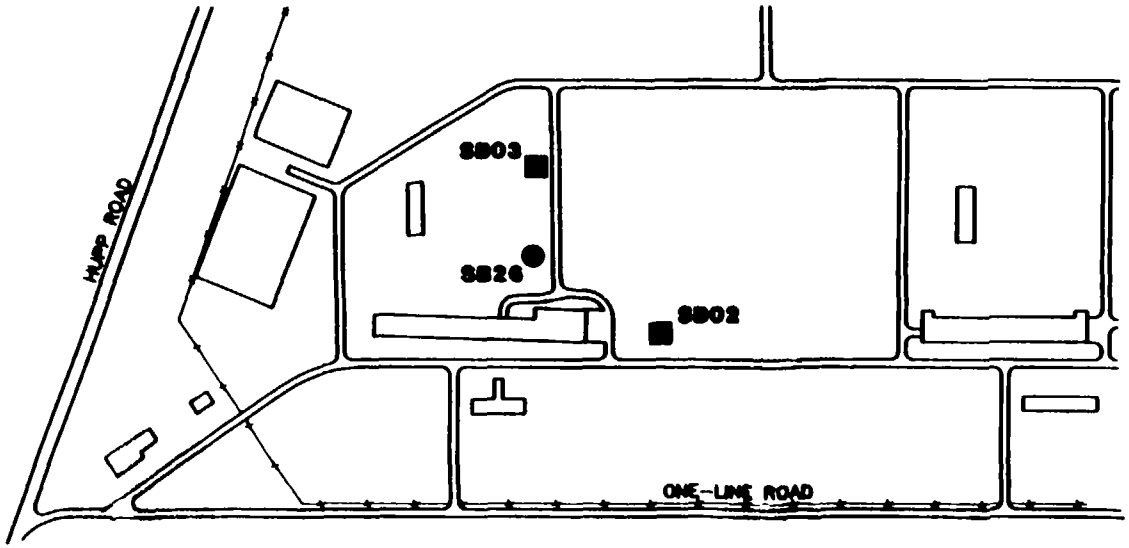
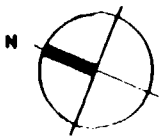
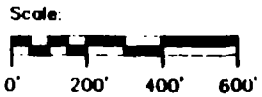
STUDY AREA C –
CARDINAL CHEMICAL

FIGURE NO.
1-5







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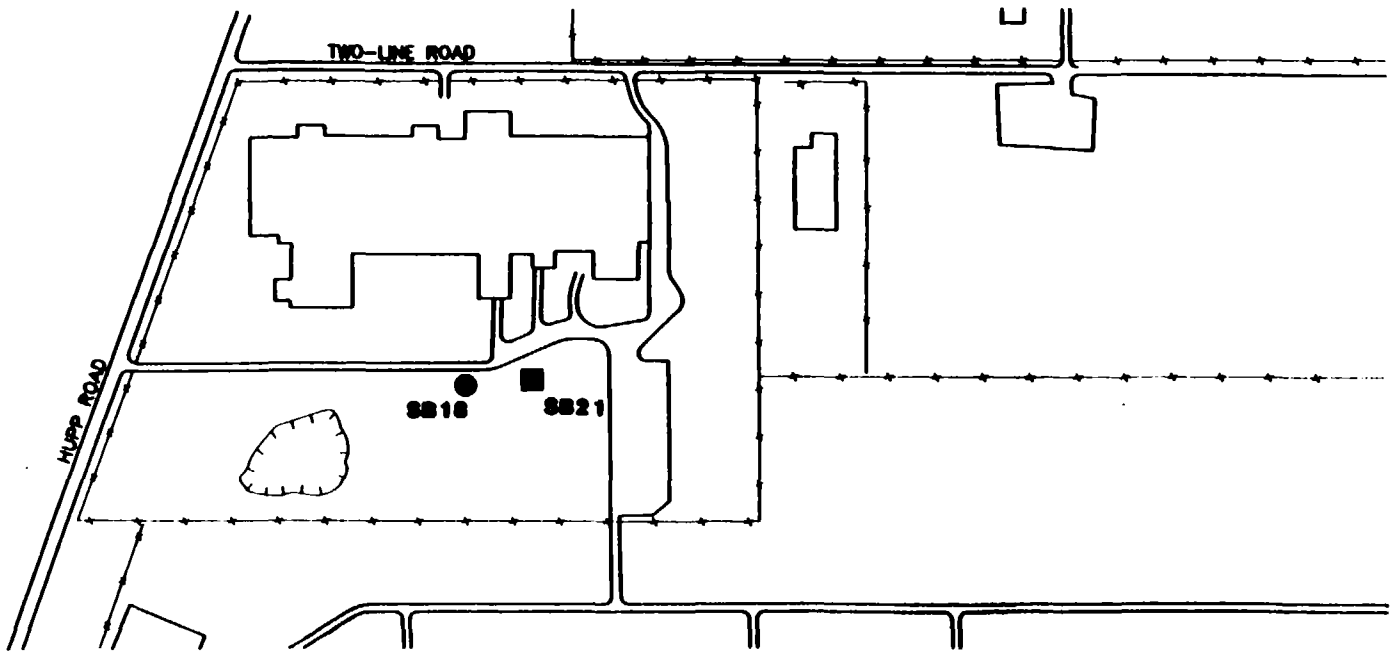
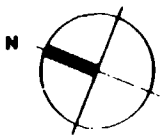
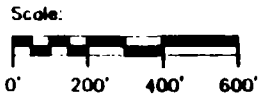
STUDY AREA D –
NATIONAL PACKAGING

FIGURE NO
1-6







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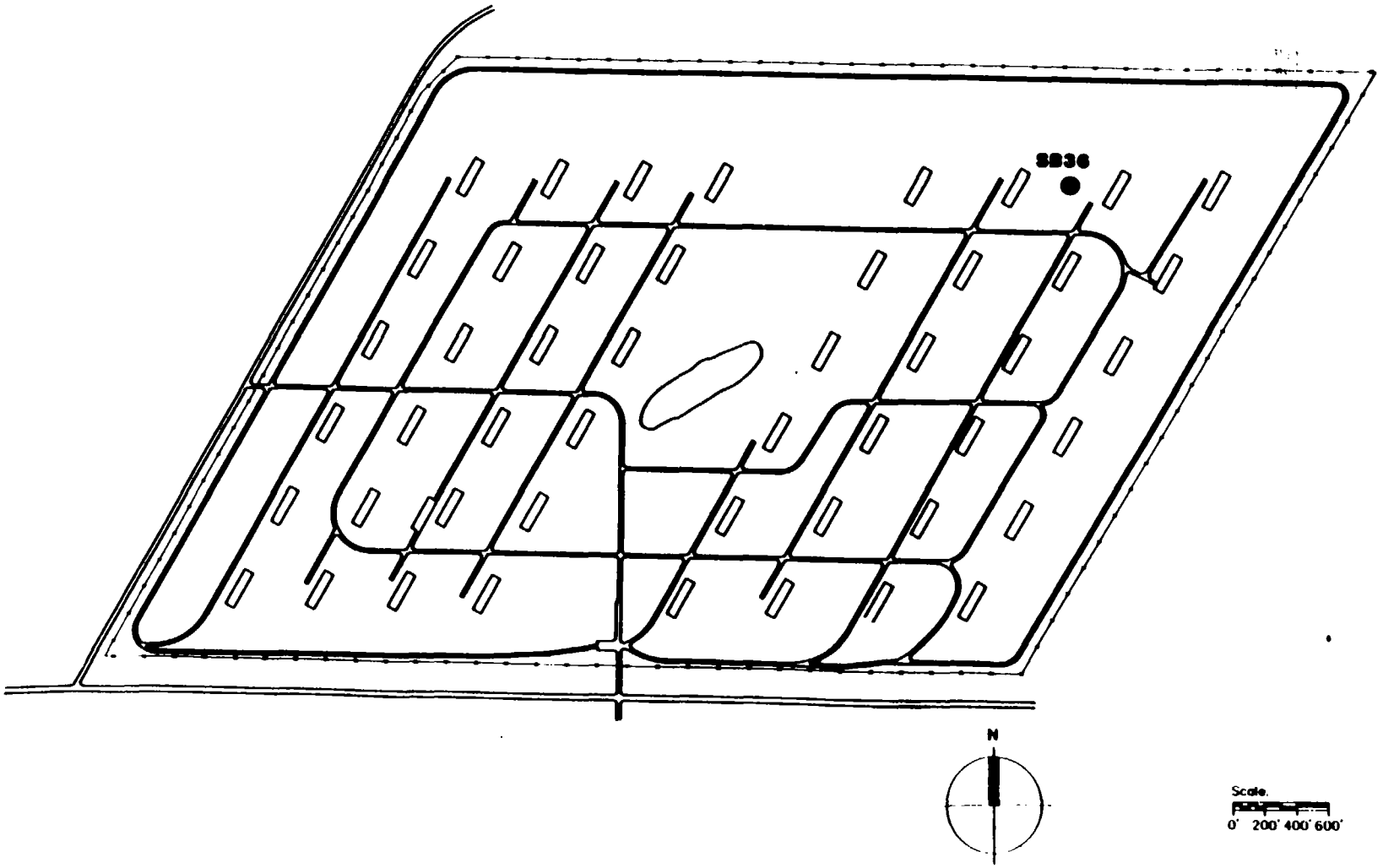
STUDY AREA E –
ROLL-COATER

FIGURE NO.
1-7



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STUDY AREA F –
SPACE LEASING

FIGURE NO
1-8

VIII. HEALTH AND SAFETY

Protocol described in the HSP was adhered to during Phase I and II field activities. The level of personnel protection required was determined by monitoring the breathing zone in work areas through the use of an HNu photoionizing detector or an OVA flame ionizing detector. Most drilling-related work was conducted in Level D protective clothing. Level C protection was utilized during initial well opening prior to well development. Level C protection was utilized periodically during well installation, well development and during collection of samples at soil boring locations when readings above background were detected in the breathing zone.

Level C protection was required during well installation activities at location MW-11 when elevated VOC (Volatile Organic Compound) readings were detected in the breathing zone. Elevated VOC levels were detected during well drilling at MW-11, at a depth of approximately 40 feet. VOC levels between 25-100 ppm were detected in the borehole only when the drill rig was in operation (with the augers turning and water being pumped into the borehole); VOC levels in the breathing zone (2-3 ft. from borehole) ranged between 3-6 ppm. Well drilling and installation activities were completed in level C, even though VOC levels above background were not detected once the borehole annulus space around the well had been sealed (with grout) above the water table (approximately 20 feet).

Volatile concentrations above background were detected at several well locations during well development. These elevated concentrations were only detected within six inches of the drum used for collection of development water. When volatiles were detected above background, subcontractor personnel retreated to at least 10 feet away from the water. Respiratory protection was not worn since no volatiles were detected in the breathing zone. Level C respiratory protection was worn while filling drums and changing the air-line intervals at MW-6, 21, 22, 23, 62,, 63, and 64. Elevated readings in the breathing zone at those wells ranged from 1.0 to

5.0 ppm. Water from wells exhibiting elevated readings was containerized in 55 gallon drums and brought to a secure drum storage area.

Elevated VOC readings in the breathing zone were also detected during collection of subsurface soil boring samples. The concentration of volatiles detected in the borehole generally ranged from 0 to 5 ppm. No respiratory protection was required since elevated readings were not detected in the breathing zone. The headspace, the portion of the borehole exposed to the atmosphere, at each sample interval and samples removed from the split spoon were screened with an HNu and Monitox (HCN detector). Elevated VOC readings in the headspace of SB-08 and SB-33 ranged from 2 to 200 ppm. Level C respiratory protection was required during sampling at these locations as elevated readings in the breathing zone ranged from 1 to 3 ppm.

ATTACHMENT A

WELL CONSTRUCTION LOGS

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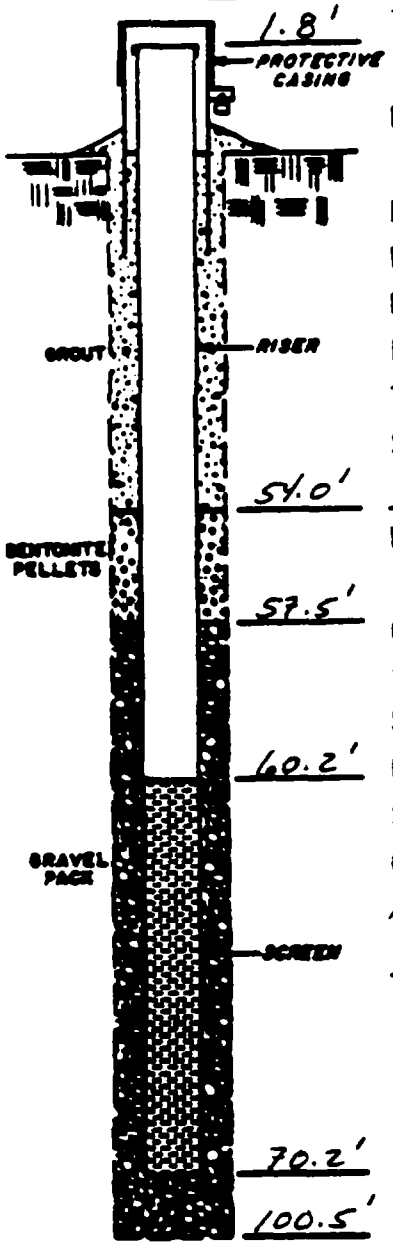
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-01



DRILLING SUMMARY

Drilling Co: ETS Drillers: T. HASKETT

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 AND 6.0 IN. Drilling Fluid: BENTONITE MUD

Bits/Depths: 6 1/4 IN. HOLLOW-STEM AUGER (0-15'); 6 IN. TRICONE BIT

Total Depth: 100.5 FT. Depth to Water: —

Supervisory Geologist: MARK LUCAS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 62.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 70.2 - 60.2 FT

Filter Material: PEA GRAVEL Setting: 75.5 - 57.5 FT

Seals Material: BENTONITE PELLETS Setting: 57.5 - 54.0 FT

Grout: CEMENT Setting: 54.0 - 0.0 FT

HOLE PLUG: BAROID HOLE PLUG Setting: 100.5 - 75.5 FT

TIME LOG	Started	Completed
Drilling:	8/20/87 1450	8/28/87 1330
Installation:	8/31/87 1000	8/31/87 1450
Development:	8/3/88 0831	8/3/88 0918

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.4 FT

Pumping Depth to Water: N/A

Pumping Rate: 7.4 GAL/MIN Specific Capacity:

Volume Pumped: 350 GAL

NY-5

SITE: **FISHER-CALO**

WELL NO. MW-01
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-1.5'	SL-01A (S-73)	3-4-4-4	SAND and SILT (SM) - Light brown, fine grained sand; trace rootlets.
	SL-01B (S-74)	6-4-4-4	SAND (SW) - Fine to coarse grained, gravelly layers and oxidation stringers common; interbeds of varied clay.
	SL-01C (S-75)	7-3-3-4	SAND (SW) - Same as above.
30-31.0'	SL-01D (S-76)	14-11-16-13	Poor recovery (.9) - No description noted in log book.
	SL-01E (S-77)	-	No recovery.
			REMARKS: Borehole losing 100 gal. of water every 5'; suggest coarse sand. Augers drilled to 55.0 '.
58.5-60.0'	SL-01F (S-78) (DUP)	12-21-26-27	SAND (SW) - Fine to coarse grained, little gravel with trace of flat, angular pebbles.
			REMARKS: Still losing circulation at 70.0'.
73.5-75.5'	SL-01G (S-79)	8-11-13-17	CLAYEY SILT (ML) - Olive gray (5 y 3/2), trace of thin lenses of sand are scattered throughout sample; trace fine to coarse pebbles, clasts angular, non-coplanar to bedding, generally stricture less.
88.5-90.5'	SL-01H (S-80)	6-18-34-49	SAND (SP) - Brownish gray, fine to medium grained, trace silt.
98.5-100.5'	SL-01I (S-81)	36-67-152-95	SAND (SP) - Same as above.
100.5'			End of Boring.

20909/20

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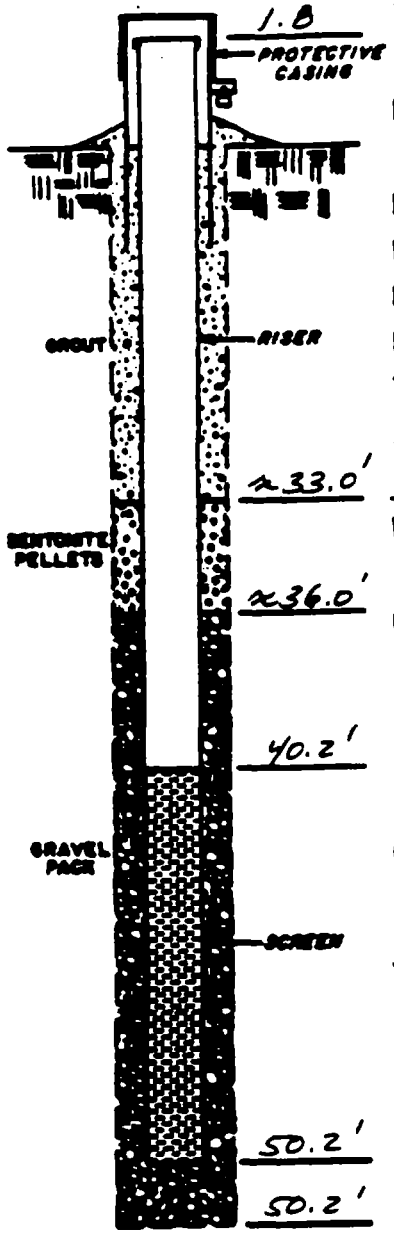
environmental engineers, scientists, planners & management consultants

WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-02



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. HOLLOW-STEM AUGER

Total Depth: 50.2 FT Depth to Water: —

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 42.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 50.2 - 40.2 FT

Filter Material: PEA GRAVEL Setting: 50.2 - ≈36.0 FT

Seals Material: BENTONITE PELLETS Setting: ≈36.0 - ≈33.0 FT

Grout: CEMENT Setting: ≈33.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 2.0 FT ABOVE, 3.0 FT BELOW

TIME LOG	Started	Completed
Drilling:	7/15/87 ?	7/15/87
Installation:	7/15/87 ?	7/15/87
Development:	8/3/88 0928	8/3/88 1006

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.2 FT.

Pumping Depth to Water: N/A

Pumping Rate: 5.3 GAL/MIN Specific Capacity:

Volume Pumped: 200 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-02
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-01

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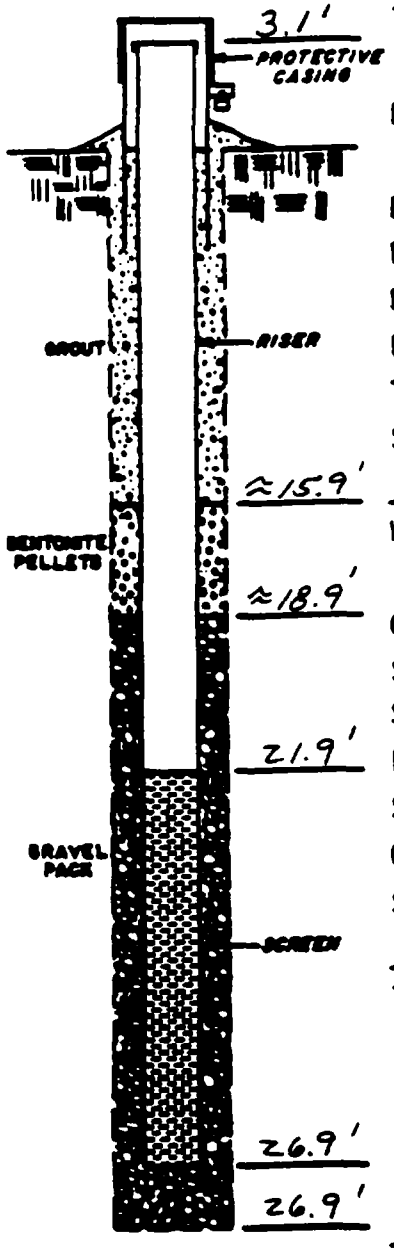
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-03



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN I.D. HOLLOW-STEM AUGER

Total Depth: 26.9 FT Depth to Water: 17.0 FT

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 25.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 5.0 FT

Slot Size: 0.010 IN. Setting: 26.9 - 21.9 FT

Filter Material: PEA GRAVEL Setting: 26.9 - ≈18.9 FT

Seals Material: BENTONITE PELLETS Setting: ≈18.9 - ≈15.9 FT

Grout: CEMENT Setting: ≈15.9 - 1.0 FT

Surface Casing Material: STEEL Setting: 3.5 FT ABOVE, 1.5 FT BELOW

TIME LOG	Started	Completed
Drilling:	7/16/87	7/16/87
Installation:	7/16/87	7/16/87
Development:	8/3/88 1018	8/3/88 1154

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.4 FT

Pumping Depth to Water: N/A

Pumping Rate: 0.3 GAL/MIN Specific Capacity:

Volume Pumped: 25 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-03
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-01

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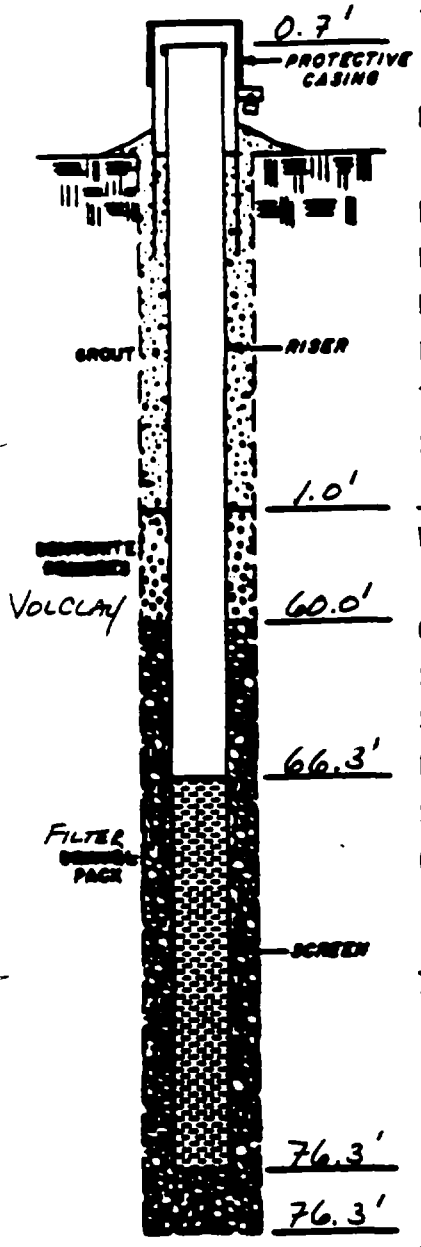
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-04



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: ≈ 6 IN. Drilling Fluid: AQUA-GEL

Bits/Depths: 5 5/8 IN. WING BIT (0 - 76.3') (BENTONITE)

Total Depth: 76.3 FT. Depth to Water: 20.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 67.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 76.3 - 66.3 FT.

Filter Material: QUARTZ SAND Setting: 76.3 - 60.0 FT.

Seals Material: VOLCLAY Setting: 60.0 - 1.0 FT.

Grout: PORTLAND CEMENT Setting: 1.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started		Completed	
Drilling:	6/28/88	0830	6/28/88	1430
Installation:	6/29/88	0745	6/29/88	1020
Development:	7/26/88	1318	7/26/88	1440

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 21.6 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.8 GALS/MIN Specific Capacity:

Volume Pumped: 150.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-04
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-YA (1/3 4D)	13-14-15-19	SILTY SAND (SM) - 0-1.75' light brown very dry loam. 1.75-2.0' medium plasticity silt or clay with rust particles. Possible fill material.
5.0-7.0'	SL-4B (1/3 4D)	6-8-9-12	SAND (SP) - Brown, medium to coarse grained, moderate sorting, some silt and clay (10%), quartzose, and moist.
15-19.0'	SL-4C (1/3 4D)	4-4-4-4	SAND (SW) - Light brown, coarse grained, poorly sorted, saturated; 90% quartz grains and 10% lithic fragments consisting of subrounded-subangular shale and siltstone fragments, minor carbonates.
30-34.0'	SL-4E	10-12-13-14	SAND (SW-GP) - Gray, coarse grained and interbedded wih gravel. Gravel consists of subangular to angular shale, siltstone, and limestone clasts.
45-46.5'	SL-4F	11-15-31	SAND (SW) - Same as above. No inorganic samples were taken.
60-61.5'	SL-4G	35-75 (+4")	SAND - 60 to 60.3', Drill cuttings; 60.3' to 60.7', gravel (a/a); and 60.7' to 61.0', dark gray, coarse grained sand with pebbles.
75-76.5'	SL-4I	75 (+4.5")	SILT (ML) - Gray, damp to moist. Contains angular to subangular (subrounded) pebbles. Pebbles exhibit random orientations.
76.5'			End of Boring.

SITE: FISHER-CREO

WELL NO. MW-05
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-04

SITE: FISHER-CALO

WELL NO. MW-06
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-04

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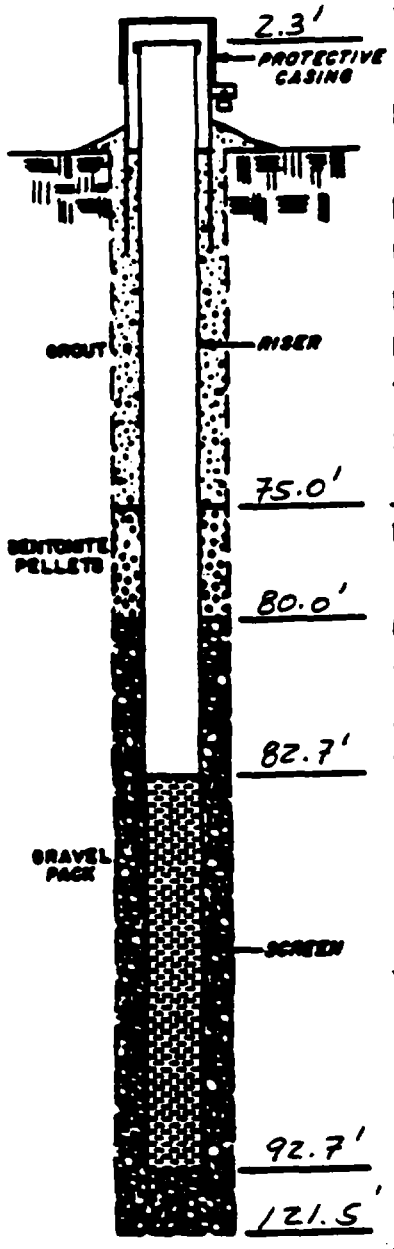
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-07



DRILLING SUMMARY

Drilling Co: ETS Drillers: T. HASKETT

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN AND 6.0 IN Drilling Fluid: BENTONITE MUD

Bits/Depths: 6 1/4 IN. I.D. RISER (0-15'), 5 1/8 IN. WING-BIT (15-121.5')

Total Depth: 121.5 FT. Depth to Water: —

Supervisory Geologist: MARK LUCAS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 85.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 92.7 - 82.7 FT

Filter Material: PEA GRAVEL Setting: 99.0 - 80.0 FT

Seals Material: BENTONITE PELLETS Setting: 80.0 - 75.0 FT

Grout: CEMENT Setting: 75.0 - 1.0 FT

HOLE PLUG: BAROID HOLE PLUG Setting: 121.5 - 99.0 FT

TIME LOG	Started	Completed
Drilling:	7/21/87 0748	7/25/87 1030
Installation:	7/25/87 1030	7/27/87 1600
Development:	8/2/88 1201	8/2/88 1314

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 14.2 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.1 GAL/MIN Specific Capacity:

Volume Pumped: 150 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-07
PAGE 1 OF 5

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-7A	2-4-3-3	SAND (SP) - Dark yellowish brown to light brown (10 YR 4/2 to 5 YR 6/6); upper 1.0', fine to medium grained sand, little silt, trace rootlets; dry non-plastic, loose; lower 1.0', fine to coarse grained, little silt, trace clay; grains sub-angular to subrounded, quartzose, moist, loose.
3.5-5.5'	SL-7B	2-3-4-3	SAND (SP) - Dark yellowish brown (10 YR 6/6), fine grained, little silt, grains subangular and quartzose, trace mica, orthoclase, and heavy minerals; loose, slightly moist.
8.5-10.5'	-	5-5-5-4	SAND (SP) - Very pale orange to dark yellowish brown (10 YR 8/2 to 4/2), fine to medium grained, well to moderately well sorted towards base, laminated to thin bedded, grains subangular to subrounded, quartzose, minor to trace lithic fragments and opaques; heavy mineral trains upper 1.0'; upper 1.0' dry, lower 1.0' wet.
13.5-15.5'	SL-7C	3-4-5-11	SILTY CLAY (CH) and SAND (SP-SW) - 13.5-13.7', grayish yellow-green (5 GY 7/2), silty clay, thin bedded, moist. 13.7-15.5', Moderate yellow-brown to grayish orange (10 YR 5/4 to 7/4), fine SAND to medium to coarse grained sand towards base; upper sand is thin bedded, little silt and clay (SP-ML), moderate dense, and moist; lower sand moderately well sorted, cross-laminated; quartzose with minor feldspar, lithics, and opaques; saturated.

SITE: FISHER-CA[illegible]

WELL NO. MW-07
PAGE 2 OF 5

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
18.5-20.5'	-	3-4-7-15	SAND (SW) - As above, slightly less well sorted, increase in fine sand, trace coarse angular pebbles, silt seams common.
23.5-25.5'	-	12-16-20-23	SAND (SW-SP) - Light olive gray (5 YR 6/1), coarse to fine grained, to medium to fine grained towards base, poor to moderate sorting, upper layer is gravelly with fine to coarse, subangular pebbles; overall thin bedded, trace silt, subrounded grains; quartzose, minor feldspar, lithics, and opaques; lithics primarily sed. rock fragments; saturated throughout.
28.5-30.5'	SL-7D	10-20-24-29	SAND (SW-SP) - Same as above, occasional thin laminae of coarse to fine pebbles, subangular clasts, lithic fragments. OVA Reading at 32.0':1.0 ppm.
33.5-35.5'	-	8-16-17-20	GRAVEL (GW) to SAND (SP) - Light olive gray (5 YR 6/1), gravel, fine to coarse pebbles, little medium to coarse sand, polymictic, clasts subrounded, thin bedded. Light olive gray (5 YR 6/1), SAND, medium to coarse grained, trace fine to coarse pebbles and silt, moderate sorting, weak lamination; quartzose with minor lithic fragments (SRF) and trace feldspar; moderately dense and saturated.
38.5-40.5'	-	10-11-14-16	SAND (SP-SW) - Same as above, slight increase in silt content and opaque minerals, and decreased sorting.

SITE: FISHER-CALO

WELL NO. MW-07
PAGE 3 OF 5

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
43.5-45.5'	SL-7E	10-15-16-23	SAND (SP-SW) - Same as above, slight decrease in grain size, slight increase in silt content, weak stratification.
48.5-50.5'	-	10-12-15-21	SAND (SW-SP) - Same as above, occasional sedimentary clasts (pebbles) oriented subparallel to bedding, weak stratification; saturated.
53.5-55.5'	-	17-24-23-30	SAND (SW-SP) - 53.5-55.0', Same as above, sub-horizontal stratification with occasional thin laminae composed of heavy minerals; saturated. 55.0-55.5', Moderate yellow (10 YR 5/2), SAND, fine grained, little silt, well sorted, grains subangular to subrounded; quartzose with trace feldspar, opaques and garnet; saturated.
58.5-60.5'	SL-7F	10-15-23-30	SAND (SP) - Same as above, increase in grain size, fine to medium grained, trace silt, well sorted, subrounded grains, coarse laminae; quartzose with trace lithic fragments (SRF), feldspar, and opaques; dense and saturated.
63.5-65.5'	-	24-35-62-118	SAND (SP) - Same as above, slight increase in opaques; trace fine to coarse pebbles, clasts subangular; poor stratification; very dense to hard; saturated.
68.5-70.5'	SL-7G	46-29-43-60	SAND (SP) - Same as above, slight increase in sorting, very dense, saturated.
73.5-75.5'	-	33-42-55-62	SAND (SP) - Same as above, increase in sorting, grains predominantly subrounded, hard; saturated.

SITE: FISHER-CALO

WELL NO. MW-07
PAGE 4 OF 5

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
78.5-80.5'	-	24-28-48-66	SAND (SP) - Pale yellowish brown (10 YR 6/7), fine to medium grained, trace silt, moderately well sorted; quartzose (85-90%) with trace lithic fragments (SRF) feldspar, and silt-sized heavy minerals; weak stratification; dense to hard, saturated.
83.5-85.5'	-	24-40-47-42	SAND (SP) - Same as above, increase in sorting and quartz content; saturated.
88.5-90.5'	SL-7H	15-24-35-52	SAND (SP) - Same as above, trace fine to coarse pebbles, clasts sub-angular; decrease in sorting and lithic fragments (SRF); increase in accessory minerals. 90.3-90.5', Light olive gray (5 YR 5/2), SAND, fine to medium grained, trace silt, well sorted, weak thin laminations; dense and saturated. Upper contact gradational (thin), inversely graded (fines downward).
93.5-95.5'	-	25-43-72-80	SAND (SP) - Same as above, very thin interbeds of dark yellowish brown (10 YR 4/2) silt and clay (CL); laminated, medium plasticity; sand layers are 0.15' thick; moist.
98.5-100.5'	-	20-41-46-58	CLAYEY SILT (ML) - Olive gray (5 YR 4/1), trace. Fine sand, trace fine to coarse pebbles, clasts sub-angular very finely laminated; low plasticity and hard; moist silt observed in cuttings at 97.0'. Drove shelby tube at 100.5', no recovery. DRILLERS NOTE: Silt cuttings 102.5 to 108.5'.

SITE: FISHER-CALO

WELL NO. MW-07
PAGE 5 OF 5

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
108.5-110.5'	-	19-28-64-109	CLAY and SILT (CL) to SILT and SAND (ML-SM) - 108.5-110.2', medium gray (N5); thin, low-angle cross-laminae of fine sand (flaser bedding), low to medium plasticity, hard and moist. 110.2-110.5', Light olive gray (5 YR 6/1), SILT and fine SAND; low angle trough cross-lamination; quartzose with minor opaques (10%); very dense and saturated. DRILLERS NOTE: Rapid increase in drilling, sand and gravel in cuttings at 113.0'.
118.5-120.5'	-	24-36-54-76	SAND (SP) - Pale yellowish brown (10 YR 6/2), fine to medium grained, trace silt, well sorted, finely laminated; quartzose with typical composi-
121.5'			End of Boring.

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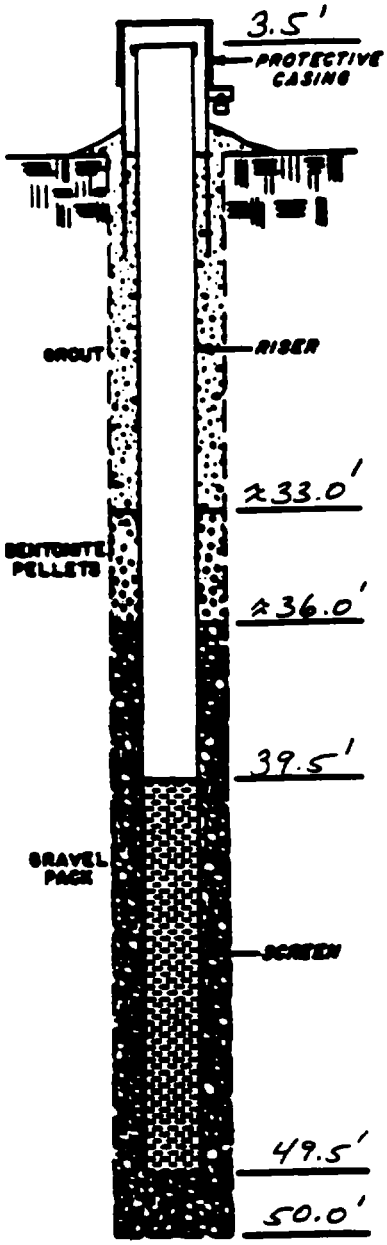
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-08



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. I.D. HOLLOW-STEM AUGER (0-50.0')

Total Depth: 50.0 FT Depth to Water: —

Supervisory Geologist: VANCE A. PEERS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 43.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 49.5 - 39.5 FT.

Filter Material: PEA GRAVEL Setting: 50.0 - ≈36.0 FT.

Seals Material: BENTONITE PELLETS Setting: ≈36.0 - ≈33.0 FT.

Grout: CEMENT Setting: ≈33.0 - 1.0 FT.

Surface Casing Material: STEEL Setting: 3.8(?) FT ABOVE, 1.2 FT BELOW

TIME LOG	Started	Completed
Drilling:	7/30/87	7/30/87
Installation:	8/3/87	8/3/87
Development:	8/2/88 0855	8/2/88 0920

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 14.2 FT

Pumping Depth to Water: N/A

Pumping Rate: 8.0 GAL/MIN Specific Capacity:

Volume Pumped: 200 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-08
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-07

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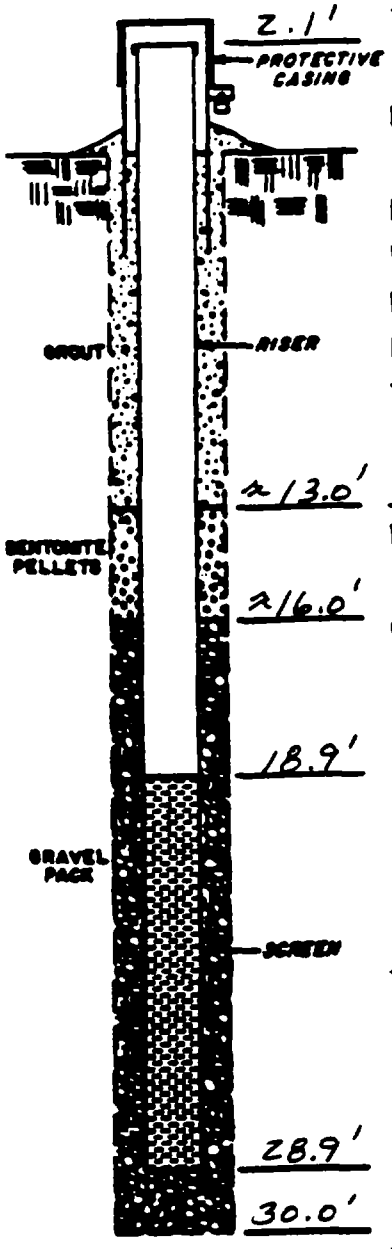
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-09



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. I.D. HOLLOW-STEM AUGER (0-30.0')

Total Depth: 30.0 FT. Depth to Water:

Supervisory Geologist: MARK LUCAS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 21.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 28.9 - 18.9 FT.

Filter Material: PEA GRAVEL Setting: 30.0 - ≈16.0 FT

Seals Material: BENTONITE PELLETS Setting: ≈16.0 - ≈13.0 FT

Grout: CEMENT Setting: ≈13.0 - 1.0 FT

Surface Casing Material: STEEL Setting: 2.5 FT ABOVE, 2.5 FT BELOW

TIME LOG	Started	Completed
Drilling:	8/23/87	8/23/87
Installation:	8/23/87	8/23/87
Development:	8/2/88 1045	8/2/88 1149

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 13.9 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.3 GAL/MIN Specific Capacity:

Volume Pumped: 150 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-09
PAGE 1 OF 1

FLIGHT INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION (1)
0-5.0'	-	-	SAND (SW) - Moderate brown (5 YR 4/4), fine to coarse grained, trace silt, trace fine to coarse pebbles, poorly sorted, trace clay coatings on grains; dry.
5-10.0'	-	-	SAND (SP-SM) - Light brown (5 YR 5/6), fine grained, some silt, trace clay coatings on grains, moderate sorting; moist.
10-15.0'	-	-	SAND (SP) - Moderate brown (5 YR 4/4), fine to coarse grained, trace silt, moderate sorting, quartzose with trace feldspar and lithic fragments (SRF), grains subrounded; wet.
15-20.0'	-	-	SAND (SP) - Same as above, increase in coarse grains, feldspar, and lithic fragments; saturated. Water level noted at 15.0'.
20-25.0'	-	-	SAND (SP) - Same as above; saturated.
25-30.0'	-	-	SAND (SP) - Same as above; saturated.
30.0'	-	-	End of Boring.

(1)Descriptions based on drill cuttings.

SITE: FISHER-C[illegible]

WELL NO. MW-48
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-1.5'	SL-48A	9-40-24	FILL - Brown topsoil overlying gray, gravelly fill.
7-8.5'	SL-48B	8-11-13	FILL to SAND (SP) - 7.0-7.5', Fill, gray gravel on brown silty sand. 7.5-8.5', SAND (SP) - Moderate orangish brown, fine to medium grained, well sorted. OVA Reading: 1-2.0 ppm.
17-18.5'	SL-48C	15-15-18	SAND (SP) - Moderate yellowish brown, fine to medium grained, trace silt/clay, moderate sorting, grains subangular to subrounded, quartzose, no bedding visible; saturated. OVA Reading: 0.1 ppm at 18.3'.
32-33.5'	SL-48D	7-17-18	SAND (SP) - Brownish gray, medium to coarse grained, no silt/clay visible, grains subangular to subrounded, quartzose with minor sed. rock fragments, and feldspar; well sorted; saturated.
47-48.5'	SL-48E	17-20-42	SAND (SP) - Brownish gray, ranges from very fine to fine grained at top to fine to medium grained at base; moderately well to well sorted at base; pebbly layer at 47.5'; grains subangular to subrounded, composition as above. OVA Reading: 0.5-3.0 ppm. REMARKS: Sand cuttings 47-65.5'.
65.5-67.0'	SL-48F	12-16-20	SAND (SP) - Moderate grayish brown, medium grained, moderately well sorted, grains subangular to subrounded; quartzose with minor sed. rock fragments, feldspar, and epidote; saturated.

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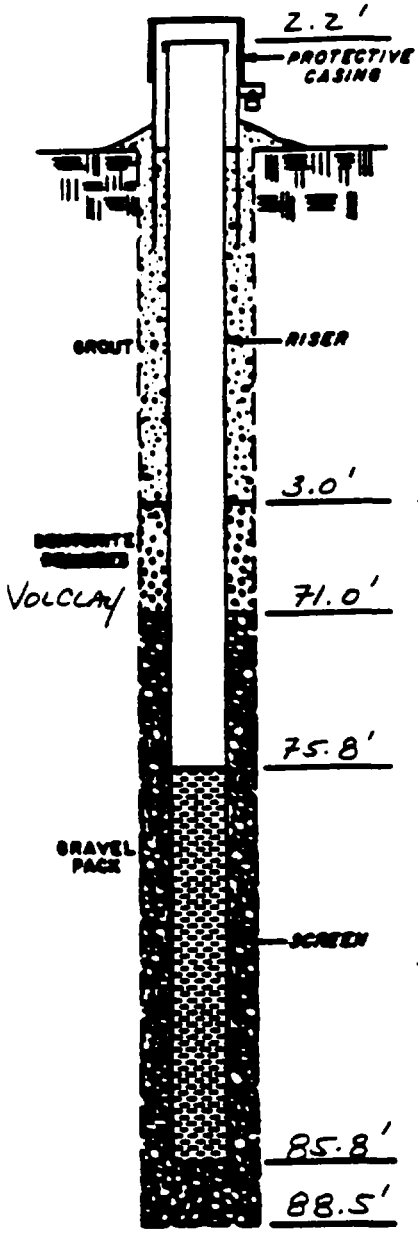
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW - 48



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 7.0 IN. (0 - 88.5') Drilling Fluid: LIQ. POLYMER (0-47'), BENTONITE (47-88')

Bits/Depths: 5 5/8 IN. TRI-CONE, 6 5/8 IN. CASING ADV.

Total Depth: 88.5 FT. Depth to Water: —

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 78.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 85.8 - 75.8 FT.

Filter Material: NATURAL SAND Setting: 88.5 - 71.0 FT.

Seals Material: VOLCLAY Setting: 71.0 - 3.0 FT.

Grout: PORTLAND CEMENT Setting: 3.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 2.5 FT. ABOVE, 2.5 FT. BELOW

TIME LOG	Started		Completed	
Drilling:	5/12/88	1030	5/18/88	1200
Installation:	5/18/88	1400	5/20/88	0830
Development:	7/28/88	0820	7/28/88	0926

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 13.9 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.4 GAL/MIN Specific Capacity:

Volume Pumped: 140 GAL

NY-5

SITE: FISHER-CNLO

WELL NO. MW-09
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-07

SITE: **FISHER-CALO**

WELL NO. MW-10
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.5'	SL-10A (1/3 10D)	15-30-30-30	SILTY SAND (ML) LOAM - 0-2.0' Dark brownish gray with angular rock fragments and slag; dry.
			2.0-2.5' (2nd Spoon) SAND (SP), Brown, fine-grained, and nearly dry.
5-7.5'	SL-10B (1/3 10D)	10-15-14-12	SAND and GRAVEL (SL/GP) - 5-5.6', angular gravel with dark brown sandy loam.
			5.6-6.1', SAND, moderate brown and medium grained.
			6.1-7.5' (2nd Spoon), SILTY SAND (SM), Moderate yellow/brown, fine grained, moist. OVA reading (overall) 0.5 ppm.
15-17.0'	-	5-7-6-7	GRAVEL (GP) - Angular to subangular gravel with a thin bed (0.1' thick) of brown sand and gravel. Second spoon taken from 15.6-16.0'.
25-27.0'	SL-10C (1/3 10D)	13-21-22-27	SAND (SP) - Light moderate brown, medium grained, well sorted and saturated. Sand and gravel (GP), thin to medium bedded (25.6-26.0'), sand is medium grained with sub-angular to subrounded gravel.
35-37.0'	SL-10E	17-46-85-95	SAND (SP) - Moderate yellow/brown, medium to coarse grained, some fine sand, moderate sorting, trace silt/clay, saturated; sand grains are subrounded to subangular, predominantly quartzose (90%) with minor feldspar, lithic fragments, and heavy minerals. Thin bed (0.3' thick) of fine to medium pebbles at base, clasts are rounded to sub-angular.

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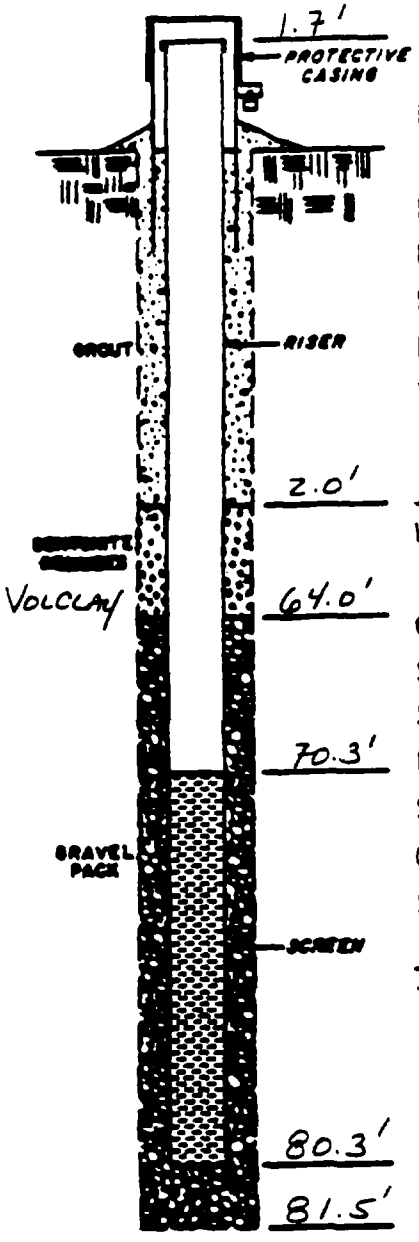
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-59



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARRE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6.0 IN. Drilling Fluid: AQUA - GEL

Bits/Depths: 5 7/8 IN. WING BIT, (0 - 81.5 FT) BENTONITE MU

Total Depth: 81.5 FT. Depth to Water: ~15.0 FT.

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 72.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 80.3 - 70.3 FT.

Filter Material: COARSE SAND Setting: 81.5 - 64.0 FT.

Seals Material: VOLCLAY Setting: 64.0 - 2.0 FT.

Grout: PORTLAND CEMENT Setting: 2.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 2.0 FT. ABOVE, 3.0 FT. BELOW

TIME LOG	Started		Completed	
Drilling:	6/6/88	1400	6/7/88	1100
Installation:	6/7/88	1100	6/7/88	1600
Development:	7/22/88	1148	7/22/88	1237

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.3 FT.

Pumping Depth to Water: N/A

Pumping Rate: 4.1 + GAL/MIN Specific Capacity:

Volume Pumped: 200 + GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-59
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0 - 2.0'	SL-59A (1/3 59D)	20-14-18-14	Silty SAND LOAM - Dark grayish brown, moist.
5 - 7.5'	SL-59B (1/3 59D)	8-8-10-12	SAND (SP) to SILTY SAND (SM) - moderate grayish brown to yellowish brown (at base), minor silt/clay with locally abundant gravel in upper unit, silt content increases towards base (lower 0.2'); moist.
15 - 17.0'	5L-59C (1/3 59D)	6-8-7-10	SAND (SP) moderate brown, medium grained; probably saturated.
30 - 32.0'	SL-59E (DUP)	22-26-40-35	SAND (SP) - Moderate yellowish brown, medium to coarse grained, moderate sorting, trace silt/clay, trace to locally abundant gravel, clasts are subangular, coarse pebbles common; quartzose.
45 - 46.5'	SL-59F	25-48-75(+4")	SAND (SP) to GRAVEL (GP) - 45 - 46.0', moderate yellowish brown SAND, medium to coarse grained, trace silt/clay to gravel, moderate sorting, grains subangular to subrounded; quartzose (85-90%), minor sed. rock fragments, and trace heavy minerals (garnet and epidote) and feldspar; saturated. 46-46.3', GRAVEL, some sand (10 to 20%), granules to coarse pebbles, clasts are provided to subangular; normal grading is evident.
60 - 61.5'	SL-59G	75	SAND (SP) to GRAVEL (GP) - Moderate sand, medium to coarse grained, medium grained at base; thin bed of fine to medium pebbles at 60.1 - 60.3.

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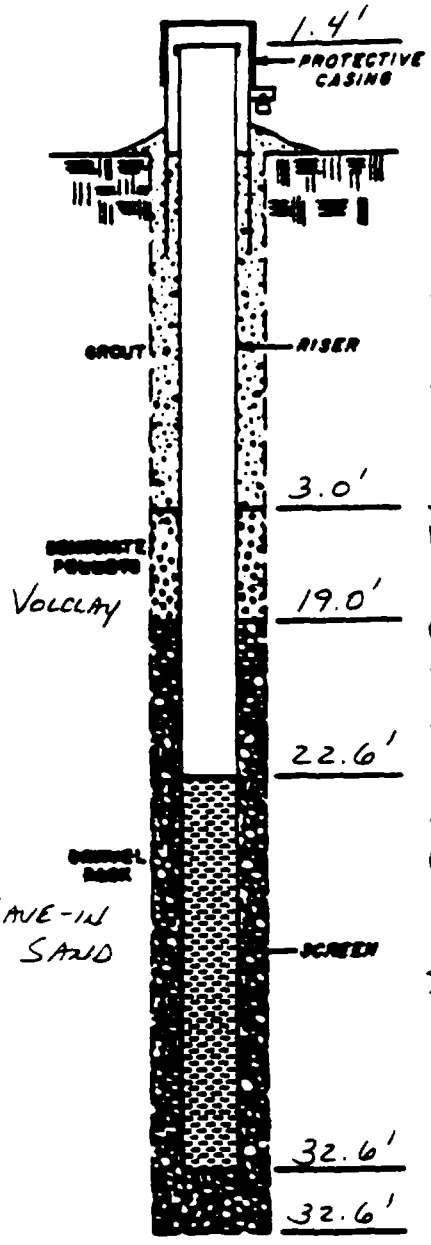
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-58



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 32.6')

Total Depth: 32.6 FT. Depth to Water: 17.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 24 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.6 - 22.6 FT.

Filter Material: CAVE-IN SAND Setting: 32.6 - 19.0 FT.

Seals Material: VOLCLAY Setting: 19.0 - 3.0 FT.

Grout: PORTLAND CEMENT Setting: 3.0 - 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1535 5/18/88	1603 5/18/88
Installation:	0739 5/19/88	0947 5/19/88
Development:	1053 7/26/88	1123 7/26/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.6 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.1 GALS/MIN Specific Capacity:

Volume Pumped: 32.0 GALS

MY-5

SITE: FISHER-CALO

WELL NO. MW-58
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-56

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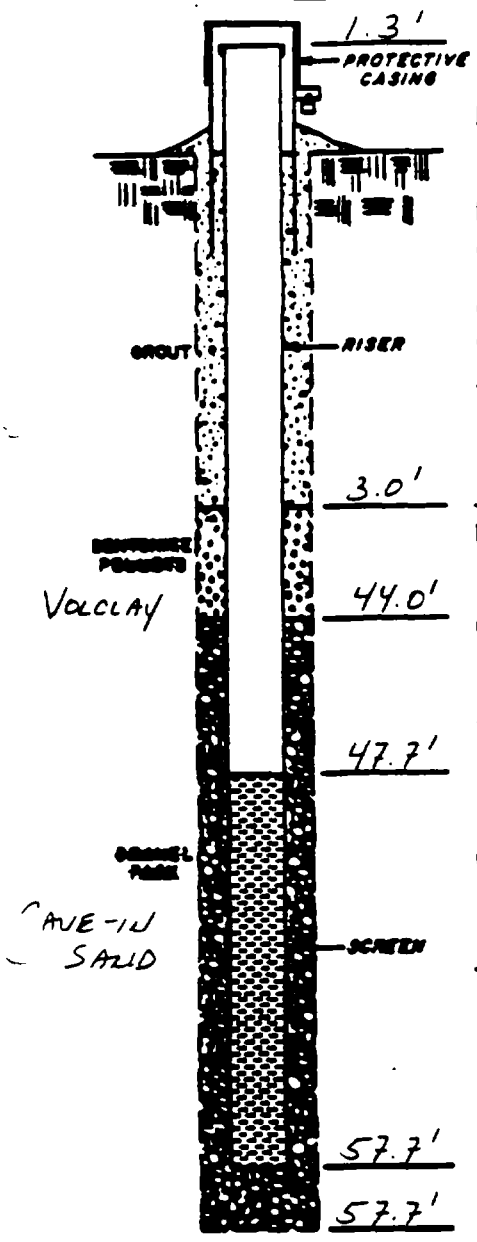
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-57



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 57.7')

Total Depth: 57.7 FT. Depth to Water: 17.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 49 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 57.7 TO 47.7 FT.

Filter Material: CAVE-IN SAND Setting: 57.7 TO 44.0 FT

Seals Material: VOLCLAY Setting: 44.0 TO 3.0 FT

Grout: PORTLAND CEMENT Setting: 3.0 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT ABOVE

TIME LOG	Started	Completed
Drilling:	0954 5/19/88	1030 5/19/88
Installation:	1031 5/19/88	1416 5/19/88
Development:	1131 7/26/88	1202 7/26/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.6 FT.

Pumping Depth to Water: N/A

Pumping Rate: 4.8 GALS./MIN Specific Capacity:

Volume Pumped: 150 GALS.

NY-5

SITE: FISHER-CALO

WELL NO. MW-57
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-56

SITE: FISHER-CALO

WELL NO. MW-56
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-56A (1/3 56D)	6-17-26-30	SILTY SAND LOAM (SM) - Dark brown, some pebbles, and nearly dry.
5-7.0'	SL-56B (1/3 56D)	8-12-14-16	SAND (SP) - Light to moderate brown, coarse grained, abundant fine gravel (30%); dry.
15-17.0'	SL-56C (1/3 56D)	6-7-13-18	SAND (SP) - Moderate yellow brown, medium grained; partly saturated; saturated at 16-16.5'.
30-31.5'	SL-56E (DUP)	26-135-162	SAND (SP) - Moderate yellow brown, medium grained; thin beds of coarse sand and granules to medium sand and fine pebbles at top of unit; fine pebbles common in top of unit; trace gravel at base (30.5-31.5').
45-46.5'	SL-56F	37-75/5"	SAND (SP) - Brown to moderate yellowish brown, medium grained, gravelly (25%) at top (0.3'); saturated.
60-61.5'	SL-56G	25-75/3"	SAND (SP) - Moderate brown, 60-60.5', medium grained to coarse grained with granules at base, unit fines upward; clasts are composed of sed. rock fragments, elongate clasts are oriented subhorizontally. 60-61.3', as above, medium grained only. 61.3-61.5', fine to medium pebbles, clasts subrounded to rounded, multi-lithologic; thin bedded.
70-71.5'	SL-56H	-	SAND (SP) - to CLAYEY SILT (ML) - 70-70.6', medium grained SAND, moderate yellowish brown; thin bed of coarse sand and granules visible.

SITE: FISHER-CALO

WELL NO. MW-56
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			70.6-71.5', Moderate gray CLAYEY SILT, gravelly at top (10-20%) to trace angular pebbles towards base; moist.
71.5'			End of Boring.

SITE: FISHER-CALO

WELL NO. MW-55
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			NO BORING LOG.

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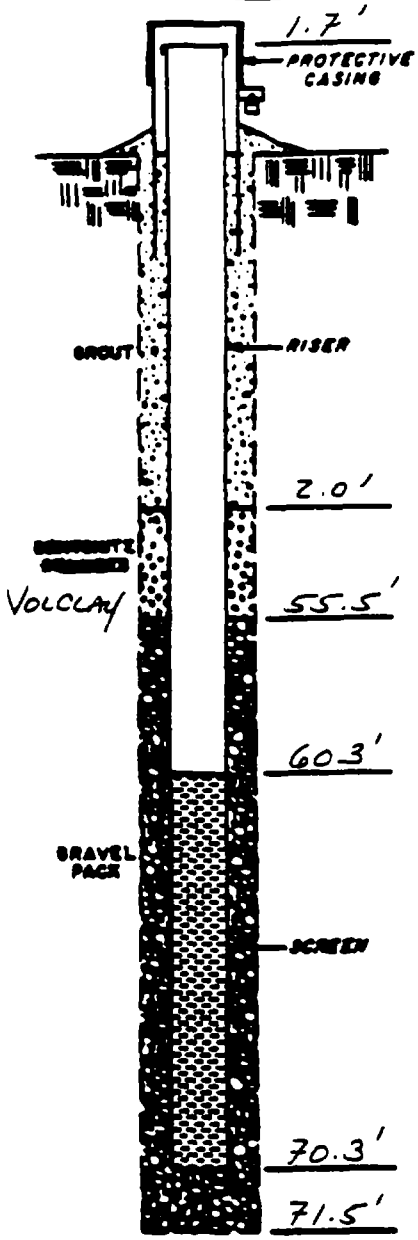
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW - 56



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6.0 IN. (0 - 71.5') Drilling Fluid: AQUA - GEL

Bits/Depths: 5 7/8 IN. WING BIT BENTONITE MUD

Total Depth: 71.5 FT. Depth to Water: ~16.0 F

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 62.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0

Slot Size: 0.010 Setting: 70.3 - 60.3 FT

Filter Material: COARSE SAND Setting: 71.5 - 55.5 FT.

Seals Material: VOLCLAY Setting: 55.5 - 2.0 FT.

Grout: PORTLAND CEMENT Setting: 2.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 2.0 FT. ABOVE, 3.0 FT. BELOW

TIME LOG	Started	Completed
Drilling:	6/8/88 0900	6/13/88 1400
Installation:	6/13/88 1400	6/13/88 1630
Development:	7/26/88 0850	7/26/88 1040

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.3 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.3 GAL/MIN Specific Capacity:

Volume Pumped: 250 GAL.

NY-5

SITE: FISHER-CALO

WELL NO. MW-54
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-29

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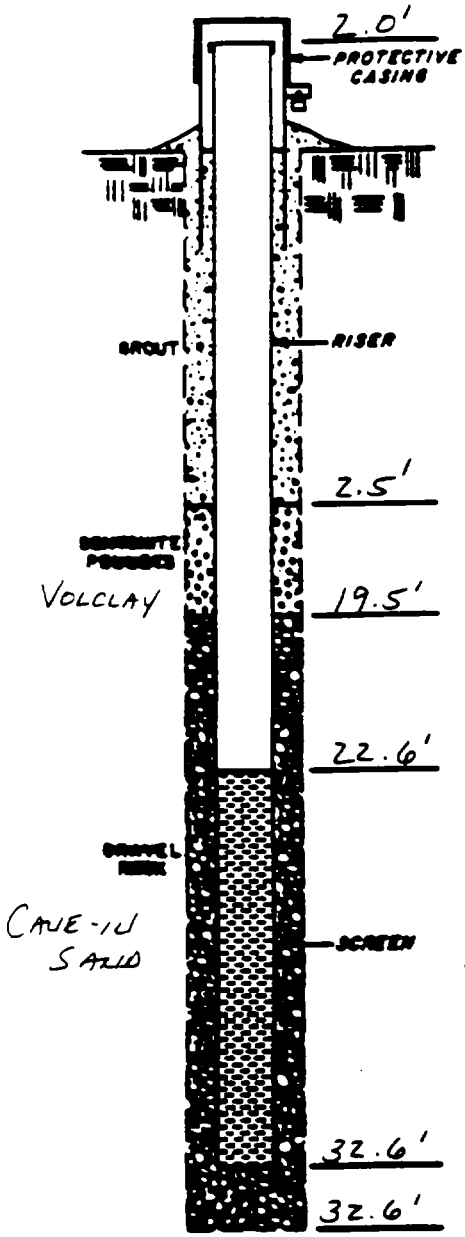
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-55



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 32.6')

Total Depth: 32.6 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 24.6 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.6 TO 22.6 FT.

Filter Material: CAVE-IN SAND Setting: 32.6 TO 19.5 FT.

Seals Material: VOLCLAY Setting: 19.5 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1531 5/10/88	1600 5/10/88
Installation:	1408 5/11/88	1700 5/11/88
Development:	1015 7/22/88	1059 7/22/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.9 FT.

Pumping Depth to Water: N/A

Pumping Rate: 0.8 GALS/MIN Specific Capacity:

Volume Pumped: 35.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-53
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-29

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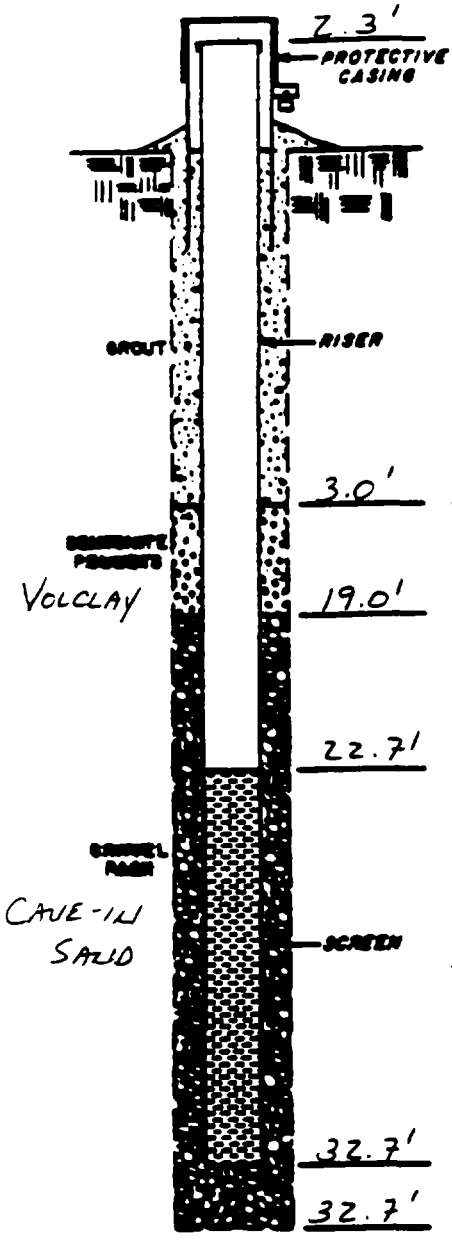
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-54



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 32.7')

Total Depth: 32.7 FT. Depth to Water: 17.5'

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 25 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.7 TO 22.7 FT

Filter Material: CAVE-IN SAND Setting: 32.7 TO 19.0 FT.

Seals Material: VOLCLAY Setting: 19.0 TO 3.0 FT.

Grout: PORTLAND CEMENT Setting: 3.0 TO 0 FT.

Surface Casing Material: STEEL Setting: 2.5 FT. ABOVE SURFACE

TIME LOG	Started	Completed
Drilling:	0900 5/12/88	1000 5/12/88
Installation:	1020 5/12/88	1530 5/12/88
Development:	850 7/22/88	948 7/22/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.0 FT.

Pumping Depth to Water: N/A

Pumping Rate: 0.9 GALS/MIN Specific Capacity:

Volume Pumped: 50.0 GALS.

NY-5

SITE: FISHER-CALO

WELL NO. MW-51
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			NO BORING LOG.

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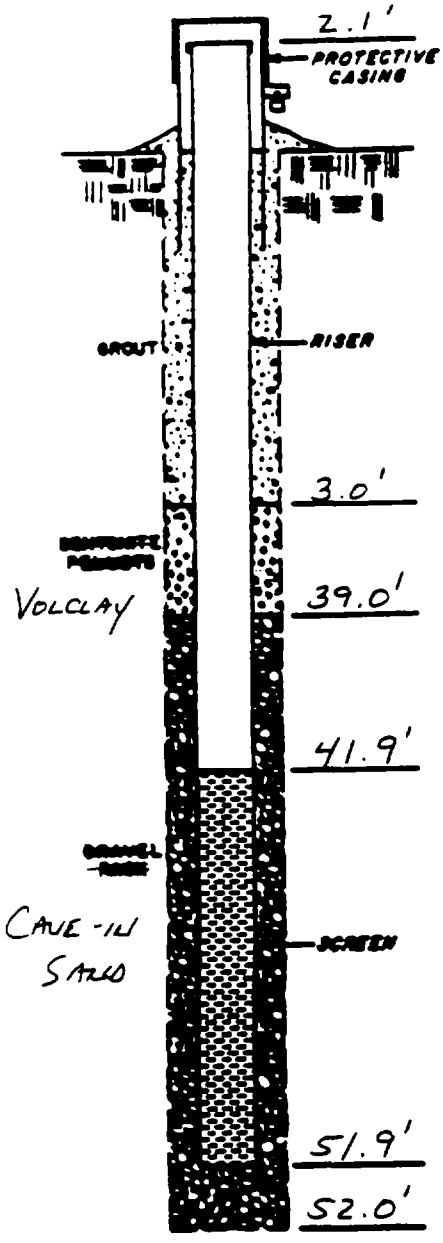
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-53



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 52.0')

Total Depth: 52 FT. Depth to Water: 17.4 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 44 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 51.9 TO 41.9 FT.

Filter Material: CAVE-IN SAND Setting: 52.0 TO 39.0 FT.

Seals Material: VOLCLAY Setting: 39.0 TO 3.0 FT.

Grout: PORTLAND CEMENT Setting: 3.0 TO 0 FT.

Surface Casing Material: STEEL Setting: 2 FT. + ABOVE

TIME LOG	Started	Completed
Drilling:	1100 5/12/88	1200 5/12/88
Installation:	1200 5/12/88	1530 5/12/88
Development:	818 7/22/88	843 7/22/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.1 FT.

Pumping Depth to Water: N/C

Pumping Rate: 3.2 GALS/MIN. Specific Capacity:

Volume Pumped: 80 GALS.

NY-5

SITE: FISHER-CALO

WELL NO. MW-50
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-48

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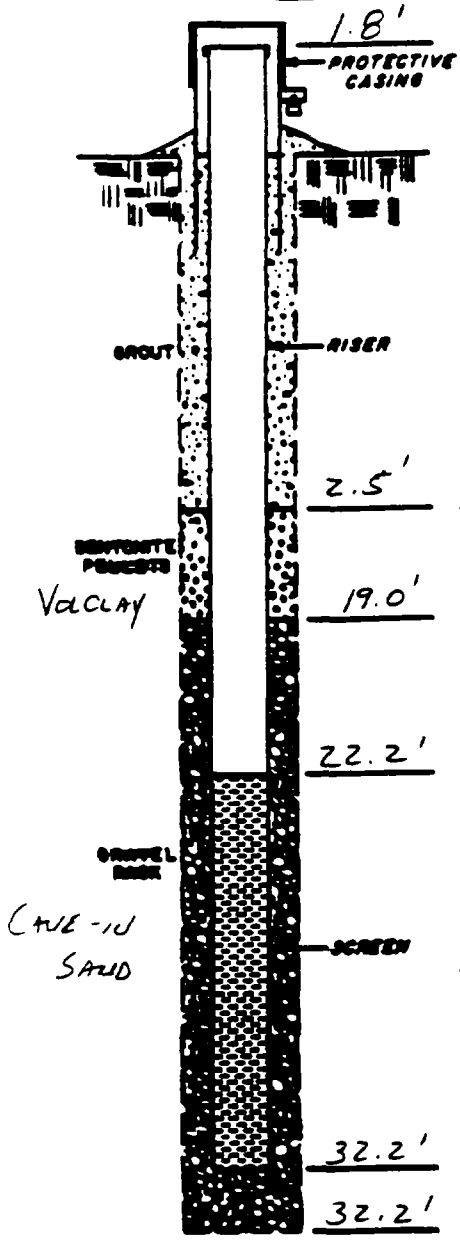
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-51



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 32.2')

Total Depth: 32.2 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 24 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.2 TO 22.2 FT.

Filter Material: CAVE-IN SAND Setting: 32.2 TO 19.0 FT.

Seals Material: VOLCLAY Setting: 19.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG

	Started	Completed
Drilling:	1117 5/16/88	1205 5/16/88
Installation:	1230 5/16/88	1345 5/16/88
Development:	1009 7/28/88 1013	1030 7/28/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.2 FT

Pumping Depth to Water: N/A

Pumping Rate: 2.6 GALS/MIN. Specific Capacity:

Volume Pumped: 45 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-49
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-48

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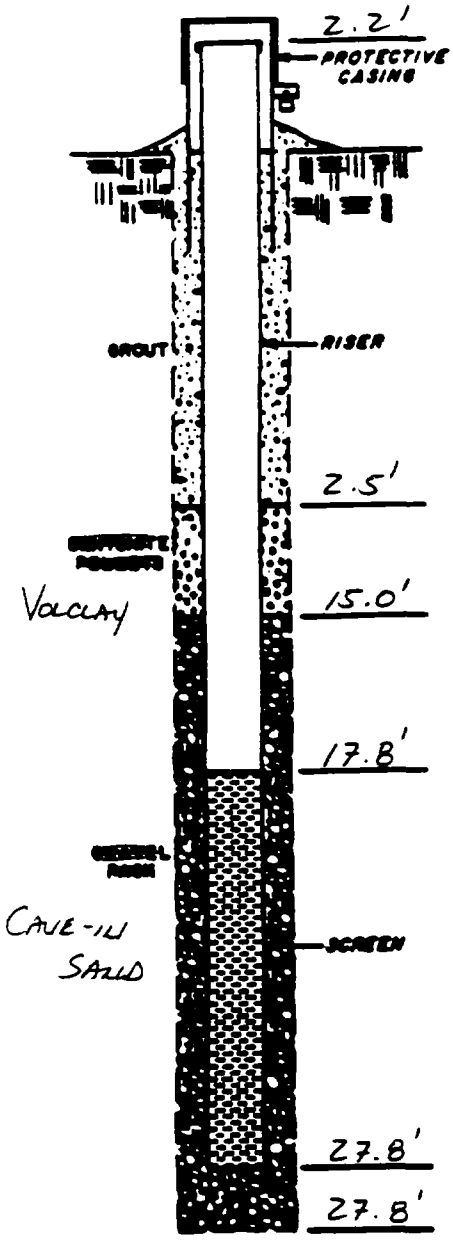
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-50



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 27.8')

Total Depth: 27.8 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 20 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 27.8 TO 17.8 FT.

Filter Material: CAVE-IN SAND Setting: 27.8 TO 15.0 FT.

Seals Material: VOLCLAY Setting: 15.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 2.8 FT. BELOW, 2.2 FT. ABOV

TIME LOG	Started	Completed
Drilling:	0930 5/13/88	1030 5/13/88
Installation:	1045 5/13/88	1456 5/13/88
Development:	1556 7/27/88	1638 7/27/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 13.8 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.4 GALS/MIN. Specific Capacity:

Volume Pumped: 100 GALS.

NY-5

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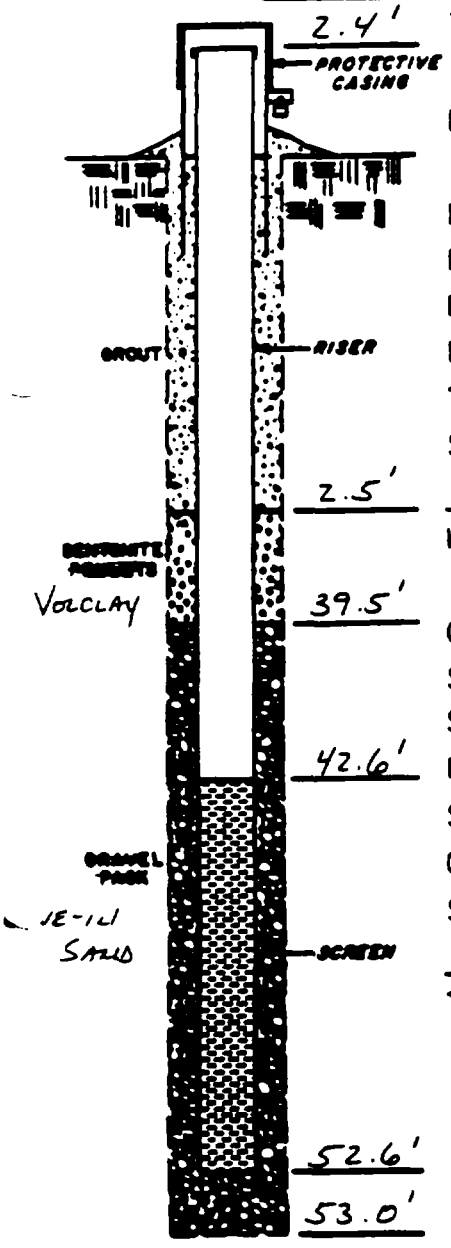
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-46



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7½ IN. 4 SLOT HOLLOW-STEM AUGERS (0-53.0')

Total Depth: 53.0 FT. Depth to Water: 18.7 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 45 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 52.6 TO 42.6 FT.

Filter Material: CAVE-IN SAND Setting: 53.0 TO 39.5 FT.

Seals Material: VOLCLAY Setting: 39.5 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1205 6/8/88	1328 6/8/88
Installation:	1330 6/8/88	1450 6/8/88
Development:	1814 7/26/88	1826 7/26/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.1 FT.

Pumping Depth to Water: N/A

Pumping Rate: 8.3 GALS/MIN. Specific Capacity:

Volume Pumped: 100 GALS.

NY-5

SITE: FISHER-CALO

WELL NO. MW-46
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-45

SITE: FISHER-CALO

WELL NO. MW-45
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-45A (1/3 45D)	10-22-30-22	SANDY LOAM (SM) - Dark brown to orangish brown; scattered stones; fill.
5-7.0'	SL-45B (1/3 45D)	9-14-15-14	Interbedded SILTY SAND (SM) and SAND (SW) - Laminated to thin bedded, moderate brown SILTY SAND, fine grained; thin to medium bedded moderate to light yellow brown, SAND, fine to medium grained.
15-17.0'	SL-45C (1/3 45D)	10-18-15-17	SAND (SP) - Moderate to light brown, fine to medium grained; trace silt/clay; thin bedded brown silt at top of unit; dry.
30-32.0'	SL-45E	33-47-63-50	SAND (SP) - Moderate grayish brown, medium to coarse grained, saturated.
45-46.5'	SL-45F (DUP)	38-48-75 (+5.5")	SAND (SP) - Moderate yellowish brown to moderate gray, unit ranges from fine to medium grained at top to medium to coarse grained at base; moderate sorting throughout, grains subangular to subrounded, trace to minor gravel and trace silt at base; quartzose; saturated. REMARKS: Sand and gravel cuttings 45-60'
60-61.5'	SL-45G	40-75(+5")	SAND (SP) - Moderate grayish brown, fine to medium grained, trace silt/clay and gravel, moderate sorting, grains subangular to subrounded; composition is quartzose (90-92%) with minor feldspar, lithic fragments (sed. and meta.), and heavy minerals (epidote).
70-71.0'	SL-45H	60-75(+5")	SAND (SW) - Moderate gray, fine to coarse grained, gravelly (up to 40%) with very coarse pebbles and minor silt/clay, poorly sorted; saturated.

SITE: FISHER-C[illegible]

WELL NO. MW-45
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
72-73.0'	-	42-75/2"	CLAYEY SILT - Moderate gray, gravelly at top of unit (0.4'), plasticity decreases slightly downward, gravel content decreases downward (30 to 2%); clasts typically angular to subrounded, rounding increases upward, composition is multi-lithologic at top to predominantly sed. at base; saturated (top) to moist (base).
73.0'			End of Boring.

SITE: FISHER-CALO

WELL NO. MW-44
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-42

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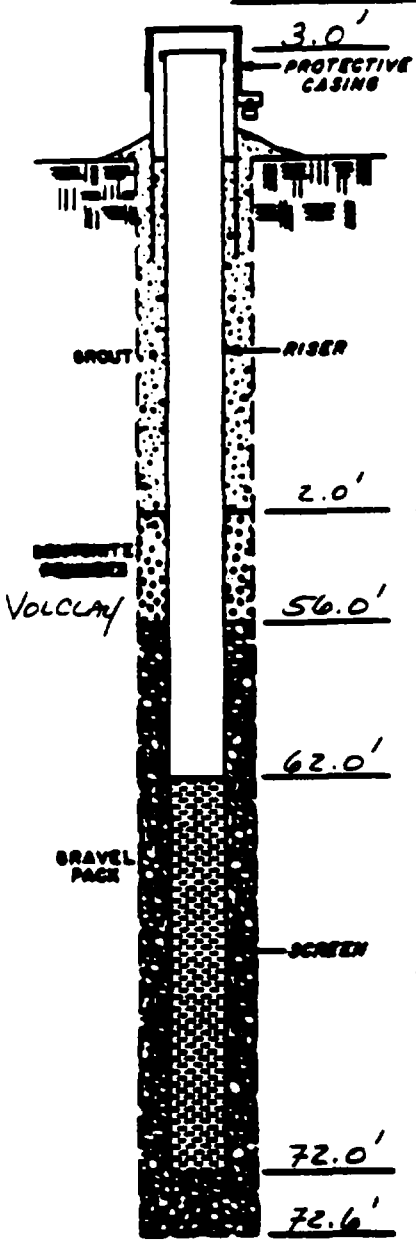
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-45



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HAIRE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6.0 IN. Drilling Fluid: AQUA-GEL

Bits/Depths: 5 5/8 IN. WING BIT (0 - 72.6') BENTONITE MUD

Total Depth: 72.6 FT. Depth to Water: —

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 65.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 72.0 - 62.0 FT.

Filter Material: QUARTZ SAND Setting: 72.6 - 56.0 FT.

Seals Material: VOLCLAY Setting: 56.0 - 2.0 FT.

Grout: PORTLAND CEMENT Setting: 2.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.5 FT. ABOVE, 1.5 FT. BELOW

TIME LOG	Started	Completed
Drilling:	6/4/88 1420	6/5/88 1355
Installation:	6/5/88 1355	6/6/88 0835
Development:	7/26/88 1711	7/26/88 1802

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.0'

Pumping Depth to Water: N/A

Pumping Rate: 2.6 GAL/MIN Specific Capacity:

Volume Pumped: 133 GALS.

NY-5

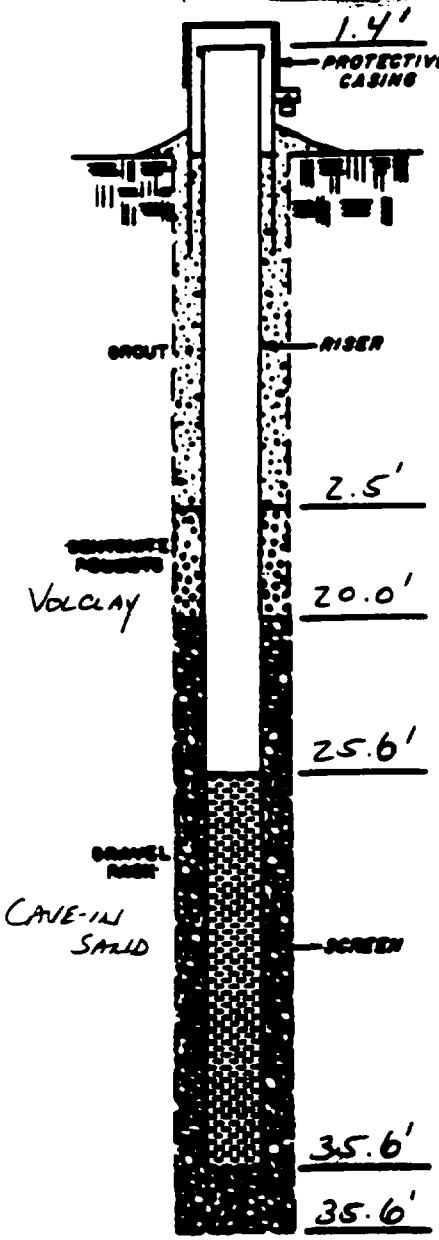
SITE: FISHER-CALO

WELL NO. MW-43
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-42

WELL CONSTRUCTION SUMMARY

Project: FIS[illegible]-CALO Client: U.S. EPA Well No: MW-44



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 35.6')

Total Depth: 35.6 FT Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 27.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 35.6 TO 25.6 FT.

Filter Material: CAVE-IN SAND Setting: 35.6 TO 20.0 FT.

Seals Material: VOLCLAY Setting: 20.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT ABOVE

TIME LOG	Started	Completed
Drilling:	1517 6/13/88	1543 6/13/88
Installation:	1543 6/13/88	1645 6/13/88
Development:	1444 7/27/88	1533 7/27/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 21.3 FT

Pumping Depth to Water: N/C

Pumping Rate: 0.7 GALS/MIN Specific Capacity:

Volume Pumped: 36.0 GALS.

NY-5

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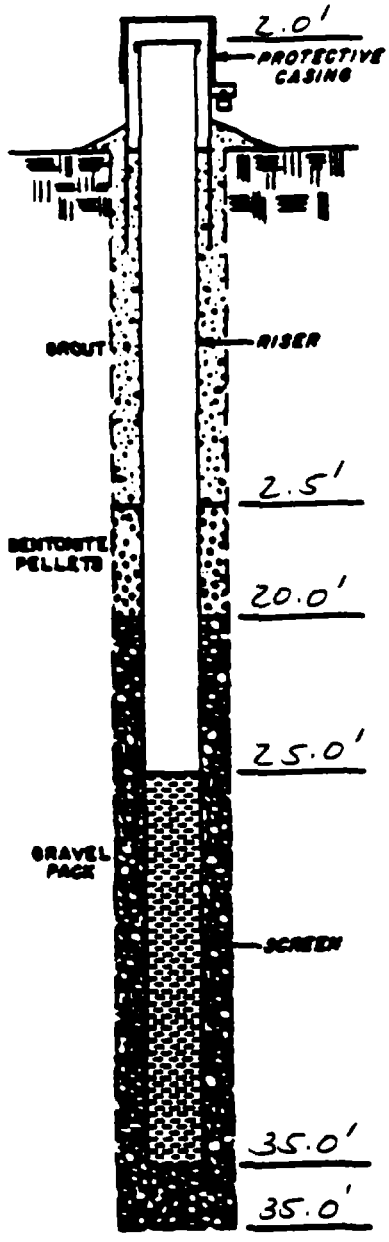
environmental engineers, scientists, planners & management consultants

WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-39



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0-35.0')

Total Depth: 35.0 FT. Depth to Water: 20.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 27 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 35.0 - 25.0 FT.

Filter Material: CAVE-IN SAND Setting: 35.0 - 20.0 FT.

Seals Material: VOLCLAY Setting: 20.0 - 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 - 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1334 6/1/88	1400 6/1/88
Installation:	1420 6/1/88	1535 6/1/88
Development:	1410 7/19/88	1453 7/19/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.5 FT.

Pumping Depth to Water: N/A

Pumping Rate: 0.7 GALS/MIN Specific Capacity:

Volume Pumped: 30.0 GALS

NY-5

SITE: FISHER-C[illegible]

WELL NO. MW-3[illegible]
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-37

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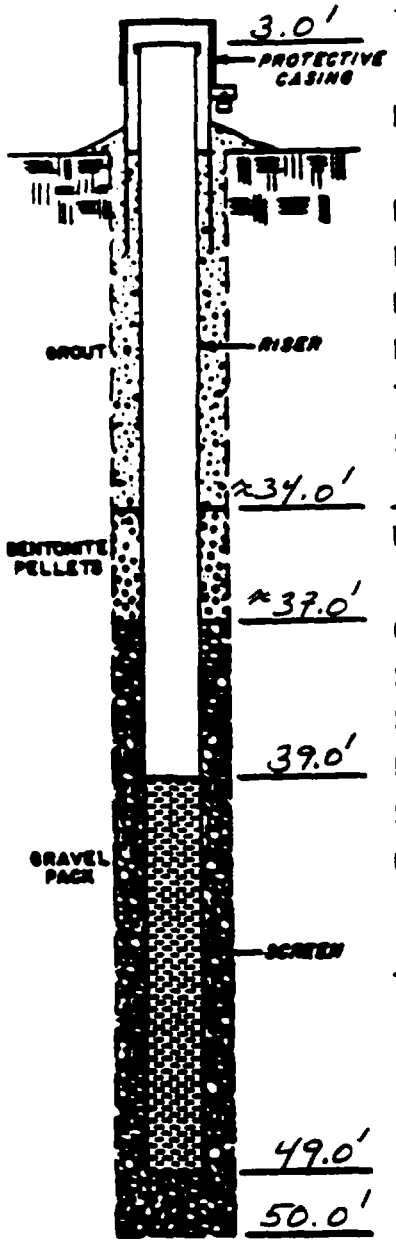
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-11



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. I.D. HOLLOW-STEM AUGER (0 - 50.0')

Total Depth: 50.0 FT Depth to Water:

Supervisory Geologist: VAUGE A. PEERS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 42.0

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 49.0 - 38.0 FT

Filter Material: PEA GRAVEL Setting: 50.0 - 37.0 FT

Seals Material: BENTONITE PELLETS Setting: 37.0 - 34.0 FT

Grout: CEMENT Setting: 34.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.5 FT ABOVE, 1.5 FT BELOW

TIME LOG	Started	Completed
Drilling:	8/12/87	8/14/87
Installation:	8/18/87	8/18/87
Development:	7/19/88 1816	7/19/88 1909

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 23.5 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.9 GAL/MIN Specific Capacity:

Volume Pumped: 100 GAL

NY-5

SITE: **FISHER-CALO**

WELL NO. MW-10
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
45-46.5'	SL-10F	15-50-75 (+4")	SAND(SW) - Moderate gray/brown, medium to coase grained with scattered granules of sed. rock fragments, some fine sand. 45.7 - 46.0', GRAVEL, thin bedded, fine to medium-sized pebbles, sub-angular to subrounded, upper contact is gradational. 46.0-46.3', SAND (SP), Same as above but well sorted.
60-61.5'	SL-10G	35-75 (+4")	SAND (SW) - Moderate brown/gray, medium to coarse grained, some fine sand (same as 45-45.7'). Thin interbeds (0.2' thick) of sand and gravel, medium grained sand and fine to coarse pebbles.
70-71.5'	SL-10H	30-60-75 (+3")	SILTY CLAY (CL) - Moderate olive gray to light brownish gray, trace sand (1-3%) and angular to sub-angular granules to fine pebbles (1-2%). Sand exhibits lenticular bedding and thin laminae. Clay is hard and moist. OVA Reading: 0.4 ppm.
71.5'			End of Boring.

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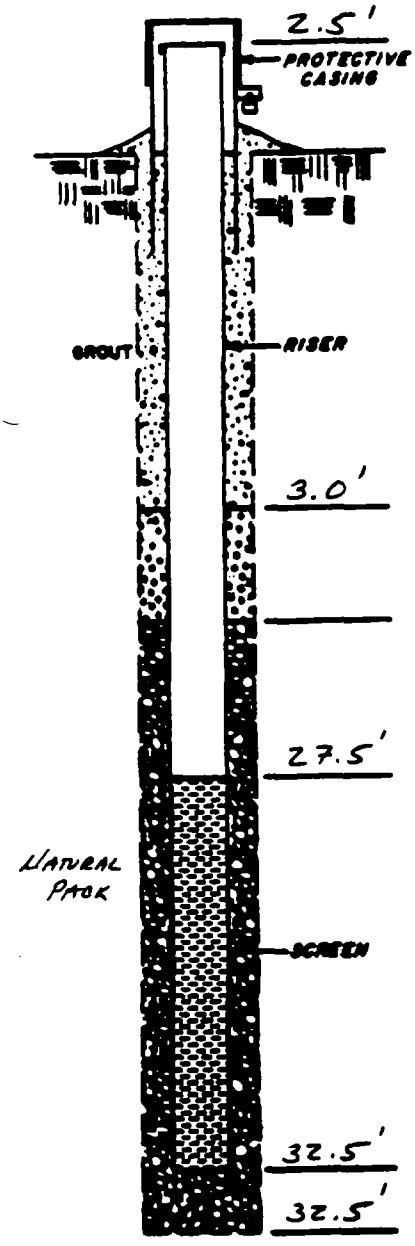
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-12



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 2.0 IN. Drilling Fluid: NONE

Bits/Depths: NONE, WELL POINT

Total Depth: 32.5 FT. Depth to Water: —

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length:

Screen Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 5.0 FT

Slot Size: 0.010 IN. Setting: 32.5 - 27.5 FT.

Filter Material: NATURAL (SAND) Setting: 32.5 - 3.0 FT.

Seals Material: NONE Setting: —

Grout: PORTLAND CEMENT Setting: 3.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 2.6 FT. ABOVE, 2.4 FT. BELOW

TIME LOG	Started	Completed
Drilling:	7/17/87	7/17/87
Installation:	7/17/87	7/17/87
Development:	8/12/88	8/12/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 21.5 FT.

Pumping Depth to Water: N/A

Pumping Rate: — Specific Capacity:

Volume Pumped: 18 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-11
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-10

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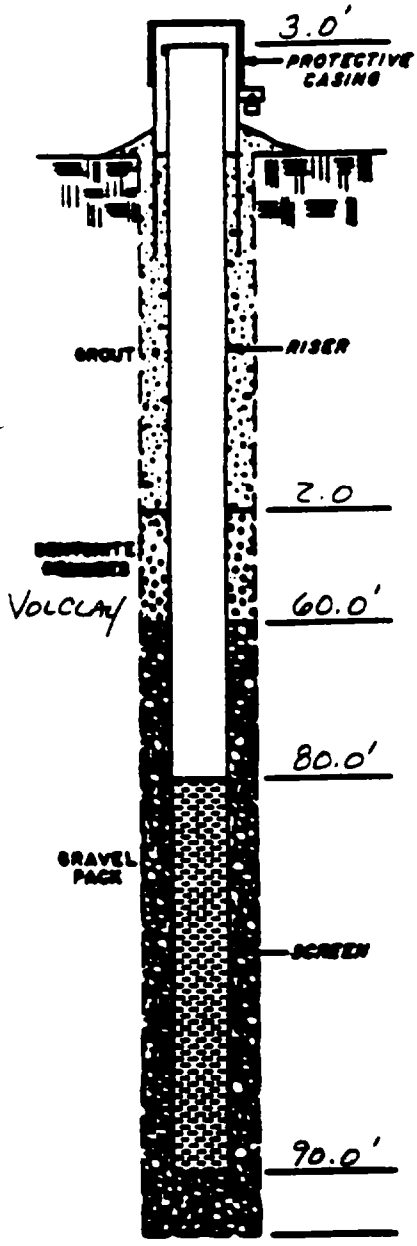
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-13



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HAIRE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6.0 IN. Drilling Fluid: AQUA - GEL

Bits/Depths: 5 7/8 IN. WING-BIT (0 - 90.8') BENTONITE MUD

Total Depth: 90.8 FT. Depth to Water: 4.5 FT.

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 83.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 90.0 - 80.0 FT.

Filter Material: COARSE SAND Setting: 90.8 - 75.0; 75.0 - 60.0 (WATER)

Seals Material: VOLCLAY Setting: 60.0 - 2.0 FT.

Grout: PORTLAND CEMENT Setting: 2.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 3.5 FT. ABOVE, 1.5 FT. BELOW

TIME LOG	Started		Completed	
Drilling:	6/17/88	1400	6/18/88	1200
Installation:	6/18/88	1200	6/19/88	1030
Development:	7/21/88	0858	7/21/88	1000

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 3.7 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.4 GAL/MIN. Specific Capacity:

Volume Pumped: 150 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-12
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-10

SITE: FISHER-CALO

WELL NO. MW-48
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
72-73.5'	-	19-50/4"	SAND (SP) - Moderate grayish brown, fine to medium grained, trace pebbles, grains angular to subrounded, moderately well sorted; composition as above.
77-78.5'	SL-48G	27-56-61	SAND (SP) - Grayish brown, fine to medium grained, some fine sand at base (77.3-78.1'), many to trace pebbles toward base; moderate sorting, grains angular to subrounded; quartz content increases downward (85-92%); accessories as above; vague bedding in top zone. REMARKS: Gray, silt/clay in cuttings (78-87').
87-88.5'	SL-48H	-	CLAYEY SILT (ML) - Moderate brownish, greenish gray, some very fine sand and silt; pebbles and granules common, clasts are very angular, oriented parallel to bedding; faint laminations observed, laminae consist of balls, lenses or layers of dry silt with saturated silt layers; partially saturated.
88.5'			End of Boring.

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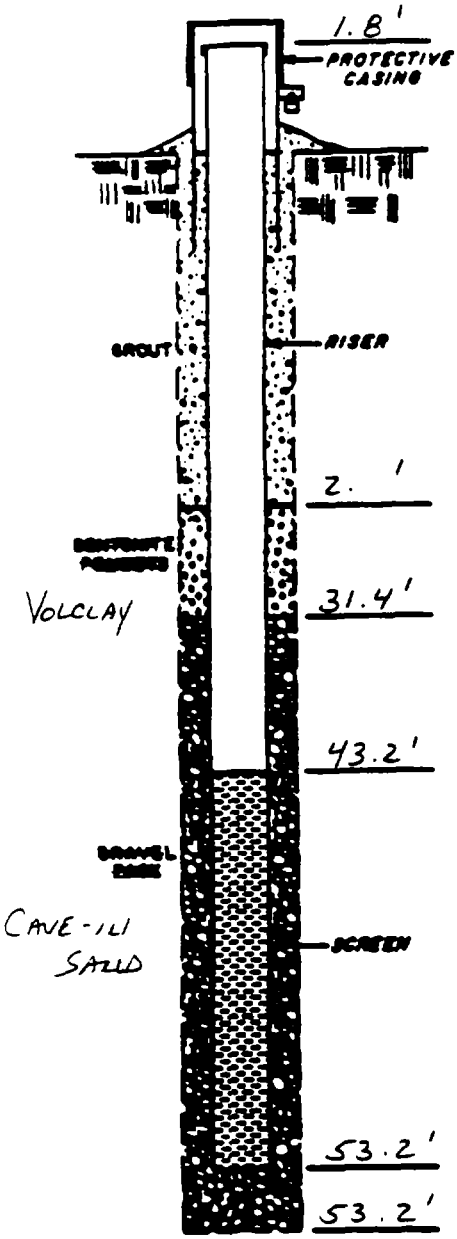
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-49



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 53.2')

Total Depth: 53.2 FT. Depth to Water: 12.6 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 45 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 53.2 TO 43.2 FT.

Filter Material: CAVE-IN SAND Setting: 53.2 TO 31.4 FT.

Seals Material: VOLCLAY Setting: 31.4 TO 2.8 FT.

Grout: PORTLAND CEMENT Setting: 2.8 TO 0 FT

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT ABOVE

TIME LOG	Started	Completed
Drilling:	1210 5/13/88	1330 5/13/88
Installation:	1330 5/13/88	1500 5/13/88
Development:	1643 7/27/88	1653 7/27/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 14.0 FT

Pumping Depth to Water: N/A

Pumping Rate: 10.0 GALS/MIN Specific Capacity:

Volume Pumped: 100 GALS.

NY-5

SITE: FISHER [redacted]

WELL NO. MW-13
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
60-61.5'	SL-13F	20-38-50	SILTY CLAY (CL) to SAND (SP) - 60.0-60.4', moderate gray silty clay, trace fine pebbles. 60.4-61.5', SAND, Moderate gray to moderate brownish gray, coarse to very fine grained, unit coarsens upward, gravelly at top of unit; low-angle cross lamination noted in middle of unit; silty at base of unit.
70-71.5'	———	30-75(+5")	SILTY CLAY (CL) to SAND (SP) - 70.0-70.2', silty clay, moderate gray, trace granules and pebbles, some fine sand seams, moist. 70.2-70.6' SAND, moderate brownish gray, fine grained, cross-laminated (10°), laminal comprised exclusively of heavy minerals is common; trace clay and silt.
80.0-81.5'	SL-13G	30-75(+5")	CLAYEY SILT (ML) to SAND (SP) - 80.0-80.15', clayey silt, moderate gray; not in place, possibly sluff. 80.15-8.6', SAND, moderate grayish brown, medium grained, well sorted, grains, subaugular to subrounded.
90-91.5'	———	30-85 (+6")	SILTY CLAY (CL) to SAND (SP) - 90.0-90.3', moderate gray silty clay, trace augular to subaugular granvles and fine pebbles. Possible sluff. 90.3-90.8', SAND, moderate grayish brown, fine to medium grained, trace silt/clay, moderately well sorted, grains subrounded to subaugular.
91.5'			END OF BORING

20909/04.2

SITE: FISHER-CALO

WELL NO. MW-13
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-13A (1/3 13D)	06-08-08-10	SANDY LOAM (SM) - Dark brown, dry. 1.7 -2,0', Sand (SP) - Light brown fine grained, dry. Water encountered at 4.5'.
5-7.5'	SL-13B (1/3-13D)	02-02-02-04	SAND (SP-SW) - Dark Gray (5-6.0'), yellowish brown (6-6.5') to orange brown (6.5-7.5'), color banding, coarse grained with minor gravel zone at 5-5.4'; trace to minor amounts of silt/clay, saturated.
15-17.0'	SL-13C (1/3-13D)	15-28-27-34	SAND (SP) - Moderate yellow brown to grayish brown, medium grained, some coarse sand, moderately well sorted, graines subaugular to rounded; predominality quartzose with some feldspar, std. rock fragments and heavy minerals; trace silt/clay and saturated.
30-31.5'	SL-13E (DUP)	18-57-30	SAND (SP) - Moderate brownish gray, medium to coarse grained, trace silt/clay, saturated.
45-46.5'	-----	16-32-48	SILTY CLAY AND SILT (CL-ML) - Moderate gray; 45-45.7', silty clay with trace augular to subaugular granules and fine pebbles, upper unit contains randomly oriented fine to coarse pebbles, most to saturated. 45.7-46.5', Silt, Tracer (?) Clay, trace augular granules and fine pebbles, clast content decreases toward base of unit; faint laminations and very thin layers of fine sand common.

SITE: FISHER-CALO

WELL NO. MW-28
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			WELL POINT, NO BORING LOG.

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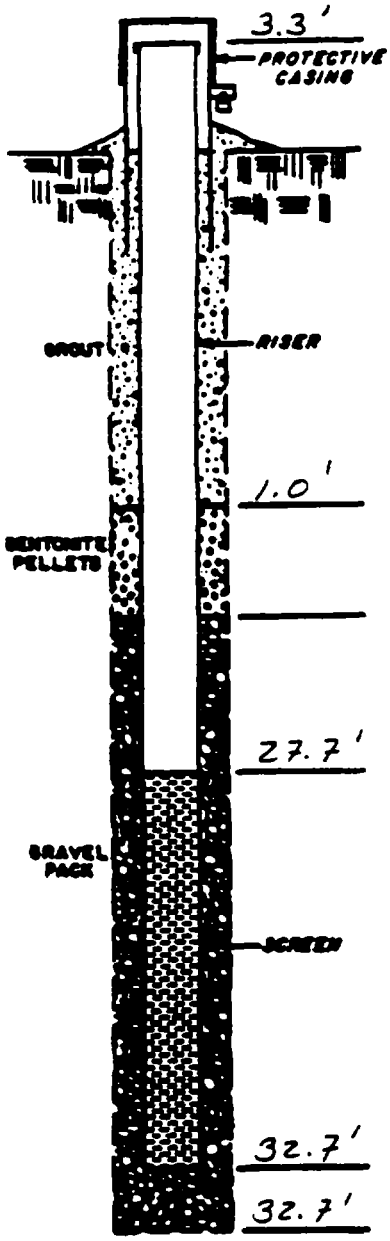
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-28



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 2.0 IN. Drilling Fluid: NONE

Bits/Depths: NONE, WELL POINT

Total Depth: 32.7 FT Depth to Water: 24.0 FT

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 31.0 FT

Screen Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 5.0 FT

Slot Size: 0.010 IN. Setting: 32.7 - 27.7 FT

Filter Material: NATURAL (SAND) Setting: 32.7 - 1.0 FT

Seals Material: NONE Setting: —

Grout: PORTLAND CEMENT Setting: 1.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.5 FT ABOVE, 1.5 FT BELOW

TIME LOG	Started	Completed
Drilling:	7/10/87	7/10/87
Installation:	7/10/87	7/10/87
Development:	8/3/88 1541	8/3/88 1557

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.2 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.7 GAL/MIN Specific Capacity:

Volume Pumped: 27 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-27
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			WELL POINT, NO BORING LOG.

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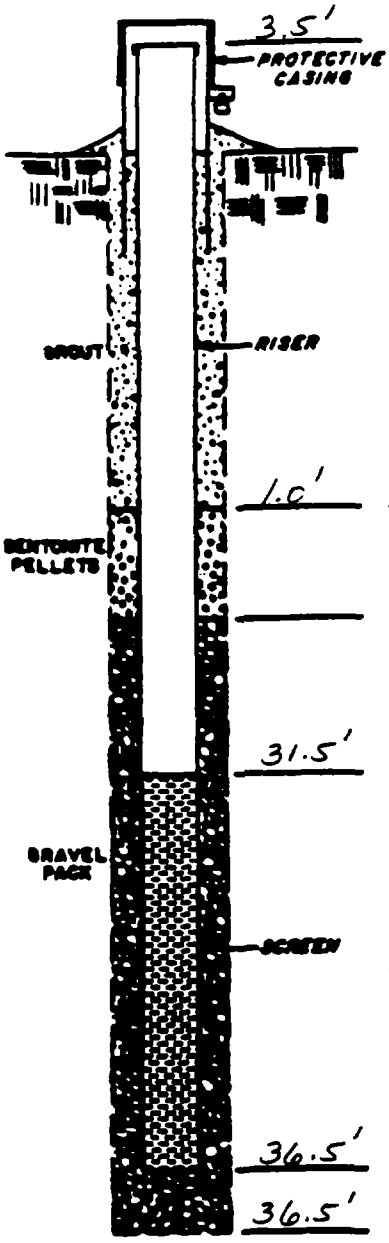
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW - 27



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 2.0 IN. Drilling Fluid: NONE

Bits/Depths: NONE, WELL POINT

Total Depth: 36.5' Depth to Water: 28.0 FT.

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 35.0 FT

Screen Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 5.0 FT

Slot Size: 0.010 IN. Setting: 36.5 - 31.5 FT.

Filter Material: NATURAL (SAND) Setting: 36.5 - 1.0 FT.

Seals Material: NONE Setting: —

Grout: PORTLAND CEMENT Setting: 1.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 4.0 FT ABOVE, 1.0 FT BELOW

TIME LOG	Started	Completed
Drilling:	7/11/87	7/11/87
Installation:	7/11/87	7/11/87
Development:	7/20/88 1333	7/20/88 1359

WELL DEVELOPMENT

Method: AIR - LIFT

Static Depth to Water: 21.7 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.5 GAL/MIN Specific Capacity:

Volume Pumped: 40 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-26
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			WELL POINT, NO BORING LOG.

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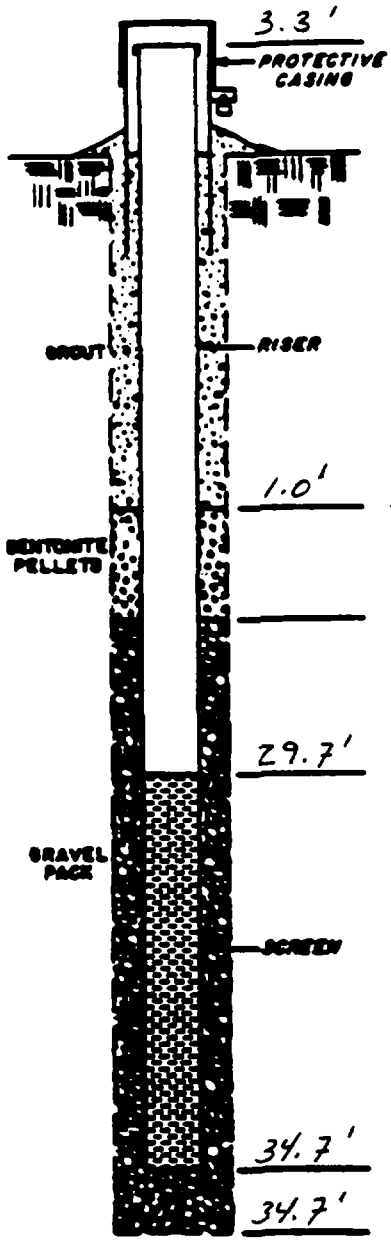
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW - 26



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 2.0 IN. Drilling Fluid: NONE

Bits/Depths: NONE, WELL POINT

Total Depth: 34.7 FT. Depth to Water: 26.0 FT.

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 33.0 FT

Screen Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 5.0 FT

Slot Size: 0.010 IN. Setting: 34.7 - 29.7 FT.

Filter Material: NATURAL (SAND) Setting: 34.7 - 1.0 FT.

Seals Material: NONE Setting: —

Grout: PORTLAND CEMENT Setting: 1.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 3.5 FT ABOVE, 1.5 FT BELOW

TIME LOG	Started	Completed
Drilling:	7/11/87	7/11/87
Installation:	7/11/87	7/11/87
Development:	7/20/88 1218	7/20/88 1248

WELL DEVELOPMENT

Method: AIR - LIFT

Static Depth to Water: 23.1 FT.

Pumping Depth to Water: N/A

Pumping Rate: 0.7 GAL/MIN Specific Capacity:

Volume Pumped: 21 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-25
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			INITIALLY ATTEMPTED WELL POINT, DRILLED LATER, NO LOG.

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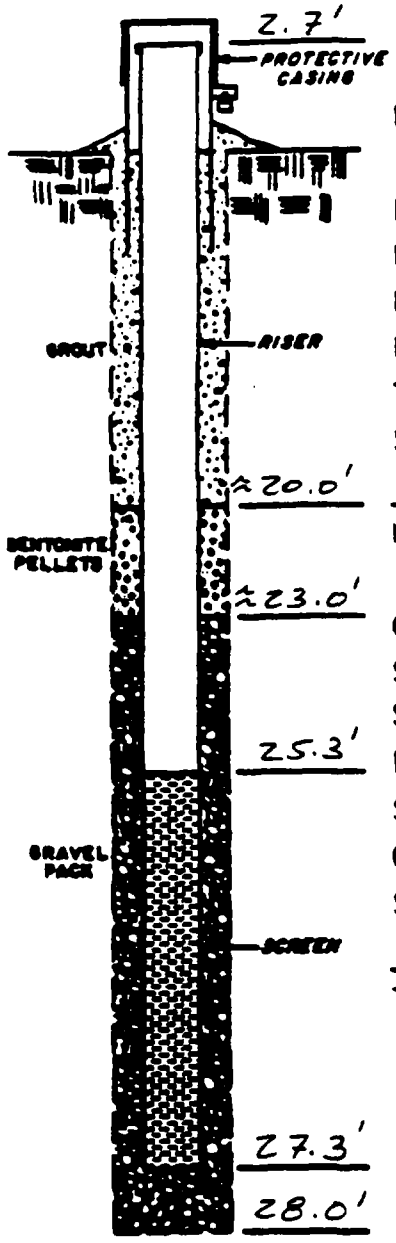
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-25



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. I.D. HOLLOW-STEM AUGER (0 - 28.0')

Total Depth: 28.0 FT Depth to Water: —

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 25.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 5.0 FT

Slot Size: 0.010 IN. Setting: 27.3 - 22.3 FT

Filter Material: PEA GRAVEL Setting: 28.0 - ≈23.0 FT

Seals Material: BENTONITE PELLETS Setting: ≈23.0 - ≈20.0 FT

Grout: CEMENT Setting: ≈20.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.0 FT ABOVE, 2.0 FT. BELO

TIME LOG

	Started	Completed
Drilling:	7/16/87	7/16/87
Installation:	7/16/87	7/16/87
Development:	8/2/88 1435	8/2/88 1521

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 17.3 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.1 GAL/MIN Specific Capacity:

Volume Pumped: 50.0 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-24
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			WELL POINT, NO BORING LOG.

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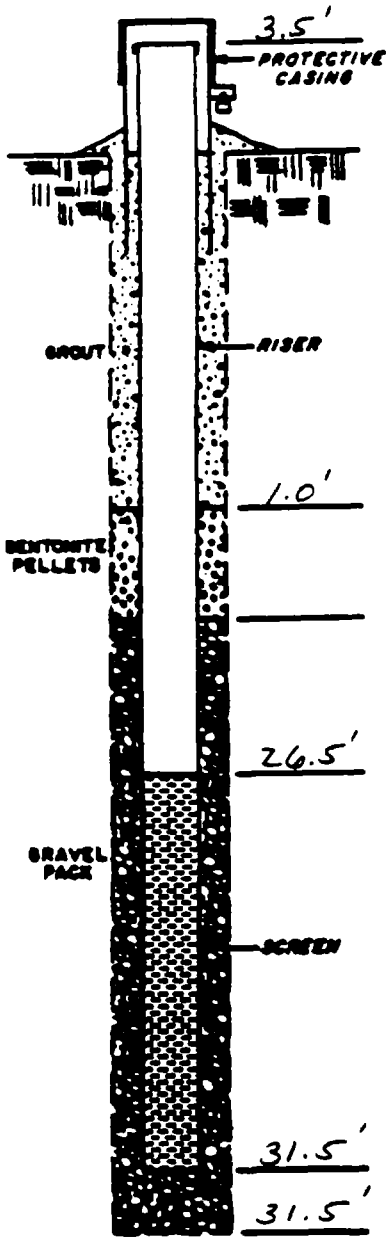
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-24



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 2.0 IN. Drilling Fluid: NONE

Bits/Depths: NONE, WELL POINT

Total Depth: 31.5 FT. Depth to Water: 18.0 FT.

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 30.0 FT.

Screen Material: TYPE 304 SS Diameter: 2.0 IN. I.D. Length: 5.0 FT

Slot Size: 0.010 IN. Setting: 31.5 - 26.5 FT.

Filter Material: NATURAL (SAND) Setting: 31.5 - 1.0 FT.

Seals Material: NONE Setting: —

Grout: PORTLAND CEMENT Setting: 1.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 4.0 FT ABOVE, 1.0 FT BEL

TIME LOG	Started	Completed
Drilling:	7/12/87	7/12/87
Installation:	7/12/87	7/12/87
Development:	8/2/88 1350	8/2/88 1420

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.0 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.7 GAL/MIN Specific Capacity:

Volume Pumped: 50 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-23
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-21

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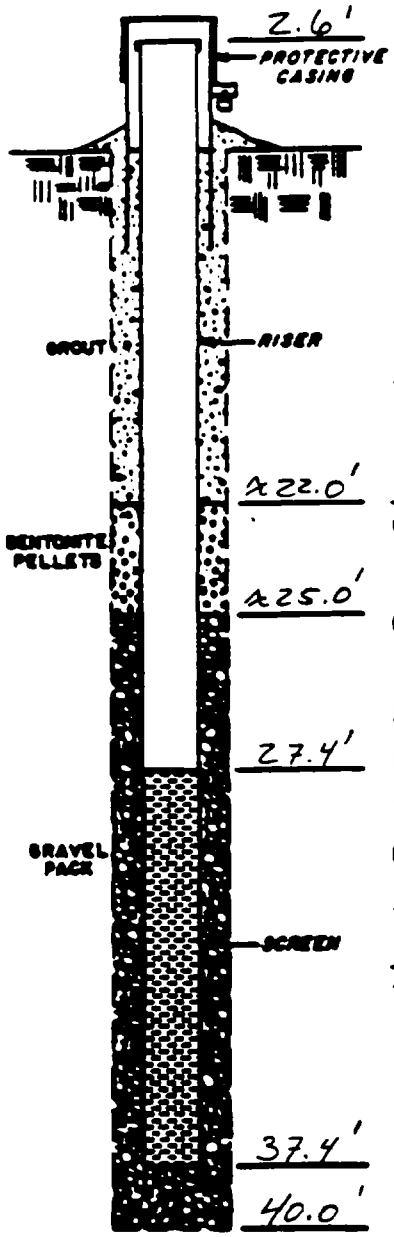
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-23



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. Drilling Fluid: NONE.

Bits/Depths: 6 1/4 IN I.D. HOLLOW-STEM AUGER (0 - 40.0')

Total Depth: 40.0 FT Depth to Water: —

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 30.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 37.4 - 27.4 FT

Filter Material: PEA GRAVEL Setting: 40.0 - ≈25.0 FT

Seals Material: BENTONITE PELLETS Setting: ≈25.0 - ≈22.0 FT

Grout: CEMENT Setting: ≈22.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.0 FT ABOVE, 2.0 FT BELOW

TIME LOG	Started	Completed
Drilling:	/ /87 ?	/ /87 ?
Installation:	/ /87 ?	/ /87 ?
Development:	7/20/88 1653	7/20/88 1715

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 22.4 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.2 GAL/MIN Specific Capacity:

Volume Pumped: 27.0 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-22
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-21

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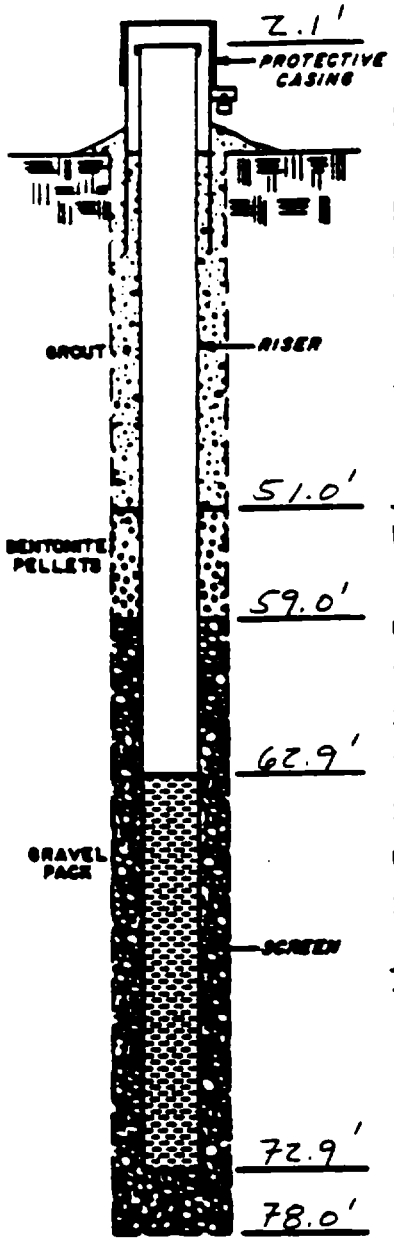
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-22



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. I.D. HOLLOW-STEM AUGER (0 - 78.0')

Total Depth: 78.0 FT Depth to Water: —

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 65.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 72.9 - 62.9 FT

Filter Material: PEA GRAVEL Setting: 78.0 - 59.0 FT

Seals Material: BENTONITE PELLETS Setting: 59.0 - 51.0 FT

Grout: CEMENT Setting: 51.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 2.5 FT ABOVE, 2.5 FT BEL

TIME LOG	Started	Completed
Drilling:	8/20/87	8/20/87
Installation:	8/20/87	8/20/87
Development:	7/20/88 1750	7/20/88 1844

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 22.4 FT

Pumping Depth to Water: N/A

Pumping Rate: 2.8 GAL/MIN Specific Capacity:

Volume Pumped: 150.0 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-20
PAGE 1 OF 1

FLIGHT INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION (1)
0-5.0'	-	-	SAND (SM-SP) - Moderate brown (10 YR 4/4), fine to medium grained, little silt, trace clay, poorly sorted, trace rootlets; moist.
5-15.0'	-	-	SAND (SP) - Light brown (5 YR 5/6), fine to medium grained, trace silt, trace clay coatings, moderate sorting; moist.
15-20.0'	-	-	SAND (SP) - Moderate yellowish brown (10 YR 5/4), fine to coarse grained, trace gravel (at 20'), quartzose with minor feldspar and lithic fragments (SRF's); wet.
20-25.0'	-	-	SAND (SP) - Same as above, increase in SRF's; saturated.
25-32.0'	-	-	SAND (SP) - Same as above, increase in coarse sand.
32.0'			End of Boring.

(1) Descriptions
Based on Drill Cuttings

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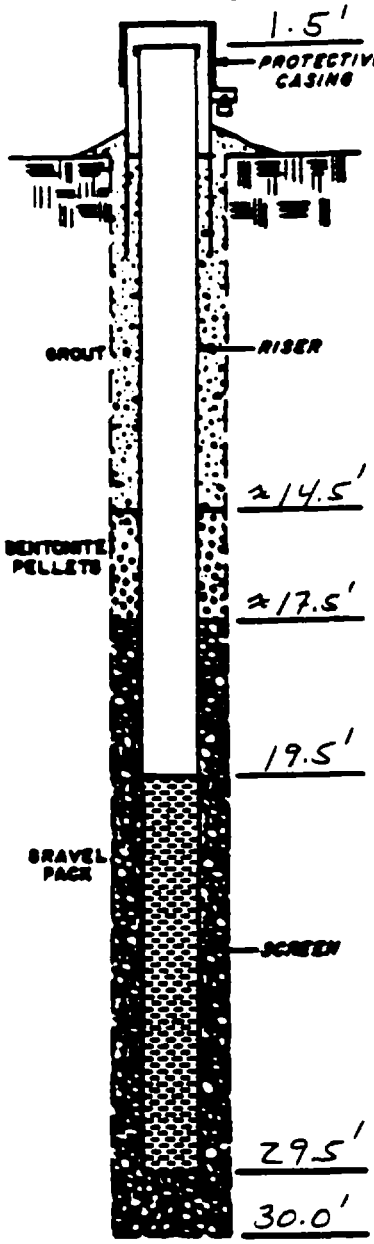
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-20



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. Drilling Fluid:

Bits/Depths: 6¼ IN. I.D. HOLLOW-STEM AUGER (0 - 30.0')

Total Depth: 30.0 FT Depth to Water: —

Supervisory Geologist: MARK LUCAS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 22.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 29.5 - 19.5 FT

Filter Material: PEA GRAVEL Setting: 19.5 - ≈17.5 FT

Seals Material: BENTONITE PELLETS Setting: ≈17.5 - ≈14.5 FT

Grout: CEMENT Setting: ≈14.5 - 0.0 FT

Surface Casing Material: STEEL Setting: 2.0 FT ABOVE, 3.0 FT BELOW

TIME LOG	Started	Completed
Drilling:	8/22/87	8/22/87
Installation:	8/22/87	8/22/87
Development:	8/3/88 1245	8/3/88 1335

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 16.5'

Pumping Depth to Water: N/A

Pumping Rate: 2.0 GAL/MIN Specific Capacity:

Volume Pumped: 100 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-19
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-18

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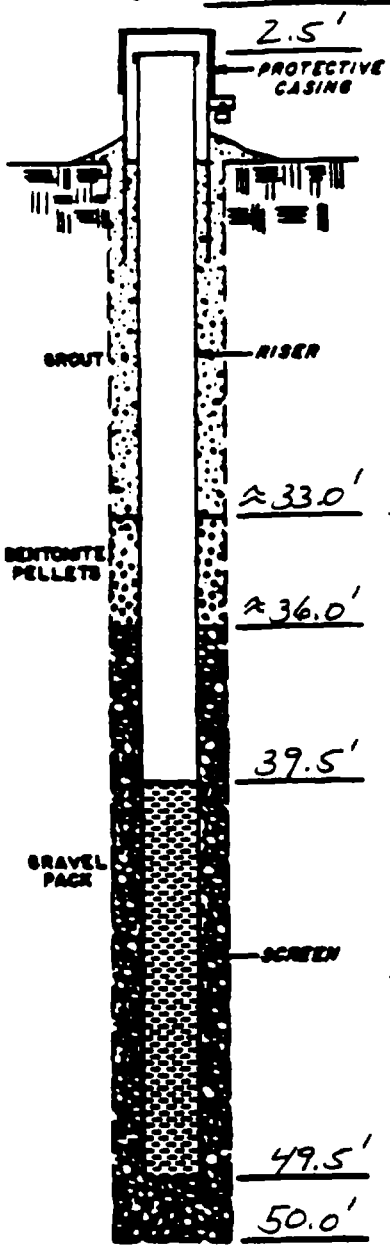
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-19



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. I.D. HOLLOW-STEM AUGER (0-50.0')

Total Depth: 50.0 FT. Depth to Water: —

Supervisory Geologist: VANCE A. PEERS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 42.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 49.5 - 39.5 FT

Filter Material: PEA GRAVEL Setting: 50.0 - ≈36.0 FT

Seals Material: BENTONITE PELLETS Setting: ≈36.0 - ≈33.0 FT

Grout: CEMENT Setting: ≈33.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.0 FT ABOVE, 2.0 FT BELOW

TIME LOG	Started	Completed
Drilling:	8/5/87	8/5/87
Installation:	8/5/87	8/5/87
Development:	8/3/88 1445	8/3/88 1500

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 16.0 FT.

Pumping Depth to Water: N/A

Pumping Rate: 10.0 GAL/MIN Specific Capacity:

Volume Pumped: 150.0 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-17
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-15

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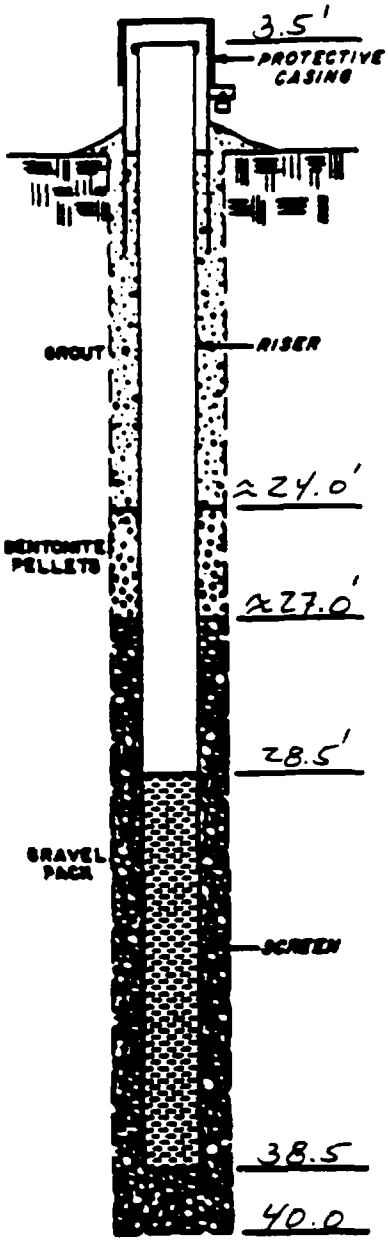
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-17



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN I.D. HOLLOW-STEM AUGER (0 – 40.0')

Total Depth: 40.0 FT Depth to Water: —

Supervisory Geologist:

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 32.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 38.5 - 28.5 FT

Filter Material: PEA GRAVEL Setting: 40.0 - 27.0 FT

Seals Material: BENTONITE PELLETS Setting: 27.0 - 24.0 FT

Grout: CEMENT Setting: 24.0 - 0.0 FT

Surface Casing Material: STEEL Setting: ≈4.0 FT ABOVE, 1.0 FT BELOW

TIME LOG	Started	Completed
Drilling:	7/12/87	7/12/87
Installation:	7/12/87	7/12/87
Development:	8/1/88 1615	8/1/88 1647

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.0 FT.

Pumping Depth to Water: N/A

Pumping Rate: 3.1 GAL/MIN Specific Capacity:

Volume Pumped: 100 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-16
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-15

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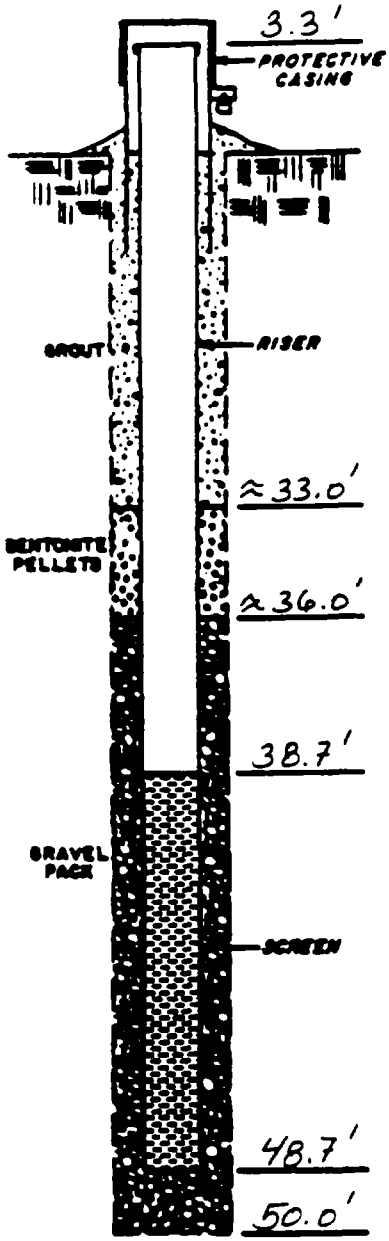
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-16



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN I.D. HOLLOW-STEM AUGER (0 - 50.0')

Total Depth: 50.0 FT Depth to Water: —

Supervisory Geologist: VANICE A. PEERS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 42.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 48.7 - 38.7 FT

Filter Material: PEA GRAVEL Setting: 50.0 - 36.0 FT

Seals Material: BENTONITE PELLETS Setting: 36.0 - 33.0 FT

Grout: CEMENT Setting: 33.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.5 FT ABOVE, 1.5 FT BELOW

TIME LOG	Started	Completed
Drilling:	8/4/87	8/4/87
Installation:	8/4/87	8/4/87
Development:	8/1/88 1508	8/1/88 1549

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.2 FT

Pumping Depth to Water: N/A

Pumping Rate: 3.7 GAL/MIN Specific Capacity:

Volume Pumped: 150 GAL

NY-5

SITE: FISHER-C[illegible]

WELL NO. MW-14
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-13

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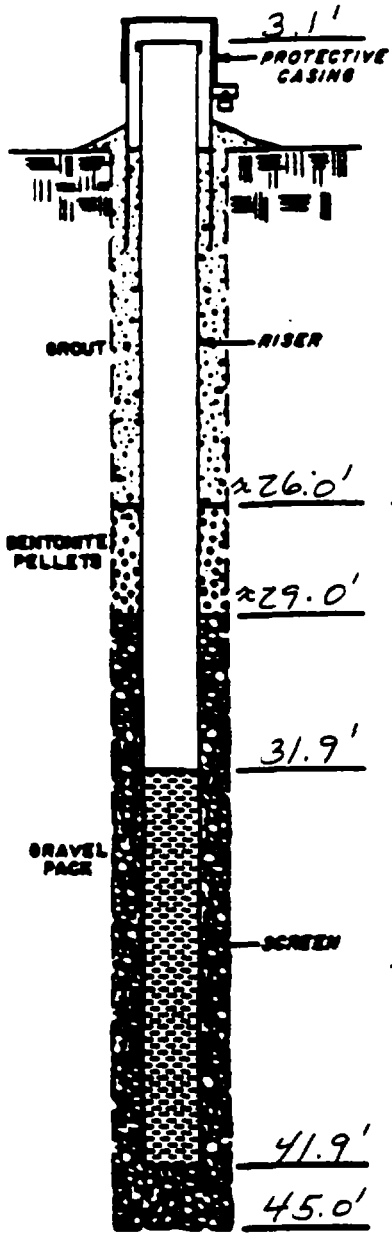
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-14



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN Drilling Fluid: NONE

Bits/Depths: 6 1/4 IN. I.D. HOLLOW-STEM AUGER (0 - 45.0')

Total Depth: 45.0 FT Depth to Water:

Supervisory Geologist: VALICE A. PEERS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 35.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 41.9 - 39.9 FT

Filter Material: PEA GRAVEL Setting: 45.0 - 29.0 FT

Seals Material: BENTONITE PELLETS Setting: 29.0 - 26.0 FT

Grout: CEMENT Setting: 26.0 - 0.0 FT

Surface Casing Material: STEEL Setting: 3.5 FT ABOVE, 1.5 FT BEL

TIME LOG	Started	Completed
Drilling:	8/19/87	8/19/87
Installation:	8/20/87	8/20/87
Development:	7/21/88 1008	7/21/88 1131

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water:

Pumping Depth to Water: N/A

Pumping Rate: 2.9 GAL/MIN Specific Capacity:

Volume Pumped: 240 GAL

NY-5

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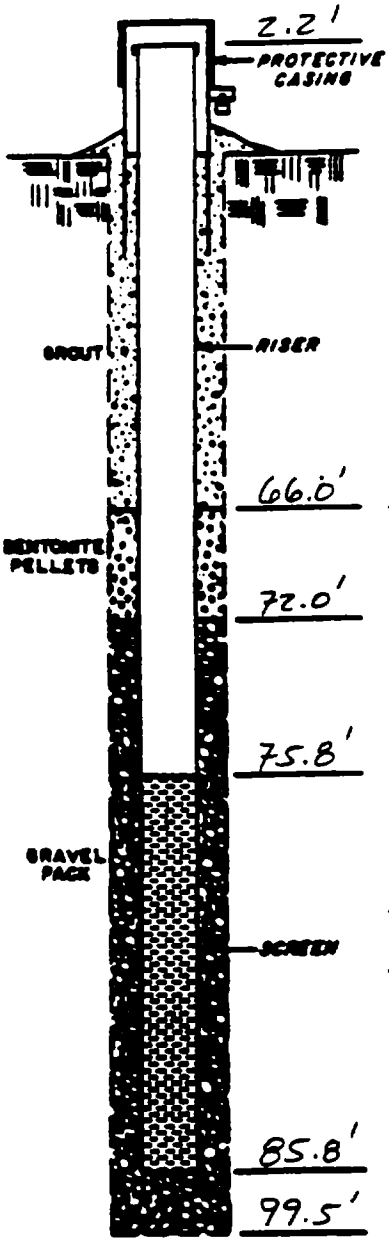
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-29



DRILLING SUMMARY

Drilling Co: ETS Drillers: T. HASKETT

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN AND 6.0 IN. Drilling Fluid: BENTONITE MUD

Bits/Depths: 6 1/4 IN I.D. AUGER (0-15'), 5 7/8 IN. WING BIT (15-99.5')

Total Depth: 99.5 FT Depth to Water: —

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 78.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 85.8 - 75.8 FT

Filter Material: PEA GRAVEL Setting: 88.5 - 72.0 FT

Seals Material: BENTONITE PELLETS Setting: 72.0 - 66.0 FT

Grout: CEMENT Setting: 66.0 - 0.0 FT

HOLE PLUG: BAROID HOLE PLUG Setting: 99.5 - 88.5 FT

TIME LOG	Started	Completed
Drilling:	8/3/87 1050	8/4/87 1520
Installation:	8/4/87 1520	8/5/87 0940
Development:	8/10/88 1017	8/10/88 1031

WELL DEVELOPMENT

Method: JET-WASH

Static Depth to Water: —

Pumping Depth to Water: N/A

Pumping Rate: — Specific Capacity:

Volume Pumped: —

NY-5

SITE: FISHER-CALO

WELL NO. MW-29
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
73-75.0'	SL-29F S-45 (DUP)	30-55-105-200	SAND (SP) - Moderate yellowish brown (10 YR 5/2) to 73.8' and moderate grayish brown (10 YR 5/2 - 5 YR 5/1) below; medium grained, grains subangular; some gravel at 73.8'; change in color due to an increase in gray lithic fragments (SRF's); saturated. REMARKS: Drilling rate decreases and silt appeared in cuttings at 86.0'.
88-90.0'	SL-29G S-46	52-71-85-103	CLAYEY SILT (ML) - Olive gray (5 Y 4/1), few angular to subangular granules and pebbles; non-laminated; sandy (5%), very fine to fine grained; clasts composed of sed. rock fragments (greenish gray to black shale and siltstone); moist. REMARKS: Drilling rate increased with sand and silt cuttings present at 95.0'.
98-99.5'	SL-29H S-48	18-34-53-90	SAND (SP) - Moderate yellowish brown (10 YR 5/2) to 99.0' and brownish gray (5 YR 4/1) below; medium grained, moderate to poor sorting, sorting decreases toward base; grains subangular; dark thin laminations at base (magnetite, hornblende, garnet, and pyrite); saturated.
99.5'			End of Boring.

SITE: FISHER-CALO

WELL NO. MW-29
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-29A S-39	3-6-9-11	LOAM (SP) - Light to dark brown (1.0-2.0'), some pebbles, clasts angular; dry.
3.5-5.5'	SL-29B S-40	3-3-3-5	SAND (SP) - Moderate yellow brown (10 YR 5/4), coarse grained; some angular pebbles and granules; trace silt and clay.
13.5-15.5'	SL-29C S-41	8-6-4-6	SAND (SP) - to SANDY SILT (ML) - 13.5-14.7', grayish orange (10 YR 7/4), SAND, medium to coarse grained; interbedded with very thin layers (> 1 cm.) of moderate brown (5 YR 3/4), medium grained sand; dry. 14.7-15.5', Moderate brown (5 YR 3/4), SANDY SILT; composition 50% silt, 25% sand, 12% gravel, and 12% clay; moist.
28-30.0'	SL-29D S-42	15-22-29-36	SAND (SP) - Moderate yellowish brown (10 YR 5/4), fine to medium grained, well sorted, grains subangular to subrounded; quartzose (>90%) with minor feldspar, and lithic fragments (SRF's); saturated.
43-45.0'	SL-29E S-43	14-21-24-29	SAND (SP) - Moderate yellowish brown (10 YR 5/2), fine to medium grained, well sorted, grains subangular to subrounded, composition as above; saturated.
58-60.0'	SL-29E S-44	42-76-142	SAND (SP) - Moderate yellowish brown (10 YR 5/2), fine to medium grained, some pebbles (SRF's), moderately well sorted, sand grains subangular to subrounded, composition as above; saturated.

SITE: FISHER-CALO

WELL NO. MW-29
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
73-75.0'	SL-29F S-45 (DUP)	30-55-105-200	SAND (SP) - Moderate yellowish brown (10 YR 5/2) to 73.8' and moderate grayish brown (10 YR 5/2 - 5 YR 5/1) below; medium grained, grains subangular; some gravel at 73.8'; change in color due to an increase in gray lithic fragments (SRF's); saturated. REMARKS: Drilling rate decreases and silt appeared in cuttings at 86.0'.
88-90.0'	SL-29G S-46	52-71-85-103	CLAYEY SILT (ML) - Olive gray (5 Y 4/1), few angular to subangular granules and pebbles; non-laminated; sandy (5%), very fine to fine grained; clasts composed of sed. rock fragments (greenish gray to black shale and siltstone); moist. REMARKS: Drilling rate increased with sand and silt cuttings present at 95.0'.
98-99.5'	SL-29H S-48	18-34-53-90	SAND (SP) - Moderate yellowish brown (10 YR 5/2) to 99.0' and brownish gray (5 YR 4/1) below; medium grained, moderate to poor sorting, sorting decreases toward base; grains subangular; dark thin laminations at base (magnetite, hornblende, garnet, and pyrite); saturated.
99.5'			End of Boring.

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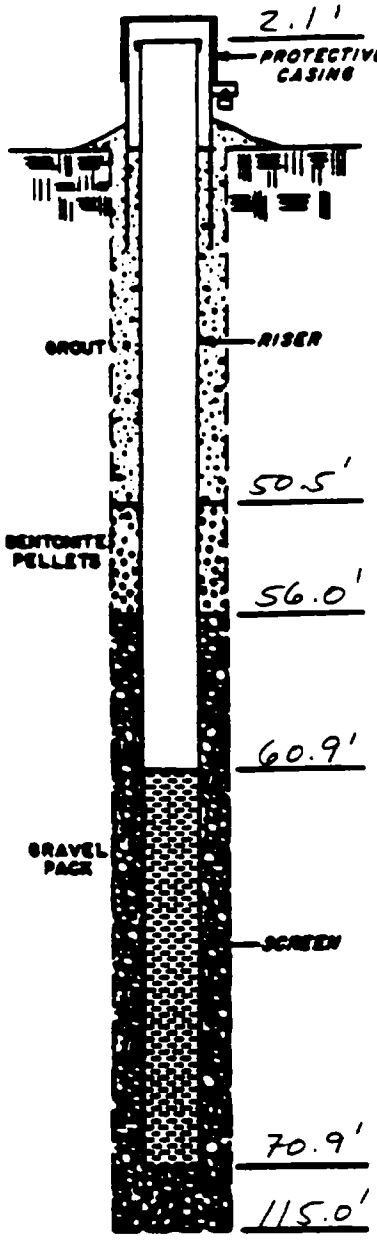
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-30



DRILLING SUMMARY

Drilling Co: ETS Drillers: —

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. AND 6.0 IN Drilling Fluid: BENTONITE MUD

Bits/Depths: 5 7/8 WING-BIT (0 – 115'), HOLLOW-STEM (0-18.5)

Total Depth: 115.0 FT Depth to Water: —

Supervisory Geologist: MARK LUCAS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 63.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 70.9 – 60.9 FT

Filter Material: PEA GRAVEL Setting: 74.0 – 56.0 FT

Seals Material: BENTONITE PELLETS Setting: 56.0 – 50.5 FT

Grout: CEMENT Setting: 50.5 – 0.0 FT

HOLE PLUG: BAROID PELLETS Setting: 115.0 – 74.0 FT

TIME LOG	Started	Completed
Drilling:	8/12/87 1100	8/17/87 1710
Installation:	8/18/87 0755	8/18/87 1215
Development:	8/10/88 0951	8/10/88 1004

WELL DEVELOPMENT

Method: JET-WASH

Static Depth to Water: —

Pumping Depth to Water: N/A

Pumping Rate: — Specific Capacity:

Volume Pumped: —

MY-5

SITE: FISHER-CALO

WELL NO. MW-30
PAGE 1 OF 4

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-30A (S-60)	5-10-15-10	SANDY LOAM (SM) to Sand (SM) - 0-1.0; pale yellowish brown (10 YR 6/2), medium to fine grained, some silt, trace clay, trace rootlets, moderately dense; dry; soil disturbed. 1.0-2.0', Moderate yellowish brown (10 YR 5/4), SAND, fine to medium grained, little silt, trace clay (coatings); composition quartzose (90%) with trace feldspar; oxidized layer at 1.5-1.8'; slightly moist.
3.5-5.5'	SL-30B (S-61)	3-5-8-8	SAND (SW) - 3.5-4.5', Same as above, sharp lower contact. 4.5-5.5', Dark yellowish brown (10 YR 4/2), SAND, fine to coarse grained, trace silt; trace fine pebbles, clasts subrounded; poorly sorted; thin bedded; partially ferruginous; trace rootlets; composition as above with SRF's; moderately dense; possible soil horizon. REMARKS: Sand cuttings from 5.5 to 12.0', oxidized.
13.5-15.5'		6-4-2-1	No recovery, water table reached at 16.0'.
18.5-20.5'	SL-30C (S-62)	2-1-3-2	SAND (SW) - 18.5-19.0', Same as above; clasts subangular. 19.0-20.5', Yellowish gray (5 Y 7/2), SAND, fine to coarse grained, grains subangular to subrounded; trace fine to coarse pebbles, clasts subangular; poorly sorted, composi

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			tion quartzose (85%) rest as above; loose; saturated, watery zone at 20-20.5'. REMARKS: Sand cuttings 20.5 to 28.0'.
28-30.0'	SL-30D (S-63)	10-12-18-21	SAND (SW) - Same as above, decrease in gravel content, occasional thin oxidized layers, increase in feldspar content; saturated. REMARKS: Sand cuttings 30-43.5'.
43.5-45.5'	SL-30E (S-64)	24-34-31-35	SAND (SW-SP) - Same as above to 44.5', trace fine to coarse pebbles. Sharp contact. 44.5-45.5', Pale yellowish brown (10 YR 6/2), fine grained SAND, well sorted; quartzose (95%) with trace feldspar and lithic fragments (SRF's); low-angle planar cross-laminations; dense and wet. REMARKS: Cuttings as above 45.5-58.5'; increase in grain size.
58.5-60.5'	SL-30F (S-65)		SAND (SP) - 58.5-60.0', Pale yellowish brown (10 YR 6/2), fine to medium grained, grains subrounded, well sorted; thin bedded; composition as above (90% quartz); dense and saturated. Sharp contact. 60.0-60.5', Dark yellowish brown (10 YR 6/2), SAND, fine grained, very well sorted; low-angle cross-laminations common; composition as above; dense and very saturated. REMARKS: Sand cuttings at 60.5 to 73.0', increase in SRF's at 73.0'.

SITE: FISHER-CALO

WELL NO. MW-30
PAGE 4 OF 4

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
113.5-115.5'	SL-30J (S-69)	31-48-60-91	SAND (SP) - Yellowish gray (5 Y 7.2), fine to medium grained, well sorted, grains subrounded; thin bedded, trace cross-laminations (trough); composition quartzose (95%) with minor lithic fragments (SRF's) and feldspar; hard; saturated.
115.5'			End of Boring.

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
73.5-75.5'	SL-30G (S-66) (DUP)	13-17-24-28	SAND (SP) to CLAYEY SILT (ML) - 73.5 to 74.0', SAND, as above. 74.0-75.5', Dark yellowish brown (10 yr 4/2), CLAYEY SILT, little fine sand; trace fine to coarse pebbles, clasts subangular and randomly oriented; thick bedded; low plasticity, hard; moist. REMARKS: Clayey Silt cuttings 75.5 to 86.0'.
86-88.0'	SL-30H (S-67)	30-45-57-69	CLAYEY SILT (ML) - Same as above; decrease in fine, subangular gravel; hard and slightly moist. REMARKS: Sand cuttings encountered at 93.5' and increase in drilling rate. Decrease in drilling rate at 96.0', possibly silt.
98-100.0'	SL-30I (S-68)	15-20-25-34	CLAYEY SILT (ML) - Olive gray (5 Y 4/1), trace fine sand, interbedded with thin lenses (0.2' thick) of sand and silt, bedding crude (seams), lenses saturated; micaceous; low plasticity and hard; thin cross-laminations at base, possibly flaser to lenticular bedding. REMARKS: Drilling rate increases, sand cuttings present at 105 to 113.5'.

SITE: FISHER-CALO

WELL NO. MW-31
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
95-96.5'	-	-	SAND (SP) - Moderate brownish gray, very fine to fine grained, moderately well sorted; fine to coarse pebbles (sluff) at top (0.4') of unit.
98-99.5'	-	-	SILTY CLAY (ML) - Moderate olive gray, tra clasts composed predominantly of sed. rock fragments; moist. Drillers note contact at 98.0'.
99.5'			End of Boring.

SITE: FISHER-CALO

WELL NO. MW-31
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-31A (1/3 31D)	5-12-20-21	LOAM (SM-ML) - Greenish to brownish gray, hard, dry.
5.0-7.0'	SL-31B (1/3 31D)	9-12-13-13	SILTY SAND (SM) - Brownish gray, moist.
15-17.0'	SL-31C (1/3 31D)	4-4-8-9	SAND (SM) - Moderate gray, fine to medium grained, clayey and silty; saturated.
30-32.0'	SL-31E (DUP)	10-15-20-25	SAND (SP) - Moderate brownish gray, medium grained, some fine and coarse sand, well sorted, some pebbles at top of unit; saturated. Quartzose w/increase in feldspar and chert.
45.0-46.5	SL-31F	12-25-50	GRAVEL (GP) and SAND (SP) - 45.0-45.4', gravel, fine to medium sized pebbles, some granules, subrounded to subangular clasts, tabular, siltstone and carbonate clasts common. 45.4-46.4', SAND, moderate grayish brown, medium to coarse grained, well sorted, quartzose w/minor lithic rock fragments; saturated. Sand cuttings 45-60'.
60-61.5'	SL-31G	13-40-75 (+4")	SAND (SP) - Moderate brownish gray, medium to fine grained, moderately well sorted, quartzose; saturated.
70-71.5'	-	8-8-15	GRAVEL (GP) - Moderate gray, fine to coarse pebbles; tabular clasts of sed. rock fragments common, sandy at top of unit (gradational).
80-81.0'	SL-31H	-	SAND (SP) - Moderate grayish brown, medium grained, some fine sand, moderately well sorted. Sand cuttings from 60-80'.

SITE: FISHER-CALO

WELL NO. MW-32
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-31

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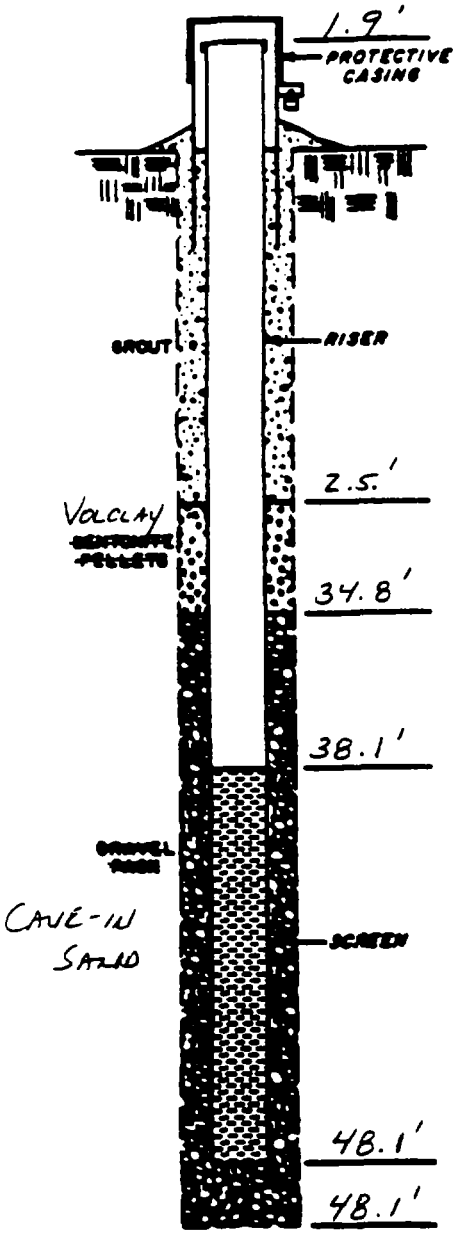
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-32



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 48.1')

Total Depth: 48.0 FT. Depth to Water: 6.0 FT

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 40 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 48.1 TO 38.1 FT.

Filter Material: CAVE-IN SAND Setting: 48.1 TO 34.7 FT.

Seals Material: VOLCLAY Setting: 34.7 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1015 6/19/88	1159 6/19/88
Installation:	1233 6/19/88	1340 6/19/88
Development:	1323 7/11/88	1515 7/11/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 10.28 FT.

Pumping Depth to Water: N/A

Pumping Rate: 0.55 GALS/MIN Specific Capacity:

Volume Pumped: 62.0 GALS.

NY-5

SITE: FISHER-CALO

WELL NO. MW-33
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			NO BORING LOG.

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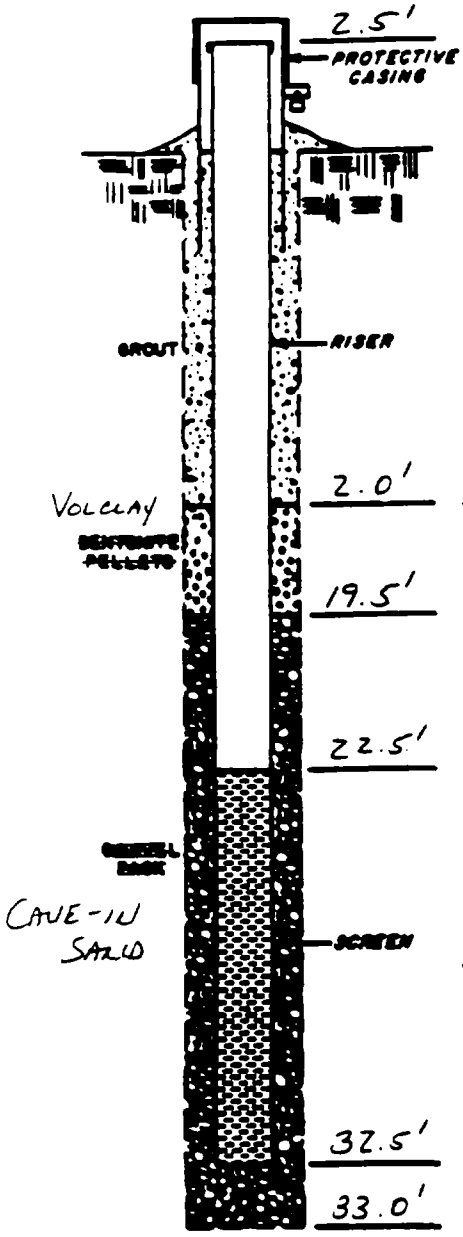
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-33



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 33.0')

Total Depth: 33.0 FT. Depth to Water: 18.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 25 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.5 TO 22.5 FT.

Filter Material: CAVE-IN SAND Setting: 33.0 TO 19.5 FT.

Seals Material: VOLCLAY Setting: 19.5 TO 2.0 FT.

Grout: PORTLAND CEMENT Setting: 2.0 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT BELOW, 2.0 FT. ABO

TIME LOG	Started	Completed
Drilling:	1111 6/13/88	1145 6/13/88
Installation:	1150 6/13/88	1230 6/13/88
Development:	1215 8/1/88	1239 8/1/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 14.7 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.9 GALS/MIN Specific Capacity:

Volume Pumped: 70 GALS.

NY-5

SITE: FISHER CALO

WELL NO. MW-34
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-1.5'	SL-34A (1/3 34D)	6-12-8	SANDY LOAM (SW) - Dark brown (Upper 0.7') to moderate brown.
5-6.5'	SL-34B (1/3 34D)	7-9-10	SAND (SW) - light to moderate yellowish brown, fine grained, minor silt and clay.
15-16.5'	SL-34C (1/3-34D)	07-22-21	SAND (SP) - Moderate brown, coarse grained, moderate sorting, no silt and clay visible, some pebbles; grains are subaugular to subrounded; faint subhorizontal bedding (cross laminations). Quartzose, w/minor feldspar and lithic fragments, saturated.
30-31-4'	SL-34E	28-104	SAND (SP) - 30-30.3', brown, coarse grained sand and gravel; clasts rounded. 30.3-31.0', Moderate grayish - brown sand, fine to medium grained, unit coarsens upwards, moderately well sorted, trace silt and clay with scattered pebbles; sand grains subaugular to subrounded; compositional as above; saturated.
45-46.5'	SL-34F	41-75(+4")	SAND (SW) - moderate gray, coarse grained, some to numerous pebbles and minor to some gray silt and clay; poorly sorted, non-bedded; grains subangular to subrounded; compositional as above; saturated.
60-61.5'	SL-34G	55-75(+5")	SAND (SW) - Moderate gray, fine grained, trace gray silt and clay; moderately well sorted; grains subaugular to subrounded; non-bedded; predominantly quartzose c/minor sed. rock fragments.
70-71.5'	SL-34H	40-75(c")	SAND (SW) - Moderate gray, fine grained, trace to minor gray silt/clay; saturated remainder as above. OVA reading: 0.2 ppm.

20909/04.1

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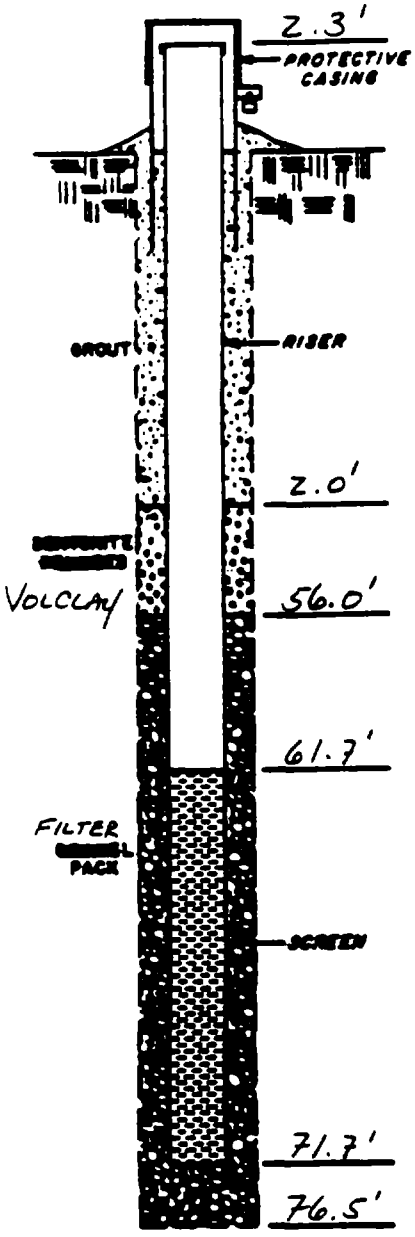
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-34



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6 1/2 IN. Drilling Fluid: SUPER GEL-X (0-60 AQUA-GEL (60-75

Bits/Depths: 5 5/8 IN. WING BIT (0 - 76.5')

Total Depth: 76.5 FT. Depth to Water: ~14.0 FT.

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 64.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 61.7 - 71.7 FT.

Filter Material: CAVE-IN SAND (69-76.5) SILICA SAND (56-69') Setting: 56.0 - 76.5 FT.

Seals Material: VOLCLAY Setting: 2.0 - 56.0 FT.

Grout: PORTLAND CEMENT Setting: 0.0 - 2.0 FT.

Surface Casing Material: STEEL Setting: 2.5 FT ABOVE, 2.5 FT. BELOW

TIME LOG	Started	Completed
Drilling:	5/20/88 1300	5/21/88 1430
Installation:	5/22/88 0730	5/22/88 1200
Development:	7/19/88 1051	7/19/88 1345

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 14.2 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.8 GALS/MIN Specific Capacity:

Volume Pumped: 100.0 + GALS

NY-5

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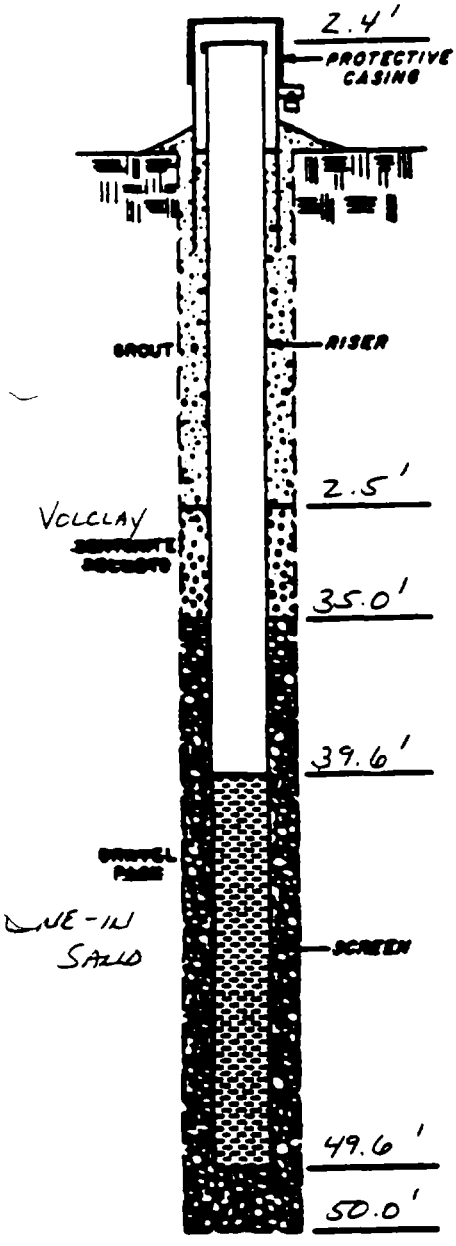
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-35



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 50.0')

Total Depth: 50.0 FT. Depth to Water: ≈ 13.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 42 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 49.6 TO 39.6 FT.

Filter Material: CANE-IN SAND Setting: 50.0 TO 35.0 FT.

Seals Material: VOLCLAY Setting: 35.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG

	Started	Completed
Drilling:	0933 6/1/88	1010 6/1/88
Installation:	1010 6/1/88	1140 6/1/88
Development:	1540 8/13/88	1630 8/13/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 13.7 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.2 GALS/MIN Specific Capacity:

Volume Pumped: 60.0 GALS

NY-5

SITE: FISHER CALO

WELL NO. MW-34
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
75-76.5'	———	39-62-75/(5")	SAND (SW) to CLAYEY SILT (ML) - 75-75.2', gray sand, fine grained, saturated. 75.2-76.4', moderate bluish gray (75.2-75.7') to moderate yellowish gray/brown, clayey silt, trace granvles and pebbles; hard with slight plasticity; clasts composed of augular, dark sed. rock fragments; clasts randomly oriented; sharp upper contact; moist.
76.5'			END OF BORING

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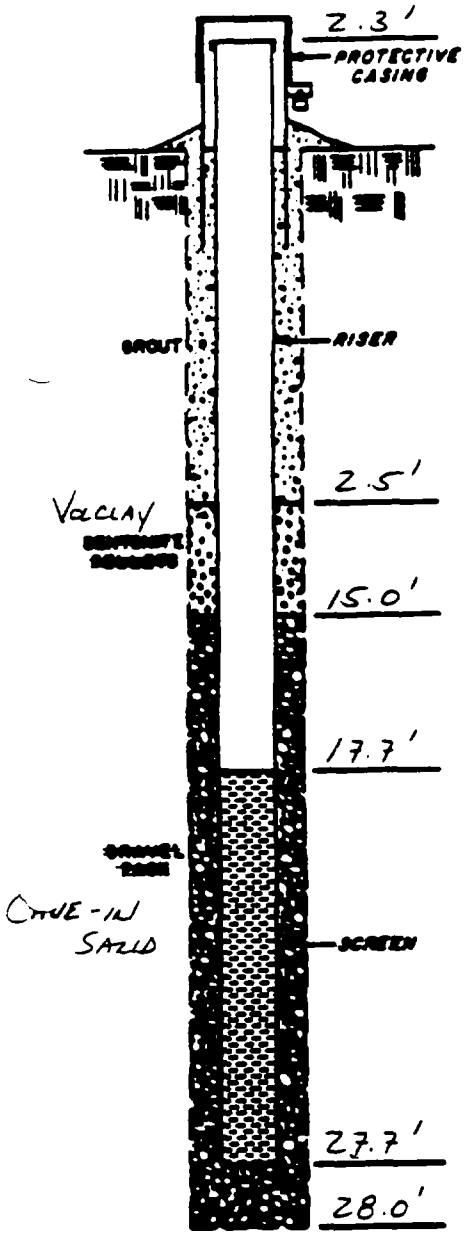
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-36



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 28.0')

Total Depth: 28.0 FT. Depth to Water: 13.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 20 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 27.7 TO 17.7 FT.

Filter Material: CAVE-IN SAND Setting: 28.0 TO 15.0 FT.

Seals Material: VOLCLAY Setting: 15.0 TO 2.6 FT.

Grout: PORTLAND CEMENT Setting: 2.6 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1500 5/31/88	1540 5/31/88
Installation:	1540 5/31/88	1630 5/31/88
Development:	1535 7/11/88	1650 7/11/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 13.7 FT.

Pumping Depth to Water: N/A

Pumping Rate: 0.3 GALS/MIN Specific Capacity:

Volume Pumped: 23.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-35
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-34

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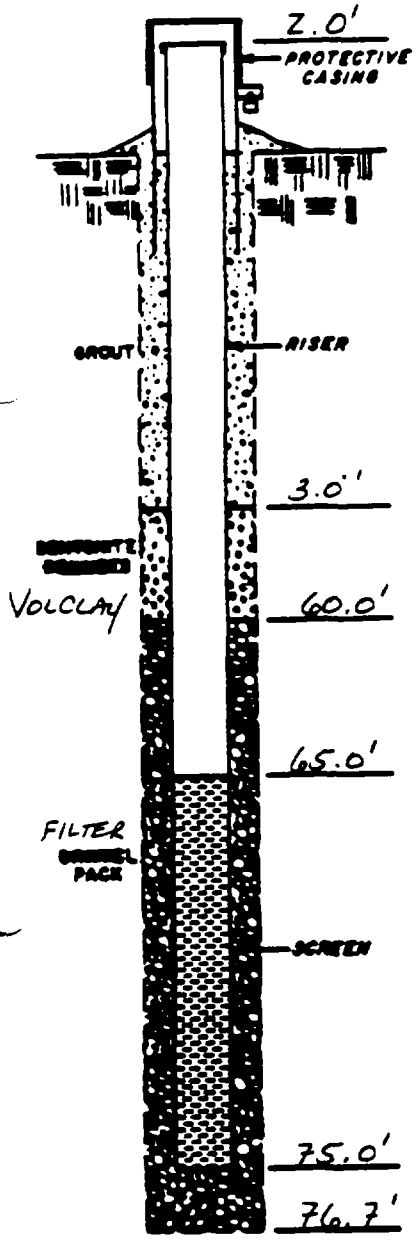
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-37



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: Drilling Fluid: AQUA - GEL

Bits/Depths: 5 5/8 IN. WING BIT (0 - 76.7')

Total Depth: 76.7 FT. Depth to Water: —

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 67.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 75.0 - 65.0 FT.

Filter Material: SILICA SAND Setting: 76.7 - 60.0 FT.

Seals Material: VOLCLAY Setting: 60.0 - 3.0 FT.

Grout: PORTLAND CEMENT Setting: 3.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. ABOVE, 2.0 FT. BELOW

TIME LOG	Started	Completed
Drilling:	5/24/88 0800	5/24/88 1500
Installation:	5/25/88 0730	5/25/88 1300
Development:	7/19/88 1605	7/19/88 1655

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.7 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.9 GALS/MIN. Specific Capacity:

Volume Pumped: ~95 GALS.

NY-5

SITE: FISHER-CALO

WELL NO. MW-36
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-34

SITE: FISHER-CALO

WELL NO. MW-37
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
70-71.5'	SL-37H	17-40-60	SAND (SP) - Moderate grayish brown, fine to medium grained, rare pebbles, no silt/clay, other characteristics as above.
75-76.5'	-	22-32-34	CLAYEY SILT (ML) - Brownish to olive gray, trace granules to pebbles; upper 1.7' is silt and gravel; plastic, not very hard; sightly deformed (wavy) laminae of fine sand and clay; clasts are angular to subangular, randomly oriented clasts compc
76.5'			End of Boring.

SITE: FISHER-CALO

WELL NO. MW-37
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-1.5'	SL-37A (1/3 37D)	10-12-10	SANDY LOAM (SM) - Light to dark brown, moist.
5-6.5'	SL-37B (1/3 37D)	13-20-14-13	SAND (SW) - 5-5.5', Moderate brown, clayey silty sand. 5.5-6.2', Light brown, SAND, coarse grained; some dark brown, silty sand laminate; moist.
15-16.5'	SL-37C (1/3 37D)	8-10-10-12	SAND (SW) - Light to dark grayish brown, coarse grained, trace to minor silt/clay, moderate to poor sorting; moist.
30-34.0'	SL-37E (DUP)	17-20-27-30 20-22-39-41	SAND (SP) - (Two spoons), Light to moderate yellowish brown, fine to medium grained, moderately well sorted, none to trace clay/slit (31.1-31.8'); grains subangular to subrounded; composition is quartzose (92%), minor feldspar and lithic fragments; thin bedded gravel with normal grading, fine to coarse pebbles at 30.9-31.1.
45-46.5'	SL-37F	23-75	SAND (SP) - Moderate grayish brown, fine to medium grained, moderately well sorted, grains subrounded to subangular; composition as above. Thin bedded gravel (45.3-45.6'), medium pebbles composed primarily of sed. rock fragments.
60-61.5'	SL-37G	27-40-34	SAND and GRAVEL (GP) To Sand (SP) - 60-60.2', sand and gravel. 60.2-61.0', Moderate grayish brown, fine to medium grained SAND, trace pebbles and silt/clay, moderately well sorted; grains subangular to subrounded; composition: quartzose (92%) with minor amounts of feldspar, sed. rock fragments, and heavy minerals; low-angle cross-lamination present.

SITE: FISHER-CALO

WELL NO. MW-38
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-37

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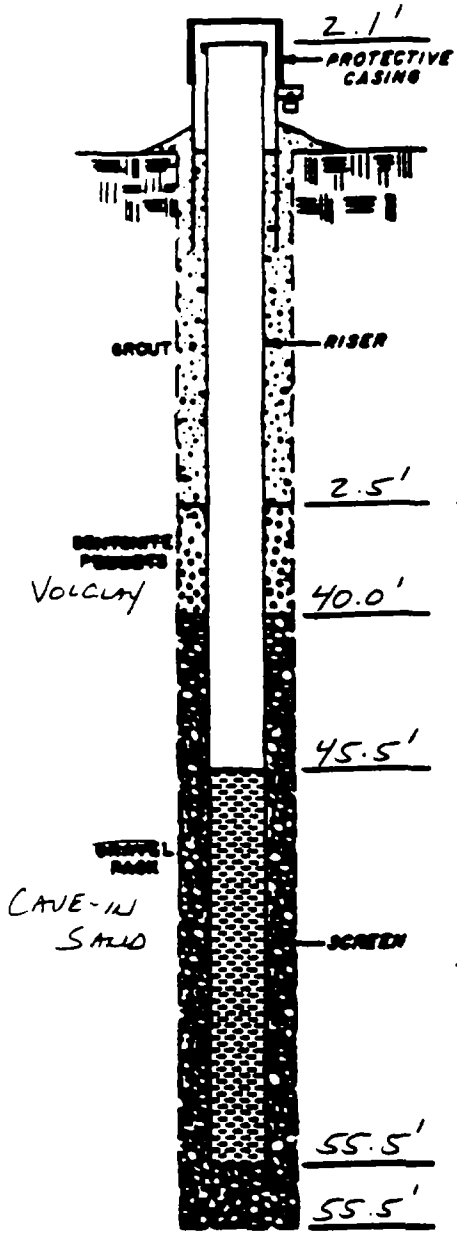
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-38



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0-55.5')

Total Depth: 55.5 FT. Depth to Water: 20.0 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 47.6 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 55.5 TO 45.5 FT.

Filter Material: CAVE-IN SAND Setting: 55.5 TO 40.0 FT.

Seals Material: VOLCLAY Setting: 40.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	0830 6/2/88	0920 6/2/88
Installation:	0920 6/2/88	1045 6/2/88
Development:	1459 7/19/88	1536 7/19/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.7 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.6 GALS/MIN Specific Capacity:

Volume Pumped: 60.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-42
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
60-60.5	-	16-27-45	GRAVEL (GP) - Greenish gray to dark brown and gray, fine to medium sized pebbles, composed of tabular sed. rocks and granite, chert also common.
70-71.5'	SL-42G	20-38-38	SAND - Moderate brownish gray, medium to coarse grained, trace to minor gravel (to 10%), trace silt/clay; saturated. Drilling fluid changes color from brown to gray at 75'.
80-81.5'	SL-42H	10-23-35	GRAVEL (GP) to SILTY CLAY (CL) - 80-80.5', GRAVEL, fine to medium pebbles, clasts are subrounded; very clayey at base (0.1') and trace clay elsewhere. 80.5-81.5', Moderate gray, silty CLAY, trace angular to subangular granules and pebbles, clasts exhibit a random orientation; saturated at top (80.5-80.6'); moist.
81.5'			End of Boring.

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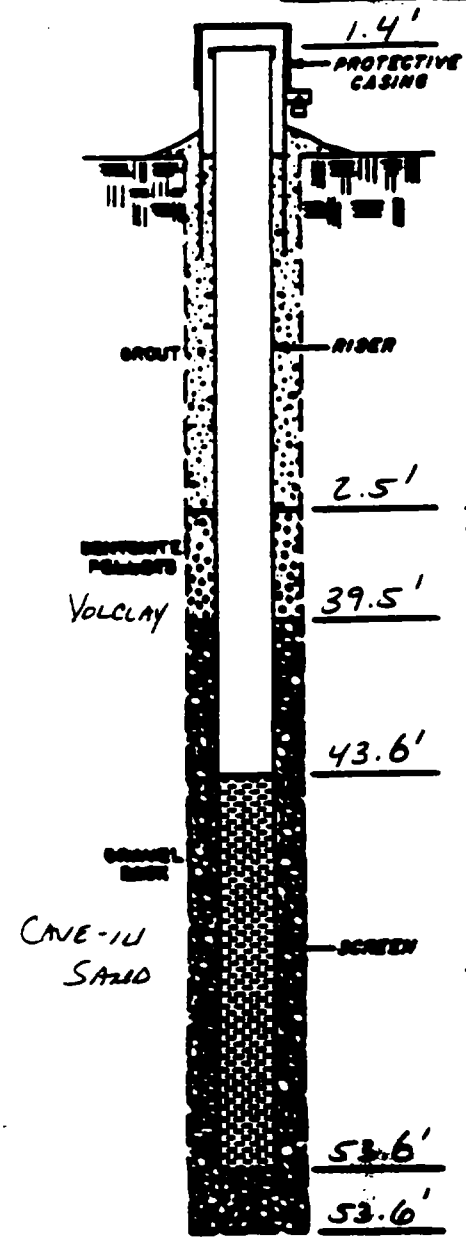
WELL CONSTRUCTION SUMMARY

Project: FISH[illegible]-CALO Client: U.S. EPA Well No: MW-43



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7½ IN. 4 SLOT HOLLOW-STEM AUGERS (0-53.6')

Total Depth: 53.6 FT. Depth to Water: 19.5 FT.

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 45.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 53.6 TO 43.6 FT.

Filter Material: CAVE-IN SAND Setting: 53.6 TO 39.5 FT.

Seals Material: VOLCLAY Setting: 39.5 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	0925 6/14/88	1010 6/14/88
Installation:	1010 6/14/88	1201 6/14/88
Development:	1409 7/27/88	1436 7/27/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 21.4 FT.

Pumping Depth to Water: N/A

Pumping Rate: 3.7 GALS/MIN Specific Capacity:

Volume Pumped: ~100.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-59
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			Driller's Note: Encountered cobbles at 68', no thickness noted. Gray silt/clay cuttings at 70'.
70 - 71.5'	SL-59H	30-59-75	SAND (SW) - Moderate yellow brown to moderate gray towards base, medium grained, some to locally abundant gravel (10-30%), trace silt/clay towards base; very thinly bedded to laminated clay/silt near base (1/8 - 1/4" thick).
			Driller's Note: Grilled rough, possibly high gravel content in sand 70-79'. Increase in drilling rate at 79', possibly finer-grained material.
81 - 82.5'	-	75	GRAVELLY CLAYEY SILT to CLAYEY SILT (ML)- moderate brownish gray, graveling at top of unit (81-81.2'), clasts are subangular to rounded, rounding decreases downward, clasts composed primarily of sed. rock fragments and minor granite clasts. Saturated to nearly dry at base'.
82.5'			End of boring.

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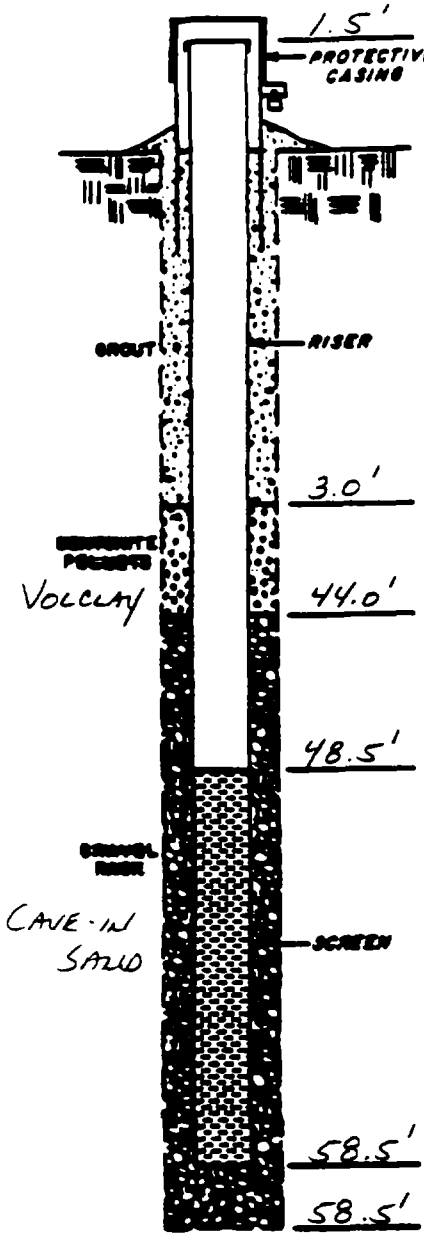
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-60



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 58.5')

Total Depth: 58.5 FT. Depth to Water: _____

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 50 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 58.5 TO 48.5 FT.

Filter Material: CAVE-IN SAND Setting: 58.5 TO 44.0 FT.

Seals Material: VOLCLAY Setting: 44.0 TO 3.0 FT.

Grout: PORTLAND CEMENT Setting: 3.0 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT ABOVE

TIME LOG	Started	Completed
Drilling:	0900 5/18/88	0941 5/18/88
Installation:	0944 5/18/88	1103 5/18/88
Development:	1301 7/25/88	1324 7/25/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.3 FT.

Pumping Depth to Water: N/A

Pumping Rate: 5.7 GALS/MIN Specific Capacity: _____

Volume Pumped: 130.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-15
PAGE 1 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-15A S-49	4-5-4-5	SANDY LOAM (SP) - 0-1.0', Pale yellowish brown (10 YR 6/2); dry. 1.0-2.0', Light brown (5 YR 5/6), sand, medium grained; dry.
3.5-5.5'	SL-15B S-50	5-5-5-6	SAND (SP) - Pale yellowish orange (10 YR 8/6) and light brown (5 YR 5/6), banded (1 cm thick); light layers are silt/clay free and nearly dry; dark layers contain minor (<10%) silt/clay and are moist; overall sand is medium grained and subangular.
13.5-15.5'	SL-15C S-51	4-2-3-2	SAND (SP) - Moderate yellowish brown (10 YR 5/4) with dark and light zones (as above); moderate sorting, grains subangular to subrounded; quartzose with minor feldspar, sed. rock fragments, and heavy minerals (epidote); slightly moist.
28-30.0'	SL-15D S-52	16-18-26-35	SAND (SP) - Moderate yellowish brown (10 YR 5/2), same as above, gravelly (20%) layers, moderate to poor sorting, grains subangular to subrounded, composition as above; wet.
43-45.0'	SL-15E S-53	20-39-52-63	SAND (SP) - Moderate yellowish brown (10 YR 5/2), fine to coarse grained, alternating zones of coarser and finer sands; moderate sorting overall, grains subangular to subrounded; composition as above, coarse zones have an increase in lithic fragments (SRF's); wet.

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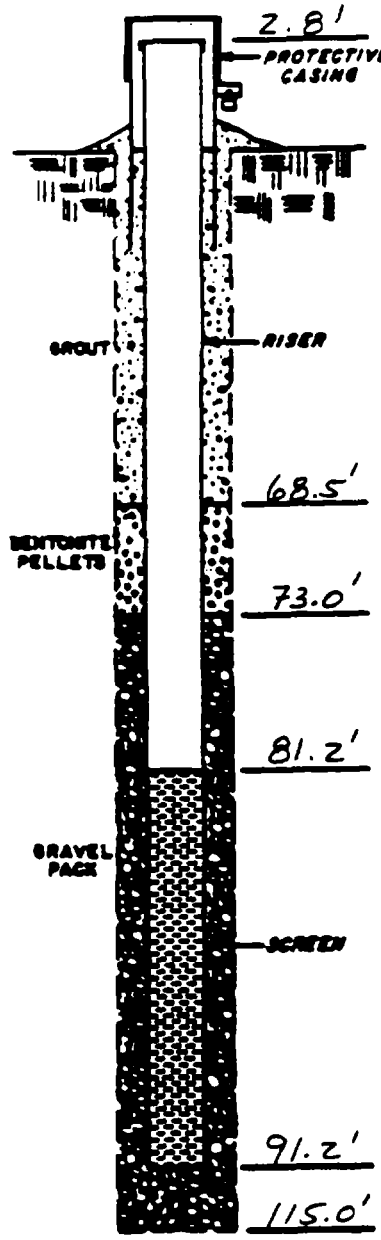
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-15



DRILLING SUMMARY

Drilling Co: ETS Drillers: T. HASKETT

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN AND 6.0 IN Drilling Fluid: BENTONITE MUD

Bits/Depths: 6 1/4 IN. I.D. AUGER (H-S) (0-20'); 5 7/8 IN. (20-115')

Total Depth: 115.0 FT Depth to Water: —

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 84.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 91.2 - 81.2 FT

Filter Material: PEA GRAVEL Setting: 93.0 - 73.0 FT

Seals Material: BENTONITE PELLETS Setting: 73.0 - 68.5 FT

Grout: CEMENT Setting: 68.5 - 0.0 FT

HOLE PLUG: BARIO HOLE PLUG Setting: 115.0 - 93.0 FT

TIME LOG

	Started	Completed
Drilling:	8/5/87 1540	8/5/87 1125
Installation:	8/11/87	8/11/87
Development:	8/1/88 1155	8/1/88 1439

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.2 FT

Pumping Depth to Water: N/A

Pumping Rate: — Specific Capacity:

Volume Pumped: 250 GAL

NY-5

SITE: FISHER-CABO

WELL NO. MW-15
PAGE 3 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
113-115.0'	SL-15J S-59	18-36-48-70	SAND (SW) - Moderate yellowish brown (10 YR 5/2), fine to coarse grained, moderate to poor sorting, grains subangular to subrounded, gravelly zones (fine pebbles) localized, faint dark laminations (114-115.0'); composition as above.
115.0'			End of Boring.

SITE: FISHER-CALO

WELL NO. MW-15
PAGE 2 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
58-60.0'	SL-15F S-54	24-34-58-78	SAND (SP-SW) - Moderate yellowish brown (10 YR 5/2), fine to coarse grained, moderate to poor sorting, grains are subangular to subrounded; very thin bedded gravelly zone at 58.3'; composition as above; wet.
73-75.0'	SL-15G S-56 (DUP)	20-30-40-60	SAND (SP) - Moderate yellowish brown (10 YR 5/2), medium grained, moderately sorted, grains subangular to subrounded; thin silty and gravelly layer at 74.3' and 73.3', respectively; composition as above; wet.
88-90.0'	SL-15H S-55	31-45-46-63	SAND (SP) - Moderate yellowish brown (10 YR 5/2), fine to medium grained, moderately well sorted, gravelly (20%) laminations, grains subangular; very thin clay layer at 88.6'.
			DRILLERS NOTE: Gray silt/clay cuttings at 91.0', decrease in drilling rate.
93-95.0'	SL-15I S-58	38-68-65-90	CLAYEY SILT (ML) - Olive gray (5 Y 4/1) to moderate greenish gray (5 GY 5/1); olive gray clayey silt, angular to subangular pebbles (1%), very fine to fine sand (3-5%), moist; two thin interbeds sandy silt, sandy (20-30%) with fine pebbles, matrix supported, moist to wet. Overall pebble exhibit a random orientation. Collected sample of drill water at 108.0' (DW05, 5-57).
			DRILLERS NOTE: Change in drilling rate, very rapid, possibly sand at 108.0'.

SITE: FISHER-CA[illegible]

WELL NO. MW-18
PAGE 1 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-2.0'	SL-18A (S-29)	5-6-11-9	SANDY LOAM (ML-SP) - Dark yellowish brown (10 YR 4/2) to light brown (5 YR 5/6), color change at 1.0', fine grained, little silt, trace clay, thin bedded, rootlets common; moderate dense; dry.
3.5-5.5'	SL-18B (S-30)	4-5-4-5	SAND (SP) - Light brown (5 Y 5/6), fine to medium grained, well sorted, thin bedded, clean quartz grains, trace feldspar, lithic fragments (SRF's), and epidote; moderately dense and dry.
13.5-15.5'	SL-18C (S-31)	3-2-3-3	SAND (SP-SW) - Dark yellowish brown (10 Yr 4/2), fine to coarse grained, moderate sorting, grains subrounded, quartzose (clean, 85%), others as above; thin bedded; loose; saturated at 15.0'.
28-30.0'	SL-18D (S-33)	11-16-20-24	SAND (SW) - Light olive gray (5 Y 5/2), fine to coarse grained, trace fine to medium pebbles, trace silt, sand grains subangular to sub-rounded, pebbles subrounded; thin bedded; quartzose (clean, 90%), others as above; tabular clasts exhibit preferred orientation along bedding plane; dense, saturated. DRILLERS NOTE: Sand cuttings 30.0-43.5'; thin gravel layer at 41.0'.
43.5-45.5'	SL-18E	12-20-24-22	SAND (SP) - Light olive gray (5 Y 5/2), medium grained. trace silt, well sorted, grains subrounded, composition as above; thick bedded; dense and saturated.

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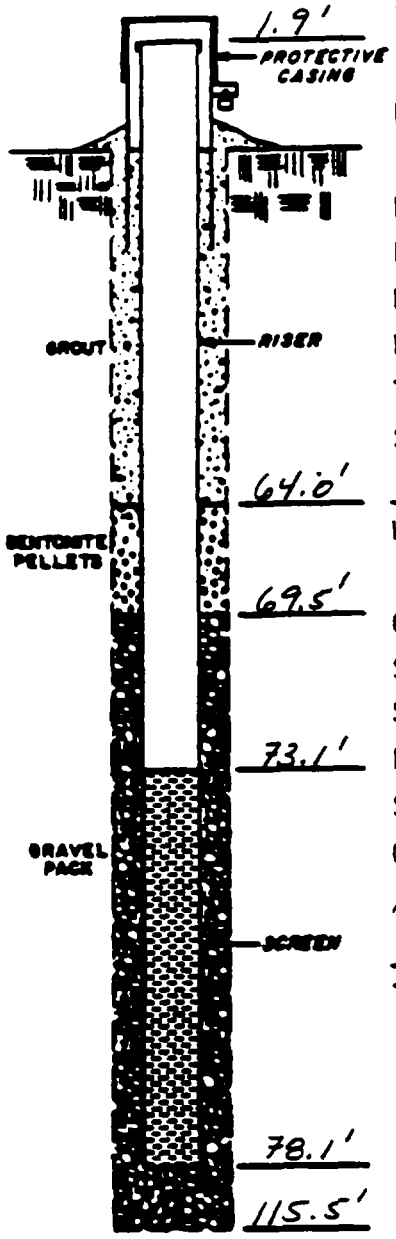
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-18



DRILLING SUMMARY

Drilling Co: ETS Drillers: T. HASKETT

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN AND 6.0 IN. Drilling Fluid: BENTONITE MUD

Bits/Depths: 6 1/4 IN. I.D. AUGER (0-15'), 5 7/8 IN. WING BIT (15-115')

Total Depth: 115.5 FT Depth to Water: —

Supervisory Geologist: MARK LUCAS

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 75.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 5.0 FT.

Slot Size: 0.010 IN. Setting: 78.1 - 73.1 FT

Filter Material: PEA GRAVEL Setting: 81.0 - 69.5 FT

Seals Material: BENTONITE PELLETS Setting: 69.5 - 64.0 FT

Grout: CEMENT Setting: 64.0 - 0.0 FT

HOLE PLUG: BARIOD HOLE PLUG Setting: 115.5 - 81.0 FT

TIME LOG	Started	Completed
Drilling:	7/28/87 0800	7/30/87 1030
Installation:	7/30/87 1100	7/30/87 1500
Development:	8/3/88	8/3/88
	8/10/88	8/10/88

WELL DEVELOPMENT

Method: AIR-LIFT, FIRST ATTEMPT FAILED, JET WASHED

Static Depth to Water: 16.1'

Pumping Depth to Water: N/A

Pumping Rate: — Specific Capacity:

Volume Pumped: —

NY-5

SITE: **FISHER-CALO**

WELL NO. MW-18
PAGE 3 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
93.5-95.5'	-	15-17-14-13	SAND (SW) - Light olive gray (5 Y 6/1), fine to coarse grained, trace fine to coarse pebbles, clasts subangular to subrounded; poorly sorted, sand grains subangular to subrounded, thick bedded; composition quartzose (85%), with trace lithic fragments (SRF's), feldspar, and opaques; moderately dense and very saturated.
103.5-105.5'	-	54-71-98-135	SAND (SP) - Light olive gray (5 Y 6/1) medium to fine grained towards base, unit fines downward, well sorted; thin bedded to thin, planar cross-stratification at base; composition as above (90% quartz) dense to very dense; wet to very saturated.
			DRILLERS NOTE: Cuttings as above 105.5-113.5'.
113-115.5'	-	55-80-77-131	SAND (SP) - Same as above, planar cross-stratification abundant; very saturated; watery.
115.5'			End of Boring.

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			DRILLERS NOTE: Sand cuttings 45.5-57.0'; dark yellowish brown (10 YR 4/2) silt and clay cuttings at 57.0'.
58.5-60.5'	SL-18F (S-35)	6-13-19-28	SILT and CLAY (ML-CL) - Dark yellowish brown (10 YR 4/2), trace fine pebbles, clasts subangular SRF's, trace mica, thick bedded, low to medium plasticity, firm; slightly moist.
68.5-70.5'	SHELBY TUBE	-	SILT and CLAY (ML-CL) - Same as above; trace subangular, carbonate pebbles, rafted.
			DRILLERS NOTE: Drilling rate and cuttings change, pass out of silt and clay at 72.0'.
78.5-80.5'	-	5-19-33-45	SAND (SW) to SILT (ML) - 78.5-80.0', Dark yellowish brown (10 YR 4/2), SAND, fine to coarse grained; trace to fine to coarse pebbles, clasts subangular to subrounded; very poorly sorted, thin bedded, composition as above; dense and saturated.
			80.0-80.5', Light olive gray (5 Y 5/2), clayey SILT, trace fine pebbles, clasts subangular, thick bedded; hard; slightly moist.
			DRILLERS NOTE: Clayey silt cuttings 80.5-88.0', sand cuttings resume at 88.0'.

SITE: FISHER-CALO

WELL NO. MW-21
PAGE 1 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0-1.5'	SL-21A (S-06)	2-6-10	SAND (SM) - Light medium brown, fine grained, some silt; rootlets; dark brown in color (upper 0.25'). Loam.
5-6.5'	SL-21B (S-07)	10-13-17	SAND (SM-SP) - 5.0-5.5', as above; medium brown. 5.5-6.5', Orangish brown SAND, medium grained, grains moderately well rounded, quartzose (≥ 90%); dry.
15-15.7'	SL-21C (S-08)	-	SAND (SP) - Light to medium brown, medium to coarse grained to fine grained at base; thin bedded silty layer at 15.1-15.3'; quartzose (90%); dry.
30-30.7'	SL-21D (S-09)	8-16-17	SAND (SP) - Light to medium brown, fine to medium grained, coarse zones exhibit well rounded grains; quartzose (90%). Collect drill water sample (DW01, S-14). REMARKS: Color change in sand cuttings from brown to gray.
45-47.0'	SL-21E (S-10)	NOT TAKEN	SAND (SP) - Medium brownish gray, fine to coarse grained, few pebbles, and moderately sorted.
60-62.0'	SL-21F (S-11)	9-18-15	SAND (SP) - Brownish gray, medium grained, good sorting, grains moderately well sorted, quartzose (90%) with minor lithic fragments (Basalt and SRF's); fine pebbles rare.
70-72.0'	SL-21G (S-12)	15-45-73 -100(+4")	SAND (SP) - Medium brownish gray, very fine to fine grained, moderately well sorted, grains rounded, composition as above. REMARKS: Base of sand unit at 74.0'.

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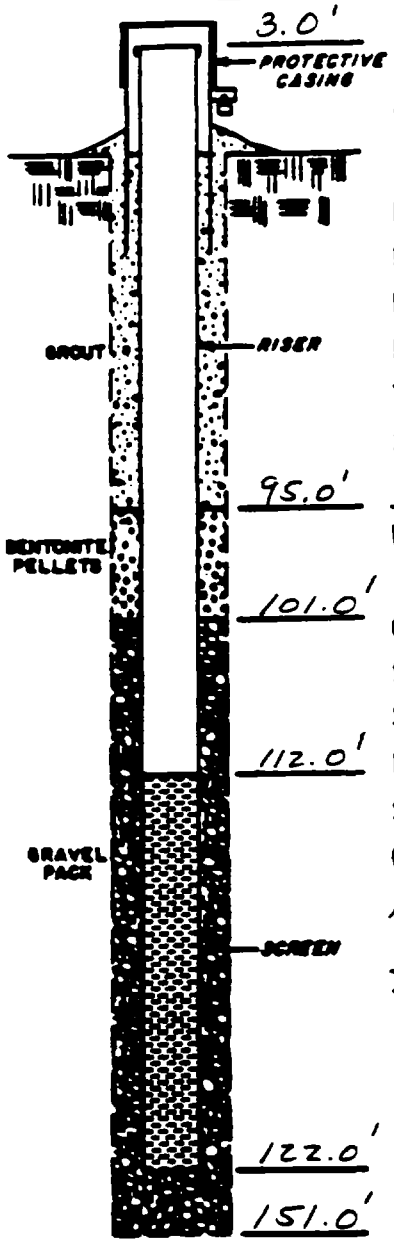
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-21



DRILLING SUMMARY

Drilling Co: ETS Drillers: T. HASKETT

Drill Rig Make/Model: DIEDRICH

Borehole Diameters: 12.0 IN. AND 6.0 IN. Drilling Fluid: BENTONITE MUD

Bits/Depths: 6 1/4 IN. I.D. AUGER (0-15'), 5 7/8 IN. WING-BIT (15-151')

Total Depth: 151.0 FT Depth to Water: —

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 115.0 FT

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 IN. Setting: 122.0 - 112.0 FT

Filter Material: PEA GRAVEL Setting: 126.0 - 101.0 FT

Seals Material: BENTONITE PELLETS Setting: 101.0 - 95.0 FT

Grout: CEMENT Setting: 95.0 - 0.0 FT

HOLE PLUG: BARIOD HOLE PLUG Setting: 151.0 - 126.0 FT

TIME LOG	Started	Completed
Drilling:	7/10/87 0805	7/16/87 1015
Installation:	7/16/87 1042	7/17/87 1530
Development:	7/20/88 1524	7/20/88 1644

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 23.8 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.9 GAL/MIN Specific Capacity:

Volume Pumped: 150 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-21
PAGE 3 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
140-142.0'	SL-21M (S-19)	50-67-94 -100(+2")	Interbedded SILT (ML) - CLAYEY SILT (ML), and CLAY (CL) - 140-140.5', grayish brown to brownish gray slit. 140.5-140.9', Alternating thin beds of grayish brown and brownish gray CLAYEY SILT; dry. 140.9-141.4', Greenish brown to dark brownish gray CLAY (till), locally laminated (crude); pebbly (10%); nearly dry. 141.4-141.5', Grayish brown SILT; wet. REMARKS: Brown oily material (organic) in drilling and derived from till.
150-151.0'	SL-21N (NONE)	115-213	CLAYEY SILT (ML) - Greenish gray, dense till; composition 65% silt, 15% clay, 10% sand, and 10% pebbles; unstratified; thin sand lenses at high angles to horizontal (45°); coarse pebbles (up to 2 cm.) are angular to subangular; clasts consist of shale, limestone, and basalt; sandy zones moist and clayey zones nearly dry.
151.0'			End of Boring.

SITE: FISHER-CALO

WELL NO. MW-21
PAGE 2 OF 3

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
80-82.0'	SL-21I (S-15)	28-48-75 -100(+5")	SILTY SAND (ML) - Light medium brownish gray, very fine grained, trace fine to medium sand, moderately sorted, grains angular to subangular, quartzose. REMARKS: Noted some light gray clay in cuttings.
95-97.0'	SL-21J (S-16)	21-29-32-40	SILTY SAND (ML) - Medium gray, very fine grained, silty, clay rare, moderately well sorted, grains angular to subangular, and quartzose.
110-112.0'	SL-21K (S-17)	30-43-59-69	SAND (SP) - Brownish gray, medium grained, well sorted, grains rounded; quartzose with minor lithic fragments, and opaques; few laminations of black, subangular granules. Upper contact of sand unit at 109-110'. REMARKS: Clay clots in cuttings 124-125.0'.
125-127.0'	SL-21L (S-18)	10-26-55-105	CLAYEY SILT (ML) to SAND (SP) - 125-126.0', alternating light to dark gray laminations (vared), clayey SILT; basal layers contain very fine to fine sand in equal proportions to silt/clay. 126-126.5', Brown SAND, fine grained; faint, dark laminations; quartzose with minor accessory minerals (red and black).

SITE: FISHER-CALO

WELL NO. MW-60
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-59

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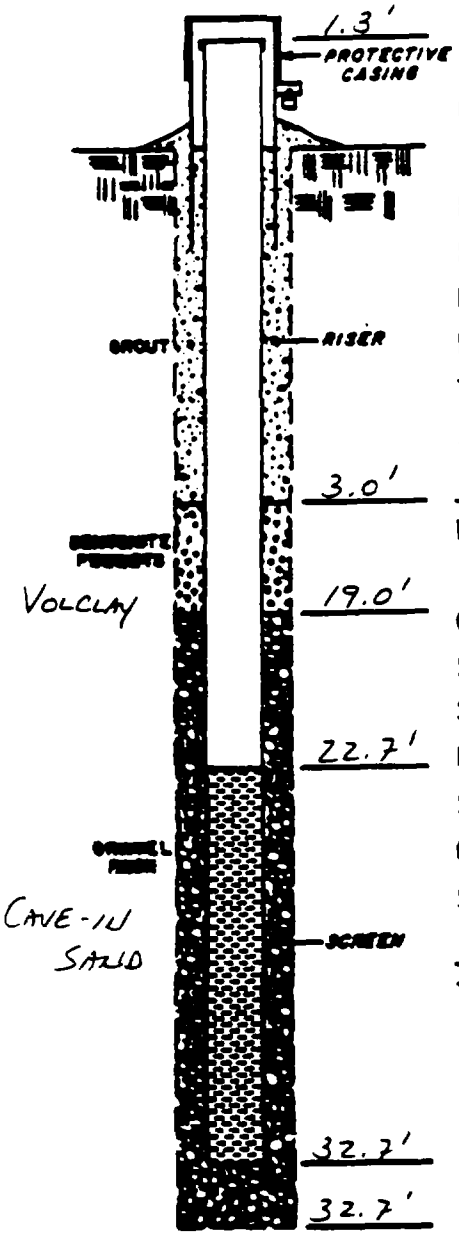
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-61



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0-32.7)

Total Depth: 32.7 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 24 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.7 TO 22.7 FT

Filter Material: CAVE-IN SAND Setting: 32.7 TO 19.0 FT

Seals Material: VOLCLAY Setting: 19.0 TO 3.0 FT

Grout: PORTLAND CEMENT Setting: 3.0 TO 0 FT

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1104 5/17/88	1135 5/17/88
Installation:	1135 5/17/88	1255 5/17/88
Development:	1331 7/25/88	1403 7/25/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.7 FT

Pumping Depth to Water: N/A

Pumping Rate: 1.6 GALS/MIN Specific Capacity:

Volume Pumped: 50.0 GALS.

NY-5

SITE: FISHER-CALO

WELL NO. MW-61
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-59

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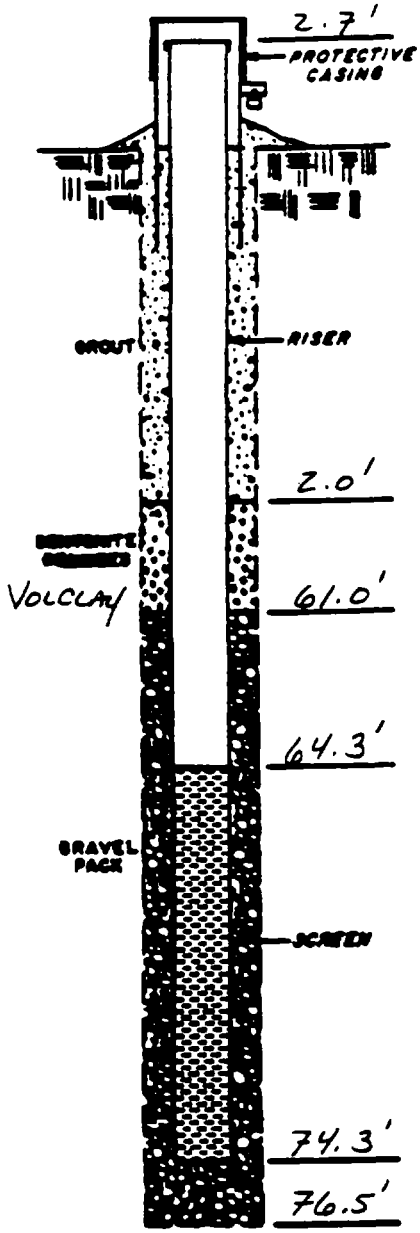
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-6Z



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6.0 IN. Drilling Fluid: AQUA-GEL

Bits/Depths: 5 7/8 IN. WING BIT (0 - 76.5') BENTONITE MUD

Total Depth: 76.5 FT. Depth to Water: ~16.0 FT

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 67.0

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 F

Slot Size: 0.010 Setting: 74.3 - 64.3 FT.

Filter Material: COARSE SAND Setting: 76.5 - 61.0 FT.

Seals Material: VOLCLAY Setting: 61.0 - 2.0 FT.

Grout: PORTLAND CEMENT Setting: 2.0 - 0.0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. ABOVE, 2.0 FT. BELO

TIME LOG	Started	Completed
Drilling:	6/14/88 1000	6/15/88 0900
Installation:	6/15/88 0900	6/15/88 1400
Development:	7/29/88 0849	7/29/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.9 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.7 GAL/MIN Specific Capacity:

Volume Pumped: 200 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-62
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0 - 2.0'	SL-62A (1/3 62D)	8-13-20-20	SANDY LOAM (SM) - Light to moderate brown, some gravel, rootlets, and dry.
5 - 7.0'	SL-62B (1/3 62D)	10-10-14-13	SAND (SW) - Light to moderate brown, fine to coarse grained, trace to some (15% silt/clay; moist in silty/clayey zone and dry elsewhere.
15 - 17.0'	SL-62C (1/3 62D)	9-9-14-14	SAND (SP) - Light to moderate yellow brown, medium grained with scattered coarse grains, trace brown silt/ clay, moderate sorting; quartzose; damp to moist. OVA reading: 0.4 ppm.
30 - 32.0'	SL-62E (DUP)	27-51-65-75/5"	SAND (SP) - Moderate yellow brown, medium grained, gravelly to scattered coarse grains towards base, moderate sorting at base; clasts are angular to subangular and pebbles are coarse in size; sand grains are subrounded to subangular and quartzose (90%) in composition; saturated.
45 - 46.5'	SL-62F		SAND (SP) to SAND and GRAVEL (GP) - 45 46.0' sand moderate yellow brown, fine to coarse grained, trace gravel, moderate to poor sorting, grains are subrounded to subangular; composition is 90% quartz and minor sed. rock fragments (50% increase from 30' interval). 46-46.5', SAND and GRAVEL, brown, sand is medium to coarse grained with fine to medium sized pebbles, clasts are subangular to subrounded and consist of tabular sed. rock fragements; saturated.

SITE: FISHER-CALO

WELL NO. MW-62
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
60 - 61.5'	SL-62G	14-75	SAND (SW) - Moderate brownish gray, fine to coarse grained, trace gravel and silt/clay (5%) moderate sorting; grains are subangular to subrounded, quartzose.
70 - 71.5'	-	75	GRAVEL (GP) to SAND (SP) - 70.0 - 70.4', gravel, varicolored, fine to medium sized pebbles; clasts are tabular and subrounded; clasts composed of tan to brown and gray to dark gray sed. rocks. 70.4 - 70.5', SAND, moderate brownish gray, medium grained, trace gray silt/clay. Driller's Note: Change in strata at 74.0'.
75 - 76.5'	-	16-36-65	SILTY CLAY (CL) - Moderate gray, gravelly at top (0.2') to trace gravel and granules towards base, clasts angular to subrounded, clasts are greenish gray to black sed. rock fragments; moderate plasticity; clay rich, sand seems common; saturated to moist.
76.5'			End of boring.

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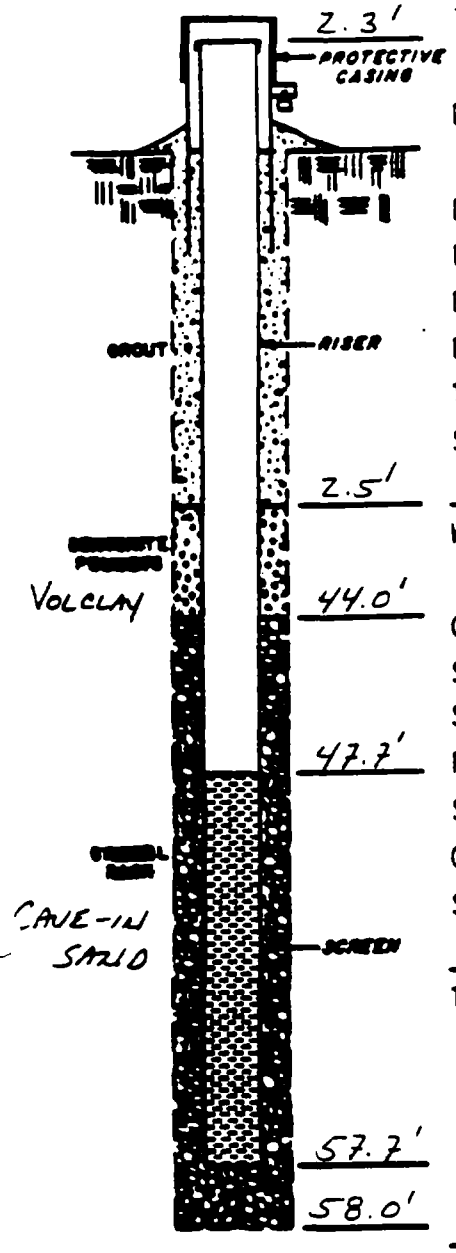
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-63



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 58.0')

Total Depth: 58.0 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 50 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 57.7 TO 47.7 FT.

Filter Material: CAVE-IN SAND Setting: 58.0 TO 44.0 FT.

Seals Material: VOLCLAY Setting: 44.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1213 5/20/88	1243 5/20/88
Installation:	1305 5/20/88	1430 5/20/88
Development:	1017 7/29/88	1049 7/29/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.1 FT.

Pumping Depth to Water: N/A

Pumping Rate: 4.7 GALS/MIN Specific Capacity:

Volume Pumped: 150.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-63
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-62

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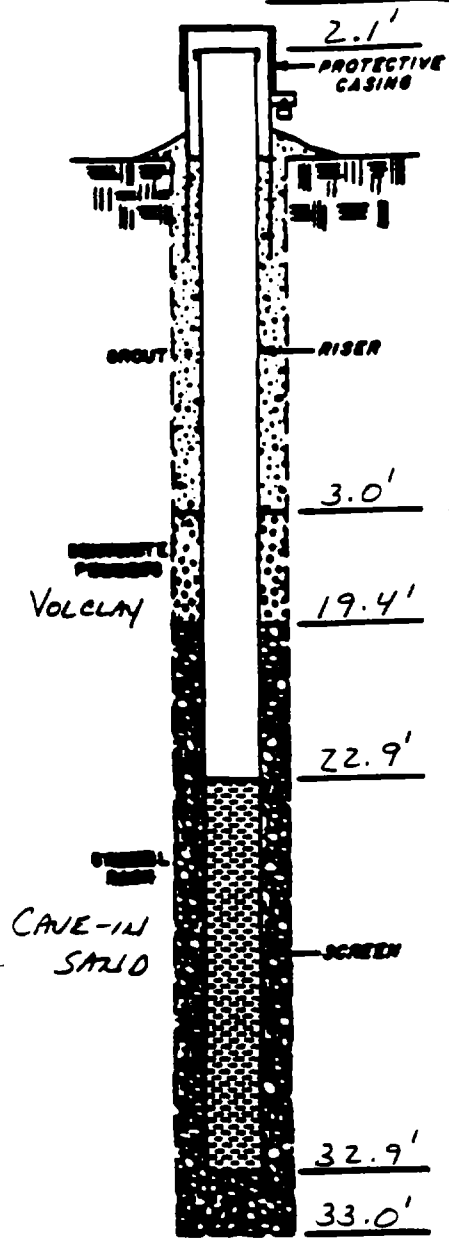
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-64



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 33.0')

Total Depth: 33.0 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 25 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.9 TO 22.9 FT.

Filter Material: CAVE-IN SAND Setting: 33.0 TO 19.4 FT.

Seals Material: VOLCLAY Setting: 19.4 TO 3.0 FT.

Grout: PORTLAND CEMENT Setting: 3.0 TO 0 FT.

Surface Casing Material: STEEL Setting:

TIME LOG	Started	Completed
Drilling:	1010 5/20/88	1033 5/20/88
Installation:	1035 5/20/88	1210 5/20/88
Development:	1102 7/29/88	1130 7/29/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 19.1 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.8 GALS/MIN Specific Capacity:

Volume Pumped: 50.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-64
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-62

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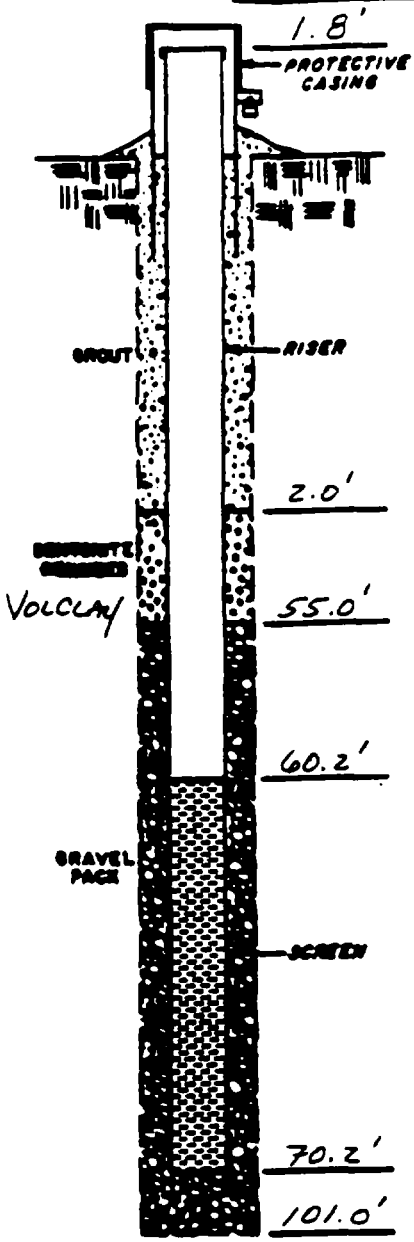
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-65



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HAIRE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6 IN. Drilling Fluid: AQUA-GEL

Bits/Depths: 5 7/8 IN. WING BIT (0 - 100.0') BENTONITE MUD

Total Depth: 101.0 FT. Depth to Water: ~16.0

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 62.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT

Slot Size: 0.010 Setting: 70.2 - 60.2 FT.

Filter Material: SILICA SAND Setting: 101.0 - 79.0 (NATURAL); 72.0 - 55.0

Seals Material: BENTONITE PELLETS Setting: 79.0 - 72.0 FT.

Grout: VOLCLAY Setting: 55.0 - 2.0 FT.

Surface Casing Material: STEEL Setting: 2.0 FT. ABOVE, 3.0 FT. BELOW

TIME LOG	Started		Completed	
Drilling:	6/2/88	1030	6/3/88	1100
Installation:	6/3/88	1100	6/4/88	1100
Development:	7/25/88	1250	7/25/88	1351

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 18.0 FT.

Pumping Depth to Water: N/A

Pumping Rate: 3.3 GALS/MIN Specific Capacity:

Volume Pumped: 200 GALS

MY-5

SITE: FISHER-CALO

WELL NO. MW-65
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0 - 1.5	SL-65A (1/3 65D)	10-25-15-12	LOAM (SM) - Dark brown, dry.
5 - 6.5'	SL-65B (1/3 65D)	7-11-9-11	SILTY SAND (SW) - Moderate organism brown, medium to fine grained; moist.
15 - 16.5'	SL-65C (1/3 65D)	8-28-43-73	SAND (SP) - Moderate yellowish brown, very fine to fine grained, trace silt/clay, no gravel; horizontal laminae visible; quartzose (90-95%); moist.
30 - 31.5	SL-65E (DUP)	18-43-75	SAND and GRAVEL (SP) - Moderate brown, coarse grained sand to coarse pebbles. Second spoon taken at 31.5 - 33.0', as above.
45 - 46.5'	SL-65F	28-26-75	SAND (SP) - Moderate brownish gray, medium to coarse grained, trace silt/clay, moderate sorting; grained subangular to subrounded; quartzose (92%) with minor accessory minerals.
60 - 61.5'	SL-65G	52-75	SAND (SP) - Moderate brownish gray, medium to coarse grained; as above; unit contains a thin bed of sand and gravel (60.2 -60.5').
65 - 66.0'	SL-65H	44-75/5"	SAND (SP) - Moderate brownish gray; medium grained, thin bed of sand and gravel (65.2 - 65.6') with a laminated clay/silt, saturated; as above.
			Remarks: Note cuttings of gray clay at 68.0'.

SITE: FISHER-CALO

WELL NO. MW-65
PAGE 2 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
70 - 71.0'	-	75(+6")	Interbedded CLAY (ML) and SAND (SM) 70-70.3', moderate gray, gravelly clay, granules to coarse pebbles; moist. 70.3 - 70.5', moderate gray, SAND, very fine grained, silty; saturated.
80 - 81.0	-	75(+3")	Interbedded CLAYEY SILT (ML) and SAND (SM) - Moderate gray clayey silt, minor gravel in upper layer, thin to medium bedded; moderate gray sand, very fine grained, silty, very thin to thin bedded; silt moist and sand saturated. Driller's Note: Rapid drilling zone at 85 -90.0'.
90 - 90.4	-	75(+5")	Interbedded CLAYEY SILT (ML) and SAND (SM) - as above. Driller's Note: Rapid drilling - zone at 90 -100.0'.
100 - 100.7	-	70 - 100	Interbedded CLAYEY SILT (ML) and SAND (SM) - as above.
100.7'			End of boring.

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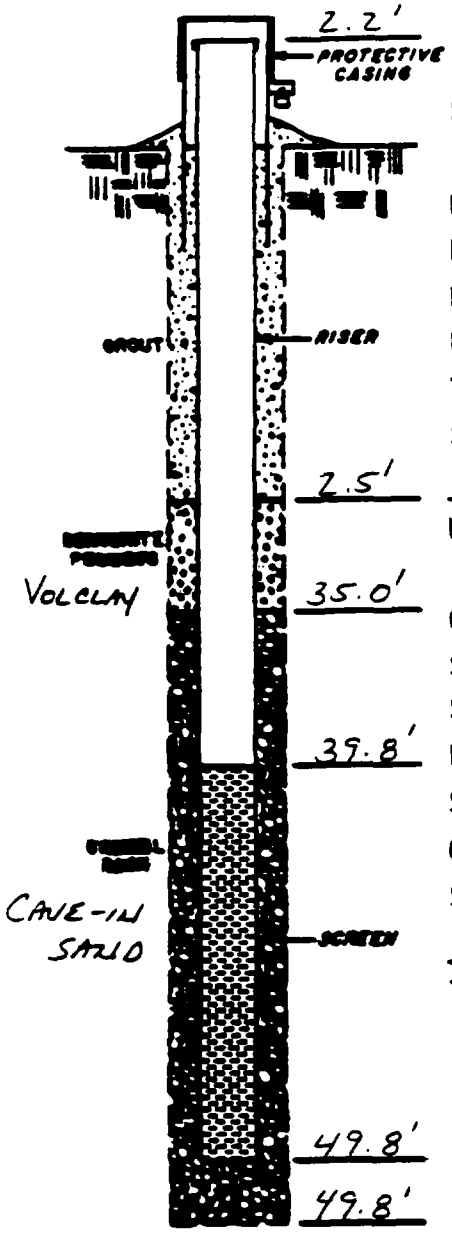
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-66



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 49.8')

Total Depth: 49.8 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 42 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 49.8 TO 39.8 FT.

Filter Material: CAVE-IN SAND Setting: 49.8 TO 35.0 FT.

Seals Material: VOLCLAY Setting: 35.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 2.7 FT. BELOW, 2.3 ABOVE

TIME LOG	Started	Completed
Drilling:	1110 6/6/88	1200 6/6/88
Installation:	1200 6/6/88	1323 6/6/88
Development:	1400 7/25/88	1420 7/25/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 17.5 FT.

Pumping Depth to Water: N/A

Pumping Rate: 5.0 GALS/MIN Specific Capacity:

Volume Pumped: 100.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-66
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-65

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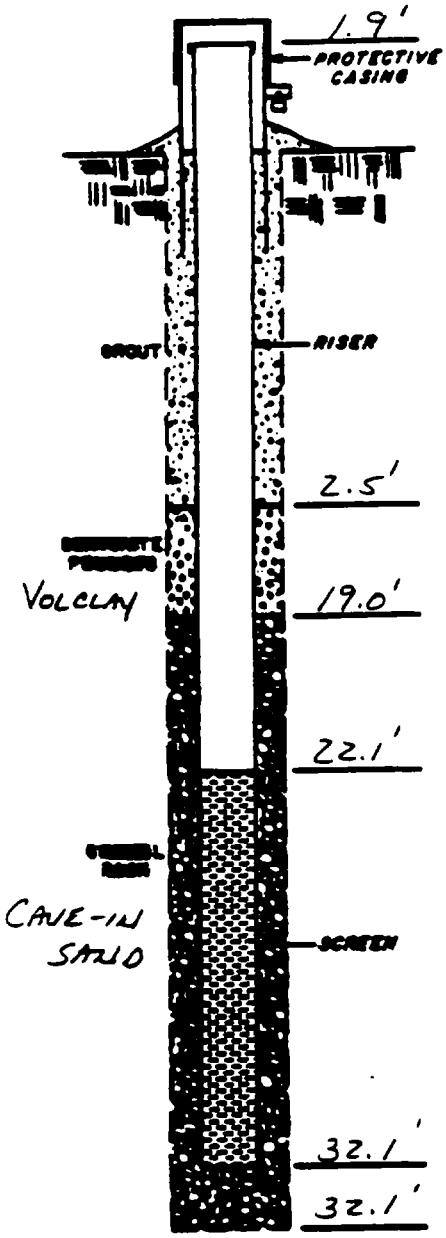
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-67



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 32.1')

Total Depth: 32.1 FT. Depth to Water: ✓

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 24 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 32.1 TO 22.1 FT.

Filter Material: CAVE-IN SAND Setting: 32.1 TO 19.0 FT.

Seals Material: VOLCLAY Setting: 19.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE ✓

TIME LOG	Started	Completed
Drilling:	1258 6/5/88	1335 6/5/88
Installation:	1335 6/5/88	1420 6/5/88
Development:	1425 7/25/88	1535 7/25/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 17.5'

Pumping Depth to Water: N/A

Pumping Rate: 2.1 GALS/MIN Specific Capacity:

Volume Pumped: 150 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-67
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-65

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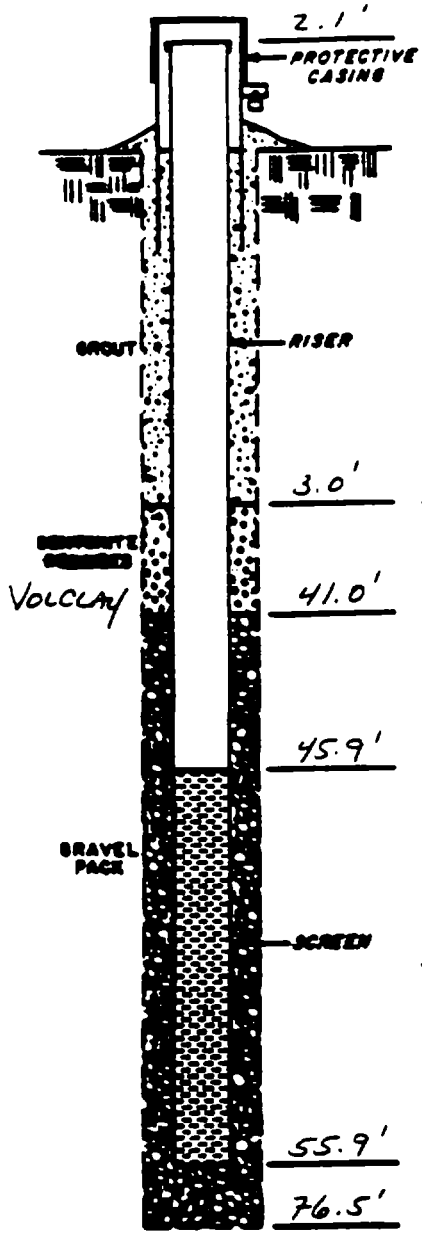
WELL CONSTRUCTION SUMMARY

Project: FISHER - CALO Client: U.S. EPA Well No: MW-68



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: MIKE HARE

Drill Rig Make/Model: FAILING 1250 HOLEMASTER

Borehole Diameters: 6 IN. Drilling Fluid: AQUA-GEL

Bits/Depths: 5 5/8 IN. WING-BIT (0 - 76.5') BENTONITE MUD.

Total Depth: 76.5 FT. Depth to Water: —

Supervisory Geologist: MARK SORENSEN

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 48.0 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10.0 FT.

Slot Size: 0.010 Setting: 55.9 - 45.9 FT.

Filter Material: SILICA SAND Setting: 55.0 - 41.0 FT.

Seals Material: BENTONITE PELLETS Setting: 76.5 - 55.0 FT.

Grout: VOLCLAY Setting: 41.0 - 3.0 FT.

Surface Casing Material: STEEL Setting: 2.5 FT. ABOVE, 2.5 BELOW

TIME LOG

	Started	Completed
Drilling:	5/31/88 1200	6/1/88 1000
Installation:	6/1/88 1000	6/1/88 1600
Development:	7/27/88 1155	7/27/88 1212

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 9.4 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.9 GAL/MIN Specific Capacity:

Volume Pumped: 50 GAL

NY-5

SITE: FISHER-CALO

WELL NO. MW-68
PAGE 1 OF 2

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
0 - 2.0'	SL-68A (1/3 68D)	12-12-14-14	LOAM (SM) - Dark brown loam to greenish gray sandy loam, mottled.
5 - 7.0'	SL-68B (1/3 68D)	6-6-8-8	SAND (SW) -Brownish gray, medium grained, poorly sorted.
15 - 17.0'	SL-68C (1/3 68D)	7-24-32-55	SAND (SP) - Light grayish brown, medium to fine grained sand, trace silt/clay; quartzose.
30 - 32.0'	SL-68E (DUP)		SAND (SP) - Moderate grayish brown, fine to medium grained, moderately well sorted; trace pebbles, silt/clay; grains subangular to subrounded; saturated. Second spoon taken at 32.0 - 34.0'; as above.
45 - 46.5'	SL-68F	15-28-30	SAND (SP) - Moderate grayish brown, medium to coarse grained, well sorted, normal graded bedding, subangular to surounded, quartzose (92%); thin bedded gravel, fine to coarse sized pebbles, exhibits normal graded bedding.
			Remarks: Sand cuttings 45 - 57.0'; sand and gravel cuttings 57 - 59.0' and gravel and silt/clay cuttings 59 - 60.0'.
60 - 61.5'	SL-68G	38-60-55	CLAYEY SILT (ML) - Moderate brownish gray to olive gray, trace sand and pebbles. Thin bed of gravelly clay (60 -60.2') contains fine to coarse pebbles, size decreases abruptly to fine pebbles and granules; in general clasts are angular to

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			subangular and predominantly sedimentary in origin; very thin bed of very fine sand (66.3 - 60.35'); gravelly and sandy units are saturated and clayey silt deposits are moist.
67 - 68.5'	-	21-75/6"	CLAYEY SILT (ml) and SAND (sp) - 67 - 67.5', moderate brownish gray, CLAYEY SILT, some pebbles (5%), clasts up to medium sized pebbles, clasts subangular to subrounded; typical composition. 67.5 - 68.0', moderate grayish brown, SAND, medium grained with trace silt/clay and pebbles.
75 - 76.0'	SL-6814	34-65-75/5"	Interbedded CLAYEY SILT (ML) and SAND (SP) - Thin beds of alternating clayey silt and sand; grayish brown, sand, medium to coarse and fine to medium grained (lower unit), both quartzose; clayey silt, moderate brownish gray, horizontally bedded.
76.2'			End of boring.

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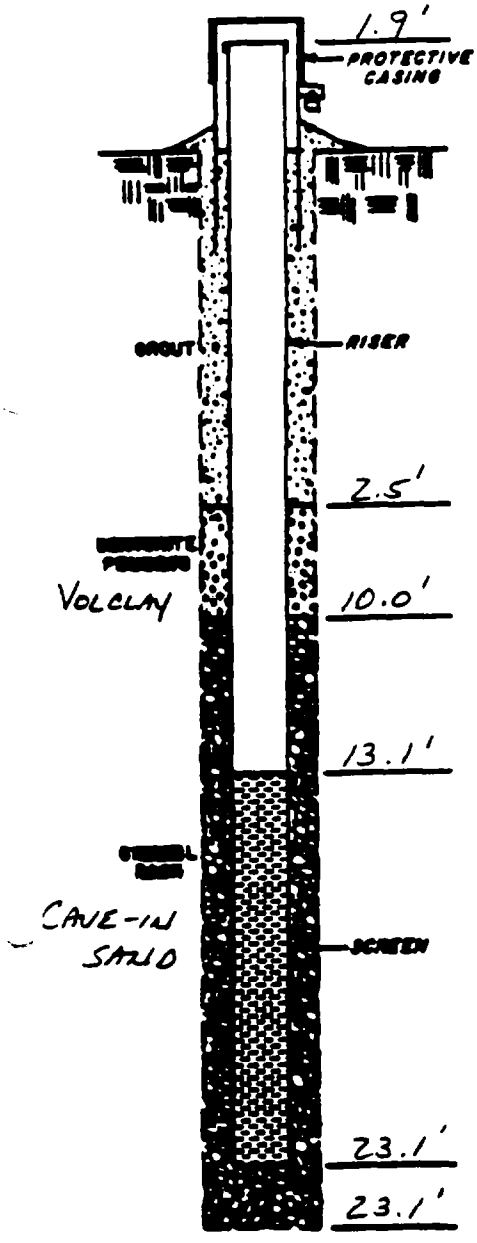
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-69



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 23.1')

Total Depth: 23.0 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 15 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 23.1 TO 22.1 FT.

Filter Material: CAVE-IN SAND Setting: 23.1 TO 10.0 FT.

Seals Material: VOLCLAY Setting: 10.0 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	0911 6/5/88	1000 6/5/88
Installation:	1040 6/5/88	1120 6/5/88
Development:	1045 7/27/88	1140 7/27/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 9.1 FT.

Pumping Depth to Water: N/A

Pumping Rate: 2.3 GALS/MIN Specific Capacity:

Volume Pumped: 125 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-69
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			REFER TO MW-68

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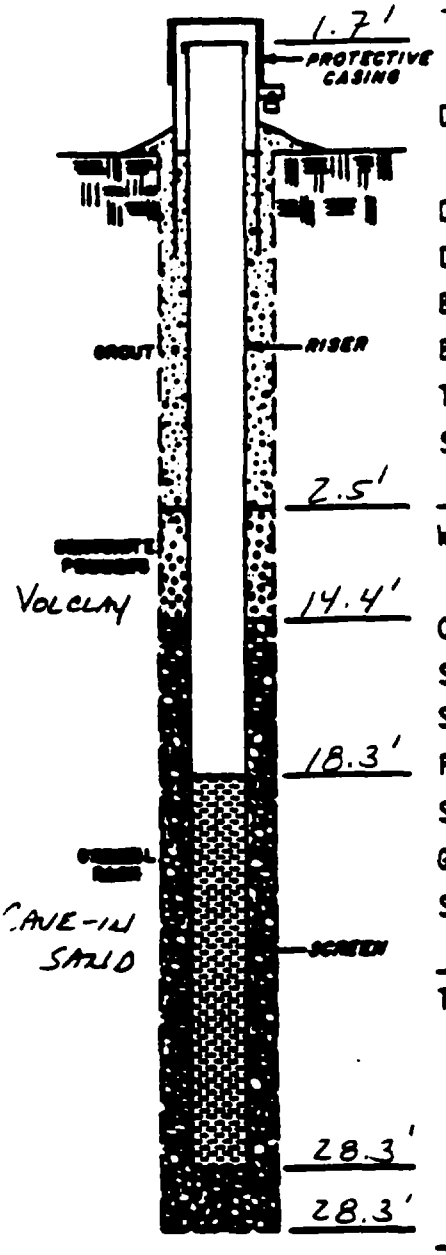
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-70



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 28.3')

Total Depth: 28.3 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 20 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 28.3 TO 18.3 FT.

Filter Material: CAVE-IN SAND Setting: 28.3 TO 14.4 FT.

Seals Material: VOLCLAY Setting: 14.4 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	1325 6/7/88	1350 6/7/88
Installation:	1409 6/7/88	1500 6/7/88
Development:	1602 7/26/88	1625 7/26/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 14.3 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.4 GALS/MIN Specific Capacity:

Volume Pumped: 32.0 GALS

NY-5

SITE: FISHER-CALO

WELL NO. MW-70
PAGE 1 OF 1

SAMPLE INTERVAL	SAMPLE NO.	BLOW COUNT	DESCRIPTION
			NO BORING LOG.

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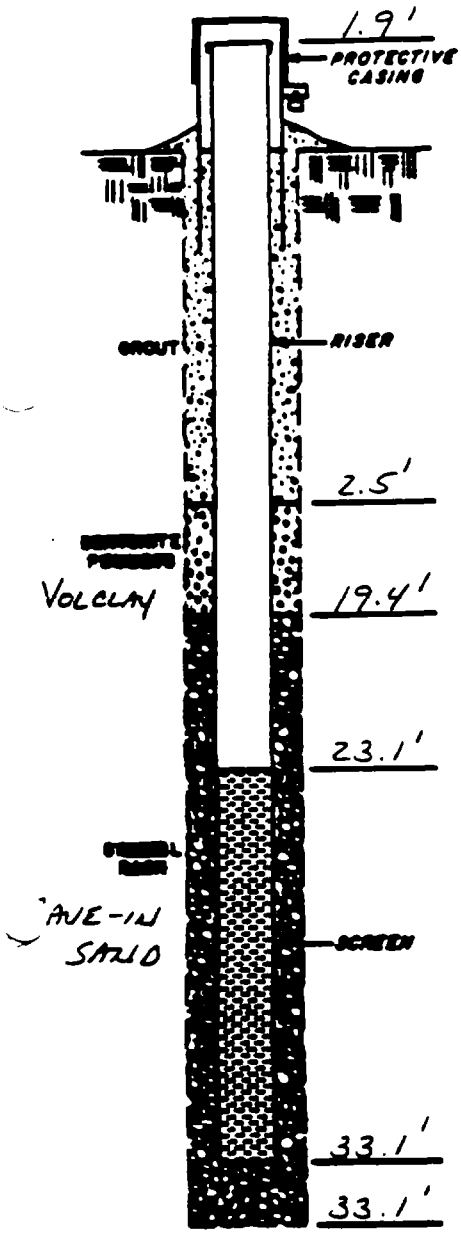
WELL CONSTRUCTION SUMMARY

Project: FISHER-CALO Client: U.S. EPA Well No: MW-71



DRILLING SUMMARY

Drilling Co: ATEC AND ASSOCIATES Drillers: DENNIS SHEFFIELD

Drill Rig Make/Model: MOBILE B-57

Borehole Diameters: 8 IN. Drilling Fluid: NONE

Bits/Depths: 7 1/2 IN. 4 SLOT HOLLOW-STEM AUGERS (0 - 33.1')

Total Depth: 33.1 FT. Depth to Water:

Supervisory Geologist: ERIC M. LEE

WELL DESIGN

Casing Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 25 FT.

Screen Material: TYPE 304 SS Diameter: 2 IN. I.D. Length: 10 FT.

Slot Size: 0.010 IN. Setting: 33.1 TO 23.1 FT.

Filter Material: CAVE-IN SAND Setting: 33.1 TO 19.4 FT.

Seals Material: VOLCLAY Setting: 19.4 TO 2.5 FT.

Grout: PORTLAND CEMENT Setting: 2.5 TO 0 FT.

Surface Casing Material: STEEL Setting: 3.0 FT. BELOW, 2.0 FT. ABOVE

TIME LOG	Started	Completed
Drilling:	0820 6/8/88	0852 6/8/88
Installation:	0852 6/8/88	0950 6/8/88
Development:	1701 7/25/88	1733 7/25/88

WELL DEVELOPMENT

Method: AIR-LIFT

Static Depth to Water: 20.1 FT.

Pumping Depth to Water: N/A

Pumping Rate: 1.1 GALS/min Specific Capacity:

Volume Pumped: 34.0 GALS

NY-5

WELL CONSTRUCTION SUMMARY

1 No: MW-71

illers: DENNIS SHEFFIELD

illing Fluid: NONE

OERS (0 - 33.1')

1 to Water:

.D. Length: 25 FT.

D. Length: 10 FT.

TO 23.1 FT.

TO 19.4 FT.

TO 2.5 FT.

TO 0 FT.

2.0 FT. ABOVE

Completed

6/8/88

6/8/88

7/25/88

ATTACHMENT B

Table 1 - Water Level Measurements

Table 2 - Hydraulic Conductivity Data

TABLE 1

STATIC WATER LEVEL - GROUNDWATER ELEVATIONS

TABLE 1

GROUNDWATER ELEVATIONS (FEET ABOVE MSL)

WELL	ELEVATION TOC	AUGUST (1988)	10/07/88	11/03/88	11/15/88
MW 1	736.25	717.07	717.00	716.95	716.86
MW 2	737.19	717.47	716.98	717.37	716.84
MW 3	737.56	-	716.87	718.18	716.67
MW 4	736.62	714.62	714.59	714.49	714.43
MW 5	737.48	714.92	714.61	715.35	714.44
MW 6	737.28	714.86	714.59	715.20	714.43
MW 7	727.47	712.15	711.33	711.33	711.20
MW 8	728.26	711.62	711.31	711.25	711.42
MW 9	727.21	711.76	711.29	711.21	711.19
MW 10	732.35	707.15	706.95	707.77	706.89
MW 11	732.37	707.31	706.92	707.24	706.82
MW 12	731.72	708.83	706.79	-	706.68
MW 13	709.18	703.50	703.35	-	703.62
MW 14	709.20	701.36	700.99	-	700.98
MW 15	732.36	710.72	710.40	710.43	710.28
MW 16	732.26	710.72	710.36	710.35	710.26
MW 17	732.48	710.73	710.36	710.61	710.27
MW 18	726.34	709.21	709.07	708.96	709.05
MW 19	727.20	709.18	708.84	708.79	708.82
MW 20	726.24	708.43	708.87	708.82	708.85

TABLE 1 (Continued)

GROUNDWATER ELEVATIONS (FEET ABOVE MSL)

WELL	ELEVATION TOC	AUGUST (1988)	10/07/88	11/03/88	11/15/88
MW 21	731.34	706.40	706.01	705.96	706.03
MW 22	730.34	706.18	705.92	705.62	705.88
MW 23	730.63	706.37	705.97	705.82	705.94
MW 24	733.20	-	711.57	-	711.44
MW 25	730.86	711.36	711.17	-	711.10
MW 26	733.26	-	707.24	706.86	707.13
MW 27	731.56	706.88	706.49	706.40	706.41
MW 28	727.19	704.19	704.91	705.80	705.05
MW 29	727.08	706.40	706.06	605.96	706.03
MW 30	724.73	709.35	709.27	713.85	709.70
MW 31	725.02	714.31	714.25	714.30	714.68
MW 32	725.72	714.19	714.20	714.38	714.66
MW 33	731.40	713.40	712.44	712.87	712.60
MW 34	725.80	710.43	710.33	709.91	710.20
MW 35	725.68	710.40	710.09	710.15	710.16
MW 36	725.56	710.40	710.09	-	710.16
MW 37	730.59	708.65	708.27	708.46	708.15
MW 38	730.71	708.70	708.28	708.14	708.17
MW 39	730.52	708.66	708.27	708.09	708.17
MW 42	735.88	713.59	713.46	714.88	713.49

TABLE 1 (Continued)

GROUNDWATER ELEVATIONS (FEET ABOVE MSL)

WELL	ELEVATION TOC	AUGUST (1988)	10/07/88	11/03/88	11/15/88
MW 43	735.80	713.64	713.46	713.65	713.48
MW 44	735.80	713.63	713.49	713.70	713.51
MW 45	735.30	712.92	712.60	713.48	712.50
MW 46	734.64	712.88	712.59	712.45	712.51
MW 47	734.48	712.80	712.59	712.96	712.52
MW 48	728.38	712.75	712.61	712.48	712.53
MW 49	727.94	712.75	712.48	712.32	712.40
MW 50	728.00	712.74	712.47	712.30	712.39
MW 51	730.46	710.14	709.83	709.76	709.78
MW 53	727.11	706.46	706.04	706.03	706.02
MW 54	727.33	706.44	706.05	705.91	706.04
MW 55	727.78	707.59	706.97	706.89	707.01
MW 56	732.12	711.64	710.54	710.25	710.48
MW 57	731.34	710.97	710.52	710.34	710.46
MW 58	731.48	711.03	710.52	710.58	710.46
MW 59	730.98	711.23	710.82	710.77	710.74
MW 60	730.67	711.32	710.81	711.22	710.73
MW 61	730.59	711.26	710.76	710.76	710.76
MW 62	734.66	714.08	712.90	711.68	712.81
MW 63	733.90	713.07	712.85	712.98	712.76

TABLE 1 (Continued)

GROUNDWATER ELEVATIONS (FEET ABOVE MSL)

WELL	ELEVATION TOC	AUGUST (1988)	10/07/88	11/03/88	11/15/88
MW 64	733.85	712.94	712.86	712.13	712.78
MW 65	738.64	720.14	719.60	719.74	719.88
MW 66	739.08	719.96	719.58	720.18	719.85
MW 67	738.80	719.86	719.60	720.88	719.88
MW 68	730.31	719.74	719.37	719.59	719.80
MW 69	730.14	719.68	719.34	719.68	719.77
MW 70	734.78	719.38	718.79	719.26	719.32
MW 71	737.18	716.69	716.22	715.28	716.16

TABLE 2

HYDRAULIC CONDUCTIVITY DATA

TABLE 2
HYDRAULIC CONDUCTIVITY

WELL #	DEPTH OF SCREEN INTERVAL (ft)	FALLING HEAD TEST (ft/day)	RISING HEAD TEST (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (cm/sec)
MW-01	60.0-70.0	16.77	-	16.77	5.92×10^{-3}
MW-02	40.0-50.0	18.47	-	18.47	6.51×10^{-3}
MW-03	22.6-27.6	52.91	52.91	52.91	1.87×10^{-2}
MW-04	65.0-75.0	6.76	4.71	5.73	2.02×10^{-3}
MW-05	44.0-54.0	235.57*	-	-	-
MW-06	25.0-35.0	121.78	143.70	132.74	4.69×10^{-2}
MW-07	83.0-93.0	2.80	2.44	2.62	9.25×10^{-4}
MW-08	40.0-50.0	-	119.75*	-	-
MW-09	18.0-23.0	-	154.40	154.40	5.45×10^{-2}
MW-10	57.5-67.5	-	100.49	-	-
MW-11	40.0-50.0	-	-	-	-
MW-12	27.5-32.5	45.05	-	45.05	1.59×10^{-2}
MW-13	80.0-90.0	13.10	13.10	13.10	4.62×10^{-3}
MW-14	32.0-42.0	199.58*	-	-	-
MW-15	81.0-91.0	4.95	4.59	4.77	1.68×10^{-3}
MW-16	40.0-50.0	78.96	84.04	81.50	2.88×10^{-2}
MW-17	29.0-39.0	44.31	49.80	47.05	1.66×10^{-2}
MW-18	73.0-78.0	11.95[1]	9.75	10.85	3.83×10^{-3}
MW-19	40.0-50.0	171.00*	-	-	-
MW-20	20.0-25.0	-	161.51	161.51	5.70×10^{-2}

INTRODUCTION

The purpose of this memorandum is to document the methods and materials used in conducting sampling from subsurface soil borings during field investigation activities for the Remedial Investigation (RI) performed at the Fisher-Calo Chemical (FCC) site near Kingsbury, Indiana. Subsurface soil samples were collected from deep monitoring well borings and shallow soil borings. The objectives and requirements for these sampling activities are identified in the FCC Site Sampling and Analysis Plan (SAP) (Doc. No. 209-RI2-PS-FYUM-1).

SUBSURFACE SOIL BORING SAMPLES

The actual sample collection activities were subcontracted to ATEC Associates, Inc. of Griffith, Indiana. Subsurface soil boring samples were collected using 2" and 3" split-spoon samplers, driven in 18" intervals using drill rigs. Subsurface soil samples were collected from deep monitoring well boring locations and from shallow soil borings located on-and off-site.

Samples were collected at depth intervals as specified by the SAP. Subsurface soil sample depth intervals were identified using a letter designation for every sample interval collected at each soil boring or deep well location. Samples collected from deep monitoring wells were identified using an "SL" sample matrix prefix, followed by the location number and the depth interval letter designation (i.e., SL-01A thru SL-01J, for samples collected from deep well location MW-01, at specified depth intervals down to approximately 75 feet).

Subsurface soil samples collected from shallow soil boring locations were identified using a 'SB' sample matrix prefix, followed by the location number and the depth interval letter designation (i.e., SB-01A thru SB-01K), for samples collected from soil boring location SB-01, at

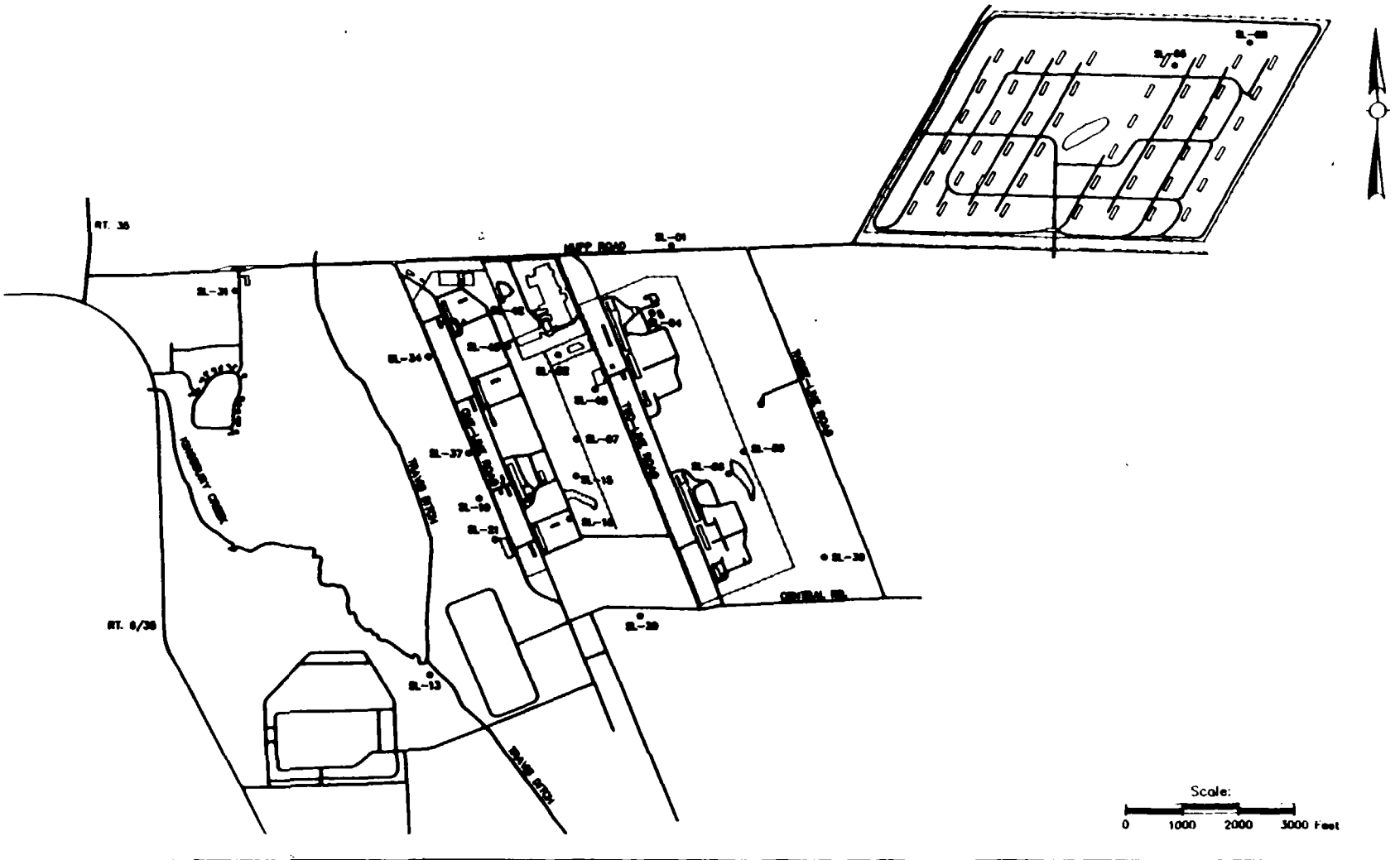
specified depth intervals down to a maximum depth of approximately 20 feet and SB-02A thru SB-02D for samples collected to a maximum depth of approximately 4 feet.)

Deep Well Borings

The deep well subsurface soil samples were collected during Phase I and Phase II monitoring well installation activities. Phase I deep well soil samples were collected from July to September, 1987; Phase II samples were collected from May to July, 1988.

Subsurface soil samples from the deep well borings were collected at depth intervals of 0 feet (surface), 5 feet, 15 feet and every 10 feet thereafter, to a depth of approximately 75 feet. The maximum sample depth was determined by the depth at the top of the semi-confining silty/clay layer, or the depth at the bottom of the borehole, depending on field conditions and the location of the monitoring well. The location of deep monitoring well subsurface soil samples is shown in Figure 1-1.

The samples collected were analyzed for Routine Analytical Services (RAS) parameters, including full organics, inorganics and cyanide, from all depth intervals. A composite sample (depth interval 'D') was obtained from the A, B and C depth intervals, and analyzed for Special Analytical Services (SAS) parameters for Leachability of Metals during Phase I; and for Toxicity Characteristic Leaching Procedure (TCLP) and Leachability of Metals during Phase II. Background soil samples from the deep monitoring well borings were collected from the following locations: SL-31, SL-42, SL-59, SL-68 and SL-01. The location of the background samples was selected in order to monitor the upgradient groundwater conditions along the boundaries of the study area. Field duplicate samples were collected in accordance to the protocol described in the SAP. The total number of samples collected and analytical parameters are shown in Table 1.



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DEEP WELL SOIL BORING
SAMPLE LOCATION MAP

FIGURE NO
1-1

TABLE 1

SUMMARY OF SAMPLING AND ANALYSIS PROGRAM
SUBSURFACE SOIL BORINGS

SAMPLE MATRIX	FIELD SCREENING	LABORATORY ANALYSIS	SAMPLE NUMBERS		
			INV.	DUP.	TOTAL
-deep monitoring wells - Phase I	Qualitative organic vapor screening with HNu/OVA	RAS inorganics/cyanide package from CLP	70	7	77
		RAS full organics package from CLP	70	7	77
		SAS for leachability of metals	7	1	8
-deep monitoring wells - Phase II	Qualitative organic vapor screening with HNu/OVA	RAS full organic package from CLP	130	133	143
		RAS inorganics/cyanide package from CLP	130	13	143
		SAS for TCLP and leachability of metals	13	2	15
-shallow soil borings: to 4' and to approximately 20'	Qualitative organic vapor screening with HNu/OVA	RAS full organics package from CLP	218	20	238
		RAS inorganics/cyanide from CLP	218	20	238
		SAS for TCLP and leachability of metals	35	2	37
		SAS for BNA - hydrocarbon cleanup	105	10	115

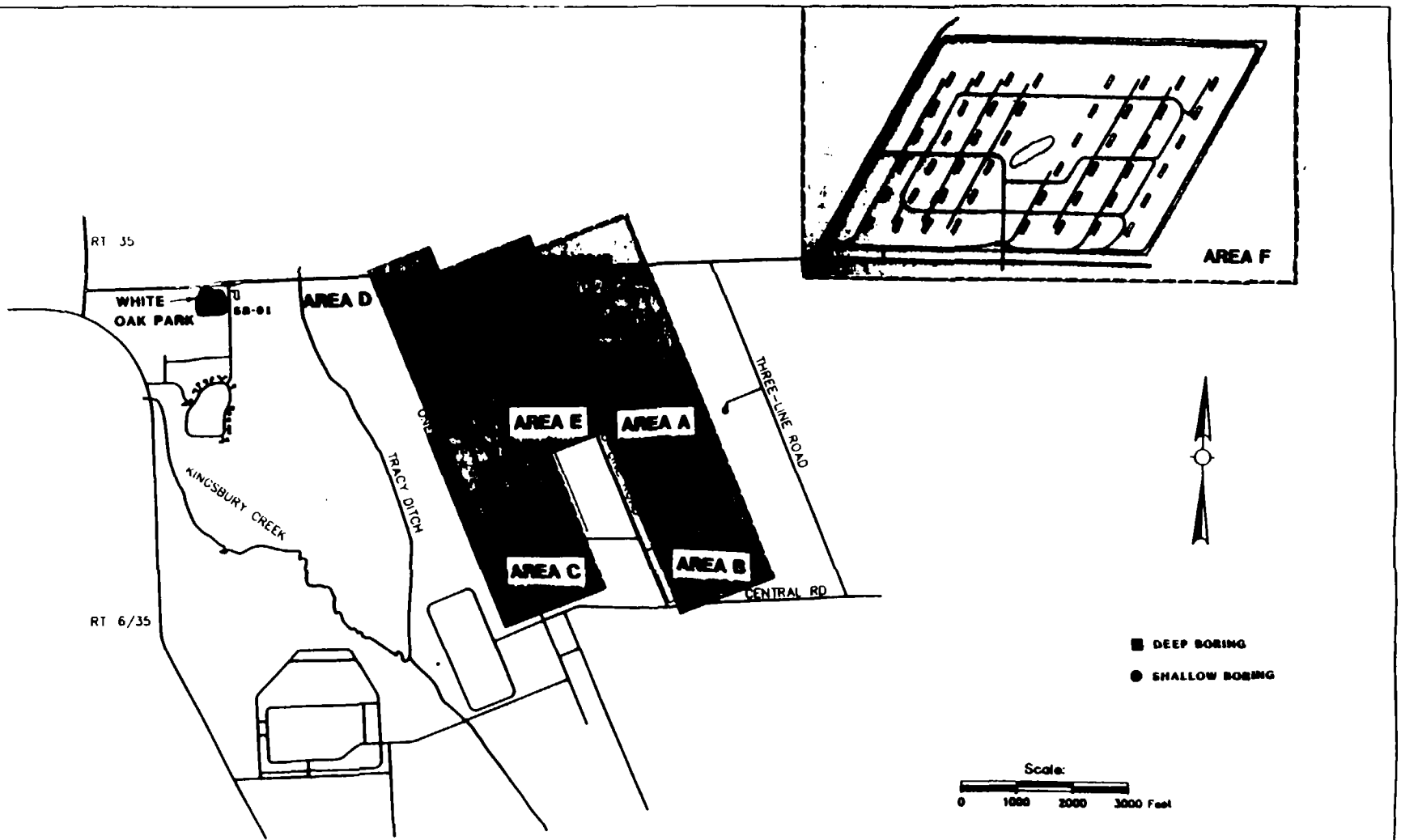
Soil Boring Samples

Samples were collected from soil borings at 33 on-site lcoations and two off-site locations. The 33 on-site locations were selected in areas where past waste disposal/dumping activities had occurred. Samples were collected during Phase II soil investigation activities using a 2" diameter split spoon device. Samples from 14 soil boring locations were collected at 18" depth intervals to a depth of 4 feet. Samples from the 21 remaining soil borings were collected at 18" intervals to a depth of approximately 20 feet (to the water table or saturated zone). The background soil boring samples were collected from the off-site locations SB-01 and SB-36, in areas where no site related waste disposal activities were suspected to have occurred. The soil boring sample locations are shown in Figures 1-2 through 1-8.

The samples collected at all depth intervals were analyzed for Routine Analytical Services (RAS) parameters including full organics, inorganics and cyanide. A composite sample (depth interval 'D') was obtained from the A, B and C depth intervals and analyzed for Special Analytical Services (SAS) parameters for Toxicity Characteristic Leaching Procedure (TCLP) and Leachability of Metals. A sample from each of the A, B, and C depth intervals was also collected and analyzed for an SAS BNA parameter. Field duplicates were collected in accordance to the protocol described in the SAP. The total number of samples collected and analytical parameters are shown in Table 1.

SAMPLE MATERIAL, EQUIPMENT AND DECONTAMINATION

The materials and equipment utilized for sample collection (stainless steel trays, scoops, spoons, augers, etc.) were decontaminated using alconox and distilled water solution, rinsed with distilled water and then sprayed with an isopropyl alcohol and distilled water solution. A list of materials, equipment and sample containers utilized during subsurface soil boring field investigation activities is shown in Table 2.



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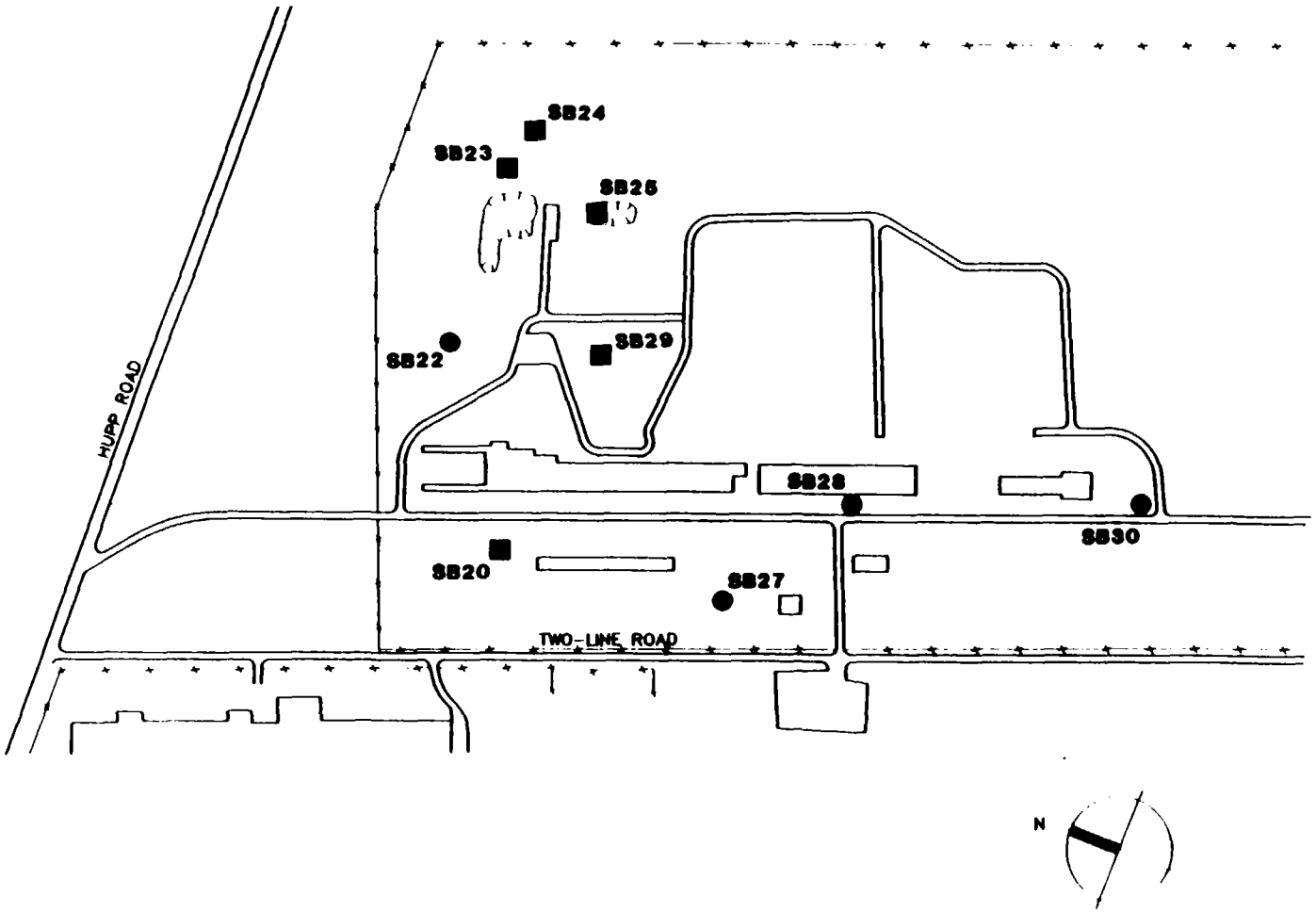
SAMPLING AREA MAP

FIGURE NO.

1-2



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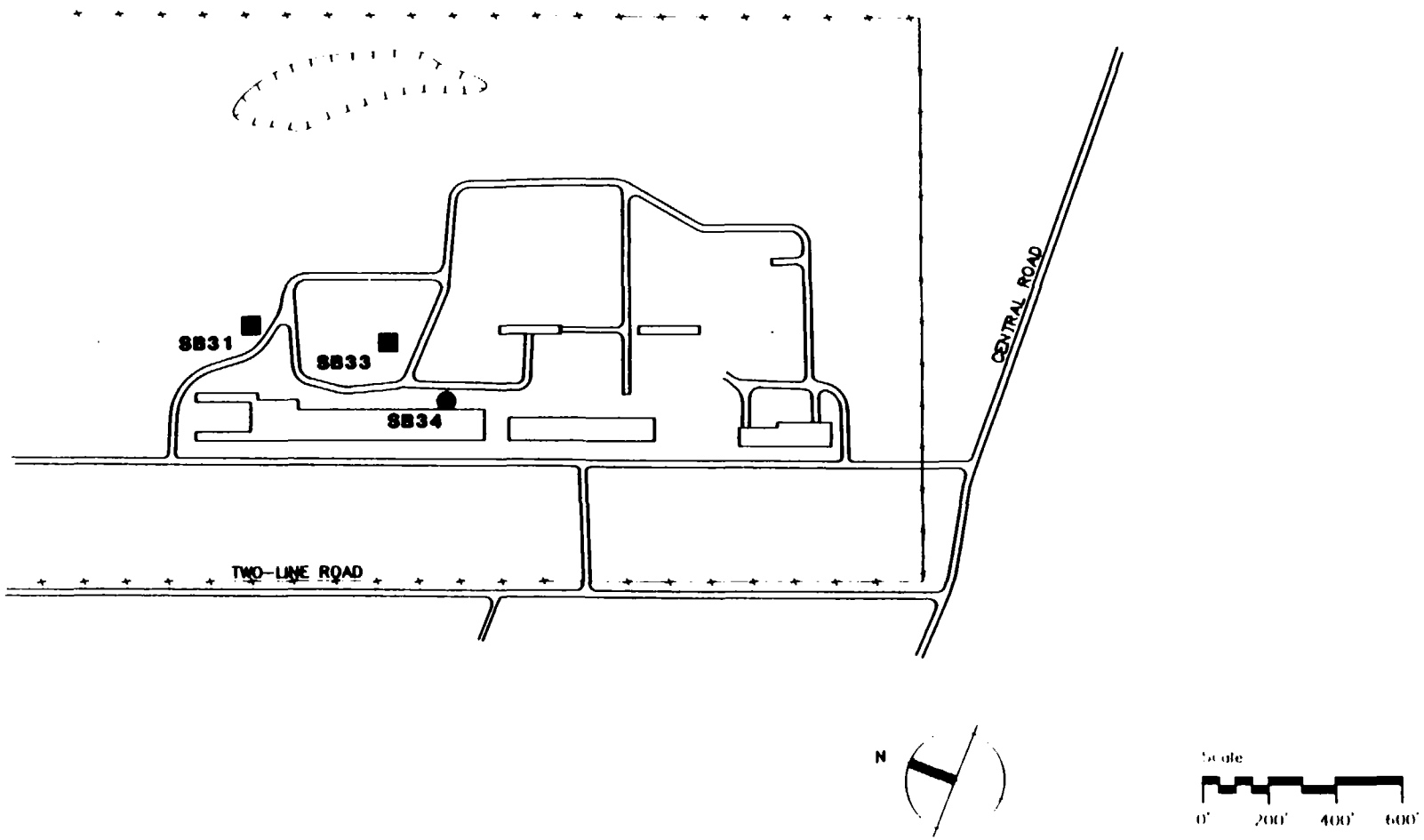
STUDY AREA A –
FISHER-CALO PLANT

FIGURE NO

1-3



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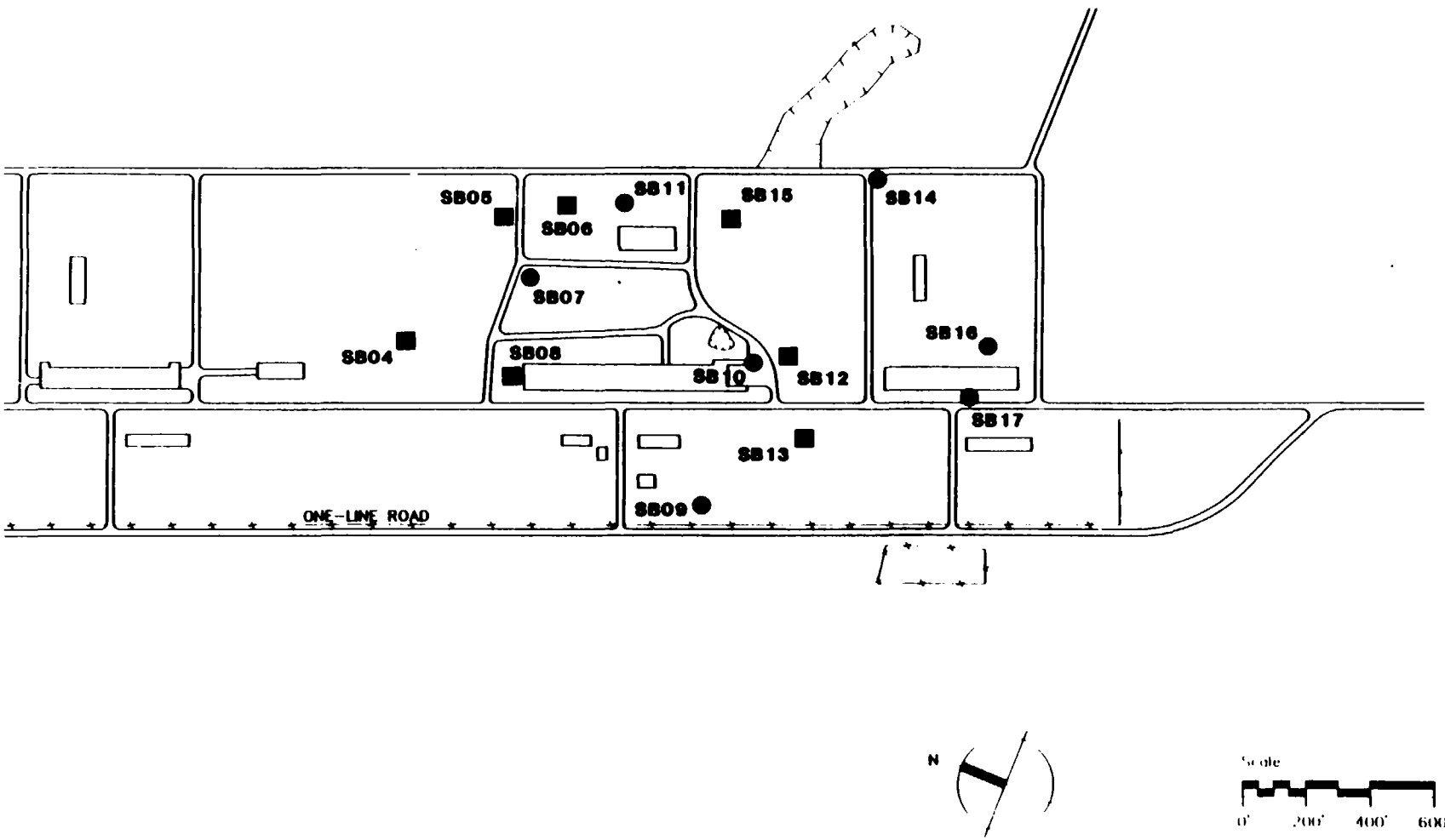
STUDY AREA B –
NEW PLANT LIFE

FIGURE NO

1-4



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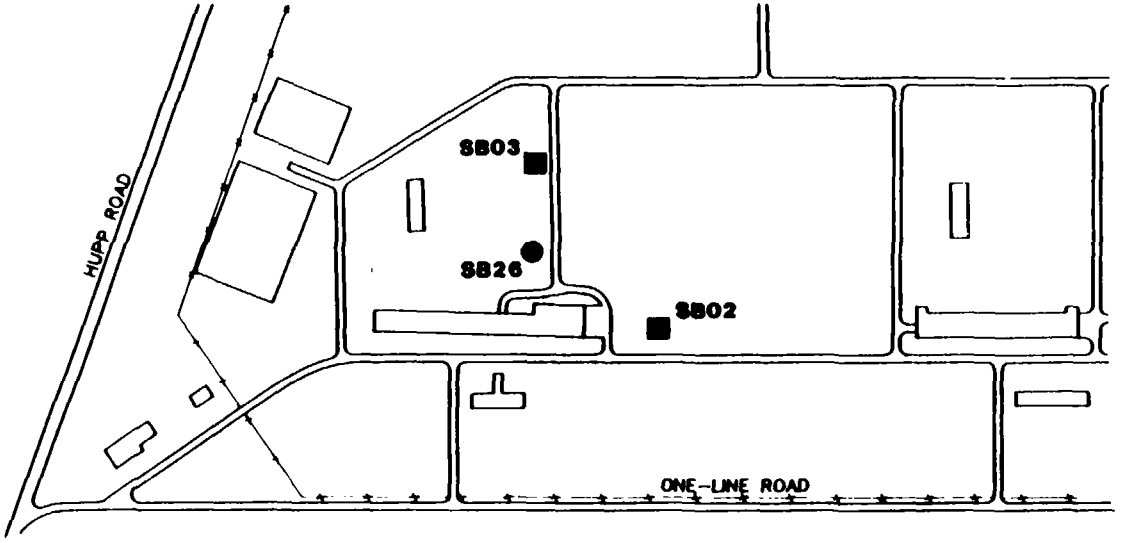
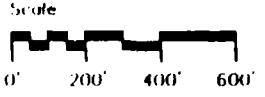
STUDY AREA C –
CARDINAL CHEMICAL

FIGURE NO
1-5





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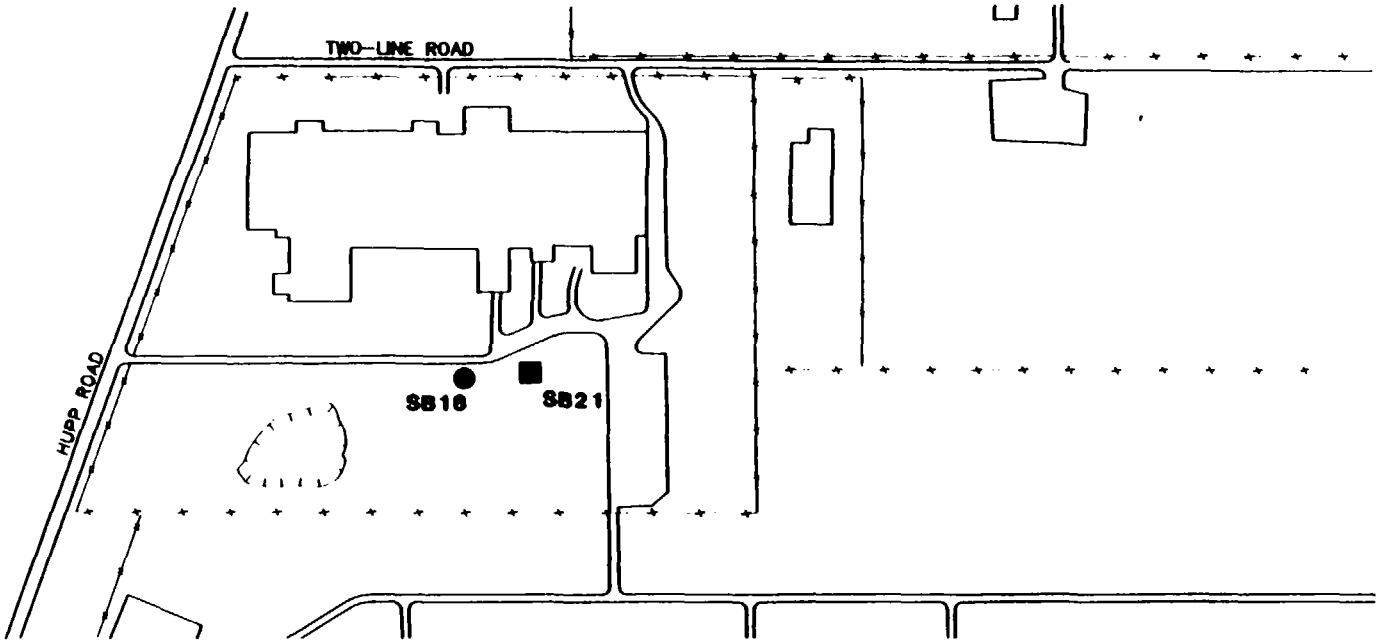
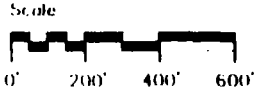
STUDY AREA D –
NATIONAL PACKAGING

FIGURE NO

1-6





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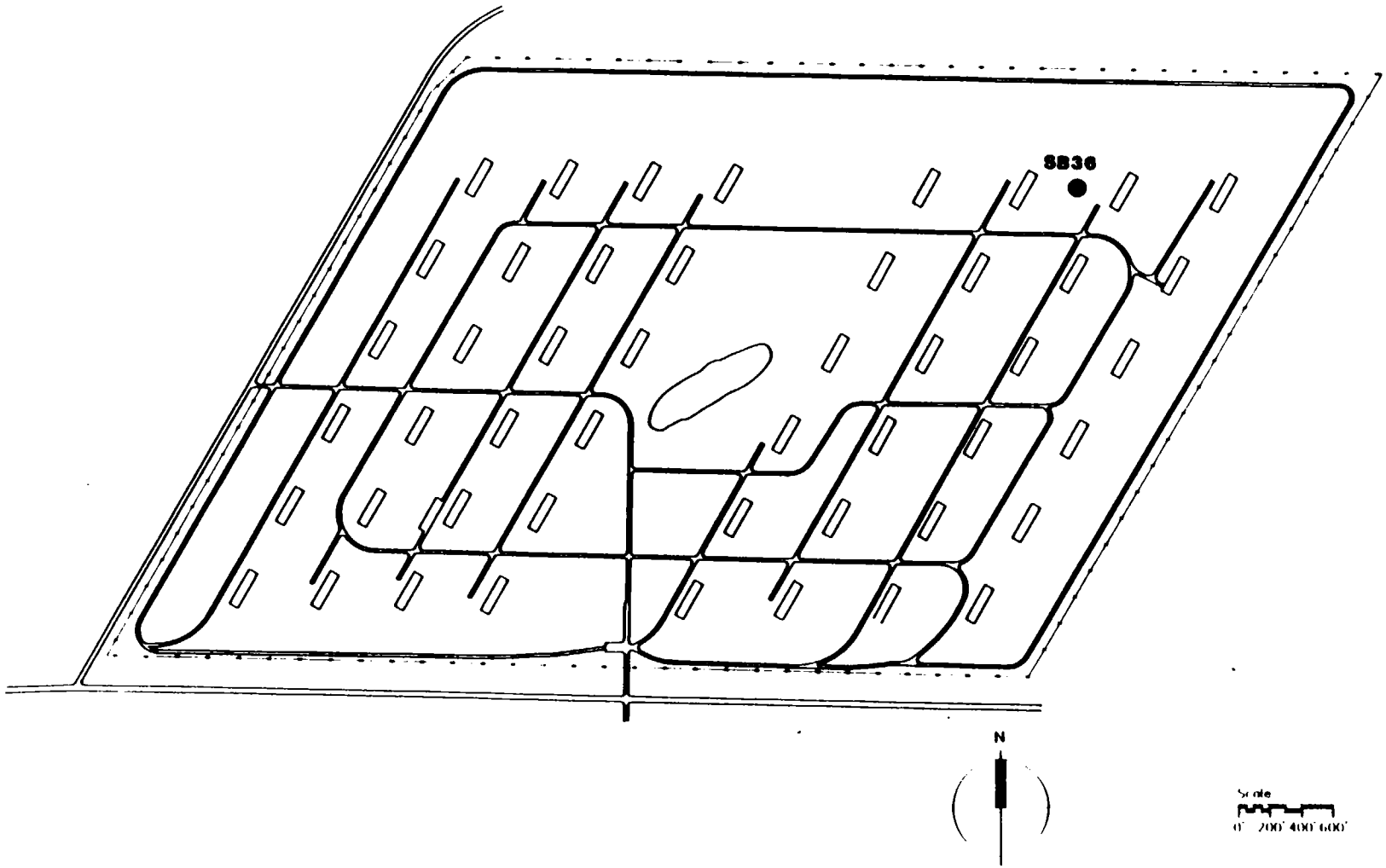
STUDY AREA E –
ROLL-COATER

FIGURE NO

1-7



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STUDY AREA F –
SPACE LEASING

FIGURE NO

1-8

TABLE 2

SAMPLE CONTAINERS

EQUIPMENT AND MATERIALS

Sample Containers

Analysis	Containers
Acid Extractables, Base/Neutral Extractables Pesticides/PCBs	One-eight ounce glass wide mouth bottle with teflon lined cap.
Volatiles	Two 120-ml glass wide mouth vials.
Metals and Cyanide	One-eight ounce jar with teflon-lined cap.
BNA	One-eight ounce jar with teflon-lined cap.
TCLP	Four 120ml glass wide mouth vials and one 16-ounce jar with teflon lined cap.
Leachability of Metals	One 32 oz. glass wide mouth jar with teflon lined cap.

Equipment and Materials

Spray Tank of Distilled Water
Bucket with Tap Water and Alconox Solution
Brushes for Scrubbing Equipment
Disposable Tyvexs
Gloves Inner
Disposable Outer Booties
Garbage Bags
Paper Towels
HNu Photoionizer
Field Note Book and Pen

All sample collection and decontamination procedures were performed in accordance to the requirements and protocol outlined in the FCC Site Sampling and Analysis Plan. Any deviation from or exception to the SAP protocol is noted in the daily field log entries.

HEALTH AND SAFETY

Prior to and during sampling at each location, ambient air monitoring was performed using an HNu photoionizer. The results of this monitoring were used to determine the level of personnel protection required and to determine the need for appropriate containerization and disposal of sampling wastes.

Samples were collected in accordance to the protocol as outlined in the Health and Safety Plan (Doc. No. 209-RI2-OP-FYFS-1). Ambient air monitoring and personnel protection protocol are described in the field log book. Any deviation from or exceptions to the HSP are noted in the daily field log entries. Refer to Table 3 for a listing of the ambient air monitoring results and sample depth intervals taken at the soil boring sample locations.

Field activities during collection of subsurface soil boring samples were generally performed in a modified "Level D" personnel protection, as described in the HSP. Sample collection at some locations (SBOB and SB32) was performed in "Level C" personnel protection, as required by elevated organic vapor levels detected in the breathing zone of the sample collection area. "Level C" personnel protection was utilized by the sample collection teams, following protocol as outlined in HSP.

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
SB01	SB01A	0.0-1.5	-	
	SB01B	1.5-3.0	-	
	SB01C	3.0-4.5	-	
	SB01D			COMPOSITE A, B, and C
	SB01E	5.5-7.0	-	DUPLICATE
	SB01F	7.0-8.5	-	
	SB01G	9.5-11.0	-	
	SB01H	12.0-13.5	-	
	SB01I	14.5-16.0	-	
	SB01J	17.0-18.5	-	
	SB01K	18.5-20.0	-	
SB02	SB02A	0.0-3.0	-	
	SB02B	3.0-4.5	-	
	SB02C	5.5-7.0	-	
	SB02D			COMPOSITE A, B, and C
	SB02E	7.0-8.5	-	DUPLICATE
	SB02F	9.5-11.0	-	
	SB02G	12.0-13.5	-	
	SB02H	14.5-16.0	-	
	SB02I	17.0-18.5	-	
	SB02J	18.5-20.0	-	
SB03	SB03A	0.1-1.5	-	
	SB03B	1.5-3.0	-	
	SB03C	3.0-4.5	-	NO RECOVERY
	SB03D			COMPOSITE A, B, and C
	SB03E	5.5-7.0	-	
	SB03F	8.0-9.5	-	DUPLICATE
	SD03G	10.5-12.0	-	
	SB03H	13.5-14.5	-	
	SB03I	15.5-17.0	-	
	SB03J	17.0-18.5	-	
	SB03K	18.5-20.0	-	

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
SB04	SB04A	0.0-1.5	-	
	SB04B	1.5-3.0	-	
	SB04C	3.0-4.5	-	
	SB04D			COMPOSITE A, B and C
	SB04E	5.5-7.0	-	DUPLICATE
	SB04F	7,0-8.5	-	
	SB04G	9.5-11.0	-	
	SB04H	12.0-13.5	-	
	SB04I	14.5-16.0	-	
	SB04J	17.0-18.5	-	
	SB04K	18.5-20.0	-	
SB05	SB05A	0.0-1.5	-	
	SB05B	1.5-3.0	-	
	SB05C	3.0-4.5	-	
	SB05D			COMPOSITE A, B, and C
	SB05E	5.5-7.0	-	DUPLICATE
	SB05F	7.0-8.5	-	
	SB05G	9.5-11.0	1.0	
	SB05H	12.0-13.5	1.0	
	SB05I	14.5-16.0	-	
	SB05J	17.0-18.5	0.0-2.0	
	SB05K	18.5-20.0	-	
	SB05L	20.0-21.5	-	
SB06	SB06A	0.0-1.5	0.0-0.6	
	SB06B	1.5-3.0	0.0-0.2	
	SB06C	3.0-4.5	0.0-0.2	
	SB06D			COMPOSITE A, B, and C
	SB06E	5.5-7.0	-	DUPLICATE
	SB06F	7.0-8.5	0.0-0.1	
	SB06G	9.5-11.0	-	
	SB06H	12.0-13.5	-	

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
	SB06I	14.5-16.0	-	
	SB06J	17.0-18.5	-	
	SB06K	18.5-20.0	-	
SB07	SB07A	0.0-1.5	-	0.0-1.0 PPM IN BOREHOLE
	SB07B	1.5-3.0	-	0.0-0.8 PPM IN BOREHOLE
	SB07C	3.0-4.5	-	
	SB07D			COMPOSITE A, B, and C
SB08	SB08A	0.0-1.5	-	
	SB08B	1.5-3.0	0.0-2.0	25.0 PPM IN BOREHOLE
	SB08C	3.0-4.5	10.0-20.0	200.0 PPM IN BOREHOLE
	SB08D			COMPOSITE A, B, and C
	SB08E	5.5-7.0	20.0-100.0	DUPLICATE, 5.0-16.0 PPM IN BOREHOLE
	SB08F	7.0-8.5	10.0-130.0	
	SB08G	9.5-11.0	20.0-100.0	
	SB08H	12.0-13.5	10.0-50.0	
	SB08I	14.5-16.0	10.0-30.0	
	SB08J	17.0-18.5	2.0-20.0	
	SB08K	18.5-20.0	10.0-20.0	
SB09	SB09A	0.0-1.5	-	1.0-5.0 PPM IN BOREHOLE
	SB09B	1.5-3.0	-	5.0-11.0 PPM IN BOREHOLE
	SB09C	3.0-4.5	-	DUPLICATE, 1.0-3.0 PPM IN BOREHOLE
	SB09D			
SB10	SB10A	0.0-1.5	0.0-0.2	
	SB10B	1.5-3.0	0.0-0.2	3.0 PPM IN BOREHOLE
	SB10C	3.0-4.5	-	COMPOSITE A, B, and C
	SB10D			
SB11	SB11A	0.0-1.5	-	0.0-0.5 PPM IN BOREHOLE
	SB11B	1.5-3.0	-	0.0-0.5 PPM IN BOREHOLE

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
	SB11C	3.0-4.5	-	0.0-0.8 PPM IN BOREHOLE
	SB11D			COMPOSITE A, B, and C
SB12	SB12A	0.0-1.5	0.0-0.2	
	SB12B	1.5-3.0	-	
	SB12C	3.0-4.5	0.4	
	SB12D			COMPOSITE A, B, and C
	SB12E	5.5-7.0	0.0-0.2	DUPLICATE
	SB12F	7.0-8.5	0.0-0.8	
	SB12G	9.5-11.0	0.0-0.2	
	SB12H	12.0-13.5	-	
	SB12I	14.5-16.0	-	
	SB12J	17.0-18.5	-	
	SB12K	18.5-20.0	-	
SB13	SB13A	0.0-1.5	0.0-0.2	
	SB13B	1.5-3.0	-	
	SB13C	3.0-4.5	-	
	SB13D			COMPOSITE A, B, and C
	SB13E	5.5-7.0	-	DUPLICATE
	SB13F	7.0-8.5	0.0-0.2	
	SB13G	9.5-11.0	0.0-0.2	
	SB13H	12.0-13.5	-	
	SB13I	14.5-16.0	-	
	SB13J	17.0-18.5	-	
	SB13K	18.5-20.0	-	
SB14	SB14A	0.0-1.5	-	
	SB14B	1.5-3.0	-	
	SB14C	3.0-4.5	-	
	SB14D			COMPOSITE A, B, and C
SB15	SB15A	0.0-1.5	-	1.0-2.5 PPM IN BOREHOLE

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
	SB15B	1.5-3.0	-	0.5 PPM IN BOREHOLE
	SB15C	3.0-4.5	-	
	SB15D			COMPOSITE A, B, and C
	SB15E	5.5-7.0	-	DUPLICATE
	SB15F	7.0-8.5	-	
	SB15G	9.5-11.0	-	
	SB15H	12.0-13.5	-	
	SB15I	14.5-16.0	-	
	SB15J	17.0-18.5	-	
	SB15K	18.5-20.0	-	
SB16	SB16A	0.0-1.5	-	DUPLICATE
	SB16B	1.5-3.0	-	1.5 PPM IN BOREHOLE
	SB16C	3.0-4.5	-	0.5-1.5 PPM IN BOREHOLE
	SB16D			COMPOSITE A, B, and C
SB17	SB17A	0.0-1.5	0.0-1.0	
	SB17B	1.5-3.0	-	
	SB16C	3.0-4.5	-	
	SB16D			COMPOSITE A, B, and C
SB18	SB18A	0.0-1.5	-	0.0-2.0 PPM IN BOREHOLE
	SB18B	1.5-3.0	-	
	SB18C	3.0-4.5	-	
	SB18D			COMPOSITE A, B, and C
SB20	SB20A	0.0-1.5	-	
	SB20B	1.5-3.0	-	
	SB20C	3.0-4.5	-	
	SB20D			COMPOSITE A, B, and C
	SB20E	5.5-7.0	-	
	SB20F	7.0-8.5	-	
	SB20G	9.5-11.0	-	

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
	SB20H	12.0-13.5	-	
	SB20I	14.5-16.0	-	DUPLICATE
	SB20J	17.0-18.5	-	
	SB20K	18.5-20.0	-	
SB21	SB21A	0.0-1.5	-	
	SB21B	1.5-3.0	-	
	SB21C	3.0-4.5	-	
	SB21D			COMPOSITE A, B, and C
	SB21E	5.5-7.0	-	DUPLICATE
	SB21F	7.0-8.5	-	
	SB21G	9.5-11.0	-	
	SB21H	12.0-13.5	-	
	SB21I	14.5-16.0	-	
	SB21J	17.0-18.5	-	
	SB21K	18.5-20.0	-	
SB22	SB22A	0.0-1.5	-	
	SB22B	1.5-3.0	-	
	SB22C	3.0-4.5	-	DUPLICATE
	SB22D			COMPOSITE A, B, and C
SB23	SB23A	0.0-1.5	1.0-6.0	5.0-20.0 PPM IN BOREHOLE
	SB23B	1.5-3.0	1.0-4.0	
	SB23C	3.0-4.5	0.2-0.4	2.0-3.0 PPM IN BOREHOLE
	SB23D			COMPOSITE A, B, and C
	SB23E	5.5-7.0	1.0-5.0	DUPLICATE
	SB23F	7.0-8.5	0.2-1.0	
	SB23G	9.5-11.0	0.0-5.0	0.0-1.0 PPM IN BOREHOLE
	SB23H	12.0-13.5	1.0-3.0	0.0-0.6 PPM IN BOREHOLE
	SB23I	14.5-16.0	0.0-0.2	
	SB23J	17.0-18.5	0.0-7.0	3.0-7.0 IN BOREHOLE
	SB23K	18.5-20.0	0.0-0.2	

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
SB24	SB24A	0.0-1.5	-	
	SB24B	1.5-3.0	-	
	SB24C	3.0-4.5	-	
	SB24D			COMPOSITE A, B, and C
	SB24E	5.5-7.0	-	DUPLICATE
	SB24F	7.0-8.5	-	
	SB24G	9.5-11.0	-	
	SB24H	12.0-13.5	-	
	SB24I	14.5-16.0	-	
	SB24J	17.0-18.5	-	
	SB24K	18.5-20.0	-	
SB25	SB25A	0.0-1.5	0.0-0.4	
	SB25B	1.5-3.0	0.0-0.2	
	SB25C	3.0-4.5	-	
	SB25D			COMPOSITE A, B, and C
	SB25E	5.5-7.0	-	DUPLICATE
	SB25F	7.0-8.5	-	
	SB25G	9.5-11.0	-	
	SB25H	12.0-13.5	-	
	SB25I	14.5-16.0	-	
	SB25J	17.0-18.5	-	
	SB25K	18.5-20.0	-	
SB26	SB26A	0.0-1.5	-	
	SB26B	1.5-3.0	-	0.0-0.2 PPM IN BOREHOLE
	SB26C	3.0-4.5	-	0.0-0.4 PPM IN BOREHOLE
	SB26D			COMPOSITE A, B, and C
SB27	SB27A	0.0-1.5	-	
	SB27B	1.5-3.0	-	
	SB27C	3.0-4.5	-	
	SB27D			COMPOSITE A, B, and C

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
SB28	SB28A	0.0-1.5	-	
	SB28B	1.5-3.0	0.0-0.8	
	SB28C	3.0-4.5		
	SB28D			COMPOSITE A, B and C
SB29	SB29A	0.0-1.5	-	
	SB29B	1.5-3.0	-	
	SB29C	3.0-4.5	-	
	SB29D			COMPOSITE A, B, and C
	SB29E	5.5-7.0	-	
	SB29F	7.0-8.5	-	
	SB29G	9.5-11.0	-	
	SB29H	12.0-13.5	-	
	SB29I	14.5-16.0	-	
	SB29J	17.0-18.5	-	
	SB29K	18.5-20.0	-	
SB30	SB30A	0.0-1.5	-	
	SB30B	1.5-3.0	-	
	SB30C	3.0-4.5	-	
	SB30D			COMPOSITE A, B, and C
SB31	SB31A	0.0-1.5	-	
	SB31B	1.5-3.0	-	
	SB31C	3.0-4.5	-	
	SB31D			COMPOSITE A, B, and C
	SB31E	5.5-7.0	-	
	SB31F	7.0-8.5	-	
	SB31G	9.5-11.0	-	
	SB31H	12.0-13.5	-	
	SB31I	14.5-16.0	-	
	SB31J	17.0-18.5	-	
	SB31K	18.5-20.0	-	

TABLE 3. SUMMARY OF SUBSURFACE SOIL SAMPLING ACTIVITIES

LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (FT)	HNu READINGS ABOVE BACKGROUND (ppm)	COMMENTS
SB33	SB33A	0.0-1.5	0.0-10.0	1.0-6.0 PPM IN BOREHOLE
	SB33B	1.5-3.0	1.0-15.0	1.0-7.0 PPM IN BOREHOLE
	SB33C	3.0-4.5	3.0-17.0	
	SB33D			COMPOSITE A, B, and C
	SB33E	5.5-7.0	20.0-70.0	100.0 PPM AT TIP OF SPOON
	SB33F	7.0-8.5	1.0-2.0	
	SB33G	9.5-11.0	2.0-10.0	
	SB33H	12.0-13.5	0.0-50.0	
	SB33I	14.5-16.0	0.0-7.0	
	SB33J	17.0-18.5	2.0-30.0	
	SB33K	18.5-20.0	1.0-2.0	20.0 PPM IN BOREHOLE
SB34	SB34A	0.0-1.5	-	-
	SB34B	1.5-3.0	-	0.0-0.5 PPM IN BOREHOLE
	SB34C	3.0-4.5	-	0.5-0.8 PPM IN BOREHOLE
	SB34D			COMPOSITE A, B, and C
SB36	SB36A	0.0-1.5	-	DUPLICATE, 1.0-4.0 PPM IN BOREHOLE
	SB36B	1.5-3.0	0.0-0.2	
	SB36C	3.0-4.5	-	
	SB36D			

TECHNICAL MEMORANDUM
REMEDIAL INVESTIGATION
ROUND I AND II GROUNDWATR SAMPLING

FOR

FISHER-CALO
KINGSBURY, INDIANA

APRIL, 1989

Prepared for:

U.S. Environmental Protection Agency
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Chicago, Illinois 60604

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20911/03

The purpose of this memorandum is to document the methods and materials used in collecting groundwater samples during the remedial investigation for the Fisher-Calo Chemical Site (FCC) near Kingsbury, Indiana.

The work plan identified following objectives to be accomplished for groundwater sampling:

- To determine levels of contamination in groundwater from wells located adjacent to (both up-and down-gradient) the previously defined FCC site.

- To verify the position and configuration of the water table onsite and in the adjacent downgradient offsite areas.

- To more fully determine potentiometric heads, groundwater flow and contaminant conditions throughout the aquifer underlying the site.

- To determine the presence, character and extent of groundwater and contamination, both onsite and in the adjacent downgradient offsite area.

The Sampling and Analysis Plan (Doc. No. 209-RI2-PS-FYUM-1) describes the requirements and protocol for groundwater sampling at the FCC site.

INTRODUCTION

The CDM REM II Team supervised two rounds of groundwater sampling performed by ATEC Associates, Inc. at the FCC site. Round I groundwater samples were collected between August 8 - 24, 1988; and Round II groundwater samples were collected between November 7 - 22, 1988.

Round I groundwater samples consisted of a total of 81 samples collected from 68 monitoring wells and 2 production wells. Round II groundwater samples were collected from 68 monitoring wells and 3 production wells for a total of 82 samples.

GROUNDWATER SAMPLES

Samples were collected from monitoring wells and water supply (production) wells located on- and off-site. These wells provide samples from on-site locations, as well as locations up-gradient and down-gradient from the site. The locations of the wells sampled are shown in Figure 1.

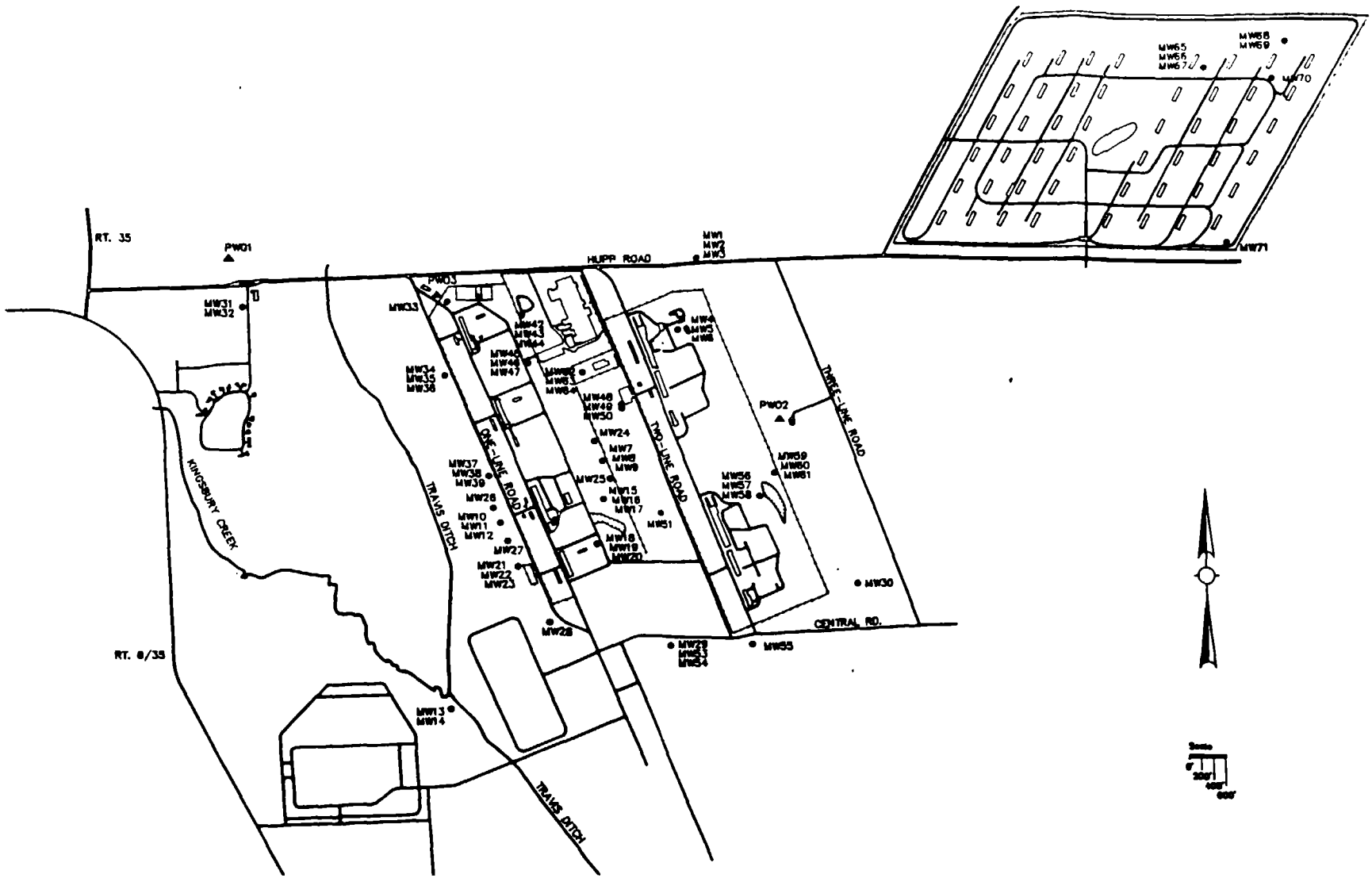
The samples collected were analyzed for Routine Analytical Services (RAS) parameters which included full organics, total metals and cyanide and filtered (dissolved) metals. The samples were also analyzed for Special Analytical Services (SAS) parameters which included total dissolved and total suspended solids, nitrate/nitrite, ammonia, chloride and sulfate. Field blank, field duplicate and matrix spike duplicate samples were collected in accordance with the protocol described in the site Sampling and Analysis Plan (SAP). The total number of samples collected and analytical parameters are shown in Table 1.

The actual groundwater sampling activities were subcontracted to ATEC Associates of Griffith, Indiana. The groundwater samples were collected by a 3-person sampling team; individuals participating in the sampling team are identified in the project field logbooks. The miminum personnel protection equipment utilized was a modified Level D consisting of disposable tyvexs, disposal gloves and disposal booties.

Groundwater samples were obtained using the following procedure:

- Five well volumes were purged from each well using a Brainard Kilman pump.

- After 5 well volumes had been removed from each well, the groundwater was tested to determine pH, temperature and



CDM

environmental engineers, scientists, planners, & management consultants

MONITORING WELL LOCATION MAP

FIGURE NO.

1

TABLE 1

SUMMARY OF GROUNDWATER SAMPLING AND ANALYSIS

SAMPLE MATRIX	FIELD PARAMETERS	LABORATORY PARAMETERS	SAMPLE NUMBERS			
			INVESTIGATIVE	DUPLICATE	BLANKS	TOTAL
Groundwater monitoring wells Round 1 and 2	Qualitative organic vapor screening with HNu/OVA; temperature, pH and specific conductivity	RAS full organics from CLP	68	6	5	79
		RAS inorganics/ metals and cyanide from CLP-(unfiltered)	68	6	5	79
		RAS dissolved metals from CLP-(filtered metals)	68	6	5	79
		SAS for total dissolved solids and total suspended solids	68	6	5	79
		SAS for chloride, sulfate, nitrate/ nitrite, ammonia	68	6	5	79
Production wells Round 1	Qualitative organic vapor screening with HNu/OVA; temperature pH and specific conductivity	RAS full organics from CLP	2	0	0	2
		RAS inorganics/ metals and cyanide from CLP-(unfiltered)	2	0	0	2
		RAS dissolved metals from CLP - (filtered metals)	2	0	0	2

TABLE 1 (Continued)

SUMMARY OF GROUNDWATER SAMPLING AND ANALYSIS

SAMPLE MATRIX	FIELD PARAMETERS	LABORATORY PARAMETERS	SAMPLE NUMBERS			
			INVESTIGATIVE	DUPLICATE	BLANKS	TOTAL
Production Wells Round 1 (cont'd.)		SAS for total dissolved solids and total suspended solids	2	0	0	2
		SAS for chloride, sulfate, nitrate/nitrite and ammonia	2	0	0	2
Production Wells Round 2	Qualitative organic vapor screening with HNu/OVA; temperature pH and specific conductivity	RAS full organics from CLP	3	0	0	3
		RAS inorganics/metals and cyanide from CLP-(unfiltered)	3	0	0	3
		RAS dissolved metals from CLP-(filtered metals)	3	0	0	3
		SAS for total dissolved solids and total suspended solids	3	0	0	3

TABLE 1 (Continued)

SUMMARY OF GROUNDWATER SAMPLING AND ANALYSIS

SAMPLE MATRIX	FIELD PARAMETERS	LABORATORY PARAMETERS	SAMPLE NUMBERS			
			INVESTIGATIVE	DUPLICATE	BLANKS	TOTAL
Production Wells Round 2 (Cont'd.)	Qualitative organic vapor screening with HNu/OVA; temperature, pH and specific conductivity	SAS for chloride, sulfate, nitrite/ nitrate and ammonia	3	0	0	3

Round One: August 1988

Monitoring Well Samples	- 79
Production Well Samples	- 2
	81

Round Two: November 1988

Monitoring Well Samples	- 79
Production Well Samples	- 3
	82

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conductivity. Once these three test parameters had stabalized, (based on criteria defined in SAP), the groundwater samples were collected. Results of these test parameters are shown in Attachment 1.

- The groundwater samples were collected using a teflon bailer (refer to Table 1 for analytical parameters collected). Sample bottles were placed in an iced cooler, and preserved and/or filtered as required by the protocol outlined in the SAP.

The materials and equipment utilized for sample collection (teflon bailers, Brainard Kilman pump, pH and conductivity meter, etc.) were decontaminated using alconox and distilled water solution, rinsed with distilled water and then sprayed with an isopropyl alcohol and distilled water solution. A list of materials, equipment and sample containers utilized during groundwater sampling activities is shown in Table 2.

All sample collection and decontamination procedures were performed in accordance to the requirements and protocol outlined in the FCC SAP. Any deviation from or exception to the SAP protocol is noted in the daily field log entries.

HEALTH AND SAFETY

Prior to sampling at each monitoring well location, ambient air monitoring was performed using an HNu photoinizer. The results of this monitoring, combined with monitoring results obtained during drilling and well development activities, were used to determine the level of personnel protection required, and to determine the need for appropriate containerization and disposal of groundwater from the wells.

Samples were collected in accordance to the protocol as outlined in the Health and Safety Plan (Doc. No. 209-RI2-OP-FYFS-1). Ambient air monitoring and personnel protection protocol are described in the field log book. Any deviation from or exception to the HSP is noted in the daily field log entries.

TABLE 2

SAMPLE CONTAINERS, EQUIPMENT AND MATERIALS

SAMPLE CONTAINERS	
Organics:	
Volatiles	2-40 ml glass vials with teflon lined caps.
Extractables	2-80 oz. amber bottles with teflon lined cap.
Inorganics:	
Metals and Cyanide	2-1-liter poly bottles.
Filtered Metals	
SAS: Nitrate/Nitrite and Ammonia and Chloride Sulfate TDS and TSS	1-1-liter poly bottle

SAMPLING EQUIPMENT AND MATERIALS

- Brainard Kilman Pump
- Teflon Bailer
- Nylon Cord
- Duct Tape
- Steam Cleaner
- Spray Tank of Distilled Water
- Bucket with Tap Water and Soap Solution
- Brushes for Scrubbing Equipment
- Disposable Tyvexs
- Gloves Inner
- Disposable Outer Booties
- Garbage Bags
- Paper Towels
- pH Meter
- HNu Photoionizer
- Field Note Book and Pen

ATTACHMENT 1

FIELD MEASUREMENT OF GROUNDWATER PARAMETERS

Sample Location	pH		Temperature (°C)		Specific Conductivity (mmhos)	
	August '88	November '88	August '88	November '88	August 1988	November '88
MW-01	7.18	7.66	14	11	440	460
MW-02	7.50	7.79	15	11	410	340
MW-03	7.86	8.05	16	12	250	250
MW-04	7.31	7.64	14	12	440	320
MW-05	7.64	7.88	14	11	360	350
MW-06	7.41	7.77	15	12	330	250
MW-07	7.35	7.82	15	12	410	340
MW-08	7.46	7.77	14	12	390	370
MW-09	7.40	8.08	17	13	330	260
MW-10	7.95	7.88	16	9	630	550
MW-11	7.87	7.86	15	9	450	560
MW-12	7.13	7.47	15	9	590	670
MW-13	7.23	7.75	19	11	330	280
MW-14	7.46	8.06	15	10	370	300
MW-15	7.20	7.79	16	12	380	360
MW-16	7.19	7.92	18	12	370	370
MW-17	7.63	8.22	17	12	310	270
MW-18	7.32	7.72	15	11	380	270
MW-19	7.31	7.88	19	11	420	480
MW-20	7.77	8.09	15	12	340	300
MW-21	8.01	8.43	18	11	360	370
MW-22	8.38	8.50	15	12	990+	-
MW-23	7.88	7.91	14	12	460	-
MW-24	-	7.64	15	12	430	440
MW-25	7.53	8.12	15	10	270	270
MW-26	7.75	7.91	14	10	300	370
MW-27	7.71	7.89	16	12	550	530
MW-28	7.74	8.52	13	10	300	200
MW-29	7.22	8.31	16	10	520	200
MW-30	7.45	8.42	16	10	310	100
MW-31	7.69	7.79	18	10	550	430
MW-32	7.71	7.66	22	10	730	590
MW-33	7.69	7.60	16	13	400	350

FIELD MEASUREMENT OF GROUNDWATER PARAMETERS (Continued)

Sample Location	pH		Temperature (°C)		Specific Conductivity (mmhos)	
	August '88	November '88	August '88	November '88	August 1988	November '88
MW-34	8.44	8.61	15	12	430	310
MW-35	7.79	7.70	13	11	480	430
MW-36	7.81	8.01	16	11	420	330
MW-37	7.73	7.55	15	11	430	370
MW-38	7.89	7.71	15	10	370	410
MW-39	7.85	7.68	14	10	370	390
MW-42	7.16	8.14	16	10	500	200
MW-43	7.29	8.76	15	10	440	200
MW-44	7.40	8.45	15	11	490	200
MW-45	7.68	7.88	15	11	660	530
MW-46	7.78	7.79	16	11	430	460
MW-47	7.80	8.04	16	11	620	490
MW-48	7.70	8.51		10	410	300
MW-49	7.72	8.29	16	10	390	300
MW-50	7.53	8.47	18	11	410	300
MW-51	7.57	8.11	14	10	310	300
MW-53	7.77	7.90	16	11	460	430
MW-54	7.31	7.57	17	12	410	450
MW-55	7.91	8.41	16	10	350	300
MW-56	7.29	7.93	18	10	400	380
MW-57	7.20	7.70	18	10	450	400
MW-58	7.51	7.56	17	11	360	310
MW-59	7.08	7.24	16	10	620	530
MW-60	7.06	7.66	15	10	520	450
MW-61	7.14	8.10	18	10	400	390
MW-62	7.35	8.51	14	10	480	300
MW-63	7.32	8.37	14	10	430	400
MW-64	7.18	8.31	14	10	480	400
MW-65	7.55	7.77	15	11	460	440
MW-66	7.63	7.71	15	11	450	360
MW-67	7.70	7.86	15	11	370	340
MW-68	7.45	7.62	16	10	410	360
MW-69	7.87	8.12	15	12	280	270

FIELD MEASUREMENT OF GROUNDWATER PARAMETERS (Continued)

Sample Location	pH		Temperature (°C)		Specific Conductivity (mmhos)	
	August '88	November '88	August '88	November '88	August 1988	November '88
MW-70	7.80	8.05	16	11	320	360
MW-71	7.72	7.87	17	11	370	370
PW-01	7.54	7.77	14	12	450	400
PW-02	7.84	7.84	15	14	420	330
PW-03	(1)	7.67	(1)	12	(1)	460

(1) Sample not collected
\- No measurement taken

FIELD MEASUREMENT OF GROUNDWATER PARAMETERS

Sample Location	pH		Temperature (°C)		Specific Conductivity (mmhos)	
	August '88	November '88	August '88	November '88	August '88	November '88
MW-01	7.18	7.66	14	11	440	460
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MW-06	7.41	7.77	15	12	330	250
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MW-15	7.20	7.79	16	12	380	360
MW-16	7.19	7.92	18	12	370	370
MW-17	7.63	8.22	17	12	310	270
MW-18	7.32	7.72	15	11	380	270
MW-19	7.31	7.88	19	11	420	480
MW-20	7.77	8.09	15	12	340	300
MW-21	8.01	8.43	18	11	360	370
MW-22	8.38	8.50	15	12	990+	-
MW-23	7.88	7.91	14	12	460	-
MW-24	-	7.64	15	12	430	440
MW-25	7.53	8.12	15	10	270	270
MW-26	7.75	7.91	14	10	300	370
MW-27	7.71	7.89	16	12	550	530
MW-28	7.74	8.52	13	10	300	200
MW-29	7.22	8.31	16	10	520	200
MW-30	7.45	8.42	16	10	310	100
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MW-32	7.71	7.66	22	10	730	590
MW-33	7.69	7.60	16	13	400	350

FIELD MEASUREMENT OF GROUNDWATER PARAMETERS

Sample Location	pH		Temperature (°C)		Specific Conductivity (mmhos)	
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MW-55	7.91	8.41	16	10	350	300
MW-56	7.29	7.93	18	10	400	380
MW-57	7.20	7.70	18	10	450	400
MW-58	7.51	7.56	17	11	360	310
MW-59	7.08	7.24	16	10	620	530
MW-60	7.06	7.66	15	10	520	450
MW-61	7.14	8.10	18	10	400	390
MW-62	7.35	8.51	14	10	480	300
MW-63	7.32	8.37	14	10	430	400
MW-64	7.18	8.31	14	10	480	400
MW-65	7.55	7.77	15	11	460	440
MW-66	7.63	7.71	15	11	450	360
MW-67	7.70	7.86	15	11	370	340
MW-68	7.45	7.62	16	10	420	360
MW-69	7.87	8.12	15	12	280	270
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MW-71	7.72	7.87	17	11	370	370
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FIELD MEASUREMENT OF GROUNDWATER PARAMETERS

Sample Location	pH		Temperature (°C)		Specific Conductivity (mmhos)	
	August '88	November '88	August '88	November '88	August '88	November '88
PW-02	7.84	7.84	15	14	420	330
PW-03	(1)	7.67	(1)	12	(1)	460

(1) Sample not collected
- No measurement taken

TECHNICAL MEMORANDUM
PHASE II REMEDIAL INVESTIGATION
SURFACE SOIL AND RUN-OFF SAMPLING ACTIVITIES
CONDUCTED JULY 11 THRU AUGUST 3, 1988

FOR

FISHER-CALO
KINGSBURY, INDIANA

MAY, 1989

Prepared for:

U.S. Environmental Protection Agency
Emergency and Remedial Response Branch
Region V
230 South Dearborn Street
Chicago, Illinois 60604

Document No.: 209-RI2-RT-GVAL

Work Assignment No.: 108-5L13

20911/04

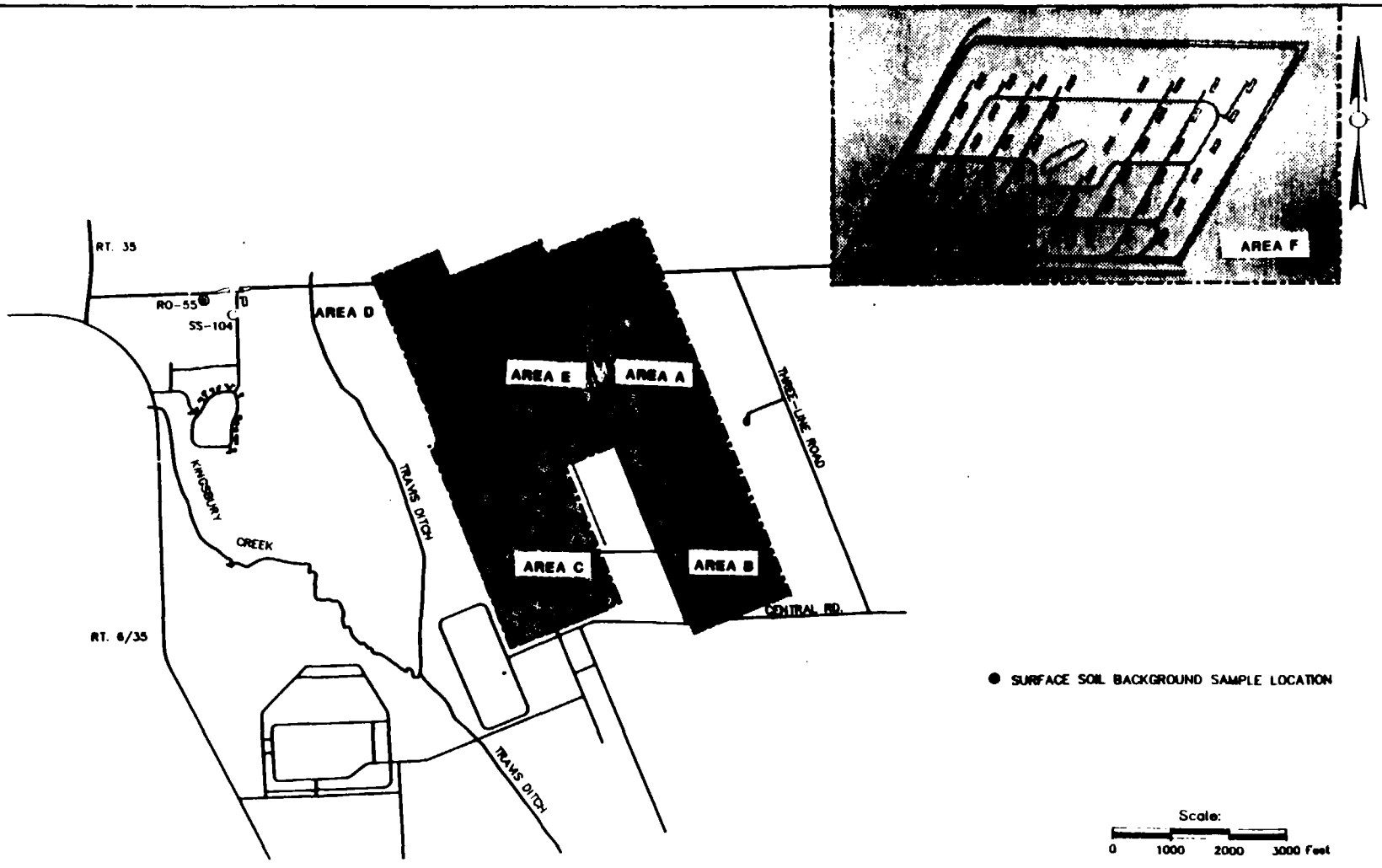
INTRODUCTION

The purpose of this memorandum is to document the methods and materials used in conducting surface soil and run-off sampling activities for the Remedial Investigation (RI) performed at the Fisher-Calo Chemical site near Kingsbury, Indiana. The objectives and requirements for these tasks are identified in the FCC Site Sampling and Analysis Plan (Doc. No. 209-RI2-PS-FYUM-1). Surface soil and run-off sampling and activities occurred from July 11 thru August 3, 1988.

SURFACE SOIL SAMPLE LOCATIONS

Surface soil and run-off sample locations were selected from five study areas within the FCC site and from an off-site (background) area. The study areas were identified as being suspected past disposal areas and areas where waste drums and tanks were stored during the RI field activities which occurred in 1988. Samples were collected from 191 locations within the five on-site study areas and the off-site area, as shown in the attached Figures 1-1 through 1-6.

On-site soil sample locations were selected in areas where past waste disposal or spills had occurred, in areas that were adjacent to currently operating facilities and areas where drummed waste materials were located. Surface soil samples (SS) were collected from excavated soil piles; areas where stressed vegetation was noted; from surface areas that showed obvious waste stains or spills; and from locations along established grid lines in order to define the extent of contamination present. Samples were also collected from low spots, ditches and drain pipe openings, and from depression areas where surface water run-off would collect. Soil samples taken at these locations were identified as run-off (RO) samples, even though no standing water was present at the time of sample collection.



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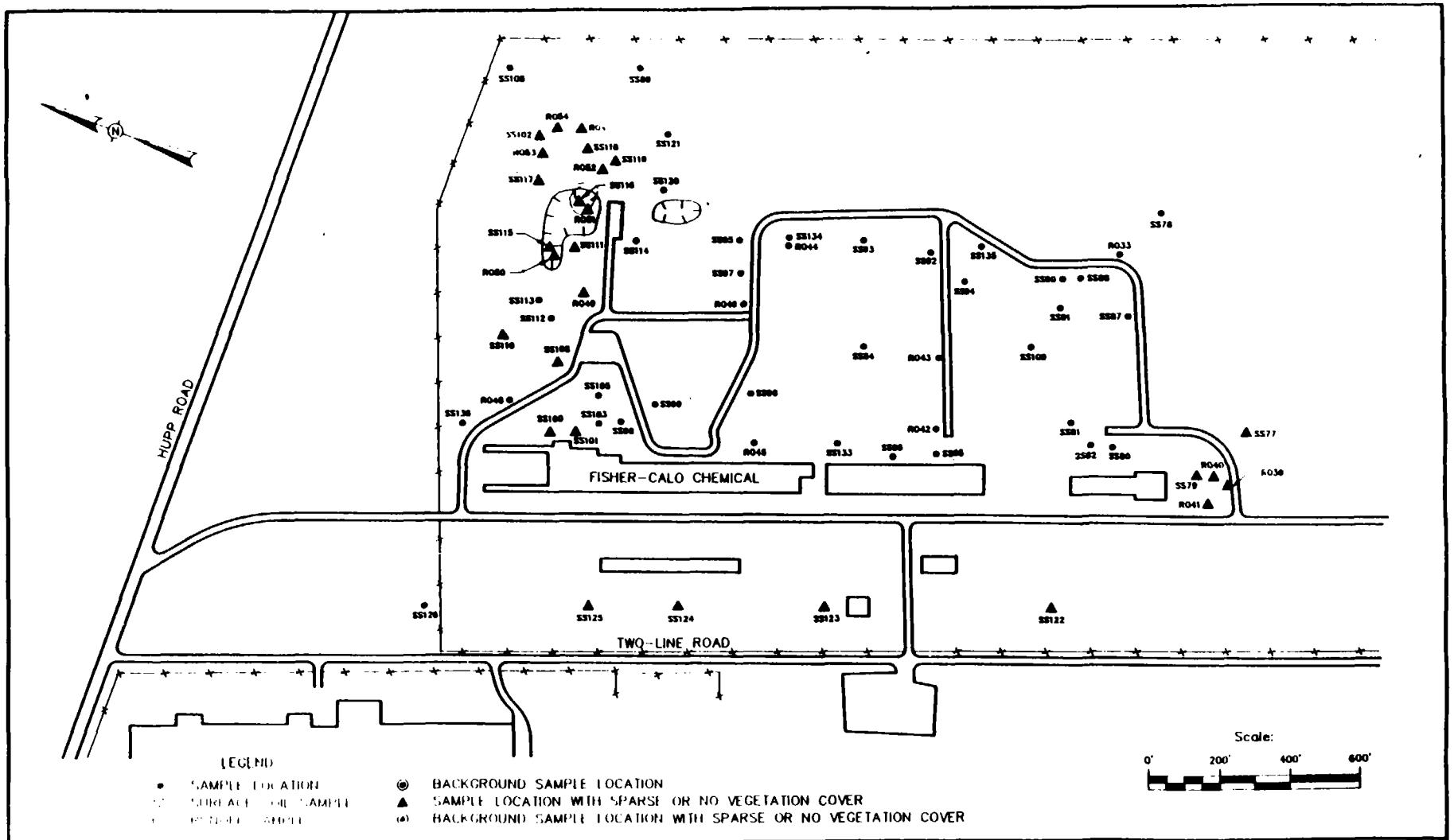
SITE AREA MAP

SURFACE SOIL SAMPLE AREA LOCATION

FIGURE NO.
1-1



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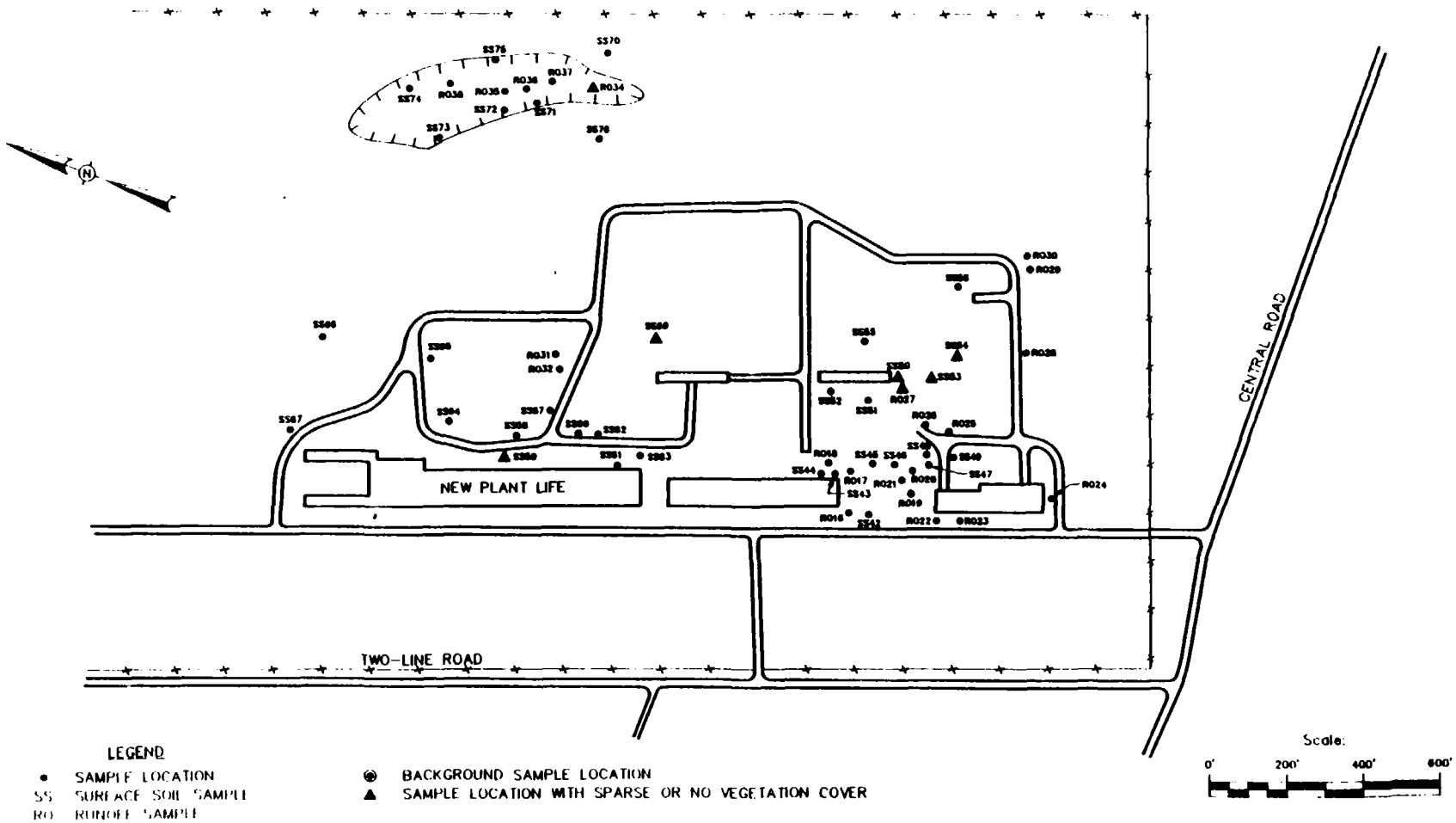
STUDY AREA A -- FISHER CALO PLANT

SURFACE SOIL AND RUNOFF SAMPLE LOCATION MAP

FIGURE NO. 1-2



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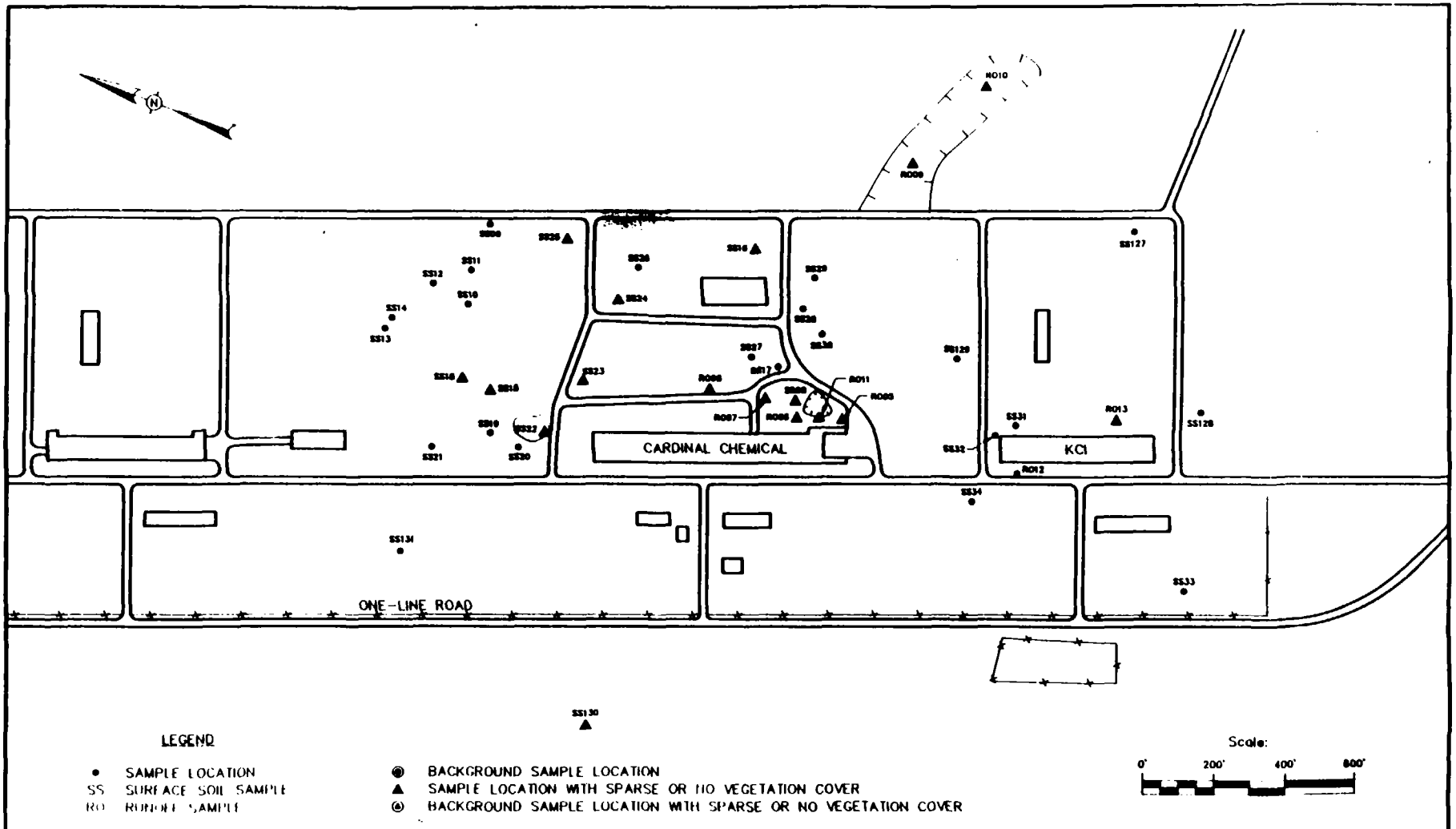
STUDY AREA B – NEW PLANT LIFE

SURFACE SOIL AND RUNOFF SAMPLE LOCATION MAP

FIGURE NO.
1-3



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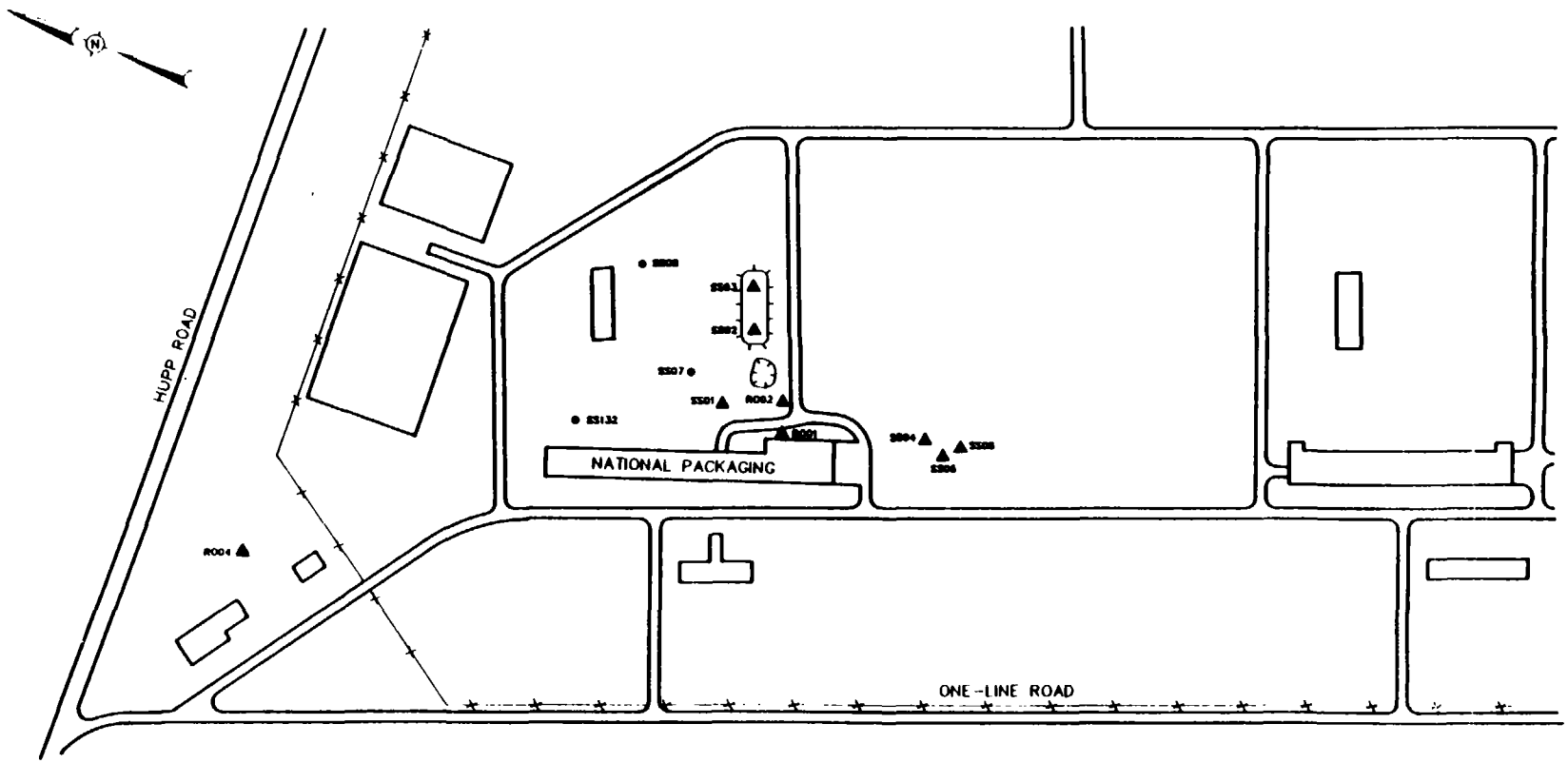
STUDY AREA C – CARDINAL CHEMICAL

SURFACE SOIL AND RUNOFF SAMPLE LOCATION MAP

FIGURE NO. 1-4



LEGEND

- • SAMPLE LOCATION
- SS SURFACE SOIL SAMPLE
- RO RUNOFF SAMPLE
- (●) BACKGROUND SAMPLE LOCATION
- ▲ SAMPLE LOCATION WITH SPARSE OR NO VEGETATION COVER

Scale: 0' 200' 400' 600'

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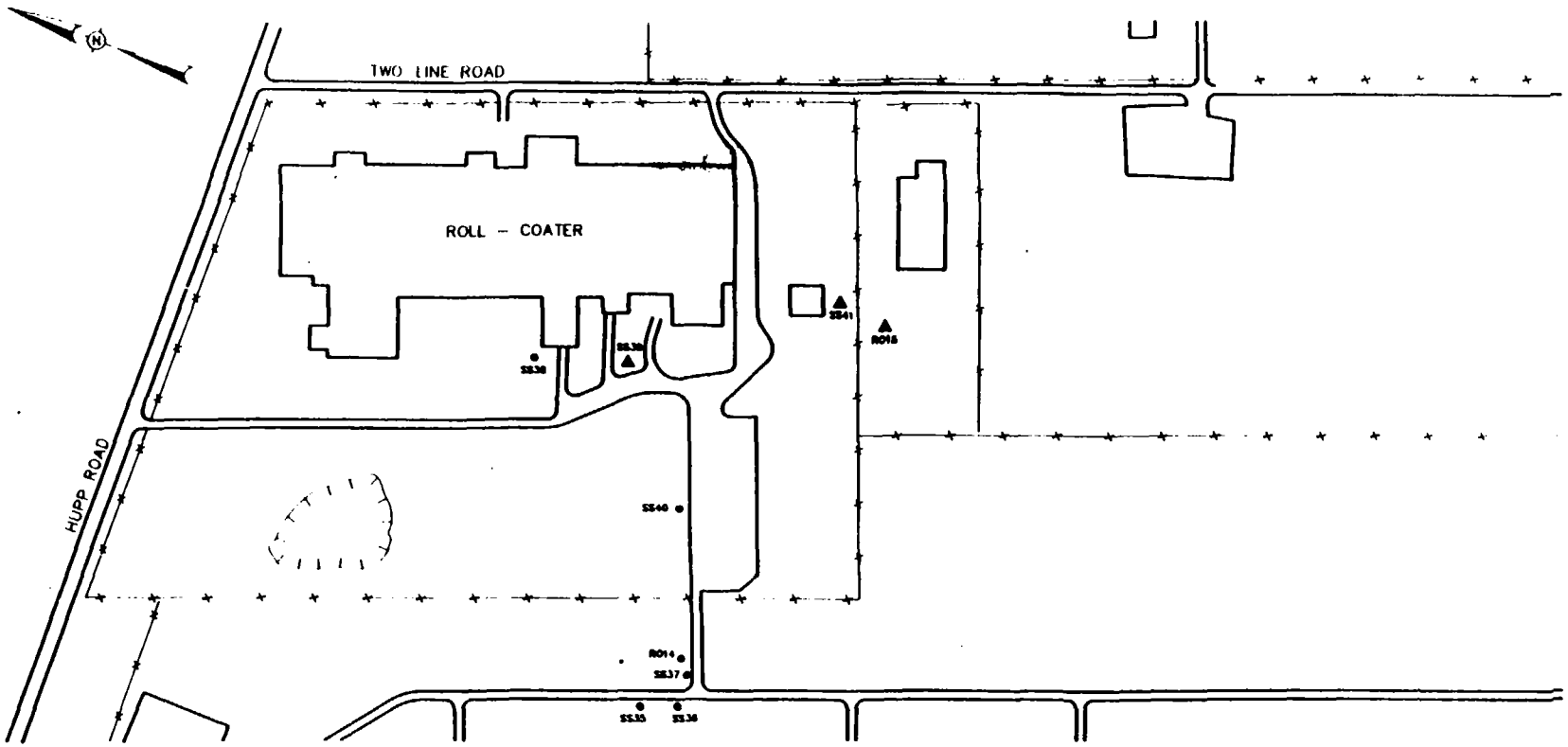
STUDY AREA D – NATIONAL PACKAGING

SURFACE SOIL AND RUNOFF SAMPLE LOCATION MAP

FIGURE NO 1-5



LEGEND

- • SAMPLE LOCATION
- SS SURFACE SOIL SAMPLE
- RO RUNOFF SAMPLE
- ◉ BACKGROUND SAMPLE LOCATION
- ▲ SAMPLE LOCATION WITH SPARSE OR NO VEGETATION COVER

Scale:
0' 200' 400' 600'

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STUDY AREA E – R( )-COATER

SURFACE SOIL AND RUNOFF SAMPLE LOCATION MAP

FIGURE NO.
1-6

Background samples for the surface and run-off soils were collected from offsite locations and from locations selected outside of the points of suspected disposal within a study area. The background samples were collected from locations numbered SS-104, and RO-55. The background sample locations are indicated on the study area maps shown in Figures 1-1 through 1-6.

DESCRIPTION OF SAMPLING METHODS

The actual surface soil and run-off sampling activities were subcontracted to ATEC Associates of Griffith, Indiana. ATEC's sampling crew was responsible for the collection of samples and recording field data in the log book.

Surface soil and run-off samples (SS and RO) were collected at depth intervals from the ground surface down to 12 inches in undisturbed soils, and down to 24 inches at locations where the soils had been disturbed (plowed or excavated). At locations where concentrations of organic vapors in the soils were detected (using an HNu or OVA) at levels above 5 ppm, discreet samples were obtained at intervals of 0-6" and 6-12" (or 0-12" and 12-24" in areas of disturbed soils). These samples were identified using "A" and "B" depth for interval designations (i.e., SS-12A and SS-12B). The sample depth intervals and soil vapor monitoring results are shown in Attachment A.4.

Surface soil and runoff samples were collected using a stainless steel scoop, spoon or hand auger. The samples were placed on a clean stainless steel tray, screened for organic vapors, and then placed into the appropriate sample containers.

The surface soil and run-off samples were analyzed for Routine Analytical Services (RAS) parameters which included full organics, inorganics and cyanide. Samples were also analyzed for Special Analytical Services (SAS) for hydrocarbon clean-up of the BNA fraction. Samples obtained from

approximately 20% of the sample locations were analyzed for SAS parameters including Volatile Solids, Toxicity Characteristic Leaching Procedure (TCLP), Leachability of metals, nitrate/nitrite, ammonia, chloride and sulfate. Duplicate samples were collected in accordance to the protocol described in the site Sampling and Analyis Plan (SAP). The number of samples collected and the analytical parameters for the surface soil and run-off samples (SS and RO) are shown in Table 1.

EQUIPMENT, MATERIALS AND DECONTAMINATION

The materials and equipment utilized for sample collection (stainless steel trays, scoops, spoons, augers, etc.) were decontaminated using alconox and distilled water solution, rinsed with distilled water and then sprayed with an isopropyl alcohol solution. A list of materials, equipment and sample containers utilized during surface soil field investigation activities is shown in Table 2.

All sample collection and decontamination procedures were performed in accordance to the requirements and protocol outlined in the FCC Site Sampling and Analysis Plan. Any deviation from or exception to the SAP protocol is noted in the daily field log entries.

HEALTH AND SAFETY

Prior to and during sampling at each location, ambient air monitoring was performed using an HNu photoionizer. The results of this monitoring were used to determine the level of personnel protection required and to determine the need for appropriate containerization and disposal of sampling wastes. (Refer to Attachment A.4 for listing of HNu readings detected in the soil vapors from samples collected at each location.)

Based on the results of the ambient air monitoring, level C personnel protection was required at only one surface soil sample location. Samples were collected in accordance to the protocol as outlined in the Health and

Safety Plan (Doc. No. 209-RI2-OP-FYFS-1). Ambient air monitoring and personnel protection protocol are described in the field log book. Any deviation from or exception to the HSP is noted in the daily field log entries.

TABLE 1

A SUMMARY OF SAMPLE NUMBERS AND ANALYSIS PARAMETERS FOR SURFACE SOIL AND RUN-OFF AREA SOILS

Sample Matrix	Field Parameters	Laboratory Parameters	Sample Numbers: Investigative No.	Duplicate No.	Matrix Total
Surficial and run-off area soil samples	Qualitative organic vapor screening with HNu/OVA and field GC	RAS full organics package from CLP	221	25	246
		RAS inorganics/cyanide from CLP	221	25	246
		SAS for BNA	221	25	246
		SAS for Volatile Solids, chloride, sulfate, nitrate/nitrite and ammonia	45	5	50
		SAS for Leachability of Metals and TCLP	45	5	50

20911/09

TABLE 2

SAMPLE CONTAINERS, EQUIPMENT AND MATERIALS

SAMPLE CONTAINERS

Analysis	Container
Acid Extractables, Base/Neutral Extractables, Pesticides/PCBs	One eight ounce glass wide mouth bottle with Teflon lined cap.
Volatiles	Two 120-ml glass wide mouth vials.
Metals and Cyanide	One eight ounce jar with Teflon-lined cap.
TCLP	Four 120ml glass wide mouth vials and one 16-ounce jar with Teflon lined cap.
Ammonia and Nitrate/Nitrite	One eight ounce glass wide mouth bottle with Telon lined cap for ammonia, nitrate/nitrite.
Chloride and Sulfate	One eight ounce glass wide mouth bottle with Teflon lined cap for chloride and sulfate.
Volatile Solids	One eight ounce glass wide mouth bottle with Teflon lined cap for volatile solids.

EQUIPMENT AND MATERIALS

Stainless Steel Bucket Auger
Stainless Steel Pan or Tray
Stainless Steel Spoons
Alconox Soap
Distilled Water
HNu Photoionizer
Disposable Tyvexs
Disposable Booties
Disposable Surgical Gloves
Spray Bottles

ATTACHMENT A.4

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"A"	SS-76			
	SS-77	S116A/S116B	0-12, 12-24	0.0-1.5
	SS-78	S188A/S188B	0-12, 12-24	-
	SS-79	S115	0-12	4.0
	SS-80	S117	0-12	<1.0
	SS-81	S118	0-12	3.0
	SS-82	S119(R)	0-12	9.0
	SS-84	S129A/S129B	0-12, 12-24	-
	SS-85	S160	0-6	-
	SS-86	S161	0-6	-
	SS-87	S108A	0-12	-
	SS-88	S111	0-12	-
	SS-89	S167	0-6	<1.0
	SS-90	S112	0-12	-
	SS-91	S109	0-12	2.0
	SS-92	S127(R)	0-6	-
	SS-93	S128	0-6	-
	SS-94	S125A/S125B	0-12, 12-24	-
	SS-95	S121A/S121B	0-12, 12-24	<1.0
	SS-96	S156	0-6	-
	SS-97	S-120	0-6	<1.0

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"A"	SS-98	S139	0-6	<1.0
	SS-99	S140	0-6	<1.0
	SS-100	S136	0-12	<1.0
	SS-101	S137	0-12	275.0
	SS-102	S164	0-12	2.0
	SS-103	S138	0-6	<1.0
	SS-105	S133	0-12	2.0
	SS-106	S141	0-6	<1.0
	SS-108	S168	0-6	-
	SS-109	S107A	0-6	-
	SS-110	S144	0-6	<1.0
	SS-111	S150	0-6	<1.0
	SS-112	S143	0-6	<1.0
	SS-113	S142	0-6	<1.0
	SS-114	S169	0-12	-
	SS-115	S148	0-12	<1.0
	SS-116	S146	0-6	<1.0
	SS-117	S162	0-12	-
	SS-118	S154	0-6	<1.0
	SS-119	S153	0-12	<1.0
	SS-120	S155(R)	0-6	<1.0
	SS-121	S151	0-6	<1.0
	SS-122	S171A/S171B	0-12, 12-24	-

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"A"	SS-123	S185(R)	0-6	-
	SS-124	S186A/S186B	0-12, 12-24	-
	SS-125	S187A/S187B	0-12, 12-24	-
	SS-126	S177	0-12	-
	SS-133	S158	0-6	-
	SS-134	S122	0-6	<1.0
	SS-135	S126	0-6	-
	SS-136	S132	0-6	-
	RO-33	S110(R)	0-6	-
	RO-39	S113	0-12	10.0
	RO-40	S114	0-12	4.0
	RO-41	S170	0-6	-
	RO-42	S159	0-6	<1.0
	RO-43	S130	0-6	-
	RO-44	S123	0-12	5.0
	RO-45	S157	0-6	-
	RO-46	S124	0-6	-
	RO-47	S166	0-6	-
	RO-48	S131	0-6	-
	RO-49	S145(R)	0-6	<1.0
	RO-50	A149	0-6	<1.0
	RO-51	S147	0-6	<1.0

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"A"	RO-52	S152	0-6	<1.0
	RO-53	S163	0-6	-
	RO-54	S165(R)	0-6	-
"B"	SS-42	S82A	0-6	-
	SS-43	S68A/S68B	0-6, 6-12	-
	SS-44	S72A(R) S72B	0-6, 6-12	-
	SS-45	S62A/S62B	0-6, 6-12	-
	SS-46	S60A/S60B	0-6, 6-12	-
	SS-47	S64A/S64B	0-6, 6-12	-
	SS-48	S58A/S58B	0-6, 6-12	-
	SS-49	S61A/S61B	0-6, 6-12	-
	SS-50	S71A	0-6	-
	SS-51	S59A(R) S59B	0-6, 6-12	1.0-2.0
	SS-52	S70A/S70B	0-6, 6-12	2.0-35.0
	SS-53	S67A/67B	0-6, 6-12	-
	SS-54	S74A/S74B	0-6, 6-12	2.0-3.0
	SS-55	S77A/S77B	0-6, 6-12	-
	SS-56	S78A(R)	0-6	-
	SS-57	S96A	0-12	-
	SS-58	S98A	0-6	-
	SS-59	S99A	0-12	-
	SS-60	S97A	0-12	-

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"B"	SS-61	S103A	0-12	-
	SS-62	S102A	0-12	3.0-4.0
	SS-63	S101A	0-12	-
	SS-64	S106A	0-12	-
	SS-65	S105A	0-6	-
	SS-66	S93A/S93B	0-12, 12-24	0.0-4.0
	SS-67	S92	0-12	7.0
	SS-69	S104A	0-6	-
	SS-70	S84A	0-12	3.0-4.0
	SS-71	S51A	0-12	-
	SS-72	S54A	0-6	-
	SS-73	S91A	0-12	2.0
	SS-74	S90A	0-12	3.0
	SS-75	S88A	0-6	-
	SS-76	S85	0-12	4.0
	RO-16	S81A	0-6	-
	RO-17	S69A	0-6	-
	RO-18	S73A	0-6	-
	RO-19	S65A	0-6	-
	RO-20	S57A	0-6	-
	RO-21	S63A	0-6	-
	RO-22	S83A	0-6	6.0

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"B"	RO-23	S80A	0-6	3.0-5.0
	RO-24	S79A/S79B	0-6, 6-12	0.0-5.0
	RO-25	S56A	0-6	-
	RO-26	S55A	0-6	-
	RO-27	S66A	0-6	-
	RO-28	S172	0-6	-
	RO-29	S75A/S75B	0-6, 6-12	0.0-4.0
	RO-30	S76A/S76B	0-6, 6-12	0.0-7.0
	RO-31	S94A	0-6	<1.0
	RO-32	S95A	0-6	<1.0
	RO-34	S87(R)	0-6	-
	RO-35	S53A	0-6	-
	RO-36	S52A	0-6	-
	RO-37	S86A	0-12	2.0
	RO-38	S89A	0-6	-
"C"	SS-09	S1A/S1B	0-6, 6-12	0.0-5.0
	SS-10	S2A/S2B	0-6, 6-12	0.0-4.0
	SS-11	S3A/S3B	0-6, 6-12	0.0-3.0
	SS-12	S4A/S4B	0-6, 6-12	0.0-4.0
	SS-13	S5A(RS)	0-6	<1.0
	SS-14	S6A	0-6	<1.0

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"C"	SS-15[1]	S7A/S7B	0-6, 6-12	20.0-60.0
	SS-16	S8A/S8B	0-6, 6-12	-
	SS-17	S9A/S9B	0-6, 6-12	-
	SS-18	S20A/S20B	0-6, 6-12	2.0-2.5
	SS-19	S18A	0-6	<1.0
	SS-20	S21A/S21B	0-6, 6-12	0.0-5.0
	SS-21	S19A/S19B	0-6, 6-12	0.0-8.0
	SS-22	S17A[RS]/S17B	0-6, 6-12	5.0-300.0
	SS-23	S16A/S176B	0-6, 6-12	5.0-13.0
	SS-24	S22A/S22B	0-6, 6-12	2.5-8.0
	SS-25	S23A[RS]	0-6	-
	SS-26	S24A	0-6	-
	SS-27	S28A	0-6	-
	SS-28	S14A	0-6	<1.0
	SS-29	S13A/S13B	0-6, 6-12	1.0-9.0
	SS-30	S15A/S15B	0-6, 6-12	3.0-80.0
	SS-31	S35A	0-12	-
	SS-32	S34A	0-6	-
	SS-33	S31A	0-6	<1.0
	SS-34	S32[RS]	0-6	<1.0
	SS-68	S27A	0-6	-
	SS-127	S100[RS]	0-12	4.0

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"C"	SS-128	S135[R]	0-12	2.0
	SS-129	S173	0-6	-
	SS-130	S134	0-6	-
	SS-131	S174	0-6	-
	RO-05	S12A/[RS]S12B	0-6, 6-12	0.0-2.0
	RO-06	S11A/S11B	0-6, 6-12	2.0-4.0
	RO-07	S26A	0-6	-
	RO-08	S525A	0-6	-
	RO-09	S29A/S29B	0-6, 6-12	1.0-7.0
	RO-10	S30A	0-6	<1.0
	RO-11	S10A	0.6	-
	RO-12	S33A	0-6	<1.0
	RO-13	S47A	0-6	-
"D"	SS-01	S43A/S43B	0-6, 6-12	0.0-3.0
	SS-02	S49A	0-12	-
	SS-03	S48	0-12	-
	SS-04	A42A[RS]	0-6	-
	SS-05	S41A	0-6	-
	SS-06	S40A	0-6	-
	SS-07	S45A	0-6	<1.0
	SS-08	S46A	0-6	<1.0

TABLE A-4 SUMMARY OF SURFACE SOIL SAMPLING ACTIVITIES (Continued)

STUDY AREA	LOCATION	SAMPLE NUMBER	SAMPLE DEPTH INTERVAL (IN.)	HNu READING (ABOVE BACKGROUND IN PPM)
"D"	SS-132	S175[R]	0-6	-
	RO-01	S44A/S44B	0-6, 6-12	0.0-6.0
	RO-02	S50[RS]	0-6	-
	RO-04	S176	0-6	-
"E"	SS-35	S39	0-12	-
	SS-36	S38	0-6	-
	SS-37	S37	0-6	-
	SS-38	S178	0-6	-
	SS-39	S179	0-12	2.0
	SS-40	S180	0-6	-
	SS-41	S181	0-6	-
	RO-14	S36A	0-6	-
	RO-15	S182	0-6	-
Background	SS-104	S183	0-6	-
	RO-55	S184	0-6	-

[1] Sampled in Level-C

[R] RAS Sample Duplicate

[S] SAS Sample Duplicate

[RS] RAS and SAS Sample Duplicate

\- No Readings Detected

TECHNICAL MEMORANDUM
PHASE II REMEDIAL INVESTIGATION
SURFACE WATER AND SEDIMENT SAMPLING ACTIVITIES

FOR

FISHER-CALO CHEMICAL
KINGSBURY, INDIANA

APRIL, 1989

Prepared for:

U.S. Environmental Protection Agency
Emergency and Remedial Response Branch
Region V
230 South Dearborn Street
Chicago, Illinois 60604

Document No.: 209-RI2-RT-GUHK-1

Work Assignment No.: 108.5L13

20911/06

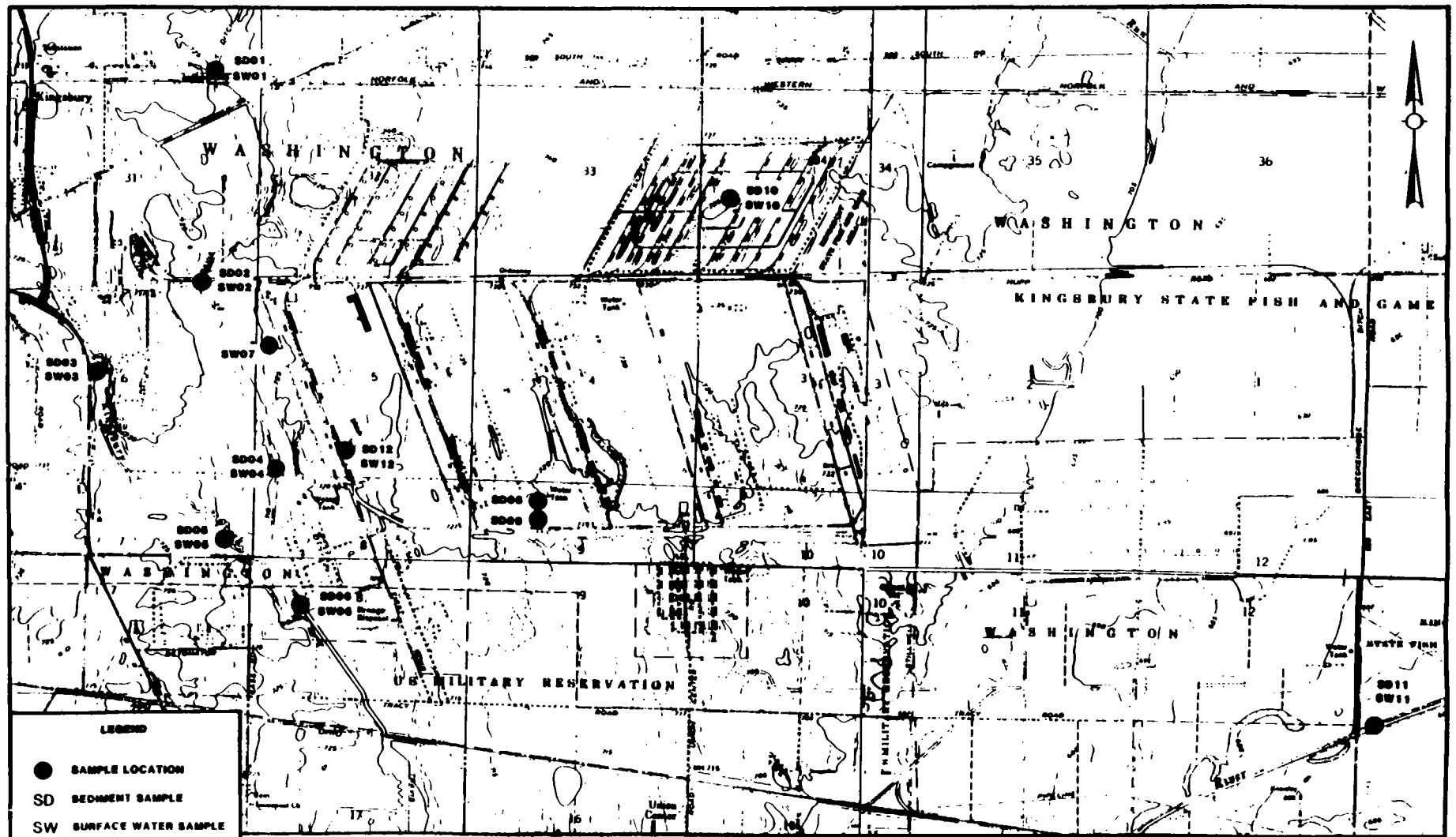
The purpose of this memorandum is to document the methods and materials used in conducting sediment and surface water sampling tasks during field activities for the Remedial Investigation performed at the Fisher Calo Chemical site near Kingsbury, Indiana. The objectives and requirements for these tasks are identified in the FCC Site Sampling and Analysis Plan, (Document No. 209-RI2-PS-FYUM-1). The surface water and sediment samples were collected from June 30 to July 11, 1988. The actual surface water and sediment sampling activities were conducted by ATEC Associates, Inc. of Griffith, Indiana.

SURFACE WATER SAMPLES

Surface water samples were collected from 10 locations selected at points along Kingsbury Creek and Travis Ditch, from surface water bodies onsite, and from the Kankakee River. Samples collected from Kingsbury Creek and Travis Ditch were taken from locations above and below the confluence of these streams. Surface water samples were collected from the center of the stream at each location. The location of the surface water samples collected is shown in Figure 1. The number of samples collected and the analytical parameters for the surface water samples are shown in Table 1.

SEDIMENT SAMPLES

Sediment samples were collected from 11 locations along Kingsbury Creek, Travis Ditch, from surface water bodies onsite, and from the Kankakee River. Samples collected from Kingsbury Creek and Travis Ditch were taken from locations above and below the confluence of these streams. Two sediment samples were collected at each location selected from the streams, one from the center of the stream (sample "A") and another from along the edge or bank of the stream (sample "B"). Samples collected at these locations were assigned the same location number, and used the A and B designations to distinguish the point of sample collection (i.e., SD-06A and SD-06B). The number of samples collected and the analytical parameters for the sediment samples are shown in Table 1.



SURFACE WATER / SEDIMENT
SAMPLE LOCATION MAP

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CDM

FIG. NO.
1

TABLE 1
SUMMARY OF SAMPLING AND ANALYSIS PROGRAM

Sample Matrix	Field Parameters	Laboratory Parameters	Investigative Samples	Field Duplicate Samples	Total Number of Samples
Surface water from stream locations and surface water bodies	pH specific temperature	RAS full organics package from CLP	10	2	12
		RAS inorganics and cyanide package from CLP	10	2	12
		SAS nitrate/nitrite, ammonia, chloride, and sulfate	10	2	12
Sediment from stream locations and surface water bodies	Qualitative organic vapor screening with HNu/OVA	RAS full organic package from CLP	22	2	24
		RAS inorganics and cyanide from CLP	22	2	24
		SAS for Leachability of metals	22	2	24

TABLE 2

SAMPLE CONTAINERS

MATERIALS AND EQUIPMENT

SAMPLE CONTAINERS

Analysis	Container
Acid Extractables, Base/Neutral Extractables Pesticides/PCBs	One eight ounce glass wide mouth bottle with teflon lined cap.
Volatiles	Two 120-ml glass wide mouth vials.
Metals and Cyanide	One-eight ounce jar with teflon-lined cap.
Ammonia Nitrate/Nitrite TOC	One-eight ounce glass wide mouth bottle with teflon lined cap for ammonia, nitrate/nitrite and TOC.
Chloride Sulfate	One-eight ounce glass wide mouth bottle with teflon lined cap for chloride and sulfate.
Leachability of Metals	One 32 ounce glass wide mouth jar with teflon lined cap.

MATERIALS AND EQUIPMENT

Stainless Steel Scoops and Spoons
2" Diameter Split-Spoon Device
Sledge Hammer
Spray Tank of Distilled Water
Bucket with Tap Water and
  Alconox Soap Solution
Brushes for Scrubbing Equipment
Disposable Tyvexs
Gloves Inner
Disposable Outer Booties
Waders
Garbage Bags
Paper Towels
pH Meter
HNu Photoionizer
Field Note Book and Pen

TECHNICAL MEMORANDUM

FOR

REMEDIAL INVESTIGATION
FIELD ACTIVITIES

CONDUCTED OCTOBER 6 thru
NOVEMBER 16, 1988
SOIL GAS SURVEY
FOR

FISHER-CALO CHEMICAL
KINGSBURY, INDIANA

APRIL, 1989

Prepared for:

U.S. Environmental Protection Agency
Emergency and Remedial Response Branch
Region V
230 South Dearborn Street
Chicago, Illinois 60604

Document No.: 209-RI2-RT-GXFS-1

Work Assignment No.: 108.5L13

20913/04

Surface water samples were collected by submerging the sample containers into the water until they were filled to the appropriate level. For the samples taken from stream locations, the mouth of the sample container was positioned to face upstream, with the sampling personnel standing downstream, to minimize contamination from sediments which were stirred up upon entry into the stream. Pond samples were collected from near the shore or edge of the water body.

Sediment samples were collected from the top 6" of material using a stainless steel scoop or 2" diameter split-spoon device which was driven into the sediment with a sledge hammer. The method of collection depended on the field conditions at the sample location.

The surface water and sediment samples collected were analyzed for Routine Analytical Services (RAS) parameters which included full organics, inorganics, cyanide and dissolved (filtered) metals. The surface water samples were analyzed for Special Analytical Services (SAS) parameters for nitrate/nitrite, ammonia, chloride and sulfate. The sediment samples were also analyzed for the SAS parameter Leachability of metals. Field blank, field duplicate and matrix spike duplicate samples were collected in accordance to the protocol described in the SAP. The total number of samples collected and analytical parameters are shown in Table 1.

The sample locations SW-10, SD-10, SW-12 and SD-12 identify sample points located in surface water bodies (water impoundments). SW-07 was collected from a pre-treated waste water effluent drainage pipe. The SD-08 and SD-09 sample points are located in a wetland area. All other surface water and sediment sample locations were collected from points along Kingsbury Creek, Travis Ditch and the Kankakee River.

Background surface water and sediment samples were collected from locations upgradient from the site along the Kankakee River, Kingsbury Creek, and Travis Ditch. The background sample locations are SW-01, SD-01A, SD-01B, SW-02, SD-02, SW-03, SD-03, SW-11, SD-11A and SD-11B.

The materials and equipment utilized for sample collection (stainless steel trays, scoops, spoons, augers, etc.) were decontaminated using alconox and distilled water solution, rinsed with distilled water and then sprayed with an isopropyl alcohol and distilled water solution. A list of materials, equipment, and sample containers utilized during surface water and sediment field investigation activities is shown in Table 2.

Sample collection and decontamination procedures were performed in accordance to the requirements and protocol outlined in the FCC Site Sampling and Analysis Plan. Any deviation from or exception to the SAP protocol is noted in the daily field log entries.

HEALTH AND SAFETY

Prior to and during sampling at each location, ambient air monitoring was performed using an HNu photoionizer. The results of this monitoring were used to determine the level of personnel protection required and to determine the need for appropriate containerization and disposal of sampling wastes.

Samples were collected in accordance to the protocol as outlined in the Health and Safety Plan (Doc. No. 209-RI2-OP-FYFS-1). Ambient air monitoring and personnel protection protocol are described in the field log book. Any deviation from or exception to the HSP is noted in the daily field log entries.

1.0 INTRODUCTION

The Camp Dresser & McKee (CDM) REM II Team conducted a soil gas survey at the Fisher-Calo Site (FCC), Kingsbury, Indiana. The soil gas survey was conducted as part of the Remedial Investigation activities conducted at the FCC site. Data from the soil gas survey was collected in support of field screening activities to identify and characterize the extent of contamination in suspected areas of waste disposal and buried tanks or drums.

A Photovac 10S50 portable gas chromatograph was used to analyze soil gas samples which were collected from both on and off-site locations. Samples were analyzed for the presence of trichloroethylene (TCE) and toluene, since these compounds were historically known to have been stored and/or disposed of at various locations on the Fisher-Calo site. The actual sampling and analysis of the soil gas samples was subcontracted to ATEC Associates, Inc. of Griffith, Indiana. The soil gas samples collected were analyzed on-site at the CDM field trailer.

The objectives and requirements for the soil gas survey tasks are described in detail in the FCC Site Sampling and Analysis Plan (Doc. No. 209 RI2 PS FYUM 1). The soil gas sampling and field screening activities occurred from October 6 thru November 16, 1988.

1.1 OBJECTIVES

The objectives of the soil gas survey were:

- Locate potential contaminant source area on-site; and
- Delineate the contamination levels at both on-site and off-site locations

Achievement of these objectives will provide the data necessary to help forumulate subsequent remedial actions. In addition, by defining potential source areas, any future soil sampling program or removal action could be tailored to target these areas.

1.2 BACKGROUND

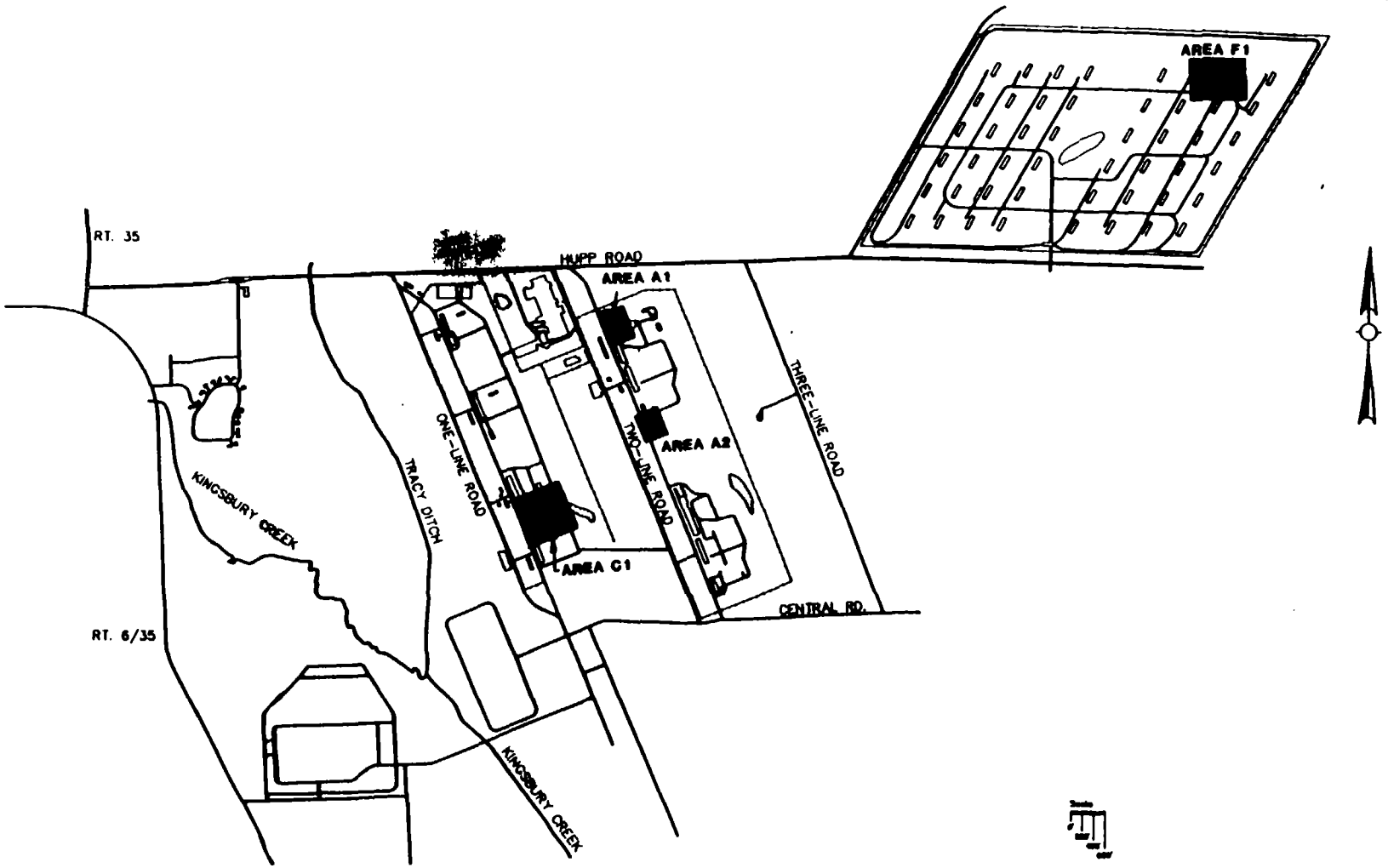
Selection of the study areas for soil gas field screening activities was based on past evidence of waste disposal activities and/or buried tanks or drums. The results of geophysical surveys conducted by the U.S. EPA during 1987 and 1988, were also used to identify suspected source areas.

Soil gas samples were collected from specified depth intervals at selected locations within 3 on-site and 2 off-site study areas. The soil gas survey activities resulted in the collection and analysis of 163 samples (including blanks, duplicates and calibration injection samples from 32 locations selected in the study areas. The locations of the soil gas samples collected are shown in Figures 1-1 thru 1-5.

1.3 SAMPLE LOCATIONS AND DEPTH INTERVALS

Soil gas samples were collected from selected locations in the study areas shown in Figure 1-1. These study areas include 3 on-site areas (A-1, A-2 and C-1) and 2 off-site areas (F-1 and the background location shown in Figure 1-1).

Samples were collected from specified depth intervals at each location selected within a study area. The depth intervals and sample locations selected for each study area depended on the source of contamination suspected in a study area, based on evidence of past disposal activities and/or buried tanks and drums.



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SOIL GAS SURVEY LOCATION MAP

FIGURE NO.

1-1

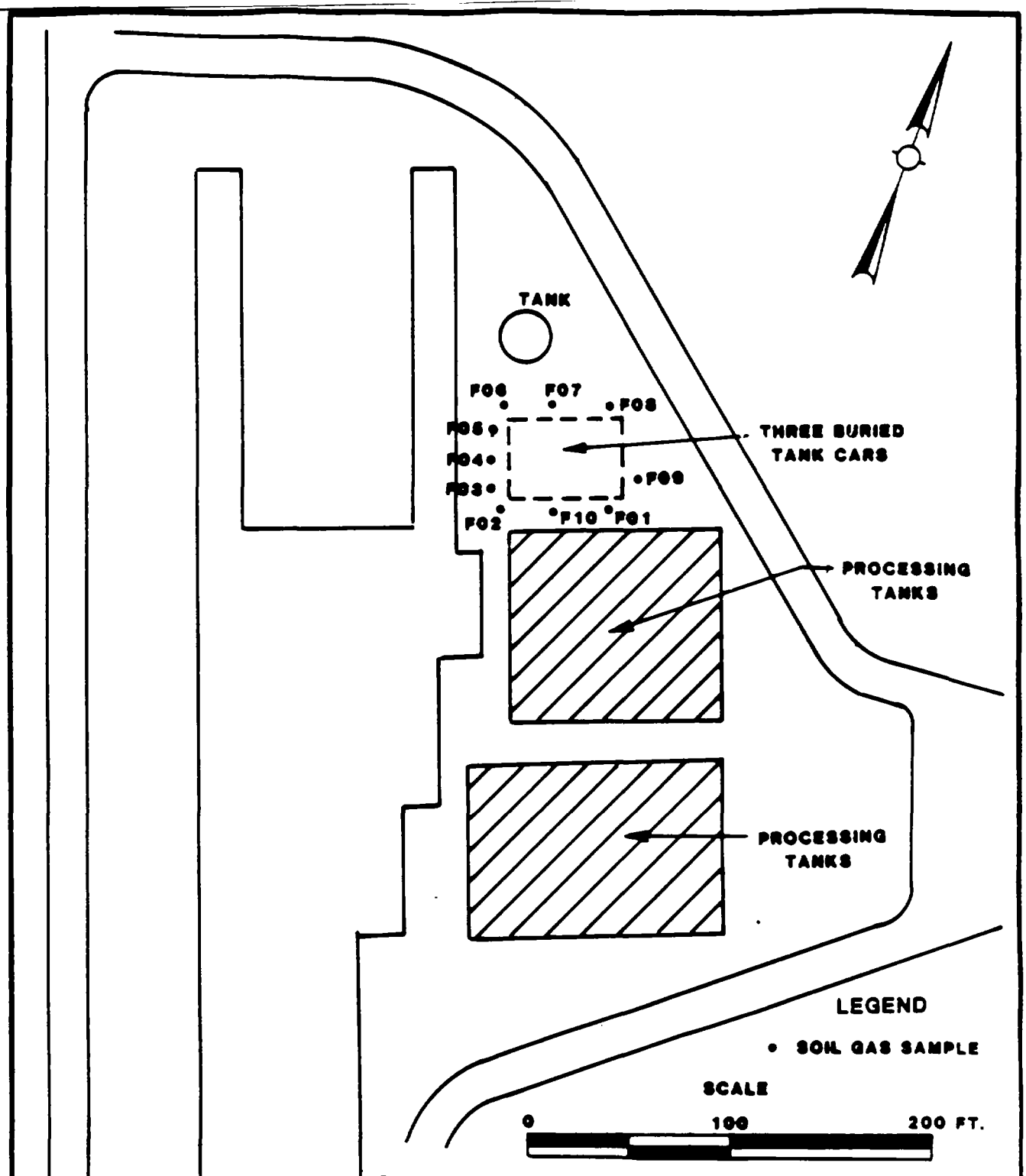
Soil gas samples were identified using an 'SG' prefix, followed by a location code assigned for each study area, and/or a location number. The sample interval was identified using the letters A-D for each depth interval. For example, SG-F01A was used to identify the sample collected from the Fisher-Calo tank farm area ('F' is study area A-1), at location '01' and was collected at the first (A) depth interval specified for that area.

1.3.1 SOIL GAS STUDY AREA A-1

Study area A-1 is located north of the tank farm at the Fisher-Calo Two-Line Road facility. Samples were taken from an area approximately 25'wide x 30'long, in the vicinity of 3 buried railroad tank cars. Samples were collected from 10 locations along the perimeter of the buried tank cars, with the end (east and west) locations being approximately in line with the exposed tank car vent pipes. Locations along the north and south edge of the tank cars were placed approximately 9' apart. Samples were taken from depth intervals of 2.5', 5', 7.5', and 10.' Samples from Area A-1 were identified as SG-F01 through SG-F10, with a letter designation (A-D) used to identify the depth interval. Sample locations are shown in Figure 1-2.

1.3.2 SOIL GAS STUDY AREA A-2

Samples taken from study area A-2 were collected in the vicinity of 4 partially exposed tanks located at the southern end of the Fisher-Calo facility. Samples collected at location SG-01 were collected at 2 foot, 5 foot, and 10 foot depth intervals. Samples taken from locations SG-02, and SG-03 were taken from depth intervals at 5 feet and 10 feet. Locations SG-04 and SG-06 were sampled at depth intervals of 5 feet, 7 feet and 10 feet. Location SG-05 was sampled at 7 and 10 foot depth intervals only. The sample locations are shown in Figure 1-3.



SOIL GAS SAMPLE LOCATION MAP-AREA A1

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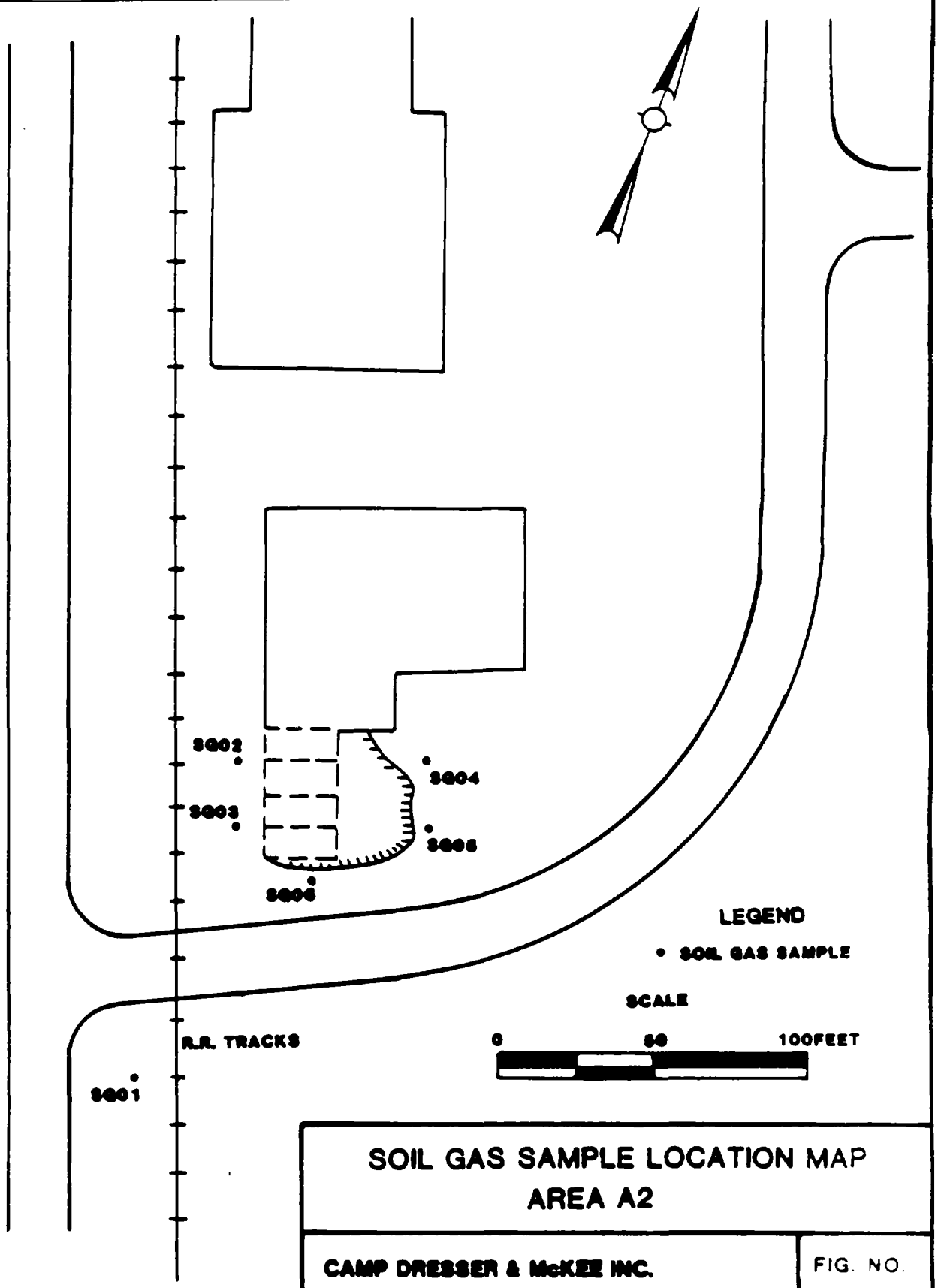
FIG. NO.
1-2



SOIL GAS SAMPLE LOCATION MAP
AREA A2

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FIG. NO.
1-3

1.3.3 SOIL GAS STUDY AREA C-1

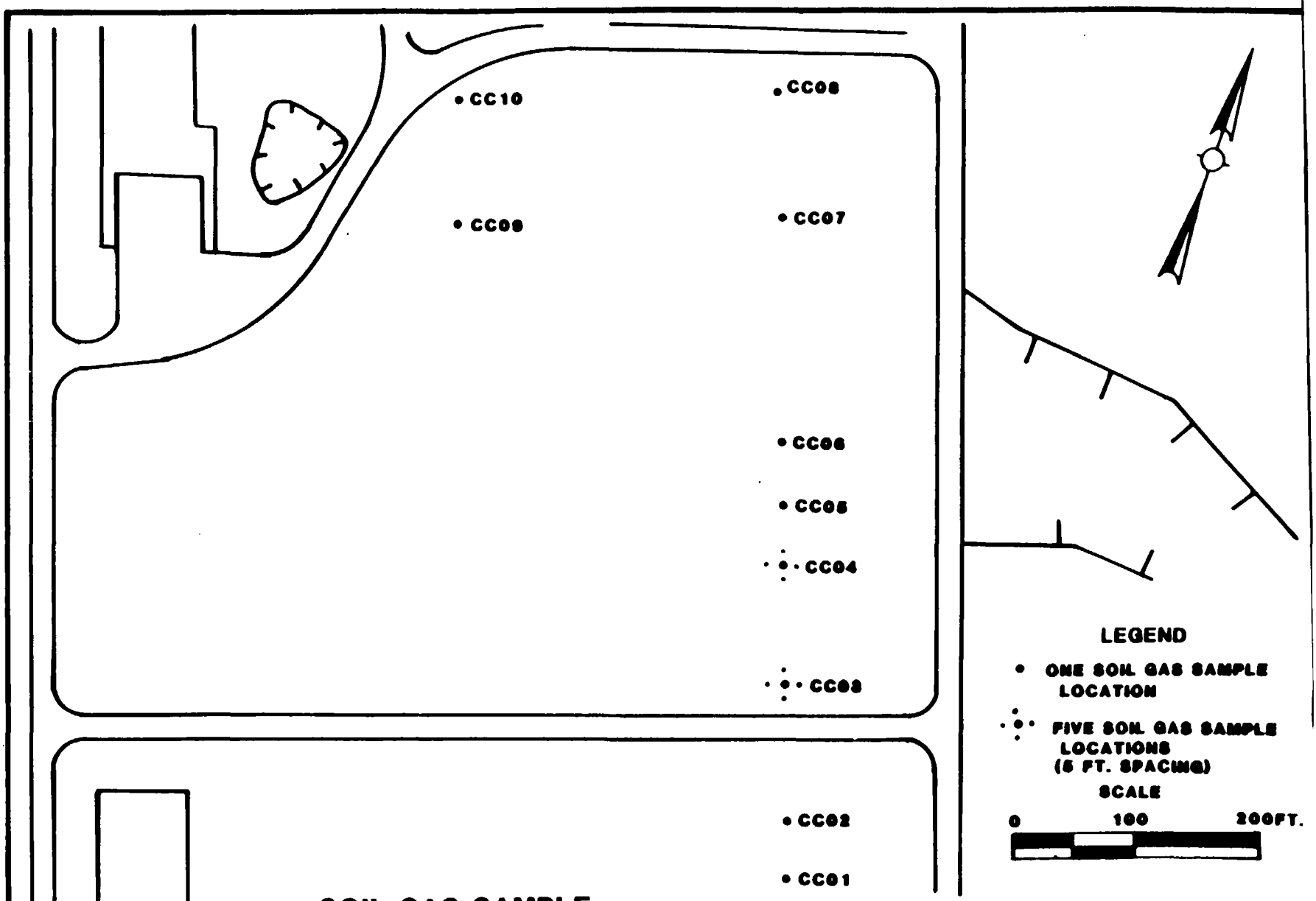
Study area C-1 is located south and east of Cardinal Chemical, in an area of known past drum storage and waste disposal activities. Samples from this area were collected from selected locations at approximately 1 foot, 2 foot, and 3 foot depth intervals.

The samples collected from locations SG-CC01 thru SG-CC10 were analyzed to determine if contamination was present. At locations where no elevated contamination levels were noted, additional sampling was performed. These additional samples were collected at depths between 1 to 2 feet, from 4 sample points located approximately 5 feet to the north, south, east, and west of the original sample point.

Additional samples were taken from the SG-CC03 and SC-CC04 locations. The 4 additional sample points collected at these locations were identified using N, S, E and W to indicate the position of each sample relative to the original sample point (i.e. SG-CC04N was used to identify the sample collected 5 feet north of location SG-CC04.) The location of samples collected in study area C-1 are shown in Figure 1-4.

1.3.4 SOIL GAS STUDY AREA F-1

Study area F-1 is located at the northeastern corner of the Space Leasing Facility, in a suspected area of past drum storage and waste disposal activities. A background soil gas sample was collected at location SG-1S. Locations SG-2S and SG-3S were sampled at selected points located up and down gradient of the suspected waste disposal areas. Location SG-1S was sampled at depth intervals of 1, 3, 5, and 10 feet; location SG-2S was sampled at depth intervals of 2, 5, 7, and 10 feet; and SG-03 was sampled at 2 foot, 5 foot, and 10 foot depth intervals. The location of these samples is shown in Figure 1-5.



SOIL GAS SAMPLE LOCATION MAP-AREA C1

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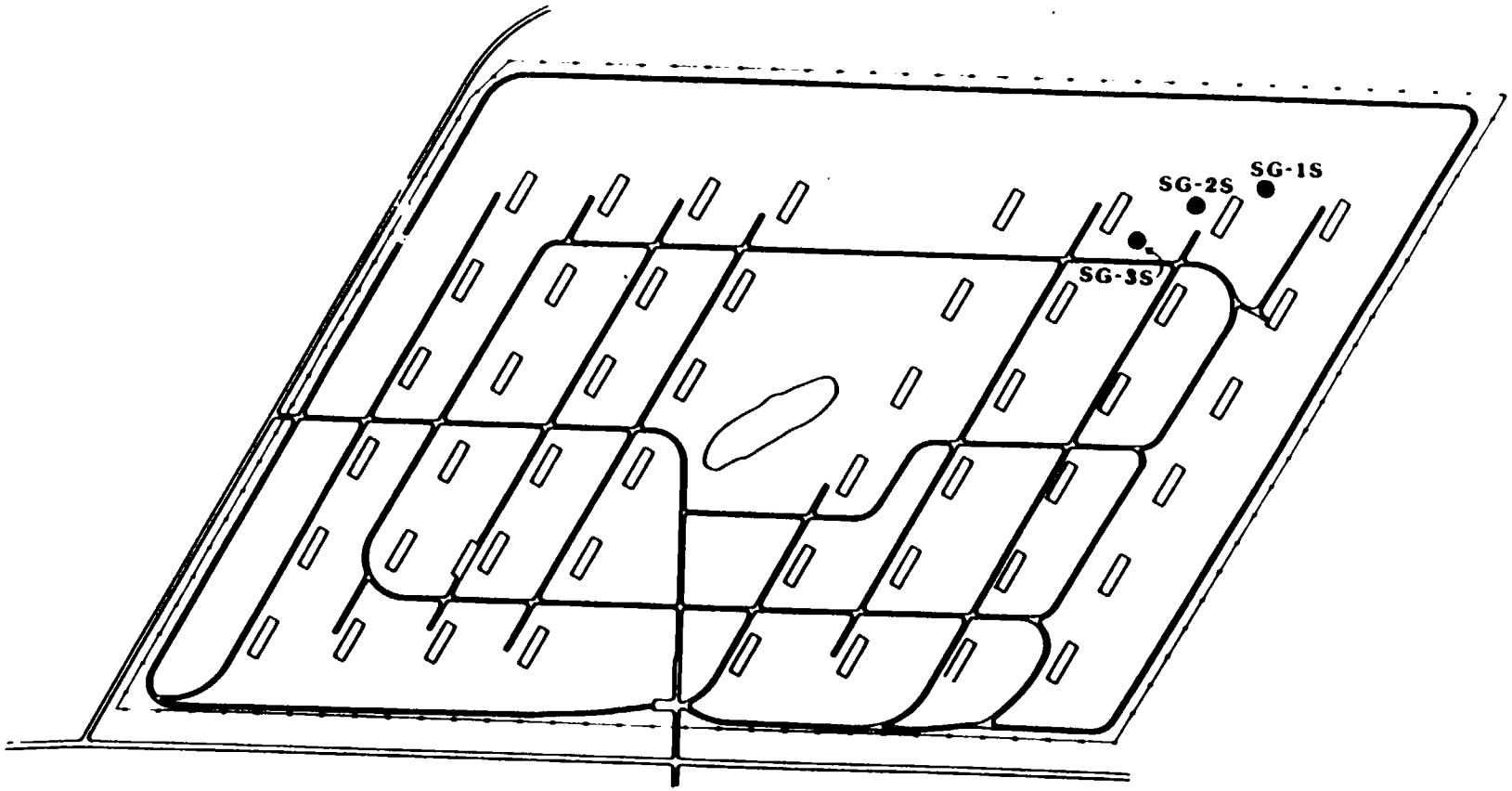
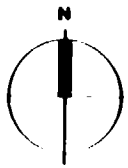
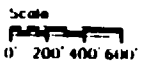
FIG. NO.
1-4



● SAMPLE LOCATION





CDM environmental engineers · scientists planners ▲ management consultants	STUDY AREA F -- SPACE LEASING	**SOIL GAS SAMPLE LOCATIONS**	FIGURE NO. 1-5

1.3.5 WHITE OAK PARK - BACKGROUND AREA

Background soil gas samples were collected from a location at White Oak Park, approximately one mile west of the site. Samples were collected at 2, 5, 7, and 10 foot depth intervals.

2.0 PROCEDURES

2.1 MATERIALS AND METHODS

Soil gas samples were collected by inserting a probe into the soil at selected intervals above the water table, and a sample of the gas entrained in the soil pore space was obtained with the use of an oil free air pump. The gas was then analyzed with a portable gas chromotograph for the presence of toluene and TCE.

A Photovac 10S50 portable gas chromatograph was used for sample analysis. The instrument has a built-in micro processor and printer which allows peak identification and quantification by the computerized autocalibration. The total analysis time per sample can be reduced by using a dual column configuration, allowing the backflush of compounds which elute after a pre-set time period. This time is determined from the last elution time of target compound. In our case, toluene elutes after TCE.

Galvanized steel probes of one half inch I.D. were used for sampling. These probes were equipped with a removable cap used to drive the probe into the ground. This cap was replaced with a hose barb for gas sampling purposes. A 12 inch section of the probe's lower portion was slotted to allow soil gas to enter the probe.

The samples were collected in Tedlar gas bags with the use of a vaccuum desiccator and pump. Gas tight syringes were used for chromatographic injections. One litre syringes were used for all sample dilutions and standards preparations. TCE and Toluene standards at concentrations of 1 ppm and 100 PPB (approx.) were purchased from Scott Specialty Gases and were used to calibrate the Photovac. All tubing which contacted the sample was teflon, and was replaced between locations to avoid cross-contamination.

A list of materials and equipment used for sample collection and analysis is shown in Table 2-1.

2.2 PREPARATION OF STANDARDS AND CALIBRATION

Gas standards at 500, 100, 50, 25, and 10 ppb concentrations were prepared by dilution of the commercially purchased (100 ppb and 1 ppm) gases. New Tedlar bags were flushed with ultra pure air, and then a volume of commercially purchased TCE and toluene standard was injected into the separate bags. The balance was made by injecting the appropriate volume of ultra pure air (using a one litre syringe) to prepare the desired standard concentration.

Prior to the beginning of field sampling the five-point standard concentrations were prepared for TCE and toluene for determination of the instrument response versus concentration. The procedures used for instrument calibration, preparation of standards, quality assurance/quality control procedures, and results of the initial 5-point calibration are detailed in the Standard Operating Procedures prepared by ATEC Associates, Inc. (attached as Appendix A).

Daily instrument blank (carrier gas) and 2-point (100 ppb and 1 ppm) calibration analysis for both TCE and toluene was performed prior to field sample analysis. Continuing calibration checks using the 100 ppb TCE and toluene standards were performed throughout the day to verify and update the response factors and retention times. Continuing calibration runs were made after every 5 soil gas samples were analyzed. Instrument blank samples were analyzed periodically throughout the day, and after each soil gas sample containing compounds at concentrations greater than 750 ppm. Instrument blank samples were run to assure a clean GC column response. Daily field blank (ambient air) samples were analyzed to demonstrate the absence of contamination in the sampling process. Duplicate and spike samples were run after every 10 soil gas samples were analyzed.

TABLE 2-1

INSTUMENTATION AND MATERIALS

- Photovac Model 10S50

  A portable, photoionization gas chromatograph equipped with a computer module. This module provides for automatic integration of peaks for output in the form of millivolt seconds (mVs) based on calculations from the calibrant gas and data stored in the internal library. Only air samples were injected into the Photovac gas chromatograph.

- Capillary Column (0.53 mm ID, 10 meters long)

- Trichloroethylene and toluene (calibrant gases)
  100 ppb NBS traceable by weight +5%
  1 ppm NBS traceable by weight +5%
  5 ppm NBS traceable by weight +2%

- Trichloroethylene and toluene in various concentrations for gas standards

- High purity air carrier gas

- Gas tight chromatographic syringes

- Galvanized steel soil probe

- Tubing and fillings, as required

- Dessicator

- Tedlar gas sample bags

- Nitrogen gas for column purging

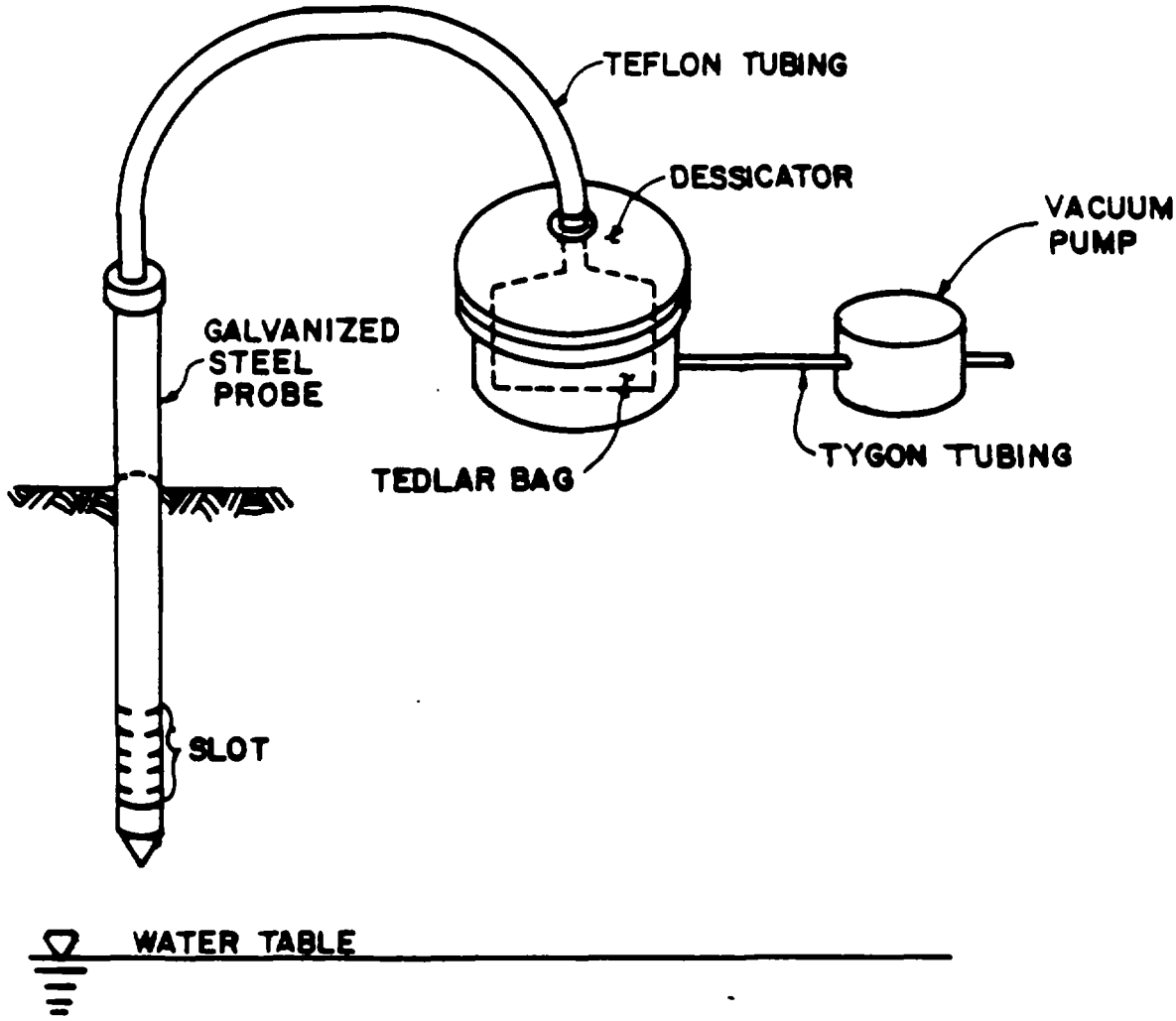
2.3 FIELD PROCEDURES

The soil gas survey was conducted by a three-person team from ATEC, Associates. Two persons carried out the soil gas sample collection and recorded field conditions and sample location data. The third person performed the soil gas sample analysis, ran the daily calibration standard and field blank samples, and performed the instrument blank and continuing calibration analysis.

A diagram of the field sampling apparatus configuration is shown in Figure 2-1. The soil gas probe was inserted into the ground to specified depths with the driver use of a small post hole drive. The soil gas sample was obtained by connecting the probe to the dessicator and vacuum pump assembly. An oil free vacuum air pump was used to purge 10 liters of soil gas through teflon tubing attached to the probe. The 10 liter volume was determined by filling a 5 liter Tedlar bag twice.

A sample was then drawn into a one liter Tedlar bag and taken to the field trailer for immediate analysis. The Photovac 10S50 was equipped with an isothermal oven, and operated at a constant 50 Celsius temperature.

Soil gas sampling and analysis can be conveniently divided into two phases. Phase I study was conducted during the period of October 6-18, 1988. Prior to the start of soil gas sampling a five point calibration was run using standards at 500, 100, 50, 25, and 10 PPB concentrations. This resulted in detection limits of 5 PPB. During the first phase of soil gas study, a small contamination peak kept appearing immediately after the toluene peak, thereby ruining the linearity of toluene standards. Numberous measures were taken to resolve this but it continued to be a problem. Since the soil gas analysis was done primarily to locate the areas containing volatile organics at high concentration, a decision was made to raise the detection limit by increasing the gain on the Photovac, and by increasing the range of the standard calibration concentrations.



SOIL GAS SAMPLING CONFIGURATION

NOT TO SCALE

CAMP DRESSER & McKEE INC.

200 West Adams
Suite 1600
Chicago, Ill. 60606

CDM

environmental engineers, scientists, planners, & management consultants

FIG. NO.

2-1

3.0 HEALTH AND SAFETY

Prior to and during sampling at each soil gas sample location, ambient air monitoring was performed using an HNu photoinizer. The results of this monitoring, combined with monitoring results obtained during other RI field activities conducted in the study areas, were used to determine the level of personnel protection required.

Sample collection activities at the Fisher-Calo Tank Farm (Area A-1) were conducted in Level C personnel protection. The need for this increased personnel protection was determined based on the elevated organic levels detected in the ambient air, and due to the partially enclosed work space at these sample locations. All other soil gas sample collection activities were conducted in Level D personnel protection.

All samples were collected in accordance to the protocol as outlined in the Health and Safety Plan (Doc. No. 209-RI2-OP-FYFS-1). Ambient air monitoring and personnel protection protocol are described in the field log book. Any deviation from or exceptions to the HSP are noted in the daily field log entries.

The second phase of soil gas analysis began on November 9, 1988. An initial five point standard calibration was run at 10, 5, 2.5, 1, and 0.5 ppm concentration. This resulted in a detection limit of 1 ppm. All subsequent sampling was conducted, using this increased 1 ppm detection limit.

The soil gas survey study areas and sample depth intervals are described in Section 1.3. The locations of soil gas samples collected are shown in Figures 1-1 thru 1-5. Results of the soil gas analysis are presented in Section 4.0.

4.0 RESULTS

TABLE 1

FISHER-CALO TANK FARM (AREA A-1)

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPM			
			TCE	TOLUENE	UNKNOWN A	UNKNOWN B
SG-F01A	11/11/88	2.5	ND	193	13J	ND
SG-F01B	11/11/88	5.0	ND	170	62.6	76.6
SG-F01C	11/11/88	7.5	ND	308	63.3	14J
SG-F01D	11/11/88	10.0	ND	21.6	5.2J	4.2J
SG-F02A	11/14/88	2.5	ND	540	102	103
SG-F02B	11/14/88	5.0	ND	1842	234	234
SG-F02C	11/14/88	7.5	ND	1397	129J	ND
SG-F02D	11/14/88	10.0	ND	62.2	12.6	12.6
SG-F03A	11/14/88	2.5	ND	1238	153	143
SG-F03B	11/14/88	5.0	ND	17.2	ND	ND
SG-F03C	11/14/88	7.5	ND	140	ND	ND
SG-F03D	11/14/88	10.0	ND	1270	193	183
SG-F04A	11/14/88	2.5	ND	151	66.4	34.3
SG-F04B	11/14/88	5.0	ND	214	132	72.2
SG-F04C	11/14/88	7.5	ND	54.9	112	52.9
SG-F04D	11/14/88	10.0	ND	45.4	69.7	29.3
SG-F05A	11/15/88	2.5	ND	45.5	64.8	60.3
SG-F05B	11/15/88	5.0	ND	63.0	73.7	73.7
SG-F05C	11/15/88	7.5	ND	41J	33J	20J
SG-F05D	11/15/88	10.0	ND	158	103	93.9

* - Unknown A and B are the two highest concentration unknown compounds detected
J - Estimated value

All samples have a detection limit of 1 ppm.

TABLE 1 (Cont.)

FISHER-CALO TANK FARM (AREA A-1)

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPM			
			TCE	TOLUENE	UNKNOWN A	UNKNOWN B
SG-F06A	11/15/88	2.5	ND	38.5	5.0	ND
SG-F06B	11/15/88	5.0	12.9	36.8	49.2	38.0
SG-F06C	11/15/88	7.5	ND	34.1	36.6	49.2
SG-F06D	11/15/88	10.0	ND	137	89.4	103
SG-F07A	11/15/88	2.5	ND	19.9	11.4	ND
SG-F07B	11/15/88	5.0	ND	5.25	3.9	ND
SG-F07C	11/15/88	7.5	0.27J	1.03	9.8	2.0
SG-F07D	11/15/88	10.0	ND	ND	1.6	ND
SG-F08A	11/15/88	2.5	ND	2.1	1.95	1.06
SG-F08B	11/15/88	5.0	ND	ND	1.12	0.4J
SG-F08C	11/15/88	7.5	ND	ND	1.8	0.4J
SG-F08D	11/15/88	10.0	ND	1.08	9.16	1.17
SG-F09A	11/15/88	2.5	ND	3.33	2.68	0.4J
SG-F09B	11/15/88	5.0	ND	394	104	9J
SG-F09C	11/15/88	7.5	ND	780	302	64.5
SG-F09D	11/15/88	10.0	ND	630	268	53J
SG-F10A	11/16/88	2.5	ND	ND	ND	ND
SG-F10B	11/16/88	5.0	ND	28.6	99.0	66.8
SG-F10C	11/16/88	7.5	ND	13.5	34.5	23.0
SG-F10D	11/16/88	10.0	ND	3J	4J	4J

* - Unknown A and B are the two highest concentration unknown compounds detected.

J - Estimated Value

All samples have a detection limit of 1 ppm.

TABLE 2

FISHER-CALO EXPOSED TANK LOCATIONS
(SOUTH FISHER)
AREA A-2

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPM			
			TCE	TOLUENE	UNKNOWN A	UNKNOWN B
SG-01A	10/10/88	2	ND	1.7J	ND	ND
SG-01B	10/10/88	10	ND	10.0	55.2	32.0
SG-01B(DUP)	10/10/88	10	ND	2.0J	65.3	27.6
SG-02A	10/10/88	10	ND	13.3	22.1	14.3
SG-02B	10/10/88	10	ND	9.0	19.3	6.4
SG-03A	10/10/88	5	ND	14.0	ND	ND
SG-03B	10/10/88	10	ND	6.6	7.4	2.1J
SG-04A	10/7/88	5	ND	31.2	11.4	ND
SG-04B	10/7/88	7	79.4	15.4	37.3	11.8
SG-04(DUP)	10/7/88	7	79.4	13.1	37.0	12.7
SG-04C	10/7/88	10	203	30.4	1324	150
SG-05A	11/16/88	5	ND	ND	ND	ND
SG-05B	11/16/88	7	ND	ND	ND	ND
SG-05C	11/16/88	10	ND	ND	ND	ND
SG-06A	10/7/88	5	ND	ND	26.8	ND
SG-06B	10/7/88	7	ND	ND	15.5	ND
SG-06C	10/7/88	10	ND	ND	12.0	ND

* - Unknowns A and B are the two highest concentrations of the unknown compounds detected.

J - Value is below the detection limit and therefore estimated.

All samples analyzed 10/7 through 10/10/88 have a detection limit of 5 ppb.
All samples analyzed on 11/16/88 have a detection limit of 1 ppm.

TABLE 3

CARDINAL CHEMICAL LOCATIONS
AREA C-1

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH(FT)	CONCENTRATION IN PPM			
			TCE	TOLUENE	UNKNOWN A*	UNKNOWN B*
SG-CC01A	10/18/88	1	ND	ND	ND	ND
SG-CC01B	10/18/88	2	ND	ND	ND	ND
SG-CC01C	10/18/88	3	ND	ND	ND	ND
SG-CC01N	11/11/88	1	ND	ND	ND	ND
SG-CC01S	11/11/88	1	ND	ND	ND	ND
SG-CC01E	11/11/88	1	ND	ND	ND	ND
SG-CC01W	11/11/88	1	ND	ND	ND	ND
SG-CC02A	10/18/88	1	ND	ND	ND	ND
SG-CC02B	10/18/88	2	ND	ND	ND	ND
SG-CC02C	10/18/88	3	ND	ND	ND	ND
SG-CC02N	11/11/88	2	ND	ND	ND	ND
SG-CC02S	11/11/88	2	ND	ND	ND	ND
SG-CC02E	11/11/88	2	ND	ND	ND	ND
SG-CC02W	11/11/88	2	ND	ND	ND	ND
SG-CC03A	11/9/88	1	ND	ND	ND	ND
SG-CC03B	11/9/88	2	ND	ND	ND	ND
SG-CC03A	11/9/88	1	ND	ND	ND	ND
SG-CC03B	11/9/88	2	ND	ND	ND	ND
SG-CC03C	11/9/88	3	ND	ND	ND	ND
SG-CC03N	11/10/88	1.5	ND	ND	ND	ND
SG-CC03S	11/10/88	1.5	ND	ND	ND	ND
SG-CC03E	11/10/88	1.5	ND	ND	ND	ND

* - Unknowns A and B are the two highest concentrations of the unknown compounds detected

J - Value is below detection limit and therefore estimated

All samples analyzed on 10/18/88 have a detection limit of 5 ppb. All samples analyzed 11/9 through 11/1/88 have a detection limit of 1 ppm.

TABLE 3 (Cont.)

CARDINAL CHEMICAL LOCATIONS
AREA C-1

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPM			
			TCE	TOLUENE	UNKNOWN A*	UNKNOWN B*
SG-CC03W	11/10/88	1.5	ND	ND	ND	ND
SG-CC04A	11/9/88	1	ND	ND	ND	ND
SG-CC04B	11/9/88	2	ND	ND	ND	ND
SG-CC04C	11/9/88	3	ND	ND	ND	ND
SG-CC04N	11/10/88	1.5	ND	ND	ND	ND
SG-CC04S	11/10/88	1.5	ND	ND	ND	ND
SG-CC04E	11/10/88	1.5	ND	ND	ND	ND
SG-CC04W	11/10/88	1.5	ND	ND	ND	ND
SG-CC05A	11/9/88	1	ND	ND	ND	ND
SG-CC05B	11/9/88	2	ND	ND	ND	ND
SG-CC05C	11/9/88	3	ND	ND	ND	ND
SG-CC05N	11/10/88	2	ND	ND	ND	ND
SG-CC05S	11/10/88	2	ND	ND	ND	ND
SG-CC05E	11/10/88	2	ND	ND	ND	ND
SG-CC05W	11/10/88	2	ND	ND	ND	ND
SG-CC06A	11/9/88	1	ND	ND	ND	ND
SG-CC06B	11/9/88	2	ND	ND	ND	ND
SG-CC06C	11/9/88	3	ND	ND	ND	ND

* - Unknown A and B are the two highest concentrations of the unknow compounds detected

J - Value is below detection limit and therefore estimated

All samples analyzed on 10/18/88 have a detection limit of ppb. All samples analyzed 11/9 through 11/11/88 have a detection limit of 1 ppm.

TABLE 3 (Cont.)

CARDINAL CHEMICAL LOCATIONS
AREA C-1

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPM			
			TCE	TOLUENE	UNKNOWN A	UNKNOWN B
SG-CC06N	11/10/88	1.5	ND	ND	ND	ND
SG-CC06S	11/10/88	1.5	ND	ND	ND	ND
SG-CC06E	11/10/88	1.5	ND	ND	ND	ND
SG-CC06W	11/10/88	1.5	ND	ND	ND	ND
SG-CC07A	11/10/88	1	ND	ND	ND	ND
SG-CC07B	11/10/88	2	ND	ND	ND	ND
SG-CC07C	11/10/88	3	ND	ND	ND	ND
SG-CC07S	11/11/88	1.5	ND	ND	ND	ND
SG-CC07E	11/11/88	1.5	ND	ND	ND	ND
SG-CC07W	11/11/88	1.5	ND	ND	ND	ND
SG-CC08A	11/10/88	1	ND	ND	ND	ND
SG-CC08B	11/10/88	2	ND	ND	ND	ND
SG-CC08C	11/10/88	3	ND	ND	ND	ND
SG-CC08N	11/10/88	1	ND	ND	ND	ND
SG-CC08S	11/11/88	1	0.17J	0.27J	0.1J	ND
SG-CC08E	11/11/88	1	ND	ND	ND	ND
SG-CC08W	11/11/88	1	0.54J	0.81J	0.5J	ND

* - Unknown A and B are the two highest concentrations of the unknown compounds detected.

J - Value is below detection limit and therefore estimated

All samples analyzed on 10/18/88 have a detection limit of 5 ppb. All samples analyzed 11/9 through 11/11/88 have a detection limit of 1 ppm.

TABLE 3 (Cont.)

CARDINAL CHEMICAL LOCATIONS
AREA C-1

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPM			
			TCE	TOLUENE	UNKNOWN A	UNKNOWN B
SG-CC09A	11/10/88	1	0.86	ND	0.58J	ND
SG-CC09B	11/10/88	2	33.1	ND	22.0	3.2J
SG-CC09C	11/10/88	3	30.2	ND	17.9	2.3J
SG-CC10A	11/10/88	1	ND	ND	ND	ND
SG-CC10B	11/10/88	2	0.86	ND	2.91	0.2J
SG-CC10C	11/10/88	3	1.05	ND	3.36	0.2J

* - Unknown A and B are the two highest concentrations of the unknown compounds detected

J - Value is below detection limit and therefore estimated

All samples analyzed on 10/18/88 have a detection limit of 5 ppb. All samples analyzed 11/9 through 11/11/88 have a detection limit of ppm.

TABLE 4

SPACE LEASING LOCATIONS
AREA F-1

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPB			
			TCE	TOLUENE	UNKNOWN A	UNKNOWN B
SG-1SA	10/6/88	1	840	1,180	658	250
SG-1SB	10/6/88	3	1.60	21.2	ND	ND
SG-1SC	10/6/88	5	ND	7J	ND	ND
SG-1SD	10/6/88	10	ND	11	ND	ND
SG-2SA	10/6/88	2	480	721	777	366
SG-2SB	10/6/88	5	82.3	1.58J	2,971	238
SG-2SC	10/6/88	7	3,108	ND	15,000	7,770
SG-2SD	10/6/88	.10	3,657	2,443	137,000	8,685
SG-3SA	10/6/88	2	ND	ND	32J	ND
SG-3SB	10/6/88	5	ND	ND	40J	ND
SG-3SC	10/6/88	10	ND	ND	82J	ND

* - Unknown A and B are the two highest concentrations of the unknown compounds detected

J - Value is below detection limit and therefore estimated.

All samples have a detection limit of 5 ppb.

TABLE 5

WHITE OAK PARK LOCATIONS
BACKGROUND AREA

SAMPLE ID	DATE ANALYZED	SAMPLE DEPTH FT	CONCENTRATION IN PPB			
			TCE	TOLUENE	UNKNOWN A	UNKNOWN B
SG-40A	10/7/88	1	ND	ND	ND	
SG-40B	10/7/88	3	225	216	194	5.87
SG-40C	10/7/88	5	ND	2.40J	7.01	ND
SG-40D	10/7/88	10	ND	38.6	ND	ND
SG-FB-01			ND	ND	ND	ND

* - Unknown A and B are the two highest concentrations of the unknown compounds detectected.

J - Value is below detection limit and therefore estimated.

All samples have a detection limit of 5 ppb.

APPENDIX B

Analytical Sample Data Results

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SD08		SD09		SD09		SD10		SD11A		SD11B		SD12	
	SMO or Sample ID =>	ECF47		ECF48		ECF48RE		ECF44		ECF46		ECF45		ECF49	
	Date Collected =>	07/05/88		07/05/88		07/05/88		07/05/88		07/05/88		07/05/88		07/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME									75.000	B				
67-66-3	CHLOROFORM	4.000	J	4.000	J	4.000	J			2.000	J			260.000	
56-23-5	CARBON TETRACHLORIDE													20.000	
127-18-4	TETRACHLOROETHENE													3.000	J
108-88-3	TOLUENE							340.000				3.000	J		
100-42-5	STYRENE													10.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SD04B		SD05A		SD05A(DUP)		SD05B		SD05B(DUP)		SD06A		SD06B	
	SMO or Sample ID =>	ECF27		ECF30		ECF31		ECF29		ECF32		ECF34		ECF33	
	Date Collected =>	06/30/88		06/30/88		06/30/88		06/30/88		06/30/88		06/30/88		06/30/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	82.000	J	3.000	J	16.000	J	4.000	J	13.000	J	29.000	J	13.000	J
75-34-3	1,1-DICHLOROETHANE	570.000													
540-59-0	1-2,DICHLOROETHENE(TOTAL)	1600.000													
79-01-6	TRICHLOROETHENE	720.000													

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SD01A		SD01B		SD02A		SD02B		SD03A		SD03B		SD04A	
	SMO or Sample ID =>	EY496		EY497		EY499		EY498		ECF26		EY500		ECF28	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		06/28/88		06/28/88		06/30/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
74-83-9	BROMOMETHANE (METHYL BROMIDE)							7.000	J						
75-00-3	CHLOROETHANE													13.000	J
75-09-2	METHYLENE CHLORIDE (DICHLOROME	8.000		4.000	J	3.000	J	8.000	J	7.000		9.000		16.000	J
67-64-1	ACETONE			110.000	J			110.000						11.000	J
67-66-3	CHLOROFORM									9.000					
591-78-6	2-HEXANONE					0.900	J								
108-10-1	4-METHYL-2-PENTANONE					0.200	J								

	Location Alias =>	RAS		RAS		RAS									
	Location ID =>	SD04B		SD05B		SD12									
	SMO or Sample ID =>	ECF27		ECF29		ECF49									
	Date Collected =>	06/30/88		06/30/88		07/05/88									
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
319-85-7	BETA-BHC	38.000		16.000											
60-57-1	DIELDRIN	5.600	J												
11096-82-5	PCB-1260					2300.000									

	Location Alias =>	LEACH		RAS											
	Location ID =>	SD12		SD12											
	SMO or Sample ID =>	MEBE13		MEY674											
	Date Collected =>	05/07/88		07/05/88											
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1140.000	P	6920.000	P										
7440-38-2	ARSENIC (TOTAL)	8.200	BJF	8.700	F										
7440-39-3	BARIUM	58.000	BP	251.000	P										
7440-41-7	BERYLLIUM (TOTAL)			0.560	BP										
7440-43-9	CADMIUM (TOTAL)			2.900	P										
7440-70-2	CALCIUM	12600.000	*JP	53900.000	*P										
7440-47-3	CHROMIUM (ELEMENTAL)			10.300	*JP										
7440-48-4	COBALT			9.500	BP										
7440-50-8	COPPER (TOTAL)			67.000	P										
7439-89-6	IRON	94.000	BP	24300.000	P										
7439-92-1	LEAD (TOTAL)	19.000	NJF	86.800	NJF										
7439-95-4	MAGNESIUM	1240.000	B*JP	16500.000	P										
7439-96-5	MANGANESE	8.000	BE*JP	773.000	P										
7440-02-0	NICKEL (TOTAL)			58.600	P										
7440-09-7	POTASSIUM	1550.000	B*JP	728.000	BP										
7782-49-2	SELENIUM (TOTAL)			3.000	SF										
7440-23-5	SODIUM	473000.000	P	17100.000	P										
7440-62-2	VANADIUM			15.400	BP										
7440-66-6	ZINC (TOTAL)	20.000	NJP	326.000	P										
74-90-8	CYANIDE (TOTAL)	0.000	NR												

	Location Alias =>	RAS		RAS		LEACH		RAS		LEACH		RAS		RAS	
	Location ID =>	SD08		SD09		SD10		SD10		SD11		SD11A		SD11B	
	SMO or Sample ID =>	MEY672		MEY673		MEBE11		MEY669		MEBE12		MEY671		MEY670	
	Date Collected =>	07/05/88		07/05/88		07/05/88		07/05/88		07/05/88		07/05/88		07/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	10100.000	P	9950.000	P	295.000	P	6270.000	P	75.000	BP	1200.000	P	1020.000	P
7440-38-2	ARSENIC (TOTAL)	7.100	SF	8.000	SF	15.400	F	2.700	BWJF			14.000	F	5.400	F
7440-39-3	BARIUM	163.000	P	233.000	P	177.000	BP	118.000	P	118.000	BP	30.200	BP	17.200	BP
7440-41-7	BERYLLIUM (TOTAL)	1.100	BP	1.200	BP			0.630	BP			0.420	BP	0.440	BP
7440-70-2	CALCIUM	4940.000	*P	6770.000	*P	4520.000	B*JP	1820.000	*P	20600.000	*JP	26300.000	*P	28000.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)	8.800	*JP	130.000	*JP			5.000	*JP			3.200	*JP	5.600	*JP
7440-48-4	COBALT	7.700	BP	9.100	BP			2.800	BP					3.000	BP
7440-50-8	COPPER (TOTAL)	26.600	P	36.000	P			15.100	P			1.800	BP	4.800	BP
7439-89-6	IRON	10400.000	P	12600.000	P	1000.000	P	3910.000	P	644.000	P	11100.000	P	6010.000	P
7439-92-1	LEAD (TOTAL)	75.000	NJF	243.000	NSJF	10.100	NJF	12.100	NSJF	1.900	BWNJF	3.600	NJF	1.500	NJF
7439-95-4	MAGNESIUM	1110.000	BP	1830.000	BP	1200.000	B*JP	815.000	BP	2310.000	B*JP	6500.000	P	6890.000	P
7439-96-5	MANGANESE	302.000	P	245.000	P	92.000	E*JP	51.900	P	27.000	E*JP	528.000	P	119.000	P
7440-02-0	NICKEL (TOTAL)	16.000	BP	21.900	BP			6.100	BP			4.800	BP	6.100	BP
7440-09-7	POTASSIUM	954.000	BP	860.000	BP	2690.000	B*JP	668.000	BP			107.000	BP	211.000	BP
7782-49-2	SELENIUM (TOTAL)	6.800	SF	9.800	SF							1.700	SF	0.760	BWJF
7440-22-4	SILVER (TOTAL)			7.100	P									2.500	P
7440-23-5	SODIUM	270.000	BP	305.000	BP	6310.000	P	136.000	BP	3370.000	BP	83.400	BP	151.000	BP
7440-62-2	VANADIUM	18.500	BP	27.600	BP			8.800	BP			7.200	BP	6.700	BP
7440-66-6	ZINC (TOTAL)	131.000	P	204.000	P	137.000	NJP	44.300	P	31.000	NJP	21.900	P	16.400	P
74-90-8	CYANIDE (TOTAL)					0.000	NR								

Camp Dresser & McKee Inc.
REMTECH Test Results Report for: MET

Date: 03/27/88

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS		RAS		LEACH	
	Location ID =>	SD05B		SD05BDUP		SD05DUP		SD06		SD06A		SD06B		SD08	
	SMO or Sample ID =>	MEY655		MEY658		MEY657		MEBE09		MEY660		MEY659		MEBE10	
	Date Collected =>	06/30/88		06/30/88		06/30/88		07/05/88		06/30/88		06/30/88		07/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1290.000	*JP	1160.000	*JP	1320.000	*JP	84.000	BP	1390.000	*JP	892.000	*JP	253.000	P
7440-38-2	ARSENIC (TOTAL)	5.600	*JF	16.400	S*JF	7.200	*JF			3.800	*JF	6.200	S*JF	2.400	BF
7440-39-3	BARIUM	38.000	BP	17.000	BP	46.200	BP	71.000	BP	9.300	BP	15.300	BP	225.000	P
7440-70-2	CALCIUM	2970.000	*JP	4930.000	*JP	3380.000	*JP	10200.000	*JP	38900.000	*JP	8450.000	*JP	5220.000	*JP
7440-47-3	CHROMIUM (ELEMENTAL)	4.100	*JP	3.800	*JP					5.300	*JP	7.000	*JP		
7440-50-8	COPPER (TOTAL)			4.200	BP					5.800	BP	2.200	BP		
7439-89-6	IRON	9780.000	*P	9750.000	*P	11500.000	*P	108.000	P	9670.000	*P	4780.000	*P	189.000	P
7439-92-1	LEAD (TOTAL)	1.600	JF	3.300	SJF	2.600	JF	5.900	F	2.600	JF	4.700	SJF	12.000	SNJF
7439-95-4	MAGNESIUM	1230.000	BP	2710.000	P	1180.000	BP	1950.000	BP	13200.000	P	2920.000	P	1220.000	B*JP
7439-96-5	MANGANESE	640.000	*P	229.000	*P	717.000	*P	2.000	BP	83.000	*P	56.600	*P	101.000	E*JP
7440-09-7	POTASSIUM									132.000	BP			2180.000	B*JP
7440-23-5	SODIUM							1820.000	BP	31.600	BP			5030.000	P
7440-62-2	VANADIUM	7.000	BP	7.300	BP	7.900	BP			9.100	BP	7.300	BP		
7440-66-6	ZINC (TOTAL)	143.000	NEJP	104.000	NEJP	123.000	NEJP	14.000	BP	226.000	NEJP	294.000	NEJP	189.000	NJP
74-90-8	CYANIDE (TOTAL)							0.000	NR					0.000	NR

	Location Alias =>	RAS		RAS		LEACH		RAS		RAS		LEACH		RAS	
	Location ID =>	SD03A		SD03B		SD04		SD04		SD04A		SD05		SD05A	
	SMO or Sample ID =>	MEY100		MEY099		MEBE07		MEY653		MEY654		MEBE08		MEY656	
	Date Collected =>	06/30/88		06/30/88		07/05/88		06/30/88		06/30/88		07/05/88		06/30/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1070.000	*JP	1100.000	*JP			4520.000	*JP	1920.000	*JP	61.000	BP	1180.000	*JP
7440-36-0	ANTIMONY (TOTAL)	13.100	BP												
7440-38-2	ARSENIC (TOTAL)	2.200	BW*JF	2.600	BW*JF			20.100	*JF	3.600	S*JF			14.500	S*JF
7440-39-3	BARIUM	13.700	BP	7.500	BP	81.000	BP	93.700	P	9.900	BP	102.000	BP	16.500	BP
7440-70-2	CALCIUM	4450.000	*JP	2650.000	*JP	17200.000	*JP	11000.000	*JP	17700.000	*JP	10600.000	*JP	4940.000	*JP
7440-47-3	CHROMIUM (ELEMENTAL)	3.300	*JP	4.500	*JP			121.000	*JP	22.700	*JP			3.400	*JP
7440-48-4	COBALT													3.200	BP
7440-50-8	COPPER (TOTAL)							124.000	P	13.300	P				
7439-89-6	IRON	11300.000	*P	5860.000	*P	63.000	BP	35600.000	*P	7910.000	*P	200.000	P	13100.000	*P
7439-92-1	LEAD (TOTAL)	1.100	BJF	0.850	BJF	3.800	BF	96.000	+JF	15.800	JF			2.200	JF
7439-95-4	MAGNESIUM	2230.000	P	1180.000	BP	2900.000	BP	3100.000	P	4940.000	P	2810.000	BP	2670.000	P
7439-96-5	MANGANESE	179.000	*P	75.000	*P			271.000	*P	64.900	*P	3.000	BP	303.000	*P
7439-97-6	MERCURY (TOTAL)							0.480	CV						
7440-02-0	NICKEL (TOTAL)							16.700	BP						
7440-09-7	POTASSIUM							217.000	BP						
7440-23-5	SODIUM	50.300	BP	51.700	BP	2040.000	BP	64.900	BP	46.400	BP	2580.000	BP		
7440-62-2	VANADIUM	8.600	BP	4.000	BP			21.200	BP	9.500	BP			8.000	BP
7440-66-6	ZINC (TOTAL)	96.100	NEJP	66.800	NEJP	15.000	BP	988.000	NEJP	155.000	NEJP			98.000	NEJP
74-90-8	CYANIDE (TOTAL)					0.000	NR					0.000	NR		

Camp Dresser & McKee Inc.
REMTECH Test Results Report for: MET

Date: 03/27/88

	Location Alias =>	LEACH		RAS		RAS		LEACH		RAS		RAS		LEACH	
	Location ID =>	SD01		SD01A		SD01B		SD02		SD02A		SD02B		SD03	
	SMO or Sample ID =>	MEBE04		MEY095		MEY096		MEBE05		MEY098		MEY097		MEBE06	
	Date Collected =>	07/05/88		06/30/88		06/30/88		07/05/88		06/30/88		06/30/88		07/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	99.000	BP	1200.000	*JP	3160.000	*JP			1200.000	*JP	1570.000	*JP		
7440-36-0	ANTIMONY (TOTAL)					22.500	BP					10.800	P		
7440-38-2	ARSENIC (TOTAL)	13.000	F	38.000	*JF	10.700	*JF	9.000	BF			6.200	*JF		
7440-39-3	BARIUM	49.000	BP	74.600	P	118.000	P	150.000	BP	10.200	BP	80.200	P	62.000	BP
7440-70-2	CALCIUM	12500.000	*JP	333000.000	*JP	57600.000	*JP	38300.000	*JP	27700.000	*JP	23300.000	*JP	8530.000	*JP
7440-47-3	CHROMIUM (ELEMENTAL)			5.900	*JP	105.000	*JP			7.000	*JP	35.200	*JP		
7440-48-4	COBALT			9.600	BP	8.700	BP			6.400	BP				
7440-50-8	COPPER (TOTAL)					150.000	P			4.200	BP	47.700	P		
7439-89-6	IRON	129.000	P	20600.000	*P	22300.000	*P	1390.000	P	4520.000	*P	14300.000	*P	237.000	P
7439-92-1	LEAD (TOTAL)	9.900	SF	2.200	+JF	61.500	JF	4.700	BF	3.000	JF	19.000	JF		
7439-95-4	MAGNESIUM	2430.000	BP	7040.000	P	10800.000	P	6630.000	P	7370.000	P	4200.000	P	1810.000	BP
7439-96-5	MANGANESE	52.000	P	2050.000	*P	305.000	*P	111.000	P	139.000	*P	148.000	*P	11.000	BP
7440-02-0	NICKEL (TOTAL)					30.100	P					14.500	P		
7440-09-7	POTASSIUM			144.000	BP			2230.000	BP	223.000	BP	218.000	BP		
7440-22-4	SILVER (TOTAL)					3.900	BP								
7440-23-5	SODIUM	1320.000	BP	86.600	BP	127.000	BP	3140.000	BP	42.100	BP	89.700	BP	1960.000	BP
7440-62-2	VANADIUM			9.400	BP	16.800	BP			6.300	BP	7.600	BP		
7440-66-6	ZINC (TOTAL)	10.000	BP	93.400	NEJP	737.000	NEJP	36.000	P	118.000	NEJP	339.000	NEJP		
74-90-8	CYANIDE (TOTAL)	0.000	NR					0.000	NR					0.000	NR

Camp Dresser & McKee Inc.
REMTECH Test Results Report for: BNA

Date: 03/27/88

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		
	Location ID =>	SD04B		SD06B		SD09		SD10		SD11B		SD12		
	SMO or Sample ID =>	ECF27		ECF33		ECF48		ECF44		ECF45		ECF49		
	Date Collected =>	06/30/88		06/30/88		07/05/88		07/05/88		07/05/88		07/05/88		
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading Qual
108-95-2	PHENOL							270.000	J					
106-44-5	4-METHYLPHENOL							2200.000						
78-59-1	ISOPHORONE											110.000	J	
91-57-6	2-METHYLNAPHTHALENE											120.000	J	
85-01-8	PHENANTHRENE	260.000	J									1000.000		
84-74-2	DI-N-BUTYL PHTHALATE	93.000	J							57.000	J			
206-44-0	FLUORANTHENE	400.000	J									660.000		
129-00-0	PYRENE	260.000	J									290.000	J	
56-55-3	BENZO(A)ANTHRACENE	180.000	J									64.000	J	
218-01-9	CHRYSENE	240.000	J									550.000		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			210.000	J	200.000	J					2800.000		
205-99-2	BENZO(B)FLUORANTHENE											750.000	X	
207-08-9	BENZO(K)FLUORANTHENE	500.000	J									750.000	X	
50-32-8	BENZO(A)PYRENE	220.000	J									240.000	J	
193-39-5	INDENO(1,2,3-CD)PYRENE	210.000	J									83.000	J	
191-24-2	BENZO(G,H,I)PERYLENE	310.000	J									74.000	J	

Camp Dresser & McKee Inc.
REMTECH Test Results Report for: BNA

Date: 03/27/88

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SD01A		SD01B		SD02A		SD02B		SD03A		SD03B		SD04A	
	SMO or Sample ID =>	EY496		EY497		EY499		EY498		ECF26		EY500		ECF28	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		06/28/88		06/28/88		06/30/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			170.000	J			230.000	J						
95-48-7	2-METHYLPHENOL							1100.000							
106-44-5	4-METHYLPHENOL					71.000	J								
65-85-0	BENZOIC ACID			81.000	J	180.000	J	320.000	J			220.000	J		
91-20-3	NAPHTHALENE							260.000	J						
91-57-6	2-METHYLNAPHTHALENE							57.000	J						
208-96-8	ACENAPHTHYLENE							72.000	J						
83-32-9	ACENAPHTHENE							170.000	J						
86-73-7	FLUORENE							220.000	J						
85-01-8	PHENANTHRENE					130.000	J							120.000	J
120-12-7	ANTHRACENE			630.000				1700.000							
84-74-2	DI-N-BUTYL PHTHALATE			98.000	J							47.000	J	76.000	J
206-44-0	FLUORANTHENE			1000.000		170.000	J	2200.000						190.000	J
129-00-0	PYRENE			830.000		120.000	J							170.000	J
85-68-7	BUTYLBENZYLPHTHALATE					44.000	J			41.000	J				
56-55-3	BENZO(A)ANTHRACENE			410.000	J	91.000	J	800.000				47.000	J	96.000	J
218-01-9	CHRYSENE					96.000	J							100.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	530.000		1100.000		890.000		1800.000		760.000		520.000			
205-99-2	BENZO(B)FLUORANTHENE			76.000	J	70.000	J	160.000	J			61.000	J	130.000	J
207-08-9	BENZO(K)FLUORANTHENE							150.000	J			52.000	J	91.000	JZ
50-32-8	BENZO(A)PYRENE	49.000	J	130.000	J	69.000	J	230.000	J			61.000	J	96.000	J
193-39-5	INDENO(1,2,3-CD)PYRENE											80.000	J		
53-70-3	DIBENZO(A,H)ANTHRACENE							94.000	J			78.000	J		
191-24-2	BENZO(G,H,I)PERYLENE					56.000	J					91.000	J		

Camp Dresser & McKee Inc.
User's Selection Criteria
For Result Table

Run Date: 03/27/88
Run Time: 10:10:27

LOCATION: SD

QUALIFIER: NOT U

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		
	Location ID =>	SW06		SW07		SW07R		SW10		SW11		SW12		
	SMO or Sample ID =>	MEY663		MEY664		MEY668		MEY665		MEY666		MEY667		
	Date Collected =>	06/30/88		07/05/88		07/05/88		07/05/88		07/05/88		07/05/88		
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading Qual
7429-90-5	ALUMINUM	69.700	BP	72.600	BP			643.000	P	203.000	P	[redacted]	P	
7440-36-0	ANTIMONY (TOTAL)			53.900	BP									
7440-38-2	ARSENIC (TOTAL)											2.800	BF	
7440-39-3	BARIUM	56.200	BP	10.000	BP			90.900	BP	76.300	BP	[redacted]	P	
7440-41-7	BERYLLIUM (TOTAL)											4.000	BP	
7440-70-2	CALCIUM	76800.000	EJP	286000.000	P			12800.000	P	93000.000	P	[redacted]	P	
7440-47-3	CHROMIUM (ELEMENTAL)			9.600	BP			10.900	P	15.000	P	47.500	P	
7440-48-4	COBALT			140.000	P							9.600	BP	
7440-50-8	COPPER (TOTAL)											230.000	P	
7439-89-6	IRON	919.000	P	303.000	JP	192.000	P	724.000	JP	1420.000	P	[redacted]	P	
7439-92-1	LEAD (TOTAL)			19.600	SF	1.200	BF	2.600	BF	1.200	BF			
7439-95-4	MAGNESIUM	24500.000	EJP	184.000	BP			3800.000	BP	28800.000	P	[redacted]	P	
7439-96-5	MANGANESE	101.000	P	12.900	BP			47.100	P	163.000	P	[redacted]	P	
7439-97-6	MERCURY (TOTAL)											0.300	NJCV	
7440-02-0	NICKEL (TOTAL)			33.200	BP							184.000	P	
7440-09-7	POTASSIUM	2370.000	BP	4040.000	BP			3630.000	BP	1690.000	BP	[redacted]	P	
7440-23-5	SODIUM	34900.000	EJP	1310000.00	P			1770.000	BP	7430.000	P	[redacted]	P	
7440-62-2	VANADIUM											22.900	BP	
7440-66-6	ZINC (TOTAL)	24.500	P	1460.000	P			12.900	BP			721.000	P	
74-90-8	CYANIDE (TOTAL)	10.500	JAS											

Camp Dresser & McKee Inc.

REMTECH Test Results Report for: MET

Date: 03/27/88

	Location Alias =>	RAS	RAS	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SW01	SW02	SW03	SW04	SW04R	SW05	SW05DUP
	SMO or Sample ID =>	MEX999	MEY091	MEY092	MEY093	MEY094	MEY661	MEY662
	Date Collected =>	06/30/88	06/30/88	06/30/88	06/30/88	06/30/88	06/30/88	06/30/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7429-90-5	ALUMINUM	91.700 BP	149.000 BP	97.800 BP	121.000 BP	81.300 BP	37.300 BP	65.800 BP
7440-39-3	BARIUM	68.300 BP	71.600 BP	44.800 BP	63.500 BP		38.000 BP	38.800 BP
7440-70-2	CALCIUM	85000.000 EJP	98300.000 P	70400.000 P	93800.000 P		54200.000 P	56000.000 P
7439-89-6	IRON	1020.000 P	1570.000 P	432.000 P	1180.000 P	40.000 BP	372.000 P	400.000 P
7439-95-4	MAGNESIUM	27400.000 EJP	30300.000 P	22300.000 P	29500.000 P		17800.000 P	18400.000 P
7439-96-5	MANGANESE	140.000 P	146.000 P	55.800 P	123.000 P	4.900 BP	57.500 P	59.500 P
7440-09-7	POTASSIUM	4640.000 BP	3630.000 BP	1150.000 BP	3370.000 BP		1060.000 BP	1100.000 BP
7440-23-5	SODIUM	26700.000 EJP	22400.000 P	5860.000 P	21600.000 P		6480.000 P	6750.000 P
7440-66-6	ZINC (TOTAL)	33.800 P	26.000 P	15.800 BP	22.300 P			155.000 P
74-90-8	CYANIDE (TOTAL)	17.400 JAS	13.500 AS					

Camp Dresser & McKee Inc.

REMTECH Test Results Report for: VOA

Date: 03/27/88

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SW04		SW04R		SW06		SW07		SW07R		SW10		SW12	
	SMO or Sample ID =>	EY368		EY369		EY372		ECF39		ECF43		ECF40		ECF42DL	
	Date Collected =>	06/30/88		06/30/88		06/30/88		07/05/88		07/05/88		07/05/88		07/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME									2.000	J	11.000		14.000	DJ
67-64-1	ACETONE							52.000	J						
75-34-3	1,1-DICHLOROETHANE	3.000	J			1.000	J								
540-59-0	1-2,DICHLOROETHENE(TOTAL)	8.000				3.000	J								
67-66-3	CHLOROFORM			3.000	J									440.000	D
56-23-5	CARBON TETRACHLORIDE													130.000	D
79-01-6	TRICHLOROETHENE													7.000	DJ

Camp Dresser & McKee Inc.
User's Selection Criteria
for Result Table

Run Date: 03/22/88
Run Time: 15:56:36

LOCATION: GW

QUALIFIER: NCT U

Camp Dresser & McKee Inc.

REMTECH Test Results Report for: ANI

Date: 03/22/88

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW01		GW01		GW02		GW02		GW03		GW03		GW030	
	SMO or Sample ID =>	4010E-17		4010E-68		4010E-18		4010E-69		4010E-19		4010E-70		4010E-71	
	Date Collected =>	08/22/88		08/24/88		08/22/88		08/24/88		08/22/88		08/24/88		08/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	10.900				5.300				1.600					
SLP	SULPHATE	90.000				89.000				39.000					
AMM	AMMONIA	0.160													
TDS	TOTAL DISOLVED SOLIDS			360.000	J			324.000	J			199.000	J	189.000	J
TSS	TOTAL SUSPENDED SOLIDS			125.000	J			62.000	J			77.000	J	65.000	J

TABLE 2 (Continued)
HYDRAULIC CONDUCTIVITY

WELL #	DEPTH OF SCREEN INTERVAL (ft)	FALLING HEAD TEST (ft/day)	RISING HEAD TEST (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (cm/sec)
MW-21	111.5-121.5	13.69	10.05	11.87	4.19×10^{-3}
MW-22	63.0-73.0	22.99	26.81	24.90	8.79×10^{-3}
MW-23	27.0-37.0	54.64	56.46[1]	55.55	1.96×10^{-2}
MW-24	28.3-33.3	127.86	164.76	146.31	5.16×10^{-2}
MW-25	23.0-28.0	98.20	127.86	113.03	3.99×10^{-2}
MW-26	31.0-36.0	-	134.89	134.89	4.76×10^{-2}
MW-27	33.0-38.0	183.21	217.56	200.38	7.07×10^{-2}
MW-28	29.0-34.0	-	100.20	100.20	3.54×10^{-2}
MW-29	76.0-86.0	2.36	-	2.36	8.33×10^{-4}
MW-30	61.0-71.0	5.23	4.02	4.62	1.63×10^{-3}
MW-31	98.0-88.0	9.36	7.32	8.34	2.94×10^{-3}
MW-32	38.0-48.0	-	-	-	-
MW-33	23.0-33.0	196.85*	-	-	-
MW-34	61.7-71.7	118.76	186.62	152.69	5.39×10^{-2}
MW-35	40.0-50.0	-	-	-	-
MW-36	18.0-28.0	134.30	154.52	144.41	5.10×10^{-2}
MW-37	64.7-74.7	5.15	5.47	5.31	1.87×10^{-3}
MW-38	45.5-55.5	143.70	-	143.70	5.07×10^{-2}
MW-39	25.0-35.0	-	-	-	-
MW-42	70.0-80.0	23.52	23.33	21.25	7.50×10^{-3}

TABLE 2 (Continued)
HYDRAULIC CONDUCTIVITY

WELL #	DEPTH OF SCREEN INTERVAL (ft)	FALLING HEAD TEST (ft/day)	RISING HEAD TEST (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (cm/sec)
MW-43	43.0-53.0	149.70*	98.42*	-	-
MW-44	25.0-35.0	83.06*	102.64[2]	102.64	3.62×10^{-2}
MW-45	62.0-72.0	1.52	1.59	1.56	5.51×10^{-4}
MW-46	43.0-53.0	-	-	-	-
MW-47	23.0-33.0	69.47	87.62	78.52	2.77×10^{-2}
MW-48	76.0-86.0	0.65	0.69	0.67	2.36×10^{-4}
MW-49	43.0-53.0	-	-	-	-
MW-50	17.8-27.8	80.73	85.03	82.88	2.92×10^{-2}
MW-51	22.0-32.0	145.20	143.70	144.45	2.09×10^{-4}
MW-53	42.0-52.0	-	-	-	-
MW-54	22.6-32.6	105.70	113.10	109.40	1.20×10^{-4}
MW-55	22.6-32.6	-	-	-	-
MW-56	60.0-70.0	65.60	44.80	55.20	1.95×10^{-2}
MW-57	47.0-57.0	-	-	-	-
MW-58	22.0-32.0	-	-	-	-
MW-59	69.2-79.2	11.17	10.45	10.81	3.82×10^{-3}
MW-60	48.0-58.0	194.20*	186.60*	-	-
MW-61	21.5-31.5	171.10*	165.20*	-	-
MW-62	64.0-74.0	5.01	4.97	4.99	1.76×10^{-3}
MW-63	48.0-58.0	-	-	-	-

TABLE 2 (Continued)
HYDRAULIC CONDUCTIVITY

WELL #	DEPTH OF SCREEN INTERVAL (ft)	FALLING HEAD TEST (ft/day)	RISING HEAD TEST (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)	AVERAGE HYDRAULIC CONDUCTIVITY (cm/sec)
MW-64	23.0-33.0	196.80*	186.60*	-	-
MW-65	60.0-70.0	3.56	3.65	3.60	1.27×10^{-3}
MW-66	39.7-49.7	334.20*	146.60*	-	-
MW-67	22.0-32.0	131.80	-	131.81	4.65×10^{-2}
MW-68	46.0-56.0	14.90	14.90	14.90	5.26×10^{-3}
MW-69	13.0-23.0	14.80	14.50	14.65	5.17×10^{-3}
MW-70	18.0-28.0	368.50*	217.70*	-	-
MW-71	23.0-33.0	69.40	80.30	74.85	5.60×10^{-3}

Average Hydraulic Conductivity = 63.29 ft/day (2.23×10^{-2} cm/sec).

[1]Average of two tests.

[2]Actual value, not averaged with estimated value.

*Estimated value. Values not included in average hydraulic conductivity.

- No test or results obtainable.

TECHNICAL MEMORANDUM
PHASE I AND II REMEDIAL INVESTIGATION
SUBSURFACE SOIL BORING SAMPLING ACTIVITIES

CONDUCTED

JULY - SEPTEMBER 1987
AND
MAY - JULY 1988

FOR

FISHER-CALO CHEMICAL
KINGSBURY, INDIANA

APRIL, 1989

Prepared for:

U.S. Environmental Protection Agency
Emergency and Remedial Response Branch
Region V
230 South Dearborn Street
Chicago, Illinois 60604

Document No.: 209-RI2-RT-GSZD-1

Work Assignment No.: 108.5L13

20910/19

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW03D		GW04		GW04		GW05		GW05		GW06	
	SMO or Sample ID =>	4010E-20		4010E-24		4010E-75		4010E-25		4010E-76		4010E-26	
	Date Collected =>	08/24/88		03/24/88		08/24/88		08/24/88		08/24/88		08/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	1.000		7.300				3.100				7.600	
SLP	SULPHATE	38.000		82.000				67.000				44.000	
ANM	AMMONIA			0.190								1.500	
TDS	TOTAL DISOLVED SOLIDS					303.000	J			222.000	J		
TSS	TOTAL SUSPENDED SOLIDS					58.000	J			14.500			

	Location Alias =>	RAS	
	Location ID =>	GW06	
	SMO or Sample ID =>	4010E-77	
	Date Collected =>	08/24/88	
CAS	Chemical Name	Reading	Qual
CHL	CHLORIDE		
SLP	SULPHATE		
ANM	AMMONIA		
TDS	TOTAL DISOLVED SOLIDS	198.000	J
TSS	TOTAL SUSPENDED SOLIDS	48.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW07		GW07		GW08		GW08		GW09		GW09		GW10	
	SMO or Sample ID =>	4010E-05		4010E-56		4010E-06		4010E-57		4010E-04		4010E-55A		4010E-020	
	Date Collected =>	08/22/88		08/24/88		08/22/88		08/24/88		08/18/88		08/18/88		08/10/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	7.300				7.100				9.900					
SLP	SULPHATE	82.000				47.000				69.000					
AMM	AMMONIA	0.130													
TDS	TOTAL DISOLVED SOLIDS			347.000	J			289.000	J			262.000		534.000	
TSS	TOTAL SUSPENDED SOLIDS			418.000	J			11.500	J			22.400	J	31.500	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW10		GW10		GW11		GW11		GW12		GW12		GW13	
	SMO or Sample ID =>	4010E-0200		3975E-319		3975E-320		4010E-21A		4010E-09		4010E-60		3975E-339	
	Date Collected =>	08/10/88		08/12/88		08/12/88		08/24/88		08/22/88		08/24/88		08/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE			50.000		17.810				24.200				6.200	
SLP	SULPHATE			200.000		92.000				71.000				8.000	
AMM	AMMONIA			5.300		2.000				4.200				0.190	
TDS	TOTAL DISOLVED SOLIDS	502.000						351.000				455.000	J		
TSS	TOTAL SUSPENDED SOLIDS	29.500						71.000				39.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW13		GW14		GW14		GW15		GW15		GW16	
	SMO or Sample ID =>	4010E-40A		4010E-10		4010E-61		4010E-00		4010E-51A		4010E-01		4010E-52A	
	Date Collected =>	08/18/88		08/22/88		08/24/88		08/18/88		08/18/88		08/18/88		08/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE			32.000				6.300				9.200			
SLP	SULPHATE			95.000				77.000				105.000			
AMM	AMMONIA							0.150				0.100			
TDS	TOTAL DISOLVED SOLIDS	234.000				296.000	J			446.000				298.000	
TSS	TOTAL SUSPENDED SOLIDS	67.500				16.500	J			704.000	J			90.500	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW17		GW17		GW18		GW18		GW19		GW19		GW20	
	SMO or Sample ID =>	4010E-02		4010E-53A		4010E-27		4010E-78		3975E-347		4010E-48A		3975E-348	
	Date Collected =>	08/18/88		08/18/88		08/24/88		08/24/88		08/18/88		08/18/88		08/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	8.300				8.500				5.500				10.300	
SLP	SULPHATE	81.000				82.000				78.000				33.000	
AMM	AMMONIA					0.130				0.018	B			0.041	B
TDS	TOTAL DISOLVED SOLIDS			292.000				272.000	J			294.000			
TSS	TOTAL SUSPENDED SOLIDS			187.000	J			158.000				21.200	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS
	Location ID =>	GW20		GW21		GW21		GW22		GW22		GW23		GW23
	SMO or Sample ID =>	4010E-49A		4010E-017		3975E-316		4010E-019		3975E-318		4010E-018		3975E-317
	Date Collected =>	08/18/88		08/10/88		08/12/88		08/10/88		08/12/88		08/10/88		08/12/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE					12.700				950.000				35.000	
SLP	SULPHATE					78.000				110.000				60.000	
AMM	AMMONIA					0.170				0.440				0.200	
TDS	TOTAL DISOLVED SOLIDS	254.000		282.000				2700.000	J			358.000			
TSS	TOTAL SUSPENDED SOLIDS	49.500	J	957.000				110.000				46.500			

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS
	Location ID =>	GW24		GW24		GW24D		GW24D		GW25		GW25		GW26
	SMO or Sample ID =>	4010E-07		4010E-58		4010E-08		4010E-59		4010E-03		4010E-54A		3975E-312
	Date Collected =>	08/22/88		08/24/88		08/22/88		08/24/88		08/18/88		08/18/88		08/10/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	5.900				6.300				6.700				7.300	
SLP	SULPHATE	67.000				62.000				22.000				78.000	
AMM	AMMONIA													0.017	B
TDS	TOTAL DISOLVED SOLIDS			324.000	J			337.000	J			252.000			
TSS	TOTAL SUSPENDED SOLIDS			76.000	J			32.000	J			278.000	J		

	Location Alias =>	RAS	RAS	RAS	RAS	RAS	RAS	RAS
	Location ID =>	GW26	GW27	GW27	GW27R	GW28	GW28	GW29
	SMO or Sample ID =>	4010E-013	3975E-314	4010E-015	4010E-016	4010E-16	4010E-67	4010E-28
	Date Collected =>	08/10/88	08/10/88	08/10/88	08/10/88	08/22/88	08/24/88	08/24/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
CHL	CHLORIDE		23.000			6.900		37.100
SLP	SULPHATE		73.000			67.000		96.000
AMM	AMMONIA		2.600					0.120
TDS	TOTAL DISOLVED SOLIDS	1260.000		409.000			244.000 J	
TSS	TOTAL SUSPENDED SOLIDS	22.500		35.000	3.500		7.000 J	

	Location Alias =>	RAS	RAS	RAS	RAS	RAS	RAS	RAS
	Location ID =>	GW29	GW30	GW30	GW31	GW31	GW32	GW32
	SMO or Sample ID =>	4010E-79	4010E-30	4010E-81	3975E-303	4010E-003	3975E-302	4010E-004
	Date Collected =>	08/24/88	08/24/88	08/24/88	08/10/88	08/10/88	08/10/88	08/10/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
CHL	CHLORIDE		4.300		34.000		55.000	
SLP	SULPHATE		40.500		41.000		81.000	
AMM	AMMONIA		0.160		0.077 B		0.011 B	
TDS	TOTAL DISOLVED SOLIDS	352.000 J		210.000 J		374.000		459.000
TSS	TOTAL SUSPENDED SOLIDS	520.000		1490.000		22.500		16.500

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW33		GW33		GW34		GW34		GW35		GW35		GW36	
	SMO or Sample ID =>	3975E-326		4010E-27A		3975E-304		4010E-005		3975E-305		4010E-006		3975E-306	
	Date Collected =>	08/12/88		08/24/88		08/10/88		08/10/88		08/10/88		08/10/88		08/10/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	8.200				6.700				25.000				10.700	
SLP	SULPHATE	45.000				42.000				88.000				53.000	
AMM	AMMONIA	0.015	B			0.140				0.031	B				
TDS	TOTAL DISOLVED SOLIDS			270.000				317.000				385.000			
TSS	TOTAL SUSPENDED SOLIDS			20.500				23.000				7.500			

	Location Alias =>	RAS	RAS	RAS	RAS	RAS	RAS	RAS
	Location ID =>	GW36	GW37	GW37	GW37D	GW37D	GW38	GW38
	SMO or Sample ID =>	4010E-007	3975E-309	4010E-009	3975E-310	4010E-010	3975E-311	4010E-011
	Date Collected =>	08/10/88	08/10/88	08/10/88	08/10/88	08/10/88	08/10/88	08/10/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
CHL	CHLORIDE		6.700		6.600		6.800	
SLP	SULPHATE		85.000		81.000		64.000	
AMM	AMMONIA		0.130		0.120		0.023 B	
TDS	TOTAL DISOLVED SOLIDS	278.000		328.000		323.000		303.000
TSS	TOTAL SUSPENDED SOLIDS			8.000		14.000		4.000

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS
	Location ID =>	GW39		GW39		GW42		GW42		GW43		GW43		GW44
	SMO or Sample ID =>	3975E-307		4010E-012		4010E-21		4010E-72		4010E-22		4010E-73		4010E-23
	Date Collected =>	08/10/88		08/10/88		08/24/88		08/24/88		08/24/88		08/24/88		08/24/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	15.600				10.900				31.000				48.700	
SLP	SULPHATE	58.000				44.000				71.000				64.000	
AMM	AMMONIA					0.180									
TDS	TOTAL DISOLVED SOLIDS			161.000				374.000	J			253.000	J		
TSS	TOTAL SUSPENDED SOLIDS			6.000				120.000	J			22.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW44		GW45		GW45		GW45D		GW45DUP		GW46	
	SMO or Sample ID =>	4010E-74		3975E-322		4010E-23A		3975E-323		4010E-24A		3975E-324		4010E-26A	
	Date Collected =>	08/24/88		08/12/88		08/24/88		08/12/88		08/24/88		08/12/88		08/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE			30.000				27.000				5.700			
SLP	SULPHATE			190.000				190.000				67.000			
AMM	AMMONIA			0.170				0.170				0.018	B		
TDS	TOTAL DISOLVED SOLIDS	380.000	J			516.000				508.000				315.000	
TSS	TOTAL SUSPENDED SOLIDS	2.500	J			30.800				47.600				11.200	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW47		GW47		GW48		GW48		GW49		GW49		GW50	
	SMO or Sample ID =>	3975E-325		4010E-25A		4010E-29		4010E-80		3975E-337		4010E-38A		3975E-336	
	Date Collected =>	08/12/88		08/24/88		08/24/88		08/24/88		08/12/88		08/18/88		08/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	24.000				11.200				4.700				18.500	
SLP	SULPHATE	140.000				74.000				65.000				77.000	
AMM	AMMONIA									0.018	B				
TDS	TOTAL DISOLVED SOLIDS			481.000				289.000	J			304.000			
TSS	TOTAL SUSPENDED SOLIDS			170.000				21.000				13.200			

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW50		GW51		GW51		GW53		GW53		GW54		GW54	
	SMO or Sample ID =>	4010E-37A		4010E-14		4010E-65		3975E-321		4010E-22A		3975E-338		4010E-39A	
	Date Collected =>	08/18/88		08/22/88		08/24/88		08/12/88		08/24/88		08/12/88		08/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE			12.600				28.000				8.700			
SLP	SULPHATE			16.000				60.000				21.000			
ANM	AMMONIA							0.020	B						
TDS	TOTAL DISOLVED SOLIDS	452.000				243.000	J			321.000				352.000	
TSS	TOTAL SUSPENDED SOLIDS	564.000				19.000	J			14.000				54.500	

	Location Alias =>	RAS	RAS	RAS	RAS	RAS	RAS	RAS
	Location ID =>	GW55	GW55	GW56	GW56	GW57	GW57	GW58
	SMO or Sample ID =>	3975E-313	4010E-014	3975E-343	4010E-44A	3975E-344	4010E-45A	3975E-345
	Date Collected =>	08/10/88	08/10/88	08/18/88	08/18/88	08/18/88	08/18/88	08/18/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
CHL	CHLORIDE	9.100		7.700		7.300		8.500
SLP	SULPHATE	26.000		73.000		90.000		23.000
TDS	TOTAL DISOLVED SOLIDS		265.000		264.000		324.000	
TSS	TOTAL SUSPENDED SOLIDS		222.000		53.000 J			

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW58		GW58D		GW58DUP		GW59		GW59		GW60	
	SMO or Sample ID =>	4010E-46A		4010E-47A		3975E-346		3975E-340		4010E-41A		3975E-341		4010E-42A	
	Date Collected =>	08/18/88		08/18/88		08/18/88		08/18/88		08/18/88		08/18/88		08/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE					9.300		8.000				7.000			
SLP	SULPHATE					25.000		130.000				110.000			
ANM	AMMONIA							0.077	B						
TDS	TOTAL DISOLVED SOLIDS	218.000		232.000						464.000				440.000	
TSS	TOTAL SUSPENDED SOLIDS	27.600	J	29.600	J					10.100				4.400	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW61		GW61		GW62		GW62		GW63		GW63		GW64	
	SMO or Sample ID =>	3975E-342		4010E-43A		4010E-11		4010E-62		4010E-12		4010E-63		4010E-13	
	Date Collected =>	08/18/88		08/18/88		08/22/88		08/24/88		08/22/88		08/24/88		08/22/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	18.000				12.800				5.100				15.600	
SLP	SULPHATE	22.000				108.000				77.000				23.000	
TDS	TOTAL DISOLVED SOLIDS			264.000				380.000	J			321.000	J		
TSS	TOTAL SUSPENDED SOLIDS			23.600	J			23.000	J			8.500	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW64		GW65		GW65		GW66		GW66		GW67	
	SMO or Sample ID =>	4010E-64		3975E-329		4010E-30A		3975E-330		4010E-31A		3975E-331		4010E-32A	
	Date Collected =>	08/24/88		08/12/88		08/18/88		08/12/88		08/18/88		08/12/88		08/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE			6.800				21.000				11.100			
SLP	SULPHATE			51.000				82.000				25.000			
ANM	AMMONIA			0.380				0.053	B						
TDS	TOTAL DISOLVED SOLIDS	379.000	J			330.000				340.000				260.000	
TSS	TOTAL SUSPENDED SOLIDS	39.000	J			35.000				10.800				67.500	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW68		GW68		GW69		GW69		GW70		GW70		GW71	
	SMO or Sample ID =>	3975E-327		4010E-28A		3975E-328		4010E-29A		3975E-332		4010E-33A		3975E-333	
	Date Collected =>	08/12/88		08/18/88		08/12/88		08/18/88		08/12/88		08/18/88		08/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	6.300				7.000				9.600				8.700	
SLP	SULPHATE	43.000				20.000				27.000				25.000	
AMM	AMMONIA	0.390								0.026	B				
TDS	TOTAL DISOLVED SOLIDS			312.000				216.000				244.000			
TSS	TOTAL SUSPENDED SOLIDS			50.000				46.500				100.000			

	Location Alias =>	RAS		RAS		RAS									
	Location ID =>	GW71		GW71D		GW71D									
	SMO or Sample ID =>	4010E-34A		3975E-334		4010E-35A									
	Date Collected =>	08/18/88		08/12/88		08/18/88									
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE			22.000											
SLP	SULPHATE			11.000											
TDS	TOTAL DISOLVED SOLIDS	290.000				320.000									
TSS	TOTAL SUSPENDED SOLIDS	173.000				381.000									

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW01		GW05		GW06		GW10		GW11		GW12		GW13	
	SMO or Sample ID =>	ECL80		ECL88		ECL89		ECL32		ECL33		ECL72		ECL52	
	Date Collected =>	08/23/88		08/23/88		08/23/88		08/10/88		08/10/88		08/22/88		08/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-00-3	CHLOROETHANE					56.000	J								
75-09-2	METHYLENE CHLORIDE (DICHLOROME					310.000									
67-64-1	ACETONE											400.000	J	7.000	J
75-35-4	1,1-DICHLOROETHENE	2.000	J			10.000	J					74.000	J		
75-34-3	1,1-DICHLOROETHANE			2.000	J	1400.000		340.000		1500.000		580.000			
540-59-0	1-2,DICHLOROETHENE(TOTAL)					55.000						3400.000			
156-60-5	TRANS-1,2-DICHLOROETHENE							680.000		3700.000					
107-06-2	1,2-DICHLOROETHANE					12.000	J								
71-55-6	1,1,1-TRICHLOROETHANE			16.000		1100.000						2600.000			
56-23-5	CARBON TETRACHLORIDE			2.000	J										
79-01-6	TRICHLOROETHENE	1.000	J	5.000		53.000						190.000			
79-00-5	1,1,2-TRICHLOROETHANE					11.000	J								
71-43-2	BENZENE			7.000	J										
591-78-6	2-HEXANONE			21.000	J	27.000	J								
108-10-1	4-METHYL-2-PENTANONE			6.000	J	360.000									
127-18-4	TETRACHLOROETHENE			1.000	J							42.000	J		
79-34-5	1,1,2,2-TETRACHLOROETHANE			1.000	J										
108-88-3	TOLUENE	2.000	J												
108-90-7	CHLOROBENZENE	1.000	J												

	Location Alias =>	RAS	RAS	RAS	RAS	RAS	RAS	RAS
	Location ID =>	GW15	GW16	GW17(M.S.D)	GW18	GW22	GW23	GW26
	SMO or Sample ID =>	ECL90	ECL64	ECL65	ECL63	ECL31	ECL30	ECL25
	Date Collected =>	08/25/88	08/18/88	08/18/88	08/18/88	08/10/88	08/10/88	08/10/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					4.000 J		9.000 J
75-34-3	1,1-DICHLOROETHANE					23.000	210.000	190.000
156-60-5	TRANS-1,2-DICHLOROETHENE						140.000	5.000
107-06-2	1,2-DICHLOROETHANE							220.000
79-01-6	TRICHLOROETHENE			1.000 J				
71-43-2	BENZENE	1.000 J	5.000	10.000 J	3.000 J			

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW27		GW28		GW35		GW37		GW39		GW42		GW50	
	SMO or Sample ID =>	ECL27		ECL79		ECL18		ECL22		ECL20		ECL84		ECL49	
	Date Collected =>	08/10/88		08/23/88		08/08/88		08/10/88		08/10/88		08/23/88		08/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME							50.000	B	58.000	B				
67-64-1	ACETONE							13.000							
75-35-4	1,1-DICHLOROETHENE					48.000	J								
156-60-5	TRANS-1,2-DICHLOROETHENE					31.000	J								
71-55-6	1,1,1-TRICHLOROETHANE	2200.000				1900.000				5.000				33.000	
79-01-6	TRICHLOROETHENE	80.000	J			1000.000				1.000	J				
71-43-2	BENZENE			2.000	J							2.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS			
	Location ID =>	GW51R		GW55		GW59		GW60		GW61			
	SMO or Sample ID =>	ECL78		ECL26		ECL53		ECL54		ECL55			
	Date Collected =>	08/22/88		08/10/88		08/12/88		08/23/88		08/12/88			
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	3.000	J												
67-64-1	ACETONE					7.000	J			9.000	J				
71-55-6	1,1,1-TRICHLOROETHANE	2.000	J												
56-23-5	CARBON TETRACHLORIDE			15.000											
71-43-2	BENZENE							28.000							

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW05		GW06		GW07		GW09		GW10		GW11		GW13	
	SMO or Sample ID =>	ECL88		ECL89		ECL68		ECL67		ECL32		ECL33		ECL52	
	Date Collected =>	08/23/88		08/23/88		08/22/88		08/18/88		08/10/88		08/10/88		08/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	3.000	J	210.000						13.000		7.000	J		
88-75-5	2-NITROPHENOL			17.000											
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE							7.000	J	4.000	J			7.000	J
117-84-0	DI-N-OCTYL PHTHALATE					11.000									

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW19		GW22		GW23		GW26		GW31		GW32R		GW34	
	SMO or Sample ID =>	ECL60		ECL31		ECL30		ECL25		ECL14		ECL16		ECL17	
	Date Collected =>	08/18/88		08/10/88		08/10/88		08/10/88		08/08/88		08/08/88		08/08/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			4.000	J	10.000									
88-06-2	2,4,6-TRICHLOROPHENOL			9.000	J										
84-74-2	DI-N-BUTYL PHTHALATE											4.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	4.000	J					8.000	J	8.000	J			8.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW35		GW36		GW37(D)		GW38		GW39		GW51R		GW54	
	SMO or Sample ID =>	ECL18		ECL19		ECL22		ECL24		ECL20		ECL78		ECL51	
	Date Collected =>	08/08/88		08/08/88		08/10/88		08/10/88		08/10/88		08/22/88		08/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
84-74-2	DI-N-BUTYL PHTHALATE											8.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	9.000	J	18.000		4.000	J	15.000		7.000	J			7.000	J

	Location Alias =>	RAS		RAS											
	Location ID =>	GW61		GW67											
	SMO or Sample ID =>	ECL55		ECL39											
	Date Collected =>	08/17/88		08/15/88											
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	6.000	J	4.000	J										

	Location Alias =>	RAS		RAS		RAS		RAS		RAS		RAS	
	Location ID =>	GW02		GW03		GW03(D)		GW04		GW05		GW42	
	SMO or Sample ID =>	ECL81		ECL82		ECL83		ECL87		ECL88		ECL84	
	Date Collected =>	08/23/88		08/23/88		08/23/88		08/23/88		08/23/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
319-85-7	BETA-BHC	0.052		0.037	J	0.039	J	0.042	J	0.048	J	0.031	J		

	Location Alias =>	FILT		FILT		FILT		FILT		FILT		FILT		FILT	
	Location ID =>	GW01		GW01		GW02		GW02		GW03		GW03		GW03(D)	
	SMO or Sample ID =>	MEAS95		MEBQ09		MEAS96		MEBQ10		MEAS97		MEBQ11		MEAS98	
	Date Collected =>	08/23/88		08/23/88		08/23/88		08/23/88		08/23/88		08/23/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			1470.000	P			1060.000	P			1100.000	P		
7440-38-2	ARSENIC (TOTAL)	1.400	BF	1.900	BNJF	1.800	BWJF	2.000	JF	1.300	BF	1.300	BNJF	5.300	BWJF
7440-39-3	BARIUM	32.600	BP	39.700	BP	27.600	BP	30.800	BP	19.000	BP	21.400	BP	20.300	BP
7440-70-2	CALCIUM	76100.000	P	83000.000	P	67000.000	P	67300.000	P	43200.000	P	44100.000	P	57700.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			16.500	*P			8.200	B*P			48.600	*P		
7440-48-4	COBALT													5.400	BP
7440-50-8	COPPER (TOTAL)			19.600	BJP	5.300	BP	16.000	BJP			23.300	BJP		
7439-89-6	IRON	674.000	P	6600.000	P			1930.000	P			3200.000	P		
7439-92-1	LEAD (TOTAL)			8.500	JF			5.700	JF			4.700	BJF		
7439-95-4	MAGNESIUM	25200.000	P	28600.000	P	20900.000	P	22100.000	P	11900.000	P	12900.000	P	11600.000	P
7439-96-5	MANGANESE	164.000	P	273.000	P	136.000	P	161.000	P	171.000	P	200.000	P	130.000	P
7440-02-0	NICKEL (TOTAL)			19.600	BJP			9.100	BJP			38.000	BJP		
7440-09-7	POTASSIUM	1570.000	BP	2120.000	BP	1880.000	BP	2470.000	BP	3160.000	BP	3810.000	BP	4230.000	BP
7440-23-5	SODIUM	7530.000	P	8200.000	JP	8500.000	P	9730.000	P	2540.000	BP	3580.000	BJP	4950.000	BP
7440-66-6	ZINC (TOTAL)	11.600	BP	28.700	P	10.400	BP	23.200	JP	6.300	BP	33.100	P	3.600	BP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR			0.000	NR			0.000	NR

	Location Alias =>	FILT		FILT		FILT		FILT		RAS		FILT		RAS	
	Location ID =>	GW03D		GW04		GW04		GW05		GW05		GW06		GW06	
	SMO or Sample ID =>	MEBQ12		MEBQ02		MEBQ16		MEBQ17		MEBQ03		MEBQ18		MEBQ04	
	Date Collected =>	08/23/88		08/23/88		08/23/88		08/23/88		08/24/88		08/23/88		08/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	832.000	P			764.000	P	119.000	BP			665.000	P		
7440-36-0	ANTIMONY (TOTAL)	39.300	BNJP												
7440-38-2	ARSENIC (TOTAL)	1.600	BNJF	1.500	BWJF	1.500	BNJF					6.200	BNJF	1.600	BF
7440-39-3	BARIUM	19.000	BP	47.100	BP	53.700	BP	16.000	BP	18.400	BP	23.100	BP	18.200	BP
7440-43-9	CADMIUM (TOTAL)					6.100	P								
7440-70-2	CALCIUM	43300.000	P	57800.000	P	62500.000	P	62400.000	P	63700.000	P	54700.000	P	42600.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	16.000	*P			75.700	*P	10.400	*P						
7440-50-8	COPPER (TOTAL)	17.400	BJP			13.300	BJP	11.300	BJP			19.700	BJP		
7439-89-6	IRON	2690.000	P			2740.000	P	967.000	P			2740.000	P		
7439-92-1	LEAD (TOTAL)	3.400	BJF			6.800	JF	2.000	BJF			3.100	BJF		
7439-95-4	MAGNESIUM	12600.000	P	17600.000	P	19700.000	P	23000.000	P	22500.000	P	11600.000	P	11700.000	P
7439-96-5	MANGANESE	192.000	P	199.000	P	242.000	P	95.800	P	98.700	P	134.000	P	174.000	P
7440-02-0	NICKEL (TOTAL)	13.100	BJP			40.600	JP					14.400	BJP		
7440-09-7	POTASSIUM	3230.000	BP	1880.000	BP	2590.000	BP	1240.000	BP	952.000	BP	4270.000	BP	3070.000	BP
7440-23-5	SODIUM	3450.000	BJP	31000.000	P	35200.000	P	3650.000	BJP	2710.000	BP	6180.000	JP	2210.000	BP
7440-66-6	ZINC (TOTAL)	23.100	JP	5.000	BP	89.000	P	15.800	BJP	3.700	BP	31.500	JP	11.700	BP
74-90-8	CYANIDE (TOTAL)			0.000	NR					0.000	NR			0.000	NR

	Location Alias =>	FILT		RAS		FILT		RAS		RAS		FILT		RAS	
	Location ID =>	GW07		GW07		GW08		GW08		GW09		GW09		GW10	
	SMO or Sample ID =>	MEAS83		MEAS71		MEAS84		MEAS72		MEAS42		MEAS70		MEAG96	
	Date Collected =>	08/22/88		08/23/88		08/22/88		08/23/88		08/23/88		08/23/88		08/11/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			3680.000	P			161.000	BP	454.000	P	40.900	BP	284.000	P
7440-36-0	ANTIMONY (TOTAL)											38.400	BNJP		
7440-38-2	ARSENIC (TOTAL)			3.200	BF	2.300	BF	2.200	BF					2.700	BF
7440-39-3	BARIUM	29.100	BP	51.600	BP	20.800	BP	22.000	BP	18.700	BP	14.000	BJP	33.100	BP
7440-70-2	CALCIUM	65000.000	P	83800.000	P	72600.000	P	71000.000	P	55500.000	P	50900.000	P	73000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			13.700	P			9.300	BP	27.500	P				
7440-48-4	COBALT			5.800	BP										
7440-50-8	COPPER (TOTAL)			12.200	BJP			8.300	BJP	19.800	BJP	15.300	BJP	16.100	BJP
7439-89-6	IRON	25.200	BJP	7920.000	P			402.000	P	967.000	P			650.000	P
7439-92-1	LEAD (TOTAL)			11.100	F									16.100	F
7439-95-4	MAGNESIUM	20300.000	P	27000.000	P	19900.000	P	19600.000	P	14500.000	P	14000.000	P	27000.000	P
7439-96-5	MANGANESE	118.000	P	299.000	P	176.000	P	176.000	P	88.700	P	44.000	P	160.000	P
7440-02-0	NICKEL (TOTAL)			15.100	BJP			11.700	BJP	21.900	BJP	9.100	BJP		
7440-09-7	POTASSIUM	2690.000	BP	3270.000	BP	4420.000	BP	5260.000	P	5580.000	P	4920.000	BP	3490.000	BP
7440-23-5	SODIUM	22400.000	P	20900.000	P	7310.000	P	8310.000	P	4050.000	BP	4680.000	BJP	64800.000	P
7440-62-2	VANADIUM			4.900	BP										
7440-66-6	ZINC (TOTAL)	11.100	BJP	43.500	JP	41.900	JP	38.900	JP	33.100	JP	6.900	BP	61.400	*JP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR					0.000	NR		

	Location Alias =>	FILT		RAS		FILT		FILT		RAS		RAS		FILT	
	Location ID =>	GW10		GW11		GW11		GW12		GW12		GW13		GW13	
	SMO or Sample ID =>	MEAS01		MEAG97		MEAS02		MEAS87		MEAS75		MEAS27		MEAS55	
	Date Collected =>	08/12/88		08/12/88		08/12/88		08/22/88		08/23/88		08/16/88		08/17/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	39.100	BP	259.000	P					252.000	P	585.000	P	52.300	BP
7440-38-2	ARSENIC (TOTAL)	2.700	BF	2.400	BF	2.300	BF			2.100	BF	1.500	BWJF		
7440-39-3	BARIUM	41.700	BP	24.600	BJP	26.500	BP	61.100	BP	67.600	BP	121.000	BP	58.600	BP
7440-43-9	CADMIUM (TOTAL)	7.700	*P												
7440-70-2	CALCIUM	66000.000	P	70000.000	P	55000.000	P	109000.000	P	109000.000	P	42900.000	P	43100.000	P
7440-47-3	CHROMIUM (ELEMENTAL)									20.500	P				
7440-48-4	COBALT									10.100	BP	5.200	BJP		
7440-50-8	COPPER (TOTAL)									12.400	BJP				
7439-89-6	IRON	228.000	P	1350.000	P			31.800	BJP	4370.000	P	1330.000	NJP		
7439-92-1	LEAD (TOTAL)	2.300	BJF	8.900	+JF										
7439-95-4	MAGNESIUM	22200.000	P	23800.000	P	18500.000	P	23500.000	P	24100.000	P	17100.000	P	17100.000	P
7439-96-5	MANGANESE	146.000	P	337.000	P	241.000	P	1290.000	P	1290.000	P	128.000	P	89.500	P
7440-02-0	NICKEL (TOTAL)							18.500	BJP	33.700	BJP				
7440-09-7	POTASSIUM	3130.000	BP	2520.000	BP	2110.000	BP	4710.000	BP	5000.000	BP	1910.000	BP	2220.000	BP
7440-23-5	SODIUM	47200.000	P	17500.000	P	14000.000	P	23600.000	P	24600.000	P	16000.000	P	18900.000	P
7440-66-6	ZINC (TOTAL)	128.000	P	65.500	JP	85.600	P	12.300	BJP	28.900	JP	9.400	BJP	6.400	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR	0.000	NR					0.000	NR

	Location Alias =>	FILT		RAS		RAS		FILT		RAS		FILT		RAS	
	Location ID =>	GW14		GW14		GW15		GW15		GW16		GW16		GW17	
	SMO or Sample ID =>	MEAS88		MEAS76		MEAS38		MEAS66		MEAS39		MEAS67		MEAS40	
	Date Collected =>	08/22/88		08/23/88		08/18/88		08/23/88		08/18/88		08/23/88		08/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			265.000	P	5400.000	P			784.000	P	47.600	BP	2890.000	P
7440-36-0	ANTIMONY (TOTAL)							44.200	BWJP						
7440-38-2	ARSENIC (TOTAL)					2.800	BF							2.000	BWJF
7440-39-3	BARIUM	27.500	BP	27.700	BP	64.100	BP	30.800	BP	19.300	BP	15.300	BJP	23.500	BP
7440-43-9	CADMIUM (TOTAL)	5.900	P												
7440-70-2	CALCIUM	60100.000	P	57700.000	P	92300.000	P	59300.000	P	66600.000	P	60300.000	P	45200.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			6.800	BP	16.100	P			10.200	P				
7440-50-8	COPPER (TOTAL)			7.300	BJP	10.300	BP	18.000	BJP			17.500	BJP	5.600	BP
7439-89-6	IRON			837.000	P	8640.000	P			1460.000	P			4090.000	P
7439-92-1	LEAD (TOTAL)					12.600	F			4.400	BF	4.600	BJF	8.500	F
7439-95-4	MAGNESIUM	15400.000	P	14600.000	P	29300.000	P	18300.000	P	19300.000	P	17600.000	P	13600.000	P
7439-96-5	MANGANESE	127.000	P	155.000	P	309.000	P	87.100	P	171.000	P	86.900	P	146.000	P
7440-09-7	POTASSIUM	1490.000	BP	1380.000	BP	2670.000	BP	1460.000	BP	1710.000	BP	1380.000	BP	2660.000	BP
7440-23-5	SODIUM	15800.000	P	14600.000	P	17000.000	P	16200.000	P	3430.000	BP	3880.000	BJP	16600.000	P
7440-62-2	VANADIUM					6.200	BP								
7440-66-6	ZINC (TOTAL)	7.200	BJP	21.200	JP	39.400	JP	4.600	BJP	16.700	BJP	3.400	BJP	33.000	JP
74-90-8	CYANIDE (TOTAL)	0.000	NR					0.000	NR			0.000	NR		

	Location Alias =>	FILT		FILT		RAS		FILT		RAS		RAS		FILT	
	Location ID =>	GW17		GW18		GW18		GW19		GW19		GW20		GW20	
	SMO or Sample ID =>	MEAS68		MEBQ19		MEBQ05		MEAS63		MEAS35		MEAS36		MEAS64	
	Date Collected =>	08/23/88		08/23/88		08/24/88		08/17/88		08/18/88		08/18/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	33.300	BP	2190.000	P					353.000	P	817.000	P	47.600	BP
7440-36-0	ANTIMONY (TOTAL)	49.500	BNJP	36.200	BNJP							42.800	BP		
7440-38-2	ARSENIC (TOTAL)			1.500	BNJF	2.000	BF								
7440-39-3	BARIUM	13.000	BJP	52.100	BP	42.300	BP	11.500	BP	15.700	BP	16.600	BP	10.600	BJP
7440-70-2	CALCIUM	38800.000	P	79200.000	P	69900.000	P	58400.000	P	67200.000	P	48800.000	P	45300.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			17.600	*P					14.000	P	11.300	P	10.500	*P
7440-48-4	COBALT							8.500	BP						
7440-50-8	COPPER (TOTAL)	20.300	BJP	14.900	BJP			6.200	BP	6.100	BP			28.400	JP
7439-89-6	IRON			4780.000	JP	235.000	P	35.500	BP	590.000	P	1090.000	P	21.600	BJP
7439-92-1	LEAD (TOTAL)	3.600	BJF	3.400	BJF							2.400	BF	4.000	BJF
7439-95-4	MAGNESIUM	11300.000	P	25300.000	P	20800.000	P	19700.000	P	21600.000	P	14300.000	P	12900.000	P
7439-96-5	MANGANESE	35.900	P	161.000	P	89.100	P	133.000	P	177.000	P	39.200	P	12.300	BP
7440-02-0	NICKEL (TOTAL)			14.400	BJP										
7440-09-7	POTASSIUM	2340.000	BP	2470.000	BP	1430.000	BP	1430.000	BP	1290.000	BP	2330.000	BP	2090.000	BP
7440-23-5	SODIUM	17100.000	P	5890.000	P	3710.000	BP	4180.000	BP	4180.000	BP	19400.000	P	21200.000	P
7440-62-2	VANADIUM			4.200	BP										
7440-66-6	ZINC (TOTAL)	18.500	BJP	33.300	P	21.800	P	9.200	BJP	25.400	JP	18.700	BJP	10.600	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR	0.000	NR					0.000	NR

	Location Alias =>	RAS		FILT		RAS		FILT		RAS		FILT		RAS	
	Location ID =>	GW20R		GW20R		GW21		GW21		GW22		GW22		GW23	
	SMO or Sample ID =>	MEAS37		MEAS65		MEAG93		MEAG98		MEAG95		MEAS00		MEAG94	
	Date Collected =>	08/18/88		08/23/88		08/11/88		08/12/88		08/11/88		08/12/88		08/11/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM					1400.000	P	57.800	BJP	404.000	P	46.600	BJP	235.000	P
7440-36-0	ANTIMONY (TOTAL)			30.000	BNJP										
7440-38-2	ARSENIC (TOTAL)					4.600	BF	3.000	BF	5.500	BF	10.500	F	2.800	BF
7440-39-3	BARIUM					172.000	BP	144.000	BJP	86.800	BP	89.600	BJP	46.400	BP
7440-70-2	CALCIUM			188.000	BJP	100000.000	P	48600.000	P	40100.000	P	38100.000	P	66500.000	P
7440-47-3	CHROMIUM (ELEMENTAL)					8.000	BP							8.000	BP
7440-50-8	COPPER (TOTAL)			22.100	BJP	17.600	BJP			9.600	BJP			11.600	BJP
7439-89-6	IRON			28.800	BJP	4950.000	P	80.700	BJP	761.000	P	66.200	BJP	1040.000	P
7439-92-1	LEAD (TOTAL)			2.200	BJF	17.000	F	2.400	BJF	7.500	F	3.400	BWJF	5.300	JF
7439-95-4	MAGNESIUM					41100.000	P	20900.000	P	25100.000	P	23000.000	P	24800.000	P
7439-96-5	MANGANESE					294.000	P	22.000	P	73.300	P	42.900	P	247.000	P
7440-02-0	NICKEL (TOTAL)					19.000	BP			10.200	BP			10.100	BP
7440-09-7	POTASSIUM					3020.000	BP	3220.000	BP	6670.000	P	7300.000	P	1770.000	BP
7440-23-5	SODIUM					16000.000	P	15700.000	P	920000.000	P	929000.000	P	32000.000	P
7440-62-2	VANADIUM					4.200	BP								
7440-66-6	ZINC (TOTAL)	4.100	BJP	5.400	BJP	97.900	*JP	71.400	JP	16.600	B*JP	46.100	JP	16.000	B*JP
74-90-8	CYANIDE (TOTAL)			0.000	NR			0.000	NR			0.000	NR		

	Location Alias =>	FILT		FILT		RAS		FILT		RAS		RAS		FILT	
	Location ID =>	GW23		GW24		GW24		GW24D		GW24D		GW25		GW25	
	SMO or Sample ID =>	MEAG99		MEAS85		MEAS73		MEAS86		MEAS74		MEAS41		MEAS69	
	Date Collected =>	08/12/88		08/22/88		08/23/88		08/22/88		08/23/88		08/23/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM					505.000	P			231.000	P	4520.000	P		
7440-38-2	ARSENIC (TOTAL)											5.600	BF		
7440-39-3	BARIUM	47.100	BJP	18.700	BP	25.900	BP	19.900	BP	20.600	BP	43.700	BP	6.300	BJP
7440-43-9	CADMIUM (TOTAL)													6.000	P
7440-70-2	CALCIUM	62000.000	P	75900.000	P	76900.000	P	78000.000	P	74400.000	P	58000.000	P	41800.000	P
7440-47-3	CHROMIUM (ELEMENTAL)					164.000	P			126.000	P	25.600	P		
7440-48-4	COBALT			7.200	BP	7.200	BP	5.800	BP			5.800	BP		
7440-50-8	COPPER (TOTAL)					13.800	BJP			10.000	BJP	36.300	P	15.300	BJP
7439-89-6	IRON					3040.000	P			2000.000	P	14600.000	P		
7439-92-1	LEAD (TOTAL)	2.600	BJF									23.500	F		
7439-95-4	MAGNESIUM	21200.000	P	19900.000	P	20700.000	P	20300.000	P	20000.000	P	18800.000	P	12400.000	P
7439-96-5	MANGANESE	183.000	P	109.000	P	140.000	P	106.000	P	126.000	P	466.000	P		
7440-02-0	NICKEL (TOTAL)			11.800	BJP	97.800	P			86.000	P	28.600	BJP	11.800	BJP
7440-09-7	POTASSIUM	1670.000	BP	6550.000	P	8330.000	P	6450.000	P	8320.000	P	3740.000	BP	1980.000	BP
7440-23-5	SODIUM	28500.000	P	12900.000	P	15000.000	P	13300.000	P	13200.000	P	4000.000	BP	4260.000	BJP
7440-62-2	VANADIUM											17.200	BP		
7440-66-6	ZINC (TOTAL)	24.300	JP	11.900	BJP	32.600	JP	11.900	BJP	23.800	JP	111.000	P	8.000	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR	0.000	NR			0.000	NR					0.000	NR

	Location Alias =>	FILT		FILT		FILT		FILT		FILT		FILT		RAS	
	Location ID =>	GW26		GW26		GW27		GW27		GW27R		GW27R		GW28	
	SMO or Sample ID =>	MEAG85		MEAG89		MEAG87		MEAG91		MEAG88		MEAG92		MEAS82	
	Date Collected =>	08/12/88		08/08/88		08/12/88		08/08/88		08/12/88		08/08/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			63.400	BP	61.900	BJP	88.300	BP	32.200	BJP			65.200	BP
7440-39-3	BARIUM	18.600	BJP	11.400	BP	27.000	BJP	19.900	BP	49.900	BJP			13.800	BP
7440-41-7	BERYLLIUM (TOTAL)											1.100	BJP		
7440-70-2	CALCIUM	57700.000	P	61700.000	P	92000.000	P	101000.000	P	140.000	BJP	89.200	BJP	56800.000	P
7440-47-3	CHROMIUM (ELEMENTAL)													18.800	P
7440-50-8	COPPER (TOTAL)			8.900	BJP			10.400	BJP			11.500	BJP		
7439-89-6	IRON	1410.000	P	3340.000	P	412.000	P	3240.000	P					852.000	P
7439-92-1	LEAD (TOTAL)	4.800	BJF	1.600	BJF			2.600	BJF	2.400	BJF				
7439-95-4	MAGNESIUM	13700.000	P	15500.000	P	25000.000	P	28500.000	P					14600.000	P
7439-96-5	MANGANESE	115.000	P	134.000	P	331.000	P	447.000	P					59.200	P
7440-02-0	NICKEL (TOTAL)			15.200	BP			11.400	BP					16.800	BJP
7440-09-7	POTASSIUM	1300.000	BP	1510.000	BP	3780.000	BP	3930.000	BP					2280.000	BP
7440-23-5	SODIUM	6350.000	P	6250.000	P	11500.000	P	11400.000	P					3760.000	BP
7440-66-6	ZINC (TOTAL)	14.800	BJP	16.000	B*JP	11.200	BJP	21.900	*JP	8.000	BJP	9.100	B*JP	10.900	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR			0.000	NR				

	Location Alias =>	FILT		FILT		RAS		FILT		RAS		FILT		FILT	
	Location ID =>	GW28		GW29		GW29		GW30		GW30		GW31		GW31	
	SMO or Sample ID =>	MEAS94		MEBQ20		MEBQ06		MEBQ22		MEBQ08		MEAG71		MEAG63	
	Date Collected =>	08/23/88		08/23/88		08/24/88		08/23/88		08/24/88		08/12/88		08/08/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			6010.000	P	66.000	BP	14800.000	P	49.900	BP			75.500	BP
7440-38-2	ARSENIC (TOTAL)			4.600	BNJF	1.000	BF	22.700	NJF	2.600	BF	5.700	BF	6.300	BF
7440-39-3	BARIUM	12.200	BP	85.900	BP	49.500	BP	147.000	BP	51.700	BP	168.000	BJP	179.000	BP
7440-41-7	BERYLLIUM (TOTAL)							1.400	BP						
7440-70-2	CALCIUM	56200.000	P	118000.000	P	59300.000	P	146000.000	P	39500.000	P	68700.000	P	72100.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			28.700	*P			43.400	P						
7440-48-4	COBALT			5.500	BP			17.500	BP						
7440-50-8	COPPER (TOTAL)	8.400	BP	12.500	BJP			28.800	JP	11.000	BP			15.600	BJP
7439-89-6	IRON	47.000	BP	11800.000	P	81.000	BP	31300.000	P	110.000	P			280.000	P
7439-92-1	LEAD (TOTAL)			12.600	JF			24.100	S*JF					1.400	BJF
7439-95-4	MAGNESIUM	14900.000	P	38800.000	P	18900.000	P	54300.000	P	12400.000	P	28100.000	P	30900.000	P
7439-96-5	MANGANESE	55.300	P	334.000	P	96.400	P	885.000	P	54.300	P	74.500	P	88.500	P
7440-02-0	NICKEL (TOTAL)			28.800	BJP			38.000	BJP						
7440-09-7	POTASSIUM	1860.000	BP	3370.000	BP	2800.000	BP	5520.000	P	1980.000	BP	2080.000	BP	1950.000	BP
7440-23-5	SODIUM	2840.000	BP	9280.000	P	28300.000	P	13400.000	P	10700.000	P	17700.000	P	19300.000	P
7440-62-2	VANADIUM			12.900	BP			25.500	BP						
7440-66-6	ZINC (TOTAL)	10.300	BP	56.300	P	15.400	BP	141.000	P	14.700	BP	25.900	JP	14.900	B*JP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR			0.000	NR	0.000	NR		

	Location Alias =>	FILT		FILT		FILT		FILT		RAS		FILT		FILT	
	Location ID =>	GW32		GW32		GW32R		GW32R		GW33		GW33		GW34	
	SMO or Sample ID =>	MEAG72		MEAG64		MEAG73		MEAG65		MEAS09		MEAS14		MEAG74	
	Date Collected =>	08/12/88		08/08/88		08/12/88		08/08/88		08/12/88		08/12/88		08/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	32.200	BJP	70.700	BP					75.700	BP				
7440-38-2	ARSENIC (TOTAL)													18.900	F
7440-39-3	BARIUM	45.000	BJP	46.400	BP					12.200	BP	10.100	BP	70.900	BJP
7440-43-9	CADMIUM (TOTAL)											7.000	*P	8.400	P
7440-70-2	CALCIUM	90700.000	P	99800.000	P	284.000	BJP	171.000	BJP	63500.000	P	63600.000	P	43500.000	P
7440-50-8	COPPER (TOTAL)			13.100	BJP			11.500	BJP	6.300	BP				
7439-89-6	IRON			511.000	P			20.900	BJP	594.000	P				
7439-92-1	LEAD (TOTAL)			1.900	BWJF	2.500	BJF	1.200	BJF	5.400	JF			2.700	BJF
7439-95-4	MAGNESIUM	28200.000	P	33100.000	P					17300.000	P	17600.000	P	18900.000	P
7439-96-5	MANGANESE	172.000	P	193.000	P					53.100	P			15.400	P
7440-09-7	POTASSIUM	2420.000	BP	2340.000	BP			158.000	BJP	6180.000	P	6680.000	P	3640.000	BP
7440-23-5	SODIUM	18400.000	P	20200.000	P					5090.000	P	5260.000	P	45100.000	P
7440-66-6	ZINC (TOTAL)	34.500	JP	40.300	*JP	35.600	JP	5.400	B*JP	64.600	P	20.000	P	14.300	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR					0.000	NR	0.000	NR

	Location Alias =>	FILT		FILT		FILT		FILT		FILT		FILT		FILT	
	Location ID =>	GW34		GW35		GW35		GW36		GW36		GW37		GW37	
	SMO or Sample ID =>	MEAG66		MEAG75		MEAG67		MEAG76		MEAG68		MEAG82		MEAG79	
	Date Collected =>	08/08/88		08/12/88		08/08/88		08/12/88		08/08/88		08/12/88		08/08/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	188.000	BP			31.000	BP	104.000	BJP	45.000	BP			76.700	BP
7440-38-2	ARSENIC (TOTAL)	20.100	F	2.200	BF							2.100	BF	3.000	BF
7440-39-3	BARIUM	88.700	BP	47.300	BJP	49.900	BP	12.900	BJP	11.900	BP	46.300	BJP	42.200	BP
7440-70-2	CALCIUM	44100.000	P	74100.000	P	80400.000	P	60900.000	P	63200.000	P	59200.000	P	61200.000	P
7440-47-3	CHROMIUM (ELEMENTAL)													24.100	P
7440-50-8	COPPER (TOTAL)	13.600	BJP			14.200	BJP			10.000	BJP			20.700	BJP
7439-89-6	IRON	224.000	P	550.000	P	1210.000	P			91.000	BJP	242.000	P	901.000	P
7439-92-1	LEAD (TOTAL)			2.900	BJF					4.200	BJF	4.600	BJF	2.200	BWJF
7439-95-4	MAGNESIUM	20400.000	P	24900.000	P	28400.000	P	16300.000	P	18200.000	P	19300.000	P	21100.000	P
7439-96-5	MANGANESE	26.500	JP	118.000	P	132.000	P	30.600	P	41.300	P	124.000	P	142.000	P
7440-02-0	NICKEL (TOTAL)													24.100	BP
7440-09-7	POTASSIUM	2980.000	BP	1860.000	BP	2210.000	BP	3400.000	BP	3520.000	BP	2880.000	BP	3210.000	BP
7440-23-5	SODIUM	46000.000	P	7530.000	P	7920.000	P	20000.000	P	19300.000	P	26500.000	P	25600.000	P
7440-66-6	ZINC (TOTAL)	15.800	B*JP	12.500	BJP	12.000	B*JP	10.900	BJP	8.500	B*JP	37.100	JP	40.100	*JP
74-90-8	CYANIDE (TOTAL)			0.000	NR			0.000	NR			0.000	NR		

	Location Alias =>	FILT		FILT		FILT		FILT		FILT		FILT	
	Location ID =>	GW37(D)		GW370		GW38		GW38		GW39		GW39		GW42	
	SMO or Sample ID =>	MEAG83		MEAG80		MEAG84		MEAG81		MEAG78		MEAG77		MEAS99	
	Date Collected =>	08/12/88		08/08/88		08/12/88		08/08/88		08/12/88		08/08/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			68.800	BP			30.800	BP	38.300	BJP				
7440-38-2	ARSENIC (TOTAL)	2.900	BF	2.700	BF									1.700	BWJF
7440-39-3	BARIUM	51.800	BJP	44.000	BP	25.100	BJP	15.200	BP	12.700	BJP	9.100	BP	68.600	BP
7440-70-2	CALCIUM	59100.000	P	61500.000	P	67700.000	P	70600.000	P	64400.000	P	65500.000	P	85000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			8.000	BP										
7440-50-8	COPPER (TOTAL)			13.600	BJP			11.600	BJP			12.500	BJP	5.200	BP
7439-89-6	IRON	301.000	P	783.000	P			294.000	P	301.000	P	21.400	BJP		
7439-92-1	LEAD (TOTAL)	3.000	BJF			3.000	BJF	1.400	BJF	5.400	JF	1.200	BJF		
7439-95-4	MAGNESIUM	19300.000	P	21100.000	P	20100.000	P	22200.000	P	19900.000	P	21500.000	P	24400.000	P
7439-96-5	MANGANESE	124.000	P	136.000	P	106.000	P	115.000	P	122.000	P	80.600	P	238.000	P
7440-02-0	NICKEL (TOTAL)			11.400	BP										
7440-09-7	POTASSIUM	2290.000	BP	2310.000	BP	1730.000	BP	1700.000	BP	1460.000	BP	1640.000	BP	2090.000	BP
7440-23-5	SODIUM	24200.000	P	26100.000	P	3120.000	BP	2810.000	BP	3980.000	BP	4690.000	BP	16800.000	P
7440-66-6	ZINC (TOTAL)	13.300	BJP	17.800	B*JP	28.200	JP	20.100	*JP	26.800	JP	13.100	B*JP	7.000	BP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR			0.000	NR			0.000	NR

	Location Alias =>	FILT		FILT		FILT		FILT		FILT		RAS		FILT	
	Location ID =>	GW42		GW43		GW43		GW44		GW44		GW45		GW45	
	SMO or Sample ID =>	MEBQ13		MEBQ00		MEBQ14		MEBQ01		MEBQ15		MEAS05		MEAS11	
	Date Collected =>	08/23/88		08/23/88		08/23/88		08/23/88		08/23/88		08/12/88		08/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	652.000	P			250.000	P			92.400	BP	87.300	BP		
7440-38-2	ARSENIC (TOTAL)	2.300	BNJF									3.600	BF	2.500	BF
7440-39-3	BARIUM	72.400	BP	19.500	BP	18.600	BP	29.800	BP	28.700	BP	17.900	BP	32.400	BP
7440-70-2	CALCIUM	87700.000	P	80000.000	P	77000.000	P	79100.000	P	76700.000	P	63600.000	P	68800.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	20.400	*P			8.200	B*P			7.700	B*P				
7440-50-8	COPPER (TOTAL)	18.300	BJP			12.700	BJP			14.900	BJP				
7439-89-6	IRON	3020.000	P			1250.000	P			347.000	JP	741.000	P	88.900	BP
7439-92-1	LEAD (TOTAL)	2.800	BJF												
7439-95-4	MAGNESIUM	27000.000	P	24300.000	P	24000.000	P	17400.000	P	17500.000	P	18300.000	P	20300.000	P
7439-96-5	MANGANESE	264.000	P	205.000	P	197.000	P	82.800	P	84.900	P	173.000	P	178.000	P
7440-02-0	NICKEL (TOTAL)	18.300	BJP			10.400	BJP			13.100	BJP				
7440-09-7	POTASSIUM	2280.000	BP	1440.000	BP	1460.000	BP	4810.000	BP	4740.000	BP	2920.000	BP	4060.000	BP
7440-23-5	SODIUM	18100.000	P	10600.000	P	12300.000	P	35700.000	P	35600.000	P	72300.000	P	84700.000	P
7440-62-2	VANADIUM					4.200	BP								
7440-66-6	ZINC (TOTAL)	23.300	JP	7.700	BP	12.200	BJP	9.300	BP	15.200	BJP	28.400	P	39.500	P
74-90-8	CYANIDE (TOTAL)			0.000	NR			0.000	NR					0.000	NR

	Location Alias =>	FILT		RAS		RAS		FILT		RAS		FILT		FILT	
	Location ID =>	GW45(D)		GW45DUP		GW46		GW46		GW47		GW47		GW48	
	SMO or Sample ID =>	MEAS12		MEAS06		MEAS07		MEAS13		MEAS08		MEAS15		MEBQ21	
	Date Collected =>	08/12/88		08/12/88		08/12/88		08/12/88		08/12/88		08/12/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	86.900	BP	93.500	BP					256.000	P			126.000	BP
7440-38-2	ARSENIC (TOTAL)	2.400	BF	2.400	BF					3.900	BF	3.900	BF	2.200	BNJF
7440-39-3	BARIUM	18.100	BP	21.700	BP	20.200	BP	21.500	BP	12.900	BP	7.000	BP	47.800	BP
7440-43-9	CADMIUM (TOTAL)	6.000	*P					5.200	*P						
7440-70-2	CALCIUM	69300.000	P	65200.000	P	75200.000	P	78400.000	P	80300.000	P	70700.000	P	60400.000	P
7440-47-3	CHROMIUM (ELEMENTAL)													16.500	*P
7440-50-8	COPPER (TOTAL)			5.800	BP					21.200	BP			6.300	BJP
7439-89-6	IRON	23.000	BP	792.000	P	352.000	P	66.700	BP	909.000	P			339.000	JP
7439-92-1	LEAD (TOTAL)									4.600	BJF				
7439-95-4	MAGNESIUM	20400.000	P	18900.000	P	18200.000	P	19300.000	P	24200.000	P	20400.000	P	19900.000	P
7439-96-5	MANGANESE	183.000	P	181.000	P	154.000	P	155.000	P	146.000	P			100.000	P
7440-02-0	NICKEL (TOTAL)													14.400	BJP
7440-09-7	POTASSIUM	4680.000	BP	3290.000	BP	2230.000	BP	3000.000	BP	2890.000	BP	3540.000	BP	3000.000	BP
7440-23-5	SODIUM	85500.000	P	73900.000	P	5190.000	P	6050.000	P	58900.000	P	63700.000	P	30200.000	P
7440-62-2	VANADIUM													5.000	BP
7440-66-6	ZINC (TOTAL)	18.300	BP	33.400	P	18.900	BP	15.900	BP	32.000	P	7.300	BP	17.300	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR					0.000	NR			0.000	NR		

	Location Alias =>	RAS		RAS		FILT		RAS		FILT		RAS		FILT	
	Location ID =>	GW48		GW49		GW49		GW50		GW50		GW51		GW51	
	SMO or Sample ID =>	MEBQ07		MEAS25		MEAS53		MEAS24		MEAS52		MEAS80		MEAS92	
	Date Collected =>	08/24/88		08/16/88		08/17/88		08/16/88		08/17/88		08/23/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	226.000	P	398.000	P	40.200	BP	10800.000	P			366.000	P		
7440-38-2	ARSENIC (TOTAL)	2.900	BWJF	2.600	BF			7.600	BF						
7440-39-3	BARIUM	50.200	BP	50.200	BP	49.900	BP	62.200	BP	18.900	BP	10.400	BP	6.700	BP
7440-70-2	CALCIUM	59100.000	P	61300.000	P	64600.000	P	91700.000	P	65100.000	P	49800.000	P	51200.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			57.800	P			48.600	P			8.700	BP		
7440-48-4	COBALT			5.200	BJP			41.400	BP						
7440-50-8	COPPER (TOTAL)	17.800	BP	13.500	BP			56.200	P			8.300	BJP	6.900	BP
7439-89-6	IRON	293.000	P	1490.000	NJP			29900.000	NJP			844.000	P		
7439-92-1	LEAD (TOTAL)	4.100	BF	2.800	BWJF			24.000	SF						
7439-95-4	MAGNESIUM	19000.000	P	19500.000	P	20600.000	P	28800.000	P	16100.000	P	15000.000	P	16100.000	P
7439-96-5	MANGANESE	99.400	P	107.000	P	89.000	P	681.000	P	5.900	BP	44.800	P	6.500	BP
7440-02-0	NICKEL (TOTAL)			22.800	BP			48.200	P			13.400	BJP		
7440-09-7	POTASSIUM	2770.000	BP	10600.000	P	13500.000	P	7730.000	P	6560.000	P	686.000	BP	670.000	BP
7440-23-5	SODIUM	29100.000	P	3130.000	BP	4630.000	BJP	14200.000	P	16700.000	P	4620.000	BP	3540.000	BP
7440-62-2	VANADIUM							27.600	BP						
7440-66-6	ZINC (TOTAL)	26.400	P	23.000	JP	24.200	JP	268.000	P	8.300	BJP	29.400	JP	31.900	P
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR			0.000	NR			0.000	NR

	Location Alias =>	RAS		FILT		RAS		FILT		RAS		FILT		FILT	
	Location ID =>	GW51R		GW51R		GW53		GW53		GW54		GW54		GW55	
	SMO or Sample ID =>	MEAS81		MEAS93		MEAS04		MEAS03		MEAS26		MEAS54		MEAG86	
	Date Collected =>	08/23/88		08/23/88		08/12/88		08/12/88		08/16/88		08/17/88		08/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM					28.500	BP	40.400	BP	1050.000	P	29.000	BP		
7440-38-2	ARSENIC (TOTAL)									3.300	BF				
7440-39-3	BARIUM					18.600	BP	31.000	BP	15.300	BP	6.700	BP	47.800	BJP
7440-70-2	CALCIUM	68.100	BJP			76400.000	P	76000.000	P	72900.000	P	74500.000	P	60200.000	P
7440-47-3	CHROMIUM (ELEMENTAL)									29.200	P				
7440-48-4	COBALT									8.400	BJP				
7440-50-8	COPPER (TOTAL)			6.400	BP					25.200	P	5.100	BP		
7439-89-6	IRON	24.500	BJP			95.900	BP			3600.000	NJP				
7439-92-1	LEAD (TOTAL)									4.900	BF			5.500	JF
7439-95-4	MAGNESIUM					22500.000	P	22300.000	P	18600.000	P	18500.000	P	15900.000	P
7439-96-5	MANGANESE					116.000	P	110.000	P	186.000	P				
7440-09-7	POTASSIUM					725.000	BP	1570.000	BP	2170.000	BP	2770.000	BP	1990.000	BP
7440-23-5	SODIUM					6770.000	P	7160.000	P	4500.000	BP	5750.000	JP	1610.000	BP
7440-66-6	ZINC (TOTAL)	4.600	BJP	7.000	BP	16.900	BP	39.200	P	34.600	JP	22.900	JP	18.900	BJP
74-90-8	CYANIDE (TOTAL)			0.000	NR	10.000	JAS	0.000	NR			0.000	NR	0.000	NR

	Location Alias =>	FILT		FILT		RAS		FILT		RAS		FILT		RAS	
	Location ID =>	GW55		GW56		GW56		GW57		GW57		GW58		GW58	
	SMO or Sample ID =>	MEAG90		MEAS59		MEAS31		MEAS60		MEAS32		MEAS61		MEAS33	
	Date Collected =>	08/08/88		08/17/88		08/18/88		08/17/88		08/18/88		08/17/88		08/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	697.000	P			471.000	P			87.000	BJP			277.000	JP
7440-38-2	ARSENIC (TOTAL)	1.200	BF											1.600	WJF
7440-39-3	BARIUM	20.700	BP	37.800	BP	45.100	BP	25.300	BP	26.100	BP	8.400	BP	11.500	BP
7440-70-2	CALCIUM	79700.000	P	46300.000	P	53200.000	P	68700.000	P	71600.000	P	47300.000	P	49900.000	P
7440-47-3	CHROMIUM (ELEMENTAL)					9.100	BP			5.900	BP			40.500	P
7440-48-4	COBALT	6.400	BP					7.400	BP	7.400	BP	5.300	BP	7.400	BP
7440-50-8	COPPER (TOTAL)	24.000	BJP			7.900	BP			18.200	BP			12.100	BP
7439-89-6	IRON	3430.000	P	35.700	BP	2460.000	NJP			601.000	NJP			1800.000	NJP
7439-92-1	LEAD (TOTAL)	18.800	F			4.100	BJF							3.100	BF
7439-95-4	MAGNESIUM	23800.000	P	13800.000	P	16100.000	P	24200.000	P	25900.000	P	14900.000	P	16100.000	P
7439-96-5	MANGANESE	380.000	P	173.000	P	232.000	P	336.000	P	351.000	P			135.000	P
7440-02-0	NICKEL (TOTAL)													20.300	BP
7440-09-7	POTASSIUM	2040.000	BP	2430.000	BP	3750.000	BP	1720.000	BP	3180.000	BP	1130.000	BP	1730.000	BP
7440-23-5	SODIUM	1930.000	BP	14700.000	P	18000.000	P	3490.000	BJP	6510.000	P	2800.000	BJP	3870.000	BP
7440-66-6	ZINC (TOTAL)	46.300	*JP	11.200	BJP	35.500	P	26.500	JP	86.200	P	12.800	BJP	47.000	P
74-90-8	CYANIDE (TOTAL)			0.000	NR			0.000	NR			0.000	NR		

	Location Alias =>	FILT		RAS		FILT		RAS		FILT		RAS		FILT	
	Location ID =>	GW58(D)		GW58DUP		GW59		GW59		GW60		GW60		GW61	
	SMO or Sample ID =>	MEAS62		MEAS34		MEAS56		MEAS28		MEAS57		MEAS29		MEAS58	
	Date Collected =>	08/17/88		08/18/88		08/17/88		08/18/88		08/17/88		08/18/88		08/17/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			412.000	P	86.000	BP					136.000	BJP		
7440-38-2	ARSENIC (TOTAL)			9.500	BMF	1.400	BWJF	2.200	BF			2.400	BF		
7440-39-3	BARIUM	9.900	BP	12.300	BP	73.900	BP	71.600	BP	41.000	BP	41.900	BP	9.200	BP
7440-70-2	CALCIUM	48500.000	P	50200.000	P	98100.000	P	93100.000	P	88600.000	P	88000.000	P	52900.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			81.600	P							19.400	P		
7440-48-4	COBALT	5.300	BP	7.400	BP			6.300	BP					6.300	BP
7440-50-8	COPPER (TOTAL)			19.300	BP			6.200	BP			11.900	BP		
7439-89-6	IRON			2310.000	NJP			545.000	NJP						
7439-92-1	LEAD (TOTAL)			4.200	BF										
7439-95-4	MAGNESIUM	15300.000	P	16300.000	P	29900.000	P	28700.000	P	30800.000	P	30500.000	P	15300.000	P
7439-96-5	MANGANESE			133.000	P	198.000	P	190.000	P	182.000	P	193.000	P		
7440-02-0	NICKEL (TOTAL)			40.600	P										
7440-09-7	POTASSIUM	1240.000	BP	1830.000	BP	2690.000	BP	2210.000	BP	3200.000	BP	3300.000	BP	1080.000	BP
7440-23-5	SODIUM	3520.000	BJP	3870.000	BP	23500.000	P	21900.000	P	5090.000	JP	5080.000	P	2740.000	BJP
7440-66-6	ZINC (TOTAL)	15.300	BJP	55.500	P	37.000	JP	31.300	P	23.600	JP	48.800	P	9.600	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR			0.000	NR			0.000	NR

	Location Alias =>	RAS		RAS		FILT		RAS		FILT		RAS		FILT	
	Location ID =>	GW61		GW62		GW62		GW63		GW63		GW64		GW64	
	SMO or Sample ID =>	MEAS30		MEAS77		MEAS89		MEAS78		MEAS90		MEAS79		MEAS91	
	Date Collected =>	08/18/88		08/23/88		08/23/88		08/23/88		08/23/88		08/23/88		08/23/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	95.900	BJP	310.000	P			171.000	BP			674.000	P		
7440-38-2	ARSENIC (TOTAL)	1.900	BF	2.000	BF	2.300	BWJF	2.400	BF	2.600	BWJF	2.500	BF	2.900	BWJF
7440-39-3	BARIUM	11.300	BP	47.200	BP	45.800	BP	59.700	BP	60.500	BP	22.400	BP	13.800	BP
7440-70-2	CALCIUM	54400.000	P	60600.000	P	63100.000	P	73400.000	P	77900.000	P	132000.000	P	94100.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			8.100	BP			8.100	BP			25.600	P		
7440-50-8	COPPER (TOTAL)			6.800	BJP	9.400	BP	12.500	BJP	8.400	BP	15.700	BJP	11.800	BP
7439-89-6	IRON	474.000	NJP	1420.000	P			1080.000	P			1730.000	P		
7439-95-4	MAGNESIUM	15700.000	P	22200.000	P	24600.000	P	23600.000	P	25900.000	P	34100.000	P	25400.000	P
7439-96-5	MANGANESE	66.400	P	150.000	P	132.000	P	151.000	P	147.000	P	806.000	P	574.000	P
7440-02-0	NICKEL (TOTAL)											20.200	BJP		
7440-09-7	POTASSIUM	1140.000	BP	2410.000	BP	2600.000	BP	6610.000	P	5910.000	P	5610.000	P	3500.000	BP
7440-23-5	SODIUM	3620.000	BP	33700.000	P	37200.000	P	1960.000	BP	3040.000	BP	17600.000	P	13600.000	P
7440-66-6	ZINC (TOTAL)	19.400	BJP	17.300	BJP	21.400	P	26.300	JP	14.000	BP	37.400	JP	13.700	BP
74-90-8	CYANIDE (TOTAL)					0.000	NR			0.000	NR			0.000	NR

	Location Alias =>	RAS		FILT		RAS		FILT		RAS		FILT		RAS	
	Location ID =>	GW65		GW65		GW66		GW66		GW67		GW67		GW68	
	SMO or Sample ID =>	MEAS17		MEAS45		MEAS18		MEAS46		MEAS19		MEAS47		MEAS10	
	Date Collected =>	08/16/88		08/17/88		08/16/88		08/17/88		08/16/88		08/17/88		08/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	181.000	BJP	37.500	BP	38.200	BJP	33.600	BP	210.000	JP			125.000	BJP
7440-38-2	ARSENIC (TOTAL)	1.900	BF	1.300	BWJF					1.300	BF			3.300	BF
7440-39-3	BARIUM	38.700	BP	27.300	BP	47.100	BP	47.600	BP	10.400	BP			45.300	BP
7440-70-2	CALCIUM	65800.000	P	66600.000	P	83000.000	P	84200.000	P	66300.000	P	66900.000	P	64100.000	P
7440-47-3	CHROMIUM (ELEMENTAL)					6.900	BP								
7440-48-4	COBALT	5.200	BJP												
7440-50-8	COPPER (TOTAL)	12.800	BP			16.500	BP			10.800	BP			7.200	BP
7439-89-6	IRON	1830.000	NJP	42.800	BP	1080.000	NJP			682.000	NJP			1650.000	NJP
7439-92-1	LEAD (TOTAL)					3.800	BF			2.900	BF			2.300	BWJF
7439-95-4	MAGNESIUM	19800.000	P	20100.000	P	19200.000	P	19400.000	P	20800.000	P	20800.000	P	15700.000	P
7439-96-5	MANGANESE	236.000	P	232.000	P	267.000	P	262.000	P	110.000	P	29.800	P	147.000	P
7440-09-7	POTASSIUM	2910.000	BP	3460.000	BP	6110.000	P	5780.000	P	357.000	BP	792.000	BJP	1780.000	BP
7440-23-5	SODIUM	31000.000	P	31700.000	P	4500.000	BP	5710.000	JP	2920.000	BP	4340.000	BJP	21100.000	P
7440-66-6	ZINC (TOTAL)	90.900	P	28.100	JP	66.100	P	29.000	JP	9.600	BJP	6.100	BJP	23.400	JP
74-90-8	CYANIDE (TOTAL)			0.000	NR			0.000	NR			0.000	NR		

	Location Alias =>	FILT		RAS		FILT		RAS		FILT		RAS		FILT	
	Location ID =>	GW68		GW69		GW69		GW70		GW70		GW71		GW71	
	SMO or Sample ID =>	MEAS43		MEAS16		MEAS44		MEAS20		MEAS48		MEAS21		MEAS49	
	Date Collected =>	08/17/88		08/16/88		08/17/88		08/16/88		08/17/88		08/16/88		08/17/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	52.400	BP	278.000	JP			1610.000	P			1840.000	P		
7440-36-0	ANTIMONY (TOTAL)	38.900	BP			43.700	BP								
7440-38-2	ARSENIC (TOTAL)	1.600	BWJF	3.500	BF	2.100	BWJF	4.000	BWJF			4.500	BWJF		
7440-39-3	BARIUM	30.100	BP	6.600	BP	3.700	BP	21.700	BP	11.700	BP	15.000	BP	4.700	BP
7440-70-2	CALCIUM	66300.000	P	44500.000	P	44000.000	P	71200.000	P	62200.000	P	35400.000	P	69500.000	P
7440-47-3	CHROMIUM (ELEMENTAL)							60.800	P			8.000	BP		
7440-48-4	COBALT							11.500	BJP			10.600	BJP		
7440-50-8	COPPER (TOTAL)			12.300	BP	5.100	BP	43.900	P			16.300	BP		
7439-89-6	IRON	35.300	BP	1470.000	NJP			7600.000	NJP			5300.000	NJP	34.600	BP
7439-92-1	LEAD (TOTAL)			4.200	BF			24.900	F			31.400	F	2.100	BF
7439-95-4	MAGNESIUM	16100.000	P	14400.000	P	14000.000	P	25300.000	P	21200.000	P	10900.000	P	19900.000	P
7439-96-5	MANGANESE	147.000	P	69.900	P			424.000	P	105.000	P	2.400	P		
7440-02-0	NICKEL (TOTAL)							38.900	BP						
7440-09-7	POTASSIUM	2330.000	BP	2220.000	BP	2090.000	BP	2110.000	BP	788.000	BJP	1050.000	BP	1830.000	BP
7440-23-5	SODIUM	23300.000	P	10200.000	P	11000.000	P	2700.000	BP	4100.000	BJP	3160.000	BP	5750.000	JP
7440-62-2	VANADIUM							7.600	BP			7.000	BP		
7440-66-6	ZINC (TOTAL)	22.000	JP	65.400	P	20.700	JP	108.000	P	7.600	BJP	39.000	JP	3.500	BJP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR			0.000	NR			0.000	NR

	Location Alias =>	RAS		FILT		RAS		FILT					
	Location ID =>	GW71D		GW71D		GW71R		GW71R					
	SMO or Sample ID =>	MEAS22		MEAS50		MEAS23		MEAS51					
	Date Collected =>	08/16/88		08/17/88		08/16/88		08/17/88					
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	9220.000	P	34.600	BP								
7440-38-2	ARSENIC (TOTAL)	6.900	BF										
7440-39-3	BARIUM	52.700	BP	4.200	BP								
7440-70-2	CALCIUM	74900.000	P	68400.000	P	144.000	BJP	198.000	BP				
7440-47-3	CHROMIUM (ELEMENTAL)	25.800	P										
7440-48-4	COBALT	26.500	BJP			7.400	BP						
7440-50-8	COPPER (TOTAL)	50.000	P										
7439-89-6	IRON	25600.000	NJP										
7439-92-1	LEAD (TOTAL)	41.800	SF										
7439-95-4	MAGNESIUM	23600.000	P	19600.000	P								
7439-96-5	MANGANESE	858.000	P										
7440-02-0	NICKEL (TOTAL)	19.000	BP										
7440-09-7	POTASSIUM	2740.000	BP	1510.000	BP			233.000	BP				
7440-23-5	SODIUM	4140.000	BP	5320.000	JP			1570.000	BP				
7440-62-2	VANADIUM	24.000	BP										
7440-66-6	ZINC (TOTAL)	163.000	P	3.200	BJP	13.400	BJP	9.200	BJP				
74-90-8	CYANIDE (TOTAL)			0.000	NR	10.000	NJAS	0.000	NR				

Camp Dresser & McKee Inc.
User's Selection Criteria
For Result Table

Run Date: 02/22/88
Run Time: 15:54:54

LOCATION: PW

QUALIFIER: NCT U

Camp Dresser & McKee Inc.

REMTECH Test Results Report for: ANI

Run Date: 02/22/88

	Location Alias =>	RAS		RAS		RAS		RAS		
	Location ID =>	PW01		PW01		PW02		PW02		
	SMO or Sample ID =>	3975E-300		4010E-001		3975E-301		4010E-002		
	Date Collected =>	08/10/88		08/10/88		08/10/88		08/10/88		
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	34.000				11.400					
SLP	SULPHATE	64.000				58.000					
AMM	AMMONIA	0.029	B			0.044	B				
TDS	TOTAL DISOLVED SOLIDS			337.000				319.000			

Camp Dresser & McKee Inc.
User's Selection Criteria
for Result Table

Run Date: 02/22/88
Run Time: 18:21:25

LOCATION: RO

QUALIFIER: NCT U

Camp Dresser & McKee Inc.

REMTECH Test Results Report for: ANI

Run Date: 02/22/88

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	R019		R02		R026		R029		R033	
	SMO or Sample ID =>	217		213		214		219		226	
	Date Collected =>	08/01/88		08/01/88		08/01/88		08/01/88		08/01/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	74.400	J	476.000	J	167.000	J	158.000	J	114.000	J
SLP	SULPHATE	223.000	BJ	684.000	J	903.000	J	432.000	J	441.000	J
AMM	AMMONIA	12.300		132.000		8.910		14.500		11.600	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	R034		R041		R044		R048		R049	
	SMO or Sample ID =>	222		239		230		232		234	
	Date Collected =>	08/01/88		08/03/88		08/01/88		08/01/88		08/01/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	192.000	J	199.000	J	145.000	J	407.000	J	102.000	J
SLP	SULPHATE	437.000	J	812.000	J	668.000	J	807.000	J	439.000	J
AMM	AMMONIA	5.530		5.410		6.120		10.500		10.800	

	Location Alias =>	RAS		RAS							
	Location ID =>	R054		R05A							
	SMO or Sample ID =>	238		203							
	Date Collected =>	08/03/88		08/01/88							
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	48.100	J	332.000	J						
SLP	SULPHATE	314.000	J	441.000	J						
AMM	AMMONIA	20.400		6.730							

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	R001A		R001A		R005A		R005A(DUP)		R005B	
	SMO or Sample ID =>	ECF69		ECF69RE		ECF72		ECF73		ECF74	
	Date Collected =>	07/13/88		07/13/88		07/13/88		07/13/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL					50.000	J	100.000	J	150.000	J
65-85-0	BENZOIC ACID					61.000	J				
85-01-8	PHENANTHRENE							38.000	J		
206-44-0	FLUORANTHENE							39.000	J		
218-01-9	CHRYSENE	51.000	J					68.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	180.000	J	260.000	J	2800.000	J	4000.000	J	350.000	J
117-84-0	DI-N-OCTYL PHTHALATE							68.000	J		

	Location Alias ->	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	R006A		R006B		R007A		R008A		R009A	
	SMO or Sample ID =>	ECF70		ECF71		ECG12		ECG11		ECG15	
	Date Collected =>	07/13/88		07/13/88		07/20/88		07/20/88		07/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			42.000	J						
88-06-2	2,4,6-TRICHLOROPHENOL	170.000	J								
85-01-8	PHENANTHRENE							970.000	J		
206-44-0	FLUORANTHENE	62.000	J			290.000	J	210.000			
129-00-0	PYRENE	65.000	J			31.000	J	280.000			
85-68-7	BUTYLBENZYLPHTHALATE					50.000	J	110.000	J	26.000	J
56-55-3	BENZO(A)ANTHRACENE					31.000	J	100.000	J		
218-01-9	CHRYSENE	290.000	J	97.000	J	34.000	J	200.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	500.000		210.000	J	260.000		3800.000		640.000	
205-99-2	BENZO(B)FLUORANTHENE					34.000	J	310.000			
207-08-9	BENZO(K)FLUORANTHENE					36.000	J	240.000			
50-32-8	BENZO(A)PYRENE							140.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		SAS BNA
	Location ID =>	R009B		R010		R010		R012		R012A
	SMO or Sample ID =>	ECG16		ECG17		ECG17DL		ECG20		3975E81
	Date Collected =>	07/20/88		07/20/88		07/20/88		07/20/88		07/19/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE									330.000	J
85-01-8	PHENANTHRENE							23.000	J		
84-74-2	DI-N-BUTYL PHTHALATE									92.000	J
206-44-0	FLUORANTHENE							59.000	J		
129-00-0	PYRENE							50.000	J		
85-68-7	BUTYLBENZYLPHTHALATE							57.000	J		
56-55-3	BENZO(A)ANTHRACENE							43.000	J		
218-01-9	CHRYSENE							89.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	610.000		11000.000	E	11000.000	D	220.000		16000.000	BJ
205-99-2	BENZO(B)FLUORANTHENE							110.000	J		
207-08-9	BENZO(K)FLUORANTHENE							84.000	J		
50-32-8	BENZO(A)PYRENE							64.000	J		

	Location Alias =>	SAS BNA		SAS BNA		RAS		RAS		SAS BNA
	Location ID =>	R013A		R014A		R015		R016A		R016A
	SMO or Sample ID =>	3975E-99		3975E-85		EAC37		EAR71		167
	Date Collected =>	07/21/88		07/21/88		08/02/88		07/27/88		07/27/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			340.000	J					240.000	J
84-74-2	DI-N-BUTYL PHTHALATE			110.000	J	3500.000	J	410.000	J	62.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1700.000	J			10000.000	J				

	Location Alias =>	TCLP		SAS BNA		SAS BNA		RAS		TCLP	
	Location ID =>	R017A		R017A		R017A		R017A		R017D	
	SMO or Sample ID =>	EAR79		148		148RE		EAR49		EAR79	
	Date Collected =>	07/26/88		07/26/88		07/26/88		07/25/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			12.000	J						
78-59-1	ISOPHORONE			170.000	J	83.000	J				
65-85-0	BENZOIC ACID	6.000	J							6.000	J
84-74-2	DI-N-BUTYL PHTHALATE			310.000	J	130.000	J	23.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	3.000	J	15000.000	BE			120.000	J		

	Location Alias =>	SAS BNA		SAS BNA		RAS		SAS BNA		RAS
	Location ID =>	R018A		R018A		R018A		R019A		R019A
	SMO or Sample ID =>	154		154RE		EAR55		E142		EAR42
	Date Collected =>	07/26/88		07/26/88		07/25/88		07/25/88		07/25/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	8700.000	J	950.000	J						
65-85-0	BENZOIC ACID					2300.000					
84-74-2	DI-N-BUTYL PHTHALATE	530.000	J			25.000	J	250.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	44000.000	BEJ	2500.000	BJ	230.000	J	350.000	J	120.000	J

	Location Alias =>	RAS		SAS BNA		RAS		SAS BNA		SAS BNA	
	Location ID =>	R01B		R020A		R020A		R021A		R021A	
	SMO or Sample ID =>	EAR13		3975E-128		EAR30		E139		E139RE	
	Date Collected =>	07/21/88		07/25/88		07/25/88		07/25/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			9600.000	J			410.000	J	500.000	J
100-02-7	4-NITROPHENOL	3100.000	J								
84-66-2	DIETHYL PHTHALATE			200.000	J			470.000	J	420.000	J
206-44-0	FLUORANTHENE					17.000	J				
218-01-9	CHRYSENE					16.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			690.000	J	390.000		1700.000	J	1800.000	J

	Location Alias =>	RAS		RAS		RAS		SAS BNA		RAS	
	Location ID =>	R021A		R021A		R022A		R022A		R023A	
	SMO or Sample ID =>	EAR39		EAR39R1		EAR73		169		EAR70	
	Date Collected =>	07/25/88		07/25/88		07/27/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE							2600.000			
85-01-8	PHENANTHRENE			18.000	J						
84-74-2	DI-N-BUTYL PHTHALATE							66.000	J		
206-44-0	FLUORANTHENE	46.000	J	45.000	J					670.000	J
129-00-0	PYRENE	54.000	J	56.000	J	710.000	J	430.000	J	680.000	J
56-55-3	BENZO(A)ANTHRACENE									460.000	J
218-01-9	CHRYSENE									920.000	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	290.000	J	270.000	J	820.000				260.000	J
205-99-2	BENZO(B)FLUORANTHENE									1300.000	
207-08-9	BENZO(K)FLUORANTHENE									930.000	
50-32-8	BENZO(A)PYRENE									890.000	
193-39-5	INDENO(1,2,3-CD)PYRENE									830.000	
53-70-3	DIBENZO(A,H)ANTHRACENE									340.000	J
191-24-2	BENZO(G,H,I)PERYLENE									610.000	J

	Location Alias =>	SAS BNA		SAS BNA		SAS BNA		SAS BNA		SAS BNA	
	Location ID =>	RO23A		RO24A		RO24A		RO24B		RO25A	
	SMO or Sample ID =>	166		164		164RE		165		3975E-127	
	Date Collected =>	07/27/88		07/26/88		07/26/88		07/26/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
95-57-8	2-CHLOROPHENOL	160.000	J								
78-59-1	ISOPHORONE	5300.000		15000.000	JE	6200.000	J	1800.000	J	1100.000	J
59-50-7	4-CHLORO-3-METHYLPHENOL	170.000	J								
208-96-8	ACENAPHTHYLENE	85.000	J								
85-01-8	PHENANTHRENE	100.000	J								
120-12-7	ANTHRACENE	77.000	J								
84-74-2	DI-N-BUTYL PHTHALATE	49.000	J	360.000	J						
206-44-0	FLUORANTHENE	1700.000									
129-00-0	PYRENE	950.000	J								
56-55-3	BENZO(A)ANTHRACENE	790.000	J								
218-01-9	CHRYSENE	1200.000									
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	6400.000	B	25000.000	BEJ	2200.000	BJ			340.000	J
205-99-2	BENZO(B)FLUORANTHENE	1400.000									
207-08-9	BENZO(K)FLUORANTHENE	1400.000									
50-32-8	BENZO(A)PYRENE	1300.000									
193-39-5	INDENO(1,2,3-CD)PYRENE	1000.000	J								
53-70-3	DIBENZO(A,H)ANTHRACENE	300.000	J								
191-24-2	BENZO(G,H,I)PERYLENE	1000.000	J								

	Location Alias =>	RAS		SAS BNA		RAS		RAS		RAS	
	Location ID =>	R025A		R026A		R026A		R027A		R028	
	SMO or Sample ID =>	EAR29		3975E-126		EAR28		EAR44		EAC27	
	Date Collected =>	07/25/88		07/25/88		07/25/88		07/25/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			730.000	J						
84-74-2	DI-N-BUTYL PHTHALATE			330.000	J					71.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	100.000	J	950.000	J	130.000	J	85.000	J	120.000	J

	Location Alias =>	RAS		TCLP		SAS BNA		RAS		SAS BNA	
	Location ID =>	R029A		R029A		R029A		R029B		R029B	
	SMO or Sample ID =>	EAR61		EAR81		157		EAR62		158	
	Date Collected =>	07/27/88		07/26/88		07/26/88		07/27/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE					5000.000				3200.000	
65-85-0	BENZOIC ACID			3.000	J						
84-74-2	DI-N-BUTYL PHTHALATE					380.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	110.000	J			7600.000	B	230.000	J		

	Location Alias =>	SAS BNA		SAS BNA		RAS		SAS BNA		RAS	
	Location ID =>	R02A		R02A		R030A		R030A		R030B	
	SMO or Sample ID =>	3975E-102		102RE		EAR63		159		EAR64	
	Date Collected =>	07/21/88		07/21/88		07/27/88		07/26/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE							2100.000	J		
84-74-2	DI-N-BUTYL PHTHALATE									680.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	4900.000	J	11000.000	J	140.000	J				

	Location Alias =>	SAS BNA		RAS		TCLP		RAS		RAS	
	Location ID =>	R030B		R032A		R033		R033(DUP)		R034(DUP)	
	SMO or Sample ID =>	160		EAR96		EBR44		EBR38		EBR36	
	Date Collected =>	07/26/88		07/28/88		07/27/88		07/28/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL					7.000	J				
78-59-1	ISOPHORONE	2200.000									
84-74-2	DI-N-BUTYL PHTHALATE			150.000	J						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE							320.000	J	100.000	J

	Location Alias =>	RAS	SAS BNA	SAS BNA	SAS BNA	SAS BNA
	Location ID =>	R034A	R035A	R035A	R036A	R036A
	SMO or Sample ID =>	EAR87	3975E-105	3975E-105RE	3975E-104	3975E-104RE
	Date Collected =>	07/27/88	07/21/88	07/21/88	07/21/88	07/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
84-74-2	DI-N-BUTYL PHTHALATE		160.000 J			
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	370.000 J	55000.000 J	48000.000 J	4800.000 J	9400.000 J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	R036A		R037A		R038A		R040		R041	
	SMO or Sample ID =>	EAR25		EAR86		EAR89		EBR35		EAC24	
	Date Collected =>	07/22/88		07/27/88		07/27/88		07/28/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
100-02-7	4-NITROPHENOL	100.000	J								
84-74-2	DI-N-BUTYL PHTHALATE							82.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			1400.000	J	740.000	J			820.000	J

	Location Alias =>	RAS		RAS		SAS BNA		RAS		RAS	
	Location ID =>	R042		R045		R045		R047		R049	
	SMO or Sample ID =>	EAC20		EAC11		EAC59		EAC19		EBR90	
	Date Collected =>	08/02/88		08/02/88		08/03/88		08/02/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE					3700.000				150.000	J
91-57-6	2-METHYLNAPHTHALENE					82.000	J				
85-01-8	PHENANTHRENE					110.000	J				
206-44-0	FLUORANTHENE					300.000	J				
129-00-0	PYRENE			86.000	J	260.000	J				
56-55-3	BENZO(A)ANTHRACENE			110.000	J	280.000	J				
218-01-9	CHRYSENE			170.000	J	460.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	150.000	J	290.000	J			1000.000			
205-99-2	BENZO(B)FLUORANTHENE			360.000	J	650.000	J				
207-08-9	BENZO(K)FLUORANTHENE					360.000	J				
50-32-8	BENZO(A)PYRENE			140.000	J	460.000	J				

	Location Alias =>	SAS BNA		TCLP		RAS		SAS BNA		RAS	
	Location ID =>	R049		R049		R049(D)		R049(D)		R050	
	SMO or Sample ID =>	EBR94		EBR80		EBR91		EBR95		EAC03	
	Date Collected =>	07/29/88		07/28/88		07/29/88		07/29/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL							330.000	J		
78-59-1	ISOPHORONE	5500.000		2.000	J	2400.000		36000.000	E		
84-74-2	DI-N-BUTYL PHTHALATE	70.000	J			350.000	M	95.000	J		
218-01-9	CHRYSENE							120.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE									860.000	
207-08-9	BENZO(K)FLUORANTHENE							150.000	J		

	Location Alias =>	SAS BNA		RAS		SAS BNA		RAS		SAS BNA	
	Location ID =>	R050		R051		R051		R052		R052	
	SMO or Sample ID =>	EAC51		EAC01		EAC49		EAC06		EAC54	
	Date Collected =>	08/03/88		08/02/88		08/03/88		08/02/88		08/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
106-44-5	4-METHYLPHENOL					370.000	J				
78-59-1	ISOPHORONE	6700.000				420.000	J			5200.000	
91-20-3	NAPHTHALENE	170.000	J								
91-57-6	2-METHYLNAPHTHALENE	160.000	J								
84-74-2	DI-N-BUTYL PHTHALATE	400.000	J			130.000	J			150.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			33000.000	J	18000.000	BJ	480.000	J	2700.000	B
117-84-0	DI-N-OCTYL PHTHALATE					58.000	J			130.000	J

	Location Alias =>	RAS		SAS BNA		RAS		SAS BNA		TCLP
	Location ID =>	R053		R053		R054		R054		R054
	SMO or Sample ID =>	EAC16		EAC92		EAC18		EAC94		ECL06RE
	Date Collected =>	08/02/88		08/03/88		08/02/88		08/03/88		08/03/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE							120.000	J		
84-74-2	DI-N-BUTYL PHTHALATE			140.000	J			110.000	J		
206-44-0	FLUORANTHENE							67.000	J		
129-00-0	PYRENE					170.000	J	77.000	J		
56-55-3	BENZO(A)ANTHRACENE					91.000	J				
218-01-9	CHRYSENE					100.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	74.000	J			1900.000				28.000	
117-84-0	DI-N-OCTYL PHTHALATE					1900.000		360.000	J		
205-99-2	BENZO(B)FLUORANTHENE					160.000	J	37.000	J		
50-32-8	BENZO(A)PYRENE					120.000	J	51.000	J		
193-39-5	INDENO(1,2,3-CD)PYRENE							57.000	J		
191-24-2	BENZO(G,H,I)PERYLENE							67.000	J		

	Location Alias =>	SAS BNA		RAS		RAS		SAS BNA		SAS BNA	
	Location ID ->	R054(DUP)		R054(DUP)		R055		R08A		R09A	
	SMO or Sample ID =>	EAC96		EAC45		EAC39		3975E72		3975E76	
	Date Collected =>	08/03/88		08/02/88		08/02/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	430.000	J					270.000	J	91.000	J
91-20-3	NAPHTHALENE	69.000	J								
85-01-8	PHENANTHRENE	56.000	J	260.000	J						
120-12-7	ANTHRACENE			95.000	J						
84-74-2	DI-N-BUTYL PHTHALATE	170.000	J	94.000	J						
206-44-0	FLUORANTHENE	130.000	J	330.000	J						
129-00-0	PYRENE	150.000	J	300.000	J						
56-55-3	BENZO(A)ANTHRACENE			120.000	J						
218-01-9	CHRYSENE			130.000	J						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			1900.000	J	160.000	J	4200.000	BJ		
117-84-0	DI-N-OCTYL PHTHALATE	830.000		320.000	J						
205-99-2	BENZO(B)FLUORANTHENE			200.000	J						
191-24-2	BENZO(G,H,I)PERYLENE			140.000	J						

Camp Dresser & McKee Inc.
User's Selection Criteria
For Result Table

Run Date: 02/22/88
Run Time: 16:02:21

LOCATION: SS

QUALIFIER: NCT U

Camp Dresser & McKee Inc.

REMTECH Test Results Report for: ANI

Run Date: 02/22/88

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SS04	SS07	SS111	SS120	SS123
	SMO or Sample ID =>	211	212	235	236	242
	Date Collected =>	08/01/88	08/01/88	08/01/88	08/01/88	08/03/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
CHL	CHLORIDE	155.000 J	30.000 J	165.000 J	263.000 J	79.700 J
SLP	SULPHATE	119.000 BJ	153.000 BJ	503.000 J	746.000 J	323.000 J
AMM	AMMONIA	7.470	10.600	8.480	11.600	9.970

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SS127	SS128	SS130A	SS132	SS13A
	SMO or Sample ID =>	224	227	200	240	201
	Date Collected =>	08/01/88	08/01/88	08/01/88	08/03/88	08/01/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
CHL	CHLORIDE	156.000 J	114.000 J		129.000 J	65.700 J
SLP	SULPHATE	372.000 J	504.000 J	116.000 BJ	555.000 J	253.000 BJ
AMM	AMMONIA	7.090	7.420	38.300		10.500

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS18		SS22		SS25		SS27		SS30	
	SMO or Sample ID =>	206		205		207		208		204	
	Date Collected =>	08/01/88		08/01/88		08/01/88		08/01/88		08/01/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	98.200	J	60.600	J	150.000	J	91.300	J	93.000	J
SLP	SULPHATE	313.000	J	258.000	BJ	174.000	BJ	256.000	J	284.000	J
AMM	AMMONIA	9.240		37.600		12.300		8.030		16.100	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS34		SS37		SS40		SS42		SS44	
	SMO or Sample ID =>	209		210		241		221		218	
	Date Collected =>	08/01/88		08/01/88		08/03/88		08/01/88		08/01/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	106.000	J	65.000	J	297.000	J	128.000	J	31.700	J
SLP	SULPHATE	303.000	J	238.000	BJ	560.000	J	383.000	J	114.000	BJ
AMM	AMMONIA	5.460		53.700		9.020		9.310			

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SS44A	SS45	SS51	SS56	SS65
	SMO or Sample ID =>	202	216	215	220	225
	Date Collected =>	08/01/88	08/01/88	08/01/88	08/01/88	08/01/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
CHL	CHLORIDE	23.800 J	154.000 J	197.000 J	28.800 J	201.000 J
SLP	SULPHATE	98.100 BJ	354.000 J	294.000 J	112.000 BJ	311.000 J
AMM	AMMONIA	25.200	12.300	7.240	6.840	6.250

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS67		SS79		SS82		SS85		SS92	
	SMO or Sample ID =>	223		228		229		237		231	
	Date Collected =>	08/01/88		08/01/88		08/01/88		08/01/88		08/01/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	150.000	J	82.100	J	168.000	J	5.700	BJ	168.000	J
SLP	SULPHATE	390.000	J	257.000	J	932.000	J	1700.000	J	545.000	J
AMM	AMMONIA	7.660		9.080		9.100				11.700	

Location Alias => RAS
Location ID => SS92
SMO or Sample ID => 233
Date Collected => 08/01/88

CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
CHL	CHLORIDE	88.700	J								
SLP	SULPHATE	347.000	J								
AMM	AMMONIA	11.700									

	Location Alias =>	SAS BNA	SAS BNA	SAS BNA	TCLP	RAS
	Location ID =>	SS01B	SS03A	SS04A	SS04A	SS05A
	SMO or Sample ID =>	3975E-93	3975E-100RE	3975E-101	EAR17	EAR07
	Date Collected =>	07/21/88	07/21/88	07/21/88	07/21/88	07/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
108-95-2	PHENOL				5.000 J	87000.000 J
65-85-0	BENZOIC ACID		1300.000 J			
84-74-2	DI-N-BUTYL PHTHALATE	430.000 J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE		890.000 J	1600.000 J		

	Location Alias =>	SAS BNA		TCLP		RAS		RAS		RAS	
	Location ID =>	SS07A		SS07A		SS09A		SS09B		SS100	
	SMO or Sample ID =>	3975E-96		EAR19		ECF52		ECF53		EBR81	
	Date Collected =>	07/21/88		07/21/88		07/12/88		07/12/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			4.000	J					2400.000	
106-44-5	4-METHYLPHENOL									240.000	J
78-59-1	ISOPHORONE					930.000					
105-67-9	2,4-DIMETHYLPHENOL									260.000	J
131-11-3	DIMETHYL PHTHALATE					44.000	J				
118-74-1	HEXACHLOROBENZENE					97.000	J				
85-01-8	PHENANTHRENE					82.000	J			99.000	J
206-44-0	FLUORANTHENE					100.000	J				
129-00-0	PYRENE					75.000	J				
85-68-7	BUTYLBENZYLPHTHALATE					870.000		150.000	J	490.000	J
56-55-3	BENZO(A)ANTHRACENE					85.000	J				
218-01-9	CHRYSENE					120.000	J			1100.000	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	610.000	J			810.000		47.000	J	9100.000	
205-99-2	BENZO(B)FLUORANTHENE					82.000	J				
207-08-9	BENZO(K)FLUORANTHENE					84.000	J				
50-32-8	BENZO(A)PYRENE					71.000	J				

	Location Alias =>	RAS		RAS		RAS		SAS BNA		SAS BNA	
	Location ID =>	SS101		SS101		SS102		SS102		SS104	
	SMO or Sample ID =>	EBR82		EBR82DL		EAC17		EAC93		EAC81	
	Date Collected =>	07/29/88		07/29/88		08/02/88		08/03/88		08/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL	600.000									
91-57-6	2-METHYLNAPHTHALENE	330.000	J								
88-06-2	2,4,6-TRICHLOROPHENOL,	550.000									
606-20-2	2,6-DINITROTOLUENE									340.000	J
100-02-7	4-NITROPHENOL									110.000	J
132-64-9	DIBENZOFURAN	390.000									
85-01-8	PHENANTHRENE	110.000	J								
84-74-2	DI-N-BUTYL PHTHALATE	680.000						65.000	J	78.000	J
206-44-0	FLUORANTHENE	120.000	J								
85-68-7	BUTYLBENZYLPHTHALATE	15000.000	J	4600.000	DJ						
218-01-9	CHRYSENE	5200.000		2600.000	DJ						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	150000.000	J	130000.000	BD	350.000	J				
117-84-0	DI-N-OCTYL PHTHALATE	15000.000	J	5500.000	DJ						

	Location Alias =>	RAS		RAS		SAS BNA		RAS		RAS	
	Location ID =>	SS104		SS105		SS106		SS109		SS10A	
	SMO or Sample ID =>	EAC38		EBR68		EC168		EBR28		ECF54	
	Date Collected =>	08/02/88		07/29/88		07/29/88		07/28/88		07/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE					3800.000					
91-20-3	NAPHTHALENE					310.000	J				
91-57-6	2-METHYLNAPHTHALENE					260.000	J				
85-01-8	PHENANTHRENE					97.000	J				
84-74-2	DI-N-BUTYL PHTHALATE	71.000	J			100.000	J	76.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE					3000.000	B			290.000	J
193-39-5	INDENO(1,2,3-CD)PYRENE			63.000	J						
191-24-2	BENZO(G,H,I)PERYLENE			120.000	J						

	Location Alias =>	RAS		SAS BNA		RAS		SAS BNA		SAS BNA	
	Location ID =>	SS110		SS110		SS111		SS111		SS112	
	SMO or Sample ID =>	EBR89		EBR93		EAC04		EAC52		EC170	
	Date Collected =>	07/29/88		07/29/88		08/02/88		08/03/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	370.000		540.000	J			1800.000		3500.000	J
91-20-3	NAPHTHALENE									79.000	J
91-57-6	2-METHYLNAPHTHALENE									50.000	J
87-86-5	PENTACHLOROPHENOL	96.000	J								
84-74-2	DI-N-BUTYL PHTHALATE	64.000	J	200.000	J			450.000	J	180.000	J
85-68-7	BUTYLBENZYLPHTHALATE	58.000	J								
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			1800.000	B	540.000	J				

	Location Alias =>	SAS BNA		SAS BNA		SAS BNA		RAS		SAS BNA	
	Location ID =>	SS112		SS113		SS115		SS116		SS116	
	SMO or Sample ID =>	EBR92		EC169		EAC50		EAC00		EAC48	
	Date Collected =>	07/29/88		07/29/88		08/03/88		08/02/88		08/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL							3200.000	J		
39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER					52.000	J				
78-59-1	ISOPHORONE	630.000	J			5500.000				5700.000	
91-20-3	NAPHTHALENE					170.000	J				
91-57-6	2-METHYLNAPHTHALENE					73.000	J				
84-74-2	DI-N-BUTYL PHTHALATE			380.000	J	220.000	J			730.000	
85-68-7	BUTYLBENZYLPHTHALATE									160.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE					2400.000	B			1700.000	B
117-84-0	DI-N-OCTYL PHTHALATE									59.000	J

	Location Alias =>	RAS		SAS BNA		SAS BNA		RAS		RAS	
	Location ID =>	SS117		SS117		SS118		SS119		SS11A	
	SMO or Sample ID =>	EAC15		EAC91		EAC56		EAC07		ECF56	
	Date Collected =>	08/02/88		08/03/88		08/03/88		08/02/88		07/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
91-20-3	NAPHTHALENE					120.000	J				
91-57-6	2-METHYLNAPHTHALENE					92.000	J				
84-74-2	DI-N-BUTYL PHTHALATE			150.000	J	310.000	J				
85-68-7	BUTYLBENZYLPHTHALATE									76.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	130.000	J					260.000	J	1600.000	
117-84-0	DI-N-OCTYL PHTHALATE									120.000	J

	Location Alias =>	RAS		SAS BNA		SAS BNA		RAS		SAS BNA	
	Location ID =>	SS120		SS120		SS120(DUP)		SS121		SS121	
	SMO or Sample ID =>	EAC09		EAC57		EAC95		EAC05		EAC53	
	Date Collected =>	08/02/88		08/03/88		08/03/88		08/02/88		08/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE									2300.000	
84-74-2	DI-N-BUTYL PHTHALATE			60.000	J	150.000	J			1100.000	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	99.000	J	1900.000	B			1000.000	J		

	Location Alias =>	RAS		SAS BNA		SAS BNA		SAS BNA		SAS BNA
	Location ID =>	SS123		SS123(DUP)		SS124A		SS124B		SS125A
	SMO or Sample ID =>	EAC40		EAC98		EAC84		EAC85		EAC86
	Date Collected =>	08/02/88		08/03/88		08/03/88		08/03/88		08/03/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			74.000	J					34.000	J
606-20-2	2,6-DINITROTOLUENE					460.000	J			520.000	J
84-74-2	DI-N-BUTYL PHTHALATE			110.000	J	45.000	J	59.000	J	51.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	140.000	J								

	Location Alias =>	SAS BNA	RAS	RAS	RAS	RAS
	Location ID =>	SS125B	SS126	SS127	SS127(DUP)	SS12A
	SMO or Sample ID =>	EAC87	EAC32	EBR21	EBR37	ECF58
	Date Collected =>	08/03/88	08/02/88	07/28/88	07/28/88	07/12/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE	89.000 J				
84-74-2	DI-N-BUTYL PHTHALATE	71.000 J		3200.000		
85-68-7	BUTYLBENZYLPHTHALATE					210.000 J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE		820.000 J		570.000 J	

	Location Alias =>	RAS		TCLP		RAS		TCLP		RAS	
	Location ID =>	SS12A		SS12A		SS12A(D)		SS12A(D)		SS12B	
	SMO or Sample ID =>	E42		ECF79		E43		ECF80RE		ECF59	
	Date Collected =>	07/13/88		07/13/88		07/13/88		07/13/88		07/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE					320.000	J	6.000	J		
84-66-2	DIETHYL PHTHALATE			6.000	J						
85-01-8	PHENANTHRENE	660.000	J			98.000	J				
84-74-2	DI-N-BUTYL PHTHALATE	440.000	J			870.000	J			57.000	J
206-44-0	FLUORANTHENE					74.000	J				
85-68-7	BUTYLBENZYLPHTHALATE					460.000	J			1700.000	
56-55-3	BENZO(A)ANTHRACENE					100.000	J				
218-01-9	CHRYSENE					110.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	9100.000	J			10000.000	J			170.000	J
117-84-0	DI-N-OCTYL PHTHALATE	150.000	J			110.000	J				
205-99-2	BENZO(B)FLUORANTHENE	60.000	J			73.000	J				
207-08-9	BENZO(K)FLUORANTHENE	39.000	J			25.000	J				

	Location Alias =>	RAS		RAS		RAS		SAS BNA		RAS	
	Location ID =>	SS128		SS128		SS130		SS132(DUP)		SS133	
	SMO or Sample ID =>	E44		E44REDL		EBR69		EAC97		EAC12	
	Date Collected =>	07/13/88		07/13/88		07/29/88		08/03/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	3100.000	J	4000.000	J						
111-91-1	BIS(2-CHLOROETHOXY) METHANE					360.000	J				
84-74-2	DI-N-BUTYL PHTHALATE	110.000	J			42.000	J	120.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	16000.000	J	15000.000	J					120.000	J

	Location Alias =>	SAS BNA		RAS		RAS		RAS		RAS	
	Location ID =>	SS133		SS15B		SS16A		SS16A		SS16B	
	SMO or Sample ID =>	EAC60		ECF64		ECF65		ECF65DL		ECF66	
	Date Collected =>	08/03/88		07/12/88		07/13/88		07/13/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL					1800.000		1600.000	DJ	1700.000	
95-48-7	2-METHYLPHENOL					640.000	J	470.000	DJ	680.000	
106-44-5	4-METHYLPHENOL					290.000	J			360.000	J
78-59-1	ISOPHORONE					720.000		710.000	DJ	1000.000	
105-67-9	2,4-DIMETHYLPHENOL					1000.000		390.000	DJ		
65-85-0	BENZOIC ACID					390.000	J	1400.000	DJ		
91-20-3	NAPHTHALENE					200.000	J			210.000	J
91-57-6	2-METHYLNAPHTHALENE			12000.000	J					170.000	J
83-32-9	ACENAPHTHENE			9200.000	J						
132-64-9	DIBENZOFURAN			7900.000	J						
86-73-7	FLUORENE			15000.000	J						
85-01-8	PHENANTHRENE			24000.000	J						
84-74-2	DI-N-BUTYL PHTHALATE	100.000	J					860.000	DJ		
206-44-0	FLUORANTHENE			2800.000	J						
129-00-0	PYRENE			7300.000	J						
85-68-7	BUTYLBENZYLPHTHALATE			3100.000	J	7000.000	J	2900.000	DJ	4600.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			27000.000	J	27000.000	DJ	27000.000	DJ	27000.000	DJ

	Location Alias =>	RAS		RAS		RAS		RAS		SAS BNA
	Location ID =>	SS16B		SS17A		SS17B		SS18A		SS18A
	SMO or Sample ID =>	ECF66DL		ECF67		ECF68		ECF98		3975E-63
	Date Collected =>	07/13/88		07/13/88		07/13/88		07/19/88		07/19/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading Qual
108-95-2	PHENOL	1000.000	DJ							
100-51-6	BENZYL ALCOHOL									310.000 J
95-48-7	2-METHYLPHENOL	400.000	DJ							
106-44-5	4-METHYLPHENOL									130.000 J
78-59-1	ISOPHORONE	890.000	DJ	43.000	J			1800.000		6200.000 J
105-67-9	2,4-DIMETHYLPHENOL									76.000 J
65-85-0	BENZOIC ACID									190.000 J
91-20-3	NAPHTHALENE							290.000	J	530.000 J
59-50-7	4-CHLORO-3-METHYLPHENOL									35.000 J
91-57-6	2-METHYLNAPHTHALENE							150.000	J	260.000 J
131-11-3	DIMETHYL PHTHALATE									41.000 J
118-74-1	HEXACHLOROBENZENE							24.000	J	
85-01-8	PHENANTHRENE							52.000	J	64.000 J
206-44-0	FLUORANTHENE							22.000	J	35.000 J
129-00-0	PYRENE							60.000	J	47.000 J
85-68-7	BUTYLBENZYLPHTHALATE	3600.000	DJ	100.000	J	73.000	J	1700.000		2900.000 J
218-01-9	CHRYSENE							55.000	J	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	27000.000	DJ	300.000	J	160.000	J			

	Location Alias =>	SAS BNA		SAS BNA		SAS BNA		RAS		SAS BNA	
	Location ID =>	SS18B		SS18B		SS19A		SS20A		SS20A	
	SMO or Sample ID =>	3975E-64		E64REDL		3975E-60		ECG01		3975E65	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE					1600.000	J	72.000	J	3900.000	J
65-85-0	BENZOIC ACID									96.000	J
91-57-6	2-METHYLNAPHTHALENE					14.000	J				
84-66-2	DIETHYL PHTHALATE									21.000	J
85-01-8	PHENANTHRENE					51.000	J				
120-12-7	ANTHRACENE					4.700	J				
85-68-7	BUTYLBENZYLPHTHALATE							160.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	9000.000	J	9000.000	J	9800.000	J				

	Location Alias =>	SAS BNA	RAS	SAS BNA	SAS BNA	SAS BNA
	Location ID =>	SS20A	SS20B	SS20B	SS20B	SS21A
	SMO or Sample ID =>	3975E65RE	ECG02	3975E66	3975E66RE	3975E-61
	Date Collected =>	07/20/88	07/19/88	07/20/88	07/20/88	07/19/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE	5500.000 J		160.000 J	190.000 J	1300.000 J
91-20-3	NAPHTHALENE	19.000 J				
99-09-2	3-NITROANILINE	64000.000 J				
83-32-9	ACENAPHTHENE		42.000 J			
129-00-0	PYRENE		81.000 J			
85-68-7	BUTYLBENZYLPHTHALATE	84.000 J	120.000 J			
117-84-0	DI-N-OCTYL PHTHALATE				670.000 J	

	Location Alias =>	SAS BNA		RAS		SAS BNA		SAS BNA		SAS BNA	
	Location ID =>	SS21A		SS21B		SS21B		SS21B		SS22(DUP)	
	SMO or Sample ID =>	E61RE		ECF97		3975E-62		E62RE		3975E-59	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER					660.000	J				
78-59-1	ISOPHORONE	1300.000	J			190.000	J	190.000	J		
59-50-7	4-CHLORO-3-METHYLPHENOL					35.000	J	35.000	J		
83-32-9	ACENAPHTHENE					7.100	J	7.100	J	54.000	J
85-01-8	PHENANTHRENE									45.000	J
84-74-2	DI-N-BUTYL PHTHALATE									49.000	J
206-44-0	FLUORANTHENE									80.000	J
129-00-0	PYRENE									98.000	J
85-68-7	BUTYLBENZYLPHTHALATE			66.000	J						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE					5300.000	J	5300.000	J		
117-84-0	DI-N-OCTYL PHTHALATE									79.000	J

	Location Alias =>	SAS BNA		RAS		TCLP		SAS BNA		TCLP	
	Location ID =>	SS22(DUP)		SS22A		SS22A		SS22A		SS22A	
	SMO or Sample ID =>	E59RE		ECF88		ECF92 RE		3975E-57REDL		ECF92	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL							550.000	J		
106-44-5	4-METHYLPHENOL							320.000	J		
78-59-1	ISOPHORONE					6.000	J	18000.000	J	8.000	J
65-85-0	BENZOIC ACID					37.000	J	1500.000	J	54.000	
91-20-3	NAPHTHALENE							1700.000	J		
91-57-6	2-METHYLNAPHTHALENE							1200.000	J		
83-32-9	ACENAPHTHENE	54.000	J								
86-73-7	FLUORENE							410.000	J		
86-30-6	N-NITROSODIPHENYLAMINE							2800.000	J		
85-01-8	PHENANTHRENE	45.000	J	3300.000	J			400.000	J		
84-74-2	DI-N-BUTYL PHTHALATE	49.000	J								
206-44-0	FLUORANTHENE	98.000	J	2400.000	J			410.000	J		
129-00-0	PYRENE	88.000	J								
85-68-7	BUTYLBENZYLPHTHALATE			10000.000	J			2400.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			220000.000	J	5.000	J	49000.000	J		
117-84-0	DI-N-OCTYL PHTHALATE	79.000	J								

	Location Alias =>	TCLP		RAS		RAS		TCLP		RAS	
	Location ID =>	SS22A(D)		SS22A(DUP)		SS22A(DUP)		SS22AD		SS22B	
	SMO or Sample ID =>	ECF93		ECF90		ECF90DL		ECF93		ECF89	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL									6300.000	J
78-59-1	ISOPHORONE	10.000						10.000		81000.000	J
65-85-0	BENZOIC ACID	69.000	J					69.000	J		
91-20-3	NAPHTHALENE									18000.000	J
91-57-6	2-METHYLNAPHTHALENE									5300.000	J
85-01-8	PHENANTHRENE			4000.000	J					830.000	J
84-74-2	DI-N-BUTYL PHTHALATE									4900.000	J
206-44-0	FLUORANTHENE			8000.000	J						
129-00-0	PYRENE			5300.000	J					1700.000	J
85-68-7	BUTYLBENZYLPHTHALATE			11000.000	J					8900.000	J
218-01-9	CHRYSENE			1500.000	J						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			240000.000	EJ	280000.000	DJ			21000.000	J

	Location Alias =>	SAS BNA	SAS BNA	RAS	SAS BNA	SAS BNA
	Location ID =>	SS22B	SS22B	SS23A	SS23A	SS23A
	SMO or Sample ID =>	3975E-58	E58RE	ECF86	3975E-55	E55RE
	Date Collected =>	07/19/88	07/19/88	07/19/88	07/19/88	07/19/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
108-95-2	PHENOL				5000.000 J	5000.000 J
100-51-6	BENZYL ALCOHOL	5500.000 J	5500.000 J		420.000 J	420.000 J
95-48-7	2-METHYLPHENOL				2800.000 J	2800.000 J
78-59-1	ISOPHORONE	3700.000 J	37000.000 J	2500.000 J	11000.000 J	11000.000 J
105-67-9	2,4-DIMETHYLPHENOL				2500.000 J	2500.000 J
91-20-3	NAPHTHALENE	8200.000 J	8200.000 J			
91-57-6	2-METHYLNAPHTHALENE	2000.000 J	2000.000 J		330.000 J	320.000 J
208-96-8	ACENAPHTHYLENE				36.000 J	36.000 J
84-66-2	DIETHYL PHTHALATE				56.000 J	56.000 J
86-30-6	N-NITROSODIPHENYLAMINE				1600.000 J	1600.000 J
85-01-8	PHENANTHRENE			2000.000 J	120.000 J	120.000 J
206-44-0	FLUORANTHENE				240.000 J	240.000 J
129-00-0	PYRENE			4100.000 J	1300.000 J	1300.000 J
85-68-7	BUTYLBENZYLPHTHALATE	18000.000 J	18000.000 J	7800.000 J	4000.000 J	4000.000 J
56-55-3	BENZO(A)ANTHRACENE				120.000 J	120.000 J
218-01-9	CHRYSENE				200.000 J	200.000 J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			36000.000 J	15000.000 J	15000.000 J
117-84-0	DI-N-OCTYL PHTHALATE					250.000 J
205-99-2	BENZO(B)FLUORANTHENE				140.000 J	140.000 J

	Location Alias =>	RAS	SAS BNA	RAS	SAS BNA	RAS
	Location ID =>	SS23B	SS23B	SS24A	SS24A	SS24B
	SMO or Sample ID =>	ECF87	3975E-56	ECG06	3975E67	ECG07
	Date Collected =>	07/19/88	07/19/88	07/20/88	07/19/88	07/20/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
108-95-2	PHENOL	82.000 J			2700.000 J	90.000 J
95-57-8	2-CHLOROPHENOL			1200.000 J		
95-48-7	2-METHYLPHENOL				650.000 J	
106-44-5	4-METHYLPHENOL		860.000 J		810.000 J	
78-59-1	ISOPHORONE	240.000 J	450000.000 J			310.000 J
88-75-5	2-NITROPHENOL					87.000 J
105-67-9	2,4-DIMETHYLPHENOL				820.000 J	
65-85-0	BENZOIC ACID		2400.000 J			
91-20-3	NAPHTHALENE	180.000 J			350.000 J	25.000 J
59-50-7	4-CHLORO-3-METHYLPHENOL		4200.000 J			
91-57-6	2-METHYLNAPHTHALENE	110.000 J			330.000 J	35.000 J
83-32-9	ACENAPHTHENE			650.000 J		
51-28-5	2,4-DINITROPHENOL					1200.000 J
100-02-7	4-NITROPHENOL				1300.000 J	760.000 J
121-14-2	2,4-DINITROTOLUENE				130.000 J	
84-66-2	DIETHYL PHTHALATE				68.000 J	
534-52-1	2-METHYL-4,6-DINITROPHENOL					8900.000
85-01-8	PHENANTHRENE				400.000 J	
120-12-7	ANTHRACENE				98.000 J	
84-74-2	DI-N-BUTYL PHTHALATE		7200.000 J		320.000 J	
206-44-0	FLUORANTHENE				490.000 J	
129-00-0	PYRENE	240.000 J		1600.000 J	910.000 J	
85-68-7	BUTYLBENZYLPHTHALATE	1100.000	9500.000 J	2600.000 J	3900.000 J	110.000 J
56-55-3	BENZO(A)ANTHRACENE				230.000 J	
218-01-9	CHRYSENE				450.000 J	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			10000.000 J	9500.000 BJ	
117-84-0	DI-N-OCTYL PHTHALATE				200.000 J	
205-99-2	BENZO(B)FLUORANTHENE				480.000 J	
207-08-9	BENZO(K)FLUORANTHENE				340.000 J	
50-32-8	BENZO(A)PYRENE				290.000 J	
193-39-5	INDENO(1,2,3-CD)PYRENE				300.000 J	

	Location Alias =>	SAS BNA		RAS		RAS		SAS BNA		TCLP	
	Location ID =>	SS24B		SS25A		SS25A		SS25A		SS25A(D)	
	SMO or Sample ID =>	3975E68		ECG08		ECG0811DL		3975E69		ECG04 RE	
	Date Collected =>	07/19/88		07/20/88		07/20/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			240.000	J						
95-48-7	2-METHYLPHENOL			84.000	J			230.000	J		
78-59-1	ISOPHORONE	480.000	J	4000.000				4200.000	J		
105-67-9	2,4-DIMETHYLPHENOL							230.000	J		
91-20-3	NAPHTHALENE	100.000	J	440.000				510.000	J		
91-57-6	2-METHYLNAPHTHALENE			220.000	J			170.000	J		
131-11-3	DIMETHYL PHTHALATE			210.000	J			150.000	J		
118-74-1	HEXACHLOROBENZENE			340.000	J			300.000	J		
85-01-8	PHENANTHRENE			150.000	J			120.000	J		
84-74-2	DI-N-BUTYL PHTHALATE	62.000	J					830.000	J	3.000	J
206-44-0	FLUORANTHENE			130.000	J			200.000	J		
129-00-0	PYRENE			230.000	J			180.000	J		
85-68-7	BUTYLBENZYLPHTHALATE	550.000	J	15000.000	E	17000.000		11000.000	J	4.000	J
56-55-3	BENZO(A)ANTHRACENE							71.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	2500.000	BJ	4000.000	B			4500.000	BJ		
117-84-0	DI-N-OCTYL PHTHALATE							130.000	J		
205-99-2	BENZO(B)FLUORANTHENE			180.000	J			110.000	J		
207-08-9	BENZO(K)FLUORANTHENE							110.000	J		
50-32-8	BENZO(A)PYRENE							190.000	J		
193-39-5	INDENO(1,2,3-CD)PYRENE							140.000	J		
191-24-2	BENZO(G,H,I)PERYLENE							180.000	J		

	Location Alias =>	RAS		RAS		RAS		SAS BNA		RAS	
	Location ID =>	SS25A(DUP)		SS25A(DUP)		SS25A(DUP)		SS25A(DUP)		SS26A	
	SMO or Sample ID =>	ECG09		ECG09RE		ECG09DL		3975E70		ECG10	
	Date Collected =>	07/20/88		07/20/88		07/20/88		07/19/88		07/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			400.000	B					6500.000	J
95-48-7	2-METHYLPHENOL	180.000	J	160.000	J						
106-44-5	4-METHYLPHENOL	110.000	J					86.000	J		
78-59-1	ISOPHORONE	4000.000		4200.000		4400.000	D	2900.000	J		
105-67-9	2,4-DIMETHYLPHENOL	250.000									
65-85-0	BENZOIC ACID	240.000	J	240.000	J			120.000	J		
120-82-1	1,2,4-TRICHLOROBENZENE									4100.000	J
91-20-3	NAPHTHALENE	710.000		770.000		730.000	JD	740.000	J		
59-50-7	4-CHLORO-3-METHYLPHENOL									4000.000	J
91-57-6	2-METHYLNAPHTHALENE	320.000		350.000		360.000	JD	200.000	J		
131-11-3	DIMETHYL PHTHALATE	220.000		220.000				92.000	J		
121-14-2	2,4-DINITROTOLUENE									1800.000	J
118-74-1	HEXACHLOROBENZENE	400.000		410.000		430.000	JD	120.000	J		
85-01-8	PHENANTHRENE	180.000	J	190.000	J	220.000	JD	61.000	J		
120-12-7	ANTHRACENE	180.000	J	37.000	J						
206-44-0	FLUORANTHENE	120.000	J	96.000	J	180.000	JD	61.000	J		
129-00-0	PYRENE	310.000		280.000		320.000	JD	85.000	J	3900.000	J
85-68-7	BUTYLBENZYLPHTHALATE	8500.000	E	6800.000	E	7400.000	D	5000.000	J		
56-55-3	BENZO(A)ANTHRACENE	120.000	J	150.000	J						
218-01-9	CHRYSENE	150.000	J	170.000	J			43.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	5400.000		4800.000		4400.000	D	2200.000	B		
117-84-0	DI-N-OCTYL PHTHALATE							140.000	J		
205-99-2	BENZO(B)FLUORANTHENE	150.000	J	130.000	J						

	Location Alias =>	RAS		RAS		SAS BNA		SAS BNA		RAS	
	Location ID =>	SS27A		SS28A		SS28A		SS28A		SS29A	
	SMO or Sample ID =>	ECG14		ECF83		3975E-52		E52RE		ECF81	
	Date Collected =>	07/20/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			71.000	J	1800.000	J	1800.000	J		
91-57-6	2-METHYLNAPHTHALENE			7.000	J			9.700	J		
534-52-1	2-METHYL-4,6-DINITROPHENOL									290.000	J
85-01-8	PHENANTHRENE			10.000	J						
129-00-0	PYRENE			25.000	J						
85-68-7	BUTYLBENZYLPHTHALATE			320.000	J						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	480.000									

	Location Alias =>	SAS BNA	SAS BNA	SAS BNA	RAS	RAS
	Location ID =>	SS29A	SS29B	SS29B	SS30A	SS30B
	SMO or Sample ID =>	3975E-50	3975E-51	E51RE	ECF84	ECF85
	Date Collected =>	07/19/88	07/19/88	07/19/88	07/19/88	07/19/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	140.000 J				
78-59-1	ISOPHORONE	3300.000 J	3300.000 J	3300.000 J	39.000 J	
91-20-3	NAPHTHALENE					2000.000
59-50-7	4-CHLORO-3-METHYLPHENOL	66.000 J				
91-57-6	2-METHYLNAPHTHALENE					1900.000
85-01-8	PHENANTHRENE					27.000 J
85-68-7	BUTYLBENZYLPHTHALATE					100.000 J

	Location Alias =>	SAS BNA		SAS BNA		RAS		SAS BNA		RAS	
	Location ID =>	SS30B		SS31A		SS31A		SS32A		SS33	
	SMO or Sample ID =>	3975E-54		3975E-84		EAR01		3975E-83		ECG18	
	Date Collected =>	07/19/88		07/21/88		07/21/88		07/21/88		07/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
106-46-7	1,4-DICHLOROBENZENE					210.000	J				
39638-32-9	BIS(2-CHLOROISOPROPYL) ETHER	61.000	J								
78-59-1	ISOPHORONE	2900.000	J								
120-82-1	1,2,4-TRICHLOROBENZENE					240.000	J				
91-20-3	NAPHTHALENE	150.000	J	48.000	J	130.000	J				
91-57-6	2-METHYLNAPHTHALENE	150.000	J								
83-32-9	ACENAPHTHENE					180.000	J				
132-64-9	DIBENZOFURAN					190.000	J				
85-01-8	PHENANTHRENE					100.000	J				
129-00-0	PYRENE					430.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			6200.000	BJ			2600.000	BJ	240.000	

	Location Alias =>	SAS BNA		RAS		SAS BNA		RAS		SAS BNA	
	Location ID =>	SS33A		SS34		SS34A		SS34A(DUP)		SS34A(DUP)	
	SMO or Sample ID =>	3975E79		ECG19		3975E80		ECG21		3975E82	
	Date Collected =>	07/19/88		07/20/88		07/19/88		07/20/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE					160.000	J				
84-74-2	DI-N-BUTYL PHTHALATE	54.000	J			56.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			200.000				220.000		7900.000	BJ

	Location Alias =>	SAS BNA		SAS BNA		SAS BNA		RAS		RAS	
	Location ID =>	SS35A		SS35A		SS36A		SS36A		SS38	
	SMO or Sample ID =>	3975E-88		88RE		87RE		EAR04		EAC33	
	Date Collected =>	07/21/88		07/21/88		07/21/88		07/21/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE									120.000	J
91-20-3	NAPHTHALENE									88.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1300.000	J	790.000	J	1400.000	J	1500.000	BJ	120.000	J

	Location Alias =>	RAS		RAS		SAS BNA		SAS BNA		RAS
	Location ID =>	SS39		SS42A		SS42A		SS43A		SS43B
	SMO or Sample ID =>	EBR34		EAR72		168		146		EAR48
	Date Collected =>	07/28/88		07/27/88		07/27/88		07/26/88		07/25/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
541-73-1	1,3-DICHLOROBENZENE	3400.000	J								
106-46-7	1,4-DICHLOROBENZENE	4300.000	J								
95-50-1	.,2-DICHLOROBENZENE	15000.000									
78-59-1	.SOPHORONE					1100.000	J	8200.000	J		
120-82-1	1,2,4-TRICHLOROBENZENE	2200.000	J								
91-57-6	2-METHYLNAPHTHALENE	2000.000	J								
84-74-2	DI-N-BUTYL PHTHALATE	1300.000	J	380.000						24.000	J
129-00-0	PYRENE	1500.000	J								
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE									53.000	J

	Location Alias =>	SAS BNA		RAS		SAS BNA		SAS BNA		RAS	
	Location ID =>	SS44A		SS44A		SS44B		SS44B		SS44B	
	SMO or Sample ID =>	152		EAR53		153		153RE		EAR54	
	Date Collected =>	07/26/88		07/25/88		07/26/88		07/26/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	2600.000									
84-74-2	DI-N-BUTYL PHTHALATE			30.000	J					22.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			110.000	J	49000.000	BEJ	2500.000	BJ	140.000	J

	Location Alias =>	SAS BNA	RAS	SAS BNA	SAS BNA	SAS BNA
	Location ID =>	SS45A	SS45A	SS45B	SS45B	SS46A
	SMO or Sample ID =>	E137	EAR37	E138	E138RE	3975E-133
	Date Collected =>	07/25/88	07/25/88	07/25/88	07/25/88	07/25/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE	4500.000 J		790.000 J	720.000 J	200.000 J
84-66-2	DIETHYL PHTHALATE			280.000 J	220.000 J	360.000 J
85-01-8	PHENANTHRENE			89.000 J	89.000 J	
84-74-2	DI-N-BUTYL PHTHALATE			230.000 J	120.000 J	200.000 J
206-44-0	FLUORANTHENE		31.000 J	71.000 J	120.000 J	
129-00-0	PYRENE		26.000 J	76.000 J	110.000 J	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE		82.000 J	590.000 J	510.000 J	5500.000 J

	Location Alias =>	RAS		SAS BNA		SAS BNA		RAS		SAS BNA	
	Location ID =>	SS46A		SS46B		SS46B		SS46B		SS47A	
	SMO or Sample ID =>	EAR35		3975E-134		3975E-134RE		EAR36		E140	
	Date Collected =>	07/25/88		07/25/88		07/25/88		07/25/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE									1700.000	J
84-66-2	DIETHYL PHTHALATE			450.000	J	470.000	J				
84-74-2	DI-N-BUTYL PHTHALATE			180.000	J	180.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	110.000	J	3600.000	J	4400.000	J	87.000	J	410.000	J

	Location Alias =>	SAS BNA		SAS BNA		RAS		SAS BNA		RAS	
	Location ID =>	SS47B		SS48A		SS48A		SS48B		SS48B	
	SMO or Sample ID =>	E141		3975E-129		EAR31		3975E-130		EAR32	
	Date Collected =>	07/25/88		07/25/88		07/25/88		07/25/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	2200.000	J					3100.000	J		
84-66-2	DIETHYL PHTHALATE	240.000	J	150.000	J						
84-74-2	DI-N-BUTYL PHTHALATE	280.000	J					180.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	2700.000	J			380.000		1600.000	J	1000.000	

	Location Alias =>	SAS BNA	RAS	SAS BNA	SAS BNA	RAS
	Location ID =>	SS49A	SS49A	SS49B	SS50A	SS50A
	SMO or Sample ID =>	3975E-135	EAR42	3975E-136	3975E-151	EAR52
	Date Collected =>	07/25/88	07/25/88	07/25/88	07/26/88	07/25/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE			860.000 J	45.000 J	
84-66-2	DIETHYL PHTHALATE	250.000 J				
85-01-8	PHENANTHRENE					41.000 J
84-74-2	DI-N-BUTYL PHTHALATE	170.000 J		160.000 J	260.000 J	
206-44-0	FLUORANTHENE					19.000 J
129-00-0	PYRENE					24.000 J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	880.000 J	93.000 J	1400.000 J		390.000
117-84-0	DI-N-OCTYL PHTHALATE					88.000 J

	Location Alias =>	SAS BNA		RAS		SAS BNA		RAS		SAS BNA	
	Location ID =>	SS51A		SS51A		SS51B		SS51B		SS52A	
	SMO or Sample ID =>	3975E-131		EAR33		3975E-132		EAR34		3975E-149	
	Date Collected =>	07/25/88		07/25/88		07/25/88		07/25/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE	690.000	J							49.000	J
84-74-2	DI-N-BUTYL PHTHALATE	100.000	J			410.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	330.000	J	130.000	J	300.000	J	56.000	J	260000.000	BE

	Location Alias =>	RAS		SAS BNA		RAS		SAS BNA		SAS BNA	
	Location ID =>	SS52A		SS52B		SS52B		SS53A		SS53A	
	SMO or Sample ID =>	EAR50		150		EAR51		E144		E144RE	
	Date Collected =>	07/25/88		07/26/88		07/25/88		07/25/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			14000.000	JE			970.000	J	1100.000	J
84-66-2	DIETHYL PHTHALATE			420.000	J						
84-74-2	DI-N-BUTYL PHTHALATE	30.000	J	430.000	J			170.000	J	190.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	120.000	J			81.000	J	490.000	J	490.000	J

	Location Alias =>	RAS		SAS BNA		SAS BNA		SAS BNA		RAS
	Location ID =>	SS53A		SS53B		SS53B		SS54A		SS54A
	SMO or Sample ID =>	EAR45		E145		E145RE		155		EAR56
	Date Collected =>	07/25/88		07/25/88		07/25/88		07/26/88		07/25/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE							300.000	J		
84-74-2	DI-N-BUTYL PHTHALATE			180.000	J	200.000	J	330.000	J	30.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	77.000	J	750.000	J	790.000	J	6800.000	BJ	59.000	J

	Location Alias =>	SAS BNA	SAS BNA	SAS BNA	SAS BNA	RAS
	Location ID =>	SS54B	SS55A	SS55B	SS56A	SS56A(DUP)
	SMO or Sample ID =>	156	161	162	163	EAR74
	Date Collected =>	07/26/88	07/26/88	07/26/88	07/26/88	07/27/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE		940.000 J	220.000 J	9400.000 J	
85-01-8	PHENANTHRENE				90.000 J	210.000 J
84-74-2	DI-N-BUTYL PHTHALATE	400.000 J	460.000 J	180.000 J	79.000 J	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS59A		SS61		SS64		SS65		SS66A	
	SMO or Sample ID =>	EBR20		EBR24		EBR27		EBR26		EAR93	
	Date Collected =>	07/28/88		07/28/88		07/28/88		07/28/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
83-32-9	ACENAPHTHENE									370.000	J
86-73-7	FLUORENE									230.000	J
85-01-8	PHENANTHRENE									2300.000	
120-12-7	ANTHRACENE									640.000	
84-74-2	DI-N-BUTYL PHTHALATE	1900.000	J	85.000	J	87.000	J	79.000	J		
206-44-0	FLUORANTHENE									3800.000	
129-00-0	PYRENE									4300.000	
56-55-3	BENZO(A)ANTHRACENE									2800.000	
218-01-9	CHRYSENE	1600.000	J							3000.000	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE									390.000	
205-99-2	BENZO(B)FLUORANTHENE									5600.000	
207-08-9	BENZO(K)FLUORANTHENE									3200.000	
50-32-8	BENZO(A)PYRENE									5500.000	
193-39-5	INDENO(1,2,3-CD)PYRENE									4200.000	
53-70-3	DIBENZO(A,H)ANTHRACENE									1400.000	
191-24-2	BENZO(G,H,I)PERYLENE									3900.000	

	Location Alias =>	RAS	RAS	RAS	SAS BNA	SAS BNA
	Location ID =>	SS66B	SS67A	SS68A	SS68A	SS70A
	SMO or Sample ID =>	EAR94	EAR92	ECG13	3975E74	170
	Date Collected =>	07/27/88	07/27/88	07/20/88	07/19/88	07/27/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE				150.000 J	80.000 J
88-06-2	2,4,6-TRICHLOROPHENOL			140.000 J		
131-11-3	DIMETHYL PHTHALATE					66.000 J
84-66-2	DIETHYL PHTHALATE					280.000 J
85-01-8	PHENANTHRENE			180.000 J		
84-74-2	DI-N-BUTYL PHTHALATE					37.000 J
206-44-0	FLUORANTHENE		200.000 J	140.000 J		
129-00-0	PYRENE		210.000 J	120.000 J		
85-68-7	BUTYLBENZYLPHTHALATE			130.000 J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	330.000 J		880.000 J	10000.000 BJ	1100.000 B
205-99-2	BENZO(B)FLUORANTHENE		230.000 J			

	Location Alias =>	RAS	SAS BNA	SAS BNA	SAS BNA	RAS
	Location ID =>	SS70A	SS71A	SS71A	SS72A	SS73A
	SMO or Sample ID =>	EAR84	3975E-103	3975E103REDL	3975E-106	EAR91
	Date Collected =>	07/27/88	07/21/88	07/21/88	07/21/88	07/27/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	320.000 J	84000.000 EJ	210000.000 J	1200.000 J	310.000 J

	Location Alias =>	RAS	RAS	RAS	RAS	SAS BNA
	Location ID =>	SS74A	SS75A	SS76A	SS77B	SS78A
	SMO or Sample ID =>	EAR90	EAR88	EAR85	EBR48	EAC88
	Date Collected =>	07/27/88	07/27/88	07/27/88	07/28/88	08/03/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
84-74-2	DI-N-BUTYL PHTHALATE					93.000 J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	970.000	2100.000 J	1900.000 J	110.000 J	

	Location Alias =>	SAS BNA		RAS		RAS		RAS		RAS	
	Location ID =>	SS78B		SS79		SS7A		SS80		SS81	
	SMO or Sample ID =>	EAC89		EBR46		ECF63		EBR49		EBR50	
	Date Collected =>	08/03/88		07/28/88		07/12/88		07/28/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
83-32-9	ACENAPHTHENE					9800.000	J				
132-64-9	DIBENZOFURAN					7500.000	J				
86-73-7	FLUORENE					20000.000	J				
85-01-8	PHENANTHRENE					34000.000	J				
120-12-7	ANTHRACENE					2300.000	J				
84-74-2	DI-N-BUTYL PHTHALATE	90.000	J								
129-00-0	PYRENE					5300.000	J	71.000	J		
85-68-7	BUTYLBENZYLPHTHALATE					2800.000	J				
218-01-9	CHRYSENE							120.000	J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			350.000	J	9800.000	J				
205-99-2	BENZO(B)FLUORANTHENE							160.000	JX	52.000	J
207-08-9	BENZO(K)FLUORANTHENE							160.000	JX		

	Location Alias =>	RAS		RAS		RAS		RAS		SAS BNA	
	Location ID =>	SS819A		SS82		SS82(DUP)		SS86		SS86	
	SMO or Sample ID =>	ECF95		EBR51		EBR39		EAC14		EAC90	
	Date Collected =>	07/19/88		07/28/88		07/28/88		08/02/88		08/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
86-30-6	N-NITROSODIPHENYLAMINE									340.000	J
84-74-2	DI-N-BUTYL PHTHALATE			100.000	J					1300.000	J
85-68-7	BUTYLBENZYLPHTHALATE	120.000	J								
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE					86.000	J	1300.000			
117-84-0	DI-N-OCTYL PHTHALATE							180.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		SAS BNA	
	Location ID =>	SS88		SS89		SS90		SS96		SS96	
	SMO or Sample ID =>	EBR32		EAC21		EBR33		EAC10		EAC58	
	Date Collected =>	07/28/88		08/02/88		07/28/88		08/02/88		08/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
86-30-6	N-NITROSODIPHENYLAMINE			490.000	J						
85-01-8	PHENANTHRENE	680.000	J			170.000	J				
84-74-2	DI-N-BUTYL PHTHALATE			3000.000	J	390.000	J			100.000	J
206-44-0	FLUORANTHENE	390.000	J			81.000	J				
129-00-0	PYRENE	500.000	J			98.000	J				
56-55-3	BENZO(A)ANTHRACENE	120.000	J								
218-01-9	CHRYSENE	250.000	J								
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE							120.000	J		
205-99-2	BENZO(B)FLUORANTHENE	250.000	J								
50-32-8	BENZO(A)PYRENE	130.000	J								

Location Alias => RAS
Location ID => SS98
SMO or Sample ID => EBR84
Date Collected => 07/29/88

CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
84-74-2	DI-N-BUTYL PHTHALATE	510.000									
206-44-0	FLUORANTHENE	38.000	J								
129-00-0	PYRENE	36.000	J								
218-01-9	CHRYSENE	66.000	J								
205-99-2	BENZO(B)FLUORANTHENE	69.000	JX								
207-08-9	BENZO(K)FLUORANTHENE	69.000	JX								

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SS01A		SS01B		SS03A		SS04		SS04A	
	SMO or Sample ID =>	MEY740		MEY741		MEY541		MEBE61		MEY739	
	Date Collected =>	07/21/88		07/21/88		07/26/88		07/25/88		07/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5720.000	P	6320.000	P	3760.000	P	6170.000	NJP	3560.000	P
7440-38-2	ARSENIC (TOTAL)	7.300	SNJF	8.200	SNJF	4.300	SNJF	9.500	BSNJF	4.400	NJF
7440-39-3	BARIUM	70.000	P	89.300	P	46.200	BP	166.000	P	24.400	BP
7440-41-7	BERYLLIUM (TOTAL)	0.330	BP	0.310	BP	0.270	BP				
7440-70-2	CALCIUM	833.000	BP	517.000	BP	802.000	BP	11200.000	*EJP	448.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	10.200	P	10.000	P	8.300	P	11.000	BP	7.400	P
7440-48-4	COBALT	5.800	BP	9.100	BP	3.200	BP			4.800	BP
7440-50-8	COPPER (TOTAL)	16.600	*P	16.900	*P	23.700	P			16.700	*P
7439-89-6	IRON	9440.000	P	11600.000	P	8620.000	P	3550.000	N*JP	8470.000	P
7439-92-1	LEAD (TOTAL)	18.900	+*NJF	14.600	S*N+JF	18.000	SF	10.200	F	8.700	S*NJF
7439-95-4	MAGNESIUM	1050.000	BP	1190.000	BP	993.000	BP	4670.000	BP	835.000	BP
7439-96-5	MANGANESE	639.000	P	770.000	P	298.000	P	140.000	*EJP	256.000	P
7440-02-0	NICKEL (TOTAL)	9.000	BP	11.300	P	6.700	BP			7.800	BP
7440-09-7	POTASSIUM	590.000	BP	524.000	BP	876.000	BP	4800.000	BP	369.000	BP
7440-23-5	SODIUM							11900.000	*JP		
7440-62-2	VANADIUM	13.600	P	16.600	P	10.400	BP			9.400	BP
7440-66-6	ZINC (TOTAL)	64.000	EJP	60.400	EJP	139.000	P	261.000	*NJP	49.900	EJP
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SS04A		SS04A(DUP)		SS05A		SS06A		SS07	
	SMO or Sample ID =>	MEY542		MEY746		MEY738		MEY737		MEBE62	
	Date Collected =>	07/26/88		07/21/88		07/21/88		07/21/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5010.000	P	4310.000	P	5750.000	P	4230.000	P	2120.000	NJP
7440-38-2	ARSENIC (TOTAL)	5.100	SNJF	4.800	NJF	5.500	NJF	3.500	SNJF		
7440-39-3	BARIUM	63.100	P	27.200	BP	130.000	P	103.000	NJP	45.000	BP
7440-41-7	BERYLLIUM (TOTAL)	0.390	BP	0.250	BP	0.380	BP	0.280	BP		
7440-70-2	CALCIUM	5280.000	P	509.000	BP	470.000	BP	489.000	B*JP	3990.000	B*EJP
7440-47-3	CHROMIUM (ELEMENTAL)	8.200	P	6.700	P	7.600	P	6.800	P		
7440-48-4	COBALT	4.200	BP	4.100	BP	6.200	BP	5.700	BP		
7440-50-8	COPPER (TOTAL)	18.900	P	11.900	*P	24.900	*P	13.200	P		
7439-89-6	IRON	9430.000	P	7980.000	P	8740.000	P	7560.000	P	1160.000	N*JP
7439-92-1	LEAD (TOTAL)	29.200	F	9.300	S*N+JF	10.800	S*NJF	12.100	S*F	3.800	BF
7439-95-4	MAGNESIUM	2340.000	P	876.000	BP	926.000	BP	786.000	B*JP	2110.000	BP
7439-96-5	MANGANESE	411.000	P	239.000	P	1090.000	P	966.000	P	97.000	*EJP
7440-02-0	NICKEL (TOTAL)	7.800	BP	8.100	BP	8.200	BP	7.700	BP		
7440-09-7	POTASSIUM	624.000	BP	438.000	BP	342.000	BP	258.000	BP		
7440-23-5	SODIUM			568.000	BP					5610.000	*JP
7440-62-2	VANADIUM	10.900	BP	11.000	P	12.600	P	10.200	BP		
7440-66-6	ZINC (TOTAL)	153.000	P	46.300	EJP	50.900	EJP	49.000	P	120.000	*NJP
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS07A		SS08A		SS09A		SS09B		SS100	
	SMO or Sample ID =>	MEY744		MEY745		MEY675		MEY676		MEY619	
	Date Collected =>	07/21/88		07/21/88		07/13/88		07/13/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4630.000	P	5840.000	P	3020.000	P	3920.000	P	766.000	P
7440-36-0	ANTIMONY (TOTAL)					7.600	NJP			9.800	JNP
7440-38-2	ARSENIC (TOTAL)	5.000	NJF	6.900	NJF	5.100	F	3.400	F	4.400	JF
7440-39-3	BARIUM	60.400	P	93.400	P	86.400	P	98.900	P	8.700	P
7440-41-7	BERYLLIUM (TOTAL)	0.250	BP	0.470	BP	0.380	BP	0.350	BP	0.061	P
7440-70-2	CALCIUM	1000.000	BP	3150.000	P	781.000	B*P	322.000	B*P	148000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	7.700	P	8.100	P	11.900	*JP	8.100	*JP	3.600	P
7440-48-4	COBALT	4.900	BP	7.000	BP	2.800	BP	3.600	BP	0.520	P
7440-50-8	COPPER (TOTAL)	8.800	*P	13.100	*P	12.900	P	8.600	P	8.400	P
7439-89-6	IRON	7700.000	P	10300.000	P	8910.000	P	10900.000	P	2070.000	P
7439-92-1	LEAD (TOTAL)	15.000	+*NJ	13.800	*NJF	18.200	NJF	9.600	NJF	10.000	JNF
7439-95-4	MAGNESIUM	990.000	BP	2480.000	P	859.000	BP	811.000	BP	90600.000	JEP
7439-96-5	MANGANESE	532.000	P	850.000	P	139.000	P	363.000	P	81.000	P
7440-02-0	NICKEL (TOTAL)	8.000	BP	11.300	P	12.800	P	7.700	BP		
7440-09-7	POTASSIUM	408.000	BP	798.000	BP	370.000	BP	336.000	BP	462.000	P
7782-49-2	SELENIUM (TOTAL)			0.220	BF			1.100	SF		
7440-22-4	SILVER (TOTAL)					2.200	P				
7440-23-5	SODIUM					130.000	BP	99.600	BP	1300.000	P
7440-62-2	VANADIUM	12.400	P	15.300	P	14.100	P	13.800	P	5.900	P
7440-66-6	ZINC (TOTAL)	44.200	EJP	68.200	EJP	52.800	P	43.800	P	33.000	P
74-90-8	CYANIDE (TOTAL)					0.520	C	0.780	C		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS101		SS103		SS104		SS105		SS106	
	SMO or Sample ID =>	MEY620		MEY621		MEAG38		MEY610		MEY624	
	Date Collected =>	07/29/88		07/29/88		08/02/88		07/29/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3160.000	P	3070.000	P	4360.000	P	5020.000	P	10300.000	P
7440-36-0	ANTIMONY (TOTAL)	13.000	JNP			9.100	PNJ				
7440-38-2	ARSENIC (TOTAL)	13.000	JF	5.600	JF			5.300	JF	4.800	JF
7440-39-3	BARIUM	56.000	P	19.000	P	52.000	P	59.000	P	152.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.094	P					0.300	P	2.000	P
7440-43-9	CADMIUM (TOTAL)	2.200	P			0.600	P				
7440-70-2	CALCIUM	79200.000	P	1510.000	P	548.000	P	18900.000	P	50500.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	44.000	P	5.900	P	6.300	P*	8.700	P	4.400	P
7440-48-4	COBALT	3.300	P	3.900	P	2.400	P	5.000	P	2.600	P
7440-50-8	COPPER (TOTAL)	16.000	P	15.000	P	4.000	P*NJ	14.000	P	7.600	P
7439-89-6	IRON	4890.000	P	7240.000	P	5670.000	P	10900.000	P	5410.000	P
7439-92-1	LEAD (TOTAL)	115.000	*P	12.000	JNF	23.000	P	30.000	*P	5.000	JNF
7439-95-4	MAGNESIUM	48400.000	JEP	1190.000	JEP	742.000	P	9720.000	JEP	1750.000	JEP
7439-96-5	MANGANESE	84.000	P	199.000	P	103.000	P*	428.000	P	871.000	P
7440-02-0	NICKEL (TOTAL)			8.500	P	9.100	P				
7440-09-7	POTASSIUM	619.000	P	1160.000	P	310.000	P	691.000	P	1500.000	P
7440-23-5	SODIUM	792.000	P	369.000	P	30.000	P	505.000	P	1230.000	P
7440-62-2	VANADIUM	9.300	P	8.600	P	6.900	P	12.000	P	8.000	P
7440-66-6	ZINC (TOTAL)	104.000	P	60.000	P	46.000	PEJ	74.000	P	29.000	P
74-90-8	CYANIDE (TOTAL)	2.100						1.200		44.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS108		SS109		SS10A		SS108		SS110	
	SMO or Sample ID =>	MEAG22		MEY578		MEY677		MEY678		MEY627	
	Date Collected =>	08/02/88		07/27/88		07/13/88		07/13/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	7230.000	P	7770.000	P	4710.000	P	3610.000	P	21900.000	P
7440-36-0	ANTIMONY (TOTAL)	7.400	PNJ							14.000	JNP
7440-38-2	ARSENIC (TOTAL)	3.800	F	10.000	S*NJF	3.700	F	4.500	F	0.900	JF
7440-39-3	BARIUM	136.000	P	127.000	P	38.200	BP	16.500	BP	418.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.530	BP	0.540	BP	0.550	BP	4.300	P
7440-43-9	CADMIUM (TOTAL)	1.000	P								
7440-70-2	CALCIUM	1230.000	P	1480.000	*P	2960.000	*P	945.000	BP	115000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	8.600	P*	10.500	P	7.100	*JP	5.600	P	28.000	P
7440-48-4	COBALT	6.000	P	7.400	BP	3.200	BP	3.700	BP	5.000	P
7440-50-8	COPPER (TOTAL)	14.000	P*NJ	15.200	P	12.000	P	12.000	P	23.000	P
7439-89-6	IRON	12700.000	P	11900.000	P	8890.000	P	7760.000	P	18100.000	P
7439-92-1	LEAD (TOTAL)	25.000	P	18.000	F	15.400	NSJF	4.200	*SJF	222.000	*P
7439-95-4	MAGNESIUM	1250.000	P	1490.000	*P	1870.000	P	1370.000	EJP	9830.000	JEP
7439-96-5	MANGANESE	692.000	P*	706.000	NJP	129.000	P	205.000	P	2920.000	P
7440-02-0	NICKEL (TOTAL)	13.000	P	11.300	P	6.100	BP	9.000	P	13.000	P
7440-09-7	POTASSIUM	829.000	P	696.000	BP	296.000	BP	456.000	BP	2350.000	P
7782-49-2	SELENIUM (TOTAL)					0.450	BWJF	0.360	NWJF		
7440-23-5	SODIUM	11.000	P			91.600	BP			1880.000	P
7440-62-2	VANADIUM	15.000	P	18.600	P	16.100	P	8.500	BP	15.000	P
7440-66-6	ZINC (TOTAL)	64.000	PEJ	71.900	EJP	49.400	P	45.400	P	107.000	P
74-90-8	CYANIDE (TOTAL)	1.300	N*J			6.300	C			58.000	

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS111		SS111		SS112		SS113		SS114	
	SMO or Sample ID =>	MEAG52		MEAG04		MEY626		MEY625		MEAG23	
	Date Collected =>	07/25/88		08/02/88		07/29/88		07/29/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1170.000	P	8450.000	P	36600.000	P	7970.000	P	4050.000	P
7440-36-0	ANTIMONY (TOTAL)			6.900	BNP	12.000	JNP			5.200	PNJ
7440-38-2	ARSENIC (TOTAL)			7.600	F	3.000	JF	1.800	JF	3.600	F
7440-39-3	BARIUM	8.200	BP	59.400	P	425.000	P	115.000	P	48.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.350	BP	7.300	P	1.200	P		
7440-43-9	CADMIUM (TOTAL)			5.600	P					0.800	P
7440-70-2	CALCIUM	2950.000	BP	1040.000	P	191000.000	P	27500.000	P	641.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			13.700	P	10.000	P	4.600	P	5.200	P*
7440-48-4	COBALT			6.000	BP	3.700	P	3.400	P	5.200	P
7440-50-8	COPPER (TOTAL)	5.800	BP	22.500	P	4.900	P	7.000	P	24.000	P*NJ
7439-89-6	IRON	1050.000	P	1450.000	P	10400.000	P	6170.000	P	9060.000	P
7439-92-1	LEAD (TOTAL)			19.400	SF	2.800	JNF	6.900	JNF	16.000	P
7439-95-4	MAGNESIUM	623.000	BP	1570.000	P	9600.000	JEP	1560.000	JEP	1010.000	P
7439-96-5	MANGANESE	33.800	P	391.000	NP	4300.000	P	759.000	P	353.000	P*
7440-02-0	NICKEL (TOTAL)			15.800	P					10.000	P
7440-09-7	POTASSIUM	3390.000	B*JP	859.000	BP	2960.000	P	1460.000	P	436.000	P
7440-23-5	SODIUM					2490.000	P	717.000	P		
7440-62-2	VANADIUM			17.600	P	12.000	P	10.000	P	8.500	P
7440-66-6	ZINC (TOTAL)	4.800	BP	75.400	P	14.000	P	34.000	P	58.000	PEJ
74-90-8	CYANIDE (TOTAL)	0.000	NR			6.800		6.500		1.100	N*J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS115		SS116		SS118		SS11A		SS11B	
	SMO or Sample ID =>	MEAG02		MEAG00		MEAG08		MEY679		MEY680	
	Date Collected =>	08/02/88		08/02/88		08/02/88		07/13/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4230.000	P	4570.000	P	2500.000	P	4400.000	P	4550.000	P
7440-36-0	ANTIMONY (TOTAL)	4.600	BNP	6.500	BNP	11.200	NP				
7440-38-2	ARSENIC (TOTAL)	5.400	F	6.300	SF	3.700	F	4.800	F	5.800	F
7440-39-3	BARIUM	14.600	BP	24.400	BP	7.600	BP	199.000	P	46.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.140	BP	0.190	BP			0.610	BP	0.390	BP
7440-43-9	CADMIUM (TOTAL)	1.400	P	3.800	P	2.500	P				
7440-70-2	CALCIUM	530.000	BP	1410.000	P	20400.000	P	76.000	BP	127.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	13.600	P	233.000	P	6.600	P	10300.000	P	2100.000	P
7440-48-4	COBALT	4.100	BP					9.700	BP	7.400	BP
7440-50-8	COPPER (TOTAL)	15.600	P	274.000	P	12.700	P	91.300	P	22.800	P
7439-89-6	IRON	8880.000	P	9830.000	P	6480.000	P	12500.000	P	11400.000	P
7439-92-1	LEAD (TOTAL)	6.500	F	23.000	SF	6.800	SF	32.800	*JF	12.200	*SJF
7439-95-4	MAGNESIUM	1080.000	P	1450.000	P	6380.000	P	799.000	BEJP	1040.000	BEJP
7439-96-5	MANGANESE	184.000	NP	188.000	NP	141.000	NP	605.000	P	356.000	P
7440-02-0	NICKEL (TOTAL)	25.800	P	25.100	P	5.200	BP	14.300	P	10.300	P
7440-09-7	POTASSIUM	723.000	P	532.000	BP	424.000	BP	697.000	BP	513.000	BP
7782-49-2	SELENIUM (TOTAL)							0.390	BNWJF	0.450	BNWJF
7440-23-5	SODIUM							25.100	P	25.000	BP
7440-62-2	VANADIUM	9.400	P	10.400	P	6.800	BP	24.000	P	16.300	P
7440-66-6	ZINC (TOTAL)	59.300	P	99.400	P	45.200	P	94.500	P	53.300	P
74-90-8	CYANIDE (TOTAL)			3295.000	C			56.300	C	6.300	C

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS120		SS120		SS120D		SS122		SS122	
	SMO or Sample ID =>	MEAG53		MEAG09		MEAG46		MEAG25		MEAG26	
	Date Collected =>	07/25/88		08/02/88		08/02/88		08/02/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	29200.000	P	10000.000	P	5730.000	P	7230.000	P	7100.000	P
7440-36-0	ANTIMONY (TOTAL)					11.000	PNJ	8.600	PNJ	8.900	PNJ
7440-38-2	ARSENIC (TOTAL)			6.200	SF	4.700	F	4.200	F	6.500	F
7440-39-3	BARIUM	274.000	P	164.000	P	115.000	P	105.000	P	24.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.330	BP						
7440-43-9	CADMIUM (TOTAL)			2.500	P	1.600	P	1.100	P	1.100	P
7440-70-2	CALCIUM	8300.000	P	1500.000	P	1340.000	P	908.000	P	350.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	20.000	P	11.500	P	8.600	P*	8.400	P*	7.700	P*
7440-48-4	COBALT	9.300	BP	5.600	BP	6.600	P	6.700	P	5.700	P
7440-50-8	COPPER (TOTAL)	15.200	BP	16.100	P	16.000	P*NJ	10.000	P*NJ	13.000	P*NJ
7439-89-6	IRON	16200.000	P	12500.000	P	11200.000	P	12200.000	P	13500.000	P
7439-92-1	LEAD (TOTAL)	15.200	F	18.200	SF	25.000	P	22.000	P	21.000	P
7439-95-4	MAGNESIUM	4740.000	BP	1500.000	P	1310.000	P	1260.000	P	1340.000	P
7439-96-5	MANGANESE	1220.000	P	823.000	NP	665.000	P*	582.000	P*	258.000	P*
7440-02-0	NICKEL (TOTAL)			11.500	P	12.000	P	11.000	P	13.000	P
7440-09-7	POTASSIUM	6750.000	*JP	936.000	P	752.000	P	678.000	P	490.000	P
7440-22-4	SILVER (TOTAL)			0.160	BP						
7440-23-5	SODIUM							11.000	P		
7440-62-2	VANADIUM	36.000	BP	20.700	P	14.000	P	16.000	P	13.000	P
7440-66-6	ZINC (TOTAL)	116.000	P	65.200	P	54.000	PEJ	47.000	PEJ	48.000	PEJ
74-90-8	CYANIDE (TOTAL)	0.000	NR					0.900	N*J	0.800	N*J

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS123		SS123		SS123D		SS124		SS124	
	SMO or Sample ID =>	MEAG59		MEAG40		MEAG41		MEAG42		MEAG48	
	Date Collected =>	07/25/88		08/02/88		08/02/88		08/02/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3100.000	P	8500.000	P	5840.000	P	4200.000	P	4010.000	P
7440-36-0	ANTIMONY (TOTAL)			12.000	PNJ	9.500	PNJ	8.700	PNJ	8.800	PNJ
7440-38-2	ARSENIC (TOTAL)			2.500	F	4.000	F	3.900	F	4.000	F
7440-39-3	BARIUM	64.400	BP	78.000	P	87.000	P	56.000	P	56.000	P
7440-43-9	CADMIUM (TOTAL)			1.600	P	1.400	P	1.000	P	1.000	P
7440-70-2	CALCIUM	14700.000	P	1730.000	P	1860.000	P	750.000	P	757.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			7.800	P*	7.600	P*	5.800	P*	5.400	P*
7440-48-4	COBALT			5.800	P	7.100	P	5.200	P	5.400	P
7440-50-8	COPPER (TOTAL)			187.000	P*NJ	16.000	P*NJ	11.000	P*NJ	11.000	P*NJ
7439-89-6	IRON	2100.000	P	10600.000	P	12400.000	P	9520.000	P	9360.000	P
7439-92-1	LEAD (TOTAL)	2.300	BF	29.000	P	27.000	P	20.000	P	21.000	P
7439-95-4	MAGNESIUM	6130.000	P	1340.000	P	1330.000	P	992.000	P	930.000	P
7439-96-5	MANGANESE	95.900	P	489.000	P*	584.000	P*	414.000	P*	421.000	P*
7440-02-0	NICKEL (TOTAL)			12.000	P	13.000	P	11.000	P	10.000	P
7440-09-7	POTASSIUM	3620.000	B*JP	632.000	P	662.000	P	547.000	P	531.000	P
7440-23-5	SODIUM							25.000	P	23.000	P
7440-62-2	VANADIUM			12.000	P	14.000	P	10.000	P	9.800	P
7440-66-6	ZINC (TOTAL)	22.300	P	68.000	PEJ	72.000	PEJ	51.000	PEJ	47.000	PEJ
74-90-8	CYANIDE (TOTAL)	0.000	NR	1.300	N*J	5.700	N*J	0.700	N*J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS125		SS125		SS126		SS127		SS127	
	SMO or Sample ID =>	MEAG43		MEAG49		MEAG32		MEY641		MEY571	
	Date Collected =>	08/02/88		08/02/88		08/02/88		07/25/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5040.000	P	4940.000	P	4080.000	P			5830.000	P
7440-36-0	ANTIMONY (TOTAL)	10.000	PNJ	9.800	PNJ	9.300	PNJ				
7440-38-2	ARSENIC (TOTAL)	1.200	FS	5.300	F	2.600	F			4.200	S*NJF
7440-39-3	BARIUM	85.000	P	77.000	P	99.000	P	110.000	BP	75.500	P
7440-41-7	BERYLLIUM (TOTAL)									0.350	BP
7440-43-9	CADMIUM (TOTAL)	1.200	P	1.400	P	1.100	P				
7440-70-2	CALCIUM	1070.000	P	930.000	P	1580.000	P	2550.000	BP	647.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)	7.000	P*	6.400	P*	5.700	P*			8.600	P
7440-48-4	COBALT	5.900	P	6.200	P	4.600	P			6.600	BP
7440-50-8	COPPER (TOTAL)	12.000	P*NJ	10.000	P*NJ	8.000	P*NJ			13.000	P
7439-89-6	IRON	10500.000	P	9920.000	P	8270.000	P			10800.000	P
7439-92-1	LEAD (TOTAL)	23.000	P	20.000	P	19.000	P	4.100	BF	8.700	F
7439-95-4	MAGNESIUM	1130.000	P	1050.000	P	1140.000	P	1100.000	BP	1170.000	*P
7439-96-5	MANGANESE	564.000	P*	537.000	P*	626.000	P*	76.000	NJP	553.000	NJP
7440-02-0	NICKEL (TOTAL)	11.000	P	11.000	P	8.000	P			9.100	P
7440-09-7.	POTASSIUM	548.000	P	447.000	P	407.000	P			467.000	BP
7440-23-5	SODIUM	18.000	P	21.000	P	31.000	P	8080.000	P		
7440-62-2	VANADIUM	13.000	P	12.000	P	9.700	P			16.700	P
7440-66-6	ZINC (TOTAL)	52.000	PEJ	46.000	PEJ	50.000	PEJ			49.600	EJP
74-90-8	CYANIDE (TOTAL)			4.200	N*J	0.700	N*J	0.000	NR		

	Location Alias =>	RAS	RAS	LEACH	LEACH	RAS
	Location ID =>	SS127(DUP)	SS128	SS128	SS128	SS128(D)
	SMO or Sample ID =>	MEY617	MEY612	MEBE635	MEY635	MEY615
	Date Collected =>	07/29/88	07/29/88	07/29/88	07/25/88	07/27/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7429-90-5	ALUMINUM	4990.000 P	4970.000 P	8480.000 EJP		4410.000 P
7440-38-2	ARSENIC (TOTAL)	3.300 JF	4.600 JF	7.800 BNJF	7.800 BNF	4.200 F
7440-39-3	BARIUM	65.000 P	48.000 P	234.000 P	234.000 P	48.000 P
7440-41-7	BERYLLIUM (TOTAL)	0.310 P	0.290 P			0.410 P
7440-70-2	CALCIUM	599.000 P	638.000 P	1880.000 BP	1880.000 BP	539.000 P
7440-47-3	CHROMIUM (ELEMENTAL)	6.700 P	6.000 P			5.900 P
7440-48-4	COBALT	6.100 P	4.900 P			5.200 P
7440-50-8	COPPER (TOTAL)	9.100 P	13.000 P			14.000 P
7439-89-6	IRON	7720.000 P	7910.000 P	4740.000 EJP	4740.000 EP	8960.000 P
7439-92-1	LEAD (TOTAL)	9.500 JNF	12.000 JNF	6.300 F	6.300 F	9.600 JN*F
7439-95-4	MAGNESIUM	1120.000 JEP	1160.000 JEP	1580.000 BP	1580.000 BP	1030.000 P
7439-96-5	MANGANESE	465.000 P	402.000 P	360.000 P	360.000 P	396.000 P
7440-02-0	NICKEL (TOTAL)	9.500 P	9.200 P			11.000 P
7440-09-7	POTASSIUM	748.000 P	959.000 P	2470.000 BP	2470.000 BP	
7440-23-5	SODIUM	611.000 P	351.000 P	10800.000 P	10800.000 P	
7440-28-0	THALLIUM (TOTAL)					0.410 F
7440-62-2	VANADIUM	13.000 P	12.000 P			11.000 P
7440-66-6	ZINC (TOTAL)	42.000 P	48.000 P	58.000 P	58.000 P	52.000 P
74-90-8	CYANIDE (TOTAL)			0.000 NR	0.000 NR	

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SS129		SS12A		SS12B		SS130		SS130A	
	SMO or Sample ID =>	MEAG28		MEY682		MEY683		MEY611		MEBE14	
	Date Collected =>	08/02/88		07/13/88		07/13/88		07/29/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4200.000	P	4530.000	P	5370.000	P	3140.000	P		
7440-36-0	ANTIMONY (TOTAL)	5.400	PNJ					8.700	JNP	101.000	P
7440-38-2	ARSENIC (TOTAL)	4.200	F	4.700	F	4.600	F	5.100	JF	2.400	BF
7440-39-3	BARIUM	81.000	P	56.100	P	58.100	P	39.000	P	401.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.400	BP	0.750	BP	0.310	P		
7440-43-9	CADMIUM (TOTAL)	1.100	P								
7440-70-2	CALCIUM	351.000	P	877.000	BP	3000.000	P	55600.000	P	1670.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)	6.500	P*	10.500	P	14.300	P	5.800	P	12000.000	P
7440-48-4	COBALT	5.800	P	5.700	BP	8.200	BP	4.300	P		
7440-50-8	COPPER (TOTAL)	10.000	P*NJ	13.000	P	17.300	P	13.000	P		
7439-89-6	IRON	9330.000	P	8530.000	P	9660.000	P	7740.000	P		
7439-92-1	LEAD (TOTAL)	21.000	P	23.500	*JF	36.400	*JF	30.000	*P	2.600	BWNF
7439-95-4	MAGNESIUM	810.000	P	956.000	BEJP	1430.000	EJP	31300.000	JEP		
7439-96-5	MANGANESE	741.000	P*	467.000	P	578.000	P	516.000	P	25.000	E*P
7440-02-0	NICKEL (TOTAL)	8.800	P	33.800	P	22.200	P	11.000	P		
7440-09-7	POTASSIUM	397.000	P	635.000	BP	664.000	BP	726.000	P	3790.000	B*P
7782-49-2	SELENIUM (TOTAL)			0.510	NWJF	0.730	BNWJF				
7440-23-5	SODIUM			27.300	BP	33.800	BP	762.000	P	5970.000	P
7440-62-2	VANADIUM	11.000	P	10.600	BP	12.900	P	11.000	P		
7440-66-6	ZINC (TOTAL)	59.000	PEJ	118.000	P	99.300	P	76.000	P	210.000	NP
74-90-8	CYANIDE (TOTAL)	1.200	N*J	3.700	C	2.600	C			0.000	NR

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SS131		SS132		SS132		SS132D		SS134	
	SMO or Sample ID =>	MEAG29		MEAG57		MEAG30		MEAG47		MEY595	
	Date Collected =>	08/02/88		07/25/88		08/02/88		08/02/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	6230.000	P	1660.000	P	3520.000	P	3920.000	P	6190.000	P
7440-36-0	ANTIMONY (TOTAL)	8.300	PNJ			6.200	PNJ	10.000	PNJ		
7440-38-2	ARSENIC (TOTAL)	4.600	F	1.000	BF	1.600	F	2.900	F	5.800	F
7440-39-3	BARIUM	50.000	P	64.000	BP	41.000	P	75.000	P	92.000	P
7440-41-7	BERYLLIUM (TOTAL)									0.400	P
7440-43-9	CADMIUM (TOTAL)	0.900	P			0.600	P	1.200	P	0.920	P
7440-70-2	CALCIUM	950.000	P	25600.000	P	548.000	P	1010.000	P	11000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	7.500	P*			4.600	P*	5.500	P*	9.500	P
7440-48-4	COBALT	6.000	P			3.700	P	4.700	P	6.400	P
7440-50-8	COPPER (TOTAL)	12.000	P*NJ			4.600	P*NJ	6.100	P*NJ	24.000	P
7439-89-6	IRON	11800.000	P	1090.000	P	5970.000	P	7120.000	P	13000.000	P
7439-92-1	LEAD (TOTAL)	20.000	P			12.000	P	19.000	P	64.000	P
7439-95-4	MAGNESIUM	1310.000	P	6210.000	P	750.000	P	842.000	P	6100.000	P
7439-96-5	MANGANESE	425.000	P*	71.500	P	293.000	P*	619.000	P*	639.000	P
7440-02-0	NICKEL (TOTAL)	11.000	P			5.800	P	7.600	P	16.000	P
7440-09-7	POTASSIUM	498.000	P	2940.000	B*JP	278.000	P	311.000	P	438.000	P
7440-23-5	SODIUM	10.000	P			31.000	P	29.000	P		
7440-28-0	THALLIUM (TOTAL)									0.720	F
7440-62-2	VANADIUM	14.000	P			8.300	P	8.000	P	17.000	P
7440-66-6	ZINC (TOTAL)	53.000	PEJ	13.200	BP	25.000	PEJ	34.000	PEJ	87.000	P
74-90-8	CYANIDE (TOTAL)	0.800	N*J	0.000	NR	0.600	N*J	0.700	N*J		

	Location Alias =>	RAS		RAS		RAS		LEACH		LEACH	
	Location ID =>	SS135		SS136		SS13A		SS13A		SS13A	
	SMO or Sample ID =>	MEY600		MEY609		MEY681		MEBE15		MEBE15D	
	Date Collected =>	07/27/88		07/27/88		07/13/88		07/13/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	9090.000	P	5670.000	P	5260.000	P	94.000	BP	94.000	B*P
7440-38-2	ARSENIC (TOTAL)	5.200	F	5.600	F	5.100	F				
7440-39-3	BARIUM	132.000	P	140.000	P	93.300	P	107.000	BP	107.000	BP
7440-41-7	BERYLLIUM (TOTAL)	0.480	P	0.480	P	0.790	BP				
7440-70-2	CALCIUM	1300.000	P	3240.000	P	153.000	BP	1290.000	B*P	1290.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)	11.000	P	8.200	P	5.300	P				
7440-48-4	COBALT	6.500	P	7.900	P	7.700	BP				
7440-50-8	COPPER (TOTAL)	14.000	P	16.000	P	9.700	P				
7439-89-6	IRON	11800.000	P	10800.000	P	10900.000	P				
7439-92-1	LEAD (TOTAL)	21.000	P	20.000	P	11.200	*JF	2.600	BNF	2.600	BNF
7439-95-4	MAGNESIUM	1380.000	P	1250.000	P	1210.000	EJP				
7439-96-5	MANGANESE	652.000	P	1060.000	P	309.000	P	880.000	E*P	880.000	P
7440-02-0	NICKEL (TOTAL)	13.000	P	12.000	P	9.200	P				
7440-09-7	POTASSIUM	820.000	P	805.000	P	312.000	BP	2800.000	B*P	2800.000	B*P
7782-49-2	SELENIUM (TOTAL)	0.450	JNF	1.100	JSNF	0.470	BNWJF				
7440-23-5	SODIUM					61.500	BP	6600.000	P	6600.000	*P
7440-62-2	VANADIUM	20.000	P	16.000	P	13.400	P				
7440-66-6	ZINC (TOTAL)	68.000	P	75.000	P	55.200	P	64.000	NP	64.000	NP
74-90-8	CYANIDE (TOTAL)							0.000	NR	0.000	NR

	Location Alias =>	LEACH		LEACH		RAS		RAS		RAS	
	Location ID =>	SS13A		SS13A(D)		SS13A(DUP)		SS14A		SS15A	
	SMO or Sample ID =>	MEBE15A		MEBE16		MEY685		MEY684		MEY686	
	Date Collected =>	07/13/88		07/13/88		07/13/88		07/13/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM					6510.000	P	5660.000	P	5540.000	P
7440-38-2	ARSENIC (TOTAL)					4.600	F	4.300	F	5.200	F
7440-39-3	BARIUM			42.000	BP	105.000	P	129.000	P	154.000	P
7440-41-7	BERYLLIUM (TOTAL)					0.760	BP	0.810	BP	0.800	BP
7440-43-9	CADMIUM (TOTAL)									7.100	P
7440-70-2	CALCIUM			749.000	B*P	94.000	BP	90.700	BP	4300.000	P
7440-47-3	CHROMIUM (ELEMENTAL)					8.500	P	5.600	P	175.000	P
7440-48-4	COBALT					6.800	BP	6.800	BP	12.900	P
7440-50-8	COPPER (TOTAL)					9.500	P	6.000	P	238.000	P
7439-89-6	IRON			99.000	BP	10900.000	P	9800.000	P	21000.000	P
7439-92-1	LEAD (TOTAL)			5.800	BWNF	13.400	*BJF	40.200	*JF	360.000	+JF
7439-95-4	MAGNESIUM					1090.000	EJP	898.000	BEJP	2190.000	EJP
7439-96-5	MANGANESE			542.000	E*P	883.000	P	895.000	P	497.000	P
7440-02-0	NICKEL (TOTAL)					11.000	P	7.100	BP	151.000	P
7440-09-7	POTASSIUM					544.000	BP	445.000	BP	611.000	BP
7782-49-2	SELENIUM (TOTAL)							0.730	BNWJF	0.610	BNSJF
7440-23-5	SODIUM					29.100	BP	35.300	BP	88.600	BP
7440-62-2	VANADIUM					15.000	P	11.800	P	11.200	P
7440-66-6	ZINC (TOTAL)	64.000	P	67.000	NP	55.800	P	57.100	P	458.000	P
74-90-8	CYANIDE (TOTAL)			0.000	NR	0.520	C	0.540	C	18.500	C

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS15B		SS16A		SS16B		SS17A		SS17B	
	SMO or Sample ID =>	MEY687		MEY688		MEY689		MEY690		MEY691	
	Date Collected =>	07/13/88		07/13/88		07/13/88		07/13/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	18000.000	P	8330.000	P	9460.000	P	4420.000	P	4600.000	P
7440-36-0	ANTIMONY (TOTAL)	9.200	BNJP								
7440-38-2	ARSENIC (TOTAL)	4.200	F	3.600	F	3.600	F	4.200	F	4.300	F
7440-39-3	BARIUM	333.000	P	57.800	P	74.700	P	54.000	P	62.000	P
7440-41-7	BERYLLIUM (TOTAL)	2.900	P	0.790	BP	0.750	BP	0.540	BP	0.760	BP
7440-43-9	CADMIUM (TOTAL)	44.000	P								
7440-70-2	CALCIUM	69600.000	P	54700.000	P	52000.000	P	19300.000	P	30700.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	213.000	P	124.000	P	126.000	P	16.100	P	17.300	P
7440-48-4	COBALT	20.500	P	4.800	BP	5.300	BP	5.300	BP	7.300	BP
7440-50-8	COPPER (TOTAL)	254.000	P	35.400	P	31.100	P	18.800	P	22.900	P
7439-89-6	IRON	40400.000	P	7770.000	P	7890.000	P	8530.000	P	9210.000	P
7439-92-1	LEAD (TOTAL)	573.000	*SJF	126.000	*JF	103.000	*SJF	38.900	*JF	40.800	*JF
7439-95-4	MAGNESIUM	18000.000	EJP	25800.000	EJP	20100.000	EJP	11400.000	EJP	13400.000	EJP
7439-96-5	MANGANESE	1550.000	P	472.000	P	574.000	P	305.000	P	327.000	P
7439-97-6	MERCURY (TOTAL)			0.110	NCV	0.120	NCV				
7440-02-0	NICKEL (TOTAL)	126.000	P	13.400	P	15.000	P	22.900	P	21.600	P
7440-09-7	POTASSIUM	1440.000	P	587.000	BP	656.000	BP	598.000	BP	585.000	BP
7782-49-2	SELENIUM (TOTAL)	1.000	NSJF	1.100	NJF	0.790	BNSJF	1.400	NSJF	0.650	BNSJF
7440-23-5	SODIUM	660.000	BP	125.000	BP	143.000	BP	35.000	BP	38.200	BP
7440-62-2	VANADIUM	14.300	P	7.500	BP	8.700	BP	11.000	P	11.300	P
7440-66-6	ZINC (TOTAL)	646.000	P	154.000	P	130.000	P	78.700	P	88.900	P
74-90-8	CYANIDE (TOTAL)	7.400	C	2.700	C	3.600	C			0.840	C

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS18		SS18A		SS18B		SS19A		SS20A	
	SMO or Sample ID =>	MEBE57		MEY711		MEY712		MEY708		MEY713	
	Date Collected =>	07/25/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			4990.000	P	6520.000	P	5760.000	P	5150.000	P
7440-36-0	ANTIMONY (TOTAL)			16.800	NJP						
7440-38-2	ARSENIC (TOTAL)			7.300	F	10.700	F	6.400	F	6.400	F
7440-39-3	BARIUM	87.000	BP	232.000	P	28.000	BP	58.900	P	31.600	BP
7440-41-7	BERYLLIUM (TOTAL)			0.530	BP	0.280	BP	0.300	BP	0.280	BP
7440-43-9	CADMIUM (TOTAL)	8.000	P	104.000	P						
7440-70-2	CALCIUM	5560.000	*EJP	5410.000	P	710.000	BP	12300.000	P	952.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	24.000	P	214.000	P	11.500	P	13.400	P	12.900	P
7440-48-4	COBALT			23.500	P	10.700	BP	7.100	BP	7.300	BP
7440-50-8	COPPER (TOTAL)			558.000	P	28.700	P	21.100	P	23.200	P
7439-89-6	IRON			53600.000	P	15300.000	P	11200.000	P	14100.000	P
7439-92-1	LEAD (TOTAL)	8.400	SF	1110.000	P	15.800	F	28.200	F	26.700	F
7439-95-4	MAGNESIUM			2830.000	EJP	1800.000	EJP	7620.000	EJP	1470.000	EJP
7439-96-5	MANGANESE	10.000	B*EJP	518.000	P	313.000	P	557.000	P	354.000	P
7439-97-6	MERCURY (TOTAL)							0.200	CV		
7440-02-0	NICKEL (TOTAL)			126.000	EJP	22.800	EJP	15.200	EJP	16.900	EJP
7440-09-7	POTASSIUM			598.000	BP	819.000	BP	785.000	BP	600.000	BP
7782-49-2	SELENIUM (TOTAL)			1.500	SF						
7440-22-4	SILVER (TOTAL)			3.700	P						
7440-23-5	SODIUM	3940.000	B*JP								
7440-62-2	VANADIUM			14.500	P	13.900	P	14.800	P	12.100	P
7440-66-6	ZINC (TOTAL)	162.000	*NJP	5320.000	P	164.000	P	99.300	P	82.000	P
74-90-8	CYANIDE (TOTAL)	0.000	NR	22.100	AS						

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SS20B		SS21A		SS21B		SS22		SS22A	
	SMO or Sample ID =>	MEY714		MEY709		MEY710		MEBE56		MEY705	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/25/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	6510.000	P	6050.000	P	8290.000	P	156.000	BNJP	20600.000	P
7440-36-0	ANTIMONY (TOTAL)									40.300	NJP
7440-38-2	ARSENIC (TOTAL)	8.700	SF	5.700	F	12.900	SF	24.000	NJF	27.100	F
7440-39-3	BARIUM	86.400	P	85.500	P	38.600	BP	198.000	BP	1480.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.280	BP	0.290	BP	0.320	BP			0.520	BP
7440-43-9	CADMIUM (TOTAL)									23.400	P
7440-70-2	CALCIUM	1050.000	BP	640.000	BP	553.000	BP	43300.000	*EJP	20400.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	11.100	P	12.500	P	11.800	P			1280.000	P
7440-48-4	COBALT	7.600	BP	7.500	BP	9.700	BP			89.300	P
7440-50-8	COPPER (TOTAL)	16.100	P	15.400	P	20.300	P			888.000	P
7439-89-6	IRON	13400.000	P	11900.000	P	14600.000	P	239.000	N*JP	143000.000	P
7439-92-1	LEAD (TOTAL)	23.800	F	75.800	P	15.200	SF	3.800	BF	4510.000	P
7439-95-4	MAGNESIUM	1460.000	EJP	1190.000	EJP	1670.000	EJP	5100.000	BP	6770.000	EJP
7439-96-5	MANGANESE	720.000	P	742.000	P	356.000	P	524.000	*EJP	1170.000	P
7439-97-6	MERCURY (TOTAL)							0.390	CV	0.500	CV
7440-02-0	NICKEL (TOTAL)	13.900	EJP	14.000	EJP	16.000	EJP	16.000	BP	482.000	EJP
7440-09-7	POTASSIUM	511.000	BP	499.000	BP	610.000	BP	2370.000	BP	552.000	BP
7440-23-5	SODIUM							15000.000	*JP		
7440-62-2	VANADIUM	15.000	P	15.600	P	17.900	P			18.000	BP
7440-66-6	ZINC (TOTAL)	66.600	P	68.000	P	73.200	P	81.000	*NJP	3550.000	P
74-90-8	CYANIDE (TOTAL)							0.000	NR	89.800	AS

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS22A(DUP)		SS22B		SS23A		SS23B		SS24A	
	SMO or Sample ID =>	MEY707		MEY706		MEY703		MEY704		MEY715	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	19600.000	P	5480.000	P	7050.000	P	7630.000	P	14000.000	P
7440-36-0	ANTIMONY (TOTAL)	26.500	BNJP							13.200	BNJP
7440-38-2	ARSENIC (TOTAL)	29.300	SF	10.400	SF	10.300	WJF	7.600	F	6.400	F
7440-39-3	BARIUM	1520.000	P	134.000	P	235.000	P	91.400	P	882.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.290	BP	1.100	BP	0.800	BP		
7440-43-9	CADMIUM (TOTAL)	24.100	P	2.000	P	23.000	P	4.400	P	13.200	P
7440-70-2	CALCIUM	25300.000	P	1800.000	P	145000.000	P	33400.000	P	2120.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	1480.000	P	608.000	P	271.000	P	69.300	P	662.000	P
7440-48-4	COBALT	93.900	P	7.700	BP	12.700	P	8.400	BP	15.600	P
7440-50-8	COPPER (TOTAL)	1090.000	P	42.900	P	509.000	P	114.000	P	488.000	P
7439-89-6	IRON	185000.000	P	11800.000	P	26600.000	P	9490.000	P	31900.000	P
7439-92-1	LEAD (TOTAL)	4770.000	P	104.000	P	570.000	P	278.000	P	1240.000	P
7439-95-4	MAGNESIUM	8440.000	EJP	1510.000	EJP	82800.000	EJP	14100.000	EJP	1480.000	EJP
7439-96-5	MANGANESE	1390.000	P	544.000	P	621.000	P	481.000	P	273.000	P
7439-97-6	MERCURY (TOTAL)	0.500	CV								
7440-02-0	NICKEL (TOTAL)	469.000	EJP	193.000	EJP	453.000	EJP	154.000	EJP	418.000	EJP
7440-09-7	POTASSIUM	575.000	BP	521.000	BP	716.000	BP	821.000	BP	1010.000	BP
7440-22-4	SILVER (TOTAL)					3.000	P	1.200	BP	4.400	P
7440-23-5	SODIUM			1570.000	P					2320.000	P
7440-62-2	VANADIUM	19.500	BP	11.900	P	9.300	BP	13.000	P	19.000	P
7440-66-6	ZINC (TOTAL)	3130.000	P	156.000	P	542.000	P	147.000	P	900.000	P
74-90-8	CYANIDE (TOTAL)	41.000	AS	148.000	AS	12.300	AS	4.700	AS	56.800	AS

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SS24B		SS25		SS25A		SS25A(DUP)		SS26A	
	SMO or Sample ID =>	MEY716		MEBE58		MEY717		MEY718		MEY719	
	Date Collected =>	07/19/88		07/25/88		07/19/88		07/20/88		07/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	10900.000	P	1060.000	NJP	4250.000	P	3960.000	P	4740.000	P
7440-36-0	ANTIMONY (TOTAL)					7.600	BNJP				
7440-38-2	ARSENIC (TOTAL)	19.000	SF			5.800	F	4.400	SNJF	4.700	SNJF
7440-39-3	BARIUM	65.300	P	112.000	BP	332.000	P	226.000	NJP	93.500	NJP
7440-41-7	BERYLLIUM (TOTAL)	0.400	BP							0.280	BP
7440-43-9	CADMIUM (TOTAL)			7.000	P	13.700	P	6.800	*NJP	1.700	*NJP
7440-70-2	CALCIUM	381.000	BP	5070.000	*EJP	5010.000	P	5870.000	*JP	822.000	B*JP
7440-47-3	CHROMIUM (ELEMENTAL)	44.600	P	112.000	P	299.000	P	204.000	P	16.100	P
7440-48-4	COBALT	11.200	BP			31.500	P	22.100	P	8.100	BP
7440-50-8	COPPER (TOTAL)	64.700	P	193.000	P	745.000	P	455.000	P	35.500	P
7439-89-6	IRON	18800.000	P	1960.000	N*JP	79100.000	P	24700.000	P	9420.000	P
7439-92-1	LEAD (TOTAL)	42.300	P	211.000	F	1790.000	P	1350.000	JP	20.800	*F
7439-95-4	MAGNESIUM	1970.000	EJP	1300.000	BP	1910.000	EJP	2910.000	*JP	1070.000	B*JP
7439-96-5	MANGANESE	334.000	P	78.000	*EJP	618.000	P	505.000	P	873.000	P
7440-02-0	NICKEL (TOTAL)	149.000	EJP	28.000	BP	184.000	EJP	165.000	P	66.600	P
7440-09-7	POTASSIUM	800.000	BP	1810.000	BP	403.000	BP	405.000	BP	363.000	BP
7782-49-2	SELENIUM (TOTAL)	0.340	BWJF								
7440-22-4	SILVER (TOTAL)					2.300	BP	1.900	BP		
7440-23-5	SODIUM	1290.000	P	50300.000	*JP	611.000	BP	701.000	BP		
7440-62-2	VANADIUM	23.600	P			23.500	P	15.400	P	13.200	P
7440-66-6	ZINC (TOTAL)	115.000	P	214.000	*NJP	806.000	P	550.000	P	91.500	P
74-90-8	CYANIDE (TOTAL)	2.900	AS	0.000	NR	12.900	AS	17.900	NAS		

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS27		SS27A		SS28A		SS29A		SS29B	
	SMO or Sample ID =>	MEBE69		MEY723		MEY700		MEY698		MEY699	
	Date Collected =>	07/25/88		07/20/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1780.000	EJP	4120.000	P	3140.000	P	7420.000	P	7820.000	P
7440-38-2	ARSENIC (TOTAL)	5.200	BNJF	4.600	SNJF	4.500	F	10.400	F	10.400	F
7440-39-3	BARIUM	337.000	P	44.500	NJP	32.800	BP	71.700	P	40.700	BP
7440-41-7	BERYLLIUM (TOTAL)			0.280	BP	0.230	BP	0.290	BP	0.320	BP
7440-70-2	CALCIUM	13600.000	P	2830.000	*JP	1990.000	P	916.000	BP	566.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)			7.500	P	13.800	P	12.100	P	11.800	P
7440-48-4	COBALT			5.400	BP	4.000	BP	9.200	BP	10.300	BP
7440-50-8	COPPER (TOTAL)			15.200	P	15.900	P	21.700	P	22.100	P
7439-89-6	IRON	1750.000	EJP	8010.000	P	6050.000	P	14400.000	P	15300.000	P
7439-92-1	LEAD (TOTAL)	5.200	F	14.000	+*JF	23.400	F	20.000	SF	15.700	SF
7439-95-4	MAGNESIUM	5700.000	P	2100.000	*JP	1550.000	EJP	1740.000	EJP	1680.000	EJP
7439-96-5	MANGANESE	61.000	P	319.000	P	269.000	P	544.000	P	384.000	P
7440-02-0	NICKEL (TOTAL)			8.200	BP	10.900	EJP	16.000	EJP	16.300	EJP
7440-09-7	POTASSIUM	2530.000	BP	309.000	BP	316.000	BP	625.000	BP	712.000	BP
7782-49-2	SELENIUM (TOTAL)							0.350	BWJF		
7440-23-5	SODIUM	11500.000	P								
7440-62-2	VANADIUM			10.500	BP	8.600	BP	19.200	P	17.900	P
7440-66-6	ZINC (TOTAL)	53.000	P	53.800	P	59.700	P	67.700	P	80.500	P
74-90-8	CYANIDE (TOTAL)	0.000	NR								

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS30		SS30A		SS30B		SS31A		SS32A	
	SMO or Sample ID =>	MEBE55		MEY701		MEY702		MEY732		MEY731	
	Date Collected =>	07/25/88		07/19/88		07/19/88		07/21/88		07/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5060.000	NJP	4070.000	P	3370.000	P	64300.000	P	3850.000	P
7440-38-2	ARSENIC (TOTAL)	3.100	BNJF	6.500	F	4.300	F	12.400	+NJF	3.600	SNJF
7440-39-3	BARIUM	119.000	BP	35.100	BP	57.100	P	1120.000	NJP	35.800	BNJP
7440-41-7	BERYLLIUM (TOTAL)			0.290	BP					0.290	BP
7440-43-9	CADMIUM (TOTAL)							91.400	*NJP		
7440-70-2	CALCIUM	6920.000	*EJP	1240.000	P	3120.000	P	46100.000	*JP	962.000	B*JP
7440-47-3	CHROMIUM (ELEMENTAL)	11.000	P	8.100	P	16.800	P	131.000	P	8.000	P
7440-48-4	COBALT			5.700	BP	5.100	BP	20.600	BP	5.900	BP
7440-50-8	COPPER (TOTAL)			15.300	P	22.900	P	5690.000	P	18.600	P
7439-89-6	IRON	3150.000	N*JP	8720.000	P	6650.000	P	138000.000	P	9320.000	P
7439-92-1	LEAD (TOTAL)	6.200	F	14.200	F	128.000	P	377.000	P	25.600	S*F
7439-95-4	MAGNESIUM	3330.000	BP	1370.000	EJP	2350.000	EJP	9460.000	*JP	1200.000	*JP
7439-96-5	MANGANESE	76.000	*EJP	254.000	P	249.000	P	2430.000	P	280.000	P
7440-02-0	NICKEL (TOTAL)			11.700	EJP	8.800	EJP	295.000	P	11.500	P
7440-09-7	POTASSIUM	3540.000	BP	475.000	BP	379.000	BP	6600.000	P	392.000	BP
7440-22-4	SILVER (TOTAL)							3.200	BP		
7440-23-5	SODIUM	7180.000	*JP					11700.000	P		
7440-62-2	VANADIUM			10.100	BP	7.800	BP	19.000	BP	9.400	BP
7440-66-6	ZINC (TOTAL)	41.000	*NJP	54.800	P	60.000	P	3170.000	P	65.900	P
74-90-8	CYANIDE (TOTAL)	0.000	NR								

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SS33A		SS34		SS34A		SS34A(D)		SS35A	
	SMO or Sample ID =>	MEY727		MEBE59		MEY728		MEY730		MEY736	
	Date Collected =>	07/20/88		07/25/88		07/20/88		07/22/88		07/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4690.000	P	131.000	BNJP	6590.000	P	5840.000	P	3320.000	P
7440-38-2	ARSENIC (TOTAL)	4.400	SNJF			4.000	NJF	4.200	NJF	5.200	NJF
7440-39-3	BARIUM	59.300	NJP			69.300	NJP	68.800	NJP	58.100	NJP
7440-41-7	BERYLLIUM (TOTAL)	0.280	BP			0.630	BP	0.570	BP	0.280	BP
7440-43-9	CADMIUM (TOTAL)					1.100	*NJP				
7440-70-2	CALCIUM	1300.000	*JP	2380.000	B*EJP	8540.000	*JP	6960.000	*JP	25300.000	*JP
7440-47-3	CHROMIUM (ELEMENTAL)	8.900	P	11.000	P	8.600	P	8.300	P	6.500	P
7440-48-4	COBALT	5.700	BP			6.500	BP	6.500	BP	4.800	BP
7440-50-8	COPPER (TOTAL)	12.500	P			14.000	P	13.800	P	17.300	P
7439-89-6	IRON	8970.000	P	75.000	BN*JP	9910.000	P	9520.000	P	13200.000	P
7439-92-1	LEAD (TOTAL)	29.200	S*F	2.300	BF	12.000	*F	12.800	*F	47.900	P
7439-95-4	MAGNESIUM	1130.000	*JP			2000.000	*JP	1480.000	*JP	14900.000	*JP
7439-96-5	MANGANESE	553.000	P	3.000	B*EJP	692.000	P	646.000	P	687.000	P
7440-02-0	NICKEL (TOTAL)	10.900	P			9.800	P	8.500	BP	10.200	P
7440-09-7	POTASSIUM	399.000	BP			538.000	BP	463.000	BP	434.000	BP
7440-23-5	SODIUM			2030.000	B*JP						
7440-62-2	VANADIUM	12.700	P			12.100	P	11.200	P	10.000	BP
7440-66-6	ZINC (TOTAL)	63.300	P	14.000	B*NJP	266.000	P	254.000	P	71.200	P
74-90-8	CYANIDE (TOTAL)			0.000	NR	0.660	NAS	0.560	NAS		

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SS36A		SS37		SS37A		SS38		SS39	
	SMO or Sample ID =>	MEY735		MEBE60		MEY734		MEAG33		MEAG34	
	Date Collected =>	07/21/88		07/25/88		07/21/88		08/02/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4470.000	P	408.000	NJP	3410.000	P	4430.000	P	6030.000	P
7440-36-0	ANTIMONY (TOTAL)							9.600	PNJ	8.200	PNJ
7440-38-2	ARSENIC (TOTAL)	4.700	SNJF			4.300	SNJF	5.000	F	3.400	F
7440-39-3	BARIUM	43.900	NJP	203.000	P	29.300	BNJP	51.000	P	65.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.280	BP			0.230	BP				
7440-43-9	CADMIUM (TOTAL)							1.100	P	1.400	P
7440-70-2	CALCIUM	2910.000	*JP	22500.000	*EJP	880.000	B*JP	1190.000	P	1560.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	7.400	P			7.000	P	26.000	P*	8.600	P*
7440-48-4	COBALT	6.200	BP			6.200	BP	6.400	P	7.300	P
7440-50-8	COPPER (TOTAL)	18.300	P			25.400	P	14.000	P*NJ	13.000	P*NJ
7439-89-6	IRON	8990.000	P	277.000	N*JP	8940.000	P	11600.000	P	12900.000	P
7439-92-1	LEAD (TOTAL)	9.900	*F	2.800	BF	12.500	*F	25.000	P	49.000	P
7439-95-4	MAGNESIUM	1330.000	*JP	7470.000	P	1100.000	B*JP	1260.000	P	1670.000	P
7439-96-5	MANGANESE	390.000	P	92.000	*EJP	325.000	P	474.000	P*	606.000	P*
7440-02-0	NICKEL (TOTAL)	11.600	P			10.300	P	13.000	P	14.000	P
7440-09-7	POTASSIUM	448.000	BP	6700.000	P	374.000	BP	640.000	P	590.000	P
7440-23-5	SODIUM			4540.000	B*JP			72.000	P	50.000	P
7440-62-2	VANADIUM	10.800	BP			10.200	BP	10.000	P	15.000	P
7440-66-6	ZINC (TOTAL)	48.500	P	94.000	*NJP	59.300	P	610.000	PEJ	61.000	PEJ
74-90-8	CYANIDE (TOTAL)			0.000	NR			0.700	N*J	0.800	N*J

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS40		SS40		SS41		SS42		SS42A	
	SMO or Sample ID =>	MEAG58		MEAG35		MEAG36		MEY644		MEY552	
	Date Collected =>	07/25/88		08/02/88		08/02/88		07/25/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	159.000	BP	3780.000	P	4810.000	P			6470.000	P
7440-36-0	ANTIMONY (TOTAL)			7.900	PNJ	8.900	PNJ				
7440-38-2	ARSENIC (TOTAL)			2.300	F	3.700	F			5.400	F
7440-39-3	BARIUM	7.800	BP	53.000	P	83.000	P	81.000	BP	27.700	BP
7440-41-7	BERYLLIUM (TOTAL)									0.450	BP
7440-43-9	CADMIUM (TOTAL)	6.000	P	0.800	P	0.800	P				
7440-70-2	CALCIUM	4080.000	BP	599.000	P	828.000	P	2490.000	BP	815.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)			5.400	P*	6.700	P*			9.800	P
7440-48-4	COBALT			5.400	P	7.000	P			6.000	BP
7440-50-8	COPPER (TOTAL)			7.900	P*NJ	11.000	P*NJ			16.900	P
7439-89-6	IRON	110.000	P	9120.000	P	11100.000	P			11900.000	P
7439-92-1	LEAD (TOTAL)			18.000	P	23.000	P	6.800	F	116.000	SF
7439-95-4	MAGNESIUM	1030.000	BP	941.000	P	1130.000	P			1480.000	P
7439-96-5	MANGANESE	11.600	BP	496.000	P*	647.000	P*	36.000	NJP	267.000	P
7440-02-0	NICKEL (TOTAL)			8.700	P	11.000	P			13.400	P
7440-09-7	POTASSIUM	1130.000	B*JP	331.000	P	544.000	P			473.000	BP
7440-23-5	SODIUM			22.000	P	36.000	P	12200.000	P		
7440-62-2	VANADIUM			11.000	P	12.000	P			14.000	P
7440-66-6	ZINC (TOTAL)			35.000	PEJ	55.000	PEJ	121.000	NJP	97.100	P
74-90-8	CYANIDE (TOTAL)	0.000	NR	1.200	N*J			0.000	NR		

	Location Alias =>	RAS		RAS		LEACH		LEACH		LEACH	
	Location ID =>	SS43A		SS43B		SS44		SS44		SS44A	
	SMO or Sample ID =>	MEY522		MEY523		MEBE17		MEBE17D		MEAG50	
	Date Collected =>	07/26/88		07/26/88		07/13/88		07/13/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4150.000	P	5700.000	P					66.600	BP
7440-36-0	ANTIMONY (TOTAL)	6.600	BNJP							98.400	N*PJ
7440-38-2	ARSENIC (TOTAL)	5.300	S*F	8.900	S*F						
7440-39-3	BARIUM	19.600	BP	52.300	P	169.000	BP	169.000	BP	26.500	BP
7440-41-7	BERYLLIUM (TOTAL)	0.380	BP	0.510	BP						
7440-43-9	CADMIUM (TOTAL)	13.400	P	9.600	P						
7440-70-2	CALCIUM	22900.000	P	9960.000	P	16000.000	*P	16000.000	*P	37900.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	15.600	P	12.300	P						
7440-48-4	COBALT	8.200	BP	8.500	BP						
7440-50-8	COPPER (TOTAL)	337.000	P	133.000	P					24.500	BP
7439-89-6	IRON	39000.000	P	13200.000	P	76.000	BP	76.000	BP		
7439-92-1	LEAD (TOTAL)	19.300	NJF	46.500	*P	4.200	BWNF	4.200	BF		
7439-95-4	MAGNESIUM	8660.000	P	4890.000	P	6340.000	*P	6340.000	*P	7050.000	P
7439-96-5	MANGANESE	467.000	P	461.000	P	96.000	E*P	96.000	*P	10.900	BP
7439-97-6	MERCURY (TOTAL)			0.100	CV						
7440-02-0	NICKEL (TOTAL)	18.000	P	12.500	P						
7440-09-7	POTASSIUM	292.000	BP	453.000	BP	5830.000	*P	5383.000	*P	25400.000	*JP
7782-49-2	SELENIUM (TOTAL)			0.440	WNJF					1.000	BF
7440-23-5	SODIUM					2530.000	BP	2530.000	BP		
7440-62-2	VANADIUM	8.900	BP	12.200	P						
7440-66-6	ZINC (TOTAL)	64.700	EJP	82.200	EJP	27.000	NP	27.000	P	11.900	BP
74-90-8	CYANIDE (TOTAL)					0.000	NR	0.000	NR	0.000	NR

	Location Alias =>	RAS		RAS		LEACH		RAS		RAS	
	Location ID =>	SS44A		SS44B		SS45		SS45A		SS45B	
	SMO or Sample ID =>	MEY528		MEY529		MEBE66		MEY513		MEY514	
	Date Collected =>	07/26/88		07/26/88		07/25/88		07/26/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2640.000	P	3630.000	P	4460.000	EJP	7360.000	P	6720.000	P
7440-38-2	ARSENIC (TOTAL)	2.800	+NJF	3.500	SNJF			9.800	S*F	9.500	S*F
7440-39-3	BARIUM	12.900	BP	16.800	BP	148.000	P	105.000	P	92.900	P
7440-41-7	BERYLLIUM (TOTAL)							0.500	BP	0.490	BP
7440-43-9	CADMIUM (TOTAL)	14.600	P	9.400	P						
7440-70-2	CALCIUM	29600.000	P	32700.000	P	7340.000	P	1720.000	P	1480.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	12.700	P	566.000	P			9.400	P	8.800	P
7440-48-4	COBALT	7.200	BP	5.700	BP			7.400	BP	7.900	BP
7440-50-8	COPPER (TOTAL)	738.000	P	3330.000	P			15.200	P	15.400	P
7439-89-6	IRON	29600.000	P	15300.000	P	2440.000	EJP	11500.000	P	12900.000	P
7439-92-1	LEAD (TOTAL)	18.300	SF	26.600	F	290.000	BF	17.000	SNJF	16.800	SNJF
7439-95-4	MAGNESIUM	12700.000	P	12600.000	P	3030.000	BP	1450.000	P	1390.000	P
7439-96-5	MANGANESE	405.000	P	354.000	P	73.000	P	621.000	P	679.000	P
7440-02-0	NICKEL (TOTAL)	11.700	P	25.400	P			10.500	P	12.400	P
7440-09-7	POTASSIUM	272.000	BP	335.000	BP	8030.000	P	862.000	BP	718.000	BP
7440-23-5	SODIUM					8150.000	P				
7440-62-2	VANADIUM	6.500	BP	7.900	BP			16.000	P	15.800	P
7440-66-6	ZINC (TOTAL)	100.000	P	382.000	P	81.000	P	67.700	EJP	75.400	EJP
74-90-8	CYANIDE (TOTAL)					0.000	NR				

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS46A		SS46B		SS47A		SS47B		SS48A	
	SMO or Sample ID =>	MEY509		MEY510		MEY516		MEY517		MEY750	
	Date Collected =>	07/26/88		07/26/88		07/26/88		07/26/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	6120.000	P	7390.000	P	7160.000	P	5970.000	P	5660.000	P
7440-38-2	ARSENIC (TOTAL)	9.800	S*F	10.400	S*F	10.700	S*F	10.100	S*F	4.300	F
7440-39-3	BARIUM	63.500	P	81.200	P	85.400	P	76.800	P	94.800	P
7440-41-7	BERYLLIUM (TOTAL)	0.450	BP	0.490	BP	0.530	BP	0.520	BP	0.310	BP
7440-70-2	CALCIUM	1150.000	P	1340.000	P	2050.000	P	1570.000	P	1230.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	9.400	P	10.900	P	10.700	P	11.400	P	8.600	P
7440-48-4	COBALT	7.300	BP	7.600	BP	7.000	BP	7.500	BP	5.300	BP
7440-50-8	COPPER (TOTAL)	15.900	P	17.200	P	15.800	P	15.100	P	13.600	P
7439-89-6	IRON	11300.000	P	12400.000	P	11700.000	P	10800.000	P	10900.000	P
7439-92-1	LEAD (TOTAL)	23.400	NJF	18.200	SNJF	33.700	NJF	58.900	*P	17.100	SF
7439-95-4	MAGNESIUM	1400.000	P	1520.000	P	1700.000	P	1430.000	P	1230.000	P
7439-96-5	MANGANESE	454.000	P	545.000	P	595.000	P	530.000	P	619.000	P
7440-02-0	NICKEL (TOTAL)	11.000	P	12.000	P	11.300	P	11.400	P	10.600	P
7440-09-7	POTASSIUM	542.000	BP	678.000	BP	882.000	BP	601.000	BP	589.000	BP
7440-62-2	VANADIUM	14.100	P	17.100	P	16.600	P	14.200	P	14.900	P
7440-66-6	ZINC (TOTAL)	64.100	EJP	65.300	EJP	70.500	EJP	72.700	EJP	57.600	P

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SS48B		SS49A		SS49B		SS50A		SS51	
	SMO or Sample ID =>	MEY506		MEY511		MEY512		MEY527		MEBE65	
	Date Collected =>	07/26/88		07/26/88		07/26/88		07/26/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	8260.000	P	8980.000	P	9620.000	P	6270.000	P	4710.000	EJP
7440-38-2	ARSENIC (TOTAL)	8.700	S*F	12.200	S*F	13.200	S*F	5.800	SNJF	2.400	BNJF
7440-39-3	BARIUM	104.000	P	99.700	P	86.500	P	64.000	P	61.000	BP
7440-41-7	BERYLLIUM (TOTAL)	0.560	BP	0.500	BP	0.570	BP	0.340	BP		
7440-70-2	CALCIUM	1440.000	P	1420.000	P	1320.000	P	2370.000	P	2950.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	11.100	P	11.200	P	11.600	P	10.400	P		
7440-48-4	COBALT	9.100	BP	9.200	BP	8.300	BP	5.700	BP		
7440-50-8	COPPER (TOTAL)	15.000	P	15.400	P	15.600	P	26.700	P		
7439-89-6	IRON	1280.000	P	14300.000	P	14100.000	P	11300.000	P	2730.000	EJP
7439-92-1	LEAD (TOTAL)	11.900	NJF	14.900	SNJF	12.700	SNJF	37.800	P	7.200	F
7439-95-4	MAGNESIUM	1640.000	P	1620.000	P	1740.000	P	1940.000	P	2120.000	BP
7439-96-5	MANGANESE	637.000	P	541.000	P	479.000	P	356.000	P	85.000	P
7440-02-0	NICKEL (TOTAL)	13.600	P	14.200	P	14.800	P	11.200	P		
7440-09-7	POTASSIUM	772.000	BP	711.000	BP	711.000	BP	690.000	BP	3020.000	BP
7440-23-5	SODIUM									9970.000	P
7440-62-2	VANADIUM	18.900	P	21.100	P	20.600	P	14.800	P		
7440-66-6	ZINC (TOTAL)	59.800	EJP	62.200	EJP	59.400	EJP	81.000	P	75.000	P
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS51A		SS51B		SS52A		SS52B		SS53A	
	SMO or Sample ID =>	MEY507		MEY508		MEY525		MEY526		MEY520	
	Date Collected =>	07/26/88		07/26/88		07/26/88		07/26/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	10100.000	P	7250.000	P	7080.000	P	6300.000	P	4440.000	P
7440-36-0	ANTIMONY (TOTAL)	9.100	BNJP			8.700	BNJP				
7440-38-2	ARSENIC (TOTAL)	12.000	S*F	9.200	S*F	10.200	S*F	5.600	SNJF	3.600	S*F
7440-39-3	BARIUM	91.500	P	22.600	BP	101.000	P	99.700	P	16.500	BP
7440-41-7	BERYLLIUM (TOTAL)	0.580	BP	0.500	BP	0.540	BP	0.430	BP	0.380	BP
7440-70-2	CALCIUM	1330.000	P	384.000	BP	1920.000	P	1760.000	P	434.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	11.900	P	9.300	P	9.500	P	10.100	P	7.100	P
7440-48-4	COBALT	8.600	BP	9.400	BP	7.300	BP	5.900	BP	5.100	BP
7440-50-8	COPPER (TOTAL)	15.600	P	20.100	P	17.500	P	16.700	P	15.200	P
7439-89-6	IRON	13800.000	P	13500.000	P	11800.000	P	11600.000	P	9070.000	P
7439-92-1	LEAD (TOTAL)	16.900	NJF	16.400	SNJF	34.300	*P	29.300	F	6.300	NJF
7439-95-4	MAGNESIUM	1790.000	P	1500.000	P	1420.000	P	1420.000	P	1040.000	BP
7439-96-5	MANGANESE	575.000	P	344.000	P	597.000	P	580.000	P	209.000	P
7440-02-0	NI[illegible]IAL)	13.400	P	14.600	P	11.500	P	10.300	P	9.800	P
7440-09-7	POTASSIUM	877.000	BP	549.000	BP	989.000	BP	680.000	BP	533.000	BP
7440-62-2	VANADIUM	20.200	P	13.900	P	16.000	P	15.000	P	11.100	P
7440-66-6	ZINC (TOTAL)	70.400	EJP	71.700	EJP	94.800	EJP	78.200	P	53.100	EJP

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS53B		SS54A		SS54B		SS55A		SS55B	
	SMO or Sample ID =>	MEY521		MEY531		MEY532		MEY537		MEY538	
	Date Collected =>	07/26/88		07/26/88		07/26/88		07/26/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4480.000	P	6810.000	P	6690.000	P	7270.000	P	8480.000	P
7440-38-2	ARSENIC (TOTAL)	5.800	S*F	9.000	SNJF	7.800	SNJF	5.500	SNJF	6.200	SNJF
7440-39-3	BARIUM	29.600	BP	27.800	BP	39.700	BP	169.000	P	170.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.390	BP	0.390	BP	0.320	BP	0.330	BP	0.550	BP
7440-70-2	CALCIUM	862.000	BP	558.000	BP	707.000	BP	2660.000	P	2400.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	6.500	P	10.600	P	10.000	P	10.600	P	11.000	P
7440-48-4	COBALT	5.200	BP	8.300	BP	7.900	BP	6.400	BP	7.700	BP
7440-50-8	COPPER (TOTAL)	12.700	P	36.700	P	21.400	P	19.700	P	17.700	P
7439-89-6	IRON	7870.000	P	15500.000	P	13000.000	P	11900.000	P	12600.000	P
7439-92-1	LEAD (TOTAL)	23.000	NJF	18.000	SF	22.000	F	35.900	P	21.000	F
7439-95-4	MAGNESIUM	1060.000	BP	1760.000	P	1670.000	P	1360.000	P	1470.000	P
7439-96-5	MANGANESE	261.000	P	264.000	P	471.000	P	826.000	P	807.000	P
7440-02-0	NICKEL (TOTAL)	10.200	P	18.700	P	13.400	P	10.900	P	10.300	P
7440-09-7	POTASSIUM	553.000	BP	701.000	BP	568.000	BP	1110.000	BP	1000.000	BP
7440-62-2	VANADIUM	10.200	BP	15.600	P	16.500	P	17.600	P	19.000	P
7440-66-6	ZINC (TOTAL)	64.600	EJP	102.000	P	113.000	P	118.000	P	77.800	P

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS56		SS56A		SS57A		SS58A		SS59A	
	SMO or Sample ID =>	MEY645		MEY539		MEY567		MEY569		MEY570	
	Date Collected =>	07/25/88		07/26/88		07/27/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			3780.000	P	5360.000	P	9320.000	P	7250.000	P
7440-38-2	ARSENIC (TOTAL)			6.300	SNJF	6.600	*NJF	12.400	S*NJF	9.400	S*NJF
7440-39-3	BARIUM	111.000	BP	36.300	BP	34.500	BP	94.300	P	85.900	P
7440-41-7	BERYLLIUM (TOTAL)			0.320	BP	0.270	BP	0.470	BP	0.450	BP
7440-70-2	CALCIUM	7080.000	P	5550.000	P	685.000	B*P	4050.000	*P	2020.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)			7.500	P	7.500	P	14.400	P	11.300	P
7440-48-4	COBALT			4.300	BP	5.400	BP	5.500	BP	6.000	BP
7440-50-8	COPPER (TOTAL)			33.500	P	17.500	P	34.900	P	29.100	P
7439-89-6	IRON			10600.000	P	10300.000	P	16900.000	P	13400.000	P
7439-92-1	LEAD (TOTAL)	5.300	F	33.900	P	9.500	F	60.800	JP	58.300	*JP
7439-95-4	MAGNESIUM	2280.000	BP	1710.000	P	1220.000	*P	3100.000	*P	1620.000	*P
7439-96-5	MANGANESE	19.000	NJP	267.000	P	288.000	NJP	322.000	NJP	374.000	NJP
7439-97-6	MERCURY (TOTAL)					0.100	CV				
7440-02-0	NICKEL (TOTAL)			11.600	P	9.900	P	13.900	P	12.300	P
7440-09-7	POTASSIUM			378.000	BP	632.000	BP	2150.000	P	847.000	BP
7440-23-5	SODIUM	5410.000	P					595.000	BP		
7440-62-2	VANADIUM			9.600	BP	12.900	P	19.100	P	16.700	P
7440-66-6	ZINC (TOTAL)			125.000	P	61.700	EJP	145.000	EJP	116.000	EJP
74-90-8	CYANIDE (TOTAL)	0.000	NR								

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS60A		SS61		SS62		SS63		SS64	
	SMO or Sample ID =>	MEY568		MEY574		MEY573		MEY572		MEY577	
	Date Collected =>	07/27/88		07/27/88		07/27/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3410.000	P	7710.000	P	7340.000	P	4690.000	P	9120.000	P
7440-38-2	ARSENIC (TOTAL)	4.700	*NJF	11.600	S*NJF	9.300	W*NJF	7.200	*NJF	8.000	S*NJF
7440-39-3	BARIUM	20.600	BP	32.600	BP	50.600	P	27.300	BP	101.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.380	BP			0.310	BP	0.590	BP
7440-70-2	CALCIUM	2100.000	*P	919.000	B*P	315.000	B*P	4060.000	*P	5900.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)	6.500	P	9.900	P	20.400	P	8.800	P	13.000	P
7440-48-4	COBALT	4.800	BP	5.600	BP			4.000	BP	7.400	BP
7440-50-8	COPPER (TOTAL)	13.400	P	17.900	P	68.800	P	13.700	P	20.000	P
7439-89-6	IRON	10300.000	P	13200.000	P	11100.000	P	9480.000	P	14000.000	P
7439-92-1	LEAD (TOTAL)	11.700	F	11.500	SF	19.200	F	38.100	*JP	61.300	*JP
7439-95-4	MAGNESIUM	1650.000	*P	1520.000	*P	546.000	B*P	3380.000	*P	3990.000	*P
7439-96-5	MANGANESE	240.000	NJP	345.000	NJP	46.900	NJP	245.000	NJP	593.000	NJP
7440-02-0	NICKEL (TOTAL)	10.600	P	12.400	P	29.600	P	9.400	BP	13.800	P
7440-09-7	POTASSIUM	477.000	BP	674.000	BP	2140.000	P	688.000	BP	969.000	BP
7440-22-4	SILVER (TOTAL)	5.100	P								
7440-23-5	SODIUM			4790.000	P			11400.000	P		
7440-62-2	VANADIUM	10.500	BP	15.600	P	15.500	P	11.200	BP	19.100	P
7440-66-6	ZINC (TOTAL)	65.500	EJP	71.500	EJP	47.100	EJP	107.000	EJP	111.000	EJP
74-90-8	CYANIDE (TOTAL)	94.000	AS	0.590	AS						

	Location Alias =>	LEACH		RAS		LEACH		RAS		RAS	
	Location ID =>	SS65		SS65		SS65		SS66A		SS66B	
	SMO or Sample ID =>	MEBE639		MEY576		MEY639		MEY563		MEY564	
	Date Collected =>	07/29/88		07/27/88		07/25/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5550.000	EJP	11600.000	P	5550.000	EP	10700.000	P	9260.000	P
7440-36-0	ANTIMONY (TOTAL)							7.100	BNJP		
7440-38-2	ARSENIC (TOTAL)	2.900	BNJF	9.700	S*NJF	2.900	BNF	11.800	S*NJF	10.100	S*NJF
7440-39-3	BARIUM	182.000	BP	128.000	P	182.000	BP	116.000	P	49.300	P
7440-41-7	BERYLLIUM (TOTAL)			0.580	BP			0.530	BP	0.580	BP
7440-70-2	CALCIUM	5210.000	P	1940.000	*P	5210.000	P	1330.000	*P	715.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)			12.800	P			13.400	P	12.400	P
7440-48-4	COBALT			6.500	BP			8.200	BP	8.200	BP
7440-50-8	COPPER (TOTAL)	11.000	BP	18.100	P	11.000	BP	20.700	P	25.100	P
7439-89-6	IRON	3150.000	EJP	14600.000	P	3150.000	EP	14200.000	P	15800.000	P
7439-92-1	LEAD (TOTAL)	22.900	SF	66.900	*JP	22.900	SF	15.100	F	13.000	F
7439-95-4	MAGNESIUM	2150.000	BP	1850.000	*P	2150.000	BP	1560.000	*P	2020.000	*P
7439-96-5	MANGANESE	238.000	P	718.000	NJP	238.000	P	646.000	NJP	429.000	NJP
7440-02-0	NICKEL (TOTAL)			14.300	P			13.800	P	18.200	P
7440-09-7	POTASSIUM	17300.000	P	1120.000	P	17300.000	P	1080.000	BP	913.000	BP
7440-23-5	SODIUM	11600.000	P			11600.000	P				
7440-62-2	VANADIUM			24.000	P			22.900	P	19.600	P
7440-66-6	ZINC (TOTAL)	40.000	P	82.400	EJP	40.000	P	72.100	EJP	80.900	EJP
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR				

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS67		SS67A		SS68A		SS69		SS70A	
	SMO or Sample ID =>	MEY640		MEY562		MEY722		MEY575		MEY554	
	Date Collected =>	07/25/88		07/27/88		07/20/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			6230.000	P	4650.000	P	4470.000	P	6260.000	P
7440-38-2	ARSENIC (TOTAL)			14.000	S*NJF	10.400	SNJF	4.300	S*NJF	3.100	F
7440-39-3	BARIUM	228.000	P	51.400	P	111.000	NJP	34.400	BP	127.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.440	BP			0.280	BP	0.450	BP
7440-70-2	CALCIUM	9630.000	P	3950.000	*P	60200.000	*JP	3040.000	*P	1710.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			8.400	P	12.900	P	6.900	P	9.600	P
7440-48-4	COBALT			5.700	BP	7.500	BP	4.100	BP	7.100	BP
7440-50-8	COPPER (TOTAL)			22.600	P	43.500	P	11.400	P	12.800	P
7439-89-6	IRON			10800.000	P	21600.000	P	8000.000	P	10500.000	P
7439-92-1	LEAD (TOTAL)	3.300	BF	13.100	SF	32.100	*F	17.400	SF	17.100	SF
7439-95-4	MAGNESIUM	5580.000	P	3140.000	*P	6670.000	*JP	1830.000	*P	1240.000	P
7439-96-5	MANGANESE	75.000	NJP	364.000	NJP	423.000	P	291.000	NJP	801.000	P
7440-02-0	NICKEL (TOTAL)			11.500	P	16.200	BP	8.400	BP	11.700	P
7440-09-7	POTASSIUM			546.000	BP	381.000	BP	639.000	BP	801.000	BP
7782-49-2	SELENIUM (TOTAL)					0.800	BWNJF				
7440-23-5	SODIUM	14100.000	P			8150.000	P				
7440-62-2	VANADIUM			14.000	P	11.500	BP	11.400	P	16.400	P
7440-66-6	ZINC (TOTAL)	78.000	NJP	58.900	EJP	116.000	P	51.000	EJP	63.100	P
74-90-8	CYANIDE (TOTAL)	0.000	NR								

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS71A		SS72A		SS73A		SS74A		SS75A	
	SMO or Sample ID =>	MEY544		MEY547		MEY561		MEY560		MEY558	
	Date Collected =>	07/26/88		07/26/88		07/27/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5020.000	P	6620.000	P	6620.000	P	7310.000	P	6970.000	P
7440-38-2	ARSENIC (TOTAL)	5.300	SNJF	3.800	F	5.500	F	5.400	F	2.800	F
7440-39-3	BARIUM	51.800	P	64.600	P	40.300	BP	61.200	P	114.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.320	BP	0.320	BP	0.310	BP	0.520	BP	0.380	BP
7440-70-2	CALCIUM	1170.000	P	534.000	BP	886.000	BP	884.000	BP	1670.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	9.800	P	10.600	P	9.900	P	11.000	P	11.200	P
7440-48-4	COBALT	6.600	BP	6.800	BP	6.600	BP	8.600	BP	7.600	BP
7440-50-8	COPPER (TOTAL)	16.500	P	17.800	P	16.000	P	24.900	P	12.400	P
7439-89-6	IRON	10000.000	P	13000.000	P	12200.000	P	14900.000	P	11100.000	P
7439-92-1	LEAD (TOTAL)	24.800	SF	20.000	SF	18.800	SF	22.800	SF	20.700	SF
7439-95-4	MAGNESIUM	1370.000	P	1360.000	P	1520.000	P	1650.000	P	1220.000	P
7439-96-5	MANGANESE	440.000	P	516.000	P	351.000	P	524.000	P	811.000	P
7440-02-0	NICKEL (TOTAL)	10.400	P	13.000	P	14.300	P	16.600	P	9.000	BP
7440-09-7	POTASSIUM	544.000	BP	510.000	BP	559.000	BP	523.000	BP	582.000	BP
7440-62-2	VANADIUM	12.300	P	14.800	P	14.600	P	16.800	P	17.900	P
7440-66-6	ZINC (TOTAL)	71.400	P	103.000	P	57.800	P	104.000	P	64.600	P

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SS76A		SS77A		SS77B		SS78		SS78A	
	SMO or Sample ID =>	MEY555		MEY587		MEY588		MEAG44		MEAG60	
	Date Collected =>	07/27/88		07/29/88		07/29/88		08/02/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	11800.000	P	6360.000	P	10000.000	P	8600.000	P	6170.000	P
7440-36-0	ANTIMONY (TOTAL)							13.000	PNJ		
7440-38-2	ARSENIC (TOTAL)	4.700	SF	4.300	JF	3.100	JF	4.400	F		
7440-39-3	BARIUM	230.000	P	90.000	P	89.000	P	167.000	P	107.000	BP
7440-41-7	BERYLLIUM (TOTAL)	0.540	BP	0.420	P	0.450	P				
7440-43-9	CADMIUM (TOTAL)							1.500	P		
7440-70-2	CALCIUM	3250.000	P	1120.000	P	839.000	P	1270.000	P	7140.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	15.500	P	7.800	P	11.000	P	11.000	P*		
7440-48-4	COBALT	9.500	BP	5.900	P	6.500	P	7.700	P		
7440-50-8	COPPER (TOTAL)	20.200	P	15.000	P	14.000	P	14.000	P*NJ		
7439-89-6	IRON	17600.000	P	11200.000	P	12700.000	P	14600.000	P	3690.000	P
7439-92-1	LEAD (TOTAL)	22.500	SF	22.000	JP	13.000	JN*F	30.000	P	3.900	BF
7439-95-4	MAGNESIUM	1990.000	P	1230.000	JEP	1520.000	JEP	1380.000	P	2770.000	BP
7439-96-5	MANGANESE	1320.000	P	561.000	P	515.000	P	841.000	P*	219.000	P
7440-02-0	NICKEL (TOTAL)	14.200	P	14.000	P	13.000	P	15.000	P		
7440-09-7	POTASSIUM	1450.000	P	537.000	P	652.000	P	1230.000	P	6600.000	*JP
7440-62-2	VANADIUM	25.900	P	16.000	P	19.000	P	20.000	P		
7440-66-6	ZINC (TOTAL)	128.000	P	70.000	P	65.000	P	77.000	PEJ	45.700	P
74-90-8	CYANIDE (TOTAL)							0.700	N*J	0.000	NR

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SS79		SS79		SS80		SS80		SS81	
	SMO or Sample ID =>	MEY586		MEY643		MEY589		MEBE638		MEY590	
	Date Collected =>	07/29/88		07/25/88		07/29/88		07/29/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3320.000	P			6370.000	P	1630.000	EJP	6730.000	P
7440-38-2	ARSENIC (TOTAL)	2.800	JF			2.700	JF			4.500	JF
7440-39-3	BARIUM	42.000	P	264.000	P	152.000	P	68.000	BP	106.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.420	P			0.450	P			0.650	P
7440-43-9	CADMIUM (TOTAL)									1.100	P
7440-70-2	CALCIUM	571.000	P	4010.000	BP	2150.000	P	5190.000	P	5850.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	6.000	P			21.000	P			11.000	P
7440-48-4	COBALT	4.000	P			6.000	P			6.400	P
7440-50-8	COPPER (TOTAL)	9.500	P			15.000	P			22.000	P
7439-89-6	IRON	6660.000	P			11300.000	P	749.000	EJP	14900.000	P
7439-92-1	LEAD (TOTAL)	25.000	JP	10.900	F	21.000	JP	5.000	WJF	137.000	JP
7439-95-4	MAGNESIUM	1040.000	JEP	1710.000	BP	1360.000	JEP	1700.000	BP	2620.000	JEP
7439-96-5	MANGANESE	302.000	P	190.000	NJP	1320.000	P	46.000	P	784.000	P
7439-97-6	MERCURY (TOTAL)									0.110	CV
7440-02-0	NICKEL (TOTAL)	10.000	P	174.000	P	8.000	P			19.000	P
7440-09-7	POTASSIUM	470.000	P	5300.000	P	473.000	P			613.000	P
7782-49-2	SELENIUM (TOTAL)	0.430	JNF			0.580	JNF				
7440-23-5	SODIUM	231.000	P	10600.000	P			11000.000	P		
7440-62-2	VANADIUM	13.000	P			18.000	P			18.000	P
7440-66-6	ZINC (TOTAL)	62.000	P	75.000	NJP	62.000	P	65.000	P	104.000	P
74-90-8	CYANIDE (TOTAL)			0.000	NR			0.000	NR	0.750	

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SS82		SS82		SS82(DUP)		SS84A		SS84B	
	SMO or Sample ID =>	MEY591		MEY638		MEY613		MEY603		MEY604	
	Date Collected =>	07/29/88		07/25/88		07/29/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	6820.000	P	1630.000	EP	7210.000	P	9430.000	P	8280.000	P
7440-38-2	ARSENIC (TOTAL)	4.000	JF			4.000	JF	6.000	F	5.600	F
7440-39-3	BARIUM	90.000	P	68.000	BP	86.000	P	181.000	P	113.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.420	P			0.480	P	0.590	P	0.500	P
7440-70-2	CALCIUM	1560.000	P	5190.000	P	1430.000	P	2190.000	P	3170.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	11.000	P			11.000	P	12.000	P	9.700	P
7440-48-4	COBALT	6.100	P			7.400	P	8.300	P	6.800	P
7440-50-8	COPPER (TOTAL)	19.000	P			20.000	P	17.000	P	15.000	P
7439-89-6	IRON	11100.000	P	749.000	EP	12800.000	P	14900.000	P	12600.000	P
7439-92-1	LEAD (TOTAL)	36.000	JP	5.000	WF	37.000	JP	21.000	P	19.000	P
7439-95-4	MAGNESIUM	1330.000	JEP	1700.000	BP	1480.000	JEP	1760.000	P	2390.000	P
7439-96-5	MANGANESE	502.000	P	46.000	P	489.000	P	884.000	P	601.000	P
7439-97-6	MERCURY (TOTAL)	0.550	CV			0.100	CV				
7440-02-0	NICKEL (TOTAL)	9.300	P			15.000	P	17.000	P	13.000	P
7440-09-7	POTASSIUM	601.000	P			1200.000	P	704.000	P	816.000	P
7782-49-2	SELENIUM (TOTAL)	0.430	JNF								
7440-23-5	SODIUM			11000.000	P	229.000	P				
7440-28-0	THALLIUM (TOTAL)									0.440	F
7440-62-2	VANADIUM	16.000	P			17.000	P	22.000	P	19.000	P
7440-66-6	ZINC (TOTAL)	75.000	P	65.000	P	79.000	P	97.000	P	67.000	P
74-90-8	CYANIDE (TOTAL)			0.000	NR						

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SS85		SS87		SS88		SS89		SS90	
	SMO or Sample ID =>	MEAG54		MEY579		MEY582		MEAG21		MEY583	
	Date Collected =>	07/25/88		07/27/88		07/29/88		08/02/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	523.000	P	8260.000	P	6770.000	P	7590.000	P	6000.000	P
7440-36-0	ANTIMONY (TOTAL)					0.000	RP	7.600	PNJ		
7440-38-2	ARSENIC (TOTAL)	4.100	BF	11.400	S*NJF	5.000	JF	4.100	F	4.600	JF
7440-39-3	BARIUM	36.200	BP	101.000	P	71.000	P	98.000	P	55.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.580	BP	0.430	P			0.410	P
7440-43-9	CADMIUM (TOTAL)					0.890	P	1.100	P		
7440-70-2	CALCIUM	70900.000	P	1520.000	*P	4430.000	P	644.000	P	1300.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			12.900	P	7.900	P	8.100	P*	6.900	P
7440-48-4	COBALT			8.100	BP	6.200	P	5.700	P	6.800	P
7440-50-8	COPPER (TOTAL)			22.200	P	28.000	P	13.000	P*NJ	19.000	P
7439-89-6	IRON	300.000	P	14900.000	P	11500.000	P	11800.000	P	12000.000	P
7439-92-1	LEAD (TOTAL)			19.700	SF	1070.000	JP	29.000	P	24.000	JP
7439-95-4	MAGNESIUM	3170.000	BP	1890.000	*P	3150.000	JEP	1020.000	P	1370.000	JEP
7439-96-5	MANGANESE	31.000	P	527.000	NJP	380.000	P	638.000	P*	415.000	P
7439-97-6	MERCURY (TOTAL)			0.900	CV	1.200	CV			0.100	CV
7440-02-0	NICKEL (TOTAL)			15.000	P	12.000	P	11.000	P	13.000	P
7440-09-7	POTASSIUM	7100.000	*JP	758.000	BP	1410.000	P	771.000	P	1410.000	P
7782-49-2	SELENIUM (TOTAL)					0.520	JNF				
7440-62-2	VANADIUM	31.000	BP	17.300	P	16.000	P	11.000	P	13.000	P
7440-66-6	ZINC (TOTAL)			119.000	EJP	179.000	P	72.000	PEJ	76.000	P
74-90-8	CYANIDE (TOTAL)	0.000	NR					1.900	N*J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS91		SS92		SS92		SS92(DUP)		SS93	
	SMO or Sample ID =>	MEY580		MEY601		MEY647		MEY614		MEY602	
	Date Collected =>	07/29/88		07/27/88		07/25/88		07/29/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	6060.000	P	9600.000	P			9630.000	P	7570.000	P
7440-36-0	ANTIMONY (TOTAL)	0.000	RP			72.000	P				
7440-38-2	ARSENIC (TOTAL)	3.100	JF	5.800	F			4.100	JF	5.400	F
7440-39-3	BARIUM	90.000	P	152.000	P	45.000	BP	130.000	P	147.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.450	P	0.580	P			0.540	P	0.490	P
7440-70-2	CALCIUM	1350.000	P	1170.000	P	1690.000	BP	893.000	P	1470.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	7.300	P	12.000	P			10.000	P	9.600	P
7440-48-4	COBALT	6.300	P	8.100	P			11.000	P	7.800	P
7440-50-8	COPPER (TOTAL)	18.000	P	20.000	P			16.000	P	17.000	P
7439-89-6	IRON	10300.000	P	15200.000	P			13100.000	P	12800.000	P
7439-92-1	LEAD (TOTAL)	24.000	JP	21.000	P	3.300	BF	23.000	JP	27.000	P
7439-95-4	MAGNESIUM	1220.000	JEP	1550.000	P			1420.000	JEP	1380.000	P
7439-96-5	MANGANESE	541.000	P	760.000	P	55.000	NJP	1060.000	P	887.000	P
7439-97-6	MERCURY (TOTAL)	0.130	CV								
7440-02-0	NICKEL (TOTAL)	9.700	P	15.000	P			13.000	P	12.000	P
7440-09-7	POTASSIUM	1350.000	P	863.000	P			860.000	P	733.000	P
7440-28-0	THALLIUM (TOTAL)							0.570	F		
7440-62-2	VANADIUM	14.000	P	23.000	P			19.000	P	19.000	P
7440-66-6	ZINC (TOTAL)	69.000	P	123.000	P			68.000	P	93.000	P
74-90-8	CYANIDE (TOTAL)					0.000	NR	0.720			

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS94A		SS94B		SS95		SS95B		SS97	
	SMO or Sample ID =>	MEY598		MEY599		MEY593		MEY594		MEY592	
	Date Collected =>	07/27/88		07/27/88		07/29/88		07/27/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	10100.000	P	11800.000	P	5950.000	P	10000.000	P	6720.000	P
7440-38-2	ARSENIC (TOTAL)	11.000	SF	5.300	F	3.400	JF	6.300	F	4.400	JF
7440-39-3	BARIUM	180.000	P	128.000	P	166.000	P	115.000	P	136.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.570	P	0.530	P	0.440	P	0.400	P	0.460	P
7440-70-2	CALCIUM	1600.000	P	1260.000	P	1840.000	P	1280.000	P	1390.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	11.000	P	13.000	P	7.500	P	12.000	P	7.900	P
7440-48-4	COBALT	7.300	P	7.600	P	6.600	P	6.700	P	5.800	P
7440-50-8	COPPER (TOTAL)	16.000	P	15.000	P	15.000	P	16.000	P	16.000	P
7439-89-6	IRON	13500.000	P	14300.000	P	9710.000	P	14000.000	P	10700.000	P
7439-92-1	LEAD (TOTAL)	21.000	P	22.000	P	21.000	JP	21.000	P	20.000	JP
7439-95-4	MAGNESIUM	1570.000	P	1770.000	P	1180.000	JEP	1860.000	P	1290.000	JEP
7439-96-5	MANGANESE	816.000	P	672.000	P	912.000	P	611.000	P	665.000	P
7440-02-0	NICKEL (TOTAL)	12.000	P	15.000	P	9.900	P	13.000	P	10.000	P
7440-09-7	POTASSIUM	748.000	P	1240.000	P			1290.000	P	485.000	P
7440-28-0	THALLIUM (TOTAL)							0.810	F		
7440-62-2	VANADIUM	21.000	P	25.000	P	15.000	P	22.000	P	16.000	P
7440-66-6	ZINC (TOTAL)	84.000	P	76.000	P	57.000	P	65.000	P	79.000	P
74-90-8	CYANIDE (TOTAL)	0.590									

	Location Alias =>	RAS		RAS		RAS					
	Location ID =>	SS98		SS99		SS99					
	SMO or Sample ID =>	MEY622		MEY623		MEY649					
	Date Collected =>	07/29/88		07/29/88		07/25/88					
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5640.000	P	5900.000	P						
7440-38-2	ARSENIC (TOTAL)	4.400	JF	2.900	JF						
7440-39-3	BARIUM	73.000	P	139.000	P	107.000	BP				
7440-41-7	BERYLLIUM (TOTAL)	0.300	P	0.290	P						
7440-70-2	CALCIUM	8830.000	P	1710.000	P	1880.000	BP				
7440-47-3	CHROMIUM (ELEMENTAL)	13.000	P	8.600	P						
7440-48-4	COBALT	5.000	P	6.500	P						
7440-50-8	COPPER (TOTAL)	19.000	P	15.000	P						
7439-89-6	IRON	11800.000	P	10800.000	P						
7439-92-1	LEAD (TOTAL)	72.000	*P	33.000	*P	3.500	BWF				
7439-95-4	MAGNESIUM	3250.000	JEP	1270.000	JEP						
7439-96-5	MANGANESE	556.000	P	854.000	P	79.000	NJP				
7440-02-0	NICKEL (TOTAL)	10.000	P	9.400	P						
7440-09-7	POTASSIUM	925.000	P	901.000	P						
7440-23-5	SODIUM	457.000	P			9270.000	P				
7440-62-2	VANADIUM	13.000	P	15.000	P						
7440-66-6	ZINC (TOTAL)	95.000	P	70.000	P	18.000	BNJP				
74-90-8	CYANIDE (TOTAL)	68.000		111.000		0.000	NR				

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SS01A	SS01B	SS03A	SS04A	SS05A
	SMO or Sample ID =>	EAR10	EAR11	EAR21	EAR22	EAR07
	Date Collected =>	07/21/88	07/21/88	07/21/88	07/21/88	07/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
319-86-8	DELTA-BHC					7.100 J
60-57-1	DIELDRIN					18.000 J
72-55-9	4,4-DDE				74.000 J	26.000 J
72-54-8	4,4-DDD			15.000 J	85.000 J	
50-29-3	4,4-DDT				73.000 J	
72-43-5	METHOXYCHLOR	1500.000 J	890.000 J			
53494-70-5	ENDRIN KETONE				38.000 J	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS102		SS105		SS111		SS121		SS129	
	SMO or Sample ID =>	EAC17		EBR68		EAC04		EAC05		EAC28	
	Date Collected =>	08/02/88		07/29/88		08/02/88		08/02/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
11097-69-1	PCB-1254					25.000	J	49.000	J		
11096-82-5	PCB-1260	180.000	J	120000.000	C					390.000	J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SS15B	SS17A	SS17B	SS22A	SS22A(DUP)
	SMO or Sample ID =>	ECF64	ECF67	ECF68	ECF88	ECF90
	Date Collected =>	07/12/88	07/13/88	07/13/88	07/19/88	07/19/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
11097-69-1	PCB-1254	540.000 J				
11096-82-5	PCB-1260		200.000	240.000	2900.000 J	3100.000 J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS23A		SS23B		SS31A		SS37A		SS42A	
	SMO or Sample ID =>	ECF86		ECF87		EAR01		EAR03		EAR72	
	Date Collected =>	07/19/88		07/19/88		07/21/88		07/21/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
309-00-2	ALDRIN					5.300	J	670.000	J		
1024-57-3	HEPTACHLOR EPOXIDE							87.000	J		
11096-82-5	PCB-1260	18000.000		1200.000	J					120.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS43B		SS56A		SS56A(DUP)		SS68A		SS79	
	SMO or Sample ID =>	EAR48		EAR67		EAR74		ECG13		EBR46	
	Date Collected =>	07/25/88		07/27/88		07/27/88		07/20/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
1024-57-3	HEPTACHLOR EPOXIDE							12.000	J		
11096-82-5	PCB-1260	113.000	J	17000.000	CJ	13000.000	CJ	1500.000	J	500.000	

Location Alias => RAS
Location ID => SS98
SMO or Sample ID => EBR84
Date Collected => 07/29/88

CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
11096-82-5	PCB-1260	4400.000	C								

	Location Alias =>	RAS		RAS		RAS		TCLP		TCLP	
	Location ID =>	SS03A		SS03A		SS04A		SS04A		SS07A	
	SMO or Sample ID =>	EAR21DL		EAR21		EAR22		EAR17		EAR19	
	Date Collected =>	07/21/88		07/21/88		07/21/88		07/21/88		07/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	24000.000	BDJ	180.000	B						
67-64-1	ACETONE	3500.000	DJ	30000.000	BEJ			22.000			
75-34-3	1,1-DICHLOROETHANE							6.000			
71-55-6	1,1,1-TRICHLOROETHANE							170.000		43.000	
108-10-1	4-METHYL-2-PENTANONE							24.000		24.000	
127-18-4	TETRACHLOROETHENE			5.000	J	2.000	J	4.000	J		
108-88-3	TOLUENE			4.000	J						
1330-20-7	XYLENES (TOTAL)			1.000	J						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS09A		SS09A		SS09B		SS100		SS101	
	SMO or Sample ID =>	ECF52		ECF52DL		ECF53		EBR81		EBR82	
	Date Collected =>	07/12/88		07/12/88		07/12/88		07/29/88		07/29/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME							58.000	J		
67-64-1	ACETONE	3800.000	BEJ	23000.000	DJ						
540-59-0	1-2,DICHLOROETHENE(TOTAL)									5.000	J
67-66-3	CHLOROFORM					1.000	J	1.000	J		
71-55-6	1,1,1-TRICHLOROETHANE									6.000	J
79-01-6	TRICHLOROETHENE					1.000	J			3.000	J
127-18-4	TETRACHLOROETHENE					1.000	J			600.000	J
1330-20-7	XYLENES (TOTAL)									480.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS101		SS104		SS107		SS107		SS108	
	SMO or Sample ID =>	EBR82DL		EAC39		EBR60		EBR60DL		EAC22	
	Date Collected =>	07/29/88		08/02/88		07/29/88		07/29/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE					280.000	BE				
75-15-0	CARBON DISULFIDE			2.000	J					6.000	J
540-59-0	1-2,DICHLOROETHENE(TOTAL)	13.000	DJ								
67-66-3	CHLOROFORM							4.000	DJ		
71-55-6	1,1,1-TRICHLOROETHANE	20.000	DJ								
79-01-6	TRICHLOROETHENE	17.000	DJ								
127-18-4	TETRACHLOROETHENE	2100.000	DEJ								
1330-20-7	XYLENES (TOTAL)	1200.000	DEJ								

	Location Alias =>	RAS		RAS		TCLP		RAS		RAS	
	Location ID =>	SS109		SS110		SS111		SS114		SS116	
	SMO or Sample ID =>	EBR28		EBR89		ECL03		EAC23		EAC00	
	Date Collected =>	07/28/88		07/29/88		08/03/88		08/02/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					4.000	J				
67-64-1	ACETONE			5500.000	EE	24.000				150.000	
75-15-0	CARBON DISULFIDE	2.000	J					1.000	J		
67-66-3	CHLOROFORM			1.000	J						
71-55-6	1,1,1-TRICHLOROETHANE									22.000	J
79-01-6	TRICHLOROETHENE									96.000	
127-18-4	TETRACHLOROETHENE					0.400	J			900.000	
100-42-5	STYRENE					1.000	J				
1330-20-7	XYLENES (TOTAL)									30.000	J

	Location Alias =>	RAS		RAS		RAS		TCLP		RAS	
	Location ID =>	SS118		SS119		SS11A		SS11A		SS120	
	SMO or Sample ID =>	EAC08		EAC07		ECF56		ECF75		EAC09	
	Date Collected =>	08/02/88		08/02/88		07/12/88		07/13/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE			380.000							
75-15-0	CARBON DISULFIDE	13.000	J							15.000	J
67-66-3	CHLOROFORM					2.000	J				
71-55-6	1,1,1-TRICHLOROETHANE	33.000						30.000			
79-01-6	TRICHLOROETHENE	11.000									
108-10-1	4-METHYL-2-PENTANONE							29.000			
127-18-4	TETRACHLOROETHENE	130.000						2.000	J		
108-88-3	TOLUENE							7.000			
1330-20-7	XYLENES (TOTAL)							5.000			

	Location Alias =>	TCLP		RAS		RAS		RAS		RAS	
	Location ID =>	SS120		SS120(DUP)		SS120(DUP)		SS121		SS123(DUP)	
	SMO or Sample ID =>	ECL04		EAC44		EAC44RE		EAC05		EAC47	
	Date Collected =>	08/03/88		08/02/88		08/02/88		08/02/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE	170.000	J			11.000	J			7.000	J
75-15-0	CARBON DISULFIDE			2.000	J	2.000	J	36.000	J		

	Location Alias =>	TCLP		TCLP		RAS		TCLP		RAS	
	Location ID =>	SS127		SS127(D)		SS128		SS128		SS129	
	SMO or Sample ID =>	EBR42		EBR45		EBR70		EBR78		EAC28RE	
	Date Collected =>	07/27/88		07/27/88		07/29/88		07/29/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	7.000				38.000	J				
75-15-0	CARBON DISULFIDE							2.000	J	4.000	J
71-55-6	1,1,1-TRICHLOROETHANE	13.000		14.000				11.000			
108-10-1	4-METHYL-2-PENTANONE							17.000			

	Location Alias =>	TCLP		TCLP		RAS		RAS		RAS	
	Location ID =>	SS12A		SS12A(D)		SS132(DUP)		SS133		SS135	
	SMO or Sample ID =>	ECF79		ECF80		EAC46		EBR52		EBR60DL	
	Date Collected =>	07/13/88		07/13/88		08/02/88		07/28/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE					6.000	J				
75-15-0	CARBON DISULFIDE					1.000	J				
67-66-3	CHLOROFORM	2.000	J					2.000	J	4.000	DJ
71-55-6	1,1,1-TRICHLOROETHANE	8.000		5.000							
108-10-1	4-METHYL-2-PENTANONE	16.000									
108-88-3	TOLUENE	2.000	J								

	Location Alias =>	RAS		TCLP		TCLP		RAS		RAS	
	Location ID =>	SS13A		SS13A		SS13A(DUP)		SS14A		SS15A	
	SMO or Sample ID =>	ECF60		ECF76		ECF77		ECF61		ECF63	
	Date Collected =>	07/12/88		07/13/88		07/13/88		07/12/88		07/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					51.000	B				
67-66-3	CHLOROFORM	2.000	J					2.000	J	3.000	J
71-55-6	1,1,1-TRICHLOROETHANE			63.000		14.000					
79-01-6	TRICHLOROETHENE									2.000	J
108-10-1	4-METHYL-2-PENTANONE			20.000							
127-18-4	TETRACHLOROETHENE					1.000	J			3.000	J
108-88-3	TOLUENE			1.000	J	4.000	J	18.000		7.000	J
100-41-4	ETHYLBENZENE					1.000	J			9.000	J
1330-20-7	XYLENES (TOTAL)					7.000				43.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS15A		SS15B		SS15B		SS16A		SS16A	
	SMO or Sample ID =>	ECF63RE		ECF64		ECF64DL		ECF65		ECF65DL	
	Date Collected =>	07/12/88		07/12/88		07/12/88		07/13/88		07/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME							25.000	B		
540-59-0	1-2,DICHLOROETHENE(TOTAL)							1.000	J		
79-01-6	TRICHLOROETHENE	2.000	J					210.000	DJ	210.000	DJ
127-18-4	TETRACHLOROETHENE	5.000	J	3.000	J	7.000	DJ	1000.000	E	14000.000	D
108-88-3	TOLUENE	20.000	J	1.000	J			1.000	J		
100-41-4	ETHYLBENZENE	3.000	J	8.000	J	7.000	DJ				
1330-20-7	XYLENES (TOTAL)	28.000	J	480.000	EJ	520.000	DJ				

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS16B		SS16B		SS17A		SS17B		SS18A	
	SMO or Sample ID =>	ECF66		ECF66DL		ECF67		ECF68		ECF98	
	Date Collected =>	07/13/88		07/13/88		07/13/88		07/13/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	20.000	B							3.000	J
67-64-1	ACETONE			2600.000	DJ					14.000	BJ
79-01-6	TRICHLOROETHENE	640.000	DJ	640.000	DJ						
127-18-4	TETRACHLOROETHENE	1300.000	E	24000.000	D			2.000	J		
108-88-3	TOLUENE	16.000				41.000	J	8.000		5.000	J

	Location Alias =>	TCLP		RAS		RAS		RAS		RAS	
	Location ID =>	SS18A		SS18B		SS20A		SS20B		SS21A	
	SMO or Sample ID =>	ECF94		ECF99		ECG01		ECG02		ECF96	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME			2.000	J						
67-64-1	ACETONE	42.000		12.000	BJ	16000.000	EJ	7.000	J	150.000	BJ
71-55-6	1,1,1-TRICHLOROETHANE	19.000									
108-10-1	4-METHYL-2-PENTANONE	13.000									
108-88-3	TOLUENE					9.000	J				

	Location Alias =>	RAS		RAS		RAS		TCLP		TCLP	
	Location ID =>	SS21B		SS22A		SS22A		SS22A		SS22A(D)	
	SMO or Sample ID =>	ECF97		ECF88		ECF88RE		ECF92		ECF93	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
74-87-3	CHLOROMETHANE (METHYL CHLORIDE			10.000	FQA	10.000	FQA				
74-83-9	BROMOMETHANE (METHYL BROMIDE)			10.000	FQA	10.000	FQA				
75-01-4	VINYL CHLORIDE			10.000	FQA	10.000	FQA				
75-00-3	CHLOROETHANE			10.000	FQA	10.000	FQA				
75-09-2	METHYLENE CHLORIDE (DICHLOROME	1.000	J	5.000	FQA	5.000	FQA				
67-64-1	ACETONE	7.000	BJ	10.000	FQA	10.000	FQA	48.000		49.000	
75-15-0	CARBON DISULFIDE			5.000	FQA	5.000	FQA				
75-35-4	1,1-DICHLOROETHENE			5.000	FQA	5.000	FQA				
75-34-3	1,1-DICHLOROETHANE			5.000	FQA	5.000	FQA				
540-59-0	1,2,DICHLOROETHENE(TOTAL)			5.000	FQA	5.000	FQA				
67-66-3	CHLOROFORM			5.000	FQA	5.000	FQA				
107-06-2	1,2-DICHLOROETHANE			5.000	FQA	5.000	FQA				
78-93-3	2-BUTANONE			10.000	FQA	10.000	FQA				
71-55-6	1,1,1-TRICHLOROETHANE			5.000	FQA	5.000	FQA	30.000		9.000	
56-23-5	CARBON TETRACHLORIDE			5.000	FQA	5.000	FQA				
108-05-4	VINYL ACETATE			10.000	FQA	10.000	FQA				
75-27-4	BROMODICHLOROMETHANE			5.000	FQA	5.000	FQA				
78-87-5	1,2-DICHLOROPROPANE			5.000	FQA	5.000	FQA				
10061-02-6	TRANS-1,3-DICHLOROPROPENE			5.000	FQA	5.000	FQA				
79-01-6	TRICHLOROETHENE			5.000	FQA	5.000	FQA				
124-48-1	DIBROMOCHLOROMETHANE			5.000	FQA	5.000	FQA				
79-00-5	1,1,2-TRICHLOROETHANE			5.000	FQA	5.000	FQA				
71-43-2	BENZENE			5.000	FQA	5.000	FQA				
10061-01-5	CIS-1,3-DICHLOROPROPENE			5.000	FQA	5.000	FQA				
75-25-2	BROMOFORM			5.000	FQA	5.000	FQA				
591-78-6	2-HEXANONE			10.000	FQA	10.000	FQA				
108-10-1	4-METHYL-2-PENTANONE			10.000	FQA	10.000	FQA	22.000		15.000	
127-18-4	TETRACHLOROETHENE			5.000	FQA	5.000	FQA				
79-34-5	1,1,2,2-TETRACHLOROETHANE			5.000	FQA	5.000	FQA				
108-88-3	TOLUENE	2.000	J	5.000	FQA	5.000	FQA				
108-90-7	CHLOROBENZENE			5.000	FQA	5.000	FQA				
[illegible]	[illegible]			5.000	FQA	5.000	FQA				
[illegible]	[illegible]			5.000	FQA	5.000	FQA				
[illegible]	[illegible]			5.000	FQA	5.000	FQA				

	Location Alias =>	RAS		RAS		TCLP		RAS		RAS	
	Location ID =>	SS22A(DUP)		SS22A(DUP)		SS22AD		SS22B		SS23A	
	SMO or Sample ID =>	ECF90		ECF90RE		ECF93		ECF89		ECF86	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
74-87-3	CHLOROMETHANE (METHYL CHLORIDE	10.000	FQA	10.000	FQA						
74-83-9	BROMOMETHANE (METHYL BROMIDE)	10.000	FQA	10.000	FQA						
75-01-4	VINYL CHLORIDE	10.000	FQA	10.000	FQA			140.000	BJ	160.000	BJ
75-00-3	CHLOROETHANE	10.000	FQA	10.000	FQA						
75-09-2	METHYLENE CHLORIDE (DICHLOROME	5.000	FQA	5.000	FQA			5.000	J		
67-64-1	ACETONE	10.000	FQA	10.000	FQA	49.000		930.000	BEJ	15.000	J
75-15-0	CARBON DISULFIDE	5.000	FQA	5.000	FQA						
75-35-4	1,1-DICHLOROETHENE	5.000	FQA	5.000	FQA						
75-34-3	1,1-DICHLOROETHANE	5.000	FQA	5.000	FQA						
540-59-0	1-2,DICHLOROETHENE(TOTAL)	5.000	FQA	5.000	FQA			39.000	J		
67-66-3	CHLOROFORM	5.000	FQA	5.000	FQA						
107-06-2	1,2-DICHLOROETHANE	5.000	FQA	5.000	FQA						
78-93-3	2-BUTANONE	10.000	FQA	10.000	FQA			260.000	BEJ		
71-55-6	1,1,1-TRICHLOROETHANE	5.000	FQA	5.000	FQA	9.000					
56-23-5	CARBON TETRACHLORIDE	5.000	FQA	5.000	FQA						
108-05-4	VINYL ACETATE	10.000	FQA	10.000	FQA						
75-27-4	BROMODICHLOROMETHANE	5.000	FQA	5.000	FQA						
78-87-5	1,2-DICHLOROPROPANE	5.000	FQA	5.000	FQA						
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.000	FQA	5.000	FQA						
79-01-6	TRICHLOROETHENE	5.000	FQA	5.000	FQA			250.000	EJ		
124-48-1	DIBROMOCHLOROMETHANE	5.000	FQA	5.000	FQA						
79-00-5	1,1,2-TRICHLOROETHANE	5.000	FQA	5.000	FQA						
71-43-2	BENZENE	5.000	FQA	5.000	FQA						
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.000	FQA	5.000	FQA						
75-25-2	BROMOFORM	5.000	FQA	5.000	FQA						
591-78-6	2-HEXANONE	10.000	FQA	10.000	FQA						
108-10-1	4-METHYL-2-PENTANONE	10.000	FQA	10.000	FQA	15.000		330.000	EJ		
127-18-4	TETRACHLOROETHENE	5.000	FQA	5.000	FQA			380.000	EJ		
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.000	FQA	5.000	FQA						
108-88-3	TOLUENE	5.000	FQA	5.000	FQA			1200.000	EJ		
108-90-7	CHLOROBENZENE	5.000	FQA	5.000	FQA			11.000	J		
[illegible]	[illegible]	5.000	FQA	5.000	FQA			1600.000	EJ		
[illegible]	[illegible]	5.000	FQA	5.000	FQA						
[illegible]	[illegible]	5.000	FQA	5.000	FQA			5900.000	EJ		

	Location Alias =>	RAS		RAS		RAS		TCLP		RAS	
	Location ID =>	SS23B		SS23B		SS24A		SS25A		SS25A	
	SMO or Sample ID =>	ECF87		ECF87RE		ECG06		ECG03		ECG08	
	Date Collected =>	07/19/88		07/19/88		07/20/88		07/19/88		07/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-01-4	VINYL CHLORIDE	130.000	BJ								
75-09-2	METHYLENE CHLORIDE (DICHLOROME	17.000	J								
67-64-1	ACETONE	51.000	J	48.000	J						
540-59-0	1-2,DICHLOROETHENE(TOTAL)			4.000	J					4.000	J
156-60-5	TRANS-1,2-DICHLOROETHENE							4.000	J		
71-55-6	1,1,1-TRICHLOROETHANE							12.000			
79-01-6	TRICHLOROETHENE	11.000	J	11.000	J	5.000	J				
108-10-1	4-METHYL-2-PENTANONE							15.000			
127-18-4	TETRACHLOROETHENE	27.000	J	45.000	J	37.000	J			7.000	J
108-88-3	TOLUENE	15.000	J	40.000	J			13.000			
100-41-4	ETHYLBENZENE					2.000	J				
100-42-5	STYRENE			8.000	J						
1330-20-7	XYLENES (TOTAL)					11.000	J				

	Location Alias =>	TCLP		RAS		TCLP		RAS		RAS	
	Location ID =>	SS25A(D)		SS25A(DUP)		SS27A		SS27A		SS28A	
	SMO or Sample ID =>	ECG04		ECG09		ECG05		ECG14		ECF83	
	Date Collected =>	07/19/88		07/20/88		07/19/88		07/20/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE							42.000	B		
540-59-0	1-2,DICHLOROETHENE(TOTAL)			8.000							
78-93-3	2-BUTANONE									5.000	J
71-55-6	1,1,1-TRICHLOROETHANE	18.000				21.000					
79-01-6	TRICHLOROETHENE			6.000							
108-10-1	4-METHYL-2-PENTANONE	16.000				11.000					
127-18-4	TETRACHLOROETHENE			11.000	J						
108-88-3	TOLUENE	5.000									

	Location Alias =>	RAS		RAS		RAS		TCLP		RAS	
	Location ID =>	SS29A		SS29B		SS30A		SS30A		SS30B	
	SMO or Sample ID =>	ECF81		ECF82		ECF84		ECF91		ECF85	
	Date Collected =>	07/19/88		07/19/88		07/19/88		07/19/88		07/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE			4500.000	BEJB						
71-55-6	1,1,1-TRICHLOROETHANE							14.000		19.000	J
79-01-6	TRICHLOROETHENE					3.000	J			8.000	J
108-10-1	4-METHYL-2-PENTANONE							9.000	J		
127-18-4	TETRACHLOROETHENE					16.000	J			97.000	J
108-88-3	TOLUENE	2.000	J			3.000	J			3.000	J
1330-20-7	XYLENES (TOTAL)									9.000	J

	Location Alias =>	RAS		RAS		RAS		TCLP		TCLP	
	Location ID =>	SS31A		SS31A		SS34		SS34A		SS34A(D)	
	SMO or Sample ID =>	EAR01		EAR01RE		ECG19		ECG22		ECG23	
	Date Collected =>	07/21/88		07/21/88		07/20/88		07/20/88		07/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	96.000	BJ	160.000	BJ						
67-64-1	ACETONE			750.000	BEJ	61.000	B				
71-55-6	1,1,1-TRICHLOROETHANE							52.000		17.000	
108-10-1	4-METHYL-2-PENTANONE							18.000		20.000	
108-88-3	TOLUENE									5.000	

	Location Alias =>	RAS		TCLP		RAS		RAS		RAS	
	Location ID =>	SS34A(DUP)		SS37A		SS37A		SS39		SS39	
	SMO or Sample ID =>	ECG21		EAR16		EAR03RE		EAC34		EAC34RE	
	Date Collected =>	07/20/88		07/21/88		07/21/88		08/02/88		08/02/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE							900.000	J	1100.000	J
71-55-6	1,1,1-TRICHLOROETHANE			60.000							
108-10-1	4-METHYL-2-PENTANONE			22.000							
108-88-3	TOLUENE	4.000	J			2.000	J	15.000	J	13.000	J
100-41-4	ETHYLBENZENE	3.000	J					7.000	J	9.000	J
1330-20-7	XYLENES (TOTAL)							150.000	J	360.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		TCLP	
	Location ID =>	SS39		SS41		SS42A		SS43B		SS44A	
	SMO or Sample ID =>	EBR34		EAC36		EAR72		EAR48		EAR80	
	Date Collected =>	07/28/88		08/02/88		07/27/88		07/25/88		07/26/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					170.000	J	73.000	J		
67-64-1	ACETONE			120000.000	J						
75-15-0	CARBON DISULFIDE	1.000	J							10.000	
71-55-6	1,1,1-TRICHLOROETHANE									34.000	
127-18-4	TETRACHLOROETHENE	5.000	J								
108-88-3	TOLUENE	4.000	J								
108-90-7	CHLOROBENZENE	21.000	J								
100-41-4	ETHYLBENZENE	24.000	J								
1330-20-7	XYLENES (TOTAL)	140.000	J					8.000	J		

	Location Alias =>	RAS	RAS	TCLP	RAS	RAS
	Location ID =>	SS44A(DUP)	SS44B	SS45A	SS46B	SS47A
	SMO or Sample ID =>	EAR60	EAR54	EAR77	EAR36	EAR40
	Date Collected =>	07/25/88	07/25/88	07/26/88	07/25/88	07/25/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
71-55-6	1,1,1-TRICHLOROETHANE			41.000		
71-43-2	BENZENE				0.300 J	0.600 J
108-88-3	TOLUENE	22.000				
1330-20-7	XYLENES (TOTAL)		4.000 J			

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS47B		SS48A		SS48B		SS48B		SS49B	
	SMO or Sample ID =>	EAR41		EAR31		EAR32RE		EAR32		EAR43	
	Date Collected =>	07/25/88		07/25/88		07/25/88		07/25/88		07/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME							170.000	J		
67-64-1	ACETONE					7600.000	J				
78-93-3	2-BUTANONE	4.000	J								
71-43-2	BENZENE			0.400	J					2.000	J
100-41-4	ETHYLBENZENE					0.900	J				
1330-20-7	XYLENES (TOTAL)					5.000	J	5.000	JX		

	Location Alias =>	TCLP		RAS		RAS		RAS		RAS
	Location ID =>	SS51A		SS52A		SS54B(DUP)		SS55A		SS56A
	SMO or Sample ID =>	EAR76		EAR50		EAR57		EAR65		EAR67
	Date Collected =>	07/26/88		07/25/88		07/25/88		07/27/88		07/27/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					85.000	J	62.000	J		
67-64-1	ACETONE					440.000	J				
71-55-6	1,1,1-TRICHLOROETHANE	30.000									
108-10-1	4-METHYL-2-PENTANONE	17.000									
108-88-3	TOLUENE	4.000	J								
1330-20-7	XYLENES (TOTAL)			4.000	J					9.000	

	Location Alias =>	TCLP		RAS		RAS		RAS		RAS	
	Location ID =>	SS56A		SS57A		SS58		SS58A		SS59A	
	SMO or Sample ID =>	EAR82		EAR97		EAR99RE		EAR99		EBR20	
	Date Collected =>	07/26/88		07/28/88		07/28/88		07/28/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-15-0	CARBON DISULFIDE	7.000		3.000	J	1.000	J			2.000	J
71-55-6	1,1,1-TRICHLOROETHANE	10.000									
127-18-4	TETRACHLOROETHENE					25.000		24.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS60A		SS61		SS62		SS63		SS64	
	SMO or Sample ID =>	EAR98		EBR24		EBR23		EBR22		EBR27	
	Date Collected =>	07/28/88		07/28/88		07/28/88		07/28/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE	120.000	J	90.000	J	22.000	J	210.000	J		
75-15-0	CARBON DISULFIDE									6.000	
78-93-3	2-BUTANONE			4.000	J						

	Location Alias =>	TCLP		RAS		RAS		RAS		TCLP	
	Location ID =>	SS65		SS65		SS66A		SS66B		SS67A	
	SMO or Sample ID =>	EBR43		EBR26		EAR93		EAR94		EBR41	
	Date Collected =>	07/27/88		07/28/88		07/27/88		07/27/88		07/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	6.000				80.000	J	93.000	J	6.000	
75-15-0	CARBON DISULFIDE			2.000	J						
71-55-6	1,1,1-TRICHLOROETHANE	32.000								19.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SS67A		SS68A		SS68A		SS70A		SS71A	
	SMO or Sample ID =>	EAR92		ECG13		ECG13RE		EAR84		EAR24	
	Date Collected =>	07/27/88		07/20/88		07/20/88		07/27/88		07/22/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	120.000	J			95.000	BJ	160.000	J		
67-64-1	ACETONE							4000.000	EJ		
67-66-3	CHLOROFORM			300.000	J	240.000	J				
108-88-3	TOLUENE			51.000	J	52.000	J			1.000	J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SS72A	SS73A	SS74A	SS75A	SS76A
	SMO or Sample ID =>	EAR27	EAR91	EAR90	EAR88	EAR85
	Date Collected =>	07/22/88	07/27/88	07/27/88	07/27/88	07/27/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME		140.000 J	120.000 J	110.000 J	160.000 J
108-88-3	TOLUENE	3.000 J				

	Location Alias =>	RAS		TCLP		RAS		RAS		TCLP	
	Location ID =>	SS77A		SS79		SS79		SS819A		SS82	
	SMO or Sample ID =>	EBR47		EBR71		EBR46		ECF95		EBR74	
	Date Collected =>	07/28/88		07/29/88		07/28/88		07/19/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE							10.000	BJ		
67-66-3	CHLOROFORM	1.000	J								
71-55-6	1,1,1-TRICHLOROETHANE			33.000						20.000	
108-05-4	VINYL ACETATE	11.000				11.000					

	Location Alias =>	RAS		RAS		RAS		TCLP		RAS	
	Location ID =>	SS82(DUP)		SS87		SS91		SS92		SS95B	
	SMO or Sample ID =>	EBR39		EBR29		EBR30		EBR76		EBR54	
	Date Collected =>	07/28/88		07/28/88		07/28/88		07/29/88		07/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE	5200.000	BE			4.000	J				
75-15-0	CARBON DISULFIDE			1.000	J						
67-66-3	CHLOROFORM	1.000	J							1.000	J
71-55-6	1,1,1-TRICHLOROETHANE							37.000			
108-10-1	4-METHYL-2-PENTANONE							16.000			

	Location Alias =>	RAS		RAS		TCLP		TCLP		
	Location ID =>	SS96		SS97		SS99		SS9A		
	SMO or Sample ID =>	EAC10		EBR52		EBR79		ECF78		
	Date Collected =>	08/02/88		07/29/88		07/28/88		07/13/88		
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading Qual
75-15-0	CARBON DISULFIDE	5.000								
67-66-3	CHLOROFORM			2.000	J	3.000	J			
71-55-6	1,1,1-TRICHLOROETHANE					55.000		12.000		
108-10-1	4-METHYL-2-PENTANONE					7.000	J			
127-18-4	TETRACHLOROETHENE					2.000	J			
108-88-3	TOLUENE							2.000	J	

Camp Dresser & McKee Inc.
User's Selection Criteria
For Result Table

Run Date: 02/21/88
Run Time: 08:34:01

LOCATION: SB

QUALIFIER: NCT U

.amp Dresser & McKee Inc. Page: 1

HEMTECH Test Results Report for: BNA Run Date: 02/21/88

	Location Alias =>	SAS BNA	RAS	RAS	RAS	SAS BNA
	Location ID =>	SB01	SB01B	SB01F	SB02C	SB03A
	SMO or Sample ID =>	28	ECA07	ECA11	EX308	E1
	Date Collected =>	06/20/88	06/19/88	06/19/88	06/15/88	06/14/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	130.000 J	120.000 J		61.000 J	4900.000 J
117-84-0	DI-N-OCTYL PHTHALATE			88.000 J		95.000 J

	Location Alias =>	RAS		SAS BNA		RAS		RAS		RAS	
	Location ID =>	SB03B		SB03B		SB03F		SB03F(D)		SB03G	
	SMO or Sample ID =>	EX296		E2		EX298		EX299		EX300	
	Date Collected =>	06/14/88		06/14/88		06/14/88		06/14/88		06/14/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
84-66-2	DIETHYL PHTHALATE							550.000			
84-74-2	DI-N-BUTYL PHTHALATE	42.000	J			39.000	J			150.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	66.000	J	91.000	J	49.000	J	110.000	J		

	Location Alias =>	RAS	RAS	RAS	SAS BNA	RAS
	Location ID =>	SB03I	SB03J	SB03K	SB04C	SB05A
	SMO or Sample ID =>	EX302	EX303	EX304	E9	EY324
	Date Collected =>	06/14/88	06/14/88	06/14/88	06/14/88	06/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE					130.000 J
85-68-7	BUTYLBENZYLPHTHALATE					310.000 J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	46.000 J	140.000 J	42.000 J	78.000 J	210.000 J

	Location Alias =>	SAS BNA		RAS		RAS		RAS		RAS	
	Location ID =>	SB05B		SB05B		SB05C		SB05E		SB05F	
	SMO or Sample ID =>	EY383		EY325		EY326		EY329		EY330	
	Date Collected =>	06/22/88		06/21/88		06/21/82		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			69.000	J			88.000	J		
78-59-1	ISOPHORONE			150.000	J	110.000	J	64.000	J	64.000	J
85-68-7	BUTYLBENZYLPHTHALATE			690.000	J	140.000	J	160.000	J	140.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	180.000	J	520.000	J	140.000	J	260.000	J	220.000	J

	Location Alias =>	SAS BNA		SAS BNA		RAS		SAS BNA		RAS	
	Location ID =>	SB06A		SB06C		SB07A		SB07A		SB07C	
	SMO or Sample ID =>	E19		E21		EY406		EY482		EY408	
	Date Collected =>	06/05/88		06/05/88		06/27/88		06/28/88		06/27/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
08-95-2	PHENOL							180.000	J		
5-48-7	2-METHYLPHENOL							97.000	J		
05-67-9	2,4-DIMETHYLPHENOL							57.000	J		
1-28-5	2,4-DINITROPHENOL							210.000	J		
34-52-1	2-METHYL-4,6-DINITROPHENOL							1100.000	J		
4-74-2	DI-N-BUTYL PHTHALATE					160.000	J				
1-94-1	3,3-DICHLOROBENZIDINE									1100.000	
17-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	210.000	J	900.000							
17-84-0	DI-N-OCTYL PHTHALATE			90.000	J						

	Location Alias =>	SAS BNA		SAS BNA		RAS		SAS BNA		RAS	
	Location ID =>	SB07C		SB08B		SB08B		SB08C		SB08C	
	SMO or Sample ID =>	EY483		EY398		ECA57		EY399		ECA58	
	Date Collected =>	06/28/88		06/21/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE					230.000	J				
91-20-3	NAPHTHALENE							84.000	J	160.000	J
534-52-1	2-METHYL-4,6-DINITROPHENOL	150.000	J								
118-74-1	HEXACHLOROBENZENE									260.000	J
85-68-7	BUTYLBENZYLPHTHALATE			180.000	J	370.000				380.000	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			1000.000	J	2400.000		200.000	J	600.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB08E		SB08E(D)		SB08F		SB08G		SB08H	
	SMO or Sample ID =>	ECA59		ECA60		ECA61		ECA62		ECA63	
	Date Collected =>	06/21/88		06/21/00		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
91-20-3	NAPHTHALENE	1900.000	JJ	1300.000				510.000			
91-57-6	2-METHYLNAPHTHALENE			170.000	J						
84-66-2	DIETHYL PHTHALATE					170.000	J				
118-74-1	HEXACHLOROBENZENE			250.000	J					160.000	J
84-74-2	DI-N-BUTYL PHTHALATE			150.000	J						
85-68-7	BUTYLBENZYLPHTHALATE	4600.000	J	3300.000		290.000	J	810.000		230.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	3400.000	JJ	2900.000		370.000		430.000		400.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB08I		SB08J		SB08K		SB09B		SB09C	
	SMO or Sample ID =>	ECA64		ECA65		ECA40		EY410		EY411	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/27/88		06/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE			250.000	J						
91-20-3	NAPHTHALENE	510.000									
84-74-2	DI-N-BUTYL PHTHALATE					1500.000		690.000		390.000	J
85-68-7	BUTYLBENZYLPHTHALATE	840.000									
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	590.000						230.000	J	1700.000	

	Location Alias =>	SAS BNA	SAS BNA	SAS BNA	SAS BNA	TCLP
	Location ID =>	SB10A	SB12A	SB12B	SB13B	SB13D
	SMO or Sample ID =>	EY486	E16	E17	E23	EX349
	Date Collected =>	06/28/88	06/05/88	06/05/88	06/12/88	06/16/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
86-73-7	FLUORENE	130.000 J				
85-01-8	PHENANTHRENE	440.000 J				
129-00-0	PYRENE	140.000 J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE		750.000	370.000 J	95.000 J	1.000 J
117-84-0	DI-N-OCTYL PHTHALATE			73.000 J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB14A		SB14B		SB18A		SB18B		SB20A	
	SMO or Sample ID =>	EY438		EY439		EY447		EY448		ECA41	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/00		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE							330.000	J		
85-01-8	PHENANTHRENE			310.000	J						
129-00-0	PYRENE			300.000	J						
85-68-7	BUTYLBENZYLPHTHALATE			100.000	J			480.000	J		
218-01-9	CHRYSENE			130.000	J						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	110.000	J	120.000	J	130.000	J	120.000	J		
50-32-8	BENZO(A)PYRENE			120.000	J					55.000	J
191-24-2	BENZO(G,H,I)PERYLENE									81.000	J

	Location Alias =>	SAS BNA	RAS	RAS	TCLP	SAS BNA
	Location ID =>	SB20A	SB20F	SB20J	SB21D	SB22A
	SMO or Sample ID =>	34	ECA45	ECA49	EY465DUP	EY385
	Date Collected =>	06/20/88	06/20/88	06/20/88	06/28/88	06/22/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE					140000.000 EBJ
132-64-9	DIBENZOFURAN	730.000 J				
84-74-2	DI-N-BUTYL PHTHALATE		93.000 J	60.000 J		
85-68-7	BUTYLBENZYLPHTHALATE				3.000 J	
218-01-9	CHRYSENE	150.000 J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	76.000 J				
205-99-2	BENZO(B)FLUORANTHENE	84.000 J				
50-32-8	BENZO(A)PYRENE	160.000 J				
191-24-2	BENZO(G,H,I)PERYLENE	300.000 J				

	Location Alias =>	RAS		TCLP		SAS BNA		TCLP		SAS BNA	
	Location ID =>	SB22A		SB23A		SB23A		SB23B		SB23B	
	SMO or Sample ID =>	EY344		ECA01		31		ECA02		32	
	Date Collected =>	06/21/88		06/20/88		06/20/88		06/20/88		06/20/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
95-50-1	1,2-DICHLOROBENZENE					160.000	J				
78-59-1	ISOPHORONE			12000.000	J	430.000	JZ	3500.000	J	2300.000	J
91-20-3	NAPHTHALENE			48000.000	J	17000.000	J			4000.000	J
59-50-7	4-CHLORO-3-METHYLPHENOL					290.000	JZ				
91-57-6	2-METHYLNAPHTHALENE			29000.000	J	9300.000	J				
131-11-3	DIMETHYL PHTHALATE					1400.000	J				
208-96-8	ACENAPHTHYLENE					40.000	J				
606-20-2	2,6-DINITROTOLUENE					1400.000	J				
83-32-9	ACENAPHTHENE					81.000	JZ				
132-64-9	DIBENZOFURAN					260.000	JZ				
86-73-7	FLUORENE					370.000	J			96.000	J
85-01-8	PHENANTHRENE					570.000	J			220.000	J
84-74-2	DI-N-BUTYL PHTHALATE			3900.000	J	1200.000	J			210.000	J
85-68-7	BUTYLBENZYLPHTHALATE			9000.000	J	2300.000	J			690.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	39.000	J			8900.000	J			2700.000	J

	Location Alias =>	SAS BNA		TCLP		TCLP		SAS BNA		RAS
	Location ID =>	SB23B		SB23D		SB23F		SB24A		SB24B
	SMO or Sample ID =>	33		ECA23		ECA26		E13		EX385
	Date Collected =>	06/20/88		06/19/88		06/20/88		06/05/88		06/17/87
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
621-64-7	N-NITROSODI-N-PROPYLAMINE	730.000	J								
78-59-1	ISOPHORONE	270.000	J	150.000		120.000	J				
65-85-0	BENZOIC ACID	250.000	JZ								
91-20-3	NAPHTHALENE	650.000	J	130.000		81.000	J				
91-57-6	2-METHYLNAPHTHALENE	530.000	J	52.000		59.000	J				
85-68-7	BUTYLBENZYLPHTHALATE	100.000	J								
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1300.000	J					71.000	J		
117-84-0	DI-N-OCTYL PHTHALATE	130.000	J							74.000	J

	Location Alias =>	SAS BNA		RAS		RAS		RAS		RAS
	Location ID =>	SB24C		SB24C		SB24E		SB241		SB25
	SMO or Sample ID =>	E15		EX386		EX387		EX392		EB283
	Date Collected =>	06/05/88		06/17/87		06/16/87		06/17/87		06/17/87
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
:4-74-2	DI-N-BUTYL PHTHALATE			320.000	J					
17-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1200.000	BJ			76.000	J	2700.000	B	91.000	J
17-84-0	DI-N-OCTYL PHTHALATE	91.000	J							

	Location Alias =>	RAS		RAS		RAS		SAS BNA		SAS BNA	
	Location ID =>	SB25B		SB25C		SB25G		SB29A		SB29B	
	SMO or Sample ID =>	EX399		EBZ81		EBZ85		E10		E11	
	Date Collected =>	06/17/87		06/17/87		06/17/87		06/05/88		06/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE									150.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			89.000	J	89.000	J	190.000	J	110.000	J
117-84-0	DI-N-OCTYL PHTHALATE	150.000	J								

	Location Alias =>	SAS BNA		RAS		RAS		SAS BNA		RAS	
	Location ID =>	SB29C		SB29F		SB29G		SB30A		SB30A	
	SMO or Sample ID =>	E12		EX368		EX369		EY394		EY354	
	Date Collected =>	06/05/88		06/16/87		06/16/87		06/21/88		06/22/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL			80.000	J						
91-57-6	2-METHYLNAPHTHALENE									140.000	J
83-32-9	ACENAPHTHENE									60.000	J
86-73-7	FLUORENE									87.000	J
85-01-8	PHENANTHRENE									520.000	
120-12-7	ANTHRACENE									220.000	J
84-74-2	DI-N-BUTYL PHTHALATE									37.000	J
206-44-0	FLUORANTHENE									430.000	
129-00-0	PYRENE									2500.000	
56-55-3	BENZO(A)ANTHRACENE									430.000	
218-01-9	CHRYSENE									880.000	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	720.000				2200.000	B			350.000	
117-84-0	DI-N-OCTYL PHTHALATE	110.000	J							230.000	J
50-32-8	BENZO(A)PYRENE							450.000	J	520.000	
191-24-2	BENZO(G,H,I)PERYLENE									540.000	

	Location Alias =>	SAS BNA	RAS	TCLP	SAS BNA	RAS
	Location ID =>	SB30C	SB30C	SB30D	SB31A	SB33A
	SMO or Sample ID =>	EY396	EY356	EY360RE	EY376	ECA81
	Date Collected =>	06/21/88	06/22/88	06/21/88	06/22/88	06/20/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
78-59-1	ISOPHORONE				12000.000 EBJ	
91-20-3	NAPHTHALENE					130.000 J
91-57-6	2-METHYLNAPHTHALENE					340.000 J
84-74-2	DI-N-BUTYL PHTHALATE		39.000 J	13.000 J		
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	340.000 J			170.000 J	

	Location Alias =>	SAS BNA		RAS		SAS BNA		TCLP		RAS	
	Location ID =>	SB33A		SB33C		SB33C		SB33D		SB33E	
	SMO or Sample ID =>	EY373		ECA83		EY375		EX303		ECA76	
	Date Collected =>	06/22/88		06/20/88		06/22/88		06/21/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
91-20-3	NAPHTHALENE			170.000	J	150.000	J	12.000		810.000	
91-57-6	2-METHYLNAPHTHALENE	98.000	J	340.000	J	460.000	J	14.000		1200.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			210.000	J					280.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB33E		SB33F		SB33G		SB33I		SB36(D)	
	SMO or Sample ID =>	ECA80		ECA84		ECA85		ECA78		EY495	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL									440.000	
100-51-6	BENZYL ALCOHOL									100.000	J
65-85-0	BENZOIC ACID									850.000	J
91-20-3	NAPHTHALENE	660.000		380.000	J	95.000	J				
91-57-6	2-METHYLNAPHTHALENE	770.000	J	600.000	J	220.000	JS				
120-12-7	ANTHRACENE									56.000	J
84-74-2	DI-N-BUTYL PHTHALATE							180.000	J	54.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			660.000							

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EMTECH Test Results Report for: BNA

Run Date: 02/21/88

	Location Alias =>	RAS		RAS		RAS					
	Location ID =>	SB36A		SB36B		SB36C					
	SMO or Sample ID =>	EY492		EY493		EY494					
	Date Collected =>	06/28/88		06/28/88		06/28/88					
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
08-95-2	PHENOL	460.000		460.000							
00-51-6	BENZYL ALCOHOL	68.000	J	100.000	J						
06-44-5	4-METHYLPHENOL	39.000	J								
8-59-1	ISOPHORONE			380.000		120.000	J				
5-85-0	BENZOIC ACID	690.000	J	620.000	J	220.000	J				
1-20-3	NAPHTHALENE			80.000	J						
1-57-6	2-METHYLNAPHTHALENE			51.000	J						
5-01-8	PHENANTHRENE			46.000	J						
20-12-7	ANTHRACENE	46.000	J								
4-74-2	DI-N-BUTYL PHTHALATE			82.000	J						
06-44-0	FLUORANTHENE			36.000	J						
29-00-0	PYRENE	43.000	J	36.000	J						
5-68-7	BUTYLBENZYLPHTHALATE			1400.000		97.000	J				
18-01-9	CHRYSENE			44.000	J						
17-81-7	BIS(2-ETHYLHEXYL) PHTHALATE			2100.000							

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB01A		SB01B		SB01C		SB01D		SB01E	
	SMO or Sample ID =>	MET635		MET636		MET637		MEX996		MET638	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/26/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	16100.000	P	10800.000	P	6210.000	P	536.000	*EJP	4480.000	P
7440-38-2	ARSENIC (TOTAL)	3.800	F			1.400	BF			5.400	F
7440-39-3	BARIUM	174.000	P	48.300	P	25.500	BP	17.400	BP	21.400	BP
7440-41-7	BERYLLIUM (TOTAL)	0.980	BP								
7440-70-2	CALCIUM	2590.000	J*P	756.000	BJ*P	440.000	BJ*P	1750.000	BP	367.000	BJ*P
7440-47-3	CHROMIUM (ELEMENTAL)	18.600	P	15.300	P	10.300	P			8.600	P
7440-48-4	COBALT	10.300	BP	5.600	BP	3.300	BP				
7440-50-8	COPPER (TOTAL)	12.300	J*P	6.400	J*P	11.800	J*P	87.600	*JP	9.200	J*P
7439-89-6	IRON	14900.000	P	8670.000	P	5580.000	P	384.000	*EJP	4160.000	P
7439-92-1	LEAD (TOTAL)	21.300	F	8.800	F	11.300	SF	6.000	F	7.600	SF
7439-95-4	MAGNESIUM	3020.000	J*P	1860.000	J*P	1390.000	J*P	934.000	BP	1030.000	BJ*P
7439-96-5	MANGANESE	830.000	P	113.000	P	76.100	P	59.500	P	36.500	P
7440-02-0	NICKEL (TOTAL)	18.200	P			11.000	P	160.000	P		
7440-09-7	POTASSIUM	1100.000	BP	915.000	BP	506.000	BP	1800.000	BJA	719.000	BP
7440-23-5	SODIUM	53.500	BP	44.300	BP	31.300	BP			35.300	BP
7440-62-2	VANADIUM	30.600	P	26.800	P	12.500	P			10.200	BP
7440-66-6	ZINC (TOTAL)	180.000	JN*EP	247.000	JN*EP	89.800	JN*EP	26.500	P	79.500	JN*EP
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB01E(DUP)		SB01F		SB01G		SB01H		SB01I	
	SMO or Sample ID =>	MET639		MET640		MET641		MET642		MET643	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/20/88	
.AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4820.000	P	2690.000	P	4150.000	P	2600.000	P	3070.000	P
7440-38-2	ARSENIC (TOTAL)	3.700	F	4.000	F	8.500	F	8.200	SF	4.000	F
7440-39-3	BARIUM	28.400	BP	13.200	BP	15.600	BP	8.200	BP	7.600	BP
7440-70-2	CALCIUM	376.000	BJ*P	289.000	BJ*P	512.000	BJ*P	13600.000	J*[	2660.000	J*P
7440-47-3	CHROMIUM (ELEMENTAL)	10.000	P	8.200	P	10.500	P	7.800	P	8.300	P
7440-48-4	COBALT	3.700	BP			12.800	BP	9.400	BP	11.800	BP
7440-50-8	COPPER (TOTAL)	10.000	J*P	4.200	BJ*P	17.300	J*P	16.700	J*P	15.900	J*P
7439-89-6	IRON	4790.000	P	3700.000	P	11800.000	P	10100.000	P	7830.000	P
7439-92-1	LEAD (TOTAL)	7.100	F	5.900	SF	9.200	SF	11.600	SF	4.600	F
7439-95-4	MAGNESIUM	1150.000	J*P	894.000	BJ*P	1850.000	J*P	8880.000	J*P	2750.000	J*P
7439-96-5	MANGANESE	50.600	P	22.400	P	56.300	P	107.000	P	49.100	P
7440-02-0	NICKEL (TOTAL)					23.000	P	16.500	P	22.200	P
7440-09-7	POTASSIUM	658.000	BP	642.000	BP	1150.000	BP	710.000	BP	544.000	BP
7440-23-5	SODIUM	31.900	BP	113.000	BP	52.400	BP	51.100	BP	49.500	BP
7440-62-2	VANADIUM	10.000	BP	8.300	BP	17.000	P	12.100	BP	11.400	BP
7440-66-6	ZINC (TOTAL)	131.000	JN*EP	68.700	JN*EP	266.000	JN*EP	162.000	JN*EP	204.000	JN*EP

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB01J		SB01K		SB02A		SB02B		SB02C	
	SMO or Sample ID =>	MET644		MET645		MEX448		MEX449		MEX450	
	Date Collected =>	06/20/88		06/20/88		06/14/88		06/14/88		06/14/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2540.000	P	1890.000	P	12000.000	P	4240.000	P	2560.000	P
7440-36-0	ANTIMONY (TOTAL)					7.200	BNJP	7.400	BNJP		
7440-38-2	ARSENIC (TOTAL)	5.600	SF	3.400	F	15.600	+*NRF	5.700	N*RF	4.400	S*NRF
7440-39-3	BARIUM	5.900	BP	4.800	BP	185.000	P	31.500	BP	9.500	BP
7440-41-7	BERYLLIUM (TOTAL)					1.600	P	0.360	BP		
7440-70-2	CALCIUM	1120.000	BJ*P	19600.000	J*P	44000.000	P	4960.000	P	347.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	7.800	P	5.400	P	7.600	P	5.400	P	3.500	P
7440-48-4	COBALT	11.400	BP	5.100	BP	5.600	BP	4.700	BP	3.500	BP
7440-50-8	COPPER (TOTAL)	12.800	J*P	4.900	BJ*P	13.100	P	12.400	P	9.200	P
7439-89-6	IRON	6690.000	P	6540.000	P	9490.000	P	7840.000	P	5930.000	P
7439-92-1	LEAD (TOTAL)	5.700	F	3.600	F	10.500	NJF	11.800	NJF	6.200	NJF
7439-95-4	MAGNESIUM	1630.000	J*P	11500.000	J*P	3290.000	P	1470.000	P	654.000	BP
7439-96-5	MANGANESE	48.500	P	124.000	P	1450.000	EP	253.000	EP	125.000	EP
7440-02-0	NICKEL (TOTAL)	15.200	P			8.600	P	9.200	P	7.000	BP
7440-09-7	POTASSIUM	542.000	BP	584.000	BP	762.000	BP	400.000	BP	324.000	BP
7440-22-4	SILVER (TOTAL)					1.200	BP	1.100	BP		
7440-23-5	SODIUM	32.700	BP	57.000	BP						
7440-62-2	VANADIUM	9.300	BP	10.400	BP	9.200	BP	7.500	BP	5.300	BP
7440-66-6	ZINC (TOTAL)	164.000	JN*EP	128.000	JN*EP	49.000	P	53.000	P	43.900	P
74-90-8	CYANIDE (TOTAL)					0.590	*NRAS				

	Location Alias =>	LEACH		LEACH		RAS		RAS		RAS	
	Location ID =>	SB02D		SB02D(D)		SB02E		SB02F		SB02G	
	SMO or Sample ID =>	MET620		MET620RE		MEX451		MEX453		MEX454	
	Date Collected =>	06/14/88		06/14/88		06/14/88		06/14/88		06/14/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM					2340.000	P	1200.000	P	1750.000	P
7440-38-2	ARSENIC (TOTAL)					4.000	S*NRF	2.900	S*NRF	5.300	S*NRF
7440-39-3	BARIUM	16.000	P			14.900	BP	8.800	BP	5.800	BP
7440-70-2	CALCIUM	23900.000	P			1350.000	P	362.000	BP	826.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)					4.300	P	3.100	P	4.300	P
7440-48-4	COBALT					3.800	BP	3.100	BP	5.200	BP
7440-50-8	COPPER (TOTAL)					9.700	P	5.800	P	11.700	P
7439-89-6	IRON			21.000	P	5990.000	P	4000.000	P	6470.000	P
7439-92-1	LEAD (TOTAL)					7.800	NJF	4.200	NJF	7.500	NJF
7439-95-4	MAGNESIUM	245.000	P	223.000	P	731.000	BP	461.000	BP	1010.000	BP
7439-96-5	MANGANESE			3.000	P	168.000	EP	117.000	EP	140.000	EP
7439-97-6	MERCURY (TOTAL)	0.300	CV	0.800	CV					0.200	CV
7440-02-0	NICKEL (TOTAL)					7.000	BP	4.700	BP	11.100	P
7440-09-7	POTASSIUM	1090.000	P	1000.000	P	281.000	BP	195.000	BP	411.000	BP
7440-22-4	SILVER (TOTAL)							1.200	BP	1.300	BP
7440-28-0	THALLIUM (TOTAL)									0.530	BF
7440-62-2	VANADIUM					5.100	BP	3.800	BP	5.300	BP
7440-66-6	ZINC (TOTAL)	10.000	P			43.200	P	27.800	P	52.800	P
74-90-8	CYANIDE (TOTAL)	0.000	NR	0.000	NR						

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB02N		SB02I		SB02J		SB03D		SB03F	
	SMO or Sample ID =>	MEX455		MEX456		MEX457		MET619		MEX493	
	Date Collected =>	06/14/88		06/14/88		06/14/88		06/14/88		06/18/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	1420.000	P	1550.000	P	980.000	P			2970.000	P
440-38-2	ARSENIC (TOTAL)	4.100	S*NRF	2.600	*NRF	2.200	*NRF			2.800	NJF
440-39-3	BARIUM	5.700	BP	5.600	BP	5.700	BP	22.000	P	11.700	BP
440-70-2	CALCIUM	552.000	BP	2000.000	P	15200.000	P	532.000	P	235.000	BP
440-47-3	CHROMIUM (ELEMENTAL)	4.100	P	3.600	P	2.900	P			3.900	P
440-48-4	COBALT	3.300	BP	3.700	BP	2.800	BP			3.300	BP
440-50-8	COPPER (TOTAL)	9.500	P	10.500	P	7.500	P			8.300	P
439-89-6	IRON	5250.000	P	5320.000	P	3730.000	P	28.000	P	5870.000	P
439-92-1	LEAD (TOTAL)	4.800	NJF	5.300	NJF	4.200	NJF			5.600	F
439-95-4	MAGNESIUM	743.000	BP	1530.000	P	3860.000	P	217.000	P	737.000	BP
439-96-5	MANGANESE	77.400	EP	115.000	EP	88.300	EP	3.000	P	127.000	NJP
440-02-0	NICKEL (TOTAL)	6.700	BP	7.300	BP	5.300	BP			7.000	BP
440-09-7	POTASSIUM	296.000	BP	334.000	BP	193.000	BP			326.000	BP
440-22-4	SILVER (TOTAL)	1.100	BP	1.000	BP	0.990	BP				
440-62-2	VANADIUM	4.000	BP	4.400	BP	3.400	BP			5.800	BP
440-66-6	ZINC (TOTAL)	42.200	P	50.500	P	88.100	P			40.900	EJP
4-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SB03G	SB03GF(D)	SB03H	SB03I	SB03J
	SMO or Sample ID =>	MEX495	MEX494	MEX496	MEX497	MEX498
	Date Collected =>	06/18/88	06/18/88	06/18/88	06/18/88	06/18/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7429-90-5	ALUMINUM	2000.000 P	3330.000 P	1740.000 P	1700.000 P	1610.000 P
7440-38-2	ARSENIC (TOTAL)	2.900 NJF	3.200 NJF	2.800 NJF	4.000 SNJF	1.400 BWNJF
7440-39-3	BARIUM	8.100 BP	13.600 BP	6.600 BP	8.300 BP	21.000 BP
7440-70-2	CALCIUM	233.000 BP	260.000 BP	226.000 BP	332.000 BP	641.000 BP
7440-47-3	CHROMIUM (ELEMENTAL)	3.500 P	4.200 P	3.500 P	3.800 P	3.600 P
7440-48-4	COBALT	3.200 BP	3.700 BP	2.900 BP	2.800 BP	3.000 BP
7440-50-8	COPPER (TOTAL)	7.200 P	8.900 P	8.200 P	7.800 P	6.200 P
7439-89-6	IRON	5500.000 P	6520.000 P	5530.000 P	5860.000 P	4760.000 P
7439-92-1	LEAD (TOTAL)	5.100 F	6.200 F	4.700 F	6.500 SF	3.900 F
7439-95-4	MAGNESIUM	668.000 BP	760.000 BP	668.000 BP	637.000 BP	709.000 BP
7439-96-5	MANGANESE	122.000 NJP	137.000 NJP	187.000 NJP	152.000 NJP	115.000 NJP
7440-02-0	NICKEL (TOTAL)	6.600 BP	7.300 BP	7.700 BP	7.700 BP	6.800 BP
7440-09-7	POTASSIUM	331.000 BP	382.000 BP	317.000 BP	271.000 BP	276.000 BP
7440-62-2	VANADIUM	4.800 BP	6.000 BP	4.600 BP	5.400 BP	4.300 BP
7440-66-6	ZINC (TOTAL)	44.500 EJP	48.600 EJP	45.400 EJP	48.900 EJP	39.700 EJP

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SB03X		SB04A		SB04B		SB04C		SB04D	
	SMO or Sample ID =>	MEX499		MEX458		MEX459		MEX460		MEX990	
	Date Collected =>	06/18/88		06/14/88		06/14/88		06/14/88		06/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1140.000	P	6580.000	P	4620.000	P	3320.000	P		
7440-36-0	ANTIMONY (TOTAL)							6.700	BNJP		
7440-38-2	ARSENIC (TOTAL)	1.100	BANJF	10.500	S*NRF	7.200	+*NRF	3.900	*NRF	1.700	F
7440-39-3	BARIUM	4.600	BP	45.700	P	29.100	BP	31.700	BP	9.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.390	BP	0.260	BP				
7440-70-2	CALCIUM	23200.000	P	472.000	BP	511.000	BP	489.000	BP	348.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	5.400	P	11.000	P	6.900	P	5.800	P		
7440-48-4	COBALT	1.700	BP	8.700	BP	6.300	BP	5.100	BP		
7440-50-8	COPPER (TOTAL)	4.200	BP	15.400	P	13.000	P	8.700	P	40.000	P
7439-89-6	IRON	3910.000	P	15400.000	P	10900.000	P	7710.000	P	50.000	P
7439-92-1	LEAD (TOTAL)	3.500	F	13.800	SNJF	10.400	NJF	7.300	NJF		
7439-95-4	MAGNESIUM	5270.000	P	1670.000	P	1060.000	BP	806.000	BP		
7439-96-5	MANGANESE	109.000	NJP	340.000	EP	320.000	EP	232.000	EP	2.000	P
7439-97-6	MERCURY (TOTAL)									0.200	CV
7440-02-0	NICKEL (TOTAL)	6.300	BP	14.900	P	11.400	P	8.900	P		
7440-09-7	POTASSIUM	150.000	BP	454.000	BP	362.000	BP	279.000	BP		
7440-22-4	SILVER (TOTAL)			0.860	BP	1.300	BP	1.100	BP		
7440-23-5	SODIUM									12100.000	P
7440-62-2	VANADIUM	3.900	BP	16.600	P	11.300	P	8.800	BP		
7440-66-6	ZINC (TOTAL)	24.400	EJP	71.500	P	60.600	P	41.600	P	25.000	JP
74-90-8	CYANIDE (TOTAL)							0.630	*NRAS	0.000	NR

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SB04D		SB04E		SB04E(D)		SB04F		SB04G	
	SMO or Sample ID =>	MET621		MEX461		MEX462		MEX463		MEX464	
	Date Collected =>	06/14/88		06/15/88		06/15/88		06/15/88		06/15/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			2820.000	P	3050.000	P	2450.000	P	1210.000	P
7440-38-2	ARSENIC (TOTAL)			3.600	S*NRF	3.900	*NRF	4.000	S*NRF	1.900	B*NRF
7440-39-3	BARIUM	14.000	P	13.700	BP	16.700	BP	11.600	BP	6.700	BP
7440-70-2	CALCIUM	313.000	P	357.000	BP	372.000	BP	314.000	BP	268.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)			3.600	P	4.500	P	3.800	P	3.100	P
7440-48-4	COBALT			3.000	BP	3.400	BP	3.100	BP	1.900	BP
7440-50-8	COPPER (TOTAL)			5.800	P	6.200	P	5.200	BP	4.500	BP
7439-89-6	IRON	52.000	P	4990.000	P	5490.000	P	4640.000	P	3270.000	P
7439-92-1	LEAD (TOTAL)			5.000	SNJF	5.400	NJF	4.800	NJF	3.100	NJF
7439-95-4	MAGNESIUM			589.000	BP	636.000	BP	544.000	BP	386.000	BP
7439-96-5	MANGANESE	2.000	P	133.000	EP	146.000	EP	120.000	EP	80.900	EP
7440-02-0	NICKEL (TOTAL)			5.800	BP	6.300	BP	5.400	BP	4.400	BP
7440-09-7	POTASSIUM			217.000	BP	246.000	BP	224.000	BP	125.000	BP
7440-22-4	SILVER (TOTAL)			0.950	BP	1.000	BP	1.300	BP		
7440-23-5	SODIUM	3020.000	P								
7440-62-2	VANADIUM			5.700	BP	6.900	BP	5.400	BP	3.400	BP
7440-66-6	ZINC (TOTAL)	11.000	P	41.500	P	25.100	P	24.400	P	37.500	P
74-90-8	CYANIDE (TOTAL)	0.000	NR								

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	S804H	S804I	S804J	S804K	S805(D)
	SMO or Sample ID =>	MEX465	MEX466	MEX467	MEX468	MET694
	Date Collected =>	06/15/88	06/15/88	06/15/88	06/15/88	06/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7429-90-5	ALUMINUM	1910.000 P	987.000 P	1330.000 P	854.000 P	4340.000 P
7440-36-0	ANTIMONY (TOTAL)	6.600 BNJP				
7440-38-2	ARSENIC (TOTAL)	2.600 S*NRF	2.200 *NRF	3.300 *NRF	1.700 B*NRF	3.000 F
7440-39-3	BARIUM	14.100 BP	4.400 BP	5.000 BP	4.100 BP	20.000 P[]
7440-70-2	CALCIUM	415.000 BP	20800.000 P	4400.000 P	26600.000 P	393.000 P[]
7440-47-3	CHROMIUM (ELEMENTAL)	3.500 P	2.700 P	4.200 P	2.700 P	6.600 *PJ
7440-48-4	COBALT	2.900 BP	2.700 BP	3.900 BP	3.000 BP	3.600 *PJ[]
7440-50-8	COPPER (TOTAL)	5.800 P	5.300 P	8.000 P	5.700 BP	13.000 NPJ
7439-89-6	IRON	4640.000 NP	3810.000 P	5470.000 P	3140.000 P	7820.000 *P
7439-92-1	LEAD (TOTAL)	4.700 SJF	4.100 NJF	6.000 NJF	2.900 NJF	26.000 SF
7439-95-4	MAGNESIUM	571.000 BP	4760.000 P	2220.000 P	6050.000 P	914.000 P[]
7439-96-5	MANGANESE	123.000 EP	121.000 EP	152.000 EP	107.000 EP	175.000 NPJ
7440-02-0	NICKEL (TOTAL)	5.800 BP	5.800 BP	7.100 BP	5.500 BP	10.000 P
7440-09-7	POTASSIUM	213.000 BP	173.000 BP	213.000 BP	166.000 BP	705.000 P[]
7440-22-4	SILVER (TOTAL)	0.970 BP	1.100 BP	1.300 BP	1.700 BP	
7440-62-2	VANADIUM	4.800 BP	3.200 BP	4.500 BP	2.900 BP	8.000 P[]
7440-66-6	ZINC (TOTAL)	25.100 P	28.800 P	42.200 P	23.500 P	54.000 *P
74-90-8	CYANIDE (TOTAL)					5.500 *J

	Location Alias =>	RAS	RAS	RAS	LEACH	RAS
	Location ID =>	SB05A	SB05B	SB05C	SB05D	SB05E
	SMO or Sample ID =>	MET690	MET691	MET692	MEX993	MET693
	Date Collected =>	06/21/88	06/21/88	06/21/88	06/26/88	06/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7429-90-5	ALUMINUM	6700.000 P	6580.000 P	5090.000 P	55000.000 *EJP	4910.000 P
7440-38-2	ARSENIC (TOTAL)	2.600 F	4.000 F	3.000 F	13.300 A	3.200 F
7440-39-3	BARIUM	116.000 P	37.000 P[]	46.000 P	1000.000 P	27.000 P[]
7440-41-7	BERYLLIUM (TOTAL)	0.220 P[]	0.200 P[]	0.200 P[]	2.200 BP	
7440-43-9	CADMIUM (TOTAL)	4.600 *P		0.700 *P[]	7.400 P	
7440-70-2	CALCIUM	4970.000 P	727.000 P[]	1250.000 P	29800.000 P	609.000 P[]
7440-47-3	CHROMIUM (ELEMENTAL)	50.000 *PJ	12.000 *PJ	11.000 *PJ	105.000 P	13.000 *PJ
7440-48-4	COBALT	30.000 *PJ	5.800 *PJ[]	5.200 *PJ[]	115.000 P	4.300 *PJ[]
7440-50-8	COPPER (TOTAL)	182.000 NPJ	32.000 NPJ	33.000 NPJ	691.000 *JP	28.000 NPJ
7439-89-6	IRON	16500.000 *P	13000.000 *P	9300.000 *P	48000.000 *EJP	8230.000 *P
7439-92-1	LEAD (TOTAL)	352.000 F	51.000 F	70.000 F	690.000 F	30.000 F
7439-95-4	MAGNESIUM	2070.000 P	1400.000 P	1270.000 P	6010.000 P	1000.000 P[]
7439-96-5	MANGANESE	580.000 NPJ	300.000 NPJ	313.000 NPJ	6650.000 P	203.000 NPJ
7440-02-0	NICKEL (TOTAL)	117.000 P	25.000 P	27.000 P	298.000 P	22.000 P
7440-09-7	POTASSIUM	73.200 P[]	640.000 P[]	774.000 P[]	6630.000 JA	639.000 P[]
7782-49-2	SELENIUM (TOTAL)				200.000 JWF	
7440-22-4	SILVER (TOTAL)	2.400 P				
7440-23-5	SODIUM	886.000 P[]	444.000 P[]	490.000 P[]	81100.000 P	
7440-62-2	VANADIUM	16.000 P	13.000 P	8.700 P[]	109.000 P	9.100 P[]
7440-66-6	ZINC (TOTAL)	218.000 *P	81.000 *P	84.000 *P	574.000 P	68.000 *P
74-90-8	CYANIDE (TOTAL)	42.000 *J	5.900 *J	3.600 *J	0.000 NP	0.740 *J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB05E(D)		SB05F		SB05G		SB05H		SB05I	
	SMO or Sample ID =>	MET694		MET695		MET696		MET697		MET698	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4340.000	P	2900.000	P	1270.000	P	1920.000	P	2400.000	P
7440-38-2	ARSENIC (TOTAL)	3.000	F	3.000	F						
7440-39-3	BARIUM	20.000	P	19.000	P[]	5.400	P[]	8.800	P[]	10.000	P[]
7440-70-2	CALCIUM	393.000	P	553.000	P[]	13200.000	P	854.000	P[]	523.000	P[]
7440-47-3	CHROMIUM (ELEMENTAL)	6.600	*PJ	10.000	*PJ	2.100	*PJ	2.900	*PJ	4.000	*PJ
7440-48-4	COBALT	3.600	*PJ	4.300	*PJ[]			2.100	*PJ	3.000	*PJ[]
7440-50-8	COPPER (TOTAL)	13.000	NPJ	19.000	NPJ	3.200	NPJ	4.200	NPJ[]	5.300	NPJ
7439-89-6	IRON	7820.000	*P	6320.000	*P	3140.000	*P	4130.000	*P	5230.000	*P
7439-92-1	LEAD (TOTAL)	26.000	SF	34.000	F	2.800	SF	3.500	SF	3.700	SF
7439-95-4	MAGNESIUM	914.000	P	800.000	P[]	3330.000	P	788.000	P[]	940.000	P[]
7439-96-5	MANGANESE	175.000	NPJ	172.000	NPJ	93.000	NPJ	113.000	NPJ	147.000	NPJ
7440-02-0	NICKEL (TOTAL)	10.000	P	14.000	P	3.400	P[]	5.000	P[]	5.300	P[]
7440-09-7	POTASSIUM	705.000	P	518.000	P[]	288.000	P[]	381.000	P[]	564.000	P[]
7440-28-0	THALLIUM (TOTAL)					2.100	F				
7440-62-2	VANADIUM	8.000	P	6.400	P[]	2.900	P[]	4.000	P[]	5.300	P[]
7440-66-6	ZINC (TOTAL)	54.000	*P	47.000	*P	14.000	*P	16.000	*P	24.000	*P
74-90-8	CYANIDE (TOTAL)	5.500	*J	2.400	*J						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB05J		SB05K		SB05L		SB06A		SB06B	
	SMO or Sample ID =>	MET699		MEY002		MEY003		MEX469		MEX470	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/18/88		06/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1540.000	P	1520.000	P	1330.000	P	4730.000	P	3330.000	P
7440-38-2	ARSENIC (TOTAL)							6.400	F	4.000	F
7440-39-3	BARIUM	7.500	P[]	7.200	P[]	5.100	P[]	22.600	BP	13.500	BP
7440-41-7	BERYLLIUM (TOTAL)			0.230	P						
7440-70-2	CALCIUM	12400.000	P	16900.000	P	25800.000	P	196.000	BP	207.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	2.500	*PJ	2.800	*PJ	2.100	*PJ[]	15.500	P	11.400	P
7440-48-4	COBALT	1.700	*PJ[]					4.900	BP	3.700	BP
7440-50-8	COPPER (TOTAL)	3.100	NPJ[]	4.000	NPJ[]	3.000	NPJ[]	20.900	P	13.200	P
7439-89-6	IRON	2920.000	*P	3000.000	*P	3000.000	*P	13100.000	P	8440.000	P
7439-92-1	LEAD (TOTAL)	2.400	SF	2.400	SF	3.300	SF	13.700	SF	10.000	SF
7439-95-4	MAGNESIUM	2580.000	P	3330.000	P	4980.000	P	1250.000	P	946.000	BP
7439-96-5	MANGANESE	84.000	NPJ	77.000	NPJ	83.000	NPJ	104.000	P	148.000	P
7440-02-0	NICKEL (TOTAL)	3.300	P[]	3.300	P[]	2.300	P[]	34.300	P	13.100	P
7440-09-7	POTASSIUM	398.000	P[]	460.000	P[]	335.000	P[]	647.000	BP	539.000	BP
7440-62-2	VANADIUM	2.900	P[]	2.800	P[]	3.000	P[]	14.400	P	10.900	P
7440-66-6	ZINC (TOTAL)	12.000	*P	13.000	*P	14.000	*P	63.000	EJP	41.900	EJP
74-90-8	CYANIDE (TOTAL)							0.700	AS		

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SB06C		SB06D		SB06E		SB06F		SB06F(D)	
	SMO or Sample ID =>	MEX471		MET623		MEX472		MEX473		MET593	
	Date Collected =>	06/18/88		06/14/88		06/18/88		06/18/88		06/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4690.000	P	155.000	P	4120.000	P	2790.000	P	2560.000	P
7440-38-2	ARSENIC (TOTAL)	5.200	F			4.700	SF	3.500	F	4.000	F
7440-39-3	BARIUM	30.300	BP	11.000	P	16.900	BP	11.900	BP	12.100	BP
7440-43-9	CADMIUM (TOTAL)	1.500	*JP					1.300	*JP		
7440-70-2	CALCIUM	329.000	BP			228.000	BP	190.000	BP	203.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	18.500	P			11.200	P	10.300	P	10.500	P
7440-48-4	COBALT	4.900	BP			5.200	BP	3.400	BP	4.300	BP
7440-50-8	COPPER (TOTAL)	24.800	P			16.600	P	12.900	P	11.300	P
7439-89-6	IRON	10700.000	P	63.000	P	9460.000	P	7100.000	P	6480.000	P
7439-92-1	LEAD (TOTAL)	16.900	F			10.100	SF	6.100	F	6.800	F
7439-95-4	MAGNESIUM	1160.000	P			1080.000	BP	785.000	BP	782.000	BP
7439-96-5	MANGANESE	156.000	P			190.000	P	140.000	P	132.000	P
7440-02-0	NICKEL (TOTAL)	34.800	P	18.000	P	13.300	P	12.600	P	13.700	P
7440-09-7	POTASSIUM	762.000	BP			734.000	BP	429.000	BP	334.000	BP
7440-23-5	SODIUM			5370.000	P						
7440-62-2	VANADIUM	13.000	P			10.200	BP	7.900	BP	6.900	BP
7440-66-6	ZINC (TOTAL)	63.600	EJP	23.000	P	59.600	EJP	42.100	EJP	47.900	EJP
74-90-8	CYANIDE (TOTAL)	2.200	AS	0.000	NR						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB06G		SB06H		SB06I		SB06J		SB06K	
	SMO or Sample ID =>	MEX474		MEX475		MEX476		MEX477		MEX478	
	Date Collected =>	06/18/88		06/18/88		06/18/88		06/18/88		06/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2610.000	P	3490.000	P	2330.000	P	2810.000	P	1360.000	P
7440-38-2	ARSENIC (TOTAL)	1.900	B+JF	2.900	F	2.200	F	1.700	BWJF	1.900	BWJF
7440-39-3	BARIUM	9.200	BP	14.100	BP	9.800	BP	12.100	BP	4.000	BP
7440-43-9	CADMIUM (TOTAL)							1.400	*JP		
7440-70-2	CALCIUM	256.000	BP	353.000	BP	385.000	BP	11700.000	P	30800.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	7.000	P	9.700	P	4.700	P	7.400	P	4.000	P
7440-48-4	COBALT	5.300	BP	3.500	BP	3.100	BP	5.100	BP	2.800	BP
7440-50-8	COPPER (TOTAL)	10.900	P	10.800	P	7.100	P	7.500	P	4.400	BP
7439-89-6	IRON	6990.000	P	7680.000	P	6150.000	P	6830.000	P	4550.000	P
7439-92-1	LEAD (TOTAL)	6.000	F	5.200	F	4.000	SF	2.600	F	2.800	F
7439-95-4	MAGNESIUM	898.000	BP	940.000	BP	645.000	BP	3310.000	P	6530.000	P
7439-96-5	MANGANESE	140.000	P	118.000	P	130.000	P	202.000	P	126.000	P
7440-02-0	NICKEL (TOTAL)	12.300	P	17.700	P	15.200	P	66.000	P	9.700	BP
7440-09-7	POTASSIUM	575.000	BP	579.000	BP	332.000	BP	402.000	BP	240.000	BP
7440-62-2	VANADIUM	7.700	BP	10.200	BP	7.900	BP	6.800	BP	6.000	BP
7440-66-6	ZINC (TOTAL)	40.600	EJP	44.000	EJP	29.000	EJP	65.900	EJP	22.900	EJP

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB07A		SB07B		SB07C		SB07D		SB08(DUP)	
	SMO or Sample ID =>	MEY054		MEY055		MEY056		MEX984		MEY025	
	Date Collected =>	06/22/88		06/22/88		06/22/88		06/25/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	8680.000	*P	6490.000	*P	3780.000	*P	86.000	P	3450.000	P
7440-38-2	ARSENIC (TOTAL)	2.200	NJF	1.700	BNJF	2.900	NJF			2.600	F
7440-39-3	BARIUM	85.900	P	35.400	BP	17.000	BP	147.000	P	29.000	P
7440-43-9	CADMIUM (TOTAL)							4.000	P	0.640	P
7440-70-2	CALCIUM	690.000	BEJP	3560.000	EJP	267.000	BEJP	4140.000	P	11900.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	21.700	*JP	16.800	*JP	10.000	*JP			34.000	P
7440-48-4	COBALT	11.700	P	7.300	BP	6.100	BP	20.000	P	3.400	P
7440-50-8	COPPER (TOTAL)	19.700	N*EJ	17.700	N*EJ	10.600	N*EJ			19.000	P
7439-89-6	IRON	15800.000	*P	11400.000	*P	9520.000	*P	31.000	JP	6230.000	P
7439-92-1	LEAD (TOTAL)	41.300	NJF	82.500	SNJF	25.000	NJF			21.000	S*F
7439-95-4	MAGNESIUM	1550.000	EJP	2920.000	EJP	880.000	BEJP	835.000	P	7320.000	P
7439-96-5	MANGANESE	453.000	*P	235.000	*P	174.000	*P	718.000	P	113.000	P
7440-02-0	NICKEL (TOTAL)	268.000	P	144.000	P	78.300	P	1570.000	P	35.000	P
7440-09-7	POTASSIUM	423.000	BP	343.000	BP	243.000	BP	1170.000	P	438.000	P
7440-23-5	SODIUM	85.100	BP	58.800	BP	33.800	BP	10700.000	P		
7440-62-2	VANADIUM	25.400	P	17.500	P	12.100	P			8.300	P
7440-66-6	ZINC (TOTAL)	131.000	NEJP	117.000	NEJP	104.000	NEJP	196.000	P	54.000	P
74-90-8	CYANIDE (TOTAL)	31.500	AS	61.700	AS	8.200	AS	0.000	NR		

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB08A		SB08B		SB08C		SB08D		SB08E	
	SMO or Sample ID =>	MEY021		MEY022		MEY023		MEX978		MEY024	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/25/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4970.000	P	3590.000	P	2140.000	P			3380.000	P
7440-38-2	ARSENIC (TOTAL)	3.700	F			2.500	F	3.100	F	2.800	F
7440-39-3	BARIUM	86.000	P	49.000	P	27.000	P	154.000	P	27.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.220	P								
7440-43-9	CADMIUM (TOTAL)	0.650	P	1.600	P						
7440-70-2	CALCIUM	677.000	P	92900.000	P	133000.000	P	13000.000	P	7890.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	8.800	P	90.000	P	24.000	P			29.000	P
7440-48-4	COBALT	5.600	P	5.100	P	3.000	P			3.400	P
7440-50-8	COPPER (TOTAL)	10.000	P	5.300	P	9.800	P	28.000	P	15.000	P
7439-89-6	IRON	8880.000	P	6.390	P	5060.000	P	67.000	JP	5890.000	P
7439-92-1	LEAD (TOTAL)	33.000	*F	28.000	*F	13.000	S*F			16.000	S*F
7439-95-4	MAGNESIUM	1030.000	P	49200.000	P	74000.000	P	6790.000	P	4840.000	P
7439-96-5	MANGANESE	684.000	P	320.000	P	270.000	P	8.000	JP	105.000	P
7440-02-0	NICKEL (TOTAL)	8.800	P	67.000	P	22.000	P	11.000	P	31.000	P
7440-09-7	POTASSIUM	449.000	P	278.000	P	355.000	P	3960.000	P	389.000	P
7440-23-5	SODIUM							18800.000	P		
7440-62-2	VANADIUM	13.000	P	6.700	P	6.000	P			7.700	P
7440-66-6	ZINC (TOTAL)	105.000	P	1880.000	P	109.000	P	34.000	JP	50.000	P
74-90-8	CYANIDE (TOTAL)							0.000	NR	0.650	

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SB08F	SB08H	SB08I	SB08I	SB08J
	SMO or Sample ID =>	MEY026	MEY028	MEY027	MEY029	MEY030
	Date Collected =>	06/21/88	06/21/88	06/21/88	06/21/88	06/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7429-90-5	ALUMINUM	1720.000 P	1860.000 P	2000.000 P	1260.000 P	1690.000 P
7440-38-2	ARSENIC (TOTAL)	2.300 F	2.300 F	2.500 F		2.200 F
7440-39-3	BARIUM	12.000 P	12.000 P	9.300 P	5.800 P	8.200 P
7440-70-2	CALCIUM	3600.000 P	1730.000 P	863.000 P	290.000 P	327.000 P
7440-47-3	CHROMIUM (ELEMENTAL)	10.000 P	11.000 P	7.800 P	4.800 P	3.400 P
7440-48-4	COBALT	3.600 P	2.700 P	3.600 P	1.700 P	2.800 P
7440-50-8	COPPER (TOTAL)	7.700 P	9.200 P	5.300 P	2.500 P	5.400 P
7439-89-6	IRON	4570.000 P	4790.000 P	5180.000 P	3150.000 P	4300.000 P
7439-92-1	LEAD (TOTAL)	25.000 S*F	4.500 S*F	4.400 *F	4.100 S*F	3.400 S*F
7439-95-4	MAGNESIUM	2550.000 P	1380.000 P	1060.000 P	571.000 P	555.000 P
7439-96-5	MANGANESE	74.000 P	120.000 P	122.000 P	63.000 P	97.000 P
7440-02-0	NICKEL (TOTAL)	25.000 P	15.000 P	19.000 P	3.300 P	5.600 P
7440-09-7	POTASSIUM	315.000 P	273.000 P	312.000 P		288.000 P
7440-23-5	SODIUM		367.000 P			
7440-28-0	THALLIUM (TOTAL)	2.100 F				
7440-62-2	VANADIUM	4.900 P	5.600 P	5.700 P	4.000 P	5.400 P
7440-66-6	ZINC (TOTAL)	27.000 P	28.000 P	24.000 P	12.000 P	20.000 P
74-90-8	CYANIDE (TOTAL)		0.520			

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB08K		SB09A		SB09B		SB09C		SB09C(D)	
	SMO or Sample ID =>	MEY031		MEY057		MEY058		MEY059		MEY060	
	Date Collected =>	06/21/88		06/22/88		06/27/88		06/27/88		06/27/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1680.000	P	5080.000	*P	1170.000	P	12000.000	P	13100.000	P
7440-38-2	ARSENIC (TOTAL)			1.400	BNJF	3.600	NJF	3.800	NJF	3.100	NJF
7440-39-3	BARIUM	7.100	P	38.800	BP	12.400	BP	55.600	P	67.500	P
7440-43-9	CADMIUM (TOTAL)									1.600	P
7440-70-2	CALCIUM	493.000	P	584.000	BGJP	750.000	B*P	2320.000	*P	524.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)	5.300	P	34.800	*JP	626.000	*P	241.000	*P	48.600	*P
7440-48-4	COBALT	2.700	P	7.000	BP	11.100	P	13.500	P	5.800	BP
7440-50-8	COPPER (TOTAL)	6.400	P	473.000	N*EJ	716.000	P	822.000	P	348.000	P
7439-89-6	IRON	3960.000	P	10400.000	*P	38300.000	P	28600.000	P	14800.000	P
7439-92-1	LEAD (TOTAL)	7.000	S*F	13.100	NJF	66.800	*F	16.300	*F	36.700	*F
7439-95-4	MAGNESIUM	736.000	P	1090.000	EJP	7460.000	*JP	2070.000	*JP	2620.000	*JP
7439-96-5	MANGANESE	79.000	P	387.000	*P	657.000	P	370.000	P	187.000	P
7439-97-6	MERCURY (TOTAL)			0.170	CV	0.500	CV				
7440-02-0	NICKEL (TOTAL)	6.400	P	34.100	P	176.000	*JP	57.000	*JP	23.800	*JP
7440-09-7	POTASSIUM	264.000	P	296.000	BP			369.000	BP	583.000	BP
7440-23-5	SODIUM					55.300	BP	79.100	BP	38.000	BP
7440-62-2	VANADIUM	5.600	P	14.700	P	19.200	P	22.800	P	20.100	P
7440-66-6	ZINC (TOTAL)	22.000	P	122.000	NEJP	83.000	N*JP	126.000	N*JP	87.600	N*JP

	Location Alias =>	LEACH		RAS		RAS		RAS		LEACH	
	Location ID =>	SB09D		SB10A		SB10B		SB10C		SB10D	
	SMO or Sample ID =>	MEX985		MEY061		MEY062		MEY063		MEX987	
	Date Collected =>	06/25/88		06/27/88		06/27/88		06/27/88		06/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	168.000	P	3520.000	P	2770.000	P	1300.000	P	712.000	P
7440-38-2	ARSENIC (TOTAL)	1.500	F	3.600	NJF	2.500	NJF	2.100	BNJF	6.500	F
7440-39-3	BARIUM	174.000	P	32.000	BP	24.900	BP	7.000	BP		
7440-43-9	CADMIUM (TOTAL)			4.100	P	2.200	P				
7440-70-2	CALCIUM	4730.000	P	8440.000	*P	9860.000	*P	883.000	B*P	394.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			14.300	*P	10.500	*P	4.300	*P		
7440-48-4	COBALT			7.200	BP			3.400	BP		
7440-50-8	COPPER (TOTAL)	14.000	P	40.100	P	22.500	P	10.600	P	16.000	P
7439-89-6	IRON	18.000	JP	10100.000	P	7640.000	P	3990.000	P	72.000	P
7439-92-1	LEAD (TOTAL)			31.300	*F	32.200	S*F	3.200	*F		
7439-95-4	MAGNESIUM	33100.000	P	4250.000	*JP	4130.000	*JP	751.000	B*JP		
7439-96-5	MANGANESE	11.000	P	325.000	P	230.000	P	111.000	P	4.000	P
7439-97-6	MERCURY (TOTAL)									0.200	CV
7440-02-0	NICKEL (TOTAL)	17.000	P	23.700	*JP						
7440-09-7	POTASSIUM			263.000	BP	244.000	BP				
7440-23-5	SODIUM	4020.000	P	1210.000	P	765.000	BP	358.000	BP	87000.000	P
7440-62-2	VANADIUM			10.000	BP	7.900	BP	6.000	BP		
7440-66-6	ZINC (TOTAL)	22.000	JP	121.000	N*JP	84.900	N*JP	45.200	N*JP		
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB11A		SB11B		SB11C		SB11D		SB12A	
	SMO or Sample ID =>	MEY051		MEY052		MEY053		MEX983		ME1563	
	Date Collected =>	06/22/88		06/22/88		06/22/88		06/25/88		06/16/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	4570.000	*P	6520.000	*P	7080.000	*P			5490.000	P
440-38-2	ARSENIC (TOTAL)	2.300	NJF	3.400	NJF	4.800	NJF			4.300	F
440-39-3	BARIUM	40.800	BP	49.900	P	48.900	P	93.000	P	52.000	P
440-41-7	BERYLLIUM (TOTAL)									0.390	BP
440-43-9	CADMIUM (TOTAL)									1.300	*NJP
440-70-2	CALCIUM	32300.000	EJP	5510.000	EJP	1380.000	EJP	7540.000	P	3570.000	*P
440-47-3	CHROMIUM (ELEMENTAL)	12.100	*JP	13.000	*JP	11.100	*JP			8.300	P
440-48-4	COBALT	6.800	BP	11.000	BP	11.500	P	22.000	P	7.100	BP
440-50-8	COPPER (TOTAL)	71.900	N*EJP	67.000	N*EJ	20.300	N*EJ			13.800	P
439-89-6	IRON	13100.000	*P	15600.000	*P	18300.000	*P	136.000	P	10900.000	P
439-92-1	LEAD (TOTAL)	14.300	NJF	12.500	NJF	44.800	NJF	1.600	F	14.000	F
439-95-4	MAGNESIUM	19000.000	EJP	4140.000	EJP	2180.000	EJP	2200.000	P	2680.000	*P
439-96-5	MANGANESE	348.000	*P	388.000	*P	347.000	*P			426.000	P
439-97-6	MERCURY (TOTAL)									0.200	*NJCV
440-02-0	NICKEL (TOTAL)	16.700	P	50.600	P	19.000	P			10.800	P
440-09-7	POTASSIUM	249.000	BP	507.000	BP	709.000	BP	991.000	P	449.000	BP
440-22-4	SILVER (TOTAL)									1.100	BNJP
440-23-5	SODIUM	53.800	BP	43.800	BP	54.300	BP	4560.000	P		
440-62-2	VANADIUM	15.500	P	21.400	P	21.800	P			12.200	P
440-66-6	ZINC (TOTAL)	89.300	NEJP	124.000	NEJP	121.000	NEJP	9.000	JP	60.900	P
4-90-8	CYANIDE (TOTAL)			33.800	AS			0.000	NR		

	Location Alias =>	RAS		RAS		LEACH		RAS		RAS	
	Location ID =>	SB12B		SB12C		SB12D		SB12E		SB12E(D)	
	SMO or Sample ID =>	MET564		MET565		MET624		MET566		MET567	
	Date Collected =>	06/16/88		06/16/88		06/14/88		06/16/88		06/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	7090.000	P	7000.000	P			2750.000	P	4200.000	P
7440-38-2	ARSENIC (TOTAL)	7.000	F	13.900	SF			2.600	F	6.300	SF
7440-39-3	BARIUM	31.800	BP	32.400	BP			13.000	BP	23.100	BP
7440-41-7	BERYLLIUM (TOTAL)	0.410	BP	0.330	BP						
7440-70-2	CALCIUM	870.000	B*P	1050.000	B*P	4250.000	P	405.000	B*P	894.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)	10.600	P	10.400	P			4.600	P	6.000	P
7440-48-4	COBALT	9.600	BP	8.400	BP			4.300	BP	5.100	BP
7440-50-8	COPPER (TOTAL)	19.000	P	30.000	P			8.900	P	12.100	P
7439-89-6	IRON	16200.000	P	19500.000	P	34.000	P	6710.000	P	9270.000	P
7439-92-1	LEAD (TOTAL)	14.200	F	33.900	P			7.300	F	9.000	SF
7439-95-4	MAGNESIUM	1790.000	*P	1520.000	*P	1720.000	P	837.000	B*P	1180.000	*P
7439-96-5	MANGANESE	346.000	P	134.000	P			189.000	P	206.000	P
7439-97-6	MERCURY (TOTAL)	0.200	*NJCV								
7440-02-0	NICKEL (TOTAL)	15.000	P	15.500	P			7.000	BP	9.700	P
7440-09-7	POTASSIUM	499.000	BP	631.000	BP			296.000	BP	387.000	BP
7782-49-2	SELENIUM (TOTAL)			0.340	BF						
7440-22-4	SILVER (TOTAL)									0.900	BNJP
7440-62-2	VANADIUM	14.300	P	14.100	P			6.300	BP	9.400	BP
7440-66-6	ZINC (TOTAL)	86.300	P	99.500	P			46.000	P	51.300	P
74-90-8	CYANIDE (TOTAL)					0.000	NR				

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB12F		SB12G		SB12H		SB12I		SB12J	
	SMO or Sample ID =>	MET568		MET569		MET570		MET571		MET572	
	Date Collected =>	06/16/88		06/16/88		06/16/88		06/16/88		06/16/88	
AB	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	3010.000	P	4680.000	P	2730.000	P	2960.000	P	1070.000	P
440-38-2	ARSENIC (TOTAL)	2.900	F	2.600	F	2.400	F	2.500	F	2.300	F
440-39-3	BARIUM	14.100	BP	19.800	BP	12.800	BP	15.900	BP	4.200	BP
440-70-2	CALCIUM	460.000	B*P	669.000	B*P	544.000	B*P	588.000	B*P	15200.000	*P
440-47-3	CHROMIUM (ELEMENTAL)	4.300	P	6.100	P	4.600	P	4.800	P	3.200	P
440-48-4	COBALT	3.300	BP	4.100	BP	4.100	BP	4.600	BP	2.600	BP
440-50-8	COPPER (TOTAL)	6.800	P	10.400	P	6.700	P	7.000	P	4.300	BP
439-89-6	IRON	5370.000	P	7130.000	P	5500.000	P	5910.000	P	3590.000	P
439-92-1	LEAD (TOTAL)	7.700	F	5.300	F	4.500	F	3.700	F	3.400	F
439-95-4	MAGNESIUM	7.700	P	896.000	B*P	739.000	B*P	802.000	B*P	3410.000	*P
439-96-5	MANGANESE	118.000	P	132.000	P	160.000	P	176.000	P	86.000	P
439-97-6	MERCURY (TOTAL)	0.010	BP								
440-02-0	NICKEL (TOTAL)	6.700	BP	8.900	BP	8.600	BP	8.900	BP	4.100	BP
440-09-7	POTASSIUM	293.000	BP	404.000	BP	267.000	BP	304.000	BP	141.000	BP
440-22-4	SILVER (TOTAL)					1.200	BNJP	1.000	BNJP	1.200	BNJP
440-62-2	VANADIUM	5.900	BP	8.000	BP	6.500	BP	6.500	BP	5.100	BP
440-66-6	ZINC (TOTAL)	32.900	P	42.600	P	28.100	P	30.900	P	16.700	P

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SB12K		SB13A		SB13B		SB13C		SB13D	
	SMO or Sample ID =>	MET573		MEX479		MEX480		MEX481		MET622	
	Date Collected =>	06/16/88		06/18/88		06/18/88		06/18/88		06/14/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	919.000	P	6800.000	P	9510.000	P	6350.000	P	1330.000	P
7440-36-0	ANTIMONY (TOTAL)					7.500	BNJP				
7440-38-2	ARSENIC (TOTAL)	1.500	BF	5.100	SF	12.900	SF	9.000	SF	28.000	F
7440-39-3	BARIUM	3.800	BP	54.900	P	30.300	BP	26.100	BP	31.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.290	BP	0.480	BP	0.230	BP		
7440-70-2	CALCIUM	23600.000	*P	376.000	BP	415.000	BP	306.000	BP	727.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	3.100	P	9.200	P	13.100	P	8.700	P	30.000	P
7440-48-4	COBALT	2.000	BP	5.400	BP	10.200	BP	7.800	BP	18.000	P
7440-50-8	COPPER (TOTAL)	4.000	BP	6.600	P	24.000	P	18.600	P	37.000	P
7439-89-6	IRON	3460.000	P	10200.000	P	19400.000	P	14200.000	P	85.000	P
7439-92-1	LEAD (TOTAL)	2.600	F	6.200	F	16.500	SF	12.400	F		
7439-95-4	MAGNESIUM	5080.000	*P	1200.000	P	1780.000	P	1430.000	P		
7439-96-5	MANGANESE	109.000	P	405.000	P	417.000	P	371.000	P	20.000	P
7440-02-0	NICKEL (TOTAL)	3.700	BP	8.200	BP	17.900	P	13.700	P	13.000	P
7440-09-7	POTASSIUM	108.000	BP	553.000	BP	930.000	BP	582.000	BP		
7782-49-2	SELENIUM (TOTAL)									7.200	SF
7440-22-4	SILVER (TOTAL)									8.000	P
7440-23-5	SODIUM			2190.000	P	3690.000	P	2930.000	P	248000.000	P
7440-28-0	THALLIUM (TOTAL)			0.550	BWJF						
7440-62-2	VANADIUM	4.300	BP	17.000	P	22.000	P	14.400	P	31.000	P
7440-66-6	ZINC (TOTAL)	16.500	P	34.900	EJP	114.000	EJP	81.300	EJP	34.000	P
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB13E		SB13E(D)		SB13F		SB13G		SB13H	
	SMO or Sample ID =>	MEX482		MEX483		MEX484		MEX485		MEX486	
	Date Collected =>	06/18/88		06/18/88		06/18/88		06/18/88		06/18/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	7270.000	P	5270.000	P	2330.000	P	3750.000	P	2290.000	P
7440-38-2	ARSENIC (TOTAL)	9.300	SF	7.800	SNJF	5.000	SNJF	5.800	NJF	1.600	B+JF
7440-39-3	BARIUM	33.400	BP	21.800	BP	10.600	BP	14.800	BP	13.900	BP
7440-41-7	BERYLLIUM (TOTAL)	0.390	BP								
7440-43-9	CADMIUM (TOTAL)			1.300	*JP						
7440-70-2	CALCIUM	408.000	BP	328.000	BP	189.000	BP	266.000	BP	337.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	10.600	P	9.800	P	3.500	P	5.300	P	4.900	P
7440-48-4	COBALT	5.500	BP	6.000	BP	2.500	BP	4.600	BP	2.800	BP
7440-50-8	COPPER (TOTAL)	13.500	P	17.800	P	7.100	P	11.400	P	5.300	BP
7439-89-6	IRON	12300.000	P	11300.000	P	5290.000	P	7920.000	P	4760.000	P
7439-92-1	LEAD (TOTAL)	9.600	SF	9.100	SF	7.000	SF	7.300	F	2.900	SF
7439-95-4	MAGNESIUM	1180.000	P	986.000	BP	572.000	BP	741.000	BP	661.000	BP
7439-96-5	MANGANESE	220.000	P	183.000	NJP	117.000	NJP	131.000	NJP	150.000	P
7440-02-0	NICKEL (TOTAL)	12.300	P	10.700	P	5.500	BP	8.200	BP	6.300	BP
7440-09-7	POTASSIUM	643.000	BP	391.000	BP	219.000	BP	306.000	BP	273.000	BP
7440-23-5	SODIUM	1690.000	P	1580.000	P	660.000	BP	923.000	BP	591.000	BP
7440-62-2	VANADIUM	16.600	P	12.400	P	5.300	BP	7.400	BP	6.900	BP
7440-66-6	ZINC (TOTAL)	62.000	EJP	65.700	EJP	33.600	EJP	53.300	EJP	20.100	EJP

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB13I		SB13J		SB13K		SB14		SB14A	
	SMO or Sample ID =>	MEX487		MEX488		MEX489		MEBE00		MEY064	
	Date Collected =>	06/18/88		06/18/88		06/18/88		07/05/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1780.000	P	1500.000	P	1270.000	P	260.000	P	2680.000	P
7440-38-2	ARSENIC (TOTAL)	3.000	SF	2.000	BF	1.300	BSF	6.400	BF	11.700	+NJF
7440-39-3	BARIUM	7.500	BP	6.400	BP	6.800	BP	117.000	BP	52.100	P
7440-70-2	CALCIUM	342.000	BP	363.000	BP	22400.000	P	13400.000	*JP	19100.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)	5.000	P	4.900	P	3.800	P			9.200	*P
7440-48-4	COBALT	2.200	BP	2.000	BP	1.500	BP			3.800	BP
7440-50-8	COPPER (TOTAL)	6.000	P	4.800	BP	3.400	BP			26.500	P
7439-89-6	IRON	6640.000	P	4470.000	P	3850.000	P	172.000	P	6760.000	P
7439-92-1	LEAD (TOTAL)	4.500	F	2.500	F	2.800	SF	2.600	BF	18.700	F
7439-95-4	MAGNESIUM	514.000	BP	566.000	BP	4870.000	P	2660.000	BP	10000.000	*P
7439-96-5	MANGANESE	57.500	P	42.600	P	76.300	P	11.000	BP	373.000	NJP
7440-02-0	NICKEL (TOTAL)	5.500	BP	5.000	BP	4.200	BP			9.700	P
7440-09-7	POTASSIUM	211.000	BP	199.000	BP	193.000	BP			340.000	BP
7440-23-5	SODIUM			499.000	BP			2790.000	BP	178.000	BP
7440-62-2	VANADIUM	9.800	BP	5.700	BP	5.400	BP			11.900	P
7440-66-6	ZINC (TOTAL)	21.300	EJP	17.500	EJP	19.000	EJP	25.000	P	143.000	NJP
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB14B		SB14C		SB15A		SB15B		SB15C	
	SMO or Sample ID =>	MEY065		MEY066		MEY010		MEY011		MEY012	
	Date Collected =>	06/28/88		06/28/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4310.000	P	5980.000	P	5680.000	P	4570.000	P	6080.000	P
7440-38-2	ARSENIC (TOTAL)	4.200	NJF	3.600	SNJF					2.500	F
7440-39-3	BARIUM	143.000	P	166.000	P	31.000	P[]	18.000	P[]	31.000	P
7440-41-7	BERYLLIUM (TOTAL)	0.560	BP			0.210	P[]			0.210	P
7440-70-2	CALCIUM	60100.000	*P	8110.000	*P	523.000	P[]	307.000	P[]	404.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	4.800	*P	1.800	B*P	6.800	*PJ	4.400	*PJ	8.400	P
7440-48-4	COBALT	4.200	BP	2.900	BP	4.700	*PJ[]	2.900	*PJ[]	6.100	P
7440-50-8	COPPER (TOTAL)	11.700	P	4.300	BP	11.000	NPJ	9.300	NPJ	12.000	P
7439-89-6	IRON	6400.000	P	8770.000	P	10800.000	*P	6880.000	*P	10800.000	P
7439-92-1	LEAD (TOTAL)	11.100	+JF	8.000	SF	7.200	SF	6.700	SF	6.900	J*F
7439-95-4	MAGNESIUM	21600.000	*P	2110.000	*P	1380.000	P	811.000	P[]	1290.000	P
7439-96-5	MANGANESE	647.000	NJP	1740.000	NJP	203.000	NPJ	129.000	NPJ	240.000	P
7440-02-0	NICKEL (TOTAL)	9.700	P			9.400	P	6.900	P[]	11.000	P
7440-09-7	POTASSIUM	344.000	BP	395.000	BP	574.000	P[]	432.000	P[]	501.000	P
7440-23-5	SODIUM	62.900	BP	90.100	BP						
7440-62-2	VANADIUM	8.300	BP	17.400	P	12.000	P	8.400	P[]	13.000	P
7440-66-6	ZINC (TOTAL)	97.700	NJP	136.000	NJP	47.000	*P	33.000	*P	48.000	P
74-90-8	CYANIDE (TOTAL)	0.860	AS	1.200	AS						

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SB15D		SB15E		SB15E(D)		SB15F		SB15G	
	SMO or Sample ID =>	MEX994		MEY013		MEY014		MEY015		MEY016	
	Date Collected =>	06/26/88		06/21/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			2740.000	P	3310.000	P	2840.000	P	2610.000	P
7440-38-2	ARSENIC (TOTAL)							2.500	F	2.500	F
7440-39-3	BARIUM	12.500	BP	11.000	P	12.000	P	14.000	P	12.000	P
7440-43-9	CADMIUM (TOTAL)	4.000	BP								
7440-70-2	CALCIUM	1170.000	BP	271.000	P	318.000	P	276.000	P	375.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			4.800	P	4.400	P	3.800	P	3.800	P
7440-48-4	COBALT			3.200	P	3.800	P	3.400	P	3.200	P
7440-50-8	COPPER (TOTAL)			5.300	P	8.000	P	5.900	P	6.500	P
7439-89-6	IRON	194.000	*EJP	5120.000	P	5830.000	P	5390.000	P	5520.000	P
7439-92-1	LEAD (TOTAL)			3.400	J*F	3.600	J*F	4.400	J*F	3.600	J*F
7439-95-4	MAGNESIUM	497.000	BP	785.000	P	872.000	P	707.000	P	709.000	P
7439-96-5	MANGANESE	20.600	P	132.000	P	151.000	P	139.000	P	133.000	P
7439-97-6	MERCURY (TOTAL)	0.240	CV								
7440-02-0	NICKEL (TOTAL)	45.900	P	7.800	P	8.800	P	6.900	P	7.600	P
7440-09-7	POTASSIUM	1570.000	BJA	343.000	P	358.000	P	394.000	P	366.000	P
7440-62-2	VANADIUM			5.100	P	6.900	P	6.300	P	5.500	P
7440-66-6	ZINC (TOTAL)	35.700	P	28.000	P	33.000	P	25.000	P	36.000	P
74-90-8	CYANIDE (TOTAL)	0.000	NP								

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SB15H		SB15I		SB15J		SB15K		SB16	
	SMO or Sample ID =>	MEY017		MEY018		MEY019		MEY020		MEBE02	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/21/88		07/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1820.000	P	2260.000	P	1660.000	P	2090.000	P	120.000	BP
7440-38-2	ARSENIC (TOTAL)			2.400	F						
7440-39-3	BARIUM	8.600	P	9.500	P	5.800	P	8.100	P	98.000	BP
7440-43-9	CADMIUM (TOTAL)					0.960	P				
7440-70-2	CALCIUM	352.000	P	437.000	P	22700.000	P	25200.000	P	8350.000	*JP
7440-47-3	CHROMIUM (ELEMENTAL)	4.200	P	2.900	P	4.800	P	6.000	P		
7440-48-4	COBALT	3.400	P	2.600	P	2.900	P	3.300	P		
7440-50-8	COPPER (TOTAL)	4.400	P	4.600	P	4.800	P	5.700	P		
7439-89-6	IRON	4360.000	P	4640.000	P	4530.000	P	4360.000	P	97.000	BP
7439-92-1	LEAD (TOTAL)	2.500	J*F	2.900	J*SF	2.400	J*F	1.900	J*F	1.800	BF
7439-95-4	MAGNESIUM	657.000	P	684.000	P	5370.000	P	5810.000	P	3040.000	BP
7439-96-5	MANGANESE	81.000	P	172.000	P	131.000	P	101.000	P	3.000	BP
7440-02-0	NICKEL (TOTAL)	4.400	P	7.300	P	8.900	P	5.700	P		
7440-09-7	POTASSIUM	219.000	P	264.000	P			324.000	P		
7440-22-4	SILVER (TOTAL)	1.700	P								
7440-23-5	SODIUM									2030.000	BP
7440-62-2	VANADIUM	5.900	P	5.300	P	5.100	P	4.800	P		
7440-66-6	ZINC (TOTAL)	16.000	P	22.000	P	40.000	P	20.000	P		
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SB16A		SB16A(D)		SB16B		SB16C		SB16D	
	SMO or Sample ID =>	MEX965		MEX968		MEX966		MEX967		MEX986	
	Date Collected =>	06/27/88		06/27/88		06/27/88		06/27/88		06/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3760.000	P	4720.000	P	7720.000	P	5730.000	P	531.000	P
7440-36-0	ANTIMONY (TOTAL)					10.400	BP				
7440-38-2	ARSENIC (TOTAL)	2.600	NJF	3.000	NJF	5.400	NJF	5.300	NJF	11.000	F
7440-39-3	BARIUM	31.600	BP	35.800	BP	65.100	P	20.200	BP	15.000	P
7440-70-2	CALCIUM	697.000	B*P	780.000	B*P	650.000	B*P	664.000	B*P	422.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	16.400	*P	14.700	*P	12.900	*P	8.900	*P		
7440-48-4	COBALT	5.600	BP	5.700	BP	820.000	BP	11.500	P	9.000	P
7440-50-8	COPPER (TOTAL)	9.100	P	11.300	P	13.800	P	29.100	P	28.000	P
7439-89-6	IRON	7890.000	P	9620.000	P	13000.000	P	16400.000	P	300.000	P
7439-92-1	LEAD (TOTAL)	6.900	*F	9.700	S*F	13.900	S*F	13.200	*F		
7439-95-4	MAGNESIUM	948.000	B*JP	1230.000	*JP	1510.000	*JP	1610.000	*JP		
7439-96-5	MANGANESE	267.000	P	296.000	P	457.000	P	434.000	P	4.000	P
7439-97-6	MERCURY (TOTAL)									0.300	CV
7440-02-0	NICKEL (TOTAL)			7.600	B*P	12.200	*JP	12.700	*JP		
7440-09-7	POTASSIUM	399.000	BP	359.000	BP	539.000	BP	388.000	BP	665.000	P
7782-49-2	SELENIUM (TOTAL)									3.300	F
7440-22-4	SILVER (TOTAL)									22.000	P
7440-23-5	SODIUM	524.000	BP	486.000	BP	772.000	BP	500.000	BP	27900.000	P
7440-62-2	VANADIUM	12.300	P	14.400	P	21.200	P	16.900	P		
7440-66-6	ZINC (TOTAL)	83.900	N*JP	97.200	N*JP	96.500	N*JP	137.000	N*JP	2.300	JP
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		LEACH		LEACH	
	Location ID =>	SB17A		SB17B		SB17C		SB17D		SB18	
	SMO or Sample ID =>	MEX962		MEX963		MEX964		MEX988		MEBE01	
	Date Collected =>	06/27/88		06/27/88		06/27/88		06/25/88		07/05/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4490.000	P	3950.000	P	3580.000	P				
7440-38-2	ARSENIC (TOTAL)	3.700	NJF	4.600	NJF	6.000	NJF	2.400	F		
7440-39-3	BARIUM	59.500	P	28.100	BP	24.800	BP			112.000	BP
7440-70-2	CALCIUM	6160.000	*P	612.000	B*P	654.000	B*P	3470.000	P	23300.000	*JP
7440-47-3	CHROMIUM (ELEMENTAL)	9.900	*P	7.700	*P	6.700	*P				
7440-48-4	COBALT	6.600	BP	6.400	BP	6.600	BP				
7440-50-8	COPPER (TOTAL)	17.600	P	15.300	P	19.500	P				
7439-89-6	IRON	11800.000	P	9870.000	P	11500.000	P	61.000	P		
7439-92-1	LEAD (TOTAL)	15.700	*F	9.700	*F	10.500	*F				
7439-95-4	MAGNESIUM	3470.000	*JP	1170.000	*JP	1300.000	*JP	932.000	P	1840.000	BP
7439-96-5	MANGANESE	279.000	P	335.000	P	240.000	P				
7439-97-6	MERCURY (TOTAL)							0.200	CV		
7440-02-0	NICKEL (TOTAL)	10.300	*JP			9.800	*JP				
7440-09-7	POTASSIUM	291.000	BP	326.000	BP	260.000	BP	1830.000	P	1620.000	BP
7440-23-5	SODIUM	111.000	BP	46.300	BP	45.400	BP	5360.000	P	9140.000	P
7440-62-2	VANADIUM	17.400	P	13.700	P	13.100	P				
7440-66-6	ZINC (TOTAL)	107.000	N*JP	74.400	N*JP	120.000	N*JP	10.000	JP	48.000	P
74-90-8	CYANIDE (TOTAL)							0.000	NR	0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB18A		SB18B		SB18C		SB20A		SB20B	
	SMO or Sample ID =>	MEY088		MEY089		MEY090		MET646		MET647	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/20/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5920.000	*P	6730.000	*P	4090.000	*P	3810.000	P	5760.000	P
7440-38-2	ARSENIC (TOTAL)	2.600	SNJF	3.000	NJF	2.200	NJF	4.800	F	4.900	F
7440-39-3	BARIUM	97.300	P	56.900	P	26.300	BP	15.600	BP	23.200	BP
7440-43-9	CADMIUM (TOTAL)									1.600	P
7440-70-2	CALCIUM	6320.000	EJP	3900.000	EJP	2420.000	EJP	2050.000	J*P	27300.000	J*P
7440-47-3	CHROMIUM (ELEMENTAL)	42.900	*JP	35.100	*JP	24.300	*JP	7.800	P	9.600	P
7440-48-4	COBALT	8.100	BP	8.700	BP	6.200	BP	7.800	BP	7.100	BP
7440-50-8	COPPER (TOTAL)	6.900	N*EJP	4.200	BN*EJP	6.500	N*EJP	12.200	J*P	30.900	J*P
7439-89-6	IRON	12600.000	*P	14000.000	*P	9970.000	*P	10400.000	P	12100.000	P
7439-92-1	LEAD (TOTAL)	23.800	NJF	19.000	SNJF	10.800	+NJF	8.400	SF	9.100	F
7439-95-4	MAGNESIUM	2200.000	EJP	1980.000	EJP	1320.000	EJP	1940.000	J*P	17100.000	J*P
7439-96-5	MANGANESE	791.000	*P	466.000	*P	243.000	*P	259.000	P	235.000	P
7440-02-0	NICKEL (TOTAL)	12.800	P	13.400	P	16.500	P	9.500	P	11.800	P
7440-09-7	POTASSIUM	434.000	BP	495.000	BP			276.000	BP	583.000	BP
7782-49-2	SELENIUM (TOTAL)									1.200	JNF
7440-23-5	SODIUM	41.000	BP	139.000	BP	115.000	BP	27.600	BP	58.200	BP
7440-28-0	THALLIUM (TOTAL)			4.500	F						
7440-62-2	VANADIUM	18.300	P	21.300	P	13.600	P	10.900	P	16.500	P
7440-66-6	ZINC (TOTAL)	621.000	NEJP	1190.000	NEJP	281.000	NEJP	143.000	JN*EP	130.000	JN*EP
74-90-8	CYANIDE (TOTAL)									2.800	AS

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SB20C		SB20D		SB20E		SB20F		SB20G	
	SMO or Sample ID =>	MET648		MEK995		MET649		MET650		MET651	
	Date Collected =>	06/20/88		06/26/88		06/20/88		06/20/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3930.000	*P	225.000	*EJP	1740.000	*P	2430.000	*P	1540.000	*P
7440-38-2	ARSENIC (TOTAL)	4.600	NJF			1.800	BJSN	3.300	JNF		
7440-39-3	BARIUM	14.600	BP	19.200	BP	6.300	BP	11.900	BP	6.200	BP
7440-70-2	CALCIUM	1750.000	P	19700.000	P	735.000	BP	1240.000	P	336.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	7.700	P			3.800	P	4.700	P	3.700	P
7440-48-4	COBALT	6.300	BP	15.500	BP	3.200	BP	9.200	BP	2.800	BP
7440-50-8	COPPER (TOTAL)	29.500	*JP			7.500	J*P	10.200	J*P	4.100	BJ*P
7439-89-6	IRON	10000.000	P	152.000	*EJP	4860.000	P	6490.000	P	3920.000	P
7439-92-1	LEAD (TOTAL)	8.400	NJF			3.800	JSNF	6.400	JNF	3.000	JNF
7439-95-4	MAGNESIUM	1680.000	P	5660.000	P	871.000	BP	1240.000	P	551.000	BP
7439-96-5	MANGANESE	176.000	P	11.500	BP	121.000	P	125.000	P	122.000	P
7440-02-0	NICKEL (TOTAL)	9.800	P	96.800	P			10.000	P		
7440-09-7	POTASSIUM			2030.000	BJA			237.000	BP		
7440-23-5	SODIUM	38.600	BP	5810.000	P	27.400	BP	32.400	BP		
7440-62-2	VANADIUM	9.400	BP			5.400	BP	6.800	BP	4.800	BP
7440-66-6	ZINC (TOTAL)	188.000	NERP	27.800	P	67.700	RNEP	109.000	RNEP	90.200	RNEP
74-90-8	CYANIDE (TOTAL)			0.000	NP						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB20H		SB20I		SB20I(DUP)		SB20J		SB20K	
	SMO or Sample ID =>	MET652		MET653		MET654		MET655		MET656	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2290.000	*P	1590.000	*P	1930.000	*P	1340.000	*P	1570.000	*P
7440-38-2	ARSENIC (TOTAL)	2.000	BJNF			1.600	BJNF	1.600	BJNF	2.900	JNF
7440-39-3	BARIUM	8.500	BP	5.400	BP	6.100	BP	4.700	BP	5.400	BP
7440-70-2	CALCIUM	538.000	BP	449.000	BP	580.000	BP	14300.000	P	28100.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	3.500	P	2.500	P	3.500	P	4.000	P	4.800	P
7440-50-8	COPPER (TOTAL)	4.000	BJ*P	3.300	BJ*P	2.300	BJ*P	2.100	BJ*P	3.300	BJ*P
7439-89-6	IRON	4760.000	P	4010.000	P	4480.000	P	3340.000	P	4940.000	P
7439-92-1	LEAD (TOTAL)	3.400	JNF	2.600	JNF	3.000	JNF	2.500	JNF	3.800	JNF
7439-95-4	MAGNESIUM	632.000	BP	546.000	BP	611.000	BP	3360.000	P	7770.000	P
7439-96-5	MANGANESE	141.000	P	109.000	P	122.000	P	86.600	P	108.000	P
7440-09-7	POTASSIUM									294.000	BP
7440-23-5	SODIUM	31.400	BP			38.800	BP	44.900	BP	54.300	BP
7440-62-2	VANADIUM	6.200	BP	5.500	BP	6.300	BP	5.000	BP	9.500	BP
7440-66-6	ZINC (TOTAL)	97.600	RNEP	61.800	RNEP	190.000	RNEP	162.000	RNEP	140.000	RNEP

	Location Alias =>	RAS		RAS		RAS		LEACH		LEACH	
	Location ID =>	SB21A		SB21B		SB21C		SB21D		SB21D	
	SMO or Sample ID =>	MEY077		MEY078		MEY079		MEX976		MEX976RE	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/25/88		06/25/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5670.000	P	7180.000	*P	4330.000	*P	93.000	P		
7440-38-2	ARSENIC (TOTAL)	3.400	NJF	5.500	NJF	4.300	NSJF	4.400	F	5.100	F
7440-39-3	BARIUM	67.800	P	63.400	P	41.700	BP	13.000	P	10.000	P
7440-41-7	BERYLLIUM (TOTAL)	1.600	P	1.300	*P						
7440-43-9	CADMIUM (TOTAL)	0.000	NR								
7440-70-2	CALCIUM	1290.000	*P	1670.000	EJP	4150.000	EJP	911.000	P	793.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	8.600	*P	15.900	*JP	7.200	*JP				
7440-48-4	COBALT	8.000	BP	14.500	P	6.500	BP				
7440-50-8	COPPER (TOTAL)	25.200	P	57.000	N*EJP	11.100	N*EJP				
7439-89-6	IRON	13200.000	P	19100.000	*P	10900.000	*P	101.000	P	60.000	JP
7439-92-1	LEAD (TOTAL)	13.700	SF	12.300	NJF	4.800	+NJF				
7439-95-4	MAGNESIUM	1380.000	*P	1750.000	EJP	3020.000	EJP				
7439-96-5	MANGANESE	436.000	NJP	473.000	*P	338.000	*P				
7440-02-0	NICKEL (TOTAL)	11.600	P	15.500	P	18.900	P				
7440-09-7	POTASSIUM	396.000	BP	389.000	BP	330.000	BP				
7782-49-2	SELENIUM (TOTAL)									1.900	F
7440-23-5	SODIUM	205.000	BP	198.000	BP	172.000	BP	20500.000	P	20900.000	P
7440-62-2	VANADIUM	18.600	P	22.700	P	15.000	P				
7440-66-6	ZINC (TOTAL)	109.000	NJP	166.000	NEJP	117.000	NEJP	21.000	JP	16.000	JP
74-90-8	CYANIDE (TOTAL)							0.000	NR	0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB21E		SB21E(DUP)		SB21F		SB21G		SB21H	
	SMO or Sample ID =>	MEY080		MEY081		MEY082		MEY083		MEY084	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		06/28/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	2700.000	*P	3260.000	*P	3360.000	*P	2260.000	*P	2670.000	*P
440-38-2	ARSENIC (TOTAL)	1.600	BNJF	3.000	SNJF	2.600	NJF	2.500	NJF	1.800	BNJF
440-39-3	BARIUM	12.600	BP	16.800	BP	17.200	BP	11.300	BP	10.100	BP
440-70-2	CALCIUM	375.000	BEJP	479.000	BEJP	551.000	BEJP	441.000	BEJP	384.000	BEJP
440-47-3	CHROMIUM (ELEMENTAL)	3.700	*JP	4.500	*JP	4.900	*JP	3.500	*JP	5.400	*JP
440-48-4	COBALT	4.100	BP	4.400	BP	6.300	BP	4.600	BP	5.000	BP
440-50-8	COPPER (TOTAL)	5.700	N*EJP	6.200	N*EJP	8.000	N*EJP	3.600	BN*EJP	1.900	BN*EJP
439-89-6	IRON	6350.000	*P	7620.000	*P	8930.000	*P	6540.000	*P	7610.000	*P
439-92-1	LEAD (TOTAL)	4.900	SNJF	5.600	NJF	5.700	NJF	4.600	SNJF	3.600	NJF
439-95-4	MAGNESIUM	748.000	BEJP	882.000	BEJP	872.000	BEJP	707.000	BEJP	1090.000	BEJP
439-96-5	MANGANESE	143.000	*P	166.000	*P	233.000	*P	162.000	*P	183.000	*P
440-02-0	NICKEL (TOTAL)	8.200	BP	12.000	P	12.400	P	9.300	P	8.200	BP
440-09-7	POTASSIUM	293.000	BP	267.000	BP	282.000	BP				
440-23-5	SODIUM	107.000	BP	133.000	BP	108.000	BP	75.600	BP	68.300	BP
440-62-2	VANADIUM	8.600	BP	10.300	BP	11.200	BP	8.500	BP	10.300	BP
440-66-6	ZINC (TOTAL)	74.200	NEJP	84.100	NJF	137.000	NEJP	607.000	NEJP	60.600	NEJP

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB21I		SB21J		SB21K		SB22A		SB22B	
	SMO or Sample ID =>	MEY085		MEY086		MEY087		MEY032		MEY033	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/22/88		06/22/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1530.000	*P	2850.000	*P	2170.000	*P	24000.000	P	11900.000	P
7440-38-2	ARSENIC (TOTAL)	1.400	BNJF	8.600	NJF	4.800	NJF	2.700	F	5.300	F
7440-39-3	BARIUM	6.000	BP	10.600	BP	8.800	BP	308.000	P	97.000	P
7440-41-7	BERYLLIUM (TOTAL)							3.600	P	1.300	P
7440-43-9	CADMIUM (TOTAL)							0.900	P		
7440-70-2	CALCIUM	336.000	BEJP	31000.000	EJP	13100.000	EJP	108000.000	P	33600.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	2.800	*JP	4.800	*JP	4.400	*JP	12.000	P	8.600	P
7440-48-4	COBALT	3.500	BP	7.000	BP	5.000	BP	4.800	P	6.200	P
7440-50-8	COPPER (TOTAL)			8.400	N*EJP	5.300	BN*EJP	12.000	P	17.000	P
7439-89-6	IRON	4840.000	*P	11100.000	*P	9230.000	*P	9420.000	P	12400.000	P
7439-92-1	LEAD (TOTAL)	2.800	NJF	14.900	NJF	7.300	SNJF	8.100	NJF	10.000	NJF
7439-95-4	MAGNESIUM	633.000	BEJP	14400.000	EJP	5960.000	EJP	7510.000	P	3340.000	P
7439-96-5	MANGANESE	148.000	*P	272.000	*P	208.000	*P	3120.000	P	978.000	P
7440-02-0	NICKEL (TOTAL)			15.600	P			7.200	P	10.000	P
7440-09-7	POTASSIUM			420.000	BP	318.000	BP	1200.000	P	749.000	P
7440-23-5	SODIUM	27.800	BP	83.700	BP	69.600	BP	409.000	P		
7440-62-2	VANADIUM	7.000	BP	12.700	P	11.500	BP	13.000	P	13.000	P
7440-66-6	ZINC (TOTAL)	40.200	NEJP	101.000	NEJP	101.000	NEJP	46.000	P	70.000	P
74-90-8	CYANIDE (TOTAL)							44.000	NJ	8.200	NJ

	Location Alias =>	RAS		RAS		LEACH		RAS		RAS	
	Location ID =>	SB22C		SB22D		SB22D		SB23A		SB23B	
	SMO or Sample ID =>	034		MEY044		MEX981		MET657		MET658	
	Date Collected =>	06/22/88		06/22/88		06/25/88		06/20/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5160.000	P	5400.000	P			2960.000	*P	3050.000	*P
7440-38-2	ARSENIC (TOTAL)	5.800	F	5.300	F			3.700	JNF	3.100	JNF
7440-39-3	BARIUM	27.000	P	27.000	P	73.000	P	12.800	BP	13.600	BP
7440-41-7	BERYLLIUM (TOTAL)	0.220	P	0.220	P						
7440-43-9	CADMIUM (TOTAL)							8.600	P	2.200	P
7440-70-2	CALCIUM	4400.000	P	4240.000	P	14600.000	P	1120.000	BP	808.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	6.900	P	6.700	P			87.900	P	24.900	P
7440-48-4	COBALT	5.300	P	5.100	P			4.800	BP	5.200	BP
7440-50-8	COPPER (TOTAL)	21.000	P	18.000	P			52.000	J*P	50.500	J*P
7439-89-6	IRON	12800.000	P	12300.000	P	18.000	JP	7840.000	P	7820.000	P
7439-92-1	LEAD (TOTAL)	12.000	SNJF	11.000	SNJF			10.600	JNF	8.600	JNF
7439-95-4	MAGNESIUM	1550.000	P	1460.000	P	1790.000	P	1100.000	BP	984.000	BP
7439-96-5	MANGANESE	360.000	P	338.000	P			136.000	P	147.000	P
7440-02-0	NICKEL (TOTAL)	14.000	P	12.000	P			28.700	P	17.100	P
7440-09-7	POTASSIUM	671.000	P	580.000	P	886.000	P	386.000	BP	363.000	BP
7440-23-5	SODIUM					2610.000	P	47.500	BP	46.800	BP
7440-62-2	VANADIUM	11.000	P	10.000	P			8.800	BP	8.700	BP
7440-66-6	ZINC (TOTAL)	79.000	P	77.000	P	11.000	JP	148.000	RNEP	155.000	RNEP
74-90-8	CYANIDE (TOTAL)	3.800	NJ	1.300	NJ	0.000	NR	21.300	AS	9.900	AS

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SB23C		SB23D		SB23E		SB23E(DUP)		SB23F	
	SMO or Sample ID =>	MET659		MEX991		MET660		MET661		MET662	
	Date Collected =>	06/20/88		06/26/88		06/20/88		06/20/88		06/20/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
'429-90-5	ALUMINUM	7980.000	*P			2450.000	*P	2030.000	*P	3410.000	*P
'440-38-2	ARSENIC (TOTAL)	4.700	JNF			2.500	JNF	4.200	JSNF	3.800	JNF
'440-39-3	BARIUM	22.200	BP	61.000	BP	8.200	BP	6.100	BP	12.400	BP
'440-43-9	CADMIUM (TOTAL)	3.900	P	18.700	P						
'440-70-2	CALCIUM	731.000	BP	22700.000	P	193.000	BP	150.000	BP	319.000	BP
'440-47-3	CHROMIUM (ELEMENTAL)	47.500	P	7.500	BP	5.500	P	4.400	P	4.800	P
'440-48-4	COBALT	7.300	BP	20.300	BP	3.100	BP	3.000	BP	4.700	BP
'440-50-8	COPPER (TOTAL)	50.000	J*P	85.400	*JP	6.800	J*P	5.100	BJ*P	8.900	J*P
'439-89-6	IRON	10800.000	P	587.000	*EJP	5700.000	P	4530.000	P	8040.000	P
'439-92-1	LEAD (TOTAL)	13.000	JNF	3.300	BJNF	5.300	JNF	4.000	JNF	5.700	JNF
'439-95-4	MAGNESIUM	1260.000	P	5410.000	P	617.000	BP	465.000	BP	767.000	BP
'439-96-5	MANGANESE	245.000	P	4390.000	P	115.000	P	103.000	P	173.000	P
'440-02-0	NICKEL (TOTAL)	22.400	P	119.000	P						
'440-09-7	POTASSIUM	449.000	BP	4100.000	BJA					274.000	BP
'440-23-5	SODIUM	92.200	BP	9050.000	P	35.700	BP	71.400	BP	57.500	BP
'440-62-2	VANADIUM	12.500	P			6.300	BP	5.900	BP	9.700	BP
'440-66-6	ZINC (TOTAL)	204.000	RNEP	26.900	P	116.000	RNEP	139.000	RNEP	90.200	RNEP
'4-90-8	CYANIDE (TOTAL)	7.600	AS	0.000	NP						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB23G		SB23H		SB23I		SB23J		SB23K	
	SMO or Sample ID =>	MET663		MET664		MET665		MET666		MET667	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/20/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	2010.000	*P	2450.000	*P	2460.000	*P	1780.000	*P	1290.000	*P
440-36-0	ANTIMONY (TOTAL)	7.600	NJP								
440-38-2	ARSENIC (TOTAL)	3.700	NJF	3.900	NJF			2.600	NJF	2.800	N+JF
440-39-3	BARIUM	5.400	BP	6.200	BP	5.800	BP	5.200	BP	4.200	BP
440-70-2	CALCIUM	411.000	BP	26.600	P	29200.000	P	32100.000	P	29800.000	P
440-47-3	CHROMIUM (ELEMENTAL)	4.900	P	5.300	P	4.900	P	4.400	P	2.700	P
440-48-4	COBALT	3.800	BP	4.200	BP	4.300	BP	3.000	BP	3.100	BP
440-50-8	COPPER (TOTAL)	8.300	*JP	7.300	*JP	7.800	*JP	6.900	*JP	7.200	*JP
439-89-6	IRON	7020.000	P	7530.000	P	7406.000	P	6680.000	P	5330.000	P
439-92-1	LEAD (TOTAL)	6.100	SNJF	5.400	NJF	1.200	NJF	3.400	NJ	4.100	NJF
439-95-4	MAGNESIUM	736.000	BP	9410.000	P	10900.000	P	10100.000	P	9670.000	P
439-96-5	MANGANESE	147.000	P	168.000	P	154.000	P	130.000	P	114.000	P
440-02-0	NICKEL (TOTAL)									8.400	BP
440-09-7	POTASSIUM	231.000	BP	452.000	BP	399.000	BP				
440-23-5	SODIUM	51.700	BP	51.200	BP	67.000	BP	63.900	BP	66.600	BP
440-62-2	VANADIUM	7.300	BP	9.700	BP	9.400	BP	9.900	BP	6.200	BP
440-66-6	ZINC (TOTAL)	145.000	NERP	198.000	NERP	229.000	NERP	112.000	NERP	89.100	NERP
4-90-8	CYANIDE (TOTAL)							2.500	AS		

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB24A		SB24B		SB24C		SB24D		SB24E	
	SMO or Sample ID =>	MET595		MET596		MET597		MET626		MET598	
	Date Collected =>	06/17/88		06/17/88		06/17/88		06/14/88		06/17/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
'429-90-5	ALUMINUM	3440.000	P	3120.000	P	3850.000	P			3010.000	P
'440-36-0	ANTIMONY (TOTAL)			6.500	BP						
'440-38-2	ARSENIC (TOTAL)	6.900	F	4.200	SF	7.800	F			5.400	F
'440-39-3	BARIUM	20.800	BP	15.800	BP	21.200	BP			15.500	BP
'440-70-2	CALCIUM	362.000	BP	337.000	BP	554.000	BP	217.000	P	622.000	BP
'440-47-3	CHROMIUM (ELEMENTAL)	6.300	P	5.900	P	7.200	P			5.300	P
'440-48-4	COBALT	5.900	BP	6.400	BP	7.900	BP			5.500	BP
'440-50-8	COPPER (TOTAL)	13.900	P	14.400	P	18.500	P	15.000	P	11.500	P
'439-89-6	IRON	9590.000	P	9420.000	P	11200.000	P	86.000	P	9080.000	P
'439-92-1	LEAD (TOTAL)	16.000	F	10.200	F	12.000	F			8.500	F
'439-95-4	MAGNESIUM	1030.000	P	1080.000	P	1340.000	P			878.000	BP
'439-96-5	MANGANESE	269.000	P	232.000	P	246.000	P			209.000	P
'440-02-0	NICKEL (TOTAL)	12.600	P	13.000	P	16.100	P	13.000	P	11.800	P
'440-09-7	POTASSIUM	384.000	BP	426.000	BP	557.000	BP	1280.000	P	335.000	BP
'440-22-4	SILVER (TOTAL)	0.910	BP								
'440-23-5	SODIUM							1270.000	P		
'440-62-2	VANADIUM	9.400	BP	8.300	BP	9.700	BP			8.900	BP
'440-66-6	ZINC (TOTAL)	72.500	EJP	85.900	EJP	109.000	EJP	25.000	P	88.700	EJP
'4-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB24E(DUP)		SB24F		SB24G		SB24H		SB24I	
	SMO or Sample ID =>	MET599		MET600		MET601		MET602		MET603	
	Date Collected =>	06/17/88		06/17/88		06/17/88		06/17/88		06/15/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3620.000	P	2320.000	P	1500.000	P	1390.000	P	906.000	P
7440-38-2	ARSENIC (TOTAL)	5.300	F	4.900	F	2.500	F	1.900	B+F	2.200	F
7440-39-3	BARIUM	18.200	BP	9.700	BP	4.300	BP	4.700	BP	3.900	BP
7440-70-2	CALCIUM	643.000	BP	789.000	BP	536.000	BP	28900.000	P	24900.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)	6.000	P	7.000	P	4.200	P	4.000	P	2.800	P
7440-48-4	COBALT	5.400	BP	5.100	BP	3.600	BP	3.400	BP	2.700	BP
7440-50-8	COPPER (TOTAL)	12.000	P	13.800	P	5.000	BP	4.700	BP	6.800	P
7439-89-6	IRON	9280.000	P	8060.000	P	5320.000	P	4820.000	P	3910.000	*P
7439-92-1	LEAD (TOTAL)	8.000	F	7.800	F	3.600	F	3.300	F	3.700	S*JF
7439-95-4	MAGNESIUM	972.000	BP	1000.000	BP	735.000	BP	7050.000	P	6610.000	*P
7439-96-5	MANGANESE	199.000	P	146.000	P	178.000	P	143.000	P	133.000	*NJP
7440-02-0	NICKEL (TOTAL)	12.900	P	14.400	P	9.300	P	7.600	BP	8.400	BP
7440-09-7	POTASSIUM	419.000	BP	393.000	BP	226.000	BP	190.000	BP	153.000	BP
7440-22-4	SILVER (TOTAL)									0.930	BP
7440-62-2	VANADIUM	9.400	BP	7.400	BP	5.500	BP	6.100	BP	3.800	BP
7440-66-6	ZINC (TOTAL)	86.200	EJP	67.700	EJP	34.800	EJP	28.200	EJP	27.500	E*JP

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SB24J		SB25A		SB25B		SB25C		SB25D	
	SMO or Sample ID =>	MET604		MET606		MET607		MET608		MET627	
	Date Collected =>	06/15/88		06/15/88		06/15/88		06/15/88		06/14/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	1200.000	P	2520.000	P	2410.000	P	2200.000	P		
440-38-2	ARSENIC (TOTAL)	2.400	F	6.400	F	5.000	F	4.300	SF		
440-39-3	BARIUM	4.400	BP	11.300	BP	10.200	BP	9.800	BP		
440-70-2	CALCIUM	22100.000	*P	309.000	B*P	287.000	B*P	317.000	B*P		
440-47-3	CHROMIUM (ELEMENTAL)	3.400	P	4.700	P	4.900	P	4.400	P		
440-48-4	COBALT	2.900	BP	5.500	BP	5.100	BP	4.500	BP		
440-50-8	COPPER (TOTAL)	8.900	P	15.000	P	13.600	P	11.600	P		
439-89-6	IRON	4230.000	*P	7760.000	*P	7520.000	*P	6200.000	*P	21.000	P
439-92-1	LEAD (TOTAL)	3.400	*JF	8.300	*JF	6.800	*JF	7.000	*JF		
439-95-4	MAGNESIUM	5930.000	*P	917.000	B*P	911.000	B*P	770.000	B*P		
439-96-5	MANGANESE	85.000	*NJP	157.000	*NJP	140.000	*NJP	126.000	*NJP		
440-02-0	NICKEL (TOTAL)	5.700	BP	12.300	P	10.500	P	7.900	BP		
440-09-7	POTASSIUM	207.000	BP	407.000	BP	365.000	BP	358.000	BP		
440-22-4	SILVER (TOTAL)	1.000	BP			1.500	BP	1.100	BP		
440-23-5	SODIUM									2230.000	P
440-62-2	VANADIUM	3.500	BP	6.300	BP	6.000	BP	5.300	BP		
440-66-6	ZINC (TOTAL)	27.900	E*JP	72.100	E*JP	63.300	E*JP	51.500	E*JP	17.000	P
4-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB25E		SB25E(D)		SB25F		SB25G		SB25H	
	SMO or Sample ID =>	MET609		MET610		MET611		MET612		MET613	
	Date Collected =>	06/15/88		06/15/88		06/15/88		06/15/88		06/15/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2870.000	P	2950.000	P	1590.000	P	1230.000	P	1010.000	P
7440-38-2	ARSENIC (TOTAL)	3.500	F	4.700	F	2.400	SF	2.600	SF	2.300	WJF
7440-39-3	BARIUM	11.900	BP	11.600	BP	7.600	BP	5.300	BP	4.200	BP
7440-70-2	CALCIUM	379.000	B*P	306.000	B*P	312.000	B*P	426.000	B*P	19400.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)	5.100	P	5.500	P	3.600	P	3.400	P	2.500	P
7440-48-4	COBALT	4.200	BP	5.000	BP	3.200	BP	2.800	BP	2.200	BP
7440-50-8	COPPER (TOTAL)	9.000	P	13.900	P	7.000	P	4.200	BP	3.500	BP
7439-89-6	IRON	6080.000	*P	8260.000	*P	4900.000	*P	4170.000	*P	3310.000	*P
7439-92-1	LEAD (TOTAL)	6.000	S*JF	7.700	*JF	5.100	*JF	3.000	*JF	2.900	*JF
7439-95-4	MAGNESIUM	796.000	B*P	929.000	B*P	615.000	B*P	641.000	B*P	4580.000	*P
7439-96-5	MANGANESE	119.000	*NJP	163.000	*NJP	107.000	*NJP	118.000	*NJP	81.600	*NJP
7440-02-0	NICKEL (TOTAL)	8.800	P	10.700	P	7.000	BP	4.000	BP	3.300	BP
7440-09-7	POTASSIUM	647.000	BP	465.000	BP	263.000	BP	169.000	BP	184.000	BP
7440-22-4	SILVER (TOTAL)			0.940	BP	1.200	BP	0.900	BP	1.300	BP
7440-62-2	VANADIUM	7.000	BP	7.500	BP	4.000	BP	4.100	BP	3.200	BP
7440-66-6	ZINC (TOTAL)	47.800	E*JP	75.300	E*JP	35.900	E*JP	17.300	E*JP	16.800	E*JP

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB25I		SB25J		SB25K		SB264		SB268	
	SMO or Sample ID =>	MET614		MET615		MET616		MEY067		MEY068	
	Date Collected =>	06/15/88		06/15/88		06/15/88		06/28/88		06/28/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	1000.000	P	637.000	P	792.000	P	5560.000	P	3800.000	P
440-38-2	ARSENIC (TOTAL)	1.700	BF	1.300	BWJF	1.800	BWJF	2.900	NJF	3.700	SNJF
440-39-3	BARIUM	3.900	BP	2.800	BP	4.400	BP	25.300	BP	16.900	BP
440-41-7	BERYLLIUM (TOTAL)							0.830	BP		
440-70-2	CALCIUM	23800.000	*P	22200.000	*P	29400.000	*P	429.000	B*P	375.000	B*P
440-47-3	CHROMIUM (ELEMENTAL)	2.900	P	2.100	BP	2.700	P	7.800	*P	4.900	*P
440-48-4	COBALT	2.500	BP			1.800	BP	5.000	BP	4.800	BP
440-50-8	COPPER (TOTAL)	3.500	BP	2.400	BP	3.200	BP	16.200	P	17.500	P
439-89-6	IRON	3290.000	*P	2070.000	*P	2800.000	*P	10200.000	P	8930.000	P
439-92-1	LEAD (TOTAL)	2.000	*JF	1.800	*JF	2.700	S*JF	8.100	SF	8.300	SF
439-95-4	MAGNESIUM	5710.000	*P	4920.000	*P	6320.000	*P	1100.000	B*P	999.000	B*P
439-96-5	MANGANESE	85.600	*NJP	59.200	*NJP	88.300	*NJP	144.000	NJP	146.000	NJP
440-02-0	NICKEL (TOTAL)	4.400	BP	3.100	BP	4.600	BP			8.000	BP
440-09-7	POTASSIUM	172.000	BP	105.000	BP	131.000	BP	477.000	BP	395.000	BP
440-22-4	SILVER (TOTAL)	1.400	BP	1.200	BP	1.200	BP				
440-23-5	SODIUM							33.300	BP	291.000	BP
440-62-2	VANADIUM	3.700	BP	2.100	BP	3.600	BP	13.100	P	9.600	BP
440-66-6	ZINC (TOTAL)	15.600	E*JP	10.500	E*JP	16.000	E*JP	133.000	NJP	142.000	NJP

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB26C		SB27A		SB27B		SB27C		SB27C	
	SMO or Sample ID =>	MEY069		MEY035		MEY036		MEY037		MEY038	
	Date Collected =>	06/28/88		06/22/88		06/22/88		06/22/88		06/22/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	5670.000	P	5210.000	P	4900.000	P	4470.000	P	6020.000	P
440-38-2	ARSENIC (TOTAL)	3.300	NJF	4.200	F	5.200	F	7.700	F	7.500	F
440-39-3	BARIUM	32.400	BP	64.000	P	21.000	P	19.000	P	33.000	P
440-41-7	BERYLLIUM (TOTAL)	0.840	BP	0.220	P	0.230	P	0.230	P	0.230	P
440-43-9	CADMIUM (TOTAL)									0.680	P
440-70-2	CALCIUM	1980.000	*P	1540.000	P	510.000	P	546.000	P	7980.000	P
440-47-3	CHROMIUM (ELEMENTAL)	6.700	*P	6.200	P	6.100	P	7.000	P	8.000	P
440-48-4	COBALT	5.400	BP	4.600	P	5.400	P	5.300	P	5.900	P
440-50-8	COPPER (TOTAL)	12.800	P	14.000	P	17.000	P	22.000	P	18.000	P
439-89-6	IRON	11000.000	P	9410.000	P	11600.000	P	13600.000	P	12800.000	P
439-92-1	LEAD (TOTAL)	7.900	F	14.000	SNJF	10.000	NJF	13.000	SNJF	13.000	NJF
439-95-4	MAGNESIUM	1270.000	*P	1250.000	P	1350.000	P	1120.000	P	5520.000	P
439-96-5	MANGANESE	273.000	NJP	437.000	P	292.000	P	412.000	P	314.000	P
440-02-0	NICKEL (TOTAL)			8.400	P	12.000	P	13.000	P	14.000	P
440-09-7	POTASSIUM	415.000	BP	607.000	P	647.000	P	623.000	P	693.000	P
440-23-5	SODIUM	44.500	BP								
440-62-2	VANADIUM	13.800	P	11.000	P	11.000	P	10.000	P	13.000	P
440-66-6	ZINC (TOTAL)	93.500	NJP	50.000	P	67.000	P	87.000	P	74.000	P
4-90-8	CYANIDE (TOTAL)			0.550	N						

	Location Alias =>	LEACH		RAS		RAS		LEACH		RAS	
	Location ID =>	SB27D		SB28B		SB28C		SB28D		SB29A	
	SMO or Sample ID =>	MEX980		MEY039		MWY040		MEX979		MET574	
	Date Collected =>	06/25/88		06/22/88		06/22/88		06/25/88		06/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	111.000	P	5790.000	P	9330.000	P			6180.000	P
7440-38-2	ARSENIC (TOTAL)			5.100	F	5.200	F	1.400	F	5.300	SF
7440-39-3	BARIUM	26.000	P	38.000	P	32.000	P	147.000	P	114.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.230	P	0.710	P			0.470	BP
7440-43-9	CADMIUM (TOTAL)					1.400	P				
7440-70-2	CALCIUM	1420.000	P	2830.000	P	1430.000	P	8360.000	P	4480.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)			7.100	P	18.000	P			9.200	P
7440-48-4	COBALT			5.100	P	11.000	P			6.500	BP
7440-50-8	COPPER (TOTAL)	12.000	P	19.000	P	30.000	P			11.100	P
7439-89-6	IRON	112.000	P	12300.000	P	18500.000	P	59.000	JP	10500.000	P
7439-92-1	LEAD (TOTAL)			13.000	SNJF	11.000	SNJF			14.500	SF
7439-95-4	MAGNESIUM	647.000	P	2320.000	P	8520.000	P	3440.000	P	1590.000	*P
7439-96-5	MANGANESE	2.000	JP	317.000	P	276.000	P			707.000	P
7440-02-0	NICKEL (TOTAL)			13.000	P	42.000	P			11.600	P
7440-09-7	POTASSIUM	1020.000	P	628.000	P	795.000	P			601.000	BP
7440-22-4	SILVER (TOTAL)									1.700	BNJP
7440-23-5	SODIUM	2900.000	P					2410.000	P		
7440-62-2	VANADIUM			11.000	P	23.000	P			13.100	P
7440-66-6	ZINC (TOTAL)	18.000	JP	86.000	P	85.000	P	13.000	JP	60.000	P
74-90-8	CYANIDE (TOTAL)	0.000	NR					0.000	NR		

	Location Alias =>	RAS		RAS		LEACH		RAS		RAS	
	Location ID =>	SB29B		SB29C		SB29D		SB29E		SB29E(D)	
	SMO or Sample ID =>	MET575		MET576		MET625		MET577		MET578	
	Date Collected =>	06/16/88		06/16/88		06/14/88		06/16/88		06/16/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	5720.000	P	5160.000	P			3140.000	P	2440.000	P
440-38-2	ARSENIC (TOTAL)	5.200	F	7.000	F			5.600	F	4.700	F
440-39-3	BARIUM	64.400	P	50.900	P	55.000	P	26.100	BP	12.600	BP
440-41-7	BERYLLIUM (TOTAL)	0.390	BP	0.400	BP						
440-70-2	CALCIUM	2190.000	*P	1580.000	*P	3840.000	P	850.000	B*P	520.000	B*P
440-47-3	CHROMIUM (ELEMENTAL)	9.300	P	10.200	P			6.400	P	4.800	P
440-48-4	COBALT	9.500	BP	8.000	BP			6.000	BP	4.600	BP
440-50-8	COPPER (TOTAL)	19.500	P	18.700	P			15.600	P	13.200	P
439-89-6	IRON	14800.000	P	13700.000	P	58.000	P	10500.000	P	7900.000	P
439-92-1	LEAD (TOTAL)	13.400	SF	17.600	SF			11.000	F	7.800	F
439-95-4	MAGNESIUM	1640.000	*P	1750.000	*P	550.000	P	1040.000	B*P	811.000	B*P
439-96-5	MANGANESE	511.000	P	418.000	P			299.000	P	208.000	P
440-02-0	NICKEL (TOTAL)	17.500	P	16.300	P			13.100	P	10.100	P
440-09-7	POTASSIUM	617.000	BP	592.000	BP			371.000	BP	344.000	BP
440-22-4	SILVER (TOTAL)	1.200	BNJP	1.000	BNJP			0.880	BNJP	1.100	BNJP
440-23-5	SODIUM					2410.000	P				
440-62-2	VANADIUM	13.400	P	12.100	P			8.200	BP	6.600	BP
440-66-6	ZINC (TOTAL)	94.000	P	90.600	P			74.500	P	60.800	P
4-90-8	CYANIDE (TOTAL)					0.000	NR				

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB29F		SB29G		SB29H		SB29I		SB29J	
	SMO or Sample ID =>	MET579		MET580		MET581		MET582		MET583	
	Date Collected =>	06/16/88		06/16/88		06/16/88		06/16/88		06/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3240.000	P	1770.000	P	1620.000	P	1360.000	P	1060.000	P
7440-38-2	ARSENIC (TOTAL)	4.800	F	3.600	F	2.500	SF	1.100	BF	1.500	BWJF
7440-39-3	BARIUM	14.900	BP	7.300	BP	9.000	BP	6.000	BP	4.900	BP
7440-70-2	CALCIUM	633.000	B*P	427.000	B*P	424.000	B*P	422.000	B*P	21400.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	5.700	P	4.000	P	4.900	P	3.700	P	2.800	P
7440-48-4	COBALT	5.200	BP	3.400	BP	3.300	BP	2.800	BP	2.700	BP
7440-50-8	COPPER (TOTAL)	13.200	P	9.200	P	5.400	P	4.500	BP	4.900	BP
7439-89-6	IRON	8700.000	P	5850.000	P	5310.000	P	3680.000	P	3710.000	P
7439-92-1	LEAD (TOTAL)	8.400	F	5.500	F	3.000	F	1.800	F	2.000	F
7439-95-4	MAGNESIUM	910.000	B*P	588.000	B*P	651.000	B*P	562.000	B*P	4020.000	P
7439-96-5	MANGANESE	209.000	P	130.000	P	132.000	P	116.000	P	109.000	P
7439-97-6	MERCURY (TOTAL)			0.300	*NJCV						
7440-02-0	NICKEL (TOTAL)	9.900	P	6.500	BP	5.800	BP	5.900	BP	6.500	BP
7440-09-7	POTASSIUM	440.000	BP	229.000	BP	199.000	BP	171.000	BP	147.000	BP
7440-22-4	SILVER (TOTAL)			1.200	BNJP			1.200	BNJP		
7440-62-2	VANADIUM	8.000	BP	4.800	BP	5.300	BP	4.000	BP	4.700	BP
7440-66-6	ZINC (TOTAL)	72.600	P	51.900	P	28.000	P	15.300	P	17.400	EJP

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SB29K		SB30A		SB30B		SB30C		SB30D	
	SMO or Sample ID =>	MET584		MEY041		MEY042		MEY043		MEX982	
	Date Collected =>	06/16/88		06/22/88		06/22/88		06/22/88		06/25/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	954.000	P	4020.000	P	8520.000	P	7690.000	P		
440-38-2	ARSENIC (TOTAL)	4.600	F	3.100	F	9.200	F	6.000	F		
440-39-3	BARIUM	3.900	BP	35.000	P	39.000	P	18.000	P	58.000	P
440-41-7	BERYLLIUM (TOTAL)			0.230	P	0.240	P	0.240	P		
440-70-2	CALCIUM	28100.000	P	105000.000	P	2450.000	P	3400.000	P	16700.000	P
440-47-3	CHROMIUM (ELEMENTAL)	3.000	P	7.500	P	9.600	P	8.400	P		
440-48-4	COBALT	2.100	BP	2.400	P	8.000	P	5.300	P		
440-50-8	COPPER (TOTAL)	2.700	BP	13.000	P	28.000	P	21.000	P		
439-89-6	IRON	3710.000	P	8400.000	P	19200.000	P	12800.000	P	32.000	JP
439-92-1	LEAD (TOTAL)	2.400	F	38.000	SNJF	16.000	NJF	13.000	SNJF		
439-95-4	MAGNESIUM	5890.000	P	46100.000	P	2660.000	P	2890.000	P	3130.000	P
439-96-5	MANGANESE	102.000	P	348.000	P	433.000	P	275.000	P		
440-02-0	NICKEL (TOTAL)	5.200	BP	12.000	P	18.000	P	13.000	P		
440-09-7	POTASSIUM	115.000	BP	508.000	P	986.000	P	913.000	P	6490.000	P
782-49-2	SELENIUM (TOTAL)									1.500	F
440-23-5	SODIUM									3070.000	P
440-62-2	VANADIUM	4.500	BP	29.000	P	16.000	P	13.000	P		
440-66-6	ZINC (TOTAL)	14.300	EJP	48.000	P	86.000	P	72.000	P	8.000	JP
4-90-8	CYANIDE (TOTAL)			1.400	NJ					0.000	NR

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB31A		SB31B		SB31C		SB31D		SB31E	
	SMO or Sample ID =>	MET668		MET669		MET670		MEX992		MET671	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/26/88		06/20/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
429-90-5	ALUMINUM	7790.000	J*P	9030.000	J*P	6870.000	J*P	1170.000	*EJF	5540.000	J*P
440-38-2	ARSENIC (TOTAL)	5.300	JNF	6.300	JNF	3.800	JNF			5.800	JNF
440-39-3	BARIUM	127.000	P	53.800	P	44.600	P	28.700	BP	39.300	BP
440-41-7	BERYLLIUM (TOTAL)	0.750	BP	0.760	BP						
440-70-2	CALCIUM	1650.000	JEP	870.000	BJEP	722.000	BJEP	2750.000	BP	667.000	BJEP
440-47-3	CHROMIUM (ELEMENTAL)	11.400	*P	12.700	*P	10.700	*P			9.300	*P
440-48-4	COBALT	9.300	BP	10.400	BP	6.200	BP	10.000	BP	8.900	BP
440-50-8	COPPER (TOTAL)	54.800	JN*E	28.900	JN*E	13.600	JN*E	729.000	*JP	18.100	JN*E
439-89-6	IRON	13300.000	P	16900.000	P	11200.000	P	1820.000	*EJP	13900.000	P
439-92-1	LEAD (TOTAL)	13.200	JNF	13.200	JNF	9.300	JNF	41.500	F	13.900	JNF
439-95-4	MAGNESIUM	1570.000	JEP	1710.000	JEP	1460.000	JEP	1060.000	BP	1320.000	JEP
439-96-5	MANGANESE	720.000	J*P	471.000	J*P	301.000	J*P	266.000	P	408.000	J*P
440-02-0	NICKEL (TOTAL)	13.400	P	23.200	P	20.200	P	95.200	P	17.300	P
440-09-7	POTASSIUM	538.000	BP	723.000	BP	509.000	BP	1910.000	BJA	320.000	BP
440-23-5	SODIUM	30.000	BP	39.800	BP	41.200	BP			39.800	BP
440-62-2	VANADIUM	19.200	P	19.700	P	15.300	P			12.900	P
440-66-6	ZINC (TOTAL)	106.000	P	156.000	P	107.000	P	81.300	P	124.000	P
4-90-8	CYANIDE (TOTAL)							0.000	NP		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB31F		SB31F(D)		SB31G		SB31H		SB31I	
	SMO or Sample ID =>	MET672		MET673		MET674		MET675		MET676	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/20/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2680.000	J*P	2510.000	J*P	1740.000	J*P	1510.000	J*P	2280.000	J*P
7440-38-2	ARSENIC (TOTAL)	2.500	JSWF	3.000	J+WF	5.500	J+WF	2.400	JWF	2.700	JSWF
7440-39-3	BARIUM	15.600	BP	11.200	BP	7.100	BP	5.400	BP	7.700	BP
7440-70-2	CALCIUM	560.000	BJEP	622.000	BJEP	395.000	BJEP	386.000	BJEP	593.000	BJEP
7440-47-3	CHROMIUM (ELEMENTAL)	5.600	*P	6.000	*P	5.200	*P	4.300	*P	5.300	*P
7440-48-4	COBALT	6.100	BP	4.400	BP	5.700	BP	2.900	BP	3.000	BP
7440-50-8	COPPER (TOTAL)	10.300	JN*E	6.900	JN*E	8.200	JN*E	4.000	BJN*	2.400	BJN*
7439-89-6	IRON	7830.000	P	6900.000	P	7120.000	P	5130.000	P	6370.000	P
7439-92-1	LEAD (TOTAL)	7.200	JWF	6.400	JWF	7.000	JSWF	4.100	JSWF	14.800	JSWF
7439-95-4	MAGNESIUM	921.000	BJEP	971.000	BJEP	745.000	BJEP	697.000	BJEP	820.000	BJEP
7439-96-5	MANGANESE	195.000	J*P	137.000	J*P	130.000	J*P	102.000	J*P	140.000	J*P
7440-02-0	NICKEL (TOTAL)	15.300	P	14.900	P	11.000	P	9.800	P		
7440-09-7	POTASSIUM	223.000	BP	243.000	BP	255.000	BP	215.000	BP	381.000	BP
7440-23-5	SODIUM	33.200	BP	36.300	BP	26.200	BP	29.900	BP	39.800	BP
7440-62-2	VANADIUM	7.100	BP	6.400	BP	6.200	BP	5.500	BP	8.900	P
7440-66-6	ZINC (TOTAL)	88.200	P	60.100	P	92.800	P	66.500	P	71.400	P
74-90-8	CYANIDE (TOTAL)			0.530	AS						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB31J		SB31K		SB33A		SB33B		SB33C	
	SMO or Sample ID =>	MET677		MET678		MET679		MET680		MET681	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/20/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
'429-90-5	ALUMINUM	846.000	J*P	979.000	J*P	8340.000	J*P	5350.000	J*P	5620.000	J*P
'440-38-2	ARSENIC (TOTAL)	1.500	BJNF			4.300	JNF	4.700	JNF	11.100	JNF
'440-39-3	BARIUM	3.700	BP	6.700	BP	108.000	P	41.200	BP	40.600	BP
'440-43-9	CADMIUM (TOTAL)			2.600	P	1.300	P				
'440-70-2	CALCIUM	20800.000	JEP	23000.000	JEP	1020.000	BJEP	559.000	BJEP	511.000	BJEP
'440-47-3	CHROMIUM (ELEMENTAL)	3.100	*P	4.200	*P	11.300	*P	9.200	*P	9.800	*P
'440-48-4	COBALT					7.100	BP	7.000	BP	7.000	BP
'440-50-8	COPPER (TOTAL)			2.900	BJN*EP	9.500	JN*E	7.900	JN*EP	12.500	JN*EP
'439-89-6	IRON	2840.000	P	2920.000	P	12800.000	P	11600.000	P	16800.000	P
'439-92-1	LEAD (TOTAL)	2.500	JSNF	1.900	JSNF	12.100	JNF	10.000	JNF	17.400	JSNF
'439-95-4	MAGNESIUM	4040.000	JEP	4540.000	JEP	1460.000	JEP	1370.000	JEP	1380.000	JEP
'439-96-5	MANGANESE	72.300	J*P	72.700	J*P	392.000	J*P	196.000	J*P	225.000	J*P
'440-02-0	NICKEL (TOTAL)					18.300	P	22.200	P	17.400	P
'440-09-7	POTASSIUM					1400.000	P	805.000	BP	772.000	BP
'440-23-5	SODIUM	51.200	BP	89.500	BP	257.000	BP	171.000	BP	244.000	BP
'440-62-2	VANADIUM	3.600	BP	5.300	BP	19.300	P	13.200	P	14.500	P
'440-66-6	ZINC (TOTAL)	31.600	P	45.600	P	99.000	P	503.000	P	101.000	P

	Location Alias =>	LEACH		RAS		RAS		RAS		LEACH	
	Location ID =>	SB33D		SB33F		SB33G		SB33K		SB34	
	SMO or Sample ID =>	MEX977		MET684		MET685		MET689		MEBE03	
	Date Collected =>	06/25/88		06/20/88		06/20/88		06/20/88		07/05/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	205.000	P	3950.000	J*P	2160.000	J*P	1010.000	J*P	1140.000	P
7440-38-2	ARSENIC (TOTAL)	4.400	F	4.700	JNF	3.600	JNF				
7440-39-3	BARIUM	23.000	P	20.800	BP	10.000	BP	5.000	BP	32.000	BP
7440-70-2	CALCIUM	528.000	P	316.000	BJEP	315.000	BJEP	23800.000	JEP	3570.000	B*JP
7440-47-3	CHROMIUM (ELEMENTAL)			5.900	*P	5.000	*P	3.800	*P		
7440-48-4	COBALT			4.400	BP	3.600	BP				
7440-50-8	COPPER (TOTAL)			6.900	JN*EP	3.100	BJN*P				
7439-89-6	IRON	547.000	P	7200.000	P	5080.000	P	3330.000	P	694.000	P
7439-92-1	LEAD (TOTAL)	1.400	F	7.300	JNF	5.100	JNF	2.100	JNF	14.600	SF
7439-95-4	MAGNESIUM			927.000	BJEP	718.000	BJEP	4880.000	JEP	968.000	BP
7439-96-5	MANGANESE	126.000	P	98.000	J*P	66.100	J*P	84.000	J*P	15.000	P
7440-02-0	NICKEL (TOTAL)	11.000	P	11.000	P	7.600	BP				
7440-09-7	POTASSIUM	8770.000	P	449.000	BP	321.000	BP				
7440-23-5	SODIUM	18500.000	P	109.000	BP	92.000	BP	71.500	BP	4600.000	BP
7440-62-2	VANADIUM			9.100	BP	6.300	BP	4.800	BP		
7440-66-6	ZINC (TOTAL)	47.000	JP	85.800	P	88.300	P	69.900	P	28.000	P
74-90-8	CYANIDE (TOTAL)	0.000	NR							0.000	NR

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SB34A		SB34B		SB34C		SB36		SB36A	
	SMO or Sample ID =>	MEY070		MEY071		MEY072		MEBE02		MEY073	
	Date Collected =>	06/28/88		06/28/88		06/28/88		07/05/88		06/28/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	7880.000	P	11400.000	P	3690.000	P	120.000	BP	1670.000	P
7440-38-2	ARSENIC (TOTAL)	3.600	NJF	2.800	NJF	5.300	+NJF				
7440-39-3	BARIUM	91.900	P	160.000	P	22.700	BP	98.000	BP	60.700	P
7440-41-7	BERYLLIUM (TOTAL)	1.000	BP	0.880	BP						
7440-70-2	CALCIUM	16800.000	*P	4180.000	*P	1330.000	*P	8350.000	*P	458.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)	7.700	*P	13.400	*P	5.400	*P			4.600	*P
7440-48-4	COBALT	6.400	BP	10.300	BP	3.600	BP				
7440-50-8	COPPER (TOTAL)	11.200	P	14.000	P	6.000	P			3.800	BP
7439-89-6	IRON	10800.000	P	16700.000	P	7630.000	P	97.000	BP	5490.000	P
7439-92-1	LEAD (TOTAL)	13.200	SF	30.300	F	11.700	SF	1.800	BF	4.300	F
7439-95-4	MAGNESIUM	2110.000	*P	2170.000	*P	879.000	B*P	3040.000	BP	214.000	B*P
7439-96-5	MANGANESE	923.000	NJP	609.000	NJP	190.000	NJP	3.000	BP	55.800	NJP
7440-02-0	NICKEL (TOTAL)	8.300	BP	9.700	P					19.200	P
7440-09-7	POTASSIUM	385.000	BP	1060.000	BP	230.000	BP				
7440-23-5	SODIUM	90.000	BP	45.200	BP			2030.000	BP		
7440-62-2	VANADIUM	13.600	P	28.600	P	9.100	BP			3.500	BP
7440-66-6	ZINC (TOTAL)	110.000	NJP	134.000	NJP	85.700	NJP			48.800	NJP
74-90-8	CYANIDE (TOTAL)	4.900	AS					0.000	NR		

	Location Alias =>	RAS		RAS		LEACH		RAS			
	Location ID =>	SB36B		SB36C		SB36D		SB36DUPO			
	SMO or Sample ID =>	MEY074		MEY075		MEX989		MEY076			
	Date Collected =>	06/28/88		06/28/88		06/25/88		06/28/88			
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1620.000	P	2700.000	P			1880.000	P		
7440-38-2	ARSENIC (TOTAL)					1.500	F				
7440-39-3	BARIUM	152.000	P	44.900	P	25.000	P	39.000	BP		
7440-43-9	CADMIUM (TOTAL)	3.200	P	1.900	P						
7440-70-2	CALCIUM	2180.000	*P	38700.000	*P			601.000	B*P		
7440-47-3	CHROMIUM (ELEMENTAL)	34.800	*P	15.000	*P			8.500	*P		
7440-48-4	COBALT	2.700	BP			16.000	P				
7440-50-8	COPPER (TOTAL)	29.700	P	12.600	P	11.000	P	3.800	BP		
7439-89-6	IRON	12300.000	P	6370.000	P	139.000	P	16900.000	P		
7439-92-1	LEAD (TOTAL)	12.800	F	8.300	F			1.500	SF		
7439-95-4	MAGNESIUM	942.000	B*P	5120.000	*P			227.000	B*P		
7439-96-5	MANGANESE	101.000	NJP	315.000	NJP	34.000	P	86.700	NJP		
7439-97-6	MERCURY (TOTAL)					0.200	CV				
7440-02-0	NICKEL (TOTAL)	21.600	P					65.600	P		
7440-09-7	POTASSIUM	149.000	BP	170.000	BP	4520.000	P				
7440-23-5	SODIUM	26.600	BP	44.000	BP	3530.000	P				
7440-62-2	VANADIUM	6.000	BP	7.800	BP			8.900	BP		
7440-66-6	ZINC (TOTAL)	83.100	NJP	85.300	NJP	22.000	JP	44.600	NJP		
74-90-8	CYANIDE (TOTAL)			0.800	AS	0.000	NR				

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB01A		SB02A		SB02E		SB02F		SB02G	
	SMO or Sample ID =>	ECA06		EX306		EX309		EX311		EX312	
	Date Collected =>	06/19/88		06/15/88		06/15/88		06/15/88		06/15/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
319-85-7	BETA-BHC			19.000	J	1.700	J	0.830	J	5.800	J
72-55-9	4,4-DDE	18.000	**								
50-29-3	4,4-DDT	14.000	J**								

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SB02H	SB021	SB02J	SB03J	SB08E
	SMO or Sample ID =>	EX313	EX314	EX315	EX303	ECA59
	Date Collected =>	06/15/88	06/15/88	06/15/88	06/14/88	06/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
319-84-6	ALPHA-BHC					0.000 R
319-85-7	BETA-BHC	2.600 J	8.400 JX	7.100 JX	2.900 J	

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SB09A	SB09B	SB09C	SB11B	SB14A
	SMO or Sample ID =>	EY409	EY410	EY411	EY404	EY438
	Date Collected =>	06/27/88	06/27/88	06/27/88	06/27/88	06/28/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
11096-82-5	PCB-1260	250.000 **J	650.000 **J	3400.000 **J	63.000 J**	86.000 J**

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB17B		SB18A		SB18B		SB18C		SB21A	
	SMO or Sample ID =>	EY416		EY447		EY448		EY449		EY450	
	Date Collected =>	06/27/88		06/28/88		06/28/88		06/27/88		06/27/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
76-44-8	HEPTACHLOR	2.500	J**								
309-00-2	ALDRIN	4.800	J**								
60-57-1	DIELDRIN	6.000	J**								
72-20-8	ENDRIN	5.900	J**								
50-29-3	4,4-DDT	6.900	J**								
11096-82-5	PCB-1260			150.000	J**	210.000	**	79.000	J**	72.000	J**

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB21B		SB21C		SB21DUP		SB21E		SB21F	
	SMO or Sample ID =>	EY451		EY452		EY454		EY453		EY455	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		06/28/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
11096-82-5	PCB-1260	58.000	JX	140.000	JX	29.000	JX	30.000	JX	200.000	JX

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB21M		SB25H		SB25I		SB25J		SB25K	
	SMO or Sample ID =>	EY457		EBZ86		EBZ87		EBZ88		EBZ89	
	Date Collected =>	06/28/88		06/17/87		06/17/87		06/17/87		06/17/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
319-85-7	BETA-BHC			71.000	J	99.000		80.000		130.000	
11096-82-5	PCB-1260	360.000	XJ								

	Location Alias =>	RAS		RAS		RAS		RAS		RAS
	Location ID =>	SB26A		SB26B		SB26C		SB29H		SB29J
	SMO or Sample ID =>	EY441		EY442		EY443		EX370		EX372
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/16/87		06/16/87
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
519-85-7	BETA-BHC							28.000		60.000	
'2-43-5	METHOXYCHLOR	1100.000	J**	290.000	J**	15.000	J**				

Location Alias => RAS
Location ID => SB36C
SMO or Sample ID => EY494
Date Collected => 06/28/88

:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
11096-82-5	PCB-1260	480.000									

	Location Alias =>	RAS		TCLP		RAS		TCLP		RAS	
	Location ID =>	SB01C		SB01D		SB01E		SB02D		SB03A	
	SMO or Sample ID =>	ECA08		ECA21		ECA10		EX383		EX295	
	Date Collected =>	06/19/88		06/19/88		06/19/88		06/16/88		06/14/88	
'AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
'5-09-2	METHYLENE CHLORIDE (DICHLOROME									6.000	J
,7-64-1	ACETONE							61.000			
'1-55-6	1,1,1-TRICHLOROETHANE					1.000	J				
108-10-1	4-METHYL-2-PENTANONE			24.000				10.000	J		
108-88-3	TOLUENE					3.000	J				
100-41-4	ETHYLBENZENE	2.000	J								

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	S803B	S803E	S803F	S803F(D)	S803G
	SMO or Sample ID =>	EX296	EX297	EX298	EX299	EX300
	Date Collected =>	06/14/88	06/14/88	06/14/88	06/14/88	06/14/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	9.000 J	11.000 J	9.000 J	6.000 J	8.000 J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS
	Location ID =>	SB03H		SB03I		SB03J		SB03K		SB04B
	SMO or Sample ID =>	EX301		EX302		EX303		EX304		EX317
	Date Collected =>	06/14/88		06/14/88		06/14/88		06/14/88		06/15/88
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	9.000	J	6.000	J	4.000	J	4.000	J	3.000	J

	Location Alias =>	RAS		TCLP		RAS		RAS		RAS	
	Location ID =>	SB04C		SB040		SB04E		SB04E(D)		SB041	
	SMO or Sample ID =>	EX318		EX351		EX319		EX320		EX324	
	Date Collected =>	06/15/88		06/16/88		06/15/88		06/15/88		06/15/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	9.000				24.000		32.000			
67-64-1	ACETONE			83.000							
71-55-6	1,1,1-TRICHLOROETHANE									2.000	J
108-10-1	4-METHYL-2-PENTANONE			9.000	J						

	Location Alias =>	RAS	RAS	RAS	TCLP	RAS
	Location ID =>	SB04K	SB05B	SB05C	SB05D	SB05E
	SMO or Sample ID =>	EX326	EY325	EY326	EY338	EY329
	Date Collected =>	06/15/88	06/21/88	06/21/88	06/21/88	06/21/88
AS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7-64-1	ACETONE	92.000 BJ				
7-66-3	CHLOROFORM		1.000 J	1.000 J	3.000 J	1.000 J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	S805F	S805G	S805H	S805I	S805J
	SMO or Sample ID =>	EY330	EY331	EY332	EY333	EY334
	Date Collected =>	06/21/88	06/21/88	06/21/88	06/21/88	06/21/88
AS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7-66-3	CHLOROFORM	1.000 J			2.000 J	1.000 J
9-01-6	TRICHLOROETHENE					1.000 J
27-18-4	TETRACHLOROETHENE		4.000 J	1.000 J	3.000 J	6.000

	Location Alias =>	RAS		RAS		TCLP		RAS		RAS	
	Location ID =>	SB05K		SB05L		SB06D		SB06E		SB06G	
	SMO or Sample ID =>	EY335		EY336		EX350		EX341		EX344	
	Date Collected =>	06/21/88		06/21/88		06/16/88		06/15/88		06/15/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE					74.000					
67-66-3	CHLOROFORM	1.000	J	2.000	J						
71-55-6	1,1,1-TRICHLOROETHANE			1.000	J						
79-01-6	TRICHLOROETHENE	3.000	J	2.000	J			2.000	J	5.000	
108-10-1	4-METHYL-2-PENTANONE					11.000	J				
127-18-4	TETRACHLOROETHENE	16.000		25.000						5.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB06H		SB06I		SB06J		SB06K		SB07A	
	SMO or Sample ID =>	EX345		EX346		EX347		EX348		EY406	
	Date Collected =>	06/15/88		06/15/88		06/15/88		06/15/88		06/27/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
;7-64-1	ACETONE			96.000	BJ	110.000	BJ				
156-60-5	TRANS-1,2-DICHLOROETHENE					1.000	J	25.000			
/1-55-6	1,1,1-TRICHLOROETHANE							7.000	J		
'9-01-6	TRICHLOROETHENE	2.000	J			15.000		100.000			
127-18-4	TETRACHLOROETHENE					3.000	J	13.000		1.000	J
108-88-3	TOLUENE									5.000	

	Location Alias =>	RAS		TCLP		RAS		RAS		RAS	
	Location ID =>	SB07B		SB07D		SB08A		SB08B		SB08C	
	SMO or Sample ID =>	EY407		EY422		ECA56		ECA57		ECA58	
	Date Collected =>	06/27/88		06/27/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME									24000.000	BJ
67-64-1	ACETONE							25.000	J		
540-59-0	1-2,DICHLOROETHENE(TOTAL)							5.000	J		
78-93-3	2-BUTANONE					0.000	R			0.000	R
71-55-6	1,1,1-TRICHLOROETHANE					4.000	J			2000.000	J
108-05-4	VINYL ACETATE					0.000	R	0.000	R		
127-18-4	TETRACHLOROETHENE					4.000	J				
108-88-3	TOLUENE	2.000	J			4.000	J			36000.000	
100-41-4	ETHYLBENZENE									1500.000	
1330-20-7	XYLENES (TOTAL)			7.000	J					100000.000	

	Location Alias =>	TCLP		RAS		RAS		RAS		RAS	
	Location ID =>	SB08D		SB08E		SB08E(D)		SB08F		SB08G	
	SMO or Sample ID =>	EX304		ECA59		ECA60		ECA61		ECA62	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/21/88		06/21/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
'5-09-2	METHYLENE CHLORIDE (DICHLOROME			34000.000	BJ	7000.000	B				
,7-64-1	ACETONE			28000.000	BJ						
'8-93-3	2-BUTANONE			0.000	R	0.000	R	0.000	R	0.000	R
'1-55-6	1,1,1-TRICHLOROETHANE			14000.000		11000.000		5500.000		2200.000	J
'9-01-6	TRICHLOROETHENE			16000.000		8900.000		6400.000		3100.000	J
127-18-4	TETRACHLOROETHENE			85000.000		32000.000		35000.000		19000.000	
'9-34-5	1,1,2,2-TETRACHLOROETHANE					600.000	J				
108-88-3	TOLUENE	13.000	J	90000.000		30000.000		8700.000		25000.000	J
100-41-4	ETHYLBENZENE	6.000	J	73000.000		18000.000		3600.000		27000.000	
1330-20-7	XYLENES (TOTAL)	280.000	J	410000.000		140000.000	E	24000.000	E	130000.000	E

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB08N		SB08I		SB08J		SB08K		SB09A	
	SMO or Sample ID =>	ECA63		ECA64		ECA65		ECA40		EY409	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/21/88		06/27/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7-64-1	ACETONE			67.000	J			720.000	EJ		
8-93-3	2-BUTANONE							89.000			
1-55-6	1,1,1-TRICHLOROETHANE			13.000		39.000					
08-05-4	VINYL ACETATE			0.000	R			0.000	R		
9-01-6	TRICHLOROETHENE			7.000	J	34.000				2.000	J
08-10-1	4-METHYL-2-PENTANONE			8.000	J			100.000			
27-18-4	TETRACHLOROETHENE	14.000	J	22.000		180.000		22.000			
08-88-3	TOLUENE			68.000		17.000	J	11.000	J	2.000	J
00-41-4	ETHYLBENZENE			43.000				8.000	J		
330-20-7	XYLENES (TOTAL)	49.000	J	310.000		340.000	J	140.000			

	Location Alias =>	RAS		RAS		TCLP		RAS		RAS	
	Location ID =>	SB09B		SB09C		SB09D		SB10A		SB11A	
	SMO or Sample ID =>	EY410		EY411		EY423		EY412		EY403	
	Date Collected =>	06/27/88		06/27/88		06/27/88		06/27/88		06/27/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
/1-55-6	1,1,1-TRICHLOROETHANE	4.000	J								
/9-01-6	TRICHLOROETHENE	85.000		2.000	J	3.000	J			3.000	J
·91-78-6	2-HEXANONE									16.000	
127-18-4	TETRACHLOROETHENE							1.000	J	1.000	J
108-88-3	TOLUENE	3.000	J							15.000	

	Location Alias =>	RAS	RAS	RAS	RAS	TCLP
	Location ID =>	SB11B	SB11C	SB12A	SB12C	SB12D
	SMO or Sample ID =>	EY404	EY405	EX352	EX354	EX397
	Date Collected =>	06/27/88	06/27/88	06/16/88	06/16/88	06/16/88
AS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
7-64-1	ACETONE				77.000 BJ	120.000
9-01-6	TRICHLOROETHENE	2.000 J		2.000 J		
08-10-1	4-METHYL-2-PENTANONE					10.000 J
27-18-4	TETRACHLOROETHENE	2.000 J				
08-88-3	TOLUENE	7.000	2.000 J		1.000 J	
330-20-7	XYLENES (TOTAL)	1.000 J				

	Location Alias =>	RAS		RAS		RAS		RAS		TCLP	
	Location ID =>	SB12I		SB12K		SB13A		SB13C		SB13D	
	SMO or Sample ID =>	EX360		EX362		EX327		EX329		EX349	
	Date Collected =>	06/16/88		06/16/88		06/15/88		06/15/88		06/16/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
;7-64-1	ACETONE									66.000	
'5-34-3	1,1-DICHLOROETHANE			8.000							
156-60-5	TRANS-1,2-DICHLOROETHENE			3.000	J						
'1-55-6	1,1,1-TRICHLOROETHANE	1.000	J	2.000	J						
108-10-1	4-METHYL-2-PENTANONE									10.000	J
127-18-4	TETRACHLOROETHENE	1.000	J	2.000	J						
108-88-3	TOLUENE			1.000	J						
100-42-5	STYRENE					2.000	J	2.000	J		
1330-20-7	XYLENES (TOTAL)			8.000	J						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB13J		SB13K		SB14A		SB14B		SB14C	
	SMO or Sample ID =>	EX336		EX337		EY438		EY439		EY440	
	Date Collected =>	06/15/88		06/15/88		06/28/88		06/28/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME									2.000	J
71-55-6	1,1,1-TRICHLOROETHANE			2.000	J						
591-78-6	2-HEXANONE					160.000				91.000	
127-18-4	TETRACHLOROETHENE	6.000		7.000							
108-88-3	TOLUENE					3.000	J	3.000	J	12.000	J

	Location Alias =>	TCLP		RAS		RAS		TCLP		RAS	
	Location ID =>	SB14D		SB15J		SB16B		SB18D		SB20I	
	SMO or Sample ID =>	EY461		EY315		EY419		EY466		ECA48	
	Date Collected =>	06/28/88		06/21/88		06/27/88		06/28/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME			69.000	B						
67-64-1	ACETONE	19.000									
67-66-3	CHLOROFORM	2.000	J					2.000	J		
71-55-6	1,1,1-TRICHLOROETHANE									1.000	J
108-10-1	4-METHYL-2-PENTANONE	26.000						38.000			
127-18-4	TETRACHLOROETHENE					5.000	J				
108-88-3	TOLUENE									2.000	J

	Location Alias =>	RAS		RAS		TCLP		RAS		RAS	
	Location ID =>	SB20K		SB21A		SB21D		SB21I		SB22A	
	SMO or Sample ID =>	ECA50		EY450		EY465		EY458		EY344	
	Date Collected =>	06/20/88		06/27/88		06/28/88		06/28/88		06/21/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
/5-09-2	METHYLENE CHLORIDE (DICHLOROME			1.000	J			5.000	J		
,7-66-3	CHLOROFORM					3.000	J			1.000	J
/1-55-6	1,1,1-TRICHLOROETHANE	7.000									
/9-01-6	TRICHLOROETHENE	10.000									
108-10-1	4-METHYL-2-PENTANONE					36.000					
108-88-3	TOLUENE			3.000	J						

	Location Alias =>	TCLP	TCLP	TCLP	TCLP	TCLP
	Location ID =>	SB23A	SB23B	SB23C	SB23D	SB23E
	SMO or Sample ID =>	ECA01	ECA02	ECA03	ECA23	ECA04
	Date Collected =>	06/20/88	06/20/88	06/20/88	06/19/88	06/20/88
AS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
'5-09-2	METHYLENE CHLORIDE (DICHLOROME	11000.000 BJ	1800.000 BJ	2000.000 BJ		53.000 J
,7-64-1	ACETONE	23000.000 B	8100.000 B	9800.000 B		200.000 B
'5-34-3	1,1-DICHLOROETHANE				3.000 J	
,40-59-0	1-2,DICHLOROETHENE(TOTAL)				6.000	
'56-60-5	TRANS-1,2-DICHLOROETHENE			590.000 J		
'8-93-3	2-BUTANONE	14000.000 BJ	6900.000 BJ	7900.000 BJ		
'1-55-6	1,1,1-TRICHLOROETHANE	41000.000	730.000 J	1900.000		
'9-01-6	TRICHLOROETHENE	11000.000	850.000 J	2300.000	14.000	
10061-01-5	CIS-1,3-DICHLOROPROPENE		1400.000 J			
108-10-1	4-METHYL-2-PENTANONE			530.000 J		
127-18-4	TETRACHLOROETHENE	43000.000	7400.000	7700.000	40.000 J	320.000 J
108-88-3	TOLUENE	89000.000 J	6700.000 J	5600.000 J	82.000	
100-41-4	ETHYLBENZENE	7100.000 J	1900.000 J	1200.000 J	8.000	
1330-20-7	XYLENES (TOTAL)	72000.000 J	15000.000 J	9800.000 J	67.000	190.000 J

	Location Alias =>	TCLP		TCLP		TCLP		TCLP		TCLP	
	Location ID =>	SB23E(D)		SB23F		SB23G		SB23H		SB23I	
	SMO or Sample ID =>	ECA05		ECA26		ECA27		ECA28		ECA29	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/20/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
'5-09-2	METHYLENE CHLORIDE (DICHLOROME	220.000	B	260.000	B						
,7-64-1	ACETONE	310.000	B	810.000	B						
156-60-5	TRANS-1,2-DICHLOROETHENE			6.000	J			1.000	J		
'1-55-6	1,1,1-TRICHLOROETHANE	24.000	J	13.000	J			13.000		6.000	
'9-01-6	TRICHLOROETHENE	29.000		48.000				7.000		4.000	J
127-18-4	TETRACHLOROETHENE	250.000		490.000		13.000		11.000		14.000	
108-88-3	TOLUENE							7.000			
1330-20-7	XYLENES (TOTAL)	96.000	J	320.000							

	Location Alias =>	TCLP	TCLP	RAS	RAS	RAS
	Location ID =>	SB23J	SB23K	SB24A	SB24B	SB24C
	SMO or Sample ID =>	ECA30	ECA39	EX343	EX385	EX386
	Date Collected =>	06/20/88	06/20/88	06/17/87	06/17/87	06/17/87
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
156-60-5	TRANS-1,2-DICHLOROETHENE		2.000 J			
78-93-3	2-BUTANONE			2.000 J	3.000 J	3.000 J
71-55-6	1,1,1-TRICHLOROETHANE	4.000 J	30.000			3.000 J
79-01-6	TRICHLOROETHENE	16.000	8.000			
127-18-4	TETRACHLOROETHENE	140.000	5.000 J			
108-88-3	TOLUENE		2.000 J	2.000 J	2.000 J	
1330-20-7	XYLENES (TOTAL)	57.000				

	Location Alias =>	TCLP	RAS	RAS	RAS	RAS
	Location ID =>	SB24D	SB24E(D)	SB24F	SB24G	SB24H
	SMO or Sample ID =>	EX384	EX388	EX389	EX390	EX391
	Date Collected =>	06/16/88	06/17/87	06/17/87	06/17/87	06/17/87
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
67-64-1	ACETONE	59.000	35.000		17.000	
71-55-6	1,1,1-TRICHLOROETHANE					20.000
79-01-6	TRICHLOROETHENE					2.000 J
108-10-1	4-METHYL-2-PENTANONE	8.000 J				
108-88-3	TOLUENE			1.000 J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB24I		SB24J		SB24K		SB25		SB25A	
	SMO or Sample ID =>	EX392		EX393		EX394		EB283		EX398	
	Date Collected =>	06/17/87		06/17/87		06/17/87		06/17/87		06/17/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME							15.000			
67-64-1	ACETONE			6.000	J	23.000				18.000	
71-55-6	1,1,1-TRICHLOROETHANE			4.000	J						
108-88-3	TOLUENE	2.000	J	4.000	J	5.000	J	2.000	J	2.000	J

	Location Alias =>	RAS		RAS		TCLP		RAS		RAS	
	Location ID =>	SB25B		SB25C		SB25D		SB25F		SB25G	
	SMO or Sample ID =>	EX399		EBZ81		EX382		EBZ84		EBZ85	
	Date Collected =>	06/17/87		06/17/87		06/16/88		06/17/87		06/17/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME			13.000				14.000		14.000	
67-64-1	ACETONE	20.000				63.000					
71-55-6	1,1,1-TRICHLOROETHANE							4.000	J		
108-10-1	4-METHYL-2-PENTANONE					10.000	J				
108-88-3	TOLUENE									3.000	J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SB25H	SB25I	SB25J	SB25K	SB26A
	SMO or Sample ID =>	EBZ86	EBZ87	EBZ88	EBZ89	EY441
	Date Collected =>	06/17/87	06/17/87	06/17/87	06/17/87	06/28/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	14.000		18.000	17.000	2.000 J
71-55-6	1,1,1-TRICHLOROETHANE	5.000 J	20.000	13.000	90.000	
79-01-6	TRICHLOROETHENE			3.000 J	19.000	
79-00-5	1,1,2-TRICHLOROETHANE			2.000 J	2.000 J	
591-78-6	2-HEXANONE					220.000
127-18-4	TETRACHLOROETHENE	3.000 J	3.000 J	6.000 J	17.000	
108-88-3	TOLUENE	1.000 J		3.000 J		9.000 J

	Location Alias =>	RAS		TCLP		RAS		RAS	
	Location ID =>	SB26C		SB26D		SB27A		SB27B		SB27C	
	SMO or Sample ID =>	EY443		EY462		EY348		EY349		EY350	
	Date Collected =>	06/28/88		06/28/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	1.000	J								
67-64-1	ACETONE			20.000							
67-66-3	CHLOROFORM					2.000	J	2.000	J	1.000	J
108-10-1	4-METHYL-2-PENTANONE			26.000							

	Location Alias =>	RAS	RAS	TCLP	RAS	RAS
	Location ID =>	SB29A	SB29B	SB29D	SB29F	SB29G
	SMO or Sample ID =>	EX363	EX364	EX395	EX368	EX369
	Date Collected =>	06/16/88	06/16/88	06/16/88	06/16/87	06/16/87
:AS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
,7-64-1	ACETONE			110.000	24.000	26.000
108-10-1	4-METHYL-2-PENTANONE			10.000 J		
108-88-3	TOLUENE	2.000 J	1.000 J		2.000 J	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB29H		SB29I		SB29J		SB29K		SB30A	
	SMO or Sample ID =>	EX370		EX371		EX372		EX373		EY354	
	Date Collected =>	06/16/87		06/16/87		06/16/87		06/16/87		06/22/88	
:AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
,7-64-1	ACETONE	18.000		23.000		25.000		1.000	J		
,7-66-3	CHLOROFORM									1.000	J
108-88-3	TOLUENE							2.000	J		

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SB30B	SB30C	SB31A	SB31B	SB31C
	SMO or Sample ID =>	EY355	EY356	ECA52	ECA53	ECA54
	Date Collected =>	06/22/88	06/22/88	06/20/88	06/20/88	06/20/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
67-66-3	CHLOROFORM	2.000 J	2.000 J			
78-93-3	2-BUTANONE			0.000 R	0.000 R	0.000 R
108-05-4	VINYL ACETATE			0.000 R	0.000 R	0.000 R

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB31E		SB31F		SB31F(D)		SB31G		SB31H	
	SMO or Sample ID =>	ECA55		ECA66		ECA67		ECA68		ECA69	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/21/88		06/20/88	
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
5-09-2	METHYLENE CHLORIDE (DICHLOROME					79.000	BJ				
7-64-1	ACETONE			10.000	J						
8-93-3	2-BUTANONE	0.000	R							0.000	R
1-55-6	1,1,1-TRICHLOROETHANE									4.000	J
08-05-4	VINYL ACETATE	0.000	R	0.000	R	0.000	R	0.000	R	0.000	R
9-01-6	TRICHLOROETHENE					5.000	J				
27-18-4	TETRACHLOROETHENE	4.000	J	5.000	J	16.000					
08-88-3	TOLUENE	5.000	J	5.000	J	15.000		2.000	J	10.000	
00-41-4	ETHYLBENZENE					9.000	J			3.000	J
330-20-7	XYLENES (TOTAL)	8.000				51.000				16.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB31I		SB33A		SB33A		SB33B		SB33C	
	SMO or Sample ID =>	ECA70		ECA81		ECA81RE		ECA82		ECA83	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					220.000	BJ				
78-93-3	2-BUTANONE	0.000	R								
108-05-4	VINYL ACETATE	0.000	R								
79-01-6	TRICHLOROETHENE	3.000	J								
127-18-4	TETRACHLOROETHENE	11.000		2500.000		1200.000		330.000		3600.000	
108-88-3	TOLUENE	11.000									
100-41-4	ETHYLBENZENE	8.000				38.000	J			1200.000	J
1330-20-7	XYLENES (TOTAL)	41.000		1100.000	J	870.000	J			10000.000	J

	Location Alias =>	TCLP		RAS		RAS		RAS		RAS
	Location ID =>	SB33D		SB33E		SB33E		SB33F		SB33G
	SMO or Sample ID =>	EX303		ECA76		ECA80		ECA84		ECA85
	Date Collected =>	06/21/88		06/20/88		06/20/88		06/20/88		06/20/88
AS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
5-09-2	METHYLENE CHLORIDE (DICHLOROME			25000.000	BJ					24000.000	BJ
27-18-4	TETRACHLOROETHENE	28.000	J	25000.000		19000.000				6900.000	
08-88-3	TOLUENE			14000.000	J	16000.000	J	4900.000	J		
00-41-4	ETHYLBENZENE			17000.000	J	11000.000	J				
5[illegible]-20-7	XYLENES (TOTAL)	7.000	J	110000.000	J	90000.000	J	12000.000	J	9700.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SB33H		SB33I		SB33J		SB33K		SB34A	
	SMO or Sample ID =>	ECA77		ECA78		ECA79		EX301		EY444	
	Date Collected =>	06/20/88		06/20/88		06/20/88		06/20/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	240.000	BJ					320.000	BJ		
67-64-1	ACETONE							130.000	B		
71-55-6	1,1,1-TRICHLOROETHANE	13.000	J	10.000		10.000					
79-01-6	TRICHLOROETHENE	20.000	J	12.000		11.000					
127-18-4	TETRACHLOROETHENE	180.000		110.000		29.000					
108-88-3	TOLUENE					3.000	J			6.000	J
1330-20-7	XYLENES (TOTAL)			7.000		8.000					

	Location Alias =>	TCLP		TCLP		RAS		RAS		RAS	
	Location ID =>	SB34D		SB34D		SB36(D)		SB36A		SB36B	
	SMO or Sample ID =>	EY463		EY463DUP		EY495		EY492		EY493	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					5.000	J	7.000	J	13.000	J
540-59-0	1-2,DICHLOROETHENE(TOTAL)					2.000	J	3.000	J	14.000	J
67-66-3	CHLOROFORM	3.000	J	3.000	J						
71-55-6	1,1,1-TRICHLOROETHANE					1.000	J			13.000	J
79-01-6	TRICHLOROETHENE					14.000	J	17.000	J	94.000	J
108-10-1	4-METHYL-2-PENTANONE	33.000		32.000							
127-18-4	TETRACHLOROETHENE					110.000	J	120.000	J	870.000	

	Location Alias =>	RAS		TCLP							
	Location ID =>	SB36C		SB36D							
	SMO or Sample ID =>	EY496		EY464							
	Date Collected =>	06/28/88		06/28/88							
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	8.000	J								
540-59-0	1-2,DICHLOROETHENE(TOTAL)	6.000	J								
67-66-3	CHLOROFORM			3.000	J						
71-55-6	1,1,1-TRICHLOROETHANE	11.000	J	3.000	J						
79-01-6	TRICHLOROETHENE	26.000	J	6.000							
108-10-1	4-METHYL-2-PENTANONE			33.000							
127-18-4	TETRACHLOROETHENE	440.000	J	25.000							

Camp Dresser & McKee Inc.
User's Selection Criteria
For Result Table

Run Date: 02/20/88
Run Time: 15:45:37

LOCATION: SL

QUALIFIER: MCT U

	Location Alias =>	RAS		TCLP		TCLP		RAS		RAS	
	Location ID =>	SL04A		SL04D		SL04D		SL04DUP		SL04E	
	SMO or Sample ID =>	EY428		EY467		EY467DUP		EY434		EY431	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE							210.000	J	310.000	J
85-68-7	BUTYLBENZYLPHTHALATE			3.000	J	3.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1000.000	J			3.000	J			200.000	J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL041	SL07A	SL07B	SL07C	SL07D
	SMO or Sample ID =>	EY435	EM324	EM325	EM326	EM327
	Date Collected =>	06/28/88	07/21/87	07/21/87	07/21/87	07/21/87
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
85-68-7	BUTYLBENZYLPHTHALATE		320.000 J	150.000 J		76.000 J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	1200.000 J			170.000 J	240.000 J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL07E		SL07F(D25)		SL07F(S25)		SL07G		SL07H	
	SMO or Sample ID =>	EM328		EM334		EM332		EM333		EM338	
	Date Collected =>	07/21/87		07/21/87		07/21/87		07/21/87		07/23/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
84-66-2	DIETHYL PHTHALATE					130.000	J				
87-86-5	PENTACHLOROPHENOL	180.000	J								
85-68-7	BUTYLBENZYLPHTHALATE									60.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	150.000	J	77.000	J			86.000	J	3900.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL13A		SL13F		SL18E		SL21G		SL21I	
	SMO or Sample ID =>	EB291		EB290		EM343		EM317		EM322	
	Date Collected =>	06/17/87		06/17/87		07/29/88		07/12/87		07/12/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
78-59-1	ISOPHORONE									68.000	J
84-66-2	DIETHYL PHTHALATE					7700.000		44.000	J	61.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	91.000	J	190.000	J						
205-99-2	BENZO(B)FLUORANTHENE									40.000	J
207-08-9	BENZO(K)FLUORANTHENE									40.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL21J		SL21K		SL21L		SL21M		SL30E	
	SMO or Sample ID =>	EM323		EM329		EM330		EM331		EM381	
	Date Collected =>	07/12/87		07/15/87		07/15/87		07/15/87		08/12/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
65-85-0	BENZOIC ACID					410.000	J	940.000	J		
100-02-7	4-NITROPHENOL			480.000	J			370.000	J		
84-66-2	DIETHYL PHTHALATE	52.000	J	130.000	J			51.000	J		
86-30-6	N-NITROSODIPHENYLAMINE							89.000	J		
87-86-5	PENTACHLOROPHENOL			330.000	J			330.000	J		
85-01-8	PHENANTHRENE			280.000	J			66.000	J		
120-12-7	ANTHRACENE			72.000	J			58.000	J		
84-74-2	DI-N-BUTYL PHTHALATE							430.000	J	80.000	J
206-44-0	FLUORANTHENE			180.000	J			66.000	J		
129-00-0	PYRENE			220.000	J			120.000	J		
85-68-7	BUTYLBENZYLPHTHALATE			84.000	J			88.000	J		
117-84-0	DI-N-OCTYL PHTHALATE							99.000	J		
205-99-2	BENZO(B)FLUORANTHENE			190.000	J			260.000	J		
207-08-9	BENZO(K)FLUORANTHENE			190.000	J			260.000	J		
50-32-8	BENZO(A)PYRENE			140.000	J			140.000	J		
193-39-5	INDENO(1,2,3-CD)PYRENE			140.000	J			180.000	J		
53-70-3	DIBENZO(A,H)ANTHRACENE			130.000	J						
191-24-2	BENZO(G,H,I)PERYLENE			190.000	J			170.000	J		

	Location Alias =>	RAS		RAS		RAS		TCLP		RAS	
	Location ID =>	SL30G		SL30H		SL31C		SL31D		SL34A	
	SMO or Sample ID =>	EM383		EM384		EY319		EY337		EX213	
	Date Collected =>	08/12/87		08/12/87		06/21/88		06/21/88		05/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
108-95-2	PHENOL					60.000	J	43.000			
87-86-5	PENTACHLOROPHENOL									620.000	J
84-74-2	DI-N-BUTYL PHTHALATE									140.000	
129-00-0	PYRENE									24.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE									780.000	J
117-84-0	DI-N-OCTYL PHTHALATE	40.000	J	410.000							

	Location Alias =>	RAS		RAS		TCLP		TCLP		RAS	
	Location ID =>	SL34B		SL34C		SL34D		SL34D		SL34G	
	SMO or Sample ID =>	EX214		EX215		EX221		EX221RE		EX218	
	Date Collected =>	05/20/88		05/20/88		05/20/88		05/20/88		05/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
95-50-1	1,2-DICHLOROBENZENE					7.000	J	8.000	J		
84-74-2	DI-N-BUTYL PHTHALATE			110.000						81.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	8800.000	J								

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL42E		SL42E(D)		SL488		SL488		SL48C	
	SMO or Sample ID =>	EX377		EX378		EX202		EX202DL		EX203	
	Date Collected =>	06/16/87		06/16/87		05/13/88		05/13/88		05/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
95-57-8	2-CHLOROPHENOL									120.000	J
106-46-7	1,4-DICHLOROBENZENE									74.000	J
120-82-1	1,2,4-TRICHLOROBENZENE									84.000	J
87-86-5	PENTACHLOROPHENOL					19000.000	E*	16000.000	J	270.000	J
129-00-0	PYRENE									110.000	J
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	11000.000	B	3200.000	B	18000.000	EJ*	21000.000			

	Location Alias =>	RAS		RAS		RAS		RAS		TCLP	
	Location ID =>	SL48E		SL48F		SL48G		SL48H		SL48J	
	SMO or Sample ID =>	EX205		EX206		EX207		EX208		EX212	
	Date Collected =>	05/13/88		05/18/88		05/18/88		05/18/88		05/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
91-57-6	2-METHYLNAPHTHALENE							4.000	J		
87-86-5	PENTACHLOROPHENOL	1000.000	J			30.000	J			9.000	J
85-01-8	PHENANTHRENE							11.000	J		
85-68-7	BUTYLBENZYLPHTHALATE			66.000	J	43.000	J				
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	2100.000	J								

	Location Alias =>	RAS		RAS		SAS BNA		RAS		RAS	
	Location ID =>	SL59A		SL59H		SL62D		SL62E		SL65A	
	SMO or Sample ID =>	EX266		EX273		EX293		EX290		EX245	
	Date Collected =>	06/06/88		06/06/88		06/14/88		06/14/88		06/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
84-66-2	DIETHYL PHTHALATE			150.000	J						
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	210.000	J			5.000	J	230.000	J	72.000	J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL65E	SL65E(D)	SL65F	SL68A	SL68B
	SMO or Sample ID =>	EX248	EX249	EX250	EX229DL	EX230DL
	Date Collected =>	06/03/88	06/03/88	06/03/88	06/01/88	06/01/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
86-30-6	N-NITROSODIPHENYLAMINE					230.000 DJ
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	73.000 J	230.000 J	770.000	580.000 DJ	

	Location Alias =>	TCLP		RAS					
	Location ID =>	SL68D		SL68G					
	SMO or Sample ID =>	EX244		EX241DL					
	Date Collected =>	05/31/88		06/01/88					
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	3.000	J	4100.000	D						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL01A		SL01B		SL01C		SL10A		SL10B	
	SMO or Sample ID =>	MEL872		MEL873		MEL874		MET628		MET629	
	Date Collected =>	08/21/87		08/21/87		08/21/87		06/20/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5630.000	PEJ	5360.000	PEJ	2100.000	PEJ	8370.000	P	7360.000	P
7440-38-2	ARSENIC (TOTAL)			9.900	FRJ			3.400	F	5.100	+F
7440-39-3	BARIUM	15.000	P	21.000	P	7.300	P	104.000	P	25.600	BP
7440-41-7	BERYLLIUM (TOTAL)							1.500	P		
7440-70-2	CALCIUM	151.000	P	302.000	P	322.000	P	32800.000	J*P	2950.000	J*P
7440-47-3	CHROMIUM (ELEMENTAL)	8.100	P*	8.700	P*	5.300	P*	9.400	P		
7440-48-4	COBALT	6.500	P	9.700	P			7.100	BP	6.000	BP
7440-50-8	COPPER (TOTAL)	21.000	P	34.000	P	11.000	P	28.400	J*P	15.000	J*P
7439-89-6	IRON	15700.000	P*	17300.000	P*	6440.000	P*	7980.000	P	12800.000	P
7439-92-1	LEAD (TOTAL)	10.000	SF	15.000	SF	3.900	F	8.400	F	7.600	F
7439-95-4	MAGNESIUM	1470.000	P	1530.000	P	722.000	P	9400.000	J*P	1790.000	J*P
7439-96-5	MANGANESE	243.000	P	348.000	P	141.000	P	812.000	P	210.000	P
7440-02-0	NICKEL (TOTAL)	15.000	P	21.000	P	7.500	P	7.600	BP		
7440-09-7	POTASSIUM	412.000	P	603.000	P	305.000	P	469.000	BP	563.000	BP
7440-23-5	SODIUM							182.000	BP	84.500	BP
7440-62-2	VANADIUM	16.000	P	13.000	P	4.900	P	13.500	P	18.500	P
7440-66-6	ZINC (TOTAL)	74.000	P*	108.000	P*	51.000	P*	163.000	JN*E	108.000	JN*EP
74-90-8	CYANIDE (TOTAL)							0.560	AS	0.720	AS

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SL10C		SL10D		SL10E		SL10E(DUP)		SL10F	
	SMO or Sample ID =>	MET630		MEX998		MET631		MET632		MET633	
	Date Collected =>	06/20/88		06/26/88		06/20/88		06/20/88		06/20/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4260.000	P	285.000	*EJP	2460.000	P	2230.000	P	4520.000	P
7440-38-2	ARSENIC (TOTAL)	2.000	BF	4.600	BF	2.100	BF	1.600	BWF	2.000	BF
7440-39-3	BARIUM	40.600	BP	12.100	BP	15.100	BP	10.000	BP	20.200	BP
7440-41-7	BERYLLIUM (TOTAL)			1.200	BP						
7440-70-2	CALCIUM	31500.000	J*P	30300.000	P	28700.000	J*P	27600.000	J*P	72900.000	J*P
7440-47-3	CHROMIUM (ELEMENTAL)			10.300	P						
7440-48-4	COBALT			9.400	BP	2.900	BP			3.500	BP
7440-50-8	COPPER (TOTAL)					1.800	BJ*P			3.500	BJ*P
7439-89-6	IRON	9080.000	P	575.000	*EJP	6720.000	P	5920.000	P	9280.000	P
7439-92-1	LEAD (TOTAL)	2.400	SF			3.800	F	3.700	F	4.200	F
7439-95-4	MAGNESIUM	3970.000	J*P	2620.000	BP	7780.000	J*P	7250.000	J*P	19800.000	J*P
7439-96-5	MANGANESE	606.000	P	30.400	P	211.000	P	193.000	P	338.000	P
7439-97-6	MERCURY (TOTAL)	0.210	CV								
7440-02-0	NICKEL (TOTAL)			48.400	P						
7440-09-7	POTASSIUM	256.000	BP	3520.000	BJA	331.000	BP	252.000	BP	577.000	BP
7782-49-2	SELENIUM (TOTAL)			7.500	SF						
7440-23-5	SODIUM	247.000	BP	22200.000	P	181.000	BP	158.000	BP	284.000	BP
7440-62-2	VANADIUM	10.700	BP			10.900	BP	10.200	BP	14.100	P
7440-66-6	ZINC (TOTAL)	44.900	JN*EP			168.000	JN*EP	103.000	JN*EP	111.000	JN*EP
74-90-8	CYANIDE (TOTAL)	0.770	AS	0.000	NR						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL13E		SL13F		SL15A		SL15B		SL15C	
	SMO or Sample ID =>	MEX492		MET594		MEL860		MEL861		MEL862	
	Date Collected =>	06/15/88		06/17/88		08/05/87		08/05/87		08/05/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1010.000	P	2850.000	P	4000.000	P	3770.000	P	845.000	P
7440-38-2	ARSENIC (TOTAL)	0.940	BWNJF	5.100	F			5.600	F		
7440-39-3	BARIUM	4.300	BP	12.600	BP	61.000	P	16.000	P	7.800	P
7440-70-2	CALCIUM	36900.000	P	48800.000	P	1480.000	P	449.000	P	285.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	2.600	P	5.700	P	5.400	P	5.200	P		
7440-48-4	COBALT	2.100	BP	6.000	BP	8.400	P				
7440-50-8	COPPER (TOTAL)	3.500	BP	15.400	P	12.000	P	18.000	P	4.100	P
7439-89-6	IRON	3520.000	P	10900.000	P	10100.000	P	10300.000	P	3350.000	P
7439-92-1	LEAD (TOTAL)	2.200	F	3.400	F	11.000	F	10.000	F		
7439-95-4	MAGNESIUM	8720.000	P	20700.000	P	1020.000	P	1100.000	P	325.000	P
7439-96-5	MANGANESE	128.000	NJP	301.000	P	664.000	P	197.000	P	178.000	P
7440-02-0	NICKEL (TOTAL)	4.800	BP	16.000	P	9.100	P	13.000	P		
7440-09-7	POTASSIUM	170.000	BP	731.000	BP	480.000	P	488.000	P	141.000	P
7440-22-4	SILVER (TOTAL)			0.950	BP						
7440-62-2	VANADIUM	3.400	BP	7.000	BP	12.000	P	8.900	P		
7440-66-6	ZINC (TOTAL)	11.100	EJP	27.900	EJP	50.000	P	71.000	P	16.000	P

	Location Alias =>	LEACH		LEACH		RAS		LEACH		RAS	
	Location ID =>	SL15K		SL17		SL17		SL18		SL18	
	SMO or Sample ID =>	MEN063		501		MEL825		502		MEL826	
	Date Collected =>	08/14/87		07/10/87		06/18/87		07/10/87		06/18/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	513.000	R*EPJ	534.000	PJ	3270.000	P			3350.000	P
7440-38-2	ARSENIC (TOTAL)									5.200	F
7440-39-3	BARIUM	75.000	P	293.000	P	70.000	P	101.000	P	62.000	P
7440-41-7	BERYLLIUM (TOTAL)									0.650	P
7440-70-2	CALCIUM	15600.000	P	5050.000	P	1030.000	P	4250.000	P	1360.000	P
7440-47-3	CHROMIUM (ELEMENTAL)					2.500	P			6.800	P
7440-48-4	COBALT					4.700	P			4.600	P
7440-50-8	COPPER (TOTAL)					6.900	P			13.000	P
7439-89-6	IRON	420.000	*PJ	420.000	*PJ	5190.000	P			7620.000	P
7439-92-1	LEAD (TOTAL)					20.000	F			33.000	FS
7439-95-4	MAGNESIUM	2440.000	P	1460.000	P	680.000	P	1470.000	P	1070.000	P
7439-96-5	MANGANESE	10.000	P	88.000	*PJ	544.000	PRJ	28.000	N*PJ	343.000	PRJ
7440-02-0	NICKEL (TOTAL)					6.200	P			8.600	P
7440-09-7	POTASSIUM	1030.000	P	6860.000	P	349.000	P	690.000	P	354.000	P
7440-23-5	SODIUM	10800.000	EPJ	3470.000	EPJ			1260.000	EPJ		
7440-62-2	VANADIUM					8.000	P			9.900	P
7440-66-6	ZINC (TOTAL)	16.000	P	145.000	P	41.000	P	82.000	P	61.000	P
74-90-8	CYANIDE (TOTAL)	0.000	NR	0.000	NR			0.000	NR		

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SL18A		SL18B		SL18C		SL19		SL19	
	SMO or Sample ID =>	MEL848		MEL849		MEL850		503		MEL827	
	Date Collected =>	07/29/87		07/29/87		07/29/87		07/10/87		06/18/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	6020.000	P	2850.000	P	2510.000	P			2400.000	P
7440-38-2	ARSENIC (TOTAL)	3.600	F	2.900	F	2.800	F				
7440-39-3	BARIUM	70.000	P	15.000	P	17.000	P	177.000	P	27.000	P
7440-43-9	CADMIUM (TOTAL)	2.100	P	1.300	P	1.500	P				
7440-70-2	CALCIUM	1160.000	P	446.000	P	510.000	P	11300.000	P	611.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	6.000	P	2.900	P	4.300	P			3.200	P
7440-48-4	COBALT	6.200	P	2.400	P	2.700	P			2.900	P
7440-50-8	COPPER (TOTAL)	7.500	P	4.400	P	6.400	P	12.000	P	8.600	P
7439-89-6	IRON	8320.000	P*	4860.000	P*	4930.000	P*			6060.000	P
7439-92-1	LEAD (TOTAL)	9.800	F*	4.700	F*	5.300	F*			8.500	F
7439-95-4	MAGNESIUM	1290.000	P	716.000	P	688.000	P	4000.000	P	772.000	P
7439-96-5	MANGANESE	545.000	P*	116.000	P*	261.000	P*	34.000	N*PJ	230.000	PRJ
7440-02-0	NICKEL (TOTAL)	8.600	P	5.200	P	7.400	P			5.400	P
7440-09-7	POTASSIUM	497.000	P	264.000	P	277.000	P	3340.000	P	223.000	P
7440-23-5	SODIUM	119.000	P	101.000	P	97.000	P	6640.000	EPJ		
7440-62-2	VANADIUM	14.000	P	7.000	P	6.500	P			7.500	P
7440-66-6	ZINC (TOTAL)	36.000	P	17.000	P	19.000	P	81.000	P	36.000	P
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	LEACH		RAS		LEACH		RAS		RAS	
	Location ID =>	SL20		SL20		SL21		SL21		SL21	
	SMO or Sample ID =>	504		MEL828		505		MEL829		MEL833	
	Date Collected =>	07/10/87		06/18/87		07/10/87		06/18/87		06/18/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM			2620.000	P	139.000	JP	3330.000	P	3190.000	P
7440-39-3	BARIUM	78.000	P	53.000	P	98.000	P	51.000	P	47.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.640	P					0.520	P
7440-70-2	CALCIUM	6240.000	P	1510.000	P	3760.000	P	1770.000	P	1260.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			4.100	P			5.400	P	4.500	P
7440-48-4	COBALT			3.000	P			4.700	P	3.000	P
7440-50-8	COPPER (TOTAL)	11.000	P	16.000	P			8.600	P	8.500	P
7439-89-6	IRON			5720.000	P	170.000	*PJ	6364.000	P	6900.000	P
7439-92-1	LEAD (TOTAL)			18.000	FS			32.000	F	33.000	FS
7439-95-4	MAGNESIUM	7180.000	P	1780.000	P	1010.000	P	873.000	P	797.000	P
7439-96-5	MANGANESE	67.000	N*PJ	548.000	PRJ	111.000	N*PJ	521.000	PRJ	518.000	PRJ
7440-02-0	NICKEL (TOTAL)			8.000	P			4.900	P	6.000	P
7440-09-7	POTASSIUM	2530.000	P	255.000	P	3760.000	P	331.000	P	343.000	P
7440-23-5	SODIUM	1130.000	EPJ			1200.000	EPJ				
7440-62-2	VANADIUM			8.000	P			9.900	P	10.000	P
7440-66-6	ZINC (TOTAL)	48.000	P	61.000	P	126.000	P	67.000	P	69.000	P
74-90-8	CYANIDE (TOTAL)	0.000	NR			0.000	NR				

	Location Alias =>	LEACH		RAS		RAS		RAS		LEACH	
	Location ID =>	SL21(D)		SL21A		SL21B		SL21C		SL21H	
	SMO or Sample ID =>	D05		MEL836		MEL837		MEL838		513	
	Date Collected =>	07/10/87		07/10/87		07/10/87		07/10/87		07/10/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	157.000	PJ	2990.000	P	3450.000	P	2030.000	P		
7440-39-3	BARIUM	283.000	P	59.000	P	35.000	P	11.000	P	207.000	P
7440-70-2	CALCIUM	4560.000	P	1700.000	P	1770.000	P	6330.000	P	9000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			2.900	P	3.800	P	4.400	P		
7440-50-8	COPPER (TOTAL)			3.800	P	6.900	P	6.700	P		
7439-89-6	IRON	110.000	*PJ	4390.000	P	5260.000	P	5240.000	P		
7439-92-1	LEAD (TOTAL)			14.000	F	6.800	F	4.400	F		
7439-95-4	MAGNESIUM	1120.000	P	561.000	P	641.000	P	1900.000	P	1710.000	P
7439-96-5	MANGANESE	108.000	N*PJ	523.000	PRJ	265.000	PRJ	141.000	PRJ	14.000	N*PJ
7440-02-0	NICKEL (TOTAL)			4.700	P	5.000	P	5.900	P		
7440-09-7	POTASSIUM	3990.000	P	248.000	P	274.000	P	239.000	P	1220.000	P
7440-23-5	SODIUM	3010.000	EPJ							19600.000	EPJ
7440-62-2	VANADIUM			6.900	P	7.500	P	6.600	P		
7440-66-6	ZINC (TOTAL)	219.000	P	32.000	P	39.000	P	30.000	P		
74-90-8	CYANIDE (TOTAL)	0.000	NR							0.000	NR

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SL29A		SL29B		SL29C		SL29J		SL30A	
	SMO or Sample ID =>	MEL854		MEL855		MEL856		MEN062		MEL866	
	Date Collected =>	08/03/87		08/03/87		08/03/87		08/14/87		08/12/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5100.000	P	2990.000	P	2310.000	P	1910.000	R*EPJ	6200.000	P
7440-38-2	ARSENIC (TOTAL)	6.700	F							6.500	F*J
7440-39-3	BARIUM	128.000	P	18.000	P	14.000	P	71.000	P	24.500	PNJ
7440-41-7	BERYLLIUM (TOTAL)	0.580	P							0.200	P
7440-70-2	CALCIUM	3810.000	P	513.000	P	460.000	P	8990.000	P	590.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	6.500	P	4.200	P	3.700	P			9.000	P
7440-48-4	COBALT									4.900	P
7440-50-8	COPPER (TOTAL)	12.000	P	10.000	P	8.900	P			12.200	P
7439-89-6	IRON	9590.000	P	6680.000	P	5270.000	P	990.000	*PJ	12200.000	P
7439-92-1	LEAD (TOTAL)	16.000	F	7.400	F	4.900	F			33.500	+SFN+
7439-95-4	MAGNESIUM	2300.000	P	840.000	P	602.000	P	1570.000	P	1400.000	P
7439-96-5	MANGANESE	889.000	P	165.000	P	132.000	P	22.000	P	220.000	P
7440-02-0	NICKEL (TOTAL)	9.600	P	7.000	P	5.500	P			7.600	P
7440-09-7	POTASSIUM	628.000	P	355.000	P	261.000	P	1110.000	P	450.000	P
7440-23-5	SODIUM							11600.000	EPJ		
7440-62-2	VANADIUM	11.000	P	7.800	P	5.300	P			13.900	P
7440-66-6	ZINC (TOTAL)	54.000	P	34.000	P	31.000	P	18.000	P	59.400	P
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		LEACH		RAS		RAS	
	Location ID =>	SL308		SL30C		SL301		SL31A		SL31B	
	SMO or Sample ID =>	MEL867		MEL868		MEN064		MEY004		MEY005	
	Date Collected =>	08/12/87		08/12/87		08/14/87		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5100.000	P	1200.000	P	585.000	R*EPJ	7700.000	P	6320.000	P
7440-38-2	ARSENIC (TOTAL)	9.200	SF*J	5.000	SF*J						
7440-39-3	BARIUM	19.200	PNJ			81.000	P	139.000	P	2.700	P[]
7440-41-7	BERYLLIUM (TOTAL)	0.200	P					0.460	P[]		
7440-70-2	CALCIUM	400.000	P	270.000	P	15800.000	P	2480.000	P	320.000	P[]
7440-47-3	CHROMIUM (ELEMENTAL)	8.300	P	3.000	P			8.400	*PJ	7.600	*PJ
7440-48-4	COBALT	6.500	P					3.200	*PJ[]		
7440-50-8	COPPER (TOTAL)	19.600	P	6.800	P			10.000	NPJ	16.000	NPJ
7439-89-6	IRON	12800.000	P	2700.000	P	530.000	*PJ	10700.000	*P	2740.000	*P
7439-92-1	LEAD (TOTAL)	25.800	SFN*J	11.200	SFN*J			19.000	F	6.300	SF
7439-95-4	MAGNESIUM	1400.000	P	600.000	P	2250.000	P	1450.000	P	646.000	P[]
7439-96-5	MANGANESE	310.000	P	19.300	P	10.000	P	745.000	NPJ	19.000	NPJ
7440-02-0	NICKEL (TOTAL)	11.000	P	3.400	P			6.800	P[]	2.300	P[]
7440-09-7	POTASSIUM	550.000	P	180.000	P	940.000	P	902.000	P[]	777.000	P[]
7440-23-5	SODIUM					10800.000	EPJ				
7440-62-2	VANADIUM	12.900	P	4.300	P			13.000	P	8.500	P[]
7440-66-6	ZINC (TOTAL)	77.700	P	25.900	P	21.000	P	63.000	*P	22.000	*P
74-90-8	CYANIDE (TOTAL)					0.000	NR				

	Location Alias =>	RAS		LEACH		RAS		RAS		RAS	
	Location ID =>	SL31C		SL31D		SL31E		SL31E(D)		SL31F	
	SMO or Sample ID =>	MEY006		MEX997		MEY007		MEY008		MEY009	
	Date Collected =>	06/21/88		06/26/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	3310.000	P	848.000	*EJP	1880.000	P	1360.000	P	2290.000	P
7440-38-2	ARSENIC (TOTAL)	7.400	F	3.900	BF					2.600	F
7440-39-3	BARIUM	10.000	P[]	39.500	BP	11.000	P[]	5.600	P[]	9.100	P[]
7440-41-7	BERYLLIUM (TOTAL)	0.250	P[]	1.200	BP						
7440-43-9	CADMIUM (TOTAL)	0.740	*P[]	5.200	P						
7440-70-2	CALCIUM	368.000	P[]	3210.000	BP	15400.000	P	19200.000	P	30000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	4.700	*PJ	21.200	P	2.000	*PJ[]	3.100	*PJ	4.700	*PJ
7440-48-4	COBALT	7.200	*PJ[]	11.000	BP			1.800	*PJ[]	3.000	*PJ[]
7440-50-8	COPPER (TOTAL)	14.000	NPJ	16900.000	*JP	2.800	NPJ[]	3.600	NPJ[]	10.000	NPJ
7439-89-6	IRON	6150.000	*P	17700.000	*EJP	3850.000	*P	3440.000	*P	5650.000	*P
7439-92-1	LEAD (TOTAL)	5.800	SF	720.000	F	3.500	SF	2.600	SF	6.000	SF
7439-95-4	MAGNESIUM	1070.000	P[]	1080.000	BP	5650.000	P	6360.000	P	9300.000	P
7439-96-5	MANGANESE	33.000	NPJ	246.000	P	84.000	NPJ	88.000	NPJ	165.000	NPJ
7440-02-0	NICKEL (TOTAL)	14.000	P	1170.000	P	4.100	P[]			7.200	P[]
7440-09-7	POTASSIUM	1060.000	P[]	3290.000	BJA	433.000	P[]	310.000	P[]	574.000	P[]
7440-23-5	SODIUM			18300.000	P	466.000	P[]				
7440-62-2	VANADIUM	6.400	P[]			4.800	P[]	4.400	P[]	5.100	P[]
7440-66-6	ZINC (TOTAL)	94.000	*P	660.000	P	21.000	*P	14.000	*P	103.000	*P
74-90-8	CYANIDE (TOTAL)			0.000	NR						

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL33(DUP)		SL33E		SL33H		SL33I		SL33J	
	SMO or Sample ID =>	MET683		MET682		MET686		MET687		MET688	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2560.000	P	2960.000	P	3220.000	P	1490.000	P	1830.000	P
7440-38-2	ARSENIC (TOTAL)	2.900	F	4.000	F	2.700	F	2.200	F		
7440-39-3	BARIUM	11.000	P	14.000	P	11.000	P	5.200	P	6.000	P
7440-70-2	CALCIUM	183.000	P	198.000	P	382.000	P	387.000	P	21500.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	4.700	P	4.900	P	6.400	P	4.000	P	5.800	P
7440-48-4	COBALT	3.600	P	4.200	P	4.000	P	2.200	P	3.500	P
7440-50-8	COPPER (TOTAL)	9.700	P	11.000	P	11.000	P	5.400	P	6.000	P
7439-89-6	IRON	4880.000	P	5810.000	P	8040.000	P	4020.000	P	4680.000	P
7439-92-1	LEAD (TOTAL)	6.100	*F	7.500	*F	5.300	*F	3.800	S*F	2.500	*F
7439-95-4	MAGNESIUM	809.000	P	859.000	P	1010.000	P	670.000	P	5100.000	P
7439-96-5	MANGANESE	64.000	P	77.000	P	238.000	P	78.000	P	104.000	P
7440-02-0	NICKEL (TOTAL)	5.800	P	7.300	P	9.600	P	4.900	P	6.000	P
7440-09-7	POTASSIUM	481.000	P	572.000	P	407.000	P	256.000	P	372.000	P
7440-62-2	VANADIUM	5.800	P	6.400	P	9.300	P	5.600	P	5.800	P
7440-66-6	ZINC (TOTAL)	32.000	P	37.000	P	56.000	P	22.000	P	19.000	P

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SL34A		SL34B		SL34C		SL34D		SL34E	
	SMO or Sample ID =>	MEX376		MEX377		MEX378		MEN727		MEX380	
	Date Collected =>	05/20/88		05/20/88		05/20/88		05/20/88		05/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	5690.000	P	2410.000	P	1320.000	P	215.000	P	772.000	P
7440-38-2	ARSENIC (TOTAL)	2.300	F	4.400	F	1.600	BF			1.200	BF
7440-39-3	BARIUM	69.200	P	9.800	BP	5.400	BP	51.000	P	4.700	BP
7440-41-7	BERYLLIUM (TOTAL)	0.240	BP	0.120	BP	0.090	BP				
7440-70-2	CALCIUM	487.000	BP	85.200	BP	30400.000	P	15200.000	P	23000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	5.800	P	2.900	P	2.000	BP				
7440-48-4	COBALT	3.100	BP	2.500	BP						
7440-50-8	COPPER (TOTAL)	6.100	P	9.100	P	4.800	BP			8.600	P
7439-89-6	IRON	8080.000	P	5880.000	P	4710.000	P	106.000	P	2380.000	P
7439-92-1	LEAD (TOTAL)	8.800	F	5.600	F	3.800	F			1.900	NJF
7439-95-4	MAGNESIUM	958.000	BP	640.000	BP	6880.000	P	2920.000	P	4860.000	P
7439-96-5	MANGANESE	521.000	P	124.000	P	130.000	P	6.000	P	91.000	P
7439-97-6	MERCURY (TOTAL)							14.000	CV		
7440-02-0	NICKEL (TOTAL)	6.500	BP	7.700	BP	4.400	BP				
7440-09-7	POTASSIUM	379.000	BP	264.000	BP	200.000	BP			95.500	BP
7440-23-5	SODIUM	18.200	BP	41.700	BP	98.300	BP	14800.000	P		
7440-62-2	VANADIUM	13.500	P	5.500	BP	4.400	BP			1.800	BNJP
7440-66-6	ZINC (TOTAL)	35.300	P	37.600	P	18.700	P	60.000	*NP	12.400	P
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL34F		SL34G		SL37A		SL37B		SL37C	
	SMO or Sample ID =>	MEX381		MEX382		MEX385		MEX386		MEX387	
	Date Collected =>	05/24/88		05/24/88		05/24/88		05/24/88		05/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1340.000	P	616.000	P	3100.000	P	2780.000	P	1600.000	P
7440-38-2	ARSENIC (TOTAL)	5.400	F	2.900	F	1.600	BF	1.700	BF	4.000	F
7440-39-3	BARIUM	7.800	BP	6.700	BP	46.100	P	15.600	BP	9.600	BP
7440-41-7	BERYLLIUM (TOTAL)					0.220	BP				
7440-70-2	CALCIUM	37000.000	P	21600.000	P	371.000	BP	311.000	BP	544.000	BP
7440-47-3	CHROMIUM (ELEMENTAL)	4.000	P	1.900	BP	3.900	P	3.000	P	3.600	P
7440-48-4	COBALT	2.300	BP			2.900	BP	1.900	BP	6.500	BP
7440-50-8	COPPER (TOTAL)	9.000	P	6.200	P	8.400	P	7.600	P	16.100	P
7439-89-6	IRON	4430.000	P	2520.000	P	5220.000	P	4030.000	P	6900.000	P
7439-92-1	LEAD (TOTAL)	3.700	NJF	1.800	SNJF	4.700	SNJF	4.000	+NJF	8.200	SNJF
7439-95-4	MAGNESIUM	9920.000	P	4980.000	P	547.000	BP	472.000	BP	823.000	BP
7439-96-5	MANGANESE	149.000	P	64.600	P	412.000	P	99.700	P	159.000	P
7440-02-0	NICKEL (TOTAL)	6.200	BP	2.800	BP	5.600	BP	4.800	BP	12.200	P
7440-09-7	POTASSIUM	232.000	BP	113.000	BP	165.000	BP	173.000	BP	276.000	BP
7440-62-2	VANADIUM	3.900	BNJP	2.800	BNJP	6.600	BNJP	5.600	BNJP	4.800	BNJP
7440-66-6	ZINC (TOTAL)	25.400	P	14.700	P	22.600	P	14.500	P	66.300	P

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SL37D		SL37E		SL37ED		SL37F		SL37G	
	SMO or Sample ID =>	MEX392		MEX388		MEX393		MEX389		MEX390	
	Date Collected =>	05/24/88		05/24/88		05/24/88		05/24/88		05/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	353.000	P	728.000	P	643.000	P	805.000	P	681.000	P
7440-38-2	ARSENIC (TOTAL)			1.200	BF	0.960	BF	1.200	BF	2.900	F
7440-39-3	BARIUM	240.000	P	5.800	BP	4.900	BP	4.500	BP	4.200	BP
7440-70-2	CALCIUM	988.000	P	17900.000	P	19300.000	P	17000.000	P	23900.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			2.100	BP	1.800	BP	1.800	BP	1.800	BP
7440-50-8	COPPER (TOTAL)	23.000	P	5.900	BP	4.900	BP	7.100	P	5.000	BP
7439-89-6	IRON	284.000	P	2320.000	P	2320.000	P	2680.000	P	2530.000	P
7439-92-1	LEAD (TOTAL)			3.400	SNJF	1.900	SNJF	2.700	SNJF	3.200	SNJF
7439-95-4	MAGNESIUM			3710.000	P	3920.000	P	3650.000	P	4620.000	P
7439-96-5	MANGANESE	8.000	P	72.900	P	79.400	P	94.500	P	95.900	P
7439-97-6	MERCURY (TOTAL)	231.000	CV							0.500	CV
7440-02-0	NICKEL (TOTAL)			9.800	P	3.200	BP	3.900	BP	3.600	BP
7440-09-7	POTASSIUM			117.000	BP	110.000	BP	141.000	BP	126.000	BP
7440-23-5	SODIUM	6340.000	P								
7440-62-2	VANADIUM			2.100	BNJP	2.100	BNJP	2.600	BNJP	1.900	BNJP
7440-66-6	ZINC (TOTAL)	447.000	*NP	12.900	P	12.800	P	11.500	P	42.500	P
74-90-8	CYANIDE (TOTAL)	0.000	NR								

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SL37H		SL42A		SL42B		SL42C		SL42D	
	SMO or Sample ID =>	MEX391		MET585		MET586		MET587		MET617	
	Date Collected =>	05/24/88		06/16/88		06/16/88		06/16/88		06/14/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	735.000	P	5150.000	P	4070.000	P	2080.000	P	302.000	P
7440-36-0	ANTIMONY (TOTAL)					9.300	BP	7.000	BP		
7440-38-2	ARSENIC (TOTAL)	1.200	BF	6.100	F	4.800	F	3.700	F		
7440-39-3	BARIUM	3.800	BP	71.000	P	18.000	BP	10.300	BP		
7440-41-7	BERYLLIUM (TOTAL)			0.330	BP						
7440-70-2	CALCIUM	31300.000	P	901.000	BP	481.000	BP	449.000	BP	346.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	2.400	P	7.700	P	5.900	P	5.100	P		
7440-48-4	COBALT			6.700	BP	5.800	BP	5.500	BP		
7440-50-8	COPPER (TOTAL)	6.000	P	8.200	P	13.300	P	13.400	P		
7439-89-6	IRON	2700.000	P	10200.000	P	9560.000	P	11800.000	P	280.000	P
7439-92-1	LEAD (TOTAL)	1.900	+NJF	10.600	F	9.200	F	6.700	F		
7439-95-4	MAGNESIUM	6510.000	P	1110.000	P	912.000	BP	875.000	BP		
7439-96-5	MANGANESE	94.400	P	549.000	P	201.000	P	139.000	P	7.000	P
7440-02-0	NICKEL (TOTAL)	3.700	BP	11.300	P	11.600	P	13.400	P		
7440-09-7	POTASSIUM	124.000	BP	368.000	BP	376.000	BP	304.000	BP		
7440-23-5	SODIUM									12500.000	P
7440-62-2	VANADIUM	2.600	BNJP	14.000	P	10.100	BP	8.900	BP		
7440-66-6	ZINC (TOTAL)	10.800	P	49.000	EJP	71.600	EJP	98.600	EJP	14.000	*NPJ
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL42E		SL42E(D)		SL42F		SL42G		SL42H	
	SMO or Sample ID =>	MET588		MET589		MET590		MET591		MET592	
	Date Collected =>	06/16/88		06/16/88		06/16/88		06/16/88		06/16/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2570.000	P	1870.000	P	1320.000	P	2180.000	P	1460.000	P
7440-38-2	ARSENIC (TOTAL)	4.100	F	3.200	F	2.900	F	2.500	F	1.700	BF
7440-39-3	BARIUM	11.800	BP	7.600	BP	4.400	BP	8.800	BP	5.900	BP
7440-43-9	CADMIUM (TOTAL)									1.600	P
7440-70-2	CALCIUM	12100.000	P	20900.000	P	42600.000	P	39000.000	P	39800.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	4.900	P	3.400	P	4.100	P	5.300	P	3.400	P
7440-48-4	COBALT	5.600	BP	5.400	BP	3.600	BP	7.300	BP	3.000	BP
7440-50-8	COPPER (TOTAL)	11.700	P	11.600	P	4.400	BP	19.500	P	3.700	BP
7439-89-6	IRON	8150.000	P	6450.000	P	4630.000	P	9480.000	P	4260.000	P
7439-92-1	LEAD (TOTAL)	9.100	F	6.500	F	4.300	F	4.900	F	2.800	F
7439-95-4	MAGNESIUM	3400.000	P	5270.000	P	9290.000	P	13800.000	P	9130.000	P
7439-96-5	MANGANESE	221.000	P	150.000	P	148.000	P	298.000	P	136.000	P
7440-02-0	NICKEL (TOTAL)	10.900	P	10.800	P	7.600	BP	12.500	P	6.600	BP
7440-09-7	POTASSIUM	355.000	BP	363.000	BP	200.000	BP	406.000	BP	247.000	BP
7440-23-5	SODIUM	885.000	BP	592.000	BP						
7440-62-2	VANADIUM	6.700	BP	5.900	BP	5.000	BP	7.500	BP	5.600	BP
7440-66-6	ZINC (TOTAL)	58.500	EJP	74.000	EJP	27.800	EJP	86.100	EJP	17.200	EJP

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SL45A		SL45B		SL45C		SL45D		SL45F	
	SMO or Sample ID =>	MEX415		MEX416		MEX417		MEX426		MEX418	
	Date Collected =>	06/06/88		06/06/88		06/06/88		06/05/88		06/06/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	7410.000	P	3610.000	P	4460.000	P	478.000	P	1450.000	P
7440-38-2	ARSENIC (TOTAL)	6.400	F	3.000	F	3.800	F			1.900	BF
7440-39-3	BARIUM	59.600	P	18.200	BP	17.400	BP	71.000	P	7.100	BP
7440-41-7	BERYLLIUM (TOTAL)	0.370	BP	0.290	BP						
7440-70-2	CALCIUM	821.000	BP	780.000	BP	849.000	BP	609.000	P	21200.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	9.900	P	7.100	P	5.700	P			3.200	P
7440-48-4	COBALT	9.200	BP	5.300	BP	4.300	BP			2.000	BP
7440-50-8	COPPER (TOTAL)	28.900	P	14.100	P	14.400	P	14.000	P	7.900	P
7439-89-6	IRON	13300.000	P	8990.000	P	8550.000	P	367.000	P	4440.000	P
7439-92-1	LEAD (TOTAL)	11.500	*F	7.200	S*F	7.400	S*F			3.900	S*F
7439-95-4	MAGNESIUM	1640.000	P	861.000	BP	1070.000	BP	175.000	P	6840.000	P
7439-96-5	MANGANESE	490.000	P	210.000	P	193.000	P	9.000	P	142.000	P
7439-97-6	MERCURY (TOTAL)							72.000	CV		
7440-02-0	NICKEL (TOTAL)	13.500	P	10.500	P	9.200	BP			5.000	BP
7440-09-7	POTASSIUM	635.000	BP	379.000	BP	589.000	BP			266.000	BP
7440-22-4	SILVER (TOTAL)	1.100	BP								
7440-23-5	SODIUM							16900.000	P		
7440-62-2	VANADIUM	17.200	P	9.300	BP	9.500	BP			4.300	BP
7440-66-6	ZINC (TOTAL)	57.600	EJP	42.800	EJP	53.800	EJP	26.000	*NJ	21.000	EJP
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL45G		SL48B		SL48C		SL48D		SL48E	
	SMO or Sample ID =>	MEX419		MEL931		MEL932		MEL933		MEL934	
	Date Collected =>	06/06/88		05/12/88		06/12/88		05/12/88		05/12/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1240.000	P	1670.000	P	946.000	P	732.000	P	916.000	P
7440-38-2	ARSENIC (TOTAL)	1.500	BF	3.200	F	1.100	BF	1.100	BF	1.400	BF
7440-39-3	BARIUM	7.100	BP	9.200	BP	3.400	BP	2.700	BP	6.500	BP
7440-41-7	BERYLLIUM (TOTAL)			0.090	BP			0.100	BP		
7440-70-2	CALCIUM	25500.000	P	567.000	BP	27900.000	P	23100.000	P	23700.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	3.100	P	3.200	P	1.900	BP			3.500	P
7440-48-4	COBALT	2.000	BP	2.300	BP						
7440-50-8	COPPER (TOTAL)	7.000	P	8.600	P	4.500	BP	4.300	BP	23.800	P
7439-89-6	IRON	4150.000	P	3950.000	P	3400.000	P	2620.000	P	3940.000	P
7439-92-1	LEAD (TOTAL)	4.400	S*F	4.900	F	2.700	F	3.000	F	6.700	F
7439-95-4	MAGNESIUM	6660.000	P	561.000	BP	6560.000	P	5510.000	P	6230.000	P
7439-96-5	MANGANESE	152.000	P	186.000	P	102.000	P	67.600	P	89.500	P
7440-02-0	NICKEL (TOTAL)	3.900	BP	7.000	BP	2.400	BP	4.300	BP	6.200	BP
7440-09-7	POTASSIUM	247.000	BP	138.000	BP	148.000	BP	171.000	BP	148.000	BP
7440-23-5	SODIUM			148.000	BP	50.300	BP	33.000	BP	77.300	BP
7440-62-2	VANADIUM	3.900	BP	3.900	BP	3.400	BP	3.500	BP	4.000	BP
7440-66-6	ZINC (TOTAL)	19.800	EJP	29.600	P	13.300	P	22.600	P	22.800	P

	Location Alias =>	RAS		RAS		RAS		LEACH		LEACH	
	Location ID =>	SL48F		SL48G		SL48H		SL48J		SL48J	
	SMO or Sample ID =>	MEN723		MEN724		MEN725		MEN730		MEN730D	
	Date Collected =>	05/17/88		05/17/88		05/17/88		05/13/88		05/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	873.000	P	822.000	P	4210.000	P	234.000	P	357.000	P
7440-38-2	ARSENIC (TOTAL)	1.500	BF	1.200	BF	7.700	F				
7440-39-3	BARIUM	11.900	BP	5.000	BP	21.400	BP	220.000	P	313.000	P
7440-41-7	BERYLLIUM (TOTAL)			0.090	BP	0.210	BP				
7440-70-2	CALCIUM	29100.000	P	35300.000	P	76000.000	P	10400.000	P	10300.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	2.100	BP	2.000	BP	6.200	P				
7440-48-4	COBALT	1.200	BP			5.700	BP				
7440-50-8	COPPER (TOTAL)	5.100	BP	3.100	BP	14.200	P			15.000	P
7439-89-6	IRON	5380.000	P	3240.000	P	15500.000	P	121.000	P	147.000	P
7439-92-1	LEAD (TOTAL)	8.100	F	2.900	F	7.700	F				
7439-95-4	MAGNESIUM	6190.000	P	8140.000	P	33700.000	P	1680.000	P	2800.000	P
7439-96-5	MANGANESE	130.000	P	104.000	P	430.000	P	3.000	P	2.000	P
7439-97-6	MERCURY (TOTAL)							130.000	CV	248.000	CV
7440-02-0	NICKEL (TOTAL)	3.200	BP	6.400	BP	15.200	P				
7440-09-7	POTASSIUM	148.000	BP	155.000	BP	753.000	BP				
7440-23-5	SODIUM	137.000	BP	132.000	BP	86.900	BP				
7440-62-2	VANADIUM	6.000	BP	2.900	BP	11.300	BP				
7440-66-6	ZINC (TOTAL)	18.400	P	9.200	P	39.500	P	319.000	*NP	334.000	*NP
74-90-8	CYANIDE (TOTAL)							0.000		0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL4A		SL4B		SL4C		SL4E		SL4E(D)	
	SMO or Sample ID =>	MEX969		MEX970		MEX971		MEX972		MEX973	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	7970.000	P	3500.000	P	2110.000	P	1920.000	P	2440.000	P
7440-36-0	ANTIMONY (TOTAL)	8.800	BP								
7440-38-2	ARSENIC (TOTAL)	9.200	NJF	5.500	NJF	2.400	BWNJF	5.100	NJF	6.700	NJF
7440-39-3	BARIUM	85.600	P	11.800	BP	16.200	BP	7.100	BP		
7440-70-2	CALCIUM	1260.000	*P	563.000	B*P	1640.000	*P	28500.000	*P	43300.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)	12.000	*P	5.300	*P	3.200	*P	18.500	*P	5.500	*P
7440-48-4	COBALT	8.800	BP	3.600	BP			5.400	BP	10.100	BP
7440-50-8	COPPER (TOTAL)	20.300	P	12.600	P	4.900	BP	16.500	P	36.600	P
7439-89-6	IRON	18300.000	P	9090.000	P	5270.000	P	10700.000	P	16300.000	P
7439-92-1	LEAD (TOTAL)	20.400	S*F	8.600	S*F	3.000	*F	8.900	*F	10.800	S*F
7439-95-4	MAGNESIUM	1820.000	*JP	753.000	B*JP	827.000	B*JP	13000.000	*JP	21200.000	*JP
7439-96-5	MANGANESE	667.000	P	212.000	P	194.000	P	339.000	P	488.000	P
7440-02-0	NICKEL (TOTAL)	17.400	*JP			8.900	B*JP	22.800	*JP	11.800	*JP
7440-09-7	POTASSIUM	554.000	BP							288.000	BP
7440-23-5	SODIUM	26.100	BP	101.000	BP	212.000	BP	175.000	BP	156.000	BP
7440-28-0	THALLIUM (TOTAL)									0.830	BF
7440-62-2	VANADIUM	24.300	P	12.400	P	7.100	BP	10.100	BP	14.200	P
7440-66-6	ZINC (TOTAL)	132.000	N*JP	94.600	N*JP	48.400	N*JP	97.300	N*JP	235.000	N*JP

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL4G		SL4I		SL56A		SL56B		SL56C	
	SMO or Sample ID =>	MEX974		MEX975		MEX429		MEX430		MEX431	
	Date Collected =>	06/28/88		07/28/88		06/06/88		06/06/88		06/06/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	2280.000	P	6470.000	P	9510.000	P	3510.000	P	2040.000	P
7440-38-2	ARSENIC (TOTAL)	4.500	NJF	4.900	NJF	5.200	F	5.000	F	3.100	F
7440-39-3	BARIUM	8.900	BP	27.500	BP	132.000	P	19.400	BP	9.400	P
7440-41-7	BERYLLIUM (TOTAL)					0.490	BP	0.230	BP		
7440-43-9	CADMIUM (TOTAL)			1.200	BP						
7440-70-2	CALCIUM	39500.000	*P	67700.000	*P	1430.000	P	9550.000	P	22500.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	6.300	*P	9.800	*P	11.400	P	5.400	P	3.900	P
7440-48-4	COBALT	11.800	BP	14.200	P	8.300	BP	4.500	BP	3.200	BP
7440-50-8	COPPER (TOTAL)	21.500	P	14.300	P	17.400	P	16.100	P	8.600	P
7439-89-6	IRON	12000.000	P	36200.000	P	14600.000	P	10300.000	P	5460.000	P
7439-92-1	LEAD (TOTAL)	7.700	*F	6.800	*F	13.600	*F	9.800	*F	5.100	*F
7439-95-4	MAGNESIUM	15800.000	*JP	29700.000	*JP	1490.000	P	6360.000	P	5760.000	P
7439-96-5	MANGANESE	265.000	P	421.000	P	772.000	P	449.000	P	160.000	P
7440-02-0	NICKEL (TOTAL)	28.800	*JP	45.200	*JP	14.400	P	9.200	P	6.500	BP
7440-09-7	POTASSIUM	280.000	BP	1230.000	P	840.000	BP	476.000	BP	372.000	BP
7782-49-2	SELENIUM (TOTAL)					0.220	BWJF				
7440-22-4	SILVER (TOTAL)					0.960	BP				
7440-23-5	SODIUM	306.000	BP	161.000	BP						
7440-62-2	VANADIUM	14.000	P	24.400	P	20.100	P	8.000	BP	5.700	BP
7440-66-6	ZINC (TOTAL)	87.900	N*JP	75.300	N*JP	78.700	EJP	84.300	EJP	34.600	EJP

	Location Alias =>	LEACH		RAS		RAS		RAS		RAS	
	Location ID =>	SL56D		SL56E		SL56E(D)		SL56F		SL56G	
	SMO or Sample ID =>	MEX440		MEX432		MEX433		MEX434		MEX435	
	Date Collected =>	06/05/88		06/06/88		06/06/88		06/06/88		06/06/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	258.000	P	1100.000	P	897.000	P	1360.000	P	1790.000	P
7440-38-2	ARSENIC (TOTAL)			1.800	BF	1.200	BF	1.500	BF	1.500	BF
7440-39-3	BARIUM	45.000	P	5.000	BP	5.200	BP	5.200	BP	6.600	BP
7440-70-2	CALCIUM	19200.000	P	26400.000	P	28500.000	P	49400.000	P	42800.000	P
7440-47-3	CHROMIUM (ELEMENTAL)			3.500	P	2.400	P	3.800	P	4.400	P
7440-48-4	COBALT			2.200	BP	1.800	BP	3.100	BP	3.400	BP
7440-50-8	COPPER (TOTAL)			7.300	P	6.600	P	6.500	P	9.900	P
7439-89-6	IRON	129.000	P	3550.000	P	3330.000	P	4480.000	P	5570.000	P
7439-92-1	LEAD (TOTAL)			2.900	S*F	2.800	*F	2.600	S*F	3.200	*F
7439-95-4	MAGNESIUM	4280.000	P	6110.000	P	7070.000	P	13000.000	P	11800.000	P
7439-96-5	MANGANESE	5.000	P	91.100	P	110.000	P	169.000	P	208.000	P
7439-97-6	MERCURY (TOTAL)					0.200	NJCV				
7440-02-0	NICKEL (TOTAL)			4.300	BP	4.000	BP	5.900	BP	6.400	BP
7440-09-7	POTASSIUM			175.000	BP	151.000	BP	225.000	BP	330.000	BP
7440-22-4	SILVER (TOTAL)			0.940	P						
7440-23-5	SODIUM	5950.000	P								
7440-62-2	VANADIUM			4.600	BP	3.100	BP	5.300	BP	4.700	BP
7440-66-6	ZINC (TOTAL)	11.000	N*PJ	19.200	EJP	18.000	EJP	23.000	EJP	36.500	EJP
74-90-8	CYANIDE (TOTAL)	0.000	NR								

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SL59A		SL59B		SL59C		SL59D		SL59E	
	SMO or Sample ID =>	MEX420		MEX421		MEX422		MEX428		MEX423	
	Date Collected =>	06/06/88		06/06/88		06/06/88		06/05/88		06/06/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	11100.000	P	4740.000	P	2010.000	P	534.000	P	1400.000	P
7440-38-2	ARSENIC (TOTAL)	5.100	F	4.400	F	2.700	F			1.900	BF
7440-39-3	BARIUM	151.000	P	21.900	BP	10.500	BP			6.000	BP
7440-41-7	BERYLLIUM (TOTAL)	0.560	BP	0.360	BP						
7440-43-9	CADMIUM (TOTAL)									1.300	P
7440-70-2	CALCIUM	1340.000	P	1930.000	P	1330.000	P	856.000	P	31600.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	12.800	P	8.200	P	5.100	P			4.600	P
7440-48-4	COBALT	7.800	BP	7.100	BP	3.300	BP			2.700	BP
7440-50-8	COPPER (TOTAL)	19.000	P	24.900	P	9.600	P	20.000	P	8.400	P
7439-89-6	IRON	14700.000	P	24700.000	P	6060.000	P	361.000	P	4630.000	P
7439-92-1	LEAD (TOTAL)	16.000	*F	63.700	*P	6.400	S*F			4.000	S*F
7439-95-4	MAGNESIUM	1570.000	P	2430.000	P	1050.000	BP	275.000	P	8480.000	P
7439-96-5	MANGANESE	814.000	P	819.000	P	134.000	P	19.000	P	131.000	P
7439-97-6	MERCURY (TOTAL)									0.100	NJCV
7440-02-0	NICKEL (TOTAL)	14.700	P	17.600	P	6.700	BP			5.200	BP
7440-09-7	POTASSIUM	1110.000	BP	713.000	BP	350.000	BP	1380.000	P	214.000	BP
7440-22-4	SILVER (TOTAL)			1.800	BP						
7440-23-5	SODIUM							26700.000	P		
7440-62-2	VANADIUM	22.500	P	15.100	P	5.800	BP			5.000	BP
7440-66-6	ZINC (TOTAL)	82.200	EJP	147.000	EJP	34.400	EJP	39.000	N*PJ	27.400	EJP
74-90-8	CYANIDE (TOTAL)	0.700	AS					0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL59E(D)		SL59F		SL59H		SL59H		SL62A	
	SMO or Sample ID =>	MEX424		MEX425		MEX427		MEX436		MEX441	
	Date Collected =>	06/06/88		06/06/88		06/06/88		06/06/88		06/15/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1380.000	P	1460.000	P	2270.000	P	2140.000	P	6080.000	P
7440-38-2	ARSENIC (TOTAL)	1.800	BF	1.700	BF	2.000	BF	2.800	F	5.100	F
7440-39-3	BARIUM	6.200	BP	6.600	BP	9.900	BP	8.100	BP	144.000	P
7440-41-7	BERYLLIUM (TOTAL)									0.480	BP
7440-43-9	CADMIUM (TOTAL)							1.500	P		
7440-70-2	CALCIUM	26600.000	P	46900.000	P	32500.000	P	43800.000	P	694.000	B*P
7440-47-3	CHROMIUM (ELEMENTAL)	4.400	P	3.800	P	4.800	P	5.200	P	9.000	P
7440-48-4	COBALT	2.300	BP	2.900	BP	3.100	BP	4.000	BP	8.700	BP
7440-50-8	COPPER (TOTAL)	8.500	P	7.600	P	8.200	P	19.900	P	11.900	P
7439-89-6	IRON	4540.000	P	5490.000	P	6840.000	P	7880.000	P	12100.000	*P
7439-92-1	LEAD (TOTAL)	3.300	S*F	3.700	*F	2.900	S*F	47.500	*P	15.200	*JF
7439-95-4	MAGNESIUM	5970.000	P	15800.000	P	11400.000	P	17900.000	P	1190.000	*P
7439-96-5	MANGANESE	126.000	P	187.000	P	215.000	P	269.000	P	1040.000	*NJP
7440-02-0	NICKEL (TOTAL)	5.800	BP	5.900	BP	6.800	BP	7.900	BP	12.500	P
7440-09-7	POTASSIUM	248.000	BP	269.000	BP	704.000	BP	441.000	BP	470.000	BP
7440-22-4	SILVER (TOTAL)									0.930	BP
7440-62-2	VANADIUM	4.700	BP	5.300	BP	5.400	BP	6.600	BP	15.600	P
7440-66-6	ZINC (TOTAL)	28.800	EJP	25.600	EJP	19.600	EJP	55.400	EJP	64.500	E*JP

	Location Alias =>	RAS		RAS		LEACH		RAS		RAS	
	Location ID =>	SL62B		SL62C		SL62D		SL62E		SL62E(D)	
	SMO or Sample ID =>	MEX442		MEX443		MET605		MEX444		MEX445	
	Date Collected =>	06/15/88		06/15/88		06/14/88		06/15/88		06/15/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	4600.000	P	1410.000	P	944.000	P	975.000	P	1270.000	P
7440-38-2	ARSENIC (TOTAL)	4.400	F	2.000	BF			1.200	BF	1.400	BF
7440-39-3	BARIUM	15.600	BP	8.900	BP			4.300	BP	4.900	BP
7440-43-9	CADMIUM (TOTAL)					4.000	P				
7440-70-2	CALCIUM	367.000	B*P	518.000	B*P			40700.000	*P	36100.000	*P
7440-47-3	CHROMIUM (ELEMENTAL)	5.100	P	2.900	P			3.200	P	2.800	P
7440-48-4	COBALT	5.000	BP	2.100	BP			1.900	BP	2.100	BP
7440-50-8	COPPER (TOTAL)	12.000	P	4.600	BP			3.700	BP	5.800	P
7439-89-6	IRON	8000.000	*P	3670.000	*P	586.000	P	3460.000	*P	3910.000	*P
7439-92-1	LEAD (TOTAL)	9.000	S*JF	4.900	S*JF			3.900	S*JF	4.200	S*JF
7439-95-4	MAGNESIUM	939.000	B*P	503.000	B*P			10000.000	*P	8900.000	*P
7439-96-5	MANGANESE	202.000	*NJP	129.000	*NJP	18.000	P	123.000	*NJP	123.000	*NJP
7440-02-0	NICKEL (TOTAL)	10.300	P	5.200	BP			4.000	BP	3.900	BP
7440-09-7	POTASSIUM	419.000	BP	168.000	BP			128.000	BP	159.000	BP
7440-22-4	SILVER (TOTAL)			1.100	BP			1.000	BP	1.100	BP
7440-23-5	SODIUM					13000.000	P				
7440-62-2	VANADIUM	7.900	BP	4.000	BP			3.700	BP	4.100	BP
7440-66-6	ZINC (TOTAL)	47.200	E*JP	19.300	E*JP	27.000	*NPJ	18.200	E*JP	19.000	E*JP
74-90-8	CYANIDE (TOTAL)					0.000	NR				

	Location Alias =>	RAS		RAS		RAS		RAS		LEACH	
	Location ID =>	SL62F		SL65A		SL65B		SL65C		SL65D	
	SMO or Sample ID =>	MEX446		MEX403		MEX404		MEX405		MEX411	
	Date Collected =>	06/15/88		05/31/88		05/31/88		05/31/88		05/31/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1590.000	P	9590.000	P	4290.000	P	1000.000	P	203.000	P
7440-38-2	ARSENIC (TOTAL)	2.600	SF	4.300	F	5.000	F	1.900	BF		
7440-39-3	BARIUM	8.300	BP	158.000	P	18.700	BP	4.300	BP	12.000	P
7440-70-2	CALCIUM	43300.000	*P	1170.000	P	398.000	BP	29100.000	P	14500.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	4.400	P	8.300	P	4.400	P	1.500	BP		
7440-48-4	COBALT	3.600	BP	8.400	BP	7.400	BP	2.300	BP		
7440-50-8	COPPER (TOTAL)	11.000	P	14.000	P	16.500	P	4.800	BP		
7439-89-6	IRON	5850.000	*P	13600.000	P	11700.000	P	3830.000	P	131.000	P
7439-92-1	LEAD (TOTAL)	5.800	S*JF	16.700	F	12.700	F	4.000	F		
7439-95-4	MAGNESIUM	13400.000	*P	1430.000	P	1220.000	P	8460.000	P	1750.000	P
7439-96-5	MANGANESE	158.000	*NJP	804.000	P	558.000	P	128.000	P	35.000	P
7440-02-0	NICKEL (TOTAL)	7.800	BP	12.800	P	14.900	P				
7440-09-7	POTASSIUM	265.000	BP	806.000	BP	390.000	BP			901.000	P
7440-22-4	SILVER (TOTAL)	1.100	BP								
7440-23-5	SODIUM			98.700	BEJP	143.000	BEJP	165.000	BEJP	13800.000	P
7440-28-0	THALLIUM (TOTAL)			0.630	BF	0.600	BF				
7440-62-2	VANADIUM	4.800	BP	20.800	P	9.500	BP	4.300	BP		
7440-66-6	ZINC (TOTAL)	35.400	E*JP	72.900	*P	81.100	*P	26.900	*P	35.000	N*PJ
74-90-8	CYANIDE (TOTAL)									0.000	NR

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL65E		SL65ED		SL65F		SL65G		SL65H	
	SMO or Sample ID =>	MEX406		MEX407		MEX408		MEX409		MEX410	
	Date Collected =>	05/31/88		05/31/88		05/31/88		05/31/88		05/31/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1640.000	P	2340.000	P	1060.000	P	1000.000	P	933.000	P
7440-38-2	ARSENIC (TOTAL)	2.200	BF	2.900	F			1.500	BWJF		
7440-39-3	BARIUM	9.600	BP	11.600	BP	4.700	BP	4.900	BP	5.300	BP
7440-70-2	CALCIUM	38500.000	P	36700.000	P	51700.000	P	46100.000	P	37600.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	2.300	BP	2.700	P	2.300	P	1.400	BP	1.700	BP
7440-48-4	COBALT	4.700	BP	5.100	BP	1.800	BP	2.100	BP	1.400	BP
7440-50-8	COPPER (TOTAL)	8.500	P	10.700	P	15.300	P	6.700	P	5.100	BP
7439-89-6	IRON	6960.000	P	11400.000	P	4070.000	P	4400.000	P	3700.000	P
7439-92-1	LEAD (TOTAL)	7.100	F	10.100	F	3.800	F	3.800	F	3.400	F
7439-95-4	MAGNESIUM	9780.000	P	13100.000	P	13600.000	P	10700.000	P	9630.000	P
7439-96-5	MANGANESE	266.000	P	366.000	P	151.000	P	144.000	P	163.000	P
7440-02-0	NICKEL (TOTAL)	9.500	P	11.100	P	4.800	BP	5.100	BP		
7440-09-7	POTASSIUM			207.000	BP						
7440-23-5	SODIUM	240.000	BEJP	174.000	BEJP	252.000	BEJP	286.000	BEJP	282.000	BEJP
7440-62-2	VANADIUM	5.700	BP	7.300	BP	4.400	BP	4.700	BP	3.600	BP
7440-66-6	ZINC (TOTAL)	50.500	*P	73.300	*P	9.300	*P	18.400	*P	19.200	*P

	Location Alias =>	RAS		RAS		RAS		LEACH		RAS	
	Location ID =>	SL68A		SL68B		SL68C		SL68D		SL68E	
	SMO or Sample ID =>	MEX394		MEX395		MEX396		MEX402		MEX397	
	Date Collected =>	05/31/88		05/31/88		05/31/88		05/31/88		05/31/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	7890.000	P	3140.000	P	771.000	P	454.000	P	1100.000	P
7440-38-2	ARSENIC (TOTAL)	7.100	+JF	2.800	F	1.300	BF			1.600	BF
7440-39-3	BARIUM	74.800	P	16.900	BP	3.300	BP	16.000	P	9.200	BP
7440-70-2	CALCIUM	1290.000	P	327.000	BP	20600.000	P	11100.000	P	20000.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	7.500	P	4.300	P	1.900	BP				
7440-48-4	COBALT	4.800	BP	2.900	BP	1.900	BP			2.600	BP
7440-50-8	COPPER (TOTAL)	14.300	P	14.800	P	5.900	BP	20.000	P	4.300	BP
7439-89-6	IRON	8580.000	P	6740.000	P	2460.000	P	236.000	P	4450.000	P
7439-92-1	LEAD (TOTAL)	13.700	F	7.100	P	2.600	F			6.000	F
7439-95-4	MAGNESIUM	1470.000	P	818.000	BP	4770.000	P	2810.000	P	4870.000	P
7439-96-5	MANGANESE	258.000	P	78.000	P	60.000	P	5.000	P	173.000	P
7439-97-6	MERCURY (TOTAL)					0.260	NJCV				
7440-02-0	NICKEL (TOTAL)	8.500	BP	12.100	P	4.200	BP			4.400	BP
7440-09-7	POTASSIUM	588.000	BP	286.000	BP	137.000	BP	1090.000	P	177.000	BP
7440-23-5	SODIUM	41.300	BEJP	85.100	BEJP	70.300	BEJP	16500.000	P	226.000	BEJP
7440-62-2	VANADIUM	17.800	P	6.900	BP	3.000	BP			3.500	BP
7440-66-6	ZINC (TOTAL)	40.900	*P	75.100	*P	11.700	*P	16.000	N*PJ	26.700	*P
74-90-8	CYANIDE (TOTAL)							0.000	NR		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL68ED		SL68F		SL68G		SL68H		SLE1E(D)	
	SMO or Sample ID =>	MEX400		MEX398		MEX399		MEX401		MEY008	
	Date Collected =>	05/31/88		05/31/87		05/31/88		05/31/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
7429-90-5	ALUMINUM	1220.000	P	1070.000	P	6100.000	P	2250.000	P	1360.000	P
7440-38-2	ARSENIC (TOTAL)	1.200	BF	1.100	BF	4.900	F				
7440-39-3	BARIUM	8.800	BP	4.100	BP	27.600	BP	11.400	BP	5.600	P
7440-43-9	CADMIUM (TOTAL)									0.770	*P
7440-70-2	CALCIUM	19400.000	P	35100.000	P	66200.000	P	44000.000	P	19200.000	P
7440-47-3	CHROMIUM (ELEMENTAL)	2.100	BP	2.500	P	7.400	P	3.400	P	3.100	*PJ
7440-48-4	COBALT	1.900	BP	1.900	BP	7.600	BP	3.100	BP	1.800	*PJ
7440-50-8	COPPER (TOTAL)	4.500	BP	3.500	BP	11.800	P	4.400	BP	3.600	NPJ
7439-89-6	IRON	4430.000	P	3470.000	P	14900.000	P	6120.000	P	3440.000	*P
7439-92-1	LEAD (TOTAL)	5.900	F	3.400	F	9.300	F	2.800	F	2.600	SF
7439-95-4	MAGNESIUM	5020.000	P	7510.000	P	28900.000	P	13100.000	P	6360.000	P
7439-96-5	MANGANESE	145.000	P	124.000	P	389.000	P	180.000	P	88.000	NPJ
7439-97-6	MERCURY (TOTAL)					0.410	NJCV				
7440-02-0	NICKEL (TOTAL)			4.900	BP	15.400	P	6.800	BP		
7440-09-7	POTASSIUM					1350.000	P	381.000	BP	310.000	P
7440-23-5	SODIUM	275.000	BEJP	225.000	BEJP	189.000	BEJP	270.000	BEJP		
7440-62-2	VANADIUM	4.300	BP	4.000	BP	13.500	P	6.300	BP	4.400	P
7440-66-6	ZINC (TOTAL)	22.100	*P	11.100	*P	43.900	*P	15.700	*P	14.000	*P

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL13B	SL13C	SL13E	SL13E(D)	SL31A
	SMO or Sample ID =>	EBZ92	EBZ93	EBZ94	EBZ95	EY317
	Date Collected =>	06/17/87	06/17/87	06/17/87	06/17/87	06/21/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
319-85-7	BETA-BHC	86.000 J	120.000	130.000	120.000	
72-55-9	4,4-DDE					21.000 J

Location Alias => TCLP
Location ID => SL34D
SMO or Sample ID => EX221
Date Collected => 05/20/88

CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
959-98-8	ENDOSULFAN I	0.120									

	Location Alias =>	RAS		RAS		RAS		TCLP		RAS	
	Location ID =>	SL01D		SL01E		SL04C		SL04D		SL04DUP	
	SMO or Sample ID =>	EM393		EM394		EY430		EY467		EY434	
	Date Collected =>	08/20/87		08/24/87		06/28/88		06/28/88		06/28/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME									1400.000	B
67-64-1	ACETONE			7.000	J						
75-34-3	1,1-DICHLOROETHANE									9300.000	
67-66-3	CHLOROFORM							3.000	J		
78-93-3	2-BUTANONE									3600.000	J
71-55-6	1,1,1-TRICHLOROETHANE					5.000	J			1100.000	
79-01-6	TRICHLOROETHENE					3.000	J			1300.000	
108-10-1	4-METHYL-2-PENTANONE							39.000		19000.000	
127-18-4	TETRACHLOROETHENE	1.000	J			2.000	J				

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL04E		SL04F		SL04G		SL04I		SL07C	
	SMO or Sample ID =>	EY431		EY432		EY433		EY435		EM326	
	Date Collected =>	06/28/88		06/28/88		06/28/88		06/28/88		07/21/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	1700.000	B	1700.000	B						
67-64-1	ACETONE									14.000	J
75-34-3	1,1-DICHLOROETHANE	1200.000	J	9100.000		4.000	J				
78-93-3	2-BUTANONE			3400.000	J						
71-55-6	1,1,1-TRICHLOROETHANE			1800.000							
79-01-6	TRICHLOROETHENE			860.000	J						
108-10-1	4-METHYL-2-PENTANONE	28000.000		30000.000		18.000	J	18.000	J		
108-88-3	TOLUENE							2.000	J		

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL07D	SL07E	SL07F(S25)	SL10A	SL10B
	SMO or Sample ID =>	EM327	EM328	EM332	ECA31	ECA32
	Date Collected =>	07/21/87	07/21/87	07/21/87	06/19/88	06/19/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
67-64-1	ACETONE	9.000 J	84.000 J	32.000 J	15.000 B	1500.000 B
78-93-3	2-BUTANONE				10.000 J	
110-75-8	2-CHLOROETHYLVINYLETHER	6.000 J				

	Location Alias =>	RAS		TCLP		RAS		RAS		RAS	
	Location ID =>	SL10C		SL10D		SL10E		SL10ED		SL10F	
	SMO or Sample ID =>	ECA33		ECA22		ECA34		ECA354		ECA36	
	Date Collected =>	06/19/88		06/19/88		06/19/88		06/19/88		06/19/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME									500.000	BJ
67-64-1	ACETONE	260.000	B			190.000	B	170.000	B	3800.000	B
75-34-3	1,1-DICHLOROETHANE					39.000		36.000			
156-60-5	TRANS-1,2-DICHLOROETHENE					210.000		180.000			
78-93-3	2-BUTANONE									4900.000	B
71-55-6	1,1,1-TRICHLOROETHANE	20.000				270.000		270.000		130.000	J
79-01-6	TRICHLOROETHENE					54.000		59.000			
591-78-6	2-HEXANONE			10.000							
127-18-4	TETRACHLOROETHENE					19.000		27.000			
108-88-3	TOLUENE					2.000	J	2.000	J		
1330-20-7	XYLENES (TOTAL)					4.000	J	3.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL10G		SL10H		SL13A		SL13B		SL13C	
	SMO or Sample ID =>	ECA37		ECA38		EBZ91		EBZ92		EBZ93	
	Date Collected =>	06/19/88		06/19/88		06/17/87		06/17/87		06/17/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE					1000.000	BEJ				
75-34-3	1,1-DICHLOROETHANE	130.000		10.000							
156-60-5	TRANS-1,2-DICHLOROETHENE	390.000		30.000							
78-93-3	2-BUTANONE			8.000	J			2.000	J		
71-55-6	1,1,1-TRICHLOROETHANE	27.000	J	2.000	J						
108-88-3	TOLUENE					10.000	J	10.000	J	2.000	J

	Location Alias =>	TCLP	RAS	RAS	RAS	RAS
	Location ID =>	SL13D	SL13E	SL13E(D)	SL13F	SL13G
	SMO or Sample ID =>	EBZ97	EBZ94	EBZ95	EBZ90	EBZ96
	Date Collected =>	06/14/88	06/17/87	06/17/87	06/17/87	06/17/87
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
67-64-1	ACETONE	99.000				
75-15-0	CARBON DISULFIDE		2.000 J			
78-93-3	2-BUTANONE			9.000 J		1.000 J
108-10-1	4-METHYL-2-PENTANONE	10.000 J				
108-88-3	TOLUENE		2.000 J	6.000 J	5.000 J	4.000 J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL15A		SL15B		SL15C		SL15D		SL15E	
	SMO or Sample ID =>	EM363		EM364		EM365		EM366		EM367	
	Date Collected =>	08/06/87		08/06/87		08/06/87		08/06/87		08/06/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	6.000		6.000		8.000		11.000		7.000	

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL15F		SL15H		SL21F		SL21I		SL29F	
	SMO or Sample ID =>	EM368		EM369		EM316		EM322		EM355	
	Date Collected =>	08/06/87		08/06/87		07/12/87		07/12/87		08/03/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-00-3	CHLOROETHANE					8.000	J				
75-09-2	METHYLENE CHLORIDE (DICHLOROME	5.000	J	8.000							
67-64-1	*ACETONE									240.000	J
75-35-4	1,1-DICHLOROETHENE					1.000	J				
108-10-1	4-METHYL-2-PENTANONE							2.000	J		
108-88-3	TOLUENE							1.000	J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL29G		SL29H		SL30E		SL30G		SL30H	
	SMO or Sample ID =>	EM356		EM358		EM381		EM383		EM384	
	Date Collected =>	08/03/87		08/03/87		08/20/87		08/20/87		08/12/87	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-15-0	CARBON DISULFIDE			2.000	J						
67-66-3	CHLOROFORM					2.500	J				
79-01-6	TRICHLOROETHENE	6.000	B								
108-88-3	TOLUENE					1.500	J	1.200	J	2.100	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL31C		SL31E		SL31E		SL31F		SL31G	
	SMO or Sample ID =>	EY319		EY320		EY321		EY322		EY323	
	Date Collected =>	06/21/88		06/21/88		06/21/88		06/21/88		06/21/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME			65.000	B						
67-64-1	ACETONE					240.000	BJ				
67-66-3	CHLOROFORM	1.000	J	1.000	J	2.000	J	2.000	J	2.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL34		SL343		SL34C		SL34E		SL34E	
	SMO or Sample ID =>	EX219DL		EX216DL		EX215		EX216		EX216DL	
	Date Collected =>	05/21/88		05/21/88		05/20/88		05/21/88		05/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	200.000	BJ								
67-64-1	ACETONE			580.000	BJ			460.000	EBJ	460.000	EBJ
75-35-4	1,1-DICHLOROETHENE					6.000	J				
71-55-6	1,1,1-TRICHLOROETHANE	12.000	J			150.000		3.000	J	3.000	J
108-10-1	4-METHYL-2-PENTANONE					6.000					
108-88-3	TOLUENE	7.000	J	4.000	J	1.000	J	4.000	J	4.000	J
100-41-4	ETHYLBENZENE			26.000		13.000		1.000	J	1.000	J
1330-20-7	XYLENES (TOTAL)			56.000		27.000		2.000	J	2.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL34E		SL34F		SL34F		SL34G		SL34G	
	SMO or Sample ID =>	EX216DL		EX217		MEX381		EX218		MEX382	
	Date Collected =>	05/24/88		05/21/88		05/24/88		05/21/88		05/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE	580.000	BJ	67.000	BJ	67.000	BJ				
75-15-0	CARBON DISULFIDE			2.000	J	2.000	J				
71-55-6	1,1,1-TRICHLOROETHANE			3.000	J	3.000	J	3.000	J	3.000	J
108-88-3	TOLUENE	4.000	J					1.000	J	1.000	J
100-41-4	ETHYLBENZENE	26.000						2.000	J	2.000	J
1330-20-7	XYLENES (TOTAL)	56.000						3.000	J	3.000	J

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL34N		SL34N		SL34N		SL37A		SL37A	
	SMO or Sample ID =>	EX219		EX219		EX219DL		EX222		MEX385	
	Date Collected =>	05/21/88		05/21/88		05/21/88		05/24/88		05/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					200.000	BJ				
67-64-1	ACETONE	720.000	EBJ	720.000	EBJ			5.000	J	5.000	J
75-15-0	CARBON DISULFIDE	3.000	J	3.000	J						
71-55-6	1,1,1-TRICHLOROETHANE					12.000	J				
108-88-3	TOLUENE	2.000	J	2.000	J	7.000	J				
100-41-4	ETHYLBENZENE							1.000	J	1.000	J
1330-20-7	XYLENES (TOTAL)							3.000	J	3.000	J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL37B	SL37B	SL37C	SL37C	SL37E
	SMO or Sample ID =>	EX223	MEX386	EX224	MEX387	EX225
	Date Collected =>	05/24/88	05/24/88	05/24/88	05/24/88	05/24/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
67-64-1	ACETONE	6.000 J	6.000 J	8.000 J	8.000 J	420.000 EJ
71-55-6	1,1,1-TRICHLOROETHANE					2.000 J
108-10-1	4-METHYL-2-PENTANONE					5.000 J
108-88-3	TOLUENE			8.000	8.000	2.000 J
100-41-4	ETHYLBENZENE			3.000 J	3.000 J	9.000
1330-20-7	XYLENES (TOTAL)			8.000	8.000	15.000

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL37E	SL37E	SL37E	SL37ED	SL37ED
	SMO or Sample ID =>	EX225DL	EX225DL	EX225D	EX233	EX233DL
	Date Collected =>	05/24/88	05/24/88	05/24/88	05/24/88	05/24/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
67-64-1	ACETONE	1200.000 B	420.000 EJ	1200.000 B	500.000 EJ	520.000 B
71-55-6	1,1,1-TRICHLOROETHANE		2.000 J		3.000 J	
108-10-1	4-METHYL-2-PENTANONE		5.000 J			
108-88-3	TOLUENE		2.000 J			2.000 J
100-41-4	ETHYLBENZENE	34.000	9.000	34.000		3.000 J
1330-20-7	XYLENES (TOTAL)	66.000		66.000		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL37F		SL37F		SL37G		SL37G		SL37H	
	SMO or Sample ID =>	EX226		MEX389		EX227		MEX390		EX228	
	Date Collected =>	05/24/88		05/24/88		05/24/88		05/24/88		05/24/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE	95.000	J	95.000	J	180.000	J	180.000	J	210.000	J
108-88-3	TOLUENE	2.000	J	2.000	J	2.000	J	2.000	J		
100-41-4	ETHYLBENZENE	2.000	J	2.000	J						
1330-20-7	XYLENES (TOTAL)	3.000	J	3.000	J						

	Location Alias =>	RAS		RAS		RAS		RAS		TCLP	
	Location ID =>	SL37H		SL42A		SL42B		SL42C		SL42D	
	SMO or Sample ID =>	MEX391		EX374		EX375		EX376		EX396	
	Date Collected =>	05/24/88		06/16/87		06/16/87		06/16/87		06/17/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
67-64-1	ACETONE	210.000	J	23.000		18.000		20.000		85.000	
108-10-1	4-METHYL-2-PENTANONE									10.000	J

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL42E	SL42E(D)	SL42F	SL42G	SL42H
	SMO or Sample ID =>	EX377	EX378	EX379	EX380	EX381
	Date Collected =>	06/16/87	06/16/87	06/16/87	06/16/87	06/16/87
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
67-64-1	ACETONE	49.000 J	60.000 J	32.000	330.000 EJ	920.000
75-15-0	CARBON DISULFIDE	2.000 J				
108-88-3	TOLUENE		15.000 J	6.000 J		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL45A		SL48B		SL48C		SL48D		SL48E	
	SMO or Sample ID =>	EX257		EX202		EX203		EX204		EX205	
	Date Collected =>	06/05/88		05/13/88		05/13/88		05/13/88		05/13/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME					33.000		35.000		30.000	
67-64-1	ACETONE			180.000				44.000		340.000	E
67-66-3	CHLOROFORM					2.000	J	2.000	J	3.000	J
71-55-6	1,1,1-TRICHLOROETHANE					4.000	J	3.000	J	3.000	J
79-01-6	TRICHLOROETHENE	1.000	J								
127-18-4	TETRACHLOROETHENE							1.000	J	4.000	J
108-88-3	TOLUENE					2.000	J	3.000	J	4.000	J
100-41-4	ETHYLBENZENE					1.000	J	2.000	J	8.000	
1330-20-7	XYLENES (TOTAL)					2.000	J			13.000	

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL48E	SL48E	SL48E	SL48G	SL48H
	SMO or Sample ID =>	EX205RE	EX205DL	EX205DR	EX207	EX208RE
	Date Collected =>	05/13/88	05/13/88	05/13/88	05/18/88	05/18/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME			30.000		
67-64-1	ACETONE	390.000 E*	450.000	400.000	160.000 J	
127-18-4	TETRACHLOROETHENE	6.000 J	8.000 J	5.000 J		
108-88-3	TOLUENE	25.000				1.000 J
108-90-7	CHLOROBENZENE	11.000	13.000	16.000		
100-41-4	ETHYLBENZENE	14.000	16.000	33.000		
1330-20-7	XYLENES (TOTAL)	14.000	21.000	23.000		

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL59A		SL59F		SL62C		SL65A		SL65B	
	SMO or Sample ID =>	EX266		EX271		EX289		EX245		EX246	
	Date Collected =>	06/06/88		06/06/88		06/14/88		06/03/88		06/03/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME							9.000	J	18.000	
67-64-1	ACETONE					330.000	B	16.000		54.000	
75-35-4	1,1-DICHLOROETHENE							3.000	J		
71-55-6	1,1,1-TRICHLOROETHANE	1.000	J					4.000	J		
108-88-3	TOLUENE							4.000	J		
108-90-7	CHLOROBENZENE			6.000	J						

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL65C	SL65E	SL65E(D)	SL65F	SL65G
	SMO or Sample ID =>	EX247	EX248DL	EX249DL	EX250	EX251
	Date Collected =>	06/03/88	06/03/88	06/03/88	06/03/88	06/03/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	29.000 J	41.000 DJ	64.000 DJ	6.000 J	15.000 J
67-64-1	ACETONE	130.000	790.000 D	470.000 D	49.000	

	Location Alias =>	RAS	RAS	RAS	RAS	RAS
	Location ID =>	SL65H	SL68A	SL68B	SL68C	SL68E
	SMO or Sample ID =>	EX252	EX229DL	EX230DL	EX231DL	EX232DL
	Date Collected =>	06/03/88	06/01/88	06/01/88	06/01/88	06/01/88
CAS	Chemical Name	Reading Qual	Reading Qual	Reading Qual	Reading Qual	Reading Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	7.000 J	140.000 D	90.000 D	52.000 D	79.000 D
67-64-1	ACETONE	19.000		1300.000 DJ	1700.000 DEJ	2000.000 DEJ

	Location Alias =>	RAS		RAS		RAS		RAS		RAS	
	Location ID =>	SL68ED		SL68F		SL68G		SL68H		SL68H	
	SMO or Sample ID =>	EX242DL		EX240DL		EX241DL		EX243		EX243DL	
	Date Collected =>	06/01/88		06/01/88		06/01/88		06/01/88		06/01/88	
CAS	Chemical Name	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual	Reading	Qual
75-09-2	METHYLENE CHLORIDE (DICHLOROME	70.000	D	44.000	D	56.000	D	11.000		73.000	D
67-64-1	ACETONE			200.000	D	760.000	DJ	3000.000	EJ		

FISHER-CALO File #3, RI/FS Work Plan Section 4.12.4 - Technical Coordination Meetings, Budget Discussions, and Contractor (CDM) Correspondence

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
NANCY A. MALOLEY, Commissioner

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317-232-8603

RECEIVED
NOV 20 1987
U.S. EPA REGION V
WASTE MANAGEMENT DIVISION

November 17, 1987

Mr. Brad Bradley, 5HE
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

Re: Work Assignment Amendment,
Fisher-Calo

Dear Mr. Bradley:

The Indiana Department of Environmental Management has completed review of the above referenced document. The scope of the work proposed and the areas where the work is to be done appear to be adequate and will more accurately describe the nature and extent of any existing contamination. Consequently, there are no technical comments which need to be addressed.

Please contact Mr. Dan Menefee of my staff at AC 317/243-5054 if you have any questions or comments in regard to this matter.

Very truly yours,

Reginald O. Baker, Jr.

Reginald O. Baker, Chief
Superfund Site Management Section
Office of Environmental Response

DM/cl

5HS-11

APR 0 7 1989

Ms. Jil Line
Site Manager
Camp Dresser & McKee, Inc.
200 West Adams Street,
Suite 1600
Chicago, Illinois 60606

Dear Ms. Line:

The U.S. EPA hereby authorizes Camp Dresser & McKee Inc. and/or its subcontractors to dispose of all drilling fluids from "clean" monitoring wells at the Fisher-Calo site in Kingsbury, Indiana at an on-site location to be selected by Robert Stevens, Manager, Kingsbury Industrial Park. Authorization has already been obtained from Mr. Stevens. U.S. EPA representatives will assist in the determination of which drilling fluids will be disposed of on-site.

If you have any questions concerning this letter, please contact me at (312) 886-4742.

Sincerely yours,

Brad Bradley
Remedial Project Manager

cc: Dan Menefee, IDEM

bcc: B. Kush, IL/IN Unit #3
S. Kaiser, 5CS-TUB-03

BB 4/7/89

File;(1)(M)jffc.d#6;myr;RERB;IL/INUnit#3(Bradley)4/7/89

CDM
environmental engineers, scientists, planners, & management consultants

CAMP DRESSER & McKEE INC.
200 West Adams Street, Suite 1600
Chicago, Illinois 60606
312 786-1313

RECEIVED
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASTE MANAGEMENT DIVISION
OFFICE OF SUPERFUND

must be wrong & gone

November 30, 1987

Mr. Brad Bradley
Remedial Project
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Project: REM II - EPA Contract No. 68-01-6939

Document No.: 209-RI1-EP-FNGM-1

Subject: Substitution of Monitoring Wells Installed during Phase I RI at Fisher-Calo Chemical Site, Kingsbury Indiana

Dear Mr. Bradley:

During RI1 field activities at the Fisher-Calo Chemical site (FCC), monitoring wells MW29 and MW30 were installed at the locations indicated on the attached map. The installation of these two monitoring wells was to have occurred during Phase II of the FCC RI. However, due to access problems, MW29 and MW30 were installed during Phase I in place of wells which would have been located in areas where access was denied.

If you have any questions concerning this matter, please contact me or Jil Line. Thank you.

Sincerely,

CAMP DRESSER & McKEE INC.

Jil Line
for Daniel F. Buss
Site Manager

DFB/hm

Attachment

cc: J. Line
Doc. Control
File #209-80

10702/02

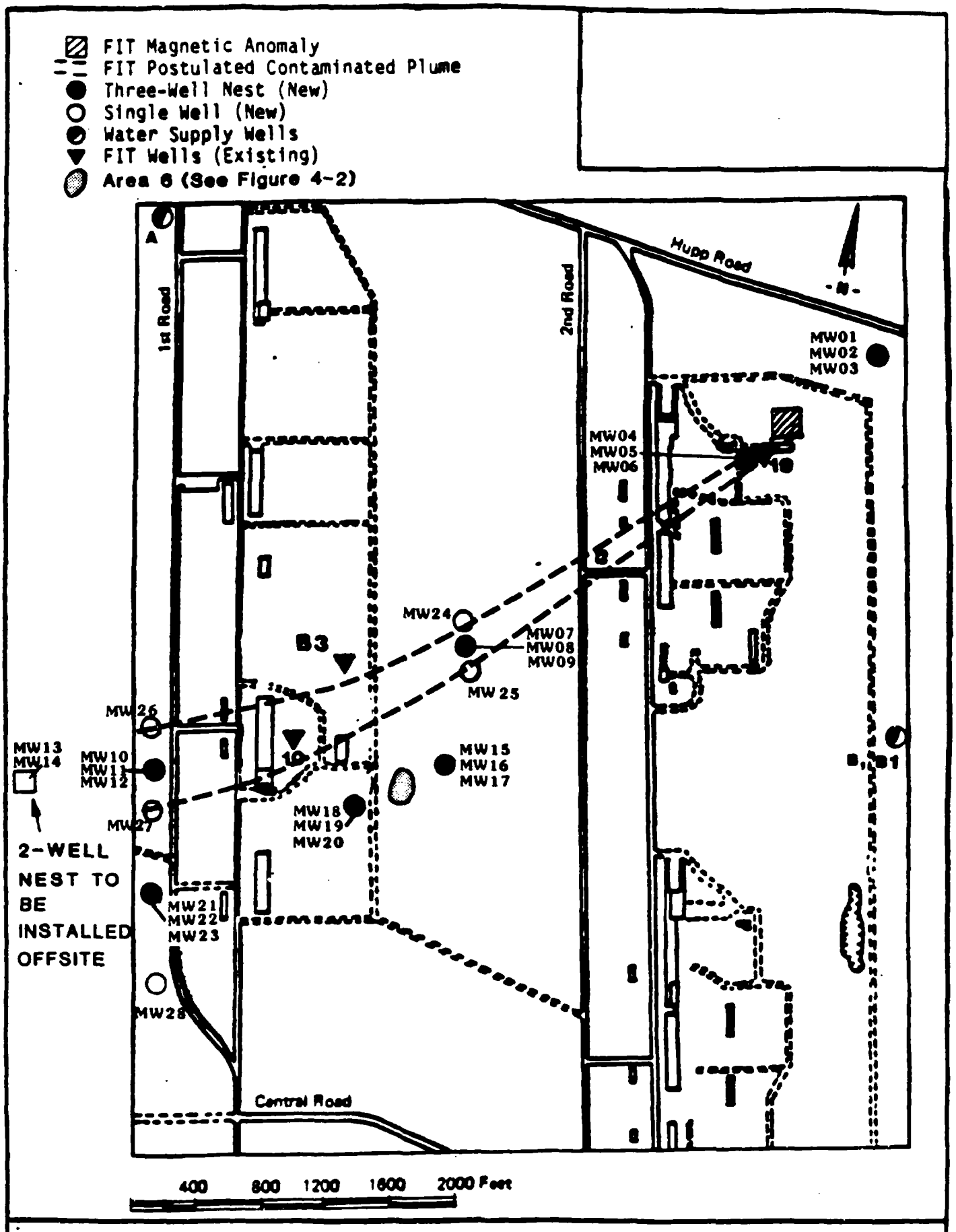


FIGURE 4-4

MONITORING WELL LOCATIONS

CDM

CAMP DRESSER & McKEE INC.

CDM

environmental engineers, scientists, planners, & management consultants

CAMP DRESSER & McKEE INC.

11 East Adams Street, Suite 1100
Chicago, Illinois 60603
312 786-1313

January 14, 1987

Mr. Brad Bradley
Remedial Project Manager
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Subject: Addition of Phase II Study to Fisher-Calo Chemical RI/FS Work Plan

Document No.: 209-RI1-IO-DVHH-1

Dear Mr. Bradley:

As we discussed, this letter will serve as documentation of the intent to add a Phase II Study to the Fisher-Calo Work Plan.

This Phase II Study will include additional field investigation activities in the areas indicated on the attached figure. Specific tasks will be identified and developed based on the results of geophysical surveys to be performed in February, 1987. Also, to be included in the Phase II study is preparation of a bid document for conducting an aerial survey of the site in order to obtain a boundary map and topographic maps.

The changes in the Scope of Work at the Fisher-Calo Chemical site will be further defined in a Work Plan Amendment to be developed after the result of the preliminary geophysical surveys have been considered.

If you have any questions concerning this letter, please contact me or Jil Line.

Sincerely,

CAMP DRESSER & McKEE INC.

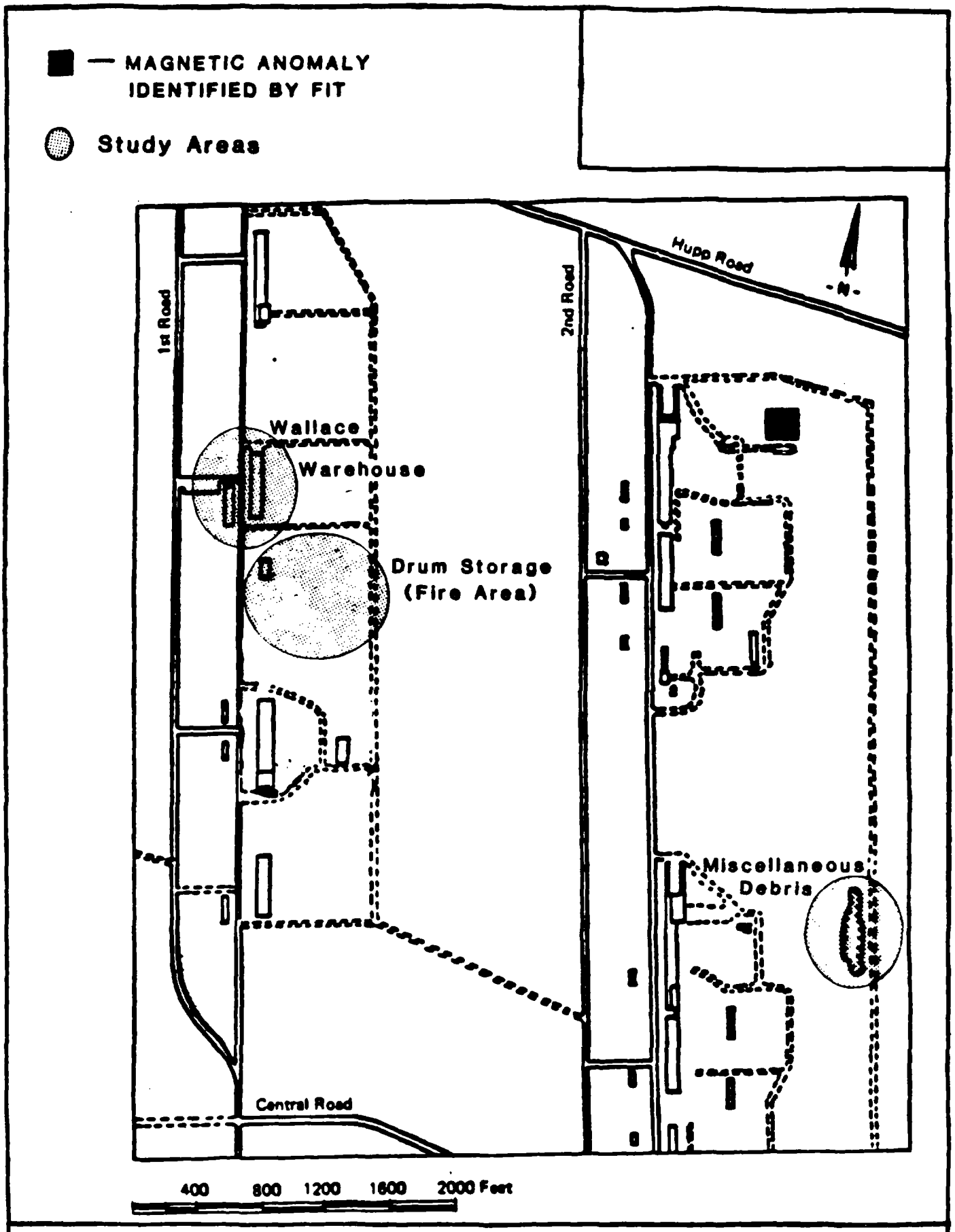
Daniel F. Buss
Site Manager

DFB/sap

Attachment

cc: Jil Line
Contract File

10402/50



Phase II Study Areas

CDM

CAMP DRESSER & McKEE INC.

CDM

environmental engineers, scientists, planners, & management consultants

CAMP DRESSER & McKEE INC.

11 East Adams Street, Suite 1100
Chicago, Illinois 60603
312 786-1313

January 13, 1987

Mr. Brad Bradley
Remedial Project Manager
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Project: REM II - EPA Contract No. 68-01-6939

Document No.: 209-RI1-EP-DVDQ-1

Subject: Geophysical Survey at Fisher-Calo Chemical and Solvents Site, Kingsbury, Indiana

Dear Mr. Bradley:

This letter will serve as confirmation regarding your conversation with Jil Line on January 8, 1987, requesting the EPA to perform geophysical survey work at the Fisher-Calo Chemical & Solvents Site.

My understanding of the arrangement is that Mark Vendl of the EPA will be coordinating the geophysical survey work, tentatively scheduled for February 9, 1987. Prior to the geophysical survey work, CDM will develop the grid network for data station locations. CDM will also arrange to have the grid network measured and staked out by a professional surveyor.

Final selection of geophysical survey areas will be determined after a site visit to be conducted on January 15, 1987, by Brad Bradley (EPA, RPM), Mark Vendl (EPA) and Jil Line (CDM).

Please contact me or Jil Line if there are any questions regarding this matter. Thank you.

Very truly yours,

CAMP DRESSER & McKEE INC.

Daniel F. Buss, P.E.
Site Manager

DFB/JL:sap

20906/21

SME-12

DEC 23 1986

Daniel F. Buss, P.E.
Site Manager
Camp Dresser & McKee, Inc.
5215 N. Ironwood Road, Suite 109
Milwaukee, Wisconsin 53217

Dear Mr. Buss:

In response to our discussions on December 11, 1986, U.S. EPA hereby grants approval to CDM to perform initial electromagnetic (EM) surveys on the portions of the Fisher-Calo properties in Kingsbury, Indiana for which access has been obtained. This approval will allow CDM to mobilize for the EM surveys in January 1987, regardless of the approval status of the Quality Assurance Project Plan.

In addition, a memo to U.S. EPA must be written to address the addition of a Phase II study, to be generated subsequent to the results of the initial EM surveys, which will investigate the areas circled on the attached figure.

If you have any questions concerning this letter, please contact me at (312) 886-4742.

Sincerely yours,

Brad Bradley, Remedial Project Manager
Region V SARA Enforcement Section

Attachment

CAMP DRESSER & McKEE INC.

MEMORANDUM

TO: Brad Bradley (EPA - RPM)

FROM: Dan Buss (REM II - ~~SM~~)

DATE: October 6, 1986

RE: Site Visit - Kingsbury Industrial Park
Fisher-Calo, Project 108-5L13(116J)

DOCUMENT NO: 209-RI1-EP-DJTZ-1

This memorandum presents information gathered during the September 30, 1986 site visit to the Kingsbury Industrial Park. The visit was conducted by Jil Line (CDM), Brad Bradley (EPA) and Dan Buss (CDM). The objectives were to visually locate the various sampling locations and determine if access problems existed. If access problems existed, could sampling points be relocated and still meet the objectives of the study. EPA had recently been informed that access to the Fisher property would not be available.

Initially, the aforementioned people met with Mr. Robert Stevens, Manager of the Kingsbury Industrial Park. He was very helpful in addressing our questions, locating the sampling locations and presenting a history of the property. Mr. Stevens said that recently the area of suspected container burial had been excavated. This past activity could be seen by the presence of a large mound of soil placed near the northern part of the site. Rows of corn and our inability to walk on the site limited our viewing the area assumed to have been excavated. Jil Line said that various tanks were present lying on their side that were not present during her last visit to the site.

Access problems are associated with the following locations:

Soil Sampling Locations (SL)

SL01, SL09, SL10, SL11, SL12, SL14, SL15, SL17, SL21, SL22

Monitoring Wells (MW)

MW04, MW05, MW06, MW18, MW19, MW20

Surface Water (SW)

No Access Problems

These sample locations are presented in the Work Plan for Fisher-Calo Chemical and Solvents site.

There are currently four (4) existing residential wells that the study team proposes to sample. These wells were described by Mr. Stevens as being in use and their general locations are presented in Figure 1. Well "RWE" is located to the northwest of the Fisher property; well "RWB" located to the southeast of the excavated area on the Fisher two line facility property; well "RWF" located to the southwest of the junction of Central and First Roads and well "RWM2" located near the junction of Cemetery Road and U.S. Highway 6.

These wells circumvent the site area. Assuming a groundwater flow in a southwesterly direction, wells RWM2 and RWF would be downgradient, with RWE being upgradient and RWB located downgradient but slightly to the southeast of the excavated area of the two-line facility.

Upon your approval to sample these wells, we will develop a base map to scale locating these wells along with all other sampling locations. This map will be developed from existing USGS and aerial maps of the study area.

At present, neither USEPA or the REM II team has information documenting the transport of hazardous waste off site through excavation of the northern part of the site. Mr. Stevens said that drums and other material were taken to the County landfill. USEPA will request copies of manifests from the State of Indiana to determine if hazardous wastes had been removed, their characteristics, and ultimate destination. In addition, aerial photographs of the site depicting current conditions will be taken.

DFB:jf

cc: J. Line
209-RI1 File

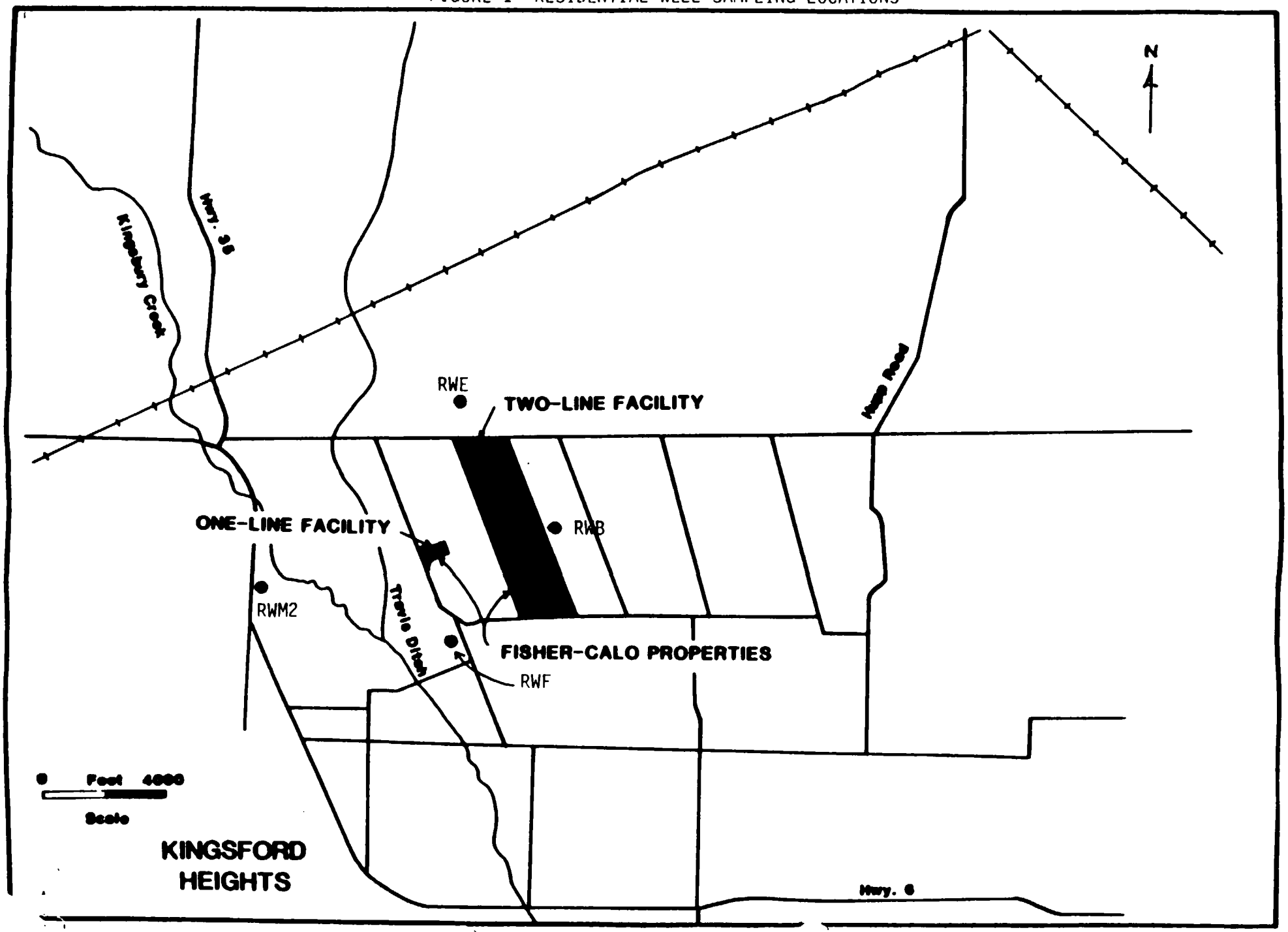



FIGURE 1 RESIDENTIAL WELL SAMPLING LOCATIONS