1.0 INTRODUCTION

International Technology Environmental Services (ITES) was retained by Kamur Industries on 04 December 1990, to execute monthly and rainstorm event sampling programs. The following report is a historical sampling summary, including all ITES sampling results to date.

2.0 SAMPLING PROGRAMS

2.1 MONTHLY SAMPLING

Monthly events include monitoring and sampling the four (4) existing monitoring wells, the sump and four (4) predetermined points along El Cerrito Creek.

The monitoring wells were installed by Subsurface Consultants Inc. on 01 August 1989. The initial soil and groundwater samples were collected by SCI on 01 and 03 August 1989. A monthly groundwater sampling program was installed by ITES on 04 December 1989, with the monthly sampling events conducted on 08 December 1989 and 03 January 1990.

The sump was installed on 10 and 11 October 1989 by Riedel Environmental Services, to abate the flow of contaminants into the creek. The sump was sampled in conjunction with the ITES monthly sampling programs in December 1989 and January 1990.

In August 1989, SCI identified three (3) sampling locations along El Cerrito creek, which borders the site on the north. The three (3) original creek sampling points are as follows:

PT-1 = 20' upstream
PT-2 = storm drain outlet
PT-3 = 20' downstream

These points were sampled on 03 August 1989, and were modified by ITES in December 1989:

PT-1 = 20' upstream
PT-2 = mouth of the drainage pipe
PT-3 = drainage flow/creek interface
PT-4 = 35' downstream

Sampling point PT-1 was established 20 feet upstream of the drain outfall, in order to identify any background contamination. Point PT-2 was selected to define the contaminant concentrations prior to the initial remedial step (absorbent pads) positioned immediately beneath the storm drain. Point PT-3 is situated to reveal the effectiveness of the pads and determine the amount of dilution of outfall by creek mixing. Absorbent boom has been installed between points PT-3 and Pt-4, to collect any remaining contaminants not removed by the absorbent pads. Point PT-4 is located approximately 10' beyond the boom to determine the adequacy of the remedial measures.

2.2 STORM EVENT SAMPLING

The creek is sampled 48 hours following the cessation of any significant rain storm event. A significant rain event was initially defined as rainfall greater than or equal to 0.5 inches, however on 16 January 1990 Hosain Kazemi (San Francisco Bay Regional Water Quality Control Board) requested that the significant rainfall accumulation figure be decreased to 0.25 inches. Mr. Kazemi's contention is that rain events frequently occur which measure below 0.5 inches in accumulation, and in view of the topography surrounding the site, a rainfall of 0.25 inches is sufficient to produce runoff. Rainfall samplings were executed on 03 January (in conjunction with the January monthly sampling run) and on 15 January and 17 January 1990, following the rain events of 01, 13 and 15 January 1990.

3.0 METHODOLOGY

3.1 MONTHLY SAMPLING

Water levels and samples were obtained from each of the four (4) existing monitoring wells, the sump and four predetermined locations along El Cerrito Creek. Monthly sampling activities were executed on 08 December 1989 and 03 January 1990, with an initial sampling run conducted on 01 and 03 August 1989. Monitoring was executed to aid in determining groundwater flow characteristics with sampling to facilitate contaminant plume delineation.

Sampling procedures conformed to the California Regional Water Quality Control Board - San Francisco Bay Region Guidelines for Addressing Fuel Leaks, September 1985; Tri-Regional Recommendations for Initial Evaluation and Investigation of Underground Tanks, 18 May 1989; and the LUFT Manual, March 1989.

One to three well volumes were evacuated from each well, to ensure the samples are representative of the surrounding aquifer. The wells were allowed to recharge and groundwater samples were collected from the wells with a Voss Industries decontaminated disposable teflon bailer. Sump and creek samples were obtained with the use of a decontaminated glass jar. Water samples were placed directly from the bailer or jar into the appropriate sample containers. No headspace was left in the samples to be analyzed for volatile organic constituents. Each container was placed in a "zip-lock" bag, security taped, and placed in a refrigerated ice chest. until delivery to the licensed, contracted laboratory. Chain of custody forms accompanied the samples at all times.

3.2 STORM EVENT SAMPLING

Storm event sampling is conducted 48 hours following the cessation of any significant rain event, to determine storm runoff influence in El Cerrito Creek.

Sampling procedures were those delineated above in 3.1 Monthly Sampling.

4.0 LABORATORY ANALYSES

The water samples were analyzed by International Technology Analytical Services (ITAS) California License #137 for Total Petroleum Hydrocarbons (TPH) as gas, and Benzene, Toluene, Ethyl Benzene and Xylene (BTEX). Analyses were executed by EPA methods 5030 and 8020 respectively. The results of the analyses are summarized in Tables 1, 2 and 3, with copies of the laboratory reports and chain of custody forms following this report.

5.0 RESULTS

An initial baseline sampling run was conducted during well installation procedures in August 1989, with monthly sampling events being conducted in December 1989 and January 1990. Contaminant concentrations encountered in monitoring wells MW-1 and MW-2 were found to decrease over time. Free product was encountered in wells MW-3 and MW-4 during the monthly sampling events of December 1989 and January 1990, which was not present during the initial sampling run in August 1989.

Point PT-1 in El Cerrito Creek (upstream) has continued to reveal contaminant levels below detection limits, with contaminant levels detected at points PT-2 and PT-4 decreasing over time. Point PT-3 exhibited a slight increase in contaminant levels, however the most recent sampling results revealed contaminant concentration levels below the detection limits.

Contaminant levels discovered in the sump have remained fairly consistent during the monthly samplings.

5.0 CONCLUSIONS

1. Groundwater flow, as calculated with monthly well monitoring data, is to the west-northwest. Following a rain event, groundwater flow is modified, flowing to the southeast.

2. No detectable, background upstream contamination has been discovered.

3. Contaminant levels at point PT-4 (downstream) have decreased over time to below detectable levels, confirming the effectiveness of the remedial methods employed thus far.

4. Contaminant levels detected at point PT-3 are significantly lower than the levels detected at PT-2 (contaminant source), confirming the effectiveness of the initial remedial measure. Contaminant levels encountered at PT-2 have decreased approximately 30 fold since the initial sampling in August of 1989.

5. Contaminant levels in monitoring well MW-1 have decreased to below detectable levels, however this wells screened casing is installed ten feet lower than the screen in the other three wells. The groundwater samples obtained from monitoring well MW-1 are assumed to be from a different aquifer than the those from the remaining wells.

6. Contaminant levels in monitoring well MW-2 have decreased over time, which may be due to the contaminant plume traveling away from the location of this well.

7. Free product has been discovered in monitoring wells MW-3 and MW-4, which was not present during the initial sampling run in August 1989. This fact supports the hypothesis that contaminants are traveling from the leak site to the north northwest, encountering the storm drain fill zone, and entering El Cerrito Creek.

8. Contaminant levels in the sump have remained relatively consistent as revealed by the sampling events of December 1989 and January 1990.

TABLE 1
KAMUR INDUSTRIES
MONTHLY GROUNDWATER SAMPLING
MONITORING WELLS
RESULTS IN PARTS PER BILLION (PPB)

MONITORING WELL MW-1

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
08/03/89	16,000	1,800	1,800	1,200	210
12/08/89	BDL	21	12	17	7.7
01/03/90	BDL	6,300	530	410	900

MONITORING WELL MW-2

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
08/03/89	80,000	9,100	12,000	7,100	460
12/08/89	13,000	13,000	8,400	750	2,500
01/03/90	5,500	NA	NA	NA	NA

MONITORING WELL MW-3

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
08/03/89	71,000	20,000	21,000	7,900	580
12/08/89*	NA	NA	NA	NA	NA
01/03/90*	NA	NA	NA	NA	NA

* Not sampled due to the presence of free product.

MONITORING WELL MW-4

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
08/03/89	14,000	2,000	1,500	1,000	BDL
12/08/89*	NA	NA	NA	NA	NA
01/03/90*	NA	NA	NA	NA	NA

* Not sampled due to the presence of free product.

NOTE:

BDL = below detection limit
NA = not analyzed

TABLE 2
KAMUR INDUSTRIES
MONTHLY GROUNDWATER SAMPLING
SUMP
RESULTS IN PARTS PER BILLION (PPB)

SUMP SP-1

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
12/08/89	55,000	26,000	25,000	2,100	13,000
01/03/90	72,000	22,000	25,000	2,400	13,000

NOTE: Results in parts per billion (ppb)

TABLE 3
KAMUR INDUSTRIES
STORM EVENT SAMPLING (PPT > 0.25 IN) AND MONTHLY SAMPLING
EL CERRITO CREEK
RESULTS IN PARTS PER BILLION (PPB)

POINT 1

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
08/03/89	BDL	BDL	BDL	BDL	BDL
12/08/89	BDL	NA	NA	NA	NA
01/03/90+	BDL	NA	NA	NA	NA
01/15/90*	BDL	NA	NA	NA	NA
01/17/90*	BDL	NA	NA	NA	NA

POINT 2

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
08/03/89	470,000	16,000	29,000	4,200	29,000
12/08/89	33,000	NA	NA	NA	NA
01/03/90+	99,000	NA	NA	NA	NA
01/15/90*	16,000	NA	NA	NA	NA
01/17/90*	15,000	NA	NA	NA	NA

POINT 3

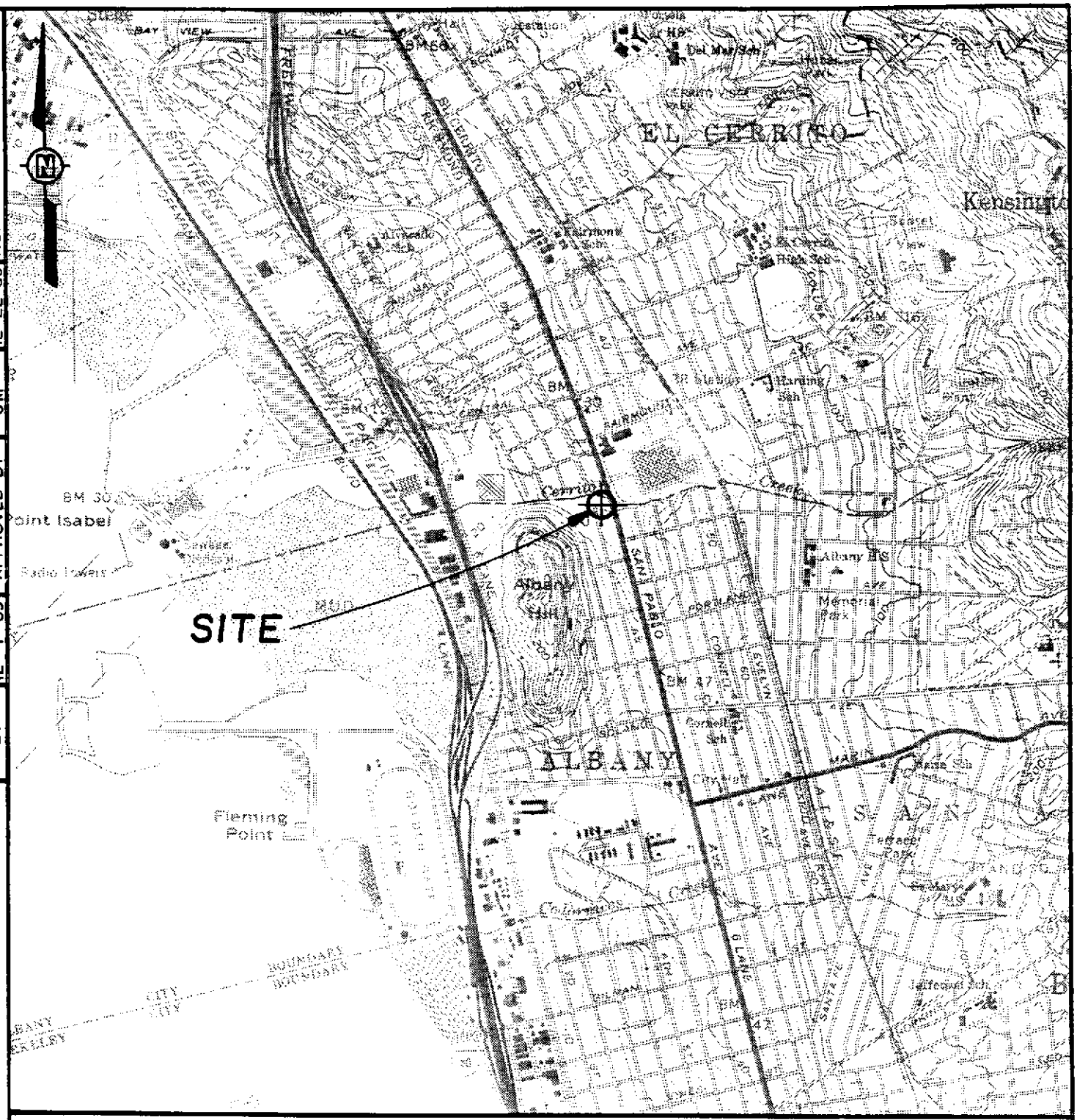
Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
12/08/89	BDL	NA	NA	NA	NA
01/03/89+	900	NA	NA	NA	NA
01/15/90*	840	NA	NA	NA	NA
01/17/90*	BDL	NA	NA	NA	NA

POINT 4

Date Sampled	TPH (Gas)	Benzene	Toluene	Ethyl Benzene	Xylene
08/03/89	2,700	88	8	BDL	210
12/08/89	BDL	NA	NA	NA	NA
12/22/89?	800	NA	NA	NA	NA
01/03/90+	800	NA	NA	NA	NA
01/15/90*	BDL	NA	NA	NA	NA
01/17/90*	160	NA	NA	NA	NA

NOTE:

BDL = below detection limit
NA = not analyzed
* = storm event sampling
+ = monthly and storm event programs completed
? = one point sampling to test remediation method efficiency



DRAWN BY	T R S	CHECKED BY	GM	12-22-89	DRAWING NUMBER 148031-A1
	12-7-89	APPROVED BY	GM	12-22-89	

SCALE

0 2000 4000 FEET

FIGURE 1

SITE VICINITY MAP
PLAZA CAR WASH
400 SAN PABLO AVENUE
ALBANY, CALIFORNIA
PREPARED FOR

KAMUR INDUSTRIES, INC.
ALAMEDA, CALIFORNIA

REFERENCE:
U.S.G.S. 7.5' MIN. TOPOGRAPHY, RICHMOND, CA. QUADRANGLE, DATED 1959 PHOTOREVISED 1968 AND 1973, SCALE = 1:24000

INTERNATIONAL TECHNOLOGY CORPORATION

146494

Do Not Scale This Drawing

DRAWN BY		CHECKED BY			DRAWING NUMBER
		APPROVED BY			

146494

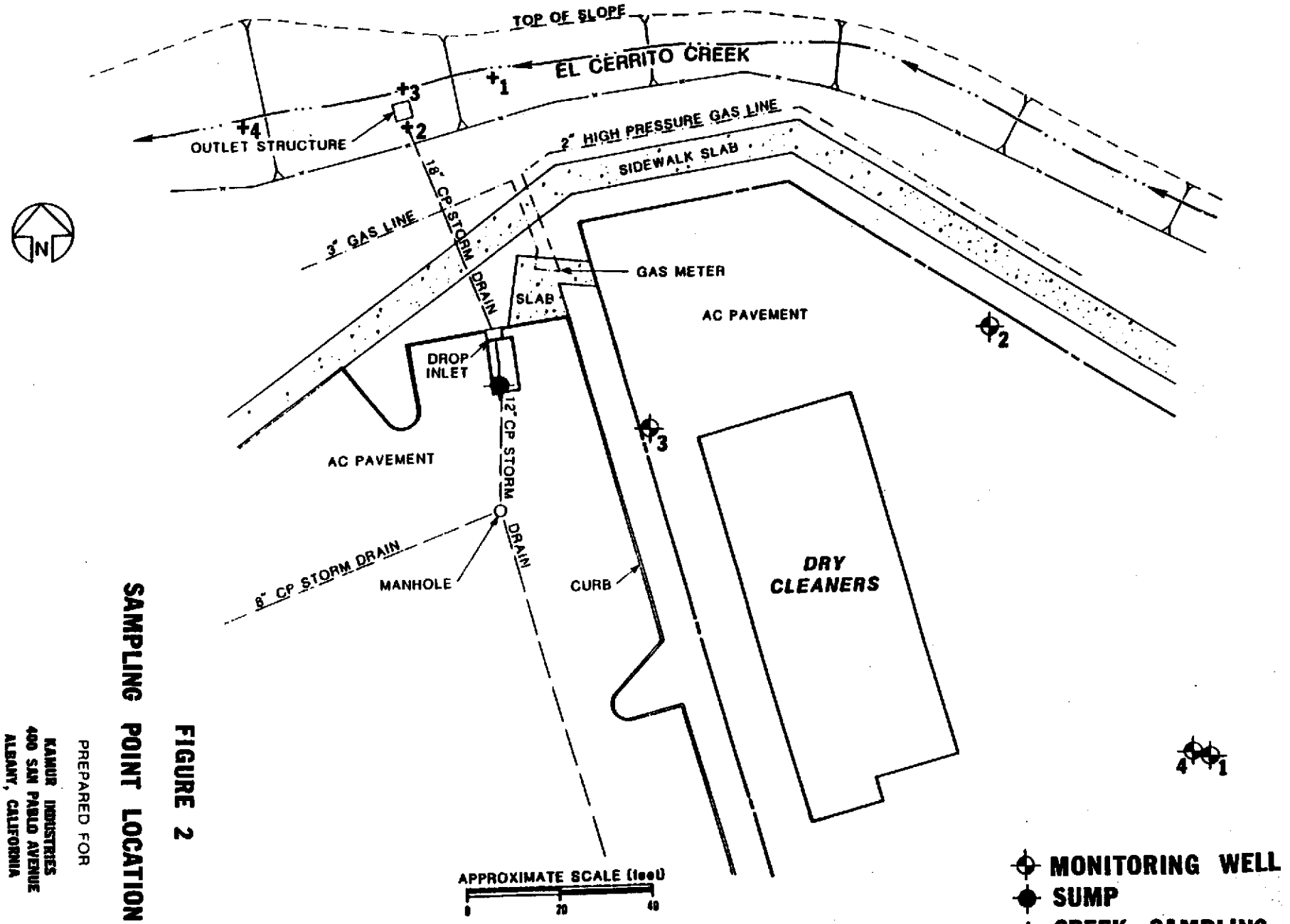


FIGURE 2

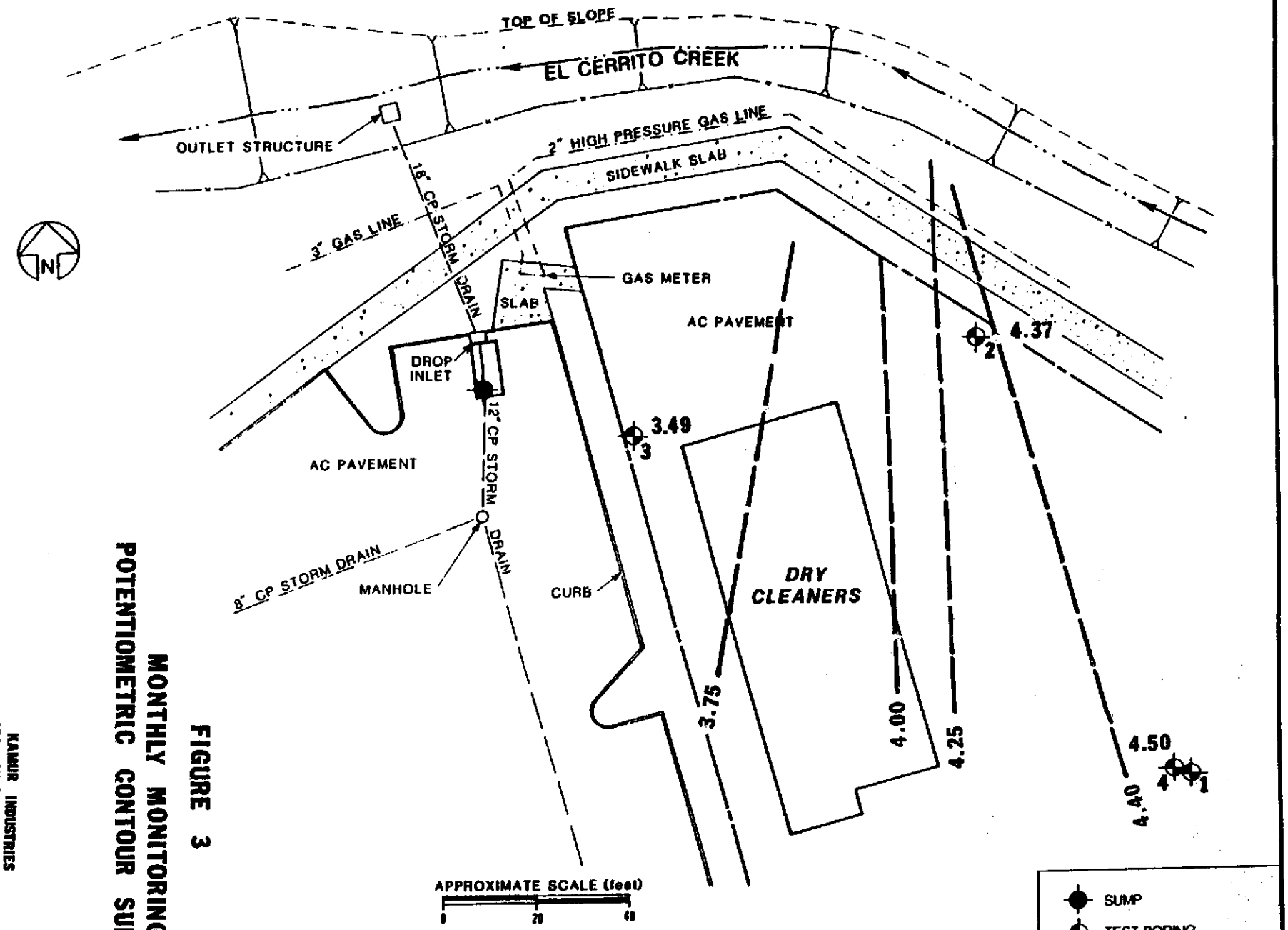
SAMPLING POINT LOCATION MAP

PREPARED FOR

KAMUR INDUSTRIES
400 SAN PABLO AVENUE
ALBANY, CALIFORNIA

INTERNATIONAL TECHNOLOGY CORPORATION

DRAWN BY		CHECKED BY			DRAWING NUMBER
		APPROVED BY			



INTERNATIONAL TECHNOLOGY CORPORATION

KAMUR INDUSTRIES
400 SAN PABLO AVENUE
ALBANY, CALIFORNIA

FIGURE 3

MONTHLY MONITORING
POTENTIOMETRIC CONTOUR SURFACE

146494

DRAWN BY		CHECKED BY		DRAWING NUMBER
		APPROVED BY		

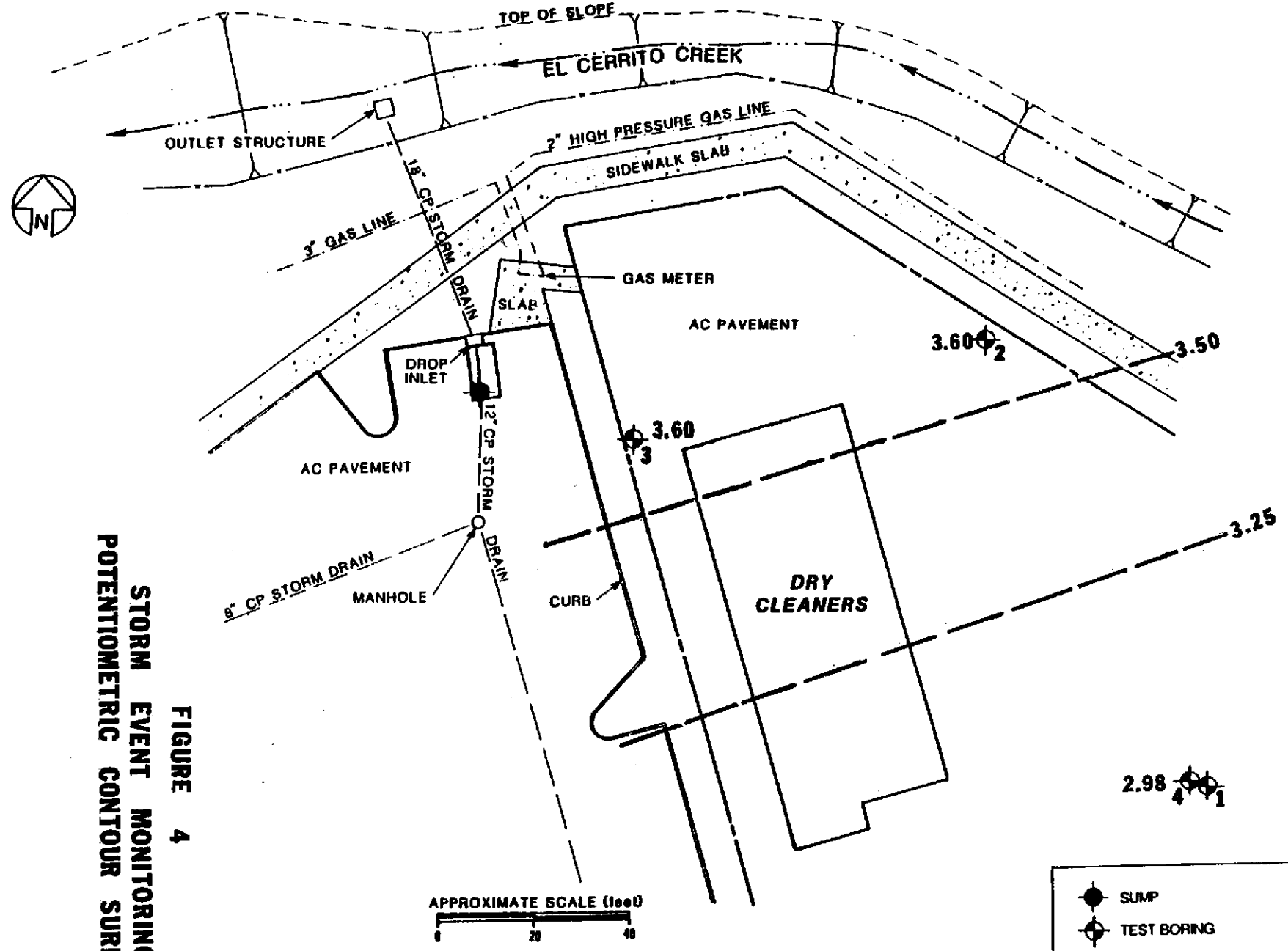


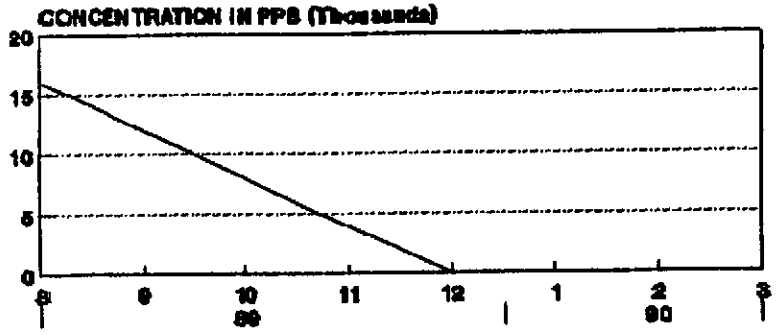
FIGURE 4

STORM EVENT MONITORING
POTENTIOMETRIC CONTOUR SURFACE

INTERNATIONAL TECHNOLOGY CORPORATION

KAMUR INDUSTRIES
400 SAN PABLO AVENUE
ALBANY, CALIFORNIA

KAMUR INDUSTRIES
MONITORING WELL MW-1

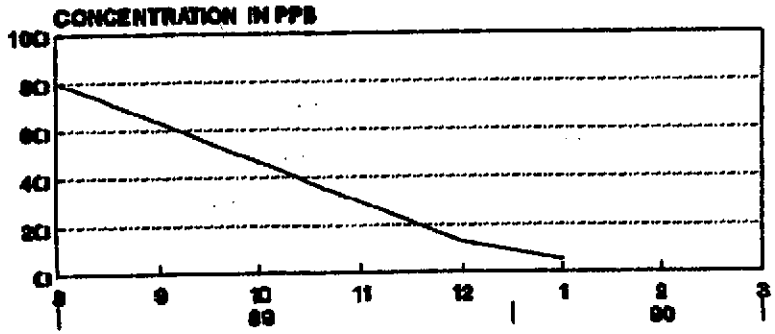


ANALYSIS

— TPH AS GASOLINE

MONTHLY SAMPLING

KAMUR INDUSTRIES
MONITORING WELL MW-2

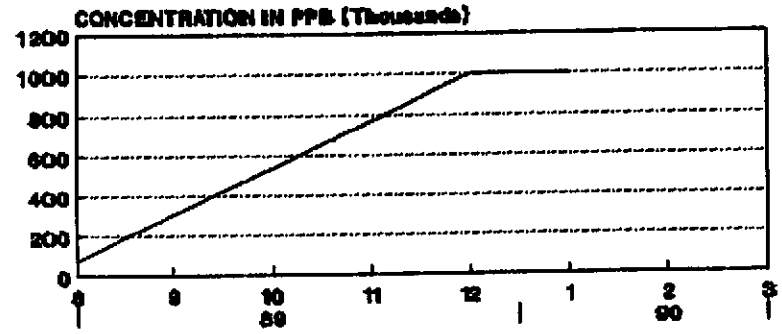


ANALYSIS

— TPH AS GASOLINE

MONTHLY SAMPLING

KAMUR INDUSTRIES
MONITORING WELL MW-3

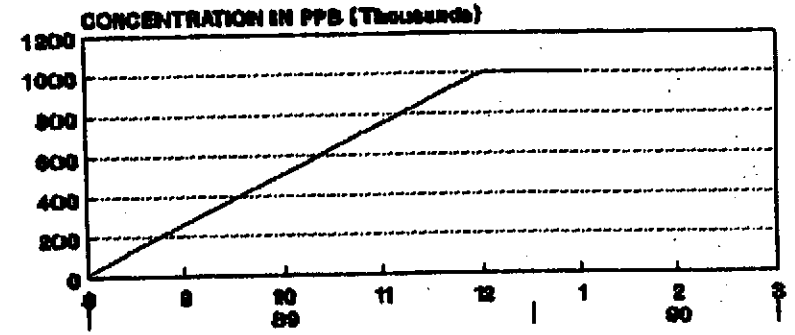


ANALYSIS

— TPH AS GASOLINE

NOTE: FREE PRODUCT DISCOVERED DEC + JAN

KAMUR INDUSTRIES
MONITORING WELL MW-4

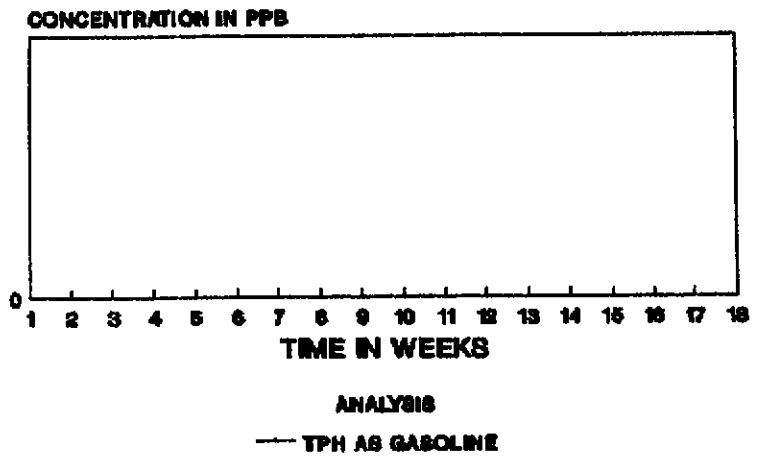


ANALYSIS

— TPH AS GASOLINE

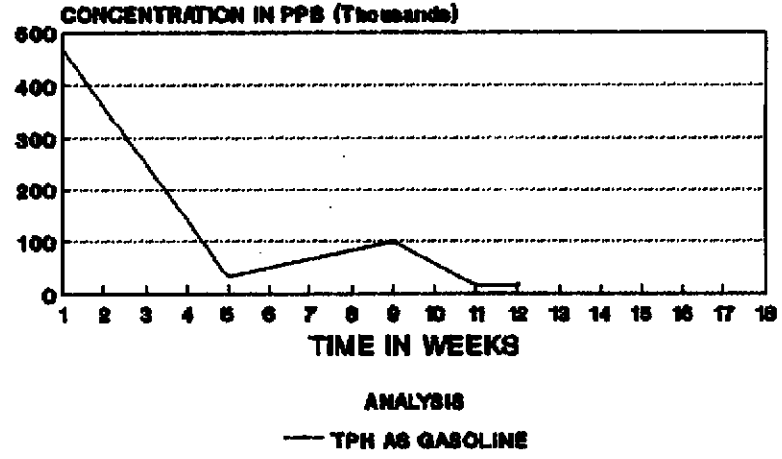
NOTE: FREE PRODUCT DISCOVERED DEC + JAN

KAMUR INDUSTRIES
EL CERRITO CREEK SAMPLING - PT1



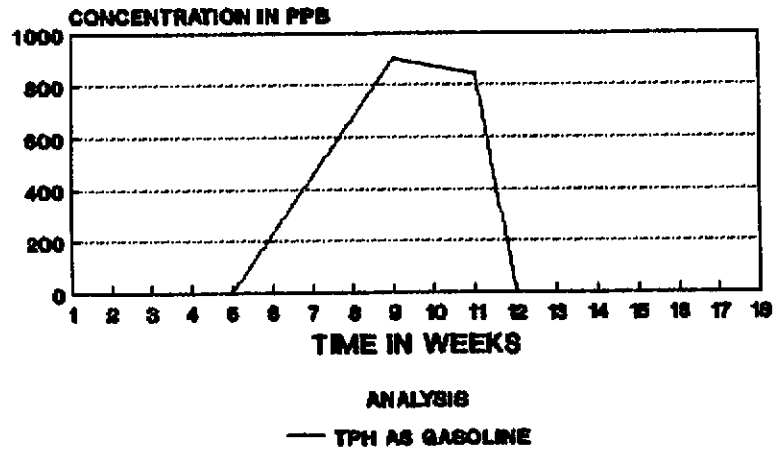
POINT 1 - 50' UPSTREAM

KAMUR INDUSTRIES
EL CERRITO CREEK SAMPLING - PT2



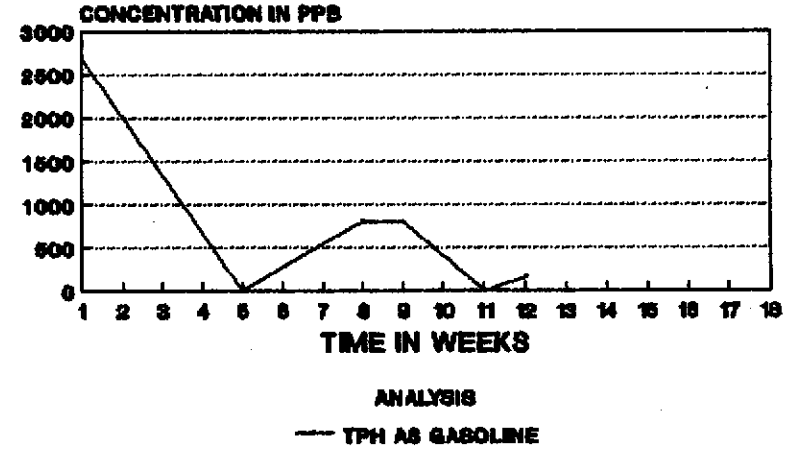
POINT 2 - MOUTH OF STORM DRAIN

KAMUR INDUSTRIES
EL CERRITO CREEK SAMPLING - PT3



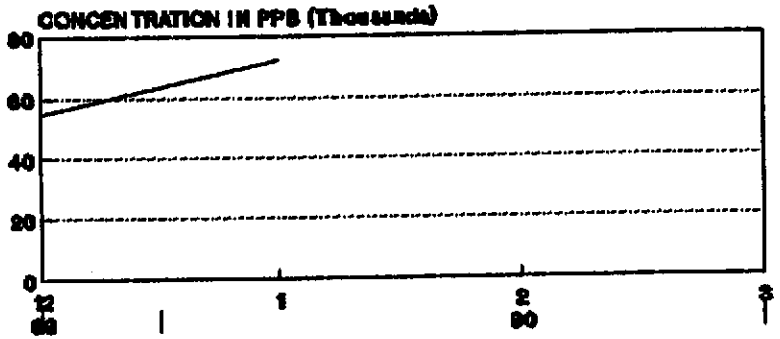
POINT 3 - DRAINAGE FLOW/CREEK INTERFACE

KAMUR INDUSTRIES
EL CERRITO CREEK SAMPLING - PT4



POINT 4 - 50' DOWNSTREAM

KAMUR INDUSTRIES
MONTHLY SUMP SAMPLING



INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 54452
C/C Control No. 171547

PROJECT NAME: KAMUR ALBANY
PROJECT NUMBER: 148031
PROJECT MANAGER: Greg M. Ilikan
BILL TO: 4585 Pacheco Blvd Martinez, CA 94553

PURCHASE ORDER NO.:

DATE SAMPLES SHIPPED: 1-17-90
LAB DESTINATION: Precision Lab
LABORATORY CONTACT:
SEND LAB REPORT TO: Greg M. Ilikan 4585 Pacheco Blvd Martinez CA 9455

DATE REPORT REQUIRED: 1-31-90
PROJECT CONTACT: Greg M. Ilikan
PROJECT CONTACT PHONE NO.: (415) 372-9100

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
148031PT1	Surface water	3x40ml	HCL	TPH Gasoline	
148031PT2	"	"	"	"	
148031PT3	"	"	"	"	
148031PT4	Surface water	3x40ml	HCL	TPH Gasoline	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By _____ Date/Time 1-17-90 2:40pm

WHITE - Original, to accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. _____

C/C Control No. 171547

PROJECT NAME/NUMBER Kearsarge Alloy 148031 LAB DESTINATION Precision Labs

SAMPLE TEAM MEMBERS P. DeDeAmpo CARRIER/WAYBILL NO. _____

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
911796TB1	IPT 1	1-17-90 1255	surface soil	40ml VOA		
911797TB2	IPT 2	1300	"	"		
911798TB3	IPT 3	1305	"	"		
911799TB4	IPT 4	1-17-90 1310	surface soil	40ml VOA		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: P. DeDeAmpo ITES 1-17-90 1430

   Received By: Michael Fish 1-17-90 Precision

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 54452
C/C Control No. 171547

PROJECT NAME: KAMUR ALBANY
PROJECT NUMBER: 148031
PROJECT MANAGER: Greg Milikan
BILL TO: 4585 Pacheco Blvd, Martinez, CA 94553

DATE SAMPLES SHIPPED: 1-17-90
LAB DESTINATION: Precision Lab
LABORATORY CONTACT:
SEND LAB REPORT TO: Greg Milikan, 4585 Pacheco Blvd, Martinez, CA 9455

PURCHASE ORDER NO.:

DATE REPORT REQUIRED: 1-31-90
PROJECT CONTACT: Greg Milikan
PROJECT CONTACT PHONE NO.: (415) 372-9100

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
011790PT1	Surface water	3x40ml	HCL	TPH Gasoline	
011790PT2	"	"	"	"	
011790PT3	"	"	"	"	
011790PT4	Surface water	3x40ml	HCL	TPH Gasoline	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush ____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab X

FOR LAB USE ONLY

Received By Kimberly Ritter Date/Time 01-17-90 3:00pm

WHITE - Original, to accompany samples

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. B84183

C/C Control No. 171548

PROJECT NAME/NUMBER KAMUR, ALBANY 148031 LAB DESTINATION PRECISION LAB

SAMPLE TEAM MEMBERS PD, TG CARRIER/WAYBILL NO. _____

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
0115 90 PT1	PT 1	1/15/90 10:40 HRS	SURFACE WATER	3 x 40 ml	K.S.G 01-15-90	
0115 90 PT2	PT 2	1/15/90 10:45 HRS	↓	3 x 40 ml		
0115 90 PT3	PT 3	1/15/90 10:50 HRS	↓	3 x 40 ml		
0115 90 PT4	PT 4	1/15/90 10:55 HRS	SURFACE WATER	3 x 40 ml		

Special Instructions: NONE

Possible Sample Hazards: NONE

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: P. Dodge, ITCorp, 1-15-90, 11:46AM
   Received By: Kathleen Gotko 01-15-90 11:46 Am
2. Relinquished By: _____
   Received By: _____
3. Relinquished By: _____
   Received by: _____
4. Relinquished By: _____
   Received By: _____

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. B 81183
C/C Control No. 171548

PROJECT NAME KAMUR, ALBANY
PROJECT NUMBER 148031
PROJECT MANAGER GREG MILLIKAN
BILL TO 4585 PACHECO BLVD. MARTINEZ, CA 94553

PURCHASE ORDER NO.

DATE SAMPLES SHIPPED 01-15-90
LAB DESTINATION PRECISION LAB
LABORATORY CONTACT
SEND LAB REPORT TO GREG MILLIKAN 4585 PACHECO BLVD. MARTINEZ, CA 94553
DATE REPORT REQUIRED 01-29-90
PROJECT CONTACT GREG MILLIKAN
PROJECT CONTACT PHONE NO. 415-372-6700

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
[illegible]	SURFACE WATER	3 x 40 ml	HCL	TPH (GASOLINE)	NONE
[illegible]	"	"	"	"	"
[illegible]	"	"	"	"	"
[illegible]	SURFACE WATER	3 x 40 ml	HCL	TPH (GASOLINE)	"

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By [signature] Date/Time 04-15-90 11:16 AM

WHITE - Original, to accompany samples

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 54491

C/C Control No. 171007

PROJECT NAME/NUMBER ~~[redacted]~~ Kamo 148031

LAB DESTINATION Pierson Analytical

SAMPLE TEAM MEMBERS D. Kibler Jr

CARRIER/WAYBILL NO. Hand Deliver

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
[illegible]	PW1 Stream	1/3/90 1015	Surface Water	3x40ml VOA		
[illegible]	PW2	1020				
[illegible]	PW3	1015				
[illegible]	PW4 Stream	1030	Surface Water			
[illegible]	Trip Blank	1000	Ground Water			
[illegible]	MW1	1100				
[illegible]	MW2	1120				
[illegible]	Sump	1105		3x40ml VOA		
[illegible]	Sump	1/3/90 1105	Groundwater	1x1l Amber		

Special Instructions: _____

Possible Sample Hazards: _____

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: [illegible] ITES 1/3/90 12:22

   Received By: Donna Callingwin PAL 1/3/90 12:22

2. Relinquished By: _____

   Received By: _____

3. Relinquished By: _____

   Received by: _____

4. Relinquished By: _____

   Received By: _____

WHITE - To accompany samples

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 54491
C/C Control No. 17017

PROJECT NAME Kaiser
PROJECT NUMBER 145031
PROJECT MANAGER Greg Milliken
BILL TO ITI's NHZ

DATE SAMPLES SHIPPED 12/4/90
LAB DESTINATION Lancaster Laboratories
LABORATORY CONTACT Jane Chan
SEND LAB REPORT TO Greg Milliken
4585 Hacienda Blvd
Pleasanton, CA 94566

PURCHASE ORDER NO. 145031

DATE REPORT REQUIRED 1/17/91
PROJECT CONTACT Greg Milliken
PROJECT CONTACT PHONE NO. 510 426-2600

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
[illegible]	Water	3x 40 ml	HCl	TPH G	
[illegible]	↓	↓	↓	↓	
[illegible]	↓	↓	↓	↓	
[illegible]	Water	↓	↓	TPH G	
[illegible]	↓	↓	↓	TPH G	
[illegible]	↓	↓	↓	TPH G BTEX	
[illegible]	↓	↓	↓	TPH G BTEX	
[illegible]	↓	5x 40 ml	HCl	TPH(G) TPH(D) BTEX	
[illegible]	Soil	1x 1 l	—	TPH(G) TPH(D) BTEX	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard _____ Flammable _____ Skin Irritant X Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By Donna Calcagni Date/Time 12/5/90 12:22

WHITE - Original, to accompany samples

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. B85404

C/C Control No. A 82778

PROJECT NAME/NUMBER KAMAN ALBANY 148031 LAB DESTINATION Precision Lab

SAMPLE TEAM MEMBERS P. DeOcampo CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
[illegible]	PT-4	12-22-89 1122	Surface Water	40ML VOA		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: [illegible] ITES 12/22/89 1450

   Received By: Raj Pandher 12/22

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. B 85494
C/C Control No. A82778

PROJECT NAME: Kamue Albany
PROJECT NUMBER: 148031
PROJECT MANAGER: Greg Milikan
BILL TO: 4575 Pacheco Blvd
Martinez, CA 94553

PURCHASE ORDER NO.:

DATE SAMPLES SHIPPED: 12-22-89
LAB DESTINATION: Precision Lab.
LABORATORY CONTACT:
SEND LAB REPORT TO: Greg M. Milikan
4575 Pacheco Blvd
Martinez, CA 9455

DATE REPORT REQUIRED: 1-4-89
PROJECT CONTACT: Paul Deocampo
PROJECT CONTACT PHONE NO.: (415) 372-9100

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
122289PT4	Surface Water	3x40ml	None	TPH Gasoline	

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal X Rush _____ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client _____ Disposal by Lab X

FOR LAB USE ONLY

Received By Rajdeepsinder Pandher Date/Time 12/22/89 2:50PM

WHITE - Original, to accompany samples

INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 501331

C/C Control No. A 82755

PROJECT NAME/NUMBER KAMUR ALBANY 148031 LAB DESTINATION PRECISION LAB

SAMPLE TEAM MEMBERS P DeOCAMPO CARRIER/WAYBILL NO.

Sample Number	Sample Location and Description	Date and Time Collected	Sample Type	Container Type	Condition on Receipt (Name and Date)	Disposal Record No.
[illegible]MW1	MW #2	12-8-89 1230	Groundwater	40ml VOA's		
[illegible]MW1	MW #1	1240				
[illegible]MWFB	MW #FB	1350				
[illegible]PT1	PT #1	1300	Surface water			
[illegible]PT2	PT #2	1315				
[illegible]PT3	PT #3	1325				
[illegible]PT4	PT #4	1340	Surface water			
[illegible]SUMP1	SUMP #1	1400	Groundwater	40ml VOA		
[illegible]SUMP1	SUMP #1	12-8-89 1400	Groundwater	1L Amber		

Special Instructions:

Possible Sample Hazards:

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: David DeOcampo ITES 12/8/89 1520

   Received By: Donna Calinguiin PAL 12/8/89 3:20

2. Relinquished By:

   Received By:

3. Relinquished By:

   Received by:

4. Relinquished By:

   Received By:

WHITE - To accompany samples
YELLOW - Field copy

INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 001331
C/C Control No. # 82755

PROJECT NAME: KAMUR ALBANY
PROJECT NUMBER: 148031
PROJECT MANAGER: Greg Millikan
BILL TO: 4575 Pacheco Blvd. Martinez, CA 94553

PURCHASE ORDER NO.:

DATE SAMPLES SHIPPED: 12-8-89
LAB DESTINATION: Precision Lab
LABORATORY CONTACT:
SEND LAB REPORT TO: Greg Millikan 4575 Pacheco Blvd Martinez, CA 94553
DATE REPORT REQUIRED: 12-22-89
PROJECT CONTACT: Greg Millikan
PROJECT CONTACT PHONE NO.: (415) 372-9100

Sample No.	Sample Type	Sample Volume	Preservative	Requested Testing Program	Special Instructions
120889 MW2	Groundwater	3 x 40ml	HCL	TPH (G) BTEX	
120889 MW1	Groundwater	3 x 40ml	HCL	TPH (G) BTEX	
120889 MWFB	Groundwater	3 x 40ml	HCL	TPH (G) BTEX	
120889 PT 1	Surface water	3 x 40ml	HCL	TPH Gasoline	
120889 PT 2	"	3 x 40ml	HCL	TPH Gasoline	
120889 PT 3	"	3 x 40ml	HCL	TPH Gasoline	
120889 PT 4	Surface water	3 x 40ml	HCL	TPH Gasoline	
120889 SP1	Groundwater	3 x 40ml	HCL	TPH (G) BTEX	
120889 SP1	Groundwater	1 x 1L	HCL	TPH Diesel	
			HCL		

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal ____ Rush X (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard X Flammable ____ Skin Irritant ____ Highly Toxic ____ Other ____ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client ____ Disposal by Lab X

FOR LAB USE ONLY

Received By Donna Callaghan Date/Time 12/8/89 3:25

WHITE - Original, to accompany samples

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 01/17/90
Reported: 01/31/90
Job No. #: 71295

Attn: Sidney Mills
International Technology
4585 Pacheco Blvd.
Martinez, CA. 94553

Project: Kamur Albany
Matrix: Water

Total Petroleum Hydrocarbon Analysis
DHS Method 5030 (LUFT)
ug/l

Lab ID	Client ID	Gasoline	MDL
71295-1	011790PT1	ND<10	10
71295-2	011790PT2	15,000	10
71295-3	011790PT3	ND<10	10
71295-4	011790PT4	160	10

MDL: Method detection limit: Compound below this level would not be detected.

Jaime Chow
Laboratory Director

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

State License No. 211

Received: 01/15/90
Reported: 01/18/90
Job No #: 71282

Attn: Greg Millikan
International Technology
4575 Pacheco Blvd.
Martinez, CA. 94553

Project: Kamur Albany
Matrix: Water

Total Petroleum Hydrocarbon Analysis
By DHS Method (LUFT)
mg/l

Lab ID	Client ID	Gasoline	MDL
71282-1	011590PT1	ND<0.5	0.5
71282-2	011590PT2	16	0.5
71282-3	011590PT3	0.84	0.5
71282-4	011590PT4	ND<0.5	0.5

QA/QC: Spike Recovery for Gasoline: 101%

MDL: Method detection limit; Compound below this level would not be detected.

Jaime Chow
Laboratory Director

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 01/03/90
Reported: 01/09/90
Job No. #: 71262

Attn: Greg Millikan
International Technology
4585 Pacheco Blvd.
Martinez, CA. 94553

Project: Kamur Albany
Matrix: Liquid

Total Petroleum Hydrocarbon Analysis
By EPA 5030 and DHS Extraction Method (LUFT)
mg/l

Lab ID	Client ID	Diesel	Gasoline	MDL
71262-1	010390 PT1	N/A	ND<0.5	0.5
71262-2	010390 PT2	N/A	99	0.5
71262-3	010390 PT3	N/A	0.9	0.5
71262-4	010390 PT4	N/A	0.8	0.5
71262-5	010390 TB	N/A	ND<0.5	0.5
71262-6	010390 MW1	N/A	ND<0.5	0.5
71262-7	010390 MW2	N/A	5.5	3.0
71262-8	010390 SP1	ND<0.5	72	*

* Detection limit for Sample #8: Diesel = 0.5, Gasoline = 25

QA/QC: Spike Recovery for Diesel: 112%
Spike Recovery for Gasoline: 98%

MDL: Method detection limit: Compound below this level would not be detected.

Surinder Sidhu
Surinder Sidhu
Senior Chemist

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 01/03/90
Reported: 01/09/90
Job No. #: 71262

Attn: Greg Millikan
International Technology
4585 Pacheco Blvd.
Martinez, CA. 94553

Project: Kamur Albany
Matrix: Liquid

Aromatic Volatile Hydrocarbon Analysis:
EPA Method 8020
ug/l

Lab ID	Client ID	Benzene	Toluene	MDL
71262-6	010390 MW1	0.6	ND<0.3	0.3
71262-7	010390 MW1	6,300	530	30
71262-8	010390 SP1	22,000	25,000	150

Lab ID	Client ID	Ethylbenzene	Xylene	MDL
71262-6	010390 MW1	ND<0.3	ND<0.3	0.3
71262-7	010390 MW1	410	900	30
71262-8	010390 SP1	2,400	13,000	150

QA/QC: Spike Recovery for Benzene: 122%
Spike Recovery for Toluene: 116%
Spike Recovery for O-Xylene: 112%

MDL: Method detection limit: Compound below this level would not be detected.

Surinder Sidhu
Surinder Sidhu
Senior Chemist

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 12/22/89
Reported: 12/27/89
Job No. #: 71250

Attn: Greg Millikan
International Technology
4575 Pacheco Blvd.
Martinez, CA. 94553

Project: Kamur Albany
Matrix: Water

Total Petroleum Hydrocarbon Analysis
By DHS Method (LUFT)
mg/kg

Lab ID	Client ID	Diesel	Gasoline	MDL
71250-1	#122289PT4	N/A	0.8	0.5

QA/QC: Spike Recovery for Diesel: N/A
Spike Recovery for Gasoline: 93%

MDL: Method detection limit: Compound below this level would not be detected.

Jaime Chow
Laboratory Director

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 12/08/89
Reported: 12/18/89
Job No. #: 71228

Attn: Greg Millikan
International Technology
4575 Pacheco Blvd.
Martinez, CA. 94553

Project: Kamur Albany
Matrix: Water

Total Petroleum Hydrocarbon Analysis
By DHS Method (LUFT)
mg/l

Lab ID	Client ID	Diesel	Gasoline	MDL
71228-1	120889 MW2	N/A	13	0.5
71228-2	120889 MW1	N/A	ND<0.5	0.5
71228-3	120889 MWFB	N/A	ND<0.5	0.5
71228-4	120889 PT1	N/A	ND<0.5	0.5
71228-5	120889 PT2	N/A	33	0.5
71228-6	120889 PT3	N/A	ND<0.5	0.5
71228-7	120889 PT4	N/A	ND<0.5	0.5
71228-8	120889 SP1	ND<0.5	55	0.5

QA/QC: Spike Recovery for Diesel: 128%
Spike Recovery for Gasoline: 95%

MDL: Method detection limit: Compound below this level would not be detected.

Jaime Chow
Laboratory Director

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 211

Received: 12/08/89
Reported: 12/18/89
Job No. #: 71228

Attn: Greg Millikan
International Technology
4575 Pacheco Blvd.
Martinez, CA. 94553

Project: Kamur Albany
Matrix: Water

Aromatic Volatile Hydrocarbon Analysis:
EPA Method 8020
ug/l

Lab ID	Client ID	Benzene	Ethyl-benzene	Toluene	Xylene	MDL
71228-1	120889 MW2	13000	750	8400	2500	30
71228-2	120889 MW1	21	2.2	17	7.7	0.3
71228-3	120889 MWFB	ND<0.3	ND<0.3	ND<0.3	ND<0.3	0.3
71228-4	120889 SP1	26000	2100	25000	13000	30

QA/QC: Spike Recovery for Benzene: 112%
Spike Recovery for Toluene: 110%
Spike Recovery for O-Xylene: 109%

MDL: Method detection limit: Compound below this level would not be detected.

Jaime Chow
Laboratory Director