ATC ASSOCIATES INC.

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Pleasanton, California 94588
925.460.5300
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ENVIRONMENTAL PROTECTION

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HMW-1 qtrly
HMW-2 +4 semiann.
HMW-3 annual

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October 20, 1999

75.61137.0008.0002

Mr. Ruben Hausauer
6017 International Boulevard
Oakland, California 94621

Quarterly Groundwater Monitoring Report
Third Quarter 1999
New Genico Facility
3927 East 14th Street
Oakland, California

Dear Mr. Hausauer:

ATC Associates Inc. is pleased to present this report of the Third Quarter 1999 groundwater monitoring conducted at the above referenced site for your review.

If you have any questions about this report please call me at (925) 460-5300.

Very truly yours,

Al Martinez

Al Martinez
Project Manager

Enclosures

cc: Barney M. Chan, Alameda County Health Care Services

QUARTERLY GROUNDWATER MONITORING REPORT
THIRD QUARTER 1999
NEW GENICO FACILITY
3927 EAST 14th STREET
OAKLAND, CALIFORNIA

Submitted By:

ATC Associates
6666 Owens Drive
Pleasanton, CA 94588

ATC Project No. 75.61137.0008.0002

October 20, 1999

Prepared By:
Al Martinez
Project Manager

Reviewed By:
James A. Lehrman, RG, CHG
Program Director, Subsurface/Remediation

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CERTIFICATION

This Quarterly Groundwater Monitoring Report was prepared under the direction of a California Registered Geologist.

James A. Lehrman, RG, CHG
Program Director, Subsurface/Remediation

QUARTERLY GROUNDWATER MONITORING REPORT
THIRD QUARTER 1999
NEW GENICO FACILITY
3927 EAST 14TH STREET
OAKLAND, CALIFORNIA

1.0 INTRODUCTION

ATC Associates Inc. (ATC) has been retained by Ruben Hausauer to perform quarterly groundwater monitoring for the New Genico facility located at 3927 East 14th Street, Oakland, California (**Figure 1**). This quarterly groundwater monitoring report has been prepared per the request of the Alameda County Health Care Services (ACHCS) as stated in their letter dated August 3, 1999. The site plan showing the location of the adjacent streets, monitoring wells, and other site-specific features is shown on **Figure 2.**

The monitoring wells are sampled quarterly to monitor the shallow groundwater underlying the site. The program objectives are listed below:

- Measure depth of groundwater.
- Sample and analyze groundwater samples for specified petroleum hydrocarbon constituents.
- Sample and analyze groundwater samples for bioremediation parameters to assess the compatibility of the groundwater environment for degradation of petroleum hydrocarbons.
- Construct a groundwater elevation contour map within the study area.
- Compare current and past data.

The existence and degree of petroleum hydrocarbons in the groundwater underlying a site is evaluated by (1) the presence of free-floating product, and (2) the laboratory analyses of groundwater samples. Groundwater samples are analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPH-G), TPH as diesel (TPH-D), TPH as motor oil (TPH-M), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tert-butyl ether (MTBE).

2.0 INTRINSIC BIOREMEDIATION OF GROUNDWATER

Biological parameter testing was performed as part of the quarterly sampling at the site in order to assess whether intrinsic bioremediation is occurring at the site.

Several detailed field studies have been performed examining indicators of intrinsic bioremediation and identifying factors which significantly effect the rate and extent of bioremediation (Buscheck and others, 1993; McAllister and Chiang, 1994; Borden and others, 1995; Buscheck and Alcantar, 1995). Through these studies, and ongoing research of the factors which control biodegradation, it is now understood that dissolved petroleum hydrocarbons in groundwater will biodegrade, without artificial enhancement, due to the presence of naturally occurring (indigenous) microorganisms. The U.S. Air Force, Chevron Corporation, and others have developed technical protocols for implementing and monitoring intrinsic bioremediation studies in groundwater.

Intrinsic bioremediation, in brief, is the process of indigenous microorganisms degrading contaminants which have been released into the subsurface. The biodegradation of the contaminants is essentially an oxidation-reduction (redox) reaction where the hydrocarbon is oxidized (donates an electron) and an electron acceptor is reduced (accepts electrons). There are several compounds that can serve as electron acceptors including oxygen, nitrate, iron oxides (Fe III), Manganese (Mn IV), sulfate, and carbon dioxide (Borden and others, 1995). Aerobic microorganisms use oxygen as the electron acceptor. Anaerobic microorganisms use other compounds such as nitrate, iron oxides (ferric iron), manganese oxide (Mn IV), sulfate, and carbon dioxide as electron acceptors.

Oxygen is the most preferred electron acceptor in groundwater because microorganisms gain more energy from these reactions; however, this process usually results in the depletion of oxygen with an increase in carbon dioxide in the subsurface. Therefore, low concentrations of dissolved oxygen and corresponding high concentrations of carbon dioxide within hydrocarbon plume indicate biodegradation is taking place (Borden and others, 1995).

In anaerobic environments, microorganisms may use other compounds such as nitrate, ferric iron, manganese, and sulfate as electron acceptors. Thus, an increase in ferrous iron, carbon dioxide, dissolved manganese (Mn II), and perhaps sulfide, and a corresponding decrease in nitrate and or sulfate within a hydrocarbon plume may indicate biodegradation is taking place.

Additional indicators of anaerobic biodegradation include total alkalinity, redox potential (Buscheck and O'Reilly, 1995), and methane (Borden and others, 1995). The total alkalinity of a groundwater system is indicative of the water's capacity to neutralize acid. Alkalinity results from the dissolution of rock (particularly carbonate rocks), the transfer of carbon dioxide from the atmosphere, and the respiration of microorganisms. Therefore, an increase in alkalinity within a hydrocarbon plume is potentially an indicator of bioremediation occurring (Buscheck and O'Reilly, 1995). The redox potential of groundwater generally ranges from -400 millivolts (mV) to 800 mV. Under oxidizing conditions, the redox potential of groundwater is positive while reducing conditions are negative. The redox potential inside a hydrocarbon plume should be less than that measured outside the plume (Buscheck and O'Reilly, 1995), and generally negative. Methane levels generally increase within the plume as a byproduct of the breakdown of petroleum hydrocarbons under anaerobic conditions (Borden and others, 1995).

Indicators of potential intrinsic biodegradation occurring across a dissolved contaminant plume can be summarized by the following trends:

A Relative Decrease In:	**A Relative Increase In:**
Dissolved Oxygen	Ferrous Iron (Fe III)
Oxidation-Reduction Potential	Total Alkalinity
Nitrate (NO_4)	Carbon Dioxide (CO_2)
Sulfate (SO_4)	Sulfide (S)
	Methane (CH_4)
	Dissolved Manganese (Mn II)

3.0 GROUNDWATER SAMPLING

Four groundwater monitoring wells (HMW-1, HMW-2, HMW-3, and HMW-4) were gauged on September 23, 1999 by ATC. In addition, five groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) installed by Motor Partners were gauged and sampled on September 23, 1999 by Aquatic & Environmental Applications of Fremont, California. Subsequently, one groundwater monitoring well (HMW-1) was sampled on September 23, 1999 by ATC. A groundwater sample was collected after purging the well of approximately three well volumes of water and recording consistent pH, conductivity, and temperature measurements. Once the well had recovered to at least 80% of its original volume, a water sample was collected using a disposable bailer. The groundwater sample was carefully poured into the appropriate sample container. The groundwater sample was properly labeled and placed in a cooler with ice. Proper chain-of-custody procedures were followed until delivery of the groundwater sample to a State certified laboratory. Groundwater purged from the well, and equipment decontamination water were placed in a Department of Transportation (DOT) approved 17H drum. The contents of the drum will be transported by a licensed hauler for disposal at a licensed waste treatment site.

The groundwater monitoring data for the New Genico facility are summarized in **Table 1.** The groundwater monitoring data (i.e. gauging data) for the Motor Partners facility are summarized in **Table 2.** The Groundwater Sampling Protocol is described in **Appendix A.** The volume of groundwater removed from each well and other measured sampling parameters are noted on the field Water Sampling Logs included in **Appendix B.**

4.0 LABORATORY ANALYSIS

ATC utilized the laboratory services of Sequoia Analytical of Morgan Hill, California for this project. Sequoia Analytical is certified in California by the Department of Health Services under the Environmental Laboratory Accreditation Program (ELAP).

The groundwater sample was analyzed for the presence of TPH-G, TPH-D, and TPH-M in accordance with Environmental Protection Agency (EPA) Method 8015, and BTEX and MTBE in accordance with EPA Method 8020.

In addition, the groundwater sample was analyzed for dissolved oxygen, oxidation-reduction potential, nitrate (EPA Method 300.0), sulfate (EPA Method 300.0), and ferrous iron (EPA Method 6010A) to assess whether intrinsic bioremediation is occurring at the site. Copies of the signed laboratory analytical reports and chain-of-custody forms are provided in **Appendix C**.

5.0 RESULTS OF GROUNDWATER MONITORING

5.1 Groundwater Flow

Figure 2 shows the groundwater elevation contours based on the water-level data for September 23, 1999. The apparent groundwater flow direction was south-southwest at a gradient of approximately 0.015.

5.2 Groundwater Laboratory Analysis

Groundwater monitoring well HMW-1 was sampled on September 23, 1999. A summary of the analytical results from the September 23, 1999, and past well sampling events are presented in **Table 1**.

TPH-G, TPH-D, and TPH-M, and BTEX were detected in the groundwater sample obtained from HMW-1. MTBE was detected in HMW-1 [125 micrograms per liter (ug/l)] using EPA Test Method 8020. Confirmation MTBE analysis was performed on HMW-1 in accordance with EPA Test method 8260. MTBE was not detected in HMW-1 using EPA Test Method 8260.

The TPH-G, TPH-M, benzene, and MTBE (EPA Method 8260) concentrations in HMW-1 decreased compared to the last sampling event. TPH-D increased since the last sampling event. The next quarterly groundwater sampling is scheduled for the fourth quarter of 1999.

5.3 Analysis of Intrinsic Bioremediation Parameters

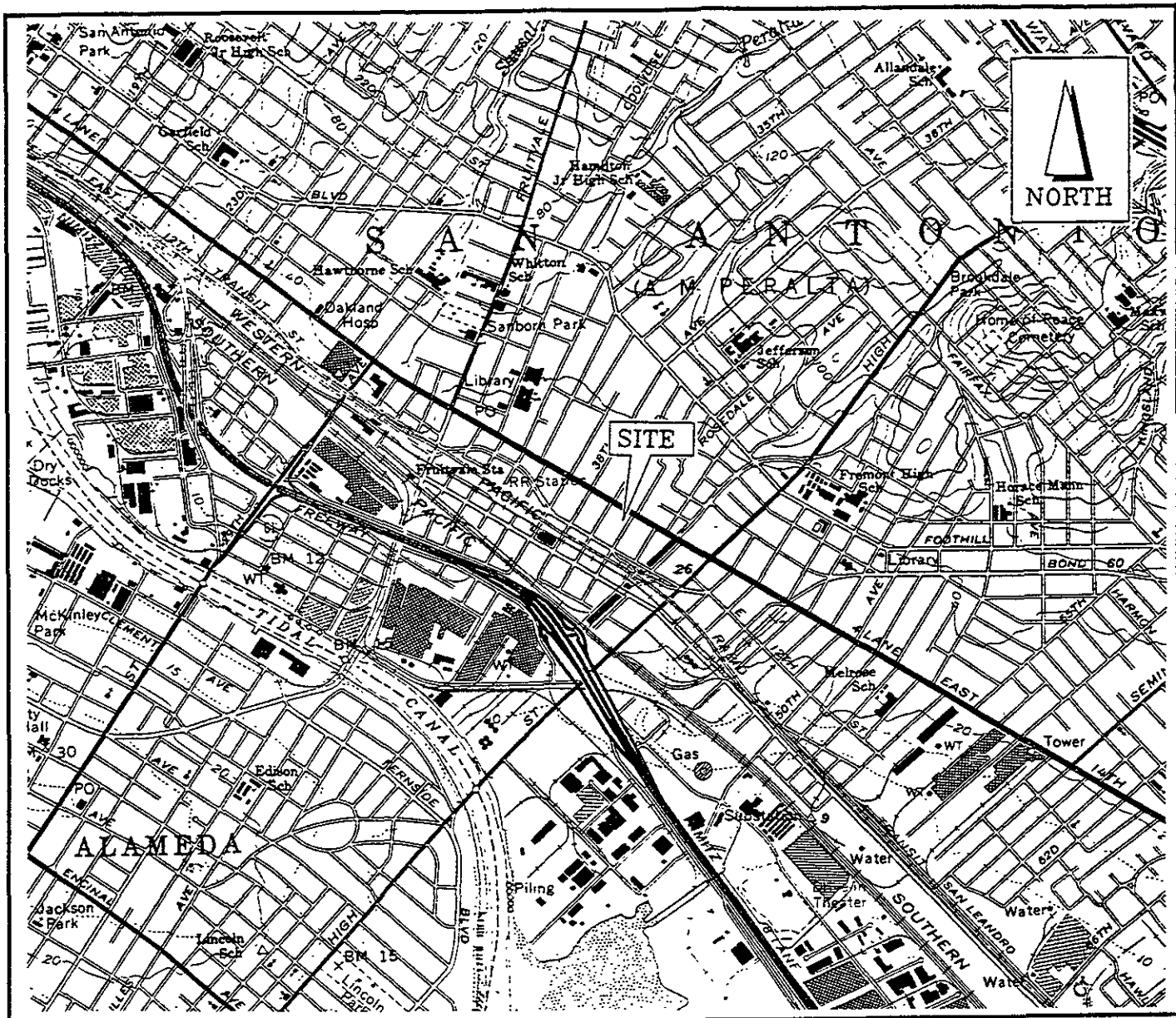
Samples were collected from site wells and analyzed for one or more of the following: dissolved ferrous iron, nitrate, sulfate, dissolved oxygen, and/or oxidation-reduction potential (redox potential). The analyses are presented in **Table 3**. When comparing data from wells within the plume which generally have high concentrations of petroleum hydrocarbons i.e., monitoring wells HMW-1 and HMW-2, to the well beyond the plume (i.e., HMW-3) and upgradient of the plume (i.e., HMW-4), the data in **Table 3** suggests that bioremediation processes are occurring. Interpretation of the data allows the following conclusions:

The lower redox potential in HMW-1 (within the groundwater plume boundary) is consistent with bioremediation processes. The ferrous iron concentration in HMW-1 was higher than in groundwater monitoring well HMW-3 (outside the groundwater plume boundary; June 23, 1999). Based on the review of the groundwater analytical data collected to date, it appears that intrinsic bioremediation may be occurring at the site.

6. REPORTING REQUIREMENTS

At the request of Ruben Hausauer, ATC Associates Inc. will forward a copy of this report to the following agencies:

Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577
Mr. Barney M. Chan



Notes:

1) **All locations and dimensions are approximate.**

2) **Base map from USGS Oakland East (1961) Quadrangle, 7.5 Minute Series Topographic. Photorevised in 1980.**

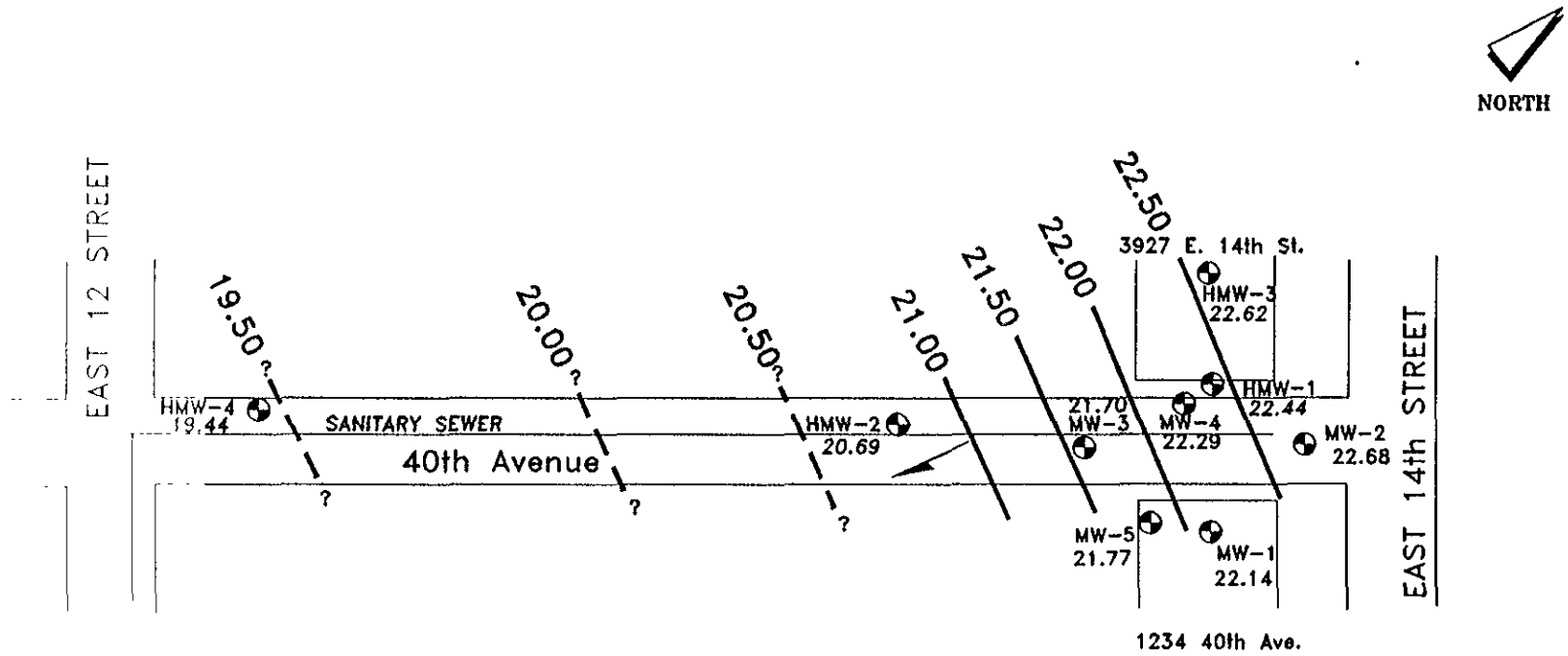
0 1/4 1/2 1

SCALE (MILES)

ATC ASSOCIATES INC.
Environmental, Geotechnical and Materials Professionals

SITE LOCATION MAP
3927 E. 14TH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 61137.0002 | FIGURE 1



EXPLANATION

- HMW-3 Groundwater Monitoring Well
- 22.44 Groundwater Elevation in Feet (mean sea level) Measured on September 23, 1999.
- 22.50 Groundwater Elevation Contour Line in Feet (mean sea level)
- Approximate Groundwater Flow Direction

Notes:

1. Base Map developed from survey map provided by Kier & Wright
2. Location of HMW-4 obtained from Artesian Environmental Project No.: 197-002-01 Date: 1/8/98
3. Location of MW-5 obtained from Aquatic & Environmental Applications, Project No.: 1004 Date: 3/27/98

0 30 60 120

Scale (Ft.)

ATC ASSOCIATES INC.
ENVIRONMENTAL, GEOTECHNICAL AND MATERIALS PROFESSIONALS

GROUNDWATER ELEVATION CONTOUR MAP (SEPTEMBER 23, 1999)
NEW GENICO
3927 E. 14th Street
Oakland, California

Project No. 61137.0008 | Figure 2

Table 1

Cumulative Results of Groundwater Sampling and Analyses
New Genico Facility
3927 East 14th Street
Oakland, California

Date Sampled	TPH-D (ug/L)	TPH-M (ug/L)	TPH-G (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	Well Elevation (ft above MSL)	Depth to Groundwater (feet)	Groundwater Elevation (ft above MSL)
HMW-1											
08/22/96	ND	ND	7,400	1,200	170	530	490	NA	31.25	8.01	23.24
02/25/97	2,000	ND	5,400	760	110	260	260	ND	31.25	5.95	25.30
05/28/97	2,000	600	6,600	1,100	100	290	340	130	31.25	7.65	23.60
09/02/97	8,700	3,700	4,000	460	40	200	100	ND*	31.25	8.56	22.69
11/26/97	4,700	3,000	7,500	1,000	120	270	320	ND*	31.25	7.50	23.75
02/09/98	NA	NA	NA	NA	NA	NA	NA	NA	31.25	3.35	27.90
03/17/98	ND	16,000	11,000	2,100	290	600	760	1,200	31.25	5.29	25.97****
06/30/98	ND	5,900	10,000	1,300	160	390	390	160	31.25	6.63	24.62
09/24/98	ND	6,600	7,100	890	89	230	180	430/ND*	31.25	8.22	23.03
12/16/98	ND	1,400	1,900	290	39	85	100	NR	31.25	6.66	24.59
02/19/99	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
03/16/99	5,100	8,100	7,700	1,100	120	250	240	100	31.25	4.71	26.54
06/23/99	ND	12,000	3,300	510	52	110	110	70	31.25	7.25	24.00
09/23/99	1,190	540	1,360	150	19.9	37.7	42.5	125/ND*	31.25	8.81	22.44
HMW-2											
08/22/96	7,400**	2,100	6,300	170	57	370	120	NA	29.43	8.71	20.72
02/25/97	90	ND	8,400	150	35	280	70	ND*	29.43	6 00	23.43
05/28/97	130	200	6,000	170	35	170	67	150	29.43	7.65	21.78
09/02/97	4,502	ND***	8,000	210	30	160	90	ND*	29.43	8.59	20.84
11/26/97	180	ND	1,600	41	7.5	40	10	31	29.43	6.82	22.61
02/09/98	NA	NA	NA	NA	NA	NA	NA	NA	29.43	3.24	26.19
03/17/98	ND	ND	8,600	200	96	410	120	330	29.43	4.44	24.99
06/30/98	ND	ND	7,300	180	52	240	88	170	29.43	6.30	23.13
09/24/98	ND	ND	2,900	32	1.5	38	16	ND	29.43	8.20	21.23
12/16/98	ND	ND	5,300	93	25.0	160	53	NR	29.43	6 64	22.79
02/19/99	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
03/16/99	1,5[illegible]	73[illegible]	5,2[illegible]	83	3[illegible]	15[illegible]	45	140*	29.43	4 08	25.35
06/23/99	NA	ND	1,2[illegible]	31	[illegible]	36	12	5.2	29.43	7.02	22.41
09/23/99	NA	NA	NA	NA	NA	NA	NA	NA	29.43	8 74	20.69

Table 1

Cumulative Results of Groundwater Sampling and Analyses
New Genico Facility
3927 East 14th Street
Oakland, California

Date Sampled	TPH-D (ug/L)	TPH-M (ug/L)	TPH-G (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	Well Elevation (ft above MSL)	Depth to Groundwater (feet)	Groundwater Elevation (ft above MSL)
HMW-3											
08/22/96	ND	ND	1,300	3	6	8	12	NA	31.48	8.10	23.38
02/25/97	70	ND	150	ND	ND	ND	ND	ND	31.48	6.00	25.48
05/28/97	ND	ND	80	ND	ND	0.60	ND	ND	31.48	7.74	23.74
09/02/97	ND***	ND***	140	ND	ND	2.1	ND	ND	31.48	8.60	22.88
11/26/97	50	ND	70	0.6	0.8	0.8	ND	ND	31.48	7.50	23.98
02/09/98	NA	NA	NA	NA	NA	NA	NA	NA	31.48	2.34	29.14
03/17/98	ND	200	ND	ND	ND	ND	ND	ND	31.48	5.23	26.25
06/30/98	ND	ND	ND	ND	ND	ND	ND	ND	31.48	6.60	24.88
09/24/98	ND	ND	58	ND	ND	ND	0.76	ND	31.48	8.32	23.16
12/16/98	ND	ND	ND	ND	ND	ND	ND	NR	31.48	6.71	24.77
02/19/99	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
03/16/99	70	ND	98	ND	ND	ND	ND	ND	31.48	4.61	26.87
06/23/99	70	ND	71	ND	0.70	ND	1.6	ND	31.48	7.12	24.36
09/23/99	NA	NA	NA	NA	NA	NA	NA	NA	31.48	8.86	22.62
HMW-4											
08/22/96	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
02/25/97	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
05/28/97	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
09/02/97	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
11/26/97	400	ND	1,600	4.2	3.1	1.7	5.9	ND	28.80	7.42	21.38
02/09/98	NA	NA	NA	NA	NA	NA	NA	NA	28.80	2.96	25.84
03/17/98	ND	ND	1,300	20	1.4	6.8	3.0	19	28.80	5.72	23.08
06/30/98	ND	ND	940	17	1.5	18	2	10	28.80	7.40	21.40
09/24/98	ND	ND	370	7.2	ND	0.75	1.3	11	28.80	9.80	19.00
12/16/98	ND	ND	830	11.0	ND	2.70	5.0	NR	NG	NG	NG
02/19/99	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
03/16/99	200	ND	660	6.1	ND	1.0	2.8	7.3	28.80	4.95	23.85
06/23/99	ND	ND	1,100	5.3	1.1	2.9	3.9	27	28.8	7.43	21.37
09/23/99	NA	NA	NA	NA	NA	NA	NA	NA	28.80	9.36	19.44
Trip Blank											
08/22/96	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
02/25/97	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
05/28/97	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
09/02/97	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG

Table 1

Cumulative Results of Groundwater Sampling and Analyses
New Genico Facility
3927 East 14th Street
Oakland, California

Date Sampled	TPH-D (ug/L)	TPH-M (ug/L)	TPH-G (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	Well Elevation (ft above MSL)	Depth to Groundwater (feet)	Groundwater Elevation (ft above MSL)
Trip Blank(Continued)											
11/26/97	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
02/09/98	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
03/17/98	NA	NA	ND	ND	ND	ND	ND	ND	NG	NG	NG
06/30/98	NA	NA	ND	ND	ND	ND	ND	ND	NG	NG	NG
09/24/98	NA	NA	ND	ND	ND	ND	ND	ND	NG	NG	NG
12/16/98	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
02/19/99	NA	NA	NA	NA	NA	NA	NA	NA	NG	NG	NG
03/16/99	NA	NA	ND	ND	ND	ND	ND	ND	NG	NG	NG
06/23/99	NA	NA	ND	ND	ND	ND	ND	ND	NG	NG	NG
09/23/99	NA	NA	ND 50.0	ND 0.500	ND 0.500	ND 0.500	ND 0.500	ND 2.50	NG	NG	NG

Notes:

TPH-G denotes total petroleum hydrocarbons as gasoline
TPH-D denotes total petroleum hydrocarbons as diesel
TPH-M denotes total petroleum hydrocarbons as motor oil
MTBE denotes methyl-tert-butyl ether
NA denotes no analyzed
NG denotes not gaugued
NR deonted not reported due to laboratory instrument conditions
ug/L denotes micrograms per liter
ND denotes not detected above listed detection limit for the method (See actual laboratory analytical report)
ft denotes feet
MSL denotes mean sea level
* Positive result by initial EPA Method 8020; confirmation performed by EPA Method 8260
** Laboratory reported concentration for diesel is estimated due to overlapping fuel pattern
*** Sample collected on October 3, 1997
**** Corrected elevation for 0.03 feet of free product in monitoring well
Data obtained on 3-17-98 obtained by Aquatic & Environmental Applications. Data obtained between 6-30-98 to 6-23-99 obtained by Kleinfelder

Table 2

Cumulative Results of Groundwater Sampling
Motor Partners Facility
1234 40th Street
Oakland, California

Date Sampled	Well Elevation (ft above MSL)	Depth to Groundwater (feet)	Groundwater Elevation (ft above MSL)
		MW-1	
11/26/97	31.44	7.98	23.46
03/17/98	31.44	5.84	25.60
06/30/98	31.44	NG	NG
09/24/98	31.44	8.74	22.7
12/16/98	31.44	7.11	24.33
03/16/99	31.44	5.26	26.18
06/23/99	31.44	7.62	23.82
09/23/99	31.44	9.30	22.14
		MW-2	
11/26/97	31.06	7.24	23.82
03/17/98	31.06	5.05	26.01
06/30/98	31.06	6.35	24.71
09/24/98	31.06	7.94	23.12
12/16/98	31.06	6.42	24.64
03/16/99	31.06	4.54	26.52
06/23/99	31.06	6.87	24.19
09/23/99	31.06	8.38	22.68
		MW-3	
11/26/97	30.43	7.06	23.37
03/17/98	30.43	5.11	25.32
06/30/98	30.43	6.62	23.81
09/24/98	30.43	8.13	22.30
12/16/98	30.43	6 52	23.91
03/16/99	30.43	4.36	26.07
06/23/99	30.43	7.06	23.37
09 23 99	30 43	8 73	21 70

Table 2

Cumulative Results of Groundwater Sampling
Motor Partners Facility
1234 40th Street
Oakland, California

Date Sampled	Well Elevation (ft above MSL)	Depth to Groundwater (feet)	Groundwater Elevation (ft above MSL)
		MW-4	
11/26/97	30.37	6.64	23.73
03/17/98	30.37	4.52	25.85
06/30/98	30.37	5.86	24.51
09/24/98	30.37	7.23	23.14
12/16/98	30.37	5.92	24.45
03/16/99	30.37	4.12	26.25
06/23/99	30.37	6.42	23.95
09/23/99	30.37	8.08	22.29
		MW-5	
11/26/97	NG	NG	NG
03/17/98	31.15	5.80	25.35
06/30/98	NG	NG	NG
09/24/98	31.15	8.76	22.39
12/16/98	31.15	7.19	23.96
03/16/99	31.15	5.14	26.01
06/23/99	31.15	7.66	23.49
09/23/99	31.15	9.38	21.77

Notes:

NG denotes not gaugued

Data obtained from Kleinfelder's Second Quarter 1999 Groundwater Monitoring Report dated July 22, 1999

Data obtained on September 23, 1999 by ATC Associates

Table 3

Cumulative Results of Intrinsic Bioremediation Parameters
New Genico Facility
3927 East 14th Street
Oakland, California

Date Sampled	Dissolved Ferrous Iron (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	Field Measurement: Dissolved Oxygen** (mg/l)	Field Measurement: Redox Potential** (mV)
			HMW-1		
08/22/96	NA	NA	NA	NA	NA
02/25/97	NA	NA	NA	NA	NA
05/28/97	NA	NA	NA	NA	NA
09/02/97	4.20	2.0	12	0.24	-14.4
11/26/97	<0.01	0.6	ND	2.0	105
03/17/98	0.16	ND	0.8	0.8*	-60.4
06/30/98	0.96	0.4	2.0	0.77	-46.70
09/24/98	ND	1.4	ND	0.4	-17
12/16/98	0.17	5.1	33.0	NR	-40
02/19/99	NA	NA	NA	1.00	107
03/16/99	0.14	4.8	12.0	1.25	-84
06/23/99	0.19	5.8	ND	1.60	-78
09/23/99	0.800	36.9	34.1	0.73	-61
			HMW-2		
08/22/96	NA	2,100	2,100	NA	NA
02/25/97	NA	ND	ND	NA	NA
05/28/97	NA	200	200	NA	NA
09/02/97	1.37	ND	0.5	0.38	25.2
11/26/97	0.03	ND	ND	2.5	52
03/17/98	0.01	ND	0.8	0.48*	-50.28
06/30/98	0.01	ND	ND	0.43	-45.50
09/24/98	ND	ND	ND	0.32	67
12/16/98	1.1	ND	ND	0.38	-73
02/19/99	NA	NA	NA	1.10	101
03/16/99	ND	ND	ND	1.20	125
06/23/99	0.43	ND	0.93	1.45	-82
09/23/99	NA	NA	NA	0.55	105
			HMW-3		
08/22/96	NA	ND	ND	NA	NA
02/25/97	NA	ND	ND	NA	NA
05/28/97	NA	ND	ND	NA	NA

Table 3

Cumulative Results of Intrinsic Bioremediation Parameters
New Genico Facility
3927 East 14th Street
Oakland, California

Date Sampled	Dissolved Ferrous Iron (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	Field Measurement: Dissolved Oxygen** (mg/l)	Field Measurement: Redox Potential** (mV)
HMW-3 (Continued)					
09/02/97	0.03	2	53	0.88	98.6
11/26/97	0.01	3.5	50	1.4	102
03/17/98	ND	1.1	43	0.63*	91.90
06/30/98	ND	4.0	51	0.25	95.70
09/24/98	ND	4.9	95	0.63	-16
12/16/98	ND	4.0	55	0.71	138
02/19/99	NA	NA	NA	0.95	89
03/16/99	ND	3.1	11	0.75	104
06/23/99	ND	6.2	46	1.00	128
09/23/99	NA	NA	NA	0.51	110
HMW-4					
08/22/96	NA	NA	NA	NA	NA
02/25/97	NA	NA	NA	NA	NA
05/28/97	NA	NA	NA	NA	NA
09/02/97	NA	NA	NA	NA	NA
11/26/97	NA	NA	NA	NA	NA
03/17/98	0.12	ND	8.6	2.4*	-26.67
06/30/98	ND	ND	18.0	3.7	-21.7
09/24/98	ND	ND	11	0.58	-17
12/16/98	1.20	ND	12	1.2	-34
02/19/99	NA	NA	NA	NA	NA
03/16/99	ND	ND	2.3	1.15	-45
06/23/99	1.3	ND	30	1.20	82
09/23/99	NA	NA	NA	NA	NA

Notes:
NA denotes not analyzed
NR denotes not reported due to laboratory instrument conditions
mg/l denotes milligrams per liter
ND denotes not detected above listed detection limit for the method (See actual laboratory analytical report)
* dissolved oxygen measured prior to purging
** measured in field
Data obtained on 3/17/98 obtained by [illegible] & Environmental Applications. Data obtained between 6/30/98 to 6/23/99 obtained by Kleinfelder

APPENDIX A

GROUNDWATER SAMPLING PROTOCOL

GROUNDWATER SAMPLING PROTOCOL

The static water level and floating product level, if present, in each well that contained water was measured with an ORS Interphase Probe Model No. 1068018 or Solonist Water Level Indicator. These instruments are accurate to the nearest 0.01 foot. These groundwater depths were subtracted from wellhead elevations, including corrections for product thickness, when necessary, for gradient evaluation by multiplying product thickness (PT) by a correction factor of 0.8 and subtracting from the DTW (Adjusted DTW = DTW - [PT x 0.8]).

Water samples collected for subjective evaluation were collected by gently lowering approximately half the length of a new disposable or Teflon® bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable floating hydrocarbon product. All Teflon® bailers are triple-washed with Alconox® and triple-rinsed with distilled water prior to use.

Before water samples were collected from the groundwater monitoring wells, the wells were purged until stabilization of the temperature, pH, and conductivity were obtained. Approximately four well casing volumes were purged before those characteristics stabilized. The quantity of water purged from each well was calculated as follows:

$$\text{One Well Casing Volume} = \pi r^2 h(7.48)$$

Where:

- r = radius of the well casing in feet
- h = column of water in the well in feet (depth-to bottom, depth-to-water)
- 7.48 = conversion constant from cubic feet to gallons

Gallons of water purged divided by gallons in one well casing volume equals well casing volumes removed.

After purging, each well was allowed to recharge to at least 80% of the initial water level. Water samples were collected with a new disposable or Teflon® bailer and carefully poured into 40-milliliter (ml) glass vials, which were filled so as to produce a positive meniscus. Each vial was preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace. The samples were promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory

APPENDIX B

WATER SAMPLING LOGS

FIELD REPORT/DATA SHEET

Date 9/23/99 | Project Number: ______ | Field Technician: J. Sala

Day M Tu W Th F

DTW Order	Well ID	Diam.	Lock	Exp. Cap	Total Depth	DTW Initial	DTW Final	Time Sampled ORD	Comments DO. 4/16/96
	HMW-4	2				9.36			Could not get in well Tire park on well
	HMW-2	2	no lock	Broken Cap	17.78	8.74		105	No lock on well No Bolts For well lid .55/6.1
	HMW-3	2	No lock	Broken Cap	16.63	8.86		110	No lock on well No Bolts For well lid .51/5.8
	HMW-1	2	↓	Broken Cap	19.48	8.81			No Lock on well Bolt stripped .73/8.4

NOTES:

1 Drum Collected 12/16/98 50+ gal.

Number of Drums Onsite

Full	Empty	TOTAL
1	1w Bank	

Estimated Value ______

ARE ALL DRUMS LABELLED WITH THE LABELS FACING OUT

ATC ASSOCIATES INC. WATER SAMPLING LOG

WELL DESIGNATION HMW-1

SAMPLE DESIGNATION HMW-1

AMBIENT CONDITIONS Cloudy

SITE: New GENCO

DATE 9/23/99

PROJECT#

SAMPLER J. SALA

WATER LEVEL INFORMATION

MEASURING POINT X T.O.C.

W.L. BEFORE PURGE 8.81 TIME —

W.L. AFTER PURGE 10.1 TIME 11:05

W.L. FOR 80% RECOVERY 10.94

W.L. TIME OF SAMPLE — DATE — TIME —

MONITORING WELL PURGE INFORMATION

MONITORING WELL PURGE METHOD

WELL DEPTH 19.48

DIAMETER 2

#CASING VOLUMES 3

SCREENED INTERVAL —

PUMP SETTING —

PURGE VOLUME CALCULATION (19.48-8.81) x .49=5.22

10.67

TIME PURGE BEGINS 1043

ACTUAL AMOUNT PURGED 6.0

TIME	VOLUME	pH	COND.	TEMP	COLOR	TURBIDITY	D.O. mg/L / %	O.R.P.
1045	2	6.51	1042	67.9	Clear	Very Slight	1.61/18.9	-61
1050	4	6.61	945	67.6	grey	MOD	1.69/19.6	
1055	6	6.75	833	67.4	grey	↓	2.00/22.0	

WATER SAMPLING INFORMATION

MONITORING WELL SAMPLE METHOD

SAMPLING TIME 1132

DATE 9/23/99

BOTTLE TYPE	NO.	VOLUME	ANALYSIS	LAB	PRESERVATION	FILTRATION
VOA'S	3	40ML	TPHG/BTEX/MTBE	SEQUOIA	HCL	NONE
AMBER	2	Liter	TPHD	↓	NONE	
Plastic	2	Liter	Nitrate/SULFATE, FERROUS IRON	SEQUOIA	NONE	↓ Alk

SAMPLING EQUIPMENT INFORMATION

PURGE EQUIPMENT

__ SUBMERSIBLE PUMP X BAILER(TEFLON) DISPOSABLE

__ BAILER(PVC) __ HONDA PUMP __ DEDICATED

OTHER:

PREVIOUSLY USED IN WELL

SITE

DECON METHOD ALCONOX LIQUINOX

SAMPLING EQUIPMENT

__ SUBMERSIBLE PUMP __ BAILER(TEFLON) X BAILER(DISPOSABLE)

__ BAILER(PVC) __ DIPPER _X_ PRESSURIZED DISPOSABLE BAILER

OTHER

PREVIOUSLY USED IN WELL

SITE

DECON METHOD ALCONOX LIQUINOX

QA/QC INFORMATION

TEMP BLANK__ __YES__X__NO

TRAVEL BLANK X YES ~~X~~ NO ID TB-1 QA/QC SPIKE____YES__X__NO ID ______

DUPLICATE YES NO ID FIELD BLANK YES X NO ID

WELL INTEGRITY LOCK

NOTES Sheen Throughout Purge

SIGNATURE

APPENDIX C

ANALYTICAL LABORATORY REPORT AND CHAIN OF CUSTODY RECORDS

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

October 5, 1999

Al Martinez
ATC Associates, Inc. - Pleasanton
6666 Owens Drive
Pleasanton, CA 94588

RE: New Genico/M910061

Dear Al Martinez

Enclosed are the results of analyses for sample(s) received by the laboratory on September 23, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kayvan Kimyai
Project Manager D.M.

CA ELAP Certificate Number 1210

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project: -	Sampled: 9/23/99
6666 Owens Drive	Project Number: New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager: Al Martinez	Reported: 10/5/99

ANALYTICAL REPORT FOR M910061

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
HMW-1	M909753-01	Water	9/23/99
TB-1	M909753-02	Water	9/23/99

Sequoia
Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

October 5, 1999

Kayvan Kimyai
Sequoia - Morgan Hill
885 Jarvis Drive
Morgan Hill, CA 95037

RE: Sequoia - Morgan Hill/L910019

Dear Kayvan Kimyai:

Enclosed are the results of analyses for sample(s) received by the laboratory on October 4, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson
Project Manager

CA ELAP Certificate Number I-2360

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Sequoia - Morgan Hill	Project:	Sequoia - Morgan Hill	Sampled: 9/23/99
885 Jarvis Drive	Project Number:	ATC Assoc./M910061	Received: 10/4/99
Morgan Hill, CA 95037	Project Manager:	Kayvan Kimyai	Reported: 10/5/99

ANALYTICAL REPORT FOR L910019

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
M910061-01/M909753-01	L910019-01	Water	9/23/99

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Sequoia - Morgan Hill	Project:	Sequoia - Morgan Hill	Sampled: 9/23/99
885 Jarvis Drive	Project Number:	ATC Assoc./M910061	Received: 10/4/99
Morgan Hill, CA 95037	Project Manager:	Kayvan Kimyai	Reported: 10/5/99

Sample Description: **M910061-01/M909753-01**
Laboratory Sample Number: **L910019-01**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
MTBE by EPA Method 8260A								
Methyl tert-butyl ether	9100015	10/4/99	10/5/99		2.00	ND	ug/l	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	*76.0-114*		*98.6*	%	

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Sequoia - Morgan Hill	Project:	Sequoia - Morgan Hill	Sampled: 9/23/99
885 Jarvis Drive	Project Number:	ATC Assoc./M910061	Received: 10/4/99
Morgan Hill, CA 95037	Project Manager:	Kayvan Kimyai	Reported: 10/5/99

MTBE by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9100015	**Date Prepared: 10/4/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9100015-BLK1**									
Methyl tert-butyl ether	10/4/99			**ND**	ug/l	**2.00**				
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*48.6*	"	*76.0-114*	*97.2*			
LCS	**9100015-BS1**									
Methyl tert-butyl ether	10/4/99	50.0		38.7	ug/l	70.0-130	77.4			
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*49.0*	"	*76.0-114*	*98.0*			
Matrix Spike	**9100015-MS1**		**L910005-01**							
Methyl tert-butyl ether	10/4/99	50.0	10.1	50.3	ug/l	60.0-140	**80.4**			
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*52.9*	"	*76.0-114*	*106*			
Matrix Spike Dup	**9100015-MSD1**		**L910005-01**							
Methyl tert-butyl ether	10/4/99	50.0	10.1	55.2	ug/l	60.0-140	**90.2**	25.0	**11.5**	
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*52.7*	"	*76.0-114*	*105*			

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Sequoia - Morgan Hill	Project:	Sequoia - Morgan Hill	Sampled: 9/23/99
885 Jarvis Drive	Project Number:	ATC Assoc./M910061	Received: 10/4/99
Morgan Hill, CA 95037	Project Manager:	Kayvan Kimyai	Reported: 10/5/99

Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

October 4, 1999

Al Martinez
ATC Associates, Inc. - Pleasanton
6666 Owens Drive
Pleasanton, CA 94588

RE: New Genico/M909753

Dear Al Martinez

Enclosed are the results of analyses for sample(s) received by the laboratory on September 23, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kayvan Kimyai
Project Manager D.M.

CA ELAP Certificate Number 1210

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project: -	Sampled: 9/23/99
6666 Owens Drive	Project Number: New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager: Al Martinez	Reported: 10/4/99

ANALYTICAL REPORT FOR M909753

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
HMW-1	M909753-01	Water	9/23/99
TB-1	M909753-02	Water	9/23/99

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project:	-	Sampled: 9/23/99
6666 Owens Drive	Project Number:	New Genico	Received. 9/23/99
Pleasanton. CA 94588	Project Manager:	Al Martinez	Reported: 10/4/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
HMW-1			M909753-01				Water	
Purgeable Hydrocarbons	9090772	9/25/99	9/25/99		500	**1360**	ug/l	1
Benzene	"	"	"		5.00	**150**	"	
Toluene	"	"	"		5.00	**19.9**	"	
Ethylbenzene	"	"	"		5.00	**37.7**	"	
Xylenes (total)	"	"	"		5.00	**42.5**	"	
Methyl tert-butyl ether	"	"	"		25.0	**125**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*112*	%	
TB-1			M909753-02				Water	
Purgeable Hydrocarbons	9090772	9/25/99	9/25/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*91.0*	%	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project:	-	Sampled: 9/23/99
6666 Owens Drive	Project Number:	New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager:	Al Martinez	Reported: 10/4/99

Diesel Hydrocarbons (C9-C24) and Motor Oil by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
HMW-1			**M909753-01**				**Water**	
Diesel Range Hydrocarbons	9090818	9/27/99	10/2/99		0.0500	**1.19**	mg/l	2
Motor Oil (C16-C36)	"	"	"		0.500	**0.540**	"	3
Surrogate: n-Pentacosane	"	"	"	*50.0-150*		*79.0*	*%*	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project:	-	Sampled: 9/23/99
6666 Owens Drive	Project Number:	New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager:	Al Martinez	Reported: 10/4/99

Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
HMW-1			**M909753-01**				**Water**	
Ferrous Iron	9090849	9/28/99	9/30/99	EPA 6010A	0.0100	**0.800**	mg/l	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project:	-	Sampled: 9/23/99
6666 Owens Drive	Project Number:	New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager:	Al Martinez	Reported: 10/4/99

Anions by EPA Method 300.0
Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
HMW-1			**M909753-01**				**Water**	
Nitrate as NO3	9090841	9/23/99	9/23/99	EPA 300.0	1.00	**36.9**	mg/l	
Sulfate as SO4	"	"	"	EPA 300.0	5.00	**34.1**	"	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project:	-	Sampled: 9/23/99
6666 Owens Drive	Project Number:	New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager:	Al Martinez	Reported: 10/4/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9090772	**Date Prepared: 9/25/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9090772-BLK1**									
Purgeable Hydrocarbons	9/25/99			**ND**	ug/l	**50.0**				
Benzene	"			**ND**	"	**0.500**				
Toluene	"			**ND**	"	**0.500**				
Ethylbenzene	"			**ND**	"	**0.500**				
Xylenes (total)	"			**ND**	"	**0.500**				
Methyl tert-butyl ether	"			**ND**	"	**2.50**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.30*	"	*70.0-130*	*93.0*			
LCS	**9090772-BS1**									
Purgeable Hydrocarbons	9/25/99	250		243	ug/l	70.0-130	97.2			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*11.6*	"	*70.0-130*	*116*			
LCS Dup	**9090772-BSD1**									
Purgeable Hydrocarbons	9/25/99	250		247	ug/l	70.0-130	98.8	25.0	1.63	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*11.5*	"	*70.0-130*	*115*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project:	-	Sampled: 9/23/99
6666 Owens Drive	Project Number:	New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager:	Al Martinez	Reported: 10/4/99

Diesel Hydrocarbons (C9-C24) and Motor Oil by DHS LUFT/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9090818	**Date Prepared: 9/27/99**					**Extraction Method: EPA 3520B**				
Blank	**9090818-BLK1**									
Diesel Range Hydrocarbons	10/2/99			**ND**	mg/l	**0.0500**				
Motor Oil (C16-C36)	"			**ND**	"	**0.500**				
Surrogate: n-Pentacosane	"	*0.100*		*0.0860*	"	*50.0-150*	*86.0*			
LCS	**9090818-BS1**									
Diesel Range Hydrocarbons	10/2/99	1.00		0.730	mg/l	60.0-140	73.0			
Surrogate: n-Pentacosane	"	*0.100*		*0.0880*	"	*50.0-150*	*88.0*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project: -	Sampled:	9/23/99
6666 Owens Drive	Project Number: New Genico	Received:	9/23/99
Pleasanton, CA 94588	Project Manager: Al Martinez	Reported:	10/4/99

Total Metals by EPA 6000/7000 Series Methods/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9090849	**Date Prepared: 9/28/99**					**Extraction Method: EPA 3005A**				
Blank	**9090849-BLK1**									
Ferrous Iron	9/29/99			**ND**	mg/l	**0.0100**				
LCS	**9090849-BS1**									
Ferrous Iron	9/29/99	1.00		1.10	mg/l	80.0-120	110			
Matrix Spike	**9090849-MS1**		**M909785-01**							
Ferrous Iron	9/29/99	1.00	0.330	1.30	mg/l	80.0-120	**97.0**			
Matrix Spike Dup	**9090849-MSD1**		**M909785-01**							
Ferrous Iron	9/29/99	1.00	0.330	1.30	mg/l	80.0-120	**97.0**	20.0	**0**	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

ATC Associates, Inc. - Pleasanton	Project: -	Sampled: 9/23/99
6666 Owens Drive	Project Number: New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager: Al Martinez	Reported: 10/4/99

Anions by EPA Method 300.0/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9090841	**Date Prepared: 9/23/99**					**Extraction Method: General Preparation**				
Blank	**9090841-BLK1**									
Nitrate as NO3	9/23/99			**ND**	mg/l	**0.100**				
Sulfate as SO4	"			**ND**	"	**0.500**				
LCS	**9090841-BS1**									
Nitrate as NO3	9/23/99	10.0		9.64	mg/l	80.0-120	96.4			
Sulfate as SO4	9/29/99	10.0		9.97	"	75.0-125	99.7			
Matrix Spike	**9090841-MS1**		**M909753-01**							
Nitrate as NO3	9/23/99	100	36.9	135	mg/l	75.0-125	**98.1**			
Sulfate as SO4	"	100	34.1	133	"	75.0-125	**98.9**			
Matrix Spike Dup	**9090841-MSD1**		**M909753-01**							
Nitrate as NO3	9/23/99	100	36.9	135	mg/l	75.0-125	**98.1**	20.0	**0**	
Sulfate as SO4	9/29/99	100	34.1	134	"	75.0-125	**99.9**		**1.01**	

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ATC Associates, Inc. - Pleasanton	Project: -	Sampled: 9/23/99
1666 Owens Drive	Project Number: New Genico	Received: 9/23/99
Pleasanton, CA 94588	Project Manager: Al Martinez	Reported: 10/4/99

Notes and Definitions

#	Note
	Chromatogram Pattern: Weathered Gasoline C6-C12
2	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
	Chromatogram pattern: Unidentified Hydrocarbons C16-C36.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

❑ 680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9233
❑ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
❑ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
❑ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
❑ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Company Name: ATC ASSOCIATES	Project Name: NEW GENICO
Mailing Address: 6116 OWENS DR.	Billing Address (if different):
City: PLEASANTON State: CA Zip Code: 94588	M909753
Telephone: (925) 460-5300 FAX #: (925) 460-2559	P.O. #:
Report To: AL MARTINEZ Sampler: J. SALA	QC Data: ☒ Level II (Standard) ❑ Chromatograms ❑ Level III ❑ Level IV

Turnaround Time: ❑ Standard 10–15 Working Days ❑ 7 Working Days ❑ 5 Working Days ❑ 3 Working Days ❑ 2 Working Days ❑ 1 Working Day ❑ ASAP

❑ Drinking Water ❑ Waste Water ❑ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	BTEX/MTBE/TPMG	TPHD	Nitrate, Sulfate, Ferrous Iron	Comments
1. HMW-1	9/23/99 1132	Water	3	VOAs		X	X	X	
2. ↓	↓ ↓	↓	2	AMBER					
3. ↓	↓ ↓	↓	2	liter plastic					
4. TB-1	9/23/99 -	↓	3	VOAs		X			
5.									
6.									
7.									
8.									
9.									
10.									

Relinquished By:	Jeffrey D Sala	Date: 9/24/99	Time: 1532	Received By:	Fred Cabell (379)	Date 9-23-99 Time 15:32
Relinquished By:	Fred Cabell (379)	Date: 9-23-99	Time: 16:43	Received By:	TJT (MH)	Date 9/23/99 Time 1643
Relinquished By:		Date:	Time:	Received By/Lab:		Date Time

Were Samples Received in Good Condition? ❑ Yes ❑ No Samples on ice? ❑ N/A Method of Shipment

White - Sequoia Yellow - Sequoia Pink - Client