# Franklin J. Goldman, CHG.

**Environmental and Hydrogeological Consulting** 

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# RECEIVED



12:47 pm, May 15, 2007

Alameda County Environmental Health

May 09, 2007

Jerry Wickham Hazardous Materials Specialist Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-9335 Telephone: (510) 567-6791 FAX: (510) 337-9335

SUBJECT: INTERIM TECHNICAL REPORT ON OFFSITE SUBSURFACE HYDROGEOLOGIC INVESTIGATION AND INITIAL GROUNDWATER MONITORING OF HYDROCARBONS @ 1001 77<sup>th</sup> Avenue, Oakland, CA 94621 - Case RO2905

Dear Mr. Wickham:

Enclosed are the details of the subsurface hydrogeologic investigation completed as required in the Alameda County approved field investigation workplan dated June 27, 2006.

Four (4) groundwater monitor wells were installed at the intersection of Spencer Street and 77<sup>th</sup> Avenue in Oakland. The purpose of this investigation was to determine the extent of migration of dissolved contaminants such as benzene and other fuel related chemicals. Benzene is the main indicator chemical of concern due to its relative threat to human health.

Sincerely,

Franklin J. Goldman Certified Hydrogeologist No. 466

CERTIFIED HYDROGEOLOGIST NO. 466 OFCA

#### **SUBSURFACE INVESTIGATION ACTIVITIES**

#### SITE LOCATION AND DESCRIPTION

The offsite investigation area is located, on a City of Oakland public street, in a mixed commercial and residential zone. The potential underground storage tank (UST) source is located in front of a one story building on the northeast corner of Spencer Street and 77<sup>th</sup> Avenue in Oakland. The potential UST may have been removed prior to the date that USTs were regulated by the State of California. The one story building covers most of the property and appears to have been abandoned for many years. The area around the former UST excavation is covered by asphalt and most of the surface drainage likely flows to the storm drain inlet located at the corner of the property at Spencer and 77<sup>th</sup>.

#### **EXECUTIVE SUMMARY**

Installation of groundwater monitor wells was been completed as required in the July 10, 2006 correspondence letter from Alameda County Environmental Health (ACEH) which approved the June 26, 2006 Workplan for Offsite Investigation technical report. In addition to the work approved by Alameda County (i.e. installation of three groundwater monitor wells), the County required an additional soil boring to be placed adjacent to the former UST location area. During placement of the soil boring, as well as the other three monitor wells, on February 16, 2007, gasoline in groundwater was identified. The presence of this contamination necessitated that this soil boring be converted to a fourth (4<sup>th</sup>) groundwater monitor well. The field investigation was completed on February 16, 2007.

After the certified land survey of the four (4) groundwater monitor well locations and elevations was recently completed, the groundwater gradient flow direction was verified. The groundwater gradient flow direction was determined to be to the east (See Figure 1 for groundwater gradient flow map), in the direction away from San Francisco Bay. Originally, the technical report by Stellar, November 2005, determined that the groundwater gradient flow direction would likely be to the west towards San Francisco Bay. Although, the Investigation Workplan (Goldman, June 27, 2006) speculated that the gradient was most likely to the east (i.e. as has now been demonstrated by this most recent field investigation), based upon past depths to water in soil borings by Stellar, the County approved the well installation location scenario based upon the gradient flowing to the west.

As result of this assumption, the monitor well locations for MW-1 and MW-2 were placed in Spencer Street as down gradient wells. These two wells are now serving as upgradient wells instead. Since groundwater monitor well MW-4 is now located onsite, two more groundwater monitor wells will have to be placed down gradient at the east end of the property and/or to the east of the property in 77<sup>th</sup> Avenue.

On March 21, 2007, the groundwater monitor wells were sampled for gasoline related constituents in groundwater. Additional water samples were collected to be run for various inorganic constituents to be used in the future to establish background groundwater quality and the existence of natural attenuation (i.e. the likelihood of gasoline in the subsurface decreasing in concentration by natural processes). These lab results will be submitted in a final subsurface investigation report.

After the laboratory results were received from the laboratory, and evaluated, it was discovered that the concentrations of 2,200 ppb and 2,000 ppb for water samples collected from MW-1 and MW-2 (See Figure 2 for map distribution of contamination in soil and groundwater), respectively, were not gasoline ranged organics, but trichloroethylene (TCE). TCE was inadvertently identified by the laboratory through their evaluation of the gas chromatographic peaks established for gasoline ranged organics (GROs) in water samples (See Attachment E for Laboratory Data Sheets for Water Sampling Analyses).

In the "Special Notes [1]" section of the American Analytics laboratory data sheets for MW-1 (2,200 ppb TCE) and for MW-2 (2,000 ppb TCE), it states that the "reported concentration is from the contribution of Trichloroethylene."

TCE is often used to clean grease and oil off of metal parts. It appears that this TCE has come from upgradient of the subject site. The fact that there are residences upgradient of the site, makes identification of the source more problematic. Residences don't typically utilize chlorinated solvents, however, it is common for those who do auto repair in their own backyard.

Some possible scenarios that could indicate a nearby source of chlorinated solvents are as follows:

- 1) residents were using chlorinated solvents (not likely)
- industrial or cleaning operations further to the west of the site (very likely)
   solvents may have migrated through a sewer or other underground utility lir
- solvents may have migrated through a sewer or other underground utility lines from a neighboring site (likely)
- 4) solvents may have migrated through a sewer or other underground utility line from the subject site up gradient from the site to the upgradient monitor wells (possible, but not likely). Note: No chlorinated solvents were identified by lab testing for soil and water samples collected from onsite monitor well/soil boring MW-4. Solvent migration from the site would have to completely bypass MW-4 through a unique man-made conduit preferential pathway that does not appear to exist, based upon initial visual observations made at the site to date.

The July 10, 2006 Alameda County correspondence required that the final investigation technical report include the following:

- ½ mile radius water supply well search (e.g. determine if any drinking water supply wells could become contaminated by past operation on site)
   Define all underground private and public utility lines in the vicinity of the site
- 2) Define all underground private and public utility lines in the vicinity of the site (e.g. determine if the trench backfill soil in which sewer, storm water, water, and electrical lines placed could provide a conduit for the spread of the contamination at the site)
- 3) Identify all nearby sensitive receptors (e.g. determine if receptors such as streams, lakes, and schools could be adversely impacted by the gasoline at the site.

Since this technical report is not a "final investigation report; " only an interim technical report, it would be more prudent to address the tracing of conduits, and identification of sensitive receptors, after the plume of hydrocarbons has been more comprehensively characterized and the source of the solvents has been narrowed down to a reasonable list of potential sites which may have discharged chlorinated solvents. An initial distribution of public sewer and storm drain lines is provided as a basis for the tracing of underground conduits onsite and offsite (See Figure 3 for map nearby public sewer and storm drain lines in the street).

A City of Oakland sewer and storm drain map was obtained and incorporated into an area wide map to determine if these underground utilities could serve as a conduit for the migration of solvents from nearby sites. A more detailed evaluation of onsite and offsite underground utilities in, and around, the immediate vicinity of the subject site will be performed after additional subsurface investigation activities are completed. It is premature to utilize a detailed distribution of all underground utilities as a guide for further site characterization. At this stage of the investigation, the extent of gasoline and solvent constituents in the subsurface must first be defined based upon a general understanding of the groundwater gradient flow direction as has been identified during this initial phase of subsurface investigation and groundwater monitoring.

To date, water supply wells have been identified in the immediate vicinity of the site, however, their locations have not been verified in the field. The ½ mile radius search

will be completed contingent upon what is necessary to complete the goals of the project. Assuming that gasoline constituents are the only chemical of concern that are attributable to the subject site, a ½ mile radius search would not be necessary.

For instance, if the site has only the limited extent of gasoline as identified in MW-4, there is no need to plot wells that are over a quarter mile away. No gasoline plume, including MTBE, migrates more than a few hundred feet, especially in a Bay mud hydrostratigraphic environment. If chlorinated solvents were found to have emanated from the subject site, then a ½ mile radius search might be warranted depending upon a fate and transport evaluation of the migration of the dissolved solvent.

Some wells were identified through evaluation of well completion reports obtained from the department of water resources in Sacramento (See Figure 4 for limited ½ mile radius water supply well search) & (See Appendix A for DWR well completion reports). Well completion reports were requested from the Alameda County Public Works Agency, however, no response was ever received. The well search revealed that two environmental investigations were likely to have been performed upgradient of the site. In addition, the only water supply well found upgradient of the site, to date, is a very deep industrial water supply well. The only down gradient wells identified were cathodic protection wells. Since no water supply wells have been identified down gradient of the site, it may indicate that the beneficial uses of groundwater may be limited in the vicinity of the site.

The last requirement by ACEH to identify nearby sensitive receptors, which included, but was not limited to, lakes, streams, and schools, will be better assessed and evaluated after the estimated down gradient extent of the contaminant plume(s) has/have been better defined.

#### CHANGES TO THE APPROVED WORKPLAN

Groundwater monitor well MW-1 had to be moved across the street to the west of what was proposed in the workplan due to extensive and repeated underground obstructions. The proposed soil boring BH-8 was moved closer to the former UST excavation at the request of ACEH staff. BH-8 also had to be moved from its original proposed location. Its location ended up being placed very close to the former UST excavation. Due to the presence of obvious hydrocarbon contamination in soil and groundwater encountered in BH-8, it was converted to a 4<sup>th</sup> groundwater monitor well to obtain reference data and to identify the greatest likely threat to nearby receptors.

#### WORK ACTIVITIES COMPLETED

Encroachment and Obstruction Permits were obtained by the City of Oakland Community and Economic Development Agency and a well construction permit was obtained from the Alameda County Public Works Agency prior to drilling.

The four (4) groundwater monitoring well locations were marked at the site in white paint prior to the commencement of drilling excavation activities for Underground Service Alert. Each soil boring location was hand augered to a depth of at least five (5) feet bgs prior to excavation to avoid causing damage to underground piping and utility lines. The soil borings were excavated to depths between 13 and 21 ½ feet with a hollow stem auger drill rig (See Figures 5, 6, 7, & 8 for soil boring logs).

SOIL SAMPLING PROCEDURES FOR GROUNDWATER MONITORING WELL EXCAVATIONS

On February 16, 2007, four (4) monitor well soil borings were excavated by a C-57 drilling licensed drilling contractor. All borehole logging was performed by a qualified field geologist who kept a detailed hydrostratigraphic log of each borehole, noting lithologic changes, hydrogeological characteristics, sample locations, and well construction. Soil sampling was performed, where appropriate, in order of identify significant changes in soil hydrostratigraphy and to provide a sufficient representation of the distribution of contaminants in the subsurface. Soil samples were collected from a general minimum average distribution of (5) foot vertical intervals as well as from

other depths as determined according to the feedback provided by the soil stratigraphy and hydrogeologic characteristics encountered. Soils encountered during drilling were predominantly clays with minor amounts of silt, sand, and gravel.

The soil samples were collected with a two (2) inch inner diameter, three (3) foot long, split spoon sampler fitted with 6 inch long, 2 inch diameter, brass sleeve insertions, focusing on depth locations where hydrocarbon contaminants were suspected. The soil samples were obtained by the compressive force of a 140 lb hammer dropped from a height of 18 inches. The soil samples were extruded into six (6)-inch long steel sample liners. Soil samples were chosen for lab analyses based upon obvious olfactory and visual evidence of contamination, by photoionization detector (PID) screening, and/or at significant changes in hydrostratigraphic horizons.

Each soil sample was collected and covered at each end of the metal cylinder with teflon sheets, and sealed with plastic end caps. The soil samples were labeled with a non-toxic ink field marker as to the depth and location the sample was collected, the sample number, and the project name and inserted into a plastic Zip-Lock bag and then placed into an ice chest for transport back to the laboratory. The chain-of-custody was designated in a similar manner and included with the date and time the sample was collected as well as the depth interval. Soil samples were analyzed for Gasoline Ranged Organics (GRO) and BTEX (See Attachment A for Laboratory Data Sheets for Soil Sampling Analyses) & (See Figure 2 for map distribution of contamination in soil).

The sampler was decontaminated before and after each use by rinsing with an Alconox solution wash and fresh tap water rinse. All rinseate water, purge water, and soil waste was stored in 55 gallon DOT approved drums. The drums will be stored onsite until authorization for transport to legal point of disposal is made.

#### WELL CONSTRUCTION

On February 16, 2007, the four (4) groundwater wells were constructed with a 0.01 inch PVC schedule 40 slotted casing and schedule 40, 2 inch diameter PVC blank casing. No. 212 silica sand pack was placed in the annular space between the screened casing and the open borehole to one foot above the top of the screen. The small sized slotted screen (e.g. 0.01 inch slots) has not prevented high turbidity in water samples collected from the monitor wells after development and purging.

A two foot thick bentonite seal was placed on top of the sand pack in the annular space. A Type II cement bentonite grout was tremmied from the bottom up to within approximately one foot from the top of the surface cover. A continuous concrete pour was placed on top of the grout to the surface where it was finished with a 3 inch high concrete apron or flush concrete finish around a well box and locking well cap (See Figures 5, 6, 7, & 8 for soil boring logs with individual well construction details) & (See Figure 9 for Generalized Well Construction Detail). MW-3 was excavated to 21 ½ feet bgs and chipped up with hydrated bentonite chips from 21 ½ feet bgs to 14 feet bgs so that the well could be constructed in the shallow groundwater zone as intended in the approved workplan. No deeper groundwater zone was identified from 14 to 21 ½ feet bgs.

#### WELL DEVELOPMENT AND PURGING PROCEDURES

On March 02, 2007 (more than 48 hours after installation), the four (4) new wells were developed by Blaine Technical Services, after installation to remove fine grained soil residue and well construction materials from the well casing and screen (See Attachment B for Blaine Technical Services Well Development logs).

On March 21, 2007, the wells were redeveloped again to remove fines due to high turbidity. Well development was performed with the use of a surge block and a steel check valve bailor. Wells were then purged and sampled after development after water levels had stabilized.

Prior to purging, the depth to groundwater was measured to use as a reference elevation. Purging of the wells was performed by the use of dedicated 1½ inch

diameter plastic disposable check valve bailors for each separate well. Each well was sampled after well purging which entailed the removal of more than three (3) well volumes of groundwater from each well, allowing the water level to recover to at least 80% of the original, static water level. Temperature, electrical conductivity, pH and turbidity were monitored during the bailing process with a Horiba U10, so that the parameters demonstrated an error difference of within 10% from one another, over at least three consecutive readings for each well was accomplished (See Attachment C for Well Purging Logs). The recorded data was used to verify that a sufficient volume of groundwater had been removed from each well casing so that anomalies caused by remnant well casing storage would not preclude us from obtaining a groundwater sample which would be more representative of the aquifer contaminant distribution as a whole. Well purge water was placed in properly labeled 55 gallon drums which were left on-site to be transported to a legal point of disposal.

#### WATER DEPTH MEASUREMENT RELATIVE TO A CERTIFIED LAND SURVEY

On March 21, 2007, a water level meter was used to measure the depth to groundwater in the groundwater monitoring wells. The measurements were read to the nearest 100th of an inch from the top of casing.

On April 11, 2007, a state certified land survey was conducted for the top-of-casing elevations and locations for the four wells (See Attachment D for Certified Land Survey).

Depth to groundwater was measured after stabilization of water levels. Top-of casing elevations relative to the depth to groundwater establishes the groundwater gradient flow direction during at the time measurements are made in the field.

#### **GROUNDWATER SAMPLING FROM WELLS**

On March 21, 2007, water samples were collected by lowering dedicated plastic disposable check valve bailors down the center of each well casing. Water samples were contained in 40-milliliter VOA vials for TPH-g, BTEX, oxygenates, and lead scavenger analyses by draining the bailer from the bottom with a specifically fitted drain tube to minimize volatilization. The VOAs were carefully checked for air bubbles prior to acceptance and labeling on the chain-of-custody. EPA Method 8260b for 5 oxygenates and two lead scavengers were used to confirm the presence of MTBE and other gasoline related constituents. Water samples were also analyzed for diesel, and motor oil ranged organics which were contained and laboratory provided one liter amber bottles (See Attachment E for Laboratory Data Sheets for Water Sampling Analyses). Evaluation of the carbon chain laboratory analyses did not reveal any significant levels of diesel or motor oil ranged organics which are typically associated with longer carbon chains. It suggests that only gasoline related constituents should be of concern regarding this subsurface investigation.

The samples were labeled and stored on ice until delivered, under chain-ofcustody procedures, to a State-certified analytical laboratory.

#### **EVALUATION OF LABORATORY TESTING RESULTS**

High levels of chlorinated solvents were identified in up gradient wells. Benzene was identified in groundwater (50 ppb) and in soil (1.3 ppm) in MW-4. Data collected to date indicates that gasoline contamination is very localized and likely isolated around MW-4.

#### RECOMMENDATIONS

Install two (2) additional groundwater monitoring wells, in the estimated down gradient direction, according to the Alameda County approved field investigation workplan dated June 27, 2006 (See Figure 10 for proposed monitor well locations). In addition, the supply well, utility line and sensitive receptor surveys will be completed based upon interpretation of new field data. Also, the new groundwater monitor wells will be surveyed relative to pertinent site features and potential utility line pathways. Finally, a review of nearby sites that could have contributed the chlorinated solvents to the investigation area will also be performed.

#### LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analyses, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change. The conclusions presented in this report are professional opinions based solely upon visual observations made within individual soil excavations and of the site and vicinity as well as on interpretations of available information as designated in this report. Franklin J. Goldman, maintains that the limited scope of services performed in the execution of this investigation may not be sufficient to satisfy the needs, and/or requirements of all regulatory agencies or other users. Any use or reuse of this document, its findings, its conclusions and/or recommendations presented herein, is done so at the sole risk of the said user.







MW-3 Water Sample	(dqq)	MW-3 Soil Samples	PPM Depth (ft)	
Sample Collected 3/2	21/07	Gasoline (GRO)	<0.5 10.5' to 11	- General Location
Gasoline (GRO)	<100	Benzene	<0.002	
Benzene ` ´	<0.5	Gasoline (GRO)	<0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02	of Motor
MTBE	<2.0	Benzene	<0.002	
Trichloroethylene	<100	MTBE	<0.02	Manufacturina
memoreeanjiene		Gasoline (GRO)	<0.5 20.5 to 21	
		Benzene	<0.002	
		MTBE	<0.02	



**Groundwater Monitor Well Location** 

**Base map compiled from Stellar** Environmental Solutions, Inc. August 2005 - Figure 2, November 2005 -Figure 3, January 2006 - Figure 3, & Alameda County Assessor's Map 41

Groundwater monitor well locations surveyed by Silicon Valley Land Surveying on April 11, 2007. Well locations have not been surveyed relative to site features.

Groundwater monitor well locations Stormand sewer lines approximately located from City of Oakland Map 1509B460. Yanacio Peralta Portion of the Rancho De San Antonio



Manufacturing Facility



### EXPLORATORY BORING LOG

EXPL	EXPLORATORY BORING LOG						ige 1 of 1
DRILL COMPANY: Clearheart	SURFACE ELE	VATION	l:	LOGGED BY: Frank Goldman			man
DEPTH TO GROUNDWATER: Approx. 8.5 ft bgs	BORING DIAN	METER:	8 inches	DRILLI	NG METH	OD: HSA	
LITHOLOGIC DESCRIPTION			CHOLOGIC	EPTH	NATER	WELLC	scs ABOLS
Asphalt surface cover 2 inches the	ick	SA INTE	171, 10	ā	1,127	CONSDETA	∩×s NVs
Clayey gravel, red brown, medium dense, o moist No odor	coarse,			- 1 - - 2 - - 3 - - 4 -			GC
Sandy Clay, dark grey brown, soft, yery mois				- 5 - - 6 -			
No soil sample recovery at 5 or 8 feet bgs N	o odor		Groundwate	- 7 - - 7 -	GW		SC
Clayey sand with gravel, dark green, mediu coarse, wet No odor	m dense,		first encountered @ 8:35 am 02-16-07	- 9 - -10-	<u> </u>		– – GC\
			8:40 am 0 ppm PID	-11-			SM 
Silty clay, olive to medium brown, stiff, moist	i; no odor			-13- -14-			СН
		$\ge$	8:55 am 0 ppm PID	-15- -16-			
				-17- -18-			
				-19-			
Figure 5		>	9:05 am 0 ppm PID	-20- -21-			
BORING/Well NO MW-3	Acts C	Om	End soil	boring	at 21.5 f	<u>it bgs</u>	<u>nt</u>
DATE: February 16, 2007	<u>1001 7</u>	7th	<u>Aver</u>	iue,	Öak	land.	ŹĂ

## EXPLORATORY BORING LOG

EXP	EXPLORATORY BORING LOG						1 of 1
DRILL COMPANY: Clearheart	SURFACE ELEVATION:			LOGGED BY: Frank Goldma			n
DEPTH TO GROUNDWATER: Approx. 7.5 ft bgs	BORING DIAN	METER:	8 inches	DRILLI	NG METH	od: HSA	
LITHOLOGIC DESCRIPTIC Asphalt surface cover 6 inches t Proposed location for BH-8 mo due to gas and SBC lines	)N :hick ved	SAMPLE INTERVALS	LITHOLOGIC	DEPTH	WATER	WELLCTION CONSTRUCTION	SYMBOLS
<u>Gravel, black, loose, very coarse, slightly m</u>	noist			_		2	<u>GP</u>
Silty clay, black, soft to firm,slightly moist to moderate plasticity, no odor At 3.5 feet bas, color changes to greenish b	moist, black with			- 1 - - 2 - - 3 -			ML\ CL
some coarse sand and gravel. Very faint hy odor at 4.0 feet	/drocarbon		11:40 am	- 4 -			
Sandy clay with gravel, greenish black, soft moderately firm, moist	t to	200	0 ppm PID	- 5 -			6
Softer at 7 feet bgs			Groundwarer first encountered @ 11:45 am 02-16-07	- 7 - - 8 -	<b>GW</b> →		30
Clayey sand with gravel, dark green, dense coarse, wet Slight odor	, <b></b> _		11:55 am 18 ppm PID	- 9 - -10- -11-			GC\ SM
Silty clay, olive to medium brown, stiff, mois	st; No odor		12:15 pm 0 ppm PID	-13- -14- -15-			СН
End soil boring at 15.5 ft bgs				-16- -17- -18- -19-			
Figure 6				-20- -21-			
BORING/Well NO. MW-4 DATE: February 16, 2007	Acts C 1001 7	ion 7th	n <mark>muni</mark> , Aver	ty D iúe,	evel Oak	opmer land, C	nt 4

# EXPLODATORY BORING LOC

EXP	LORATORY	BORIN	g log			Page	e 1 of 1
DRILL COMPANY: Clearheart	SURFACE ELEVATION:			LOGGED BY: Frank Goldman			n
DEPTH TO GROUNDWATER: Approx. 6 ft bgs	BORING DIAMETER: 8 inches			DRILLING METHOD: HSA			
LITHOLOGIC DESCRIPTIO Asphalt surface cover 4 inches t Proposed location moved across th to the west due to underground	N hick e street lines	SAMPLE INTERVALS	LITHOLOGIC	DEPTH	WATER	NELLCTION CONSTRUCTION	SYMBOLS USCS
Clayey gravel with sand, red brown, loose t dense, coarse, moist	o medium						GP
Silty clay, greenish black, soft to firm, moist,	, no odor			- 2 - - 3 - - 4 -			ML\ CL
Sandy clay, greenish black, soft to firm, mo	 ist		Groundwater first encountered	- 5- - 6-	<b>GW</b> ▽		
			02-16-07	- 7 - - 7 -	-		
Clayey sand with gravel, dark green, dense coarse, wet	s,		3:20 pm 0 ppm PID	- 9 - - 9 - -10-			GC/
Silty clay, olive to medium brown, stiff, mois	t; No odor		4:00 pm 0 ppm PID	-11- -12- -13-			SM  CH
End soil boring at 13.2 ft bgs Figure 7				-14- -15- -16- -17- -18- -19- -20- -21-			
BORING/Well NO. MW-1 DATE: February 16, 2007	Acts C 1001 7	Corr 7th	nmuni , Aver	ty D nue,	evel Oak	opmer land, C	nt A

## EXPLORATORY BORING LOG

EXP	LORATORY E	BORIN	g log		Page 1 of 1		
DRILL COMPANY: Clearheart	SURFACE ELEVATION:			LOGGED BY: Frank Goldman			n
DEPTH TO GROUNDWATER: Approx. 6 ft bgs	BORING DIAMETER: 8 inches			DRILLING METHOD: HSA			
LITHOLOGIC DESCRIPTIO Asphalt surface cover 4 inches t	N hick	SAMPLE INTERVALS	LITHOLOGIC	DEPTH	WATER	WELLCTION CONSTREAM	USCS
Clayey gravel with sand, red brown, loose to dense, coarse, moist	o medium						GP
Silty clay, greenish black, soft to firm, moist,	, no odor			- 2 -			ML\ CL
Sandy clay, greenish black, soft to firm, mo	ist		Groundwater first encountered @ 5:10 pm 02-16-07	- 5 -	<b>GW</b> ▽		SC
Clayey sand with gravel, dark green, dense coarse, wet	,		5:15 pm 0 ppm PID	- 8 - - 9 - -10- -11-			GC\ SM
Silty clay, olive to medium brown, stiff, mois	t; No odor		5:45 pm 0 ppm PID	-12-			СН
End soil boring at 13.0 ft bgs Figure 8				-14- -15- -16- -17- -18- -19- -20- -21-			
BORING/Well NO. MW-2 DATE: February 16, 2007	Acts C 1001 7	ion 7th	nmuni , Aver	ty D iúe,	evel Oak	opmer land, C/	1 4





# Attachment A

# Laboratory Data Sheet For Soil



9765 Eton Avenue Chatsworth California 91311 Tel: (818) 998-5547 Fax: (818) 998-7258

April 11, 2007

Rene Eschon Acts Community Development 1034 66th Ave Oakland, CA 94621

#### Re: Acts Community Development

#### A67801 / 7B22003

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 02/23/07 12:14 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytics.

Sincerely,

Viorel Vasile Operations Manager



Client:       Acts Community Development         Project No:       NA         Project Name:       Acts Community Development				AA Project No: A67801 Date Received: 02/23/07 Date Reported: 04/11/07			
Sample ID		Laboratory ID	Matrix	ТАТ	Date Sampled	Date Received	
8270C PAHs							
MW-4 8.5-9		7B22003-05	Soil	10	02/16/07 11:55	02/23/07 11:29	
<u>Carbon Chain</u>	Characterization 80	<u>15M</u>					
MW-3 10.5-11		7B22003-01	Soil	10	02/16/07 08:40	02/23/07 11:29	
MW-3 15.5-16		7B22003-02	Soil	10	02/16/07 08:55	02/23/07 11:29	
MW-3 20.5-21		7B22003-03	Soil	10	02/16/07 09:05	02/23/07 11:29	
MW-4 4.5-5		7B22003-04	Soil	10	02/16/07 11:40	02/23/07 11:29	
MW-4 8.5-9		7B22003-05	Soil	10	02/16/07 11:55	02/23/07 11:29	
MW-4 14-14.5		7B22003-06	Soil	10	02/16/07 12:15	02/23/07 11:29	
MW-1 8.5-9		7B22003-07	Soil	10	02/16/07 15:20	02/23/07 11:29	
MW-1 12.5-13		7B22003-08	Soil	10	02/16/07 16:00	02/23/07 11:29	
MW-2 8.5-9		7B22003-09	Soil	10	02/16/07 17:15	02/23/07 11:29	
MW-2 12.5-13		7B22003-10	Soil	10	02/16/07 17:45	02/23/07 11:29	
GRO/BTEX/MT	BE 8015M/8021B						
MW-3 10.5-11		7B22003-01	Soil	10	02/16/07 08:40	02/23/07 11:29	
MW-3 15.5-16		7B22003-02	Soil	10	02/16/07 08:55	02/23/07 11:29	
MW-3 20.5-21		7B22003-03	Soil	10	02/16/07 09:05	02/23/07 11:29	
MW-4 4.5-5		7B22003-04	Soil	10	02/16/07 11:40	02/23/07 11:29	
MW-4 8.5-9		7B22003-05	Soil	10	02/16/07 11:55	02/23/07 11:29	

A



Client: Project No: Project Name:	Acts Community De NA Acts Community De	velopment velopment		AA Project No: A67801 Date Received: 02/23/07 Date Reported: 04/11/07			
Sample ID		Laboratory ID	Matrix	TAT	Date Sampled	Date Received	
MW-4 14-14.5		7B22003-06	Soil	10	02/16/07 12:15	02/23/07 11:29	
MW-1 8.5-9		7B22003-07	Soil	10	02/16/07 15:20	02/23/07 11:29	
MW-1 12.5-13		7B22003-08	Soil	10	02/16/07 16:00	02/23/07 11:29	
MW-2 8.5-9		7B22003-09	Soil	10	02/16/07 17:15	02/23/07 11:29	
MW-2 12.5-13		7B22003-10	Soil	10	02/16/07 17:45	02/23/07 11:29	





Client: Project No: Project Name: Method:	Acts Community Development NA Acts Community Development PAHs by EPA 8270C	AA Project No: A67801 Date Received: 02/23/07 Date Reported: 04/11/07 Units: ug/kg
Date Sampled:	02/16/07	
Date Prepared:	03/02/07	
Date Analyzed:	03/07/07	
AA ID No:	7B22003-05	
Client ID No:	MW-4 8.5-9	
Matrix:	Soil	
Dilution Factor:	1	MRL
8270C PAHs (E	PA 8270M)	
Acenaphthene	<100	100
Acenaphthylene	<100	100
Anthracene	<100	100
Benzo(a)anthrac	ene <100	100
Benzo(a)pyrene	<100	100
Benzo(b)fluorant	hene <100	100
Benzo(g,h,i)pery	lene <100	100
Benzo(k)fluorant	hene <100	100
Chrysene	<100	100
Dibenzo(a,h)anth	nracene <100	100
Fluoranthene	<100	100
Fluorene	<100	100
Indeno (1,2,3-cd	) pyrene <400	400
Naphthalene	<100	100
Phenanthrene	<100	100
Pyrene	<100	100
Surrogates		<u>%REC Limits</u>
2-Fluorobipheny	72.8%	43-116
Nitrobenzene-d5	63.9%	35-134
Terphenyl-dl4	93.2%	33-141





Client:ActProject No:NAProject Name:ActMethod:GR	s Community s Community OBTEXMTB	/ Development / Development E 8015M/8021E	3 by GC	No: A67801 ed: 02/23/07 ed: 04/11/07 ts: mg/kg		
Date Sampled:		02/16/07	02/16/07	02/16/07	02/16/07	
Date Prepared:		03/02/07	03/02/07	03/02/07	03/02/07	
Date Analyzed:		03/02/07	03/02/07	03/02/07	03/02/07	
AA ID No:		7B22003-01	7B22003-02	7B22003-03	7B22003-04	
Client ID No:		MW-3 10.5-11	MW-3 15.5-16	MW-3 20.5-21	MW-4 4.5-5	
Matrix:		Soil	Soil	Soil	Soil	
Dilution Factor:		1	1	1	1	MRL
GRO/BTEX/MTBE 8	015M/8021E	(VOCs by GC	/FID/PID)			
Benzene		<0.0020	<0.0020	<0.0020	<0.0020	0.0020
Ethylbenzene		<0.0020	<0.0020	<0.0020	<0.0020	0.0020
Gasoline Range Org (GRO)	anics	<0.50	<0.50	<0.50	<0.50	0.50
Methyl-tert-Butyl Eth	er (MTBE)	<0.020	<0.020	<0.020	<0.020	0.020
Toluene	. ,	<0.0020	<0.0020	<0.0020	<0.0020	0.0020
Xylenes, Total		<0.0020	<0.0020	<0.0020	<0.0020	0.0020
Surrogates a.a.a-Trifluorotoluene	9	87 4%	91.1%	86.3%	88.2%	<u>%REC Limits</u> 80-120

A



Client: Project No: Project Name: Method:	Acts Community NA Acts Community GROBTEXMTE	y Development y Development E 8015M/8021I	B by GC		AA Projec Date Rece Date Repo U	et No: A67801 Fived: 02/23/07 Forted: 04/11/07 Inits: mg/kg
Date Sampled:		02/16/07	02/16/07	02/16/07	02/16/07	
Date Prepared:		03/02/07	03/02/07	03/02/07	03/02/07	
Date Analyzed:		03/02/07	03/02/07	03/02/07	03/02/07	
AA ID No:		7B22003-05	7B22003-06	7B22003-07	7B22003-08	
Client ID No:		MW-4 8.5-9	MW-4 14-14.5	MW-1 8.5-9	MW-1 12.5-13	
Matrix:		Soil	Soil	Soil	Soil	
<b>Dilution Factor:</b>		100	1	1	1	MRL
GRO/BTEX/MTE	BE 8015M/8021E	3 (VOCs by GC	/FID/PID <u>)</u>			
Benzene		1.3	<0.0020	<0.0020	<0.0020	0.0020
Ethylbenzene		16	<0.0020	<0.0020	<0.0020	0.0020
Gasoline Range (GRO)	Organics	370	<0.50	<0.50	<0.50	0.50
Methyl-tert-Butyl	Ether (MTBE)	2.8	<0.020	<0.020	<0.020	0.020
Toluene	( /	1.4	<0.0020	<0.0020	<0.0020	0.0020
Xylenes, Total		72	<0.0020	<0.0020	<0.0020	0.0020
Surrogates						%REC Limits
a a a-Trifluorotol	liene	1059/	102%	100%	00 6%	80-120





Client: Project No: Project Name: Method:	Acts Community NA Acts Community GROBTEXMTB	/ Development / Development E 8015M/8021	3 by GC	AA Project No: A67801 Date Received: 02/23/07 Date Reported: 04/11/07 Units: mg/kg
Date Sampled:		02/16/07	02/16/07	
<b>Date Prepared:</b>		03/02/07	03/02/07	
Date Analyzed:		03/02/07	03/02/07	
AA ID No:		7B22003-09	7B22003-10	
Client ID No:		MW-2 8.5-9	MW-2 12.5-13	
Matrix:		Soil	Soil	
<b>Dilution Factor:</b>		1	1	MRL
<u>GRO/BTEX/MTE</u>	<u>3E 8015M/8021B</u>	(VOCs by GC	/FID/PID)	
GRO/BTEX/MTE Benzene	<u>3E 8015M/8021E</u>	<0.0020	/FID/PID) <0.0020	0.0020
GRO/BTEX/MTE Benzene Ethylbenzene	<u>3E 8015M/8021B</u>	<pre>&lt; (VOCs by GC) &lt; 0.0020 &lt; 0.0020</pre>	/ <b>FID/PID)</b> <0.0020 <0.0020	0.0020 0.0020
GRO/BTEX/MTE Benzene Ethylbenzene Gasoline Range (GRO)	<u>3E 8015M/8021B</u> Organics	<pre>&lt; (VOCs by GC &lt;0.0020 &lt;0.0020 &lt;0.50</pre>	/ <b>FID/PID)</b> <0.0020 <0.0020 <0.50	0.0020 0.0020 0.50
GRO/BTEX/MTE Benzene Ethylbenzene Gasoline Range (GRO) Methyl-tert-Butyl	BE 8015M/8021E Organics Ether (MTBE)	<pre>&lt; (VOCs by GC &lt;0.0020 &lt;0.0020 &lt;0.50 &lt;0.020</pre>	/FID/PID) <0.0020 <0.0020 <0.50 <0.020	0.0020 0.0020 0.50 0.020
GRO/BTEX/MTE Benzene Ethylbenzene Gasoline Range (GRO) Methyl-tert-Butyl Toluene	<u>3E 8015M/8021B</u> Organics Ether (MTBE)	<pre>&lt; (VOCs by GC &lt;0.0020 &lt;0.0020 &lt;0.50 &lt;0.020 &lt;0.0020</pre>	/FID/PID) <0.0020 <0.0020 <0.50 <0.020 <0.0020	0.0020 0.0020 0.50 0.020 0.020 0.0020
GRO/BTEX/MTE Benzene Ethylbenzene Gasoline Range (GRO) Methyl-tert-Butyl Toluene Xylenes, Total	<u>3E 8015M/8021B</u> Organics Ether (MTBE)	<pre>&lt; (VOCs by GC &lt;0.0020 &lt;0.0020 &lt;0.50 &lt;0.020 &lt;0.0020 &lt;0.0020 &lt;0.0020</pre>	/FID/PID) <0.0020 <0.0020 <0.50 <0.020 <0.0020 <0.0020	0.0020 0.0020 0.50 0.020 0.0020 0.0020
GRO/BTEX/MTE Benzene Ethylbenzene Gasoline Range (GRO) Methyl-tert-Butyl Toluene Xylenes, Total	3E 8015M/8021B Organics Ether (MTBE)	<pre>&lt; (VOCs by GC &lt;0.0020 &lt;0.0020 &lt;0.50 &lt;0.020 &lt;0.0020 &lt;0.0020 &lt;0.0020</pre>	/FID/PID) <0.0020 <0.0020 <0.50 <0.020 <0.0020 <0.0020	0.0020 0.0020 0.50 0.020 0.0020 0.0020 <u>%REC Limits</u>





Client:	Acts Community Developme	nt		AA Projec	t No: A67801
Project No:	NA Acto Community Developme	<b>b</b>		Date Recei	ived: 02/23/07
Project Name:	Carbon Chain by CC/EID	n			rted: 04/11/07
Method:	Carbon Chain by GC/FID			U	iits: iiig/kg
Date Sampled:	02/16/07	02/16/07	02/16/07	02/16/07	
Date Prepared:	02/27/07	02/27/07	02/27/07	02/27/07	
Date Analyzed:	03/03/07	03/03/07	03/03/07	03/03/07	
AA ID No:	7B22003-01	1 7B22003-02	7B22003-03	7B22003-04	
Client ID No:	MW-3 10.5-1	1 MW-3 15.5-16	MW-3 20.5-21	MW-4 4.5-5	
Matrix:	Soil	Soil	Soil	Soil	
Dilution Factor:	1	1	1	1	MRL
Carbon Chain C	haracterization 8015M (EPA	<u> 8015M)</u>			
C6-C8	<1.0	<1.0	<1.0	<1.0	1.0
C8-C10	<1.0	<1.0	<1.0	<1.0	1.0
C10-C12	<1.0	<1.0	<1.0	<1.0	1.0
C12-C14	<1.0	<1.0	<1.0	<1.0	1.0
C14-C16	<1.0	<1.0	<1.0	<1.0	1.0
C16-C18	<1.0	<1.0	<1.0	<1.0	1.0
C18-C20	<1.0	<1.0	<1.0	<1.0	1.0
C20-C22	<1.0	<1.0	<1.0	<1.0	1.0
C22-C24	<1.0	<1.0	<1.0	<1.0	1.0
C24-C26	<1.0	<1.0	<1.0	<1.0	1.0
C26-C28	<1.0	<1.0	<1.0	<1.0	1.0
C28-C32	<1.0	<1.0	<1.0	<1.0	1.0
C32-C34	<1.0	<1.0	<1.0	<1.0	1.0
C34-C36	<1.0	<1.0	<1.0	<1.0	1.0
C36-C40	<1.0	<1.0	<1.0	<1.0	1.0
C40-C44	<1.0	<1.0	<1.0	<1.0	1.0
TPH (C6-C44)	<10	<10	<10	<10	10
Surrogates					%REC Limits
o-Terphenyl	125%	102%	87.0%	69.0%	50-150





Client: Project No: Project Name:	Acts Community Development NA Acts Community Development			AA Projec Date Rece Date Repo	t No: A67801 ived: 02/23/07 orted: 04/11/07
Method:	Carbon Chain by GC/FID			Ū	<b>nits:</b> mg/kg
Date Sampled: Date Prepared: Date Analyzed: AA ID No:	02/16/07 02/27/07 03/03/07 7B22003-05	02/16/07 02/27/07 03/03/07 7B22003-06	02/16/07 02/27/07 03/03/07 7B22003-07	02/16/07 02/27/07 03/03/07 7B22003-08	
Client ID No: Matrix: Dilution Factor:	MW-4 8.5-9 Soil 1	MW-4 14-14.5 Soil 1	MW-1 8.5-9 Soil 1	MW-1 12.5-13 Soil 1	MRL
Carbon Chain C	haracterization 8015M (EPA 8	<u>015M)</u>			
C6-C8 C8-C10 C10-C12 C12-C14 C14-C16 C16-C18 C18-C20 C20 C22	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0
C20-C22 C22-C24 C24-C26 C26-C28 C28-C32 C32-C34 C34-C36 C36-C40 C40-C44 TPH (C6-C44)	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
Surrogates o-Terphenyl	75.0%	69.0%	73.0%	101%	<u>%REC Limits</u> 50-150





Client:	Acts Community Development		AA Project No: A67801
Project No:	NA Asta Osmannika Davalana ast		Date Received: 02/23/07
Project Name:	Acts Community Development		Date Reported: 04/11/07
Method:	Carbon Chain by GC/FID		Units: mg/kg
Date Sampled:	02/16/07	02/16/07	
Date Prepared:	02/27/07	02/27/07	
Date Analyzed:	03/03/07	03/03/07	
AA ID No:	7B22003-09	7B22003-10	
Client ID No:	MW-2 8.5-9	MW-2 12.5-13	
Matrix:	Soil	Soil	
Dilution Factor:	1	1	MRL
Carbon Chain C	haracterization 8015M (EPA 8	015M)	
C6-C8	<1.0	<1.0	1.0
C8-C10	<1.0	<1.0	1.0
C10-C12	<1.0	<1.0	1.0
C12-C14	<1.0	<1.0	1.0
C14-C16	<1.0	<1.0	1.0
C16-C18	<1.0	<1.0	1.0
C18-C20	<1.0	<1.0	1.0
C20-C22	<1.0	<1.0	1.0
C22-C24	<1.0	<1.0	1.0
C24-C26	<1.0	<1.0	1.0
C26-C28	<1.0	<1.0	1.0
C28-C32	<1.0	<1.0	1.0
C32-C34	<1.0	<1.0	1.0
C34-C36	<1.0	<1.0	1.0
C36-C40	<1.0	<1.0	1.0
C40-C44	<1.0	<1.0	1.0
TPH (C6-C44)	<10	<10	10
Surrogates			<u>%REC Limits</u>
o-Terphenyl	60.0%	65.0%	50-150

A

Viorel Vasile Operations Manager



# Client:Acts Community DevelopmentProject No:NAProject Name:Acts Community Development

AA Project No: A67801 Date Received: 02/23/07 Date Reported: 04/11/07

	Reporting			Spike	Source	%REC RPD				
Analyte	Result	Limit	Units	Level	Result %REC	Limits	RPD	Limit	Notes	
PAHs by EPA 8270C - Quality Co	ntrol									
Batch B7C0212 - EPA 3545 MS										
Blank (B7C0212-BLK1)				Prepare	ed: 03/02/07 Ana	alyzed: 03	3/06/07			
Acenaphthene	<100	100	ug/kg							
Acenaphthylene	<100	100	ug/kg							
Anthracene	<100	100	ug/kg							
Benzo(a)anthracene	<100	100	ug/kg							
Benzo(a)pyrene	<100	100	ug/kg							
Benzo(b)fluoranthene	<100	100	ug/kg							
Benzo(g,h,i)perylene	<100	100	ug/kg							
Benzo(k)fluoranthene	<100	100	ug/kg							
Chrysene	<100	100	ug/kg							
Dibenzo(a,h)anthracene	<100	100	ug/kg							
Fluoranthene	<100	100	ug/kg							
Fluorene	<100	100	ug/kg							
Indeno (1,2,3-cd) pyrene	<400	400	ug/kg							
Naphthalene	<100	100	ug/kg							
Phenanthrene	<100	100	ug/kg							
Pyrene	<100	100	ug/kg							
Surrogate: 2-Fluorobiphenyl	770		ug/kg	1000	77.0	43-116				
Surrogate: Nitrobenzene-d5	773		ug/kg	1000	77.3	35-134				
Surrogate: Terphenyl-dl4	995		ug/kg	1000	99.5	33-141				
LCS (B7C0212-BS1)				Prepare	ed: 03/02/07 Ana	alyzed: 03	3/06/07			
Acenaphthene	759	100	ug/kg	1000	75.9	50-121				
Anthracene	795	100	ug/kg	1000	79.5	41-121				
Benzo(a)pyrene	1010	100	ug/kg	1000	101	17-163				
Benzo(b)fluoranthene	877	100	ug/kg	1000	87.7	33-137				
Fluoranthene	879	100	ug/kg	1000	87.9	47-125				
Fluorene	945	100	ug/kg	1000	94.5	60-120				
Naphthalene	474	100	ug/kg	1000	47.4	25-121				
Pyrene	954	100	ug/kg	1000	95.4	52-115				
Surrogate: 2-Fluorobiphenyl	903		ug/kg	1000	90.3	43-116				
Surrogate: Nitrobenzene-d5	709		ug/kg	1000	70.9	35-134				

A

Viorel Vasile Operations Manager



# Page 12 of 15

# Client:Acts Community DevelopmentProject No:NAProject Name:Acts Community Development

**AA Project No:** A67801 **Date Received:** 02/23/07 **Date Reported:** 04/11/07

Analyte	F Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PAHs by EPA 8270C - Quality Con	trol		3							
Batch B7C0212 - EPA 3545 MS										
LCS (B7C0212-BS1) Continued				Prepare	d: 03/02/	07 Ana	alvzed: 03	3/06/07		
Surrogate: Terphenvl-dl4	991		ua/ka	1000		99.1	33-141			
Matrix Spike (B7C0212-MS1)	S	ource: 7C0	1002-05	Prepare	d: 03/02/	07 Ana	alvzed: 03	3/06/07		
Acenaphthene	759	100	ua/ka	1000	<100	75.9	47-145			
Anthracene	795	100	ug/kg	1000	<100	79.5	27-133			
Benzo(a)pyrene	1010	100	ug/kg	1000	<100	101	17-163			
Benzo(b)fluoranthene	877	100	ug/kg	1000	<100	87.7	24-159			
Fluoranthene	879	100	ug/kg	1000	<100	87.9	26-137			
Fluorene	945	100	ug/kg	1000	<100	94.5	59-121			
Naphthalene	474	100	ug/kg	1000	<100	47.4	21-133			
Pyrene	954	100	ug/kg	1000	<100	95.4	52-115			
Surrogate: 2-Fluorobiphenyl	903		ug/kg	1000		90.3	43-116			
Surrogate: Nitrobenzene-d5	709		ug/kg	1000		70.9	35-134			
Surrogate: Terphenyl-dl4	991		ug/kg	1000		99.1	33-141			
Matrix Spike Dup (B7C0212-MSE	D1) S	ource: 7C0	1002-05	Prepare	d: 03/02/	07 Ana	alyzed: 03	3/07/07		
Acenaphthene	677	100	ug/kg	1000	<100	67.7	47-145	11.4	40	
Anthracene	721	100	ug/kg	1000	<100	72.1	27-133	9.76	40	
Benzo(a)pyrene	777	100	ug/kg	1000	<100	77.7	17-163	26.1	40	
Benzo(b)fluoranthene	691	100	ug/kg	1000	<100	69.1	24-159	23.7	40	
Fluoranthene	746	100	ug/kg	1000	<100	74.6	26-137	16.4	40	
Fluorene	830	100	ug/kg	1000	<100	83.0	59-121	13.0	40	
Naphthalene	494	100	ug/kg	1000	<100	49.4	21-133	4.13	40	
Pyrene	827	100	ug/kg	1000	<100	82.7	52-115	14.3	40	
Surrogate: 2-Fluorobiphenyl	699		ug/kg	1000		69.9	43-116			
Surrogate: Nitrobenzene-d5	655		ug/kg	1000		65.5	35-134			
Surrogate: Terphenyl-dl4	861		ug/kg	1000		86.1	33-141			
GROBTEXMTBE 8015M/8021B by	GC - Qua	lity Control								
Batch B7C0709 - EPA 5030B										
Blank (B7C0709-BLK1)				Prepare	d & Analy	/zed: 0	3/02/07			
Benzene	<0.0020	0.0020	mg/kg							
Ethylbenzene	<0.0020	0.0020	mg/kg							

A



Client: A Project No: N Project Name: A	Acts Community Development NA Acts Community Development					AA Project No: A67801 Date Received: 02/23/07 Date Reported: 04/11/07					
Analyte		l Result	Reporting Limit	Units	Spike Level	Source Result %REC	%REC Limits	RPD	RPD Limit	Notes	
GROBTEXMTBE 8	015M/8021B by	GC - Qua	lity Control								
Batch B7C0709 - E	EPA 5030B										
Blank (B7C0709-	BLK1) Continu	ed			Prepare	ed & Analyzed: 0	3/02/07				
Gasoline Range C	Drganics (GRO)	<0.50	0.50	mg/kg	-						
Methyl-tert-Butyl E	Ether (MTBE)	<0.020	0.020	mg/kg							
Toluene		<0.0020	0.0020	mg/kg							
Xylenes, Total		<0.0020	0.0020	mg/kg							
Surrogate: a,a,a-	Trifluorotoluene	0.0858		mg/kg	0.100	85.8	80-120				
LCS (B7C0709-B	S1)				Prepare	d & Analyzed: 0	3/02/07				
Benzene		0.0474	0.0020	mg/kg	0.0400	118	75-125				
Ethylbenzene		0.0412	0.0020	mg/kg	0.0400	103	75-125				
Gasoline Range C	Drganics (GRO)	0.848	0.50	mg/kg	1.00	84.8	75-125				
Toluene		0.0410	0.0020	mg/kg	0.0400	102	75-125				
Surrogate: a,a,a-7	Trifluorotoluene	0.107		mg/kg	0.100	107	80-120				
LCS Dup (B7C07	'09-BSD1)				Prepare	ed & Analyzed: 0	3/02/07				
Benzene		0.0424	0.0020	mg/kg	0.0400	106	75-125	11.1	40		
Ethylbenzene		0.0396	0.0020	mg/kg	0.0400	99.0	75-125	3.96	40		
Gasoline Range C	Drganics (GRO)	0.800	0.50	mg/kg	1.00	80.0	75-125	5.83	40		
Toluene		0.0380	0.0020	mg/kg	0.0400	95.0	75-125	7.59	40		
Surrogate: a,a,a-T	Trifluorotoluene	0.105		mg/kg	0.100	105	80-120				
Carbon Chain by G	SC/FID - Quality	Control									
Batch B7B2712 - E	EPA 3550B										
Blank (B7B2712-	BLK1)				Prepare	ed: 02/27/07 Ana	alyzed: 03	3/03/07			
C6-C8	•	<1.0	1.0	mg/kg							
C8-C10		<1.0	1.0	mg/kg							
C10-C12		<1.0	1.0	mg/kg							
C12-C14		<1.0	1.0	mg/kg							
C14-C16		<1.0	1.0	mg/kg							
C16-C18		<1.0	1.0	mg/kg							
C18-C20		<1.0	1.0	mg/kg							
C20-C22		<1.0	1.0	mg/kg							
C22-C24		<1.0	1.0	mg/kg							
024-026		<1.0	1.0	mg/kg							





Client:	Acts Community Development
Project No:	NA
Project Name:	Acts Community Development

**AA Project No:** A67801 **Date Received:** 02/23/07 **Date Reported:** 04/11/07

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Carbon Chain by GC/FID - Quality	Control									
Batch B7B2712 - EPA 3550B										
Blank (B7B2712-BLK1) Continue	d			Prepare	ed: 02/27/	/07 Ana	alyzed: 03	3/03/07		
C26-C28	<1.0	1.0	mg/kg							
C28-C32	<1.0	1.0	mg/kg							
C32-C34	<1.0	1.0	mg/kg							
C34-C36	<1.0	1.0	mg/kg							
C36-C40	<1.0	1.0	mg/kg							
C40-C44	<1.0	1.0	mg/kg							
TPH (C6-C44)	<10	10	mg/kg							
Surrogate: o-Terphenyl	7.60		mg/kg	10.0		76.0	50-150			
LCS (B7B2712-BS1)				Prepare	ed: 02/27/	/07 Ana	alyzed: 03	3/03/07		
Diesel Range Organics as Diesel	160	10	mg/kg	200		80.0	75-125			
Surrogate: o-Terphenyl	9.40		mg/kg	10.0		94.0	50-150			
Matrix Spike (B7B2712-MS1)	S	Source: 7B2	22003-06	Prepare	ed: 02/27/	/07 Ana	alyzed: 03	3/03/07		
Diesel Range Organics as Diesel	163	10	mg/kg	200	<10	81.5	70-130			
Surrogate: o-Terphenyl	9.90		mg/kg	10.0		99.0	50-150			
Matrix Spike Dup (B7B2712-MSD	1) S	Source: 7B2	22003-06	Prepare	ed: 02/27/	/07 Ana	alyzed: 03	3/03/07		
Diesel Range Organics as Diesel	158	10	mg/kg	200	<10	79.0	70-130	3.12	40	
Surrogate: o-Terphenyl	8.90		mg/kg	10.0		89.0	50-150			

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**AA Project No:** A67801 **Date Received:** 02/23/07 **Date Reported:** 04/11/07



# LABORATORY ANALYSIS RESULTS

Client:	Acts Community Development
Project No:	NA
Project Name:	Acts Community Development

**Special Notes** 



Franklin J. Goldman PO BOX 59, Sonoma, CA 95476 ElGoldmanCHG@vahoo.com	CHAIN OF CU Laboratory	Analysis P.O. No.
FAX: (949) 606-8711	Laboratory Plea	ise Call Accounts Payable for P.O. No.
FJGoldmanCHG@yahoo.com         FAX: (949) 606-8711         Cell: (707) 758-6614         Project Name         Acts Full Gospel Church         Project Number         Oakland, CA         Address         Sampler's Name:         Frank Goldman         Sampler's Name:         Frank Goldman         Sampler's Signaturer         Humber         Location         Date         MW-3         102-11         02/16/07         MW-3         MW-3         MW-3         MW-3         925         MW-3         MW-4         42-5         MW-7         925         MW-4         MW-4         925         MW-4         925         MW-4         MW-4         122-7         MW-1         122-7         MW-1         122-7         MW-1         122-7         MW-1         122-7         MW-2         82-9         122-7     <		Analysis P.O. No. ise Call Accounts Payable for PO. No. Date: $2 2 1 0$ theetOf American Analytics 9765 Eton Ave Chatsworth, CA 91311 Phone: (818) 998-5547 Chatsworth, CA 91311 Phone: (818) 998-5547 Phone Turnaround Time Rush 24 Hour 48 Hour 5-Day Repeat to: Erank Comments 7 & 22.003-01 -02 -03 -04 -05 -05 -07 -08 ST $F$ I: CI CO BIJLE -99 -10
Franch John 2210797	Fedx 2/2107 G50 Containers this Method of Ship 2 Cere 2 23.07 19:14 Special Shipme	ment: 310 <sup>m</sup>
Dispatched By Date Time	Received in Lab By Date Time or Storage Red	Wirements: Keep on Ice

Attachment B

Blaine Technical Services Well Development Logs

# WELL GAUGING DATA

Project # 070302-551 Date 3/2/07 Client Frank Goldman

Site	10D 1	-774	n Avi	<u>.</u> , 01	Acuan	- <b>D</b>				
Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or	Notes
Mw·l	1005	2					4.19	12-28		
MW.2	1010	2					3.83	12.57		
mw.3	1015	2					6.62	12.70		
mwig	1070	2					5.75	12.20	$\checkmark$	
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			: 	· · · · · · · · · · · · · · · · · · ·						
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WELL DEVELOPMENT DATA SH	IEET									
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		WELL	DEVELC	OPMENT 1	DATA SH	EET			
Project #:	×, 0.70	0302-55		Client: Frank Goldman					
Developer	501	och	<b>₽</b> 1 - 2 1 - 3	Date Developed: 3207					
Well I.D.	MW	• 1		Well Diameter: (circle one) 2/3, 4, 6					
Total Well	l Depth:		. 02	Depth to Water:					
Before 12	.28	After /2./	27	Before 4.19 After 4.35					
Reason no	t develope	ed:		If Free Proc	duct, thickne	ess:			
Additiona	l Notation	s: surged	for 15m	in prov	to pure	ze .			
Volume Conve $\{12 \times (d)$ where 12 = in / d d = dian $\pi = 3.14$ 231 = in 3.0	ersion Factor (VCF) <sup> 2</sup> /4) x π} /231 foot neter (in.) 416 /gal	:	Well dia.         VC $2^{"}$ =         0.1 $3^{"}$ =         0.3' $4^{"}$ =         0.6 $6^{"}$ =         1.4' $10^{"}$ =         4.0 $12^{"}$ =         6.8	F • • 6 7 5 7 8 7	•,	х г <sup>с</sup>			
1.3	3	Х	1	0	······	13			
1 Case V	Volume		Specified	l Volumes	=	gallons			
Purging Dev	vice:	Type of Insta Other equipm	Bailer Suction Pump lled Pump nent used	" surge b	lock-	Electric Submersible Positive Air Displacement			
TIME	TEMP (F)	nН	Cond. $(mS \text{ or } \mu S)$	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:			
	65.4	6.5	(363	×1000	1.3	Brown, Silly			
124	65.0	7.0	1281	>1000	2.6	8' el			
1127	65.0	7.1	1114	>1000	39	84 81			
	645	7.1	1168	51000	5.2	Hard Buttom			
	443	7.1	1170	>1000	6.5	Brown cloudy			
	1112-	7.1	1096	>1000	1.8	14 01			
1125	112	71	1101	>1200	9.1	it it			
1151	64	<u> </u>	1049	71000		<u> </u>			
<u>  11 59</u>	6/10	1.	1001	51000		11. 11			
1141	1 2 0				<u>  [] / / _ </u>	OPP I' TOS " DOL			
1144	69.7	<u> </u>	1043	>1000	13.0	193 684 1-5			
<b></b>				<u> </u>					
Did Well Dev	water? N	If yes, note abo	ove.	Gallons Actual	lly Evacuated:	3			
						•			

#### WELL DEVELOPMENT DATA SHEET

Project #:	, o-	70302.55	<b>i</b>	Client: <b>T</b>	ank Gold	Iman .					
Developer	50	och	,	Date Devel	oped: 3	207					
Well I.D.	mw-	2		Well Diame	eter; (circle	one) (2) 3 4 6					
Total Well	Depth:			Depth to W	ater: 🐎						
Before A	2.51	After (2.)	67 1	Béfóre 3.	83 After	4.24					
Reason no	Reason not developed:										
Additional Notations: Gwald well for ISmin. Prior to pwale.											
Well dia.       VCF $\{12 \times (d^2/4) \times \pi\}/231$ $2^{\prime\prime\prime}$ $=$ $0.16$ where $3^{\prime\prime\prime}$ $=$ $0.37$ $12 = in / foot$ $4^{\prime\prime\prime}$ $=$ $0.65$ d = diameter (in.) $6^{\prime\prime\prime}$ $=$ $1.47$ $\pi = 3.1416$ $10^{\prime\prime\prime}$ $=$ $4.08$											
$\frac{231 = \text{m } 37}{1 \text{ Case } 1}$	olume	X	Specified	<b>D</b> I Volumes	=	gallons					
Purging Device:     And Bailer     Device:       Suction Pump     Suction Pump											
		Type of Insta Other equipm	lled Pump	" surge !	block						
TIME	TEMP (F)	• <sub>pH</sub>	$(mS \text{ or } \mu S)$	TURBIDITY (NTUs);	VOLUME REMOVED:	NOTATIONS:					
1220	63.2	6.7	1451	71000	· 1.4 "	SILTITIONA					
224	62.2	1.1	1337	71000	#2.8	64. 91					
1221	b1.8	7.1	1417	71000	4.2						
1230	61.8	7.2	1326	>1000	5.4	L <sup>1</sup> I/					
1233	66.6	7.1	1302	71000	7.0	c conor Bon					
1236	61.6	7.1	1209	71000	8.4	Hard Bottom					
1238	66	7.	1143	71000	10.8	elondy, from					
1240	61.7	7.1	1125	71000	11.5	n 13					
1242	61.7	7.1	1115	-1000	12.4	n n					
1246	6.6	7.1	1110	71000	14.0	<u>000</u> TOS D.O. <u>734</u> 727 1.3					
	[ 										
	 	``.			ļ						
Did Well Dev	vater? N	If yes, note abo	ove.	Gallons Actual	lly Evacuated:	14					

	,	
WELL DEVELOPMENT DATA SHEET		

10,000 #1	0-	70202.50	51	Client: Frank Goldman			
Developer	· ج ۵۵	sch		Date Developed: 3/2/07			
Well I.D.	MW	. 3	<u>^</u>	Well Diam	eter: (circle	one) 1/2) 3	* 4 6
Fotal Well	l Depth:	· · · · · · · · · · · · · · · · · · ·	-	Depth to W	ater:		•
د\ Before		After 12 -	20 .	Before 6.	62 Afte	er 8.	20
Reason no	t develop	ed:		If Free Proc	duct, thickn	ess:	
Additional	l Notation	S: Swged	well f	or 15mm	QV. 10V	to purge	
Volume Convo $\{12 \times (d $ where $12 = in / f$ $d = dian$ $\pi = 3.14$ $231 = in 3f$	ersion Factor (VCF) 1 <sup>2</sup> /4) x π} /231 foot neter (in.) 116 /gal		Well dia.         VC $2^{"}$ =         0.1 $3^{"}$ $\sim$ 0.3 $4^{"}$ $\sim$ 0.6 $6^{"}$ =         1.4 $10^{"}$ =         4.0 $12^{"}$ =         6.8	F 6 7 5 7 8 7	••• 	<i>₽</i> , <b>.</b> .	
1 Case V	Volume	Х	( o Specified	i Volumes	=	gallon	8
Purging Dev	vice:	Type of Insta	Bailer Suction Pum alled Pump	P.		Electric Subm Positive Air I	nersible Displacement
		Outer equips		•			
		· · ·	Cond.	TURRIDITY			
TIME	TEMP (F)	рН	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NC	TATIONS:
тіме 1315	TEMP (F) 5 <b>1.</b> 4	<sub>рН</sub> 6.7	Cond. (mS or μS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NC clonely	otations:
TIME 1315 1317	TEMP (F) 5 <b>9.9</b> 5 <b>9.2</b>	<sub>рН</sub> 6.7 7.3	Cond. (mS or μS) (707 [618	TURBIDITY (NTUs) 71000 71090	VOLUME REMOVED: 1 2	NC clonely Have E	orations: brown 30Hon
TIME 1315 1317 1319	TEMP (F) 59.9 59.2 59.2	<sub>рН</sub> <u>6.7</u> <u>7.3</u> 7.4	Cond. (mS or μS) (707 (618 ].342	TURBIDITY (NTUs)         >1000         >1090         >1090	VOLUME REMOVED: 1 2- 3	NC clonely Havel E clondy	orations: brown Bolton
TIME 1315 1317 1319 1221	TEMP (F) 59.9 59.2 59.2 59.2	рН 6.7 7.3 7.4 7.5	Cond. (mS or µS) (700 (618 1.342 1228	TURBIDITY (NTUs) 71000 >1090 >1090 >1090 >1090	VOLUME REMOVED: 1 2- 3 4	NC clonely Havel E clondy	brown Bolton brom 7
TIME 1315 1317 1319 1321 1321 1324	TEMP (F) 59.9 59.2 59.2 59.2 59.4 59.3	рН 6.7 7.3 7.4 7.5 7.2	Cond. (mS or µS) (700 (618 1.342 1228	TURBIDITY (NTUs) 71000 71090 71090 71090 71090 71000	VOLUME REMOVED: 1 2- 3 4 4 5	NC clonely Havel E clondy n	orations: brown Bolton , bromn n
TIME 1315 1317 1319 1321 1324 1326	TEMP (F) 59.9 59.2 59.2 59.3 59.3 59.3	pH 6.7 7.3 7.4 7.5 7.2 7.2	Cond. (mS or µS) (707 (618 1.342 1228 1/28 1068	TURBIDITY (NTUS) 71000 71090 71090 71090 71000 71000	VOLUME REMOVED: 1 2 3 4 5 5	NC clonely Havel E clondy n 	orations: brown Bolton , brom n 1
TIME 1315 1317 1319 1321 1324 1326 1326	TEMP (F) 59.9 59.2 59.2 59.3 59.3 59.3 59.3	pH 6.7 7.3 7.4 7.5 7.2 7.2 7.2 7.2	Cond. (mS or µS) (707 (618 1.342 1.342 1.28 1.128 1.068 1.274	TURBIDITY (NTUS) 71000 >1090 >1090 >1090 >1090 >1090 >1090 >1090 >1090	VOLUME REMOVED: 1 2 3 4 5 6 6	NC clonely Havel E clondy n 	orations: brown Bolton , brom n 
TIME 1315 1317 1319 1321 1324 1326 1328 1328 1328	TEMP (F) 59.9 59.2 59.2 59.3 59.3 59.3 59.3 59.4 59.4	pH 6.7 7.3 7.4 7.5 7.2 7.2 7.2 7.2 7.2 7.1	Cond. (mS or µS) (707 (618 1.342 1.342 1.28 1.28 1.128 1.068 1.074 9.74	TURBIDITY (NTUS) 71000 >1090 >1090 >1090 >1090 71000 71000	VOLUME REMOVED: 1 2 3 4 5 6 5 6 7 8	NC clonely Havel E clondy n 	orations: brown Bolton , brom n 
TIME 1315 1317 1319 1321 1324 1326 1326 1328 1330 1222	TEMP (F) 59.9 59.2 59.2 59.3 59.3 59.3 59.3 59.3 59.5 59.5 50.6	pH $b.7$ $7.3$ $7.4$ $7.5$ $7.2$ $7.2$ $7.2$ $7.2$ $7.1$ $7.1$	Cond. (mS or µS) (707 (618 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.344 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.342 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.344 1.3444 1.3444 1.3444 1.3444 1.3444 1.3444 1.3444 1.3444 1.3444 1.34444 1.34444 1.34444 1.344444 1.34444444444	TURBIDITY (NTUS)         71000         71000         71000         71000         71000         71000         71000	VOLUME REMOVED: 1 2 3 4 5 6 5 6 5 6 7 8 8	NC clonely Havel E clondy n 	DTATIONS: (prov n Bolton , brom n 
TIME 1315 1317 1319 1321 1324 1326 1328 1328 1330 1330 1330 1330	TEMP (F) 59.9 59.2 59.2 59.2 59.3 59.3 59.3 59.4 59.4 59.4 59.4 59.4 59.4 59.4	pH $b.7$ $7.3$ $7.4$ $7.5$ $7.2$ $7.2$ $7.2$ $7.2$ $7.1$ $7.1$ $7.1$ $7.1$	Cond. (mS or µS) (707 (618 1.342 1228 1228 128 1068 1074 974 974 971 971	TURBIDITY (NTUS) 71000 71000 71000 71000 71000 71000 71000 71000 71000	VOLUME REMOVED: 1 2- 3 4 4 5 6 6 5 6 6 7 8 6 9	NC clonely Havel E clondy n 	DTATIONS: (brown Boltom , brom 1 1 1 1 1 1 1 1 1 1 1 1 1
TIME 1315 1317 1319 1321 1324 1326 1326 1328 1330 1330 1330 1332 1330 1332	TEMP (F) 59.9 59.2 59.2 59.3 59.3 59.3 59.3 59.5 59.6 59.6 59.7	pH b.7 7.3 7.4 7.5 7.2 7.2 7.2 7.2 7.1 7.1 7.1 7.1	Cond. (mS or µS) 1707 1618 1.342 1.342 1.28 1.28 1.28 1.068 1.074 9.74 9.74 9.71 9.87	TURBIDITY (NTUs)         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000         >1000	VOLUME REMOVED: 1 2- 3 4 5 6 5 6 5 6 7 8 9 10	NC clonely Havel E clondy n      	DTATIONS: (brown Bolton , brom 7 11 11 11 11 11 11 11 11 11

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### WELL DEVELOPMENT DATA SHEET

Project #·	074			Client:	The C	lalman				
Developer:	<u> </u>	1		Date Develo	oned:	2/27	, <u>-</u> -			
Well I D	<u>. 200</u>			Well Diame	ter: (circle	(1) $(2)$	3 4 6			
Total Well	Denth:	<u>v••</u>		Depth to W	ater:					
Refore 17		Δfter / <b>2 /</b>		Before $4$ After 6 $\beta$ 3						
Deror no	t develope	d.	1	If Free Product, thickness:						
Additional	Notation		100 5	N ICMI	A 01/10-(	6 044	• <i>L</i>			
Volume Convert $\{12 x (d^2) where$ $12 = in / f$ $d = diam$ $\pi = 3.14$ $231 = in 3/$	rsion Factor (VCF): $^{2}/4$ ) x $\pi$ } /231 foot heter (in.) 16 gal	<u>.</u>	Well dia.         VC. $2^n$ =         0.11 $3^n$ =         0.3 $4^n$ =         0.6 $6^n$ =         1.4 $10^n$ =         4.0 $12^n$ =         6.8	<b>C</b> F 6 7 5 7 8 7	<u> </u>	<u> </u>	<u> </u>			
1 <i>Q</i> 1 Case V	/olume	X	Specified	1 Volumes		<i>  0</i> gall	ons			
Purging Dev	vice:	Type of Insta Other equipm	Bailer Suction Pump lled Pump nent used	" sweet	3 Block	Electric Sul Positive Ai	omersible r Displaceme	nt		
TIME	TEMP (F)	рН	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:		NOTATIONS:			
1032	1.3.8	7.1	1601	71000	1	Brown	SILTY, MIL	995 oder		
1034	64.9	7.1	1255	>1000	2	57	tr.	•/		
(124	64.8	7.1	1048	71000	3	cloud	y. brown.	mild ges ou		
1024	65.5	7.1	981	71000	4	11	**			
10 70	65.4	7.1	969	71000	5		hard Both	-		
1040	10C 2-	7.1	991.	71000	6	dondy.	brown . nal	I gas od r		
10th	65.6	7.2	950	71000	7	n	11			
1014	45.10	7.2	945	51000	8	n	11			
1098	10.1	1	921	> 1900	9	67	1/			
1050	45.7	7.2	939	71000	10	enp 13mu	IDS 644 ppm	D.e. [.] mg/1		
Did Well Dev	water?	If yes, note abo	ove.	Gallons Actual	ly Evacuated:	10		x		

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#### TEST EQUIPMENT CALIBRATION LOG

PROJECT NAM	1E			PROJECT NUMBER					
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS		
Milan V	605785	3/2/07	7.00	7.02	7.00	65.5	85		
1	1		4.00	4.15	4.00	65.5	K.		
V	V		3700 Us	3892	3900Ms	60.2	L.		
		· · · · · · ·							
						- <b>-</b>			

SPE on Punge Water Drum Log

Chent Frank	Goldan					
Site Address 1001	mt A	he.	OAKU	4~M		
STATUS OF DRUM(S) UPON	ARRIVAL	<u></u>	=	<u> </u>		
Date	8/2/07					
Number of drum(s) empty:	8					
Number of drum(s) 1/4 full:						
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:						
Number of drum(s) full:	6*					
Total drum(s) on site:						
Are the drum(s) properly labeled?	У	ļ				·····
Drum ID & Contents:		ļ				·····
If any drum(s) are partially or totally						
	<u> </u>	<u> </u>	have at least	20 gals of Pur	mowater or DI	Water
- If you add any SPH to an empty or partially	y milea arum, a staal AND label	irum musi led with th	nave al least	label.	gewater of DI	trater.
-All BTS drums MUST be labeled appropria	telv.		A MIN	6-S		
STATUS OF DRUM(S) UPON	DEPARTU	JRE				
Date	3/2/07					
Number of drums empty:	6					
Number of drum(s) 1/4 full:						
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:						
Number of drum(s) full:	6* 1					
Total drum(s) on site:	7					
Are the drum(s) properly labeled?	<u>y</u>	-				
Drum ID & Contents:						
LOCATION OF DRUM(S)					3 6 S. A	
Describe location of drum(s):	janst b	encing	in hom	for 10	00/ 774	<b>) •</b>
*(6)	SOIL DRW	ms - 1	vor BTS			
Number of new drum(s) left on site	este oter ek T		<u></u>	<u></u>	<u>ta tu ostakiteksi.</u>	<u>nara Anara na ang ang ang ang ang ang ang ang ang</u>
this event						
Date of inspection:	3207					
Drum(s) labelled properly:		ļ				
Logged by BTS Field Tech:	<u>  8)</u>					
Office reviewed by:						

### Attachment C

Sampling Event Logs - ACD - March 21, 2007

MW-1	DW 5.00′	Gallons purged	TEMP F (Circle One)	EC (us/cm)	PH	TIME	03-21-07
		2.5	65.2	1101	7.1	8:30 am	
		2.0	64.8	1088	7.1	9:05	
		2.0	64.1	1062	7.1	9:45 am	

MW-2	DW 4.70′	Gallons purged	TEMP C/F (Circle One)	EC (us/cm)	PH	TIME	03-21-07
		2.5	62.1	1141	7.1	10:00 am	
		2.0	61.8	1131	7.1	10:25	
		2.0	61.1	1121	7.1	11:15 am	

MW-3	DW 6.81′	Gallons purged	TEMP F (Circle One)	EC (us/cm)	PH	TIME	03-21-07
		2.5	60.6	1011	7.2	11:40 am	
		2.0	60.1	1000	7.1	12:05	
		2.0	59.9	998	7.1	12:30 pm	

MW-4	DW 6.12′	Gallons purged	TEMP F (Circle One)	EC (us/cm)	PH	TIME	03-21-07
		2.5	66.7	966	7.2	12:50 pm	
		2.0	66.2	955	7.2	1:15	
		2.0	65.4	941	7.2	1:55 pm	

Attachment D

Certified Land Survey, Plat Map, & Data



#### GeoTracker\_XY Report for Monitoring Wells Surveyed at 1001 77th Street, Oakland, CA. by Silicon Valley Land Surveying, Inc. for ACTS Community Development

FIELD_PT_NAME	XY_SURVEY_DATE	LATITUDE	LONGTITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY_ORG	GPS_EQUIP_TYPE
MW-1	4/11/2007	37.7538002	122.1906224	GPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-2	4/11/2007	37.7537584	122.1905768	GPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-3	4/11/2007	37.7536776	122.1903185	GPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530
MW-4	4/11/2007	37.7537516	122.1903592	GPS	NAD83	2	Silicon Valley Land Surveying Inc.	L530

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#### GeoTracker\_Z Report for Monitoring Wells Surveyed at 1001 77th Street, Oakland, CA. by Silicon Valley Land Surveying, Inc. for ACTS Community Development

GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC
	MW-1	4/11/2007	11.59	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.26	NGS BM AA3814 NAVD 88
	MW-2	4/11/2007	11.28	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.50	NGS BM AA3814 NAVD 88
	MW-3	4/11/2007	12.78	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.59	NGS BM AA3814 NAVD 88
	MW-4	4/11/2007	12.18	DIG	88	2	Silicon Valley Land Surveying Inc.	-0.36	NGS BM AA3814 NAVD 88

### **Attachment E**

### Laboratory Data Sheets for Water Samples



9765 Eton Avenue Chatsworth California 91311 Tel: (818) 998-5547 Fax: (818) 998-7258

April 16, 2007

Rene Eschon Acts Community Development 1034 66th Ave Oakland, CA 94621

#### Re: Acts Community Development

#### A67803 / 7C23003

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 03/23/07 10:00 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytics.

Sincerely,

Viorel Vasile Operations Manager



Client: Project No: Project Name:	Acts Community De NA Acts Community De	evelopment evelopment		AA Project No: A67803 Date Received: 03/23/07 Date Reported: 04/16/07					
Sample ID		Laboratory ID	Matrix	ТАТ	Date Sampled	Date Received			
8260B TPHGB	TEXOXYEDBEDC								
MW-1		7C23003-01	Water	10	03/21/07 09:35	03/23/07 10:00			
MW-2		7C23003-02	Water	10	03/21/07 11:05	03/23/07 10:00			
MW-3		7C23003-03	Water	10	03/21/07 12:20	03/23/07 10:00			
MW-4		7C23003-04	Water	10	03/21/07 13:40	03/23/07 10:00			
8270C PAHs									
MW-1		7C23003-01	Water	10	03/21/07 09:35	03/23/07 10:00			
MW-2		7C23003-02	Water	10	03/21/07 11:05	03/23/07 10:00			
MW-3		7C23003-03	Water	10	03/21/07 12:20	03/23/07 10:00			
MW-4		7C23003-04	Water	10	03/21/07 13:40	03/23/07 10:00			
Carbon Chain	Characterization 80	<u>)15M</u>							
MW-1		7C23003-01	Water	10	03/21/07 09:35	03/23/07 10:00			
MW-2		7C23003-02	Water	10	03/21/07 11:05	03/23/07 10:00			
MW-3		7C23003-03	Water	10	03/21/07 12:20	03/23/07 10:00			
MW-4		7C23003-04	Water	10	03/21/07 13:40	03/23/07 10:00			

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Client: Project No:	Acts Commur NA		AA Project No: A67803 Date Received: 03/23/07						
Project Name:	Acts Commun	nity Development		Date Reported: 04/16/07					
Method:	PAHs by EPA	A 8270C							
Date Sampled:		03/21/07	03/21/07	03/21/07	03/21/07				
Date Prepared:		03/27/07	03/27/07	03/27/07	03/27/07				
Date Analyzed:		03/30/07	03/30/07	03/30/07	03/31/07				
AA ID No:		7C23003-01	7C23003-02	7C23003-03	7C23003-04				
Client ID No:		MW-1	MW-2	MW-3	MW-4				
Matrix:		Water	Water	Water	Water				
Dilution Factor	:	1	1	1	1	MRL			
<u>8270C PAHs (E</u>	<u>PA 8270M)</u>								
Acenaphthene		<0.20	<0.20	<0.20	<0.20	0.20			
Acenaphthylene	1	<0.20	<0.20	<0.20	<0.20	0.20			
Anthracene		<0.20	<0.20	<0.20	<0.20	0.20			
Benzo(a)anthra	cene	<0.20	<0.20	<0.20	<0.20	0.20			
Benzo(a)pyrene		<0.20	<0.20	<0.20	<0.20	0.20			
Benzo(b)fluoran	thene	<0.20	<0.20	<0.20	<0.20	0.20			
Benzo(g,h,i)pery	/lene	<0.20	<0.20	<0.20	<0.20	0.20			
Benzo(k)fluoran	thene	<0.20	<0.20	<0.20	<0.20	0.20			
Chrysene		<0.20	<0.20	<0.20	<0.20	0.20			
Dibenzo(a,h)ant	hracene	<0.20	<0.20	<0.20	<0.20	0.20			
Fluoranthene		<0.20	<0.20	<0.20	<0.20	0.20			
Fluorene		<0.20	<0.20	<0.20	<0.20	0.20			
Indeno (1,2,3-co	l) pyrene	<0.20	<0.20	<0.20	<0.20	0.20			
Naphthalene		<0.20	<0.20	<0.20	<0.20	0.20			
Phenanthrene		<0.20	<0.20	<0.20	<0.20	0.20			
Pyrene		<0.20	<0.20	<0.20	<0.20	0.20			
Surrogates						%REC Limits			
2-Fluorobipheny	1	70.4%	74.0%	73.8%	62.4%	43-116			
Terphenyl-dl4		79.0%	70.2%	80.8%	69.0%	33-141			





Client:	Acts Communit	y Development			AA Project I	No: A67803
Project No: Project Name:	NA Acts Communit				Date Receive	ed: 03/23/07
Method:	TPHG/BTEX/O	XY/EDBEDC by	Units: ug/L			
Date Sampled:		03/21/07	03/21/07	03/21/07	03/21/07	
Date Prepared:		04/02/07	04/02/07	04/02/07	04/02/07	
Date Analyzed:		04/02/07	04/02/07	04/02/07	04/02/07	
AA ID No:		7C23003-01	7C23003-02	7C23003-03	7C23003-04	
Client ID No:		MW-1	MW-2	MW-3	MW-4	
Matrix:		Water	Water	Water	Water	
<b>Dilution Factor:</b>		1	MRL			
8260B TPHGBT	EXOXYEDBED	<u>C (EPA 8260B)</u>				
tert-Amyl Methyl	Ether (TAME)	<2.0	<2.0	<2.0	<2.0	2.0
Benzene		<0.50	<0.50	<0.50	50	0.50
tert-Butyl alcohol (TBA)		<10	<10	<10	<10	10
1,2-Dibromoetha	ane (EDB)	<0.50	<0.50	<0.50	<0.50	0.50
1,2-Dichloroetha	ne (EDC)	<0.50	<0.50	<0.50	<0.50	0.50
Diisopropyl ether	r (DIPE)	<2.0	<2.0	<2.0	<2.0	2.0
Ethylbenzene		<0.50	<0.50	<0.50	1200	0.50
Ethyl-tert-Butyl E	ther (ETBE)	<2.0	<2.0	<2.0	<2.0	2.0
Gasoline Range (GRO)	Organics	2200 [1]	2000 [1]	<100	27000	100
Methyl-tert-Butyl	Ether (MTBE)	<2.0	<2.0	<2.0	3.3	2.0
Toluene		<0.50	<0.50	<0.50	25	0.50
o-Xylene	lene <0.50 <0.50 <0.50		<0.50	850	0.50	
m,p-Xylenes		<1.0	<1.0	<1.0	3200	1.0
Surrogates						%REC Limits
Dibromofluorome	ethane	112%	112%	116%	108%	80-120
Toluene-d8		90.0%	92.0%	96.0%	84.0%	80-120

A



Client: Project No:	Acts Community Development			AA Project Date Receiv	No: A67803 (ed: 03/23/07
Project Name:	Acts Community Development			Date Report	ted: 04/16/07
Method:	Carbon Chain by GC/FID			Un	its: mg/L
Date Sampled:	03/21/07	03/21/07	03/21/07	03/21/07	
<b>Date Prepared:</b>	04/02/07	04/02/07	04/02/07	04/02/07	
Date Analyzed:	04/05/07	04/05/07	04/05/07	04/05/07	
AA ID No:	7C23003-01	7C23003-02	7C23003-03	7C23003-04	
Client ID No:	MW-1	MW-2	MW-3	MW-4	
Matrix:	Water	Water	Water	Water	
Dilution Factor:	1	1	1	1	MRL
Carbon Chain C	haracterization 8015M (EPA 8	8015M)			
C6-C8	<0.010	<0.010	<0.010	0.12	0.010
C8-C10	<0.010	<0.010	<0.010	6.5	0.010
C10-C12	<0.010	<0.010	<0.010	2.4	0.010
C12-C14	<0.010	<0.010	<0.010	0.38	0.010
C14-C16	<0.010	<0.010	<0.010	0.070	0.010
C16-C18	<0.010	<0.010	<0.010	0.012	0.010
C18-C20	<0.010	<0.010	<0.010	<0.010	0.010
C20-C22	<0.010	<0.010	<0.010	<0.010	0.010
C22-C24	<0.010	<0.010	<0.010	<0.010	0.010
C24-C26	<0.010	<0.010	<0.010	<0.010	0.010
C26-C28	<0.010	<0.010	<0.010	<0.010	0.010
C28-C32	<0.010	<0.010	<0.010	<0.010	0.010
C32-C34	<0.010	<0.010	<0.010	<0.010	0.010
C34-C36	<0.010	<0.010	<0.010	<0.010	0.010
C36-C40	<0.010	<0.010	<0.010	<0.010	0.010
C40-C44	<0.010	<0.010	<0.010	<0.010	0.010
TPH (C6-C44)	<0.10	<0.10	<0.10	9.5	0.10
Surrogates					%REC Limits
o-Terphenyl	61.0%	77.0%	60.0%	56.0%	50-150





### Client:Acts Community DevelopmentProject No:NAProject Name:Acts Community Development

**AA Project No:** A67803 **Date Received:** 03/23/07 **Date Reported:** 04/16/07

• • /	R	eporting	11	Spike	Source	%REC		RPD	Nata-
Analyte	Result	Limit	Units	Level	Result %REC	LIMITS	RPD	LIMIT	Notes
PAHs by EPA 8270C - Quality Con	trol								
Batch B7C2712 - EPA 3510C_MS									
Blank (B7C2712-BLK1)				Prepare	d: 03/27/07 Ana	alyzed: 03	3/30/07		
Acenaphthene	<0.20	0.20	ug/L						
Acenaphthylene	<0.20	0.20	ug/L						
Anthracene	<0.20	0.20	ug/L						
Benzo(a)anthracene	<0.20	0.20	ug/L						
Benzo(a)pyrene	<0.20	0.20	ug/L						
Benzo(b)fluoranthene	<0.20	0.20	ug/L						
Benzo(g,h,i)perylene	<0.20	0.20	ug/L						
Benzo(k)fluoranthene	<0.20	0.20	ug/L						
Chrysene	<0.20	0.20	ug/L						
Dibenzo(a,h)anthracene	<0.20	0.20	ug/L						
Fluoranthene	<0.20	0.20	ug/L						
Fluorene	<0.20	0.20	ug/L						
Indeno (1,2,3-cd) pyrene	<0.20	0.20	ug/L						
Naphthalene	<0.20	0.20	ug/L						
Phenanthrene	<0.20	0.20	ug/L						
Pyrene	<0.20	0.20	ug/L						
Surrogate: 2-Fluorobiphenyl	36.2		ug/L	50.0	72.4	43-116			
Surrogate: Terphenyl-dl4	59.6		ug/L	50.0	119	33-141			
LCS (B7C2712-BS1)				Prepare	d: 03/27/07 Ana	alyzed: 03	3/30/07		
Acenaphthene	31.9	0.20	ug/L	50.0	63.8	30-140			
Acenaphthylene	34.9	0.20	ug/L	50.0	69.8	30-140			
Anthracene	32.1	0.20	ug/L	50.0	64.2	30-140			
Benzo(a)anthracene	37.7	0.20	ug/L	50.0	75.4	30-140			
Benzo(a)pyrene	33.4	0.20	ug/L	50.0	66.8	30-140			
Benzo(b)fluoranthene	38.7	0.20	ug/L	50.0	77.4	30-140			
Benzo(g,h,i)perylene	27.5	0.20	ug/L	50.0	55.0	30-140			
Benzo(k)fluoranthene	35.0	0.20	ug/L	50.0	70.0	30-140			
Chrysene	37.5	0.20	ug/L	50.0	75.0	30-140			
Dibenzo(a,h)anthracene	21.9	0.20	ug/L	50.0	43.8	30-140			
Fluoranthene	39.4	0.20	ug/L	50.0	78.8	30-140			
Fluorene	32.5	0.20	ug/L	50.0	65.0	30-140			





## Client:Acts Community DevelopmentProject No:NAProject Name:Acts Community Development

**AA Project No:** A67803 **Date Received:** 03/23/07 **Date Reported:** 04/16/07

	F	Reporting		Spike	Source	%REC		RPD	
Analyte	Result	Limit	Units	Level	Result %REC	Limits	RPD	Limit	Notes
PAHs by EPA 8270C - Quality Con	trol								
Batch B7C2712 - EPA 3510C_MS									
LCS (B7C2712-BS1) Continued				Prepare	ed: 03/27/07 Ana	alyzed: 0	3/30/07		
Indeno (1,2,3-cd) pyrene	29.5	0.20	ug/L	50.0	59.0	30-140			
Naphthalene	33.4	0.20	ug/L	50.0	66.8	30-140			
Phenanthrene	31.2	0.20	ug/L	50.0	62.4	30-140			
Pyrene	32.2	0.20	ug/L	50.0	64.4	30-140			
Surrogate: 2-Fluorobiphenyl	34.7		ug/L	50.0	69.4	43-116			
Surrogate: Terphenyl-dl4	36.1		ug/L	50.0	72.2	33-141			
LCS Dup (B7C2712-BSD1)				Prepare	ed: 03/27/07 Ana	alyzed: 0	3/30/07		
Acenaphthene	32.0	0.20	ug/L	50.0	64.0	30-140	0.313	30	
Acenaphthylene	36.8	0.20	ug/L	50.0	73.6	30-140	5.30	30	
Anthracene	32.5	0.20	ug/L	50.0	65.0	30-140	1.24	30	
Benzo(a)anthracene	38.9	0.20	ug/L	50.0	77.8	30-140	3.13	30	
Benzo(a)pyrene	34.8	0.20	ug/L	50.0	69.6	30-140	4.11	30	
Benzo(b)fluoranthene	38.0	0.20	ug/L	50.0	76.0	30-140	1.83	30	
Benzo(g,h,i)perylene	28.4	0.20	ug/L	50.0	56.8	30-140	3.22	30	
Benzo(k)fluoranthene	38.3	0.20	ug/L	50.0	76.6	30-140	9.00	30	
Chrysene	38.7	0.20	ug/L	50.0	77.4	30-140	3.15	30	
Dibenzo(a,h)anthracene	23.2	0.20	ug/L	50.0	46.4	30-140	5.76	30	
Fluoranthene	38.9	0.20	ug/L	50.0	77.8	30-140	1.28	30	
Fluorene	33.3	0.20	ug/L	50.0	66.6	30-140	2.43	30	
Indeno (1,2,3-cd) pyrene	32.2	0.20	ug/L	50.0	64.4	30-140	8.75	30	
Naphthalene	33.5	0.20	ug/L	50.0	67.0	30-140	0.299	30	
Phenanthrene	31.8	0.20	ug/L	50.0	63.6	30-140	1.90	30	
Pyrene	32.6	0.20	ug/L	50.0	65.2	30-140	1.23	30	
Surrogate: 2-Fluorobiphenyl	34.1		ug/L	50.0	68.2	43-116			
Surrogate: Terphenyl-dl4	35.5		ug/L	50.0	71.0	33-141			
TPHG/BTEX/OXY/EDBEDC by GC/	/MS - Qua	lity Contro	I						
Batch B7C3004 - EPA 5030B		-							
Blank (B7C3004-BLK1)				Prepare	ed & Analyzed: 0	4/02/07			
tert-Amyl Methyl Ether (TAME)	<2.0	2.0	ug/L	•	-				
Benzene	<0.50	0.50	ug/L						

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Client:	Acts Community Development
Project No:	NA
Project Name:	Acts Community Development

**AA Project No:** A67803 **Date Received:** 03/23/07 **Date Reported:** 04/16/07

Analvte	F Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPHG/BTEX/OXY/EDBEDC by GC/I	MS - Qua	lity Control						_		
Batch B7C3004 - EPA 5030B		•								
Blank (B7C3004-BLK1) Continue	d			Prepare	ed & Anal	vzed: 0	4/02/07			
tert-Butyl alcohol (TBA)	<10	10	ug/L	•						
1,2-Dibromoethane (EDB)	<0.50	0.50	ug/L							
1,2-Dichloroethane (EDC)	<0.50	0.50	ug/L							
Diisopropyl ether (DIPE)	<2.0	2.0	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Ethyl-tert-Butyl Ether (ETBE)	<2.0	2.0	ug/L							
Gasoline Range Organics (GRO)	<100	100	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
Surrogate: Dibromofluoromethane	57.2		ug/L	50.0		114	80-120			
Surrogate: Toluene-d8	45.4		ug/L	50.0		90.8	80-120			
LCS (B7C3004-BS1)			Ū	Prepare	d & Anal	yzed: 0	4/02/07			
Benzene	23.7	0.50	ug/L	20.0		118	75-125			
1,2-Dichloroethane (EDC)	22.1	0.50	ug/L	20.0		110	75-125			
Ethylbenzene	17.5	0.50	ug/L	20.0		87.5	75-125			
Gasoline Range Organics (GRO)	420	100	ug/L	500		84.0	75-125			
Methyl-tert-Butyl Ether (MTBE)	20.0	2.0	ug/L	20.0		100	75-125			
Toluene	17.7	0.50	ug/L	20.0		88.5	75-125			
o-Xylene	19.0	0.50	ug/L	20.0		95.0	75-125			
Surrogate: Dibromofluoromethane	57.4		ug/L	50.0		115	80-120			
Surrogate: Toluene-d8	48.5		ug/L	50.0		97.0	80-120			
LCS Dup (B7C3004-BSD1)				Prepare	ed & Anal	yzed: 0	4/02/07			
Benzene	24.9	0.50	ug/L	20.0		124	75-125	4.94	30	
1,2-Dichloroethane (EDC)	21.7	0.50	ug/L	20.0		108	75-125	1.83	30	
Ethylbenzene	19.2	0.50	ug/L	20.0		96.0	75-125	9.26	30	
Gasoline Range Organics (GRO)	410	100	ug/L	500		82.0	75-125	2.41	30	
Methyl-tert-Butyl Ether (MTBE)	21.7	2.0	ug/L	20.0		108	75-125	8.15	30	
Toluene	19.4	0.50	ug/L	20.0		97.0	75-125	9.16	30	

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Client: A Project No: N Project Name: A	Acts Community E NA Acts Community E		Date Received: 03/23/07 Date Reported: 04/16/07								
Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
TPHG/BTEX/OXY/	EDBEDC by GC/I	MS - Qua	ality Control	I							
Batch B7C3004 - E	EPA 5030B										
LCS Dup (B7C30	04-BSD1) Contii	nued			Prepare	ed & Anal	lyzed: 04	4/02/07			
o-Xylene	,	21.1	0.50	ug/L	20.0		106	75-125	10.5	30	
Surrogate: Dibror	nofluoromethane	54.9		ua/L	50.0		110	80-120			
Surrogate: Toluer	ne-d8	45.8		ug/L	50.0		91.6	80-120			
Carbon Chain by (	GC/FID - Quality	Control		Ũ							
Batch B7D0232 - E	EPA 3510C										
Blank (B7D0232-	BI K1)				Prepare	d. 04/02	/07 Ana	alvzed: 04	1/05/07		
<u>C6-C8</u>	22.(1)	<0.020	0.020	ma/l	riopare	, a. o ., o <u>2</u>					
C8-C10		< 0.020	0.020	ma/L							
C10-C12		<0.020	0.020	ma/L							
C12-C14		<0.020	0.020	mg/L							
C14-C16		<0.020	0.020	mg/L							
C16-C18		<0.020	0.020	mg/L							
C18-C20		<0.020	0.020	mg/L							
C20-C22		<0.020	0.020	mg/L							
C22-C24		<0.020	0.020	mg/L							
C24-C26		<0.020	0.020	mg/L							
C26-C28		<0.020	0.020	mg/L							
C28-C32		<0.020	0.020	mg/L							
C32-C34		<0.020	0.020	mg/L							
C34-C36		<0.020	0.020	mg/L							
C36-C40		<0.020	0.020	mg/L							
C40-C44		< 0.020	0.020	mg/L							
TPH (C6-C44)		<0.20	0.20	mg/L							
Surrogate: o-Terp	ohenyl	0.0275		mg/L	0.0500	l	55.0	50-150			
LCS (B7D0232-B	S1)				Prepare	ed: 04/02	/07 Ana	alyzed: 04	ł/05/07		
Diesel Range Org	anics as Diesel	0.995	0.20	mg/L	1.00		99.5	75-125			
Surrogate: o-Terr	henyl	0.0625		mg/L	0.0500		125	50-150			
LCS Dup (B7D02	32-BSD1)			0	Prepare	ed: 04/02	/07 Ana	alyzed: 04	1/05/07		
Diesel Range Org	anics as Diesel	0.850	0.20	mg/L	1.00		85.0	75-125	15.7	30	

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Client:	Acts Community Development
Project No:	NA
Project Name:	Acts Community Development

**AA Project No:** A67803 **Date Received:** 03/23/07 **Date Reported:** 04/16/07

	F	Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Carbon Chain by GC/FID - Quality	Control									
Batch B7D0232 - EPA 3510C										
LCS Dup (B7D0232-BSD1) Cont	inued			Prepare	ed: 04/02/	/07 Ana	alyzed: 04	4/05/07		
Surrogate: o-Terphenyl	0.0675		mg/L	0.0500		135	50-150			





Client:	Acts Community Development
Project No:	NA
Project Name:	Acts Community Development

**AA Project No:** A67803 **Date Received:** 03/23/07 **Date Reported:** 04/16/07

#### Special Notes [1] = \*\*

**1**] = **\*\*** : The reported concentration is from the contribution of Trichloroethylene.

Franklin J. Goldman PO BOX 59, Sonoma, CA 954 FJGoldmanCHG@yahoo.com FAX: (949) 606-8711	n	171	1/11/2	4	~ ~ ~ ~	~~~	7	Cł		IN	C Lal Lab	<b>F</b> borat oratory	CU Ory / Pleas	ST Ana e Call	ODY RECORD lysis P.O. No l Accounts Payable for P.O. No.		
<u>Cell: (707) 758-6614</u>			4	018	<u>03</u>	/ 10	-25	530	<del>ז ל</del> חל	41	01.7	37		·	De	ate:	SheetOt
Project Name Acts Fi Project Number 1001 7 Address Sampler's Name:	Name Acts Full Gospel Church Number 1001 77th Avenue Oakland, CA			8015	15/8020 & MTBE	020	ise 5520	nics (8010)	n (71)	Aetais (13)	ids (Organic)	10/8141	o for 5 oxygen- scavengers	toisture, porosity	SAMPLE	ER SAMPLE	American Analytics 9765 Eton Ave Chatsworth, CA 91311 Phone: (818) 998-5547 Phone Turnground Time
Sampler's Signature:	dua		PH as Gasol	PH as Diesel	H-g/BTEX 80	tex & epa 8	oil and Grec	olitile Orgai	AM Metais	. Pollutant A	ase/Neu/Ac	esticides 814	ethod 8260 les & 2 lead かつ DP 0 M	lk density, m	SOIL	WATI	Rush 24 Hour 48 Hour 5-Day Repeat to: <b>Frank</b>
Number Logation		11me		<b>}</b>	ТР	8		~	<u> </u>	<u> </u>	ä	a.					Comments
MW-2	- Julier	1105 AM															-02
INW-3		1200													1		-03
MW-4	$\vee$	15pm											V			$\downarrow$	-04
,																	1020/1 2/23/07 1000 //D Date 2/23/07 1000 //D TAT DOP
) Relinguished By	Date ,	Time		Ré		ed By		~	Dc		Tin		Total	Numb	erof		BIARIATSZAW
Frank Dldn.	03/2/10	7400		E	2		Fee	ľx	3/	21/07	- 4	DO Pin	Cont	ainers	this SI	neet	:
Dispatched By	Time	Received in Lab By					3,23,7 10:00 Date Time			<b>9 Mg</b> th Spec or Sto	iod of ial Ship prage I	Shipn omen Requ	nent: it/Ha irem	: Indiling ents: Keep on Ice			

### Appendix A

### **Well Completion Reports**

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)



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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)



STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)



STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

≝ e ∑e a 5				ZS/3W.	-16R)
(Jayne) layne-Wester	n Compai	n	<u>, Inc.</u>	10' 12340	8
Subject American Brass + Iron	L Assund Loud	18	9'94	Qalay 4/1/7	7
wo#1429	-00100 ERA	27	25'8	4	,
Casing Size		26	25'B	9	50
14" OD 14 S.W. Blank Collard 14" OD 50 slot Johnson Scresm 30" Conductor	52'-1	25	25'B	74	ي. چ
	. •	24	25'B	, 99	100
		23	25'B	Guider 184	
17 joints 25' Blank = 425	140'	22	25'B	149	150
3 joints 10' Blank = 30 Ge	arr FLus	21	25' B	24	
l joint 5' Blank 5 470	1501 22	20	25'B		
Bringents 10' Sersen = 30	•	19	25'8	205' 3" 612A	nr leibe 200
3 joints 5' Screen = 15		18	25'B	224	
505'	-	17	25' B	249.	250
10 4p TA 495'		16	25' R	274 Guince	
(UTTS 3 A) PIPE BLACK F.E.			25' 8	299	300
290 Gel 1/2 Diamix		14	25 D	324 334 Cuint	
(ASING LEFT ON JOB 1 pc 25' * 14" BLANK		13 12	5'B r 10'B	339- Guillio 349	350
3pc 10. 114 Sch-us		"	25' B	374	
47 Tons Birdszyz Run 1 5		10	25' B	399	400
45 Tons PED Gravel 200	,	9	25' B	Guipe	•
Dasing installation		87	10 5 10 B	434 439 Guipr	·
supstuised by:		54	-:/D:::	749 459 464	450
	12 6 1	2	10 B	474 6- 479 TA	495'

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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

SULTANTS	, INC. EXPLORATOR	G OF Y BORING	PROJ CLIE LOCA LOGG	ECT NO NT NTION 951 ED BY	24846. Meif 3 - 77th Av R. Vors	00 DA ort Property, CA enve, Oakland, C t DRILLE	ATE hip & Stea california R Aqu	8/9/89 sk ta Sclenc	BOR BOR She of	BORING No <u>MW-1</u> Sheet <u>1</u> of <u>2</u>						
Field Lo north-s	cation of B outh onsite	oring: <u>N</u> roadway	ortheas	it corner	of site, ad	jacent to	Drilling	g method_	Holl	ow-stem A Hole Dia.	luger 8 inc	:1#5 agram				
Ground E	EV.: 7.03	Datum:	C11)	of Oakta	nd Datum				,							
Blow PID P	S	Soll Group	Soll Litho- roup Graphic ymbol Symbol	Water Level	9. B	8.4	7.8									
	M	Symbol (uses)		Ţime	10:45	11:15	11: 50			· ·						
		н	L E			Date	08/08/89	08/08/89	08/08/89							
		┟╴┈┝╸					DESC	RIPTION								
	ļ	4  -				2" Asphalt				<u></u>						
		- 1°-	·{	_		Clay black m	rock	o high nl	asticity	damo s	1166					
		┤┝				Viey, Dieck, moderate to nigh piesticity, damp, stift										
		2'+-	{	ci												
		┤┝	-+			<b></b>										
		- <sup>−</sup> <sup>−</sup>														
		┥		••••												
		┥╺╵┼	x	1												
6			x			Clay, dark gre	y, modera	ite to hij	sh plasti	city, dam						
14		- 5'- <del> </del>	x													
		-)  -		CL				<u></u>								
	1	-] 6' <del> </del>									_					
		1_1						1								
		1 "†														
						Clay, grey, mo	oderate t	o high pl	asticity,	increwa	se moistu	re conte				
		- 8'-	x	CL		until at 9.8	saturatio	n								
			x													
		- 9'-	x			Clay, dark gr	ayish bro	wn with I	lght grey	mottlin	g, modera	t e				
				GL		plasticity, s	tiff, tra	ce (5%) o	oarse ang	jular san	ds, mojst					
		] , [				1										
		]"]				Clay, dark gr	eyish bro	wn,klow	plastici	ty, trace	sands (8	<b>%</b> ),				
		12				saturated										
												·····				
		15	X			Sandy clay, y	yellawish	brown, s	aturated,	flrm, st	tiff, mod	erate				
		ר <u>ר</u>	x	T		plasticity, :	sands san	ds - 18%,	fine to	məd i um						
ISULTANTS,	INC. LO EXPLORATOR	G OF Y BORING	PRC CLI LOC LOC	JECT NO ENT CATION IGED BY	24846. Meii 58 - 77(h Av R. Vors	00 DA ort Property. Ch renue, Oakland, C t DRILLE	TE ip & Ste allforni R	8/9/89 ak a ua Scienc	BOR She	et	<u>MW-1</u> 2 2					
-----------------------	--------------------------	---------------------	--------------------------	-------------------------------------	-------------------------------------------	------------------------------------------------------------	---------------------------------	--------------------------------	------------	-------------------------------	-----------------------					
Field Loc north-so	ation of B uth onsite	oring: M roadway	lorthea	ist corner	of site, ad	lacent to	Drillin	g method_	Holl	<u>ow-stem A</u> Hole Dia.	uger 8 inches					
Ground El	ev.: 7.0	3_Datum	CITY	ol Oakla	nd Datum		Casing	Installat	ion Data	see comp	letion diagr					
	<u></u>	D	s	Soil	Litho.	Water Level		<u> </u>		Ť T	T					
Blaw	PID	E P T	A M	Graup Symbol	Graphic Symbol	Time										
Counts	UVA	Ĥ Ì	L	(4363)		Date										
		<u> </u>					DESC	RIPTION								
		$\left\{ \right\}$				lav velo vhre?	linwish 1	browo mai	at stiff	medžum	olasticity					
····		15'-				14%, fine										
		1 <u>, </u>														
		] 10'-+														
		17'-		CL					·							
		- 18'				Borehole ends	at 18.4'	hrown dan	n stiff	maderat	s alasticity					
·····						14% fine				,						
		- 19'-	 X	4												
		1 1	<u>-</u>	1		Sampling ends	at 19.5'									
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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

IYTON ENVII ISULTANTS,	INC.	I OF 7 BORING	PROJECT CLIENT LOCATION LOGGED B	NO24846  958 - 77th A Y	24846.00  DATE  8/9/89    Melfart Property, Chip & Steak    77th Avenue, Oakland, California    R. Yarst  DRILLER  Aqua Science					NW-2	
Field Loc grease	ation of Be trap	oring: <u>h</u>	loortheast	corner of site,	adjacent to	Drilling	mathod_	Hal	low-stem / Hole Dia,	Auger	hes
Ground ET	ev.: <u>7.03</u>	Datum:	City of	Oakland Datum	······································	Carink I			388 000		
	<u></u>	D	S Soi	I Litho.	Water Level	10'				1	T
Blow	PID	E P T	A Group Ma Symbol P (uscs)	ip Graphic ioi Symbol	Tfme	9: 12					
Cudura	VIA	н	L E		Date	08/09/89					
						DESCI	IPTION				
		{			3" Asphait		1.44.40	e k )			
		- ۱'-			4" Graver, req	angulas,	(114 10				
		$\frac{1}{2}$			Clay, black, m	odarate ti	high p	lasticity	r, damp, s	tiff	
		2'+									
			C								
		1 'T		}					·		
	,	1		1	ļ						
				·							
		5'+		[	Clay, Very da	rk grevisb	brawn.	moderate	to high	plasticity	, dan
6		┥┟	×		very stiff, t	ace fine	sands				
14		- 6' <del>-</del>		L				<u></u>			
		] 1	``	·							
		4 8'-									
			(	۲ <b>L</b>	Clay, ligh ol	ive brown,	bigh p	iasticity	, stiff,	damp	
		- 9'-+		ļ							
		┥┟									
	<u> </u>	- 10'-	×				<u> </u>				
6		┥┞			Clayey sand,	light bro	wnish gr	ey with	dark yello	owish brow	m mot
12		┥╜ <sup>+</sup> ┥	x		Sands fine to	coarse (	cherts,	sandston	e), clays	- 25%, sa	turat
		-  _,		su l	dense						
		13'-		Į					·		<u> </u>
	<u> </u>										
	1										

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ISULTANTS,	JECT NO. ENT ATION 9 GED BY	00 D ort Property, C enue, Oakland, t DRILL	DATE  8/9/89  BORING No  MW-2    y, Chip & Steak										
Field Loc grease	ation of Be trac	orlag: <u>N</u>	orthea	st corner	of site, ad	jacent to	Drilling	method_	Hal	low-stem / Kole Dia.	Auger 8 Inc	hes	
Ground Fi	·····	3 Oatium:	C134	of Oakla	nd Datum		Casing	nstallat	ion Data	See com	pletion di	agra	
0100m2 2)				00 00.00						· · · ·			
		D E	S A	Soil Group	Litho- Graphic	Water Level	10'						
Blow Counts	PID OVA	P J	N P	Symbol (uscs)	Symbol	Time	9:12					-	
		н	ε			Date	DESC	IPTION			<u> </u>		
3			x	CL		Clay, yellowish brown, trace fine to medium sand, high plasticit							
8		16'-	×			saturated							
10		-											
		17'											
		18'-											
		19'		· · .									
		-					#/ <b>-</b>			<del>-</del>		1	
11		20'-	x	SW									
14		21'-	x			Sands, yellowi	sh brown,	sands -	fine 309	6, medium	50%, coar:	S# 20	
18			x	~		saturated, ver	y Joose						
		22'-		CL		Clay, vallowie	h brown	traca flu	a to mer	lium sande	. moist		
	<b></b>					stiff					., "		
12		23'	x	• • • • • •		Clay, yellowis	ih brown,	trace fli	ne to me	tium sands	s, damp, v	\$ry	
14		] [	x	νL									
18		╏┠	x			End berehole a	11 23.2'.	Samplin;	g ends af	24. 5'			
		┤╶┼					·=_, .						
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		] ]									······		
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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

SULTANTS,	INC. LOC EXPLORATORY	g of Y Boring	PR CL LO	OJECT NO. JENT CATION 9 GGED BY	24846. Mei 58 - 77th A R. Vor	00 D. Tart Property, C. Venue, Oakjand, G St. DRill	ATE hip & Stea California CR _ Aqu	8/9/89 ik ia Scienc	80 Shi e of	RING No	<u>۲۳۳</u> ۰3 ٤ ۲	
Field Loc north	ation of Be of building	oring; _	North	east corne	rofsite,	17.26 feet	Drilling	method	Hol	low-stem /	Auger 8 Enc	hes
Ground E)	ev.: <u>6.76</u>	Datum	:	ty of Oakl	and Datum		Casing	installat	lon Data	see com	pletion di	agr
		D	S	Soll	Litho-	Water Level	14.6			T	T	[
Blow	- PID OVA	р Т	M P	Symbol (uses)	Symbol	Time	3: 00					
		Ĥ	L ,E		,	Date	08/08/89		<u> </u>			
							DESCR	IPT I ON				
						3" Asphalt				_		
						3" Base rock						
						L						
		2'-				Sandy clay, bi	ack, damp,	moderat	e plasti	city, sti	ff, sands	• 1
				}		fine to coarse						
				CL					_			
					l							
					j							
			_									
				[								
2		'	x			Clay, grey, da	np, moder:	ata to hi	gk plast	icity, st	i ff	
5			x									
7		6'-4	x	CL					······			
							· · · · · · · · · · · · · · · · · · ·					
		, ''		1								
				t								
		8'-		ļ				·····				
			x	1	1	Clay, brownish	grey, mo	derate to	high pi	asticity.	stííf, da	тр
	·	9'-	x		{							
			X	1						^	• <u></u>	
		10,-		ł			<u></u>					
				CL								~~
		11'-		1	1			····				
				}	}			·····	·····			
{		12'-		h.,			···	*- <u>-</u> -,,-				
				`	1	<u> </u>						
		13'-		1		<b>\</b>	<u></u>			·		
		}		CL	1						<u> </u>	

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	Flaid Lo north	cation of B of buildin	loring: g	North	east corne	Drilling method Hollow-stem Auger Hole Dia 8 Inches								
	Ground E	lav.: <u>6.3</u>	6 Datur	n: <u>Ci</u>	ty of Oakl	and Datum	······	casing installation Data <u>see completion diagram</u>						
	81ow	P10	D E P	S A M	Soil Group Symbol	Litho. Graphic Symbol	Water Level Tima	14.6 3:00						
	Counts	OVA	H	P L E	(uses)		Date	08/08/89						
					 			DESCR	IPTION					
			15'											
				X X			Sandy clay, gr to high plasti	eyîsh brow	in, sands	mədium •	12%, sti	ft, damp, modern		
			16'	x	CL									
:			17'							<u></u>				
			18 .											
				x x			Clay sands, ye	itowish br	ewa, clay	12%, 38	nds fine :	to medium		
			19'	x										
-		 	20'-											
			21'-				Clays, yellowi	sh brown,	very stil	lí, molst	, high pi	asticity		
				··· <u>-</u>	CL							<u> </u>		
			22'-											
	12		23'-	x			Clays, yeljowi	sh brown,	verty sti	iff, damp,	, high pia	asticity		
4	22		24'-	x	CL									
	23			X			End borebole a	1 24.5".	Sampling	ends at	24. 5'	<del></del>		
			-				  -							
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			-						·····					

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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)





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	UNIFIED SO	IL CLASSII	FICAT	ION S	SYSTEM
	MAJOR DIVISIONS		ORAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
		CLEAN GRAVELS		G₩	WELL-GRADED GRAVELS, GRAVELSAND MIXTURES, LITTLE OR NO FINES
	GRAVEL AND GRAVELLY SOILS	(LITTLE OR NO FINES)		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
COARSE GRAINED	COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
SOILS		(APPRECIABLE AMOUNT OF FINES)		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
MORE THAN 50%		CLEAN SAND		sw	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
OF MATERIAL IS LARGER THAN	SAND AND SANDY SOILS	(LITTLE OR NO FENES)		SP	POORLY-GRADED SANDS, GRAVELLY SANDS. LITTLE OR NO FINES
NO. 200 SIEVE SIZE	MUKE THAN 30% UP COARSE FRACTION PASSING NO 4 SIEVP	SANDS WITH FINES		SM	SILTY SANDS, SAND-SILT MIXTURES
		(APPRECIABLE AMOUNT OF FINES)		SC	CLAYEY SANDS, SAND-CLAY MEXTURES
				ML	INORGANIC SULTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
FINE GRAINED	SILTS AN LIQUID LIMI	ND CLAYS T LESS THAN SO		CL.	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICTLY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
30113				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OP LOW PLASTICITY
MORE THAN 50%				мн	INORGANIC SILTS, MICACEOUS OR DIATO- MACEOUS FINE SAND OR SILTY SOILS
OF MATERIAL IS SMALLER THAN	SILTS AN LIQUID LIMIT (	ND CLAYS GREATER THAN 50		СН	INORGANIC CLAYS OF HIGH PLASTICITY, PAT CLAYS
ING, AND STEVE SIZE				он	ORGANIC CLAYS OP MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
A A A A A A A A A A A A A A A A	HIGHLY ORGANIC SOILS	· · · · · · · · · · · · · · · · ·		РТ	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

**KEY TO LOG OF BORINGS** SAMPLES & BLOWCOUNTS

- HAMMER BLOWS PER FOOT OF PENETRATION
- 30 🔳 INDICATES UNDISTURBED SAMPLE
  - $\boxtimes$ INDICATES DISTURBED SAMPLE
  - STANDARD PENETRATION TEST SAMPLE
  - NR INDICATES NO RECOVERY

SAMPLES DRIVEN WITH A 140-POUND HAMMER DROPPING 30 INCHES

#### LABORATORY TESTS

- AL ATTERBERG LIMITS TEST
- DSCU DIRECT SHEAR TEST (Consolidated, Undramed)

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- CBR CALIFORNIA BEARING RATIO TEST
- COMP COMPACTION TEST

:

- CON CONFINED COMPRESSION (Consolidation Test)
- PERCENT PASSING NO. 200 SIEVE -200 . (Test Results in Parentheses)

ARTESIAN ENVIRONMENTAL CONSULTANTS 100 SHORELINE HIGHWAY, #295B MILL VALLEY, CA 94941 (415) 381-6456

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