Section : 10.08
Site 20903-5640 (White Oak)
Doc. #: 0003

00296

N60921.AR.000014
NSWC WHITE OAK
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TRC MEETING #3 TECHNICAL AGENDA
MARCH 12, 1990

I. Introduction

II. Summary of Analytical Results and Geophysical Surveys:

1. Site 2 - Apple Orchard Landfill
2. Site 3 - Pistol Range Landfill
3. Site 4 - Chemical Burial Site
4. Site 7 - Ordnance Burn Area
5. Site 8 - Abandoned Chemical Disposal Pit
6. Site 9 - Industrial Wastewater Disposal Area 300
7. Site 11 - Industrial Wastewater Disposal Area 100
8. Paint Branch Creek
9. Background Wells

III. Future Activities

1. Schedule
2. Phase II of RI/FS
3. Next TRC Meeting

SECTION I
INTRODUCTION

At our last TRC meeting held on July 26, 1989, we discussed the basis for our work under the Navy's Installation Restoration Program (IRP) as well as our Work Plan for activities leading to a Remedial Investigation and Feasibility Study (RI/FS) for the seven sites that are under study.

We have completed the first phase of the RI/FS as presented to you at the July 26, 1989 TRC meeting. The purpose of this meeting is to bring you up to date as to the progress of our work and to provide a summary of our initial findings. We have completed our field studies and the collection of environmental samples for analyses for Phase I activities. We have compared the data from our 1987 study with our current data base (Phase I) of information, and we are able to provide a discussion as to the general degree of contamination at each site. This coupled with information on the probable source(s) of known contamination from the IAS Study provides a strategy for the remediation of individual sites. A full understanding of conditions and clean-up potential will be presented at the completion of the next phase of activities.

The activities completed to date were accomplished in accordance with the IRP program Work Plan dated June 1989. Section 4 of this plan outlined our approach to the RI activities through the use of both direct and indirect methods of investigation. The indirect methods (i.e. soil gas surveys and ground penetrating radar) were employed as a basis for optimizing the location for monitoring wells and soil sampling locations (i.e. direct sampling). Therefore, the soil gas surveys at Sites 2, 3, 4, 9, and 11 and the ground penetrating radar surveys performed at Sites 4 and 8 were completed first and the installation of 25 new monitoring wells and 8 piezometers, the collection of over 1000 environmental samples, and analysis of over 7,000 data points followed.

Tony Pace will now summarize our Phase I activities on a site by site basis, indicating the field studies completed, significant analytical results, and media affected. Even though contamination is known to be present at each site, we found no instances where our test results indicate an imminent threat to the environment or human health.

SECTION II
SUMMARY OF ANALYTICAL RESULTS AND GEOPHYSICAL SURVEYS

Site 2 - Apple Orchard Landfill

a. Vadose Zone (Shallow Unsaturated Soil Zone)

Results

Of the 18 sampling points established for vadose zone monitoring, 4 had detectable levels of volatiles measured with an HNu Photoionization Detector. This instrument does not detect methane. A background reading of 0 parts per million (ppm - benzene equivalent) was measured at this site. The greatest level measured was 3 ppm. No significant levels of volatiles were detected in the shallow soil surrounding the landfill.

Conclusions

The data indicate that volatile gasses were not found in significant quantities away from the fill area in the shallow unsaturated soil.

b. Soils

Results

Two surficial soil samples were collected on the fill area at Site 2 to document surficial contamination for future Risk Assessment determinations. The analytical data obtained from the sampling revealed levels of metals, PCBs, and semivolatiles (2SL2 only) above background levels in the surficial soil with the contaminants of greatest concern being PCBs.

Conclusions

Performance of the Risk Assessment in Phase II will establish the potential health risks from the contaminants of concern from exposure to surface soils.

c. Ground Water

Results

One additional monitoring well was installed near three existing wells to gather additional information on the ground water quality at Site 2. TDS, metals, and trichloroethene were found in the ground water at Site 2. TDS, metal, and TCE levels were higher than the drinking water Maximum Contaminant Levels (MCLs). The contaminants of greatest concern in the ground water at Site 2 are cadmium, mercury, and trichloroethene

(TCE). A TCE level of 240 ug/l was detected in 2GW32 in 1989. The levels of TCE have remained unchanged in 2GW30 with concentrations of 6 ug/l in 1985 and 7 ug/l in 1989. Well 2GW30 is hydraulically downgradient from 2GW32, and therefore, it appears that the concentration of TCE has not migrated to 2GW30.

Conclusions

The TCE levels in 2GW32 suggest that the landfill is leaching organics into the shallow ground water. The TCE contamination in 2GW32 could be the result of weather conditions at the site prior to the sampling of this well. Heavy rains prior to sampling (one week prior) may have increased volatile organic contamination through the infiltration of rain water through the uncapped landfill resulting in higher TCE contamination.

d. Surface Water

Results

Six surface water locations were sampled for surface water quality at Site 2. TDS was present in all surface water samples from the stream with levels slightly higher than the secondary MCL for drinking water.

Conclusions

TDS levels are above the secondary MCL (aesthetic reasons) and are not considered a health risk. No significant contamination is present in the surface water at Site 2.

e. Sediment

Results

Sediment samples were collected at ten locations along the stream that passes to the south of the landfill to document contamination in the stream sediment at Site 2. Metals and PCBs were measured in most of the stream sediment samples. The levels of metals in the sediment, in most cases, are not significantly greater than the background levels for each compound. The level of PCBs in one sediment location (2SD10) is significantly high (140 mg/kg) while the PCB concentrations for the other sediment locations from 1989 (0.47 to 2.90 mg/kg) are consistent with the levels measured during the 1985 sampling events (0.20 to 5.20 mg/kg).

Conclusions

PCB contamination was detected in significant levels in one location along the stream. Based upon the low levels of PCBs detected downstream, PCBs appear not to be migrating in large quantities in the sediment from Site 2. However, the source of the PCB contamination is unknown. The emphasis in Phase II will be to locate the source(s) of the PCB contamination in the area where the greatest PCB contamination is present.

SITE SUMMARY

Soil gas survey results indicate that the shallow unsaturated soil is not significantly contaminated with volatile organics from the landfill; however, the ground water results indicate that the landfill is leaching volatile organics to the shallow ground water. Due to the existence of shallow ground water and the fact that infiltrating water could carry contaminants vertically into the ground water, there is apparently little movement of volatiles from the landfill horizontally to the shallow soil. This accounts for low levels of volatiles detected during the soil gas survey. PCB contamination is present in the stream sediment but not in the ground water which is to be expected. PCBs have an extremely high sorption rate onto soil particles and their movement vertically through the soil is not expected. The effects of the surficial soil contamination on human health will be investigated during the risk assessment in the Phase II work.

Site 3 - Pistol Range Landfill

a. Vadose Zone

Results

Of the 21 points sampled for vadose zone monitoring, only those south of Dahlgren Road revealed detectable levels of volatiles. Background measurements detected 0 ppm (benzene equivalent) at Site 3. The readings ranged from 0.60 to 15.0 ppm (benzene equivalent) for the downgradient soil gas points.

Conclusions

The downgradient area (south of Dahlgren Road) appears to be the most contaminated with volatile organics in the shallow soil. The most contaminated points are on the landfill side of the stream and may indicate either (1) movement of organics from the landfill directly south or (2) that another source of organics exists. Based upon ground water flow directions and assuming that flow through the vadose zone to the ground water table follows a similar pattern, the movement of contamination is apparently towards the stream. However, no volatile organic contamination was found in the monitoring well (3GW47) that is located at the area of highest organic readings found during the soil gas survey of the shallow soil.

b. Soils

Results

Two surficial soil samples were collected from the landfill to document surficial contamination for future Risk Assessment determinations. Levels of metals (including mercury) and semivolatiles were detected at above background levels in the two soil samples.

Conclusions

Contamination is present in the surficial soil on the face of the landfill and a Risk Assessment of Site 3 will be performed in the next phase of work to further evaluate potential exposures and pathways.

c. Ground Water

Results

One additional monitoring well was installed near the three existing wells to document ground water quality at Site 3. TCE and chlorobenzene levels were higher than MCLs for drinking water. The analytical data gathered in 1989 for the three existing wells are very similar to those

data obtained in 1985. Volatile organic contamination has remained virtually unchanged since 1985.

Conclusions

It can be concluded that the landfill is leaching organics into the shallow ground water. Due to the existence of contamination in the shallow ground water, it is likely that the volatile organic contamination is migrating, and therefore, the landfill is apparently the source contributing organics to the shallow ground water.

d. Surface Water

Results

Four surface water samples were collected from the stream adjacent to the landfill. No contaminants were detected above background levels or drinking water standards in the surface water at Site 3.

Conclusions

Surface water data does not suggest that the landfill is contributing contaminants into the stream.

e. Sediment

Results

Four sediment samples were collected from the stream that passes to the west of the Pistol Range Landfill. Levels of metals higher than background levels were detected in the sediment samples.

Conclusions

Stream sediment analytical data support the surface water data that there is currently little impact on the stream by the landfill. The levels of chromium and mercury are as high at the sampling point where the stream enters the facility as they are at sampling points downstream from the landfill. Again, the levels are only slightly higher than the background guidelines being used, and therefore, are not considered a concern.

SITE SUMMARY

Vadose zone monitoring indicates volatile organic contamination in the shallow soil south (downgradient) of the landfill. However, ground water at that location contains no volatiles. This suggests that organics in that area may be sorbed onto soil particles, in the soil-air phase or are not being transported via the soil-water matrix. Volatile organics

were detected in two wells adjacent to the landfill, and therefore, the landfill is apparently leaching organics into the shallow ground water but no volatile organic contamination was observed in the shallow soil based upon the soil gas results. As at Site 2, the primary migration route for volatile organics appears to be vertical rather than horizontal from the landfill into the shallow ground water. No significant contamination is present in the surface water and sediment, and therefore, the landfill is not currently impacting the stream. Surficial soil contamination is present and will be evaluated further during the performance of a risk assessment in Phase II of work.

Site 4 - Chemical Burial Site

a. Sources

Results

The Ground Penetrating Radar (GPR) survey indicated that 4 burial areas appear to be present. All four areas appear to contain radar images which could represent solid materials such as containers or rocks. However, the fill area (Burial Pit #4) produced targets that had a shape and size that are consistent with drums or containers.

Conclusions

GPR results confirmed the existence and location of the four burial pits at Site 4 and the possibility of drum or containers in the pits, especially in Burial Pit #4. This allows for more precise monitoring well placement (for any future wells), soil borings, and surficial soil sampling that may be required in the next phase of work.

b. Vadose Zone

Results

A grid containing 26 sampling points was established to investigate volatile organic levels at Site 4. Readings of 0 to 40 ppm were measured throughout the grid. A background reading of 0 ppm was established prior to the survey.

Conclusions

The greatest levels of contamination in the shallow soil appear to be in the area near Burial Pit #2 which suggests that the source(s) of contamination may be located in this pit.

c. Soils

Results

There were no compounds detected in the six subsurface soil samples collected at this site at levels higher than the background levels established.

d. Ground Water

Results

Six monitoring wells (one cluster) were installed at Site 4 near the existing six wells to document ground water quality at the site. Levels of volatile organics (especially TCE) and cadmium were detected in the

ground water samples at Site 4. Volatile organic and cadmium levels were higher than the MCLs for drinking water.

Conclusions

Volatile organic contamination is significant at Site 4. Four wells (4GW13/15/48/52) have significant levels of TCE in them, ranging from 160 to 1000 ug/l. Benzene concentrations of 6 and 7 ug/l for 4GW11 and 4GW51S are not at levels of concern. The concentrations of 1,1,2,2-tetrachloroethane and 1,2-dichloroethene are also higher than the drinking water standards in several wells. Overall, volatile organics (especially TCE) are being detected in the ground water which suggests migration from the burial areas.

SITE SUMMARY

GPR confirmed the existence and location of the four burial pits at Site 4. Vadose zone monitoring in conjunction with ground water sampling verified the presence of volatile organics in the shallow soil and ground water. The concentrations of volatile organics detected were significant which suggests that the burial areas are leaching organics into the shallow soil and ground water.

SITE 7 - ORDNANCE BURN AREA

a. Soils

Results

Forty-nine soil samples were taken from 27 soil borings at depths of up to 5 feet at Site 7 to document nitroaromatic contamination in the shallow soil both inside of and outside of the burn area. Contamination of the soils by nitroaromatics was detected in all samples from the swale except for the three locations adjacent to Perimeter Road, which is the farthest point along the swale from the actual burn area. Contamination was also present in several samples collected outside of the swale.

Conclusions

Contamination is present to a depth of at least 5 feet, while in 1985 nitroaromatics were not detected below a depth of 4 feet. Also, there is evidence of horizontal movement outside of the swale in certain areas based on data collected in 1985. The following conclusions are made concerning the migration of the nitroaromatics through the soil:

- HMX levels decrease as depth increases
- RDX levels have migrated vertically in some areas but not in others, therefore, no specific correlation with depth is known.
- TNT levels increase as depth increases

This suggests that TNT is mobile as compared to the other nitroaromatics. The specific mechanisms of migration are unknown at this point.

b. Ground Water

Results

Two new monitoring wells and one existing well were sampled to document ground water contamination at Site 7. HMX and RDX were detected in 7GW8 at levels of 190 and 700 ug/l respectively. No nitroaromatics were detected in wells 7GW41 and 7GW43 hydraulically downgradient of the burn area.

Conclusions

The contaminants of concern at this site are the nitroaromatic compounds. Nitroaromatic contamination in 7GW8 has significantly decreased from the 1985 sampling. Only HMX and RDX were detected in 7GW8 during the 1989 sample event while all six of the nitroaromatic compounds wer detected in 1985. The reason for the decrease in nitroaromatics contamination in 7GW8 is currently unknown. No nitroaromatic

contamination was detected in the downgradient wells and suggests that migration through the ground water has not occurred.

SITE SUMMARY

Extensive nitroaromatic contamination is present in the shallow soil through the burn area and there appears to be some vertical and horizontal migration of these compounds in the shallow unsaturated soil. Ground water data suggest that there may be some contamination in the ground water within the burn area but that it is not migrating with the flowing ground water. The extent of contamination in the shallow soil and ground water is unknown at this time.

SITE 8 - ABANDONED CHEMICAL DISPOSAL PIT

a. Sources

Results

The GPR survey indicated that one burial area was present at this site and that the pit is larger than the one outlined in the IAS Report.

Conclusions

GPR results confirmed the existence and location of the burial pit at Site 8. This allows for precise monitoring well placement, soil borings, and surficial soil sampling that will be required in future phases of work.

b. Soils

Results

Two surficial soil samples were collected at Site 8 to document surficial soil contamination data to be used in the Risk Assessment. Levels of chromium, lead, and zinc higher than background levels were detected in one (8SL2) of the two surficial soil samples collected.

Conclusions

A risk assessment will be performed at this site during the next phase of work to further evaluate the surficial soil contamination.

c. Ground Water

Results

One new monitoring well and four existing wells were sampled to document ground water contamination at Site 8. 1,1,2-trichloroethane (1,1,2-TCA) was detected in well 8GW36 at a level of 7 ug/l. No compounds were detected in 8GW53 which is located near the perimeter fence adjacent to a residential area.

Conclusions

1,1,2-trichloroethane was not detected in 1985 in 8GW36 during the two sampling events performed. The level of 7 ug/l is only slightly higher than the 5 ug/l detection limit for the compound and will be verified during the next sampling event. Further conclusions on this contaminant will be made pending further data collection.

SITE SUMMARY

The extent of ground water contamination at Site 8 is unclear at this time. The potential migration of 1,1,2-TCA has yet to be determined based upon the limited data available. A risk assessment will be performed to evaluate the significance of the surficial soil contamination.

SITE 9 - INDUSTRIAL WASTEWATER DISPOSAL AREA 300

a. Vadose Zone

Results

Vadose zone monitoring was performed at six locations at Site 9.

- Adjacent to Bldg 304
- Adjacent to Bldgs 344 and 345
- Adjacent to Bldg 336
- Adjacent to Bldg 328
- Adjacent to Bldg 310
- Adjacent to Bldg 311

Results of these surveys are summarized below:

Building 304

No volatile organics were detected in the 12 point sampling grid established adjacent to Bldg 304 in the vicinity of a former leaching well.

Buildings 344 and 345

In the established 21 point sampling grid, no volatile organics were detected adjacent to Bldgs 344 and 345 in the vicinity of former leaching wells.

Building 336

Detectable levels of volatile organics ranging from 0 to 4.8 ppm were measured in the 22 point sampling grid established at this location. A background level of 0 ppm was established at this location. The leaching well is located near sampling point #13 where the highest value was recorded. All detectable levels on the sampling grid are located downgradient from the leaching well and toward the small stream to the east of Bldg 336.

Building 328

A sampling grid of 12 points was established adjacent to Bldg 328 to measure the detectable volatile organic levels in the shallow soil. Three of these points had detectable levels of organics in the shallow soil with the highest reading being 5.0 ppm at the approximate location of a former leaching well. A background level of 0 ppm was established at this location.

Building 310

A 17 point sampling grid was established adjacent to Bldg 310 in the general vicinity of a former leaching field. Levels ranged from 0 to 0.80 ppm throughout the grid. A background level of 0 ppm was established at this location. The presence of the former leaching field may account for the low levels of volatile organics measured in the shallow soil at this area due to enhanced evaporation conditions.

Building 311

A 12 point sampling grid was established at this location to measure the volatile organic concentrations in the shallow soil. Volatile organic levels ranged from 0 to 5.5 ppm at this area. A background level of 0 ppm was established at this location. The highest levels were measured adjacent to the stream that flows to the east of Bldg 311.

Conclusions

Based upon the field data collected from the vadose zone monitoring, the following conclusions can be drawn:

- Soil gas surveys at Bldgs 304, 344, and 345 showed no detectable volatile organics in the shallow soil which suggests that the former leaching wells did not impact the shallow soil.

- The soil gas surveys performed at Bldgs 336, 328, 310, and 311 document the presence of detectable volatile organics in the shallow soil. This indicates that the former leaching wells/fields at these locations may have been utilized for disposal of industrial wastewater that included various solvents or other laboratory wastes. These areas will be further investigated to define the extent of ground water contamination.

b. Soils

Results

Two surficial soil samples were collected to document surface contamination for Risk Assessment determinations. Levels of metals and semivolatiles higher than background levels were detected in both samples.

Conclusions

A Risk Assessment of Site 9 is anticipated to be performed in the Phase II of work at NSWC to determine the impact, if any, of the contamination to the environment.

c. Ground Water

Results

Six new monitoring wells (one cluster) and seven existing monitoring wells were sampled to document ground water quality at Site 9. Levels of nitroaromatics and several volatile organics were detected in the ground water monitoring wells. Volatile organic levels were higher than the MCLs, and the nitroaromatic (HMX, RDX, and 2,6-DNT) levels were above the detection limit.

Conclusions

The contaminants of greatest concern at Site 9 are nitroaromatic compounds and TCE, a volatile organic. Nitroaromatic and volatile organic contamination levels have not changed significantly since 1985.

d. Surface Water

Results

Three surface water locations were sampled in the two streams that flow through Site 9 to document surface water quality. No levels of contaminants higher than background levels or drinking water standards were detected in the surface water.

e. Sediment

Results

Ten stream sediment samples were collected to document sediment contamination at Site 9. Levels of metals were higher than background levels were detected in the stream sediment.

Conclusions

The levels of these metals were only slightly higher than the background levels from the results at Paint Branch Creek. Because the results were compared to a background level from the facility and were consistent throughout Site 9, the site appears not to be impacting the stream.

SITE SUMMARY

As discussed in the surface water and sediment results, the site appears not to be impacting either stream that flows through Site 9. A risk assessment will be performed in the next phase of work to evaluate the surficial soil contamination. The primary media impacted by contamination from Site 9 is the ground water. Ground water is

contaminated with volatile organics and nitroaromatics, and this contamination appears to be migrating with the flowing ground water. The soil gas survey results indicate shallow soil contamination of volatile organics in four locations where former leaching wells were located and contamination is also present in the ground water which suggests that these leaching wells are the probable sources of contamination.

SITE 11 - INDUSTRIAL WASTEWATER DISPOSAL AREA 100

a. Vadose Zone

Results

Vadose zone monitoring for volatile organic contamination was accomplished by soil gas surveys at three areas at Site 11. The surveys were performed on the softball field behind Building 30, behind Buildings 2 and 5, and behind Buildings 3 and 5 to document volatile organic contamination in the shallow soil. Results of the soil gas surveys are described below:

Softball Field (Behind Bldg 30)

A 36 point sampling grid was established on the softball field to measure the potential volatile organics contamination resulting from the reported disposal of industrial wastewater into two former leaching wells located on the softball field. Only two of the sampling points had levels of detectable volatile organics. The measurements were 0.8 and 1.5 ppm at the two points. A background level of 0 ppm was established at this location.

Buildings 3 and 5

A 20 point sampling grid was established adjacent to Bldg 5 and behind Bldg 3 to measure the volatile organic concentrations in the shallow soil. Only one reading of 450 ppm was detected at this location to measure the possible impact of the 3 former leaching wells upon the shallow soil. A background level of 0 ppm was established at this site. The reading may have been an anomaly because we could not detect any other volatile organics when we attempted to duplicate this high level at the same location.

Buildings 2 and 5

A 30 point sampling grid was established at this location to measure the volatile organics in the shallow soil to document the potential impact of the two former leaching wells at this location on the shallow soil and potentially the ground water. No volatile organics were detected at any of the 30 sampling points.

Conclusions

No significant levels of volatile organics were detected in the shallow soil at any of the 3 areas where soils gas surveys were performed. Since soil gas surveys are a screening tool only, the results indicate that the shallow soil has not been impacted by volatile organic compounds from the former leaching wells.

b. Soils

Results

Two surficial soil samples were collected at Site 11 to document surficial soil contamination for Risk Assessment determinations. These two samples were used to establish a background guideline for metals for the entire facility based upon their low levels detected during the analysis of the samples. No contaminants at levels of concern were detected for these two surficial soil samples.

c. Ground Water

Results

Eight new monitoring wells and eight existing wells were sampled to document ground water contamination at Site 11. Levels of volatile organics were found in two wells while levels of metals were detected in a third well. The volatile organic and metal levels were higher than the MCLs.

Conclusions

Volatile contamination is present in two monitoring wells at Site 11 while well 11GW27 contains levels of chromium and copper. The volatile contamination was also present in these two wells in 1985, but the metal concentrations have increased significantly. The source of the volatile contamination appears to be the leaching wells that were located adjacent to the monitoring wells. The concentrations of volatiles have decreased slightly since 1985 indicating potential migration into the ground water.

d. Surface Water

Results

Two surface water samples were collected from the stream that flows through the golf course on the west end of Site 11 to document water quality. No levels of contaminants above background levels or drinking water standards were detected at either surface water sampling location.

e. Sediment

Results

Three sediment samples were collected from the stream that flows through the golf course to document stream sediment contamination. Levels of metals and semivolatiles higher than background levels were detected in the three sediment sampling locations.

Conclusions

Sample locations 11SD2 and 11SD3 have only slightly higher levels of contaminants when compared to the background guidelines established from Paint Branch Creek, and therefore, are not considered a concern. 11SD1 is the location where the stream enters the facility and higher levels of metals were found here as compared to the other two locations which indicates that contamination may be coming from an off-site source at this location.

SITE SUMMARY

A risk assessment will be performed to evaluate the surficial soil contamination at Site 11. Surface water and sediment data indicate that some off-site activity may be impacting the stream that flows through the golf course and that Site 11 is not further impacting this stream. Vadose zone monitoring indicated that the shallow soil has not been contaminated with volatile organics from former leaching wells. Ground water contamination is present at three locations at Site 11 apparently from leaching wells located adjacent to these wells. Due to the large spacing of the monitoring wells, the migration of these contaminants is unknown at this time.

Paint Branch Creek

a. Surface Water

Results

Three surface water samples were collected from Paint Branch Creek to document surface water quality in the stream. No levels of concern of contaminants were detected in any of the surface water samples.

b. Sediments

Results

Three stream sediment samples were collected to document sediment contamination in Paint Branch Creek. Mercury was detected in two of the samples. Any level of mercury in the stream sediment is considered a level of concern at this time.

Conclusions

The background guideline used for mercury is the detection limit and to further identify any potential hazards associated with the mercury levels in the stream sediment, an Ecological Assessment of Paint Branch Creek will be performed in Phase II of work.

Background Wells

a. Ground Water

Results

Two background wells were sampled to document ground water quality in the background wells. No contaminants were detected with levels higher than the established drinking water Maximum Contaminant Levels (MCLs).

SECTION III
FUTURE ACTIVITIES

We have received high quality results from our Phase I activities and are at the point where we have good data base of the general degree of chemical contamination at the individual sites studied, and find that, as previous reports have indicated, contamination is limited and, for the most part, at low levels.

Activities in the Phase II of the RI will be geared towards qualifying the data as it relates to aquifer characteristics, transport and fate, and risk assessment of contaminants to define their impact, if any, to the environment.

The schedule for Phase II activities is slated to begin this summer, following our Draft RI Report submission. We plan to present a schedule of Phase II activities at our next TRC meeting which is tentatively scheduled for May 1990.

VERIFICATION PHASE - RI ANALYTICAL DATA COMPARISON

1. SITE 2 - APPLE ORCHARD LANDFILL

Media	Well/Sample No.	Parameter	Results 1985	Results 1989	Units
Ground Water	2GW30	Trichloroethene (TCE)	ND/6	7	ug/l
	2GW32	TCE	17/ND	240	ug/l
Sediment	2SD1	Cadmium (Cd)	3	ND	mg/kg
		Chromium (Cr)	22	18.1	mg/kg
		PCBs	0.52/0.49	0.71	mg/kg
	2SD2	Cr	6	24.2	mg/kg
		PCBs	0.20/0.41	0.91	mg/kg
	2SD3	Cr	6	14.8	mg/kg
		PCBs	ND/0.45	1.20	mg/kg
	2SD4	Cr	18	24.3	mg/kg
		PCBs	0.46/0.77	1.70	mg/kg
	2SD5	Cr	14	35.0	mg/kg
		Pb	17	64.9	mg/kg
		PCBs	ND/5.2	1.60	mg/kg
	2SD7	Cd	ND<2.5	1.1	mg/kg
		Cr	14	31.7	mg/kg
		PCBs	0.28/0.25	0.57	mg/kg
	2SD9	Cr	46	19.3	mg/kg
		Pb	129	32.6	mg/kg
		PCBs	1.80/0.36	2.90	mg/kg
	2SD10	Cd	ND<2.5	1.9	mg/kg
		Cr	15	31.1	mg/kg
		Pb	22	118.0	mg/kg
		PCBs	0.45/4.51	140.0	mg/kg

2. SITE 3 – PISTOL RANGE LANDFILL

Media	Well/Sample No.	Parameter	Results 1985	Results 1989	Units
Ground Water	3GW18	TCE	15/ND	7	ug/l
		1,2-Dichloroethene (1,2-DCE)	14/ND	8	ug/l
	3GW19	TCE	ND/19	7	ug/l
		1,2-DCE	ND/45	38	ug/l
		Chlorobenzene	ND/13	16	ug/l
Sediment	3SD1	Cr	12	33.9	mg/kg
	3SD2	Cr	5	12.0	mg/kg
	3SD3	Cr	10	16.8	mg/kg

3. SITE 4 – CHEMICAL BURIAL SITE

Media	Well/Sample No.	Parameter	Results 1985	Results 1989	Units
Ground Water	4GW11	Benzene	ND/ND	6	ug/l
	4GW13	TCE	58/38	160	ug/l
		Vinyl Chloride	19/8	ND	ug/l
	4GW15	TCE	26/54	170	ug/l
		1,1,2,2-Tetrachloroethene	ND/7	81	ug/l

4. SITE 7 – ORDNANCE BURN AREA

Media	Well/Sample No.	Parameter	Results 1985	Results 1989	Units
Ground Water	7GW8	2,4,6-Trinitrotoluene	1650/1596	ND	ug/l
		RDX	1384/2096	700	ug/l
		HMX	300/210	190	ug/l
		2,4-Dinitrotoluene	146/336	ND	ug/l
		2,6-Dinitrotoluene	256/ND	ND	ug/l
		1,3,5-Trinitrobenzene	20/ND	ND	ug/l

5. SITE 8 – ABANDONED CHEMICAL DISPOSAL PIT

Media	Well/Sample No.	Parameter	Results		Units
			1985	1989	
Ground Water	8GW36	1,1,2-Trichloroethane	ND/ND	7	ug/l

6. SITE 9 – INDUSTRIAL WASTEWATER DISPOSAL AREA 300

Media	Well/Sample No.	Parameter	Results		Units
			1985	1989	
Ground Water	9GW1	RDX TCE	97/ND 225/200	150 67	ug/l ug/l
	9GW2	TCE Tetrachloroethene Vinyl Chloride	28/21 9/9 45/ND	17 8 ND	ug/l ug/l ug/l
	9GW3	HMX TCE	ND/ND ND/55	14 29	ug/l ug/l
	9GW5	TCE	ND/6	ND	ug/l
	9GW6	TCE	6/7	ND	ug/l
Sediment	9SD2	Cd Pb	2.5 18	0.83 54.2	mg/kg mg/kg
	9SD3	Cd Cr Pb	4 26 130	1.3 12.0 40.3	mg/kg mg/kg mg/kg
	9SD9	Cr Pb	6 38	16.8 37.3	mg/kg mg/kg
	9SD11	Cr Pb	14 92	15.3 71.8	mg/kg mg/kg

7. SITE 11 – INDUSTRIAL WASTEWATER DISPOSAL AREA 100

Media	Well/Sample No.	Parameter	Results 1985	Results 1989	Units
Ground Water	11GW22	TCE	63/270	110	ug/l
		1,2-DCE	400/1030	1000	ug/l
		Tetrachloroethene	3/12	10	ug/l
		1,1-Dichloroethane	ND/10	6	ug/l
		1,2-Dichloroethane	16/17	6	ug/l
		1,1-Dichloroethene	ND/5	ND	ug/l
	11GW24	Benzene	ND/10	6	ug/l
		Chloroform	ND/310	58	ug/l
		Carbon Tetrachloride	ND/18	ND	ug/l
		1,1-Dichloroethane	ND/10	ND	ug/l
		1,2-Dichloroethane	ND/37	ND	ug/l
		1,2-Dichloropropane	ND/7	ND	ug/l
		Methylene Chloride	50/ND	ND	ug/l
		1,1,1-Trichloroethane	ND/17	ND	ug/l
		1,1,2-Trichloroethane	ND/8	ND	ug/l
		TCE	ND/8	ND	ug/l

SITE 2 - APPLE ORCHARD LANDFILL
GROUND WATER - ANALYTICAL RESULTS

Parameter	Sample Locations				Detection Limit	Units
	2GW30	2GW31	2GW32	2GW45		
Total Metals:						
Cadmium	U	U	U	U	3.0	ug/l
Chromium	31.6	55.0	261.0	34.7	7.0	ug/l
Copper	24.6	80.2	241.0	40.8	3.0	ug/l
Lead	U	34.2	U	U	28.0	ug/l
Mercury	U	U	62.7	U	0.20	ug/l
Zinc	83.4	173.0	1640.0	94.1	3.0	ug/l
Chromium VI	U	U	U	U	10.0	ug/l
Filtered Metals:						
Cadmium	U	U	27.6	3.7	3.0	ug/l
Chromium	U	U	U	U	7.0	ug/l
Copper	21.6	U	208.0	U	3.0	ug/l
Lead	U	U	U	U	28.0	ug/l
Mercury	U	U	10.9	U	0.20	ug/l
Zinc	59.2	29.4	961.0	24.0	3.0	ug/l
Chromium VI	U	U	U	U	10.0	ug/l
pH	5.80	5.50	4.70	6.10	—	su
PCBs	U	U	U	U	1.0	ug/l
TOC	9,300	900	3,300	5,400	500	ug/l
TOX	48	8	35	33	8	ug/l
TDS	2,050	U	37,700	1,020	20	mg/l
TSS	719	1,930	7,690	1,650	4	mg/l
Volatile Organics:						
Methylene Chloride	U	U	6 B	U	5	ug/l
Trichloroethene	7	U	240	U	5	ug/l
Trichlorofluoromethane	7 J	U	U	U	10	ug/l
Semivolatile Organics:						
bis(2-ethylhexyl)phthalate	U	8 J	U	23	10	ug/l

Notes: (1) U - Not detected.
(2) J - Compound is present but below detection limit.
(3) B - Compound also found in the blank.

SITE 2 – APPLE ORCHARD LANDFILL
SURFACE WATER – ANALYTICAL RESULTS

Parameter	Sample Locations						Detection Limit	Units
	2SW1	2SW2B	2SW3	2SW4	2SW5	2SW6		
Total Metals:								
Cadmium	U	U	U	U	U	U	5.0	ug/l
Chromium	U	U	U	U	U	U	7.0	ug/l
Copper	12.4	6.7	14.4	18.9	16.1	5.0	3.0	ug/l
Lead	U	U	U	U	U	U	28.0	ug/l
Zinc	35.4	32.5	58.9	58.6	54.6	10.4	3.0	ug/l
Filtered Metals:								
Cadmium	U	U	U	U	U	U	5.0	ug/l
Chromium	U	U	U	U	U	U	7.0	ug/l
Copper	11.1	3.3	12.2	11.7	11.7	6.7	3.0	ug/l
Lead	U	U	U	U	U	U	28.0	ug/l
Zinc	49.5	74.8	59.3	25.0	58.7	27.8	3.0	ug/l
pH	6.84	7.10	6.89	7.41	6.76	7.06	—	su
TOC	3,000	2,300	2,600	8,100	2,800	2,200	500	ug/l
TOX	27	25	33	21	35	20	8	ug/l
TDS	671	563	721	182	588	482	20	mg/l
TSS	U	7	4	55	6	U	4	mg/l
Volatile Organics:								
Trichloroethene	U	U	5	U	U	U	5	ug/l

Note: U – Not detected.

SITE 2 – APPLE OI ARD LANDFILL
STREAM SEDIMENT/SURFICIAL SOIL – ANALYTICAL RESULTS

Parameter	Sample Locations												Detection Limit	Units
	2SD1	2SD2	2SD3	2SD4	2SD5	2SD7	2SD9	2SD10	2SD11	2SD12	2SL1	2SL2		
Total Metals:														
Cadmium	U	U	U	U	U	1.1	U	1.9	0.87	U	U	U	0.78	mg/kg
Chromium	18.8	24.2	14.8	24.3	35.0	31.7	19.3	31.1	12.3	15.2	22.9	34.4	0.70	mg/kg
Copper	17.4	24.8	24.0	19.3	26.1	32.6	19.8	33.8	26.7	19.5	33.6	28.5	0.30	mg/kg
Lead	12.6	13.1	15.0	15.5	64.9	10.1	32.6	118.0	17.6	9.9	15.0	7.8	3.60	mg/kg
Zinc	56.0	47.5	54.8	58.7	108.0	67.1	50.6	299.0	75.4	58.7	80.9	50.7	0.50	mg/kg
Chromium VI	U	U	U	U	U	U	U	U	U	U	--	--	10.0	ug/l
pH	7.65	7.30	7.31	7.01	7.72	6.70	7.50	7.32	7.13	7.16	5.81	7.88	--	su
PCBs	0.71	0.91	1.20	1.70	1.60	0.57	2.90	140.0	0.52	0.47	3.20	8.70	0.07	mg/kg
TOC	5,580	6,110	2,885	4,500	14,300	3,530	4,130	13,500	3,115	5,965	12,200	3,325	100	mg/kg
TOX	U	92.6	35.4	248.0	19.2	128.0	28.3	151.0	98.4	70.4	18.8	U	15.0	mg/kg
Volatile Organics:														
Acetone	U	U	U	U	U	U	16	U	U	U	U	U	14	ug/kg
Methylene Chloride	7	U	U	U	U	8	U	U	8	8	U	U	7	ug/kg
Siloxane	U	U	U	5 J	5 J	U	U	U	U	U	U	U	5	ug/kg
Trichlorofluoromethane	U	U	17 J	17 J	7 J	U	U	U	U	U	U	U	17	ug/kg
Semivolatiles:														
Diethylphthalate	--	--	--	--	--	--	--	--	--	--	U	410 J	500	ug/kg
Phenanthrene	--	--	--	--	--	--	--	--	--	--	250 J	850	500	ug/kg
Anthracene	--	--	--	--	--	--	--	--	--	--	U	220 J	500	ug/kg
Fluoranthene	--	--	--	--	--	--	--	--	--	--	U	1600	500	ug/kg
Pyrene	--	--	--	--	--	--	--	--	--	--	270 J	1100 X	500	ug/kg
Benzo(a)Anthracene	--	--	--	--	--	--	--	--	--	--	250 JX	710	500	ug/kg
Chrysene	--	--	--	--	--	--	--	--	--	--	300 J	880	500	ug/kg
bis(2-Ethylhexyl)Phthalate	--	--	--	--	--	--	--	--	--	--	U	520 J	500	ug/kg
Benzo(b)Fluoranthene	--	--	--	--	--	--	--	--	--	--	300 JX	610	500	ug/kg
Benzo(k)Fluoranthene	--	--	--	--	--	--	--	--	--	--	200 J	610	500	ug/kg
Benzo(a)Pyrene	--	--	--	--	--	--	--	--	--	--	270 JX	690	500	ug/kg
Indeno(1,2,3-cd)Pyrene	--	--	--	--	--	--	--	--	--	--	U	380 JX	500	ug/kg
Benzo(g,h,i)Perylene	--	--	--	--	--	--	--	--	--	--	U	370 JX	500	ug/kg
Hexadecanoic Acid	--	--	--	--	--	--	--	--	--	--	230 J	U	500	ug/kg

Notes: (1) U - Not detected.

(2) J - Compound is present but less than the detection limit.

SITE 3 - PISTOL RANGE LANDFILL
GROUND WATER - ANALYTICAL RESULTS

Parameter	Sample Locations				Detection Limit	Units
	3GW17	3GW18	3GW19	3GW47		
Total Metals:						
Cadmium	U	U	U	U	5.0	ug/l
Chromium	14.8	69.9	56.9	259.0	5.0	ug/l
Copper	14.4	49.0	98.8	170.0	3.0	ug/l
Lead	U	U	53.4	91.1	28.0	ug/l
Mercury	U	0.33	0.24	U	0.20	ug/l
Zinc	34.1	137.0	122.0	275.0	3.0	ug/l
Filtered Metals:						
Cadmium	U	U	U	U	5.0	ug/l
Chromium	U	U	5.6	U	5.0	ug/l
Copper	U	U	U	U	3.0	ug/l
Lead	U	U	U	64.3	28.0	ug/l
Mercury	U	U	U	U	0.20	ug/l
Zinc	21.3	106.0	39.0	283.0	3.0	ug/l
pH	6.20	6.10	6.30	5.80	—	su
TOC	5,790	36,400	38,200	34,200	500	ug/l
TOX	13.2	U	34.9	19.8	8	ug/l
TDS	48.0	138.0	208.0	262.0	20	mg/l
TSS	645	4,920	5,420	3,880	4	mg/l
Volatile Organics:						
1,2-Dichloroethene (total)	U	8	38	U	5	ug/l
Trichloroethene	U	7	7	U	5	ug/l
Chlorobenzene	U	U	16	U	5	ug/l

Note: U - Not detected.

SITE 3 - PISTOL RANGE LANDFILL
SURFACE WATER - ANALYTICAL RESULTS

Parameter	Sample Locations				Detection Limit	Units
	3SW1	3SW2	3SW3	3SW4		
Total Metals:						
Cadmium	U	U	U	U	5.0	ug/l
Chromium	U	8.8	U	U	7.0	ug/l
Copper	3.7	5.3	4.2	5.8	3.0	ug/l
Lead	31.4	U	U	U	28.0	ug/l
Zinc	14.5	28.3	19.7	26.7	3.0	ug/l
Mercury	U	U	U	0.22	0.20	ug/l
Chromium VI	U	U	U	U	10.0	ug/l
Filtered Metals:						
Cadmium	U	U	U	U	5.0	ug/l
Chromium	U	U	U	U	7.0	ug/l
Copper	5.9	7.5	3.8	6.4	3.0	ug/l
Lead	U	U	U	U	28.0	ug/l
Zinc	42.2	26.2	30.8	19.1	3.0	ug/l
Mercury	U	U	0.41	U	0.20	ug/l
Chromium VI	U	U	U	U	10.0	ug/l
pH	7.38	7.57	7.33	7.69	—	su
TOC	4640	4620	4280	5240	500	ug/l
TOX	23.9	24.8	28.0	25.8	8	ug/l
TDS	212	165	206	177	20	mg/l
TSS	U	U	U	8	4	mg/l
Volatile Organics:	U	U	U	U	—	ug/l

Note: U - Not detected.

SITE 3 - PISTOL RANGE LANDFILL
STREAM SEDIMENT/SURFICIAL SOIL - ANALYTICAL RESULTS

Parameter	Sample Locations						Detection Limit	Units
	3SD1	3SD2	3SD3	3SD6	3SL1	3SL2		
Total Metals:								
Cadmium	U	U	U	U	60.1	5.6	0.78	mg/kg
Chromium	33.9	12.0	6.3	16.8	83.0	34.2	0.70	mg/kg
Copper	9.9	3.3	6.6	8.9	2530	241	0.30	mg/kg
Lead	5.9	U	U	4.7	1460	141	3.60	mg/kg
Zinc	23.2	14.2	8.9	14.8	7300	544	0.50	mg/kg
Mercury	0.19	0.18	0.24	0.17	12.4	1.7	0.14	mg/kg
Chromium VI	U	U	U	U	U	U	10.0	ug/l
pH	7.21	7.42	7.23	7.21	—	—	—	su
TOC	2,580	1,735	3,400	1,310	—	—	100	mg/kg
TOX	19.8	19.2	16.2	10.2	—	—	10.0	mg/kg
Semivolatiles:								
Phenanthrene	—	—	—	—	7,400	2,900	2,300	ug/kg
Anthracene	—	—	—	—	1,300 J	U	2,200	ug/kg
Di-n-Butylphthalate	—	—	—	—	15,000	7,200	2,300	ug/kg
Fluoranthene	—	—	—	—	14,000	5,400	2,300	ug/kg
Pyrene	—	—	—	—	9,600	4,000	2,300	ug/kg
Benzo(a)Anthracene	—	—	—	—	5,200	2,300	2,300	ug/kg
Chrysene	—	—	—	—	5,000	2,500	2,300	ug/kg
Benzo(b)Fluoranthene	—	—	—	—	4,700	2,700	2,300	ug/kg
Benzo(k)Fluoranthene	—	—	—	—	4,200	2,000 J	2,200	ug/kg
Benzo(a)Pyrene	—	—	—	—	4,800	2,600	2,200	ug/kg
Indeno(1,2,3-cd)Pyrene	—	—	—	—	2,600	1,200	1,100	ug/kg
Dibenz(a,h)Anthracene	—	—	—	—	1,100 X	U	2,200	ug/kg
Benzo(g,h,i)Perylene	—	—	—	—	2,600	1,200	1,100	ug/kg

Notes: (1) U - Not detected.
(2) J - Compound is present but less than the detection limit.
(3) X - EPA CLP criteria for confirmation not met but compound is present.

SITE 4 – CHEM. BURIAL SITE
GROUNDWATER – ANALYTICAL RESULTS

Parameter	Sample Locations												Detection Limit	Units
	4GW10	4GW11	4GW11A	4GW12	4GW13	4GW15	4GW48	4GW49S	4GW49D	4GW50	4GW51S	4GW52		
Total Metals:														
Cadmium	U	7.6	12.6	U	9.5	2.2	2.1	U	U	U	U	8.4	2.0	ug/l
Chromium	93.9	202	157	90.5	100	113	375	51.4	34.4	128	6.1	396	5.0	ug/l
Copper	45.7	408	780	56.3	143	46.3	236	23.5	40.2	209	4.3	259	3.0	ug/l
Lead	U	204	102	U	35.3	31.4	91.2	43.9	U	34.7	U	77.0	28.0	ug/l
Mercury	2.6	2.7	3.1	3.0	2.8	4.4	2.1	0.77	4.1	3.3	U	2.5	0.20	ug/l
Zinc	60.2	1150	2850	31.9	39.0	60.4	277	51.0	25.6	58.5	5.5	198	3.0	ug/l
Chromium VI	U	U	U	U	U	U	U	U	U	U	U	U	10.0	ug/l
Filtered Metals:														
Cadmium	3.6	2.8	2.6	2.8	2.7	U	U	4.3	U	2.9	U	5.6	2.0	ug/l
Chromium	U	U	U	U	U	U	U	U	U	U	U	U	5.0	ug/l
Copper	U	U	18.6	U	U	U	U	U	U	U	U	U	3.0	ug/l
Lead	U	U	U	U	U	U	U	U	U	U	U	U	28.0	ug/l
Mercury	1.4	U	U	0.88	U	U	U	U	0.27	U	U	U	0.20	ug/l
Zinc	145	37.9	949	106	60.3	62.1	87.0	23.8	87.7	86.8	31.7	56.2	3.0	ug/l
Chromium VI	U	U	U	U	U	U	U	U	U	U	U	U	10.0	ug/l
pH	5.90	6.70	6.70	4.50	5.00	5.60	7.00	5.60	5.40	5.40	6.60	5.50	--	su
TOC	19.6	51.7	19.3	17.1	42.4	13.3	62.5	13.9	43.8	25.2	14.4	59.8	0.50	mg/l
TOX	47.2	17.0	17.3	23.6	87.2	89.8	140	U	17.6	21.0	39.6	472.0	8	ug/l
TDS	360	296	330	196	130	752	508	488	285	228	312	212	20	mg/l
TSS	4,990	23,900	924.0	7,140	4,320	9,810	20,600	7,550	5,360	16,220	536	31,500	4	mg/l
Volatile Organics:														
Benzene	U	6	U	U	U	U	U	U	U	U	7	U	5	ug/l
Chloroform	U	U	U	U	6	U	U	U	U	U	U	U	5	ug/l
1,2-Dichloroethene	U	U	U	U	7	U	U	U	U	U	U	170	5	ug/l
Methylene Chloride	4 J	4 J	U	U	U	U	23 J	U	U	U	U	U	5	ug/l
1,1,2,2-Tetrachloroethane	U	U	U	U	U	81	U	U	U	U	U	75	5	ug/l
Toluene	6	5 J	U	4 J	U	U	U	U	U	U	U	U	5	ug/l
Trichloroethene	U	U	U	U	160	170	590	U	U	U	U	1000	5	ug/l
Semivolatiles:														
Benzoic Acid	14 J	29 J	U	U	U	U	U	U	U	U	15 JX	U	50	ug/l
bis(2-Ethylhexyl)Phthalate	U	7 J	U	U	U	U	6 JX	U	U	U	14	8 JX	10	ug/l

Notes: (1) U - Not detected.
(2) J - Compound is present but less than the detection limit.
(3) X - EPA CLP criteria for confirmation not met but compound is present.

SITE 4 - CHEMICAL BURIAL SITE
SOIL BORING - ANALYTICAL RESULTS

Parameter	Sample Locations						Detection Limit	Units
	4SB1A (4GW52)	4SB1B (4GW52)	4SB2A (4GW48)	4SB2B (4GW48)	4SB3A (4GW51S)	4SB3B (4GW51S)		
Total Metals:								
Cadmium	U	U	U	U	U	0.57	0.50	mg/kg
Chromium	16.4	8.3	12.2	4.4	6.0	4.8	0.70	mg/kg
Copper	5.0	9.4	3.2	2.2	3.4	1.5	0.30	mg/kg
Lead	5.3	U	U	U	U	U	3.60	mg/kg
Zinc	2.6	0.90	5.6	1.8	1.4	1.7	0.50	mg/kg
Chromium VI	U	U	U	U	U	U	10.0	ug/l
pH	5.66	5.53	5.28	5.19	5.54	6.20	—	su
TOC	492	U	492	672	615	691	100	mg/kg
TOX	U	U	U	U	U	U	15	mg/kg
Semivolatile Organics:								
bis(2-ethylhexyl)phthalate	—	—	150 J	U	U	86 JX	350	ug/kg

Notes: (1) A - Sample collected above the water table.
B - Sample collected in the saturated zone.
(2) U - Not detected.
(3) J - Compound present but below detection limit.
(4) X - EPA CLP criteria not met for confirmation but compound is present.

SITE 7 - ORDNANCE BURN AREA
GROUND WATER - ANALYTICAL RESULTS

Parameter	Sample Locations			Detection Limit	Units
	7GW9	7GW41	7GW43		
Total Metals:					
Cadmium	U	6.1	9.5	5.0	ug/l
Chromium	218.0	315.0	426.0	7.0	ug/l
Copper	190.0	753.0	513.0	3.0	ug/l
Lead	43.8	71.9	55.2	28.0	ug/l
Mercury	2.1	2.6	1.4	0.20	ug/l
Zinc	68.2	250.0	145.0	3.0	ug/l
Filtered Metals:					
Cadmium	U	6.2	U	5.0	ug/l
Chromium	U	U	U	7.0	ug/l
Copper	12.7	14.7	21.5	3.0	ug/l
Lead	U	U	U	28.0	ug/l
Mercury	U	U	U	0.20	ug/l
Zinc	11.7	60.2	24.2	3.0	ug/l
pH	4.3	5.1	5.8	—	su
TOC	12.1	56.1	39.7	0.50	mg/l
TOX	13.0	32.3	128.0	8	ug/l
TDS	U	U	244.0	20	mg/l
TSS	22,800	19,300	11,400	4	mg/l
Nitroaromatics:					
HMX	190.0	U	U	10.0	ug/l
RDX	700.0	U	U	10.0	ug/l
1,3,5-trinitrobenzene	U	U	U	10.0	ug/l
2,4,6-trinitrotoluene	U	U	U	10.0	ug/l
2,6-dinitrotoluene	U	U	U	10.0	ug/l
2,4-dinitrotoluene	U	U	U	10.0	ug/l

Note: U - Not detected.

SITE 7 – ORDNANCE BURN AREA
SOIL BORING ANALYTICAL RESULTS – NITROAROMATICS

LOCATION	DETECTION LIMIT (ug/kg)	COMPOUNDS					
		HMX (ug/kg)	RDX (ug/kg)	1,3,5-TNB (ug/kg)	2,4,6-TNT (ug/kg)	2,6-DNT (ug/kg)	2,4-DNT (ug/kg)
7SL03A	20	30,000	8,300	U	U	U	U
7SL03B	19	360	1,100	U	U	U	U
7SL06A	20	1,500	270	U	2,100	U	U
7SL06B	20	710	U	U	910	U	U
7SL11A	20	3,000	U	U	U	U	U
7SL11B	20	520	280	U	450	U	U
7SL12A	20	74,000	1,300	U	230	U	U
7SL12B	20	51,000	470	U	450	U	U
7SL13A	20	6,000	1,000	U	210	U	U
7SL13B	19	5,800	850	U	380	U	U
7SL15A	20	1,300	740	U	330	U	U
7SL15B	20	980	380	U	410	U	U
7SL16A	19	51,000	1,300	U	120	U	U
7SL16B	190	17,000	930	U	130	U	U
7SL17A	20	13,000	220	U	U	U	U
7SL17B	20	16,000	760	U	230	U	U
7SL18A	20	19,000	3,500	U	15,000	U	U
7SL18B	19	16,000	5,100	U	34,000	U	U
7SL19A	19	160,000	430	U	U	U	U
7SL20A	19	3,100	U	U	380	U	U
7SL20B	20	4,900	260	U	490	U	U
7SL21A	19	46,000	700	U	600	U	U
7SL22A	20	8,400	U	U	U	U	U
7SL23A	20	820	U	U	U	U	U
7SL23B	19	370	U	U	U	U	U
7SL23C	20	250	U	U	U	U	U

Notes: (1) U - Not detected.
(2) A - Sample taken at depth of 0 to 1 foot.
(3) B - Sample taken at depth of 4 to 5 feet.
(4) C - Sample taken at depth of 3 feet.

SITE 8 - ABANDONED CHEMICAL DISPOSAL PIT
GROUND WATER - ANALYTICAL RESULTS

Parameter	Sample Locations					Detection Limit	Units
	8GW33	8GW34	8GW35	8GW36	8GW53		
Total Metals:							
Cadmium	U	U	U	U	U	5.0	ug/l
Chromium	395.0	162.0	381.0	344.0	462.0	7.0	ug/l
Copper	505.0	167.0	357.0	269.0	452.0	3.0	ug/l
Lead	106.0	57.3	102.0	101.0	123.0	28.0	ug/l
Mercury	4.5	0.51	U	U	U	0.20	ug/l
Zinc	1,280.0	385.0	910.0	876.0	1,350.0	3.0	ug/l
Filtered Metals:							
Cadmium	U	2.7	U	U	U	5.0	ug/l
Chromium	U	U	U	U	U	7.0	ug/l
Copper	U	U	U	U	U	3.0	ug/l
Lead	U	U	U	U	U	28.0	ug/l
Mercury	U	U	U	U	U	0.20	ug/l
Zinc	16.8	24.3	18.2	18.1	37.6	3.0	ug/l
pH	8.30	4.80	5.10	4.80	6.00	--	su
TOC	1,700	600	1,100	1,100	500	500	ug/l
TOX	8	18	11	U	--	8	ug/l
TDS	U	U	U	22	U	20	mg/l
TSS	14,800	3,920	9,410	9,000	11,100	4	mg/l
Volatile Organics:							
Chloroform	U	U	10	U	U	5	ug/l
1,1,2-Trichloroethane	U	U	U	7	U	5	ug/l
Semivolatile Organics:							
bis(2-ethylhexyl)phthalate	19	U	13	7 J	15	10	ug/l

Notes: (1) U - Not detected.
(2) J - Compound is present but below the detection limit.

SITE 8 - ABANDONED CHEMICAL DISPOSAL PIT
SURFICIAL SOIL - ANALYTICAL RESULTS

Parameter	Sample Locations		Detection Limit	Units
	8SL1	8SL2		
Metals:				
Cadmium	U	U	0.78	mg/kg
Chromium	14.6	58.5	0.70	mg/kg
Copper	7.7	12.4	0.30	mg/kg
Lead	30.0	57.2	3.60	mg/kg
Mercury	U	U	0.15	mg/kg
Zinc	28.1	47.7	0.50	mg/kg
Semivolatile Organics:				
Benzoic Acid	U	280 JX	2,500	ug/kg

Notes: (1) U - Not detected.
(2) J - Compound is present but below the detection limit.
(3) X - EPA CLP criteria not met for confirmation but compound is present.

SITE 9 – INDUSTRIAL WAS ATER DISPOSAL AREA 300
GROUNDWATER – ANALYTICAL RESULTS

Parameter	Sample Locations													Detection Limit	Units
	9GW1	9GW2	9GW3	9GW4	9GW5	9GW6	9GW7	9GW57S	9GW57D	9GW58	9GW59	9GW74	9GW75		
Total Metals:															
Cadmium	U	U	4.4	U	U	U	U	5.2	U	U	U	U	U	2.0	ug/l
Chromium	30.8	152.0	98.2	9.9	106.0	159.0	130.0	224.0	U	61.2	29.0	222.0	90.1	5.0	ug/l
Copper	42.9	175.0	151.0	7.9	129.0	223.0	138.0	173.0	9.4	56.8	44.4	223.0	60.3	3.0	ug/l
Lead	U	66.2	32.4	U	U	48.2	U	130.0	U	U	U	108.0	U	28.0	ug/l
Mercury	U	1.1	U	U	5.2	3.2	3.7	0.48	U	3.2	0.24	U	0.43	0.20	ug/l
Zinc	59.7	531.0	132.0	11.8	78.2	51.0	121.0	241.0	22.8	18.4	22.7	652.0	27.0	3.0	ug/l
Filtered Metals:															
Cadmium	U	4.3	5.1	U	U	U	U	U	U	U	U	U	U	2.0	ug/l
Chromium	U	U	U	U	U	U	U	U	U	U	U	U	U	5.0	ug/l
Copper	U	28.3	18.2	U	U	U	U	U	U	U	U	U	U	3.0	ug/l
Lead	U	U	U	U	U	U	U	U	U	U	U	U	U	28.0	ug/l
Mercury	U	U	U	U	U	U	U	U	U	0.24	U	U	U	0.20	ug/l
Zinc	33.3	220.0	72.3	14.5	17.9	37.8	16.3	34.1	21.9	22.6	32.4	45.1	23.9	3.0	ug/l
pH	5.10	5.50	4.90	5.70	4.60	4.30	4.70	5.30	5.40	5.60	5.50	5.10	5.40	--	su
TOC	15.7	7.7	14.0	5.29	10.3	16.5	32.7	45.2	4.7	37.7	38.5	11.1	17.5	0.50	mg/l
TOX	35.5	24.9	16.8	15.2	14.4	343.0	U	19.1	89.6	12.8	18.0	15.5	20.8	8	ug/l
TDS	48	50	124	28	U	U	U	40	55	U	38	104	76	20	mg/l
TSS	674	3,980	5,070	309	13,900	9,280	19,400	5,730	144	9,640	4,040	5,410	7,890	4	mg/l
Nitroaromatics:															
HMX	U	U	14	U	U	U	U	25	U	U	U	U	U	10	ug/l
RDX	150	U	U	U	U	U	U	U	U	U	U	U	U	10	ug/l
2,6-dinitrotoluene	U	U	U	U	U	U	U	U	U	24	U	U	U	10	ug/l
Volatile Organics:															
Chloroform	6	7	U	7	18	20	8	U	4 J	3 J	2 J	6	U	5	ug/l
1,2-Dichloroethene	4 J	U	U	U	U	U	U	3 J	19	U	U	U	U	5	ug/l
Tetrachloroethene	U	8	U	U	U	U	U	U	U	U	U	U	U	5	ug/l
Toluene	4 J	U	U	2 J	U	U	U	U	U	U	U	U	U	5	ug/l
Trichloroethene	67	17	29	U	U	U	U	31	100	U	U	U	U	5	ug/l
Trichlorofluoromethane	8 J	5 J	U	U	U	U	U	20 J	57 J	U	U	U	U	--	ug/l
3-Methylpentane	U	U	U	U	U	U	U	U	U	U	U	U	7 J	--	ug/l
Semivolatiles:	U	--	--	--	--	--	--	--	--	--	--	--	--	--	ug/l

Notes (1) U - Not detected.

(2) J - Compound is present but less than the detection limit.

(3) X - EPA CLP criteria for confirmation not met but compound is present

SITE 9 - INDUSTRIAL WASTEWATER DISPOSAL AREA 300
SURFACE WATER - ANALYTICAL RESULTS

Parameter	Sample Locations 9SW1	9SW2	9SW3	Detection Limit	Units
Total Metals:					
Cadmium	7.3	6.6	U	5.0	ug/l
Chromium	U	U	U	7.0	ug/l
Copper	4.8	5.8	5.3	3.0	ug/l
Lead	U	U	28.1	28.0	ug/l
Zinc	13.6	17.8	20.7	3.0	ug/l
Filtered Metals:					
Cadmium	U	U	U	5.0	ug/l
Chromium	U	U	U	7.0	ug/l
Copper	U	4.2	U	3.0	ug/l
Lead	U	U	U	28.0	ug/l
Zinc	10.5	13.8	9.3	3.0	ug/l
pH	7.30	7.40	7.30	--	su
TOC	3,900	5,500	5,200	500	ug/l
TOX	35	18	17	8	ug/l
TDS	88	68	66	20	mg/l
TSS	43	43	37	4	mg/l
Volatile Organics:					
Acetone	34 B	4 JB	U	5	ug/l

Notes: (1) U - Not detected.
(2) B - Compound also detected in blank sample.
(3) J - Compound is present but less than the detection limit.

SITE 9 – INDUSTRIAL W[illegible]TEWATER DISPOSAL AREA 300
STREAM SEDIMENT/SURFICIAL SOIL – ANALYTICAL RESULTS

Parameter	Sample Locations												Detection Limit	Units
	9SD2	9SD3	9SD7	9SD9	9SD10	9SD11	9SD13	9SD16	9SD17	9SD18	9SL1	9SL2		
Total Metals:														
Cadmium	0.83	1.3	U	U	U	U	U	U	U	0.82	U	U	0.78	mg/kg
Chromium	14.6	12.0	16.8	16.8	10.6	15.3	10.6	14.6	31.1	5.0	14.3	10.8	0.70	mg/kg
Copper	9.3	68.9	5.6	42.7	9.8	16.7	9.0	9.0	18.4	4.0	273.0	9.3	0.30	mg/kg
Lead	54.2	40.3	15.9	37.3	19.9	71.8	18.8	10.9	10.9	U	65.0	24.0	3.60	mg/kg
Zinc	38.1	118.0	85.2	43.7	31.6	44.8	20.3	26.9	37.4	17.7	298.0	46.5	0.50	mg/kg
pH	4.83	6.40	8.16	6.54	7.51	4.93	6.62	7.41	7.52	7.26	--	--	--	su
TOC	29,100	28,700	5,760	20,600	5,400	22,000	9,030	5,420	5,870	2,660	--	--	100	mg/kg
TOX	33.8	18.8	11.8	24.8	U	34.3	12.6	11.2	32.8	U	--	--	10	mg/kg
Semivolatile Organics:														
Benzoic Acid	--	--	--	--	--	--	--	--	--	U	310 JX	U	2,400	ug/kg
Phenanthrene	--	--	--	--	--	--	--	--	--	U	400 J	U	490	ug/kg
Fluoranthene	--	--	--	--	--	--	--	--	--	U	650	U	490	ug/kg
Pyrene	--	--	--	--	--	--	--	--	--	U	520	U	490	ug/kg
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	U	320 J	U	490	ug/kg
Chrysene	--	--	--	--	--	--	--	--	--	U	400 J	U	490	ug/kg
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	U	370 J	U	490	ug/kg
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	U	250 J	U	490	ug/kg
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	U	320 J	U	490	ug/kg
Hexadecanoic Acid	--	--	--	--	--	--	--	--	--	U	1,600 J	1,700 J	2,400	ug/kg
Octodecanoic Acid	--	--	--	--	--	--	--	--	--	U	U	380 J	490	ug/kg

Notes: (1) U - Not detected.
(2) J - Compound is present but less than the detection limit.
(3) X - EPA CLP criteria for confirmation not met but compound is present.

SITE 11 – INDUSTRIAL WASTE WATER DISPOSAL AREA 100
GROUNDWATER – ANALYTICAL RESULTS

Parameter	Sample Locations																Detection Limit	Units
	11GW22	11GW23	11GW24	11GW25	11GW26	11GW27	11GW28	11GW29	11GW66	11GW67	11GW68	11GW69	1GW70	11GW71	11GW72	11GW73		
Total Metals:																		
Cadmium	U	U	U	U	U	3.8	U	U	U	6.1	U	U	U	U	U	U	2.0	ug/l
Chromium	176.0	153.0	109.0	574.0	62.8	2,100.0	111.0	236.0	440.0	93.5	1,260.0	343.0	53.4	46.0	105.0	60.2	5.0	ug/l
Copper	250.0	226.0	108.0	516.0	80.8	4,880.0	144.0	226.0	456.0	149.0	3,460.0	355.0	56.9	40.8	124.0	82.1	3.0	ug/l
Lead	66.2	128.0	U	305.0	41.4	151.0	27.1	86.6	31.5	106.0	569.0	212.0	44.1	U	29.4	U	28.0	ug/l
Mercury	0.61	U	U	U	0.98	0.46	0.42	0.28	U	U	0.38	U	0.43	U	U	U	0.20	ug/l
Zinc	630.0	668.0	283.0	1,420.0	250.0	791.0	343.0	496	780.0	179.0	2,900.0	728.0	283.0	117.0	89.2	51.2	3.0	ug/l
Filtered Metals:																		
Cadmium	U	4.4	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2.0	ug/l
Chromium	U	U	U	U	U	1,460.0	U	U	U	U	U	U	U	U	U	U	5.0	ug/l
Copper	U	U	U	U	U	4,150.0	U	U	U	U	U	U	U	U	U	U	3.0	ug/l
Lead	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	28.0	ug/l
Mercury	0.70	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.20	ug/l
Zinc	18.1	8.5	52.0	36.4	11.9	95.4	18.1	19.5	61.1	33.5	19.2	40.4	35.9	72.3	17.2	37.8	3.0	ug/l
pH	5.20	5.40	4.36	4.55	6.20	4.50	4.80	6.30	8.20	6.25	5.61	4.87	6.69	6.56	11.24	5.49	--	su
TOC	1.6	1.2	1.8	--	2.1	--	1.5	10.8	2.1	--	7.1	2.6	1.5	1.1	0.70	U	0.50	mg/l
TOX	480	--	59	11	14	17	47	--	11	29	10	U	U	U	11	9	8	ug/l
TDS	U	U	132	136	138	U	U	172	U	112	106	198	210	U	72	86	20	mg/l
TSS	4,040	5,490	5,160	9,610	1,520	5,270	3,120	3,960	5,980	3,540	30,500	9,520	6,380	1,720	5,980	3,120	4	mg/l
Volatile Organics:																		
Acetone	U	U	7 BJ	U	U	U	--	--	13	U	U	U	U	12	U	16 B	10	ug/l
Benzene	U	U	6	U	U	U	--	--	U	U	U	U	U	U	U	U	5	ug/l
Chloroform	23	U	58	4 J	U	U	--	--	U	4 J	U	U	U	U	U	4 J	5	ug/l
1,1-Dichloroethane	6 X	U	U	U	U	U	--	--	U	U	U	U	U	U	U	U	5	ug/l
1,2-Dichloroethane	6 X	U	10	U	U	U	--	--	U	U	U	U	U	U	U	U	5	ug/l
1,2-Dichloroethene	1000 D	U	U	U	U	U	--	--	8	U	U	U	U	U	U	U	5	ug/l
1,2-Dichloro-1,1,2-Trichloroethane	64 J	U	U	U	U	U	--	--	U	U	U	U	U	U	U	U	--	ug/l
Tetrachloroethene	10	U	U	U	U	U	--	--	U	U	U	U	U	U	U	U	5	ug/l
Tetrahydrofuran	U	U	12 J	U	19	U	--	--	U	U	U	U	U	U	U	U	--	ug/l
Trichloroethene	110 D	U	U	U	U	U	--	--	6	U	U	U	U	U	U	U	5	ug/l
Trichlorofluoromethane	U	13 J	U	U	U	U	--	--	U	U	U	U	U	U	U	U	--	ug/l

Notes: (1) U - Not detected.
(2) J - Compound is present but less than the detection limit.
(3) X - EPA CLP criteria for confirmation not met but compound is present.
(4) D - Concentration was calculated from a dilution.

SITE 11 - INDUSTRIAL WASTEWATER DISPOSAL AREA
SURFACE WATER - ANALYTICAL RESULTS

Parameter	Sample Locations 11SW1	Sample Locations 11SW2	Detection Limit	Units
Total Metals:				
Cadmium	U	U	5.0	ug/l
Chromium	U	U	7.0	ug/l
Copper	9.6	4.8	3.0	ug/l
Lead	U	U	28.0	ug/l
Zinc	280.0	25.1	3.0	ug/l
Filtered Metals:				
Cadmium	U	U	5.0	ug/l
Chromium	U	U	7.0	ug/l
Copper	8.0	11.7	3.0	ug/l
Lead	U	42.8	28.0	ug/l
Zinc	236.0	36.0	3.0	ug/l
pH	7.10	6.90	--	su
TOC	5,400	4,600	500	ug/l
TOX	18	18	8	ug/l
TDS	106	56	20	mg/l
TSS	U	18	4	mg/l
Volatile Organics:	U	U	--	ug/l

Note: U - Not detected.

SITE 11 - INDUSTRIAL WASTEWATER DISPOSAL AREA 100
STREAM SEDIMENT/SURFICIAL SOIL - ANALYTICAL RESULTS

Parameter	Sample Locations					Detection Limit	Units
	11SD1	11SD2	11SD3	11SL1	11SL2		
Total Metals:							
Cadmium	4.3	U	U	0.85	U	0.78	mg/kg
Chromium	133.0	12.8	14.1	18.0	17.7	0.70	mg/kg
Copper	135.0	12.4	8.5	16.0	8.8	0.30	mg/kg
Lead	139.0	40.5	9.2	46.4	28.9	3.60	mg/kg
Mercury	1.9	U	0.21	—	—	0.14	mg/kg
Zinc	789.0	62.3	26.6	59.2	28.1	0.20	mg/kg
pH	7.31	6.23	7.21	—	—	—	su
TOC	64,600	5,880	4,885	—	—	100	mg/kg
TOX	266	20.2	18.3	—	—	15.0	mg/kg
Semivolatiles:	(Note 4)						
Phenanthrene	U	670	U	U	U	450	ug/kg
Anthracene	U	U	U	U	U	450	ug/kg
Di-n-Butylphthalate	U	U	U	U	U	450	ug/kg
Fluoranthene	30,000 J	780	U	440 J	U	450	ug/kg
Pyrene	22,000 JX	670 X	U	340 JX	U	450	ug/kg
Benzo(a)Anthracene	U	410 J	U	U	U	450	ug/kg
Chrysene	31,000 J	540	U	280 JX	U	450	ug/kg
bis(2-ethylhexyl)phthalate	23,000 J	190 JX	U	150 JX	U	450	ug/kg
Benzo(b)Fluoranthene	32,000 JX	400 JX	U	240 JX	U	450	ug/kg
Benzo(k)Fluoranthene	24,000 JX	400 JX	U	230 JX	U	450	ug/kg
Benzo(a)Pyrene	22,000 JX	420 JX	U	250 JX	U	450	ug/kg
Indeno(1,2,3-cd)Pyrene	20,000 JX	U	U	U	U	450	ug/kg
Dibenz(a,h)Anthracene	U	U	U	U	U	450	ug/kg
Benzo(g,h,i)Perylene	U	360 JX	U	U	U	450	ug/kg

Notes: (1) U - Not detected.
(2) J - Compound is present but less than the detection limit.
(3) X - EPA CLP criteria for confirmation not met but compound is present.
(4) The detection limit for this sample was 100 times greater than the limit listed on this sheet.

PAINT BRANCH CREEK
SURFACE WATER - ANALYTICAL RESULTS

Parameter	Sample Locations			Detection Limit	Units
	PBC-SW1	PBC-SW1	PBC-SW1		
Total Metals:					
Cadmium	U	U	U	5.0	ug/l
Chromium	U	U	U	7.0	ug/l
Copper	7.4	U	7.4	3.0	ug/l
Lead	U	U	U	28.0	ug/l
Zinc	25.5	8.5	35.6	3.0	ug/l
Filtered Metals:					
Cadmium	U	U	U	5.0	ug/l
Chromium	U	U	U	7.0	ug/l
Copper	U	U	U	3.0	ug/l
Lead	U	U	U	28.0	ug/l
Zinc	9.2	8.2	25.9	3.0	ug/l
pH	6.90	7.00	7.00	--	su
TOC	2,100	1,800	2,000	500	ug/l
TOX	8	11	13	8	ug/l
TDS	48	56	88	20	mg/l
TSS	7	7	6	4	mg/l
Volatile Organics	U	U	U	--	ug/l

Note: U - Not detected.

PAINT BRANCH CREEK
STREAM SEDIMENT - ANALYTICAL RESULTS

Parameter	Sample Locations			Detection Limit	Units
	PBC-SD1	PBC-SD2	PBC-SD3		
Total Metals:					
Cadmium	U	U	U	0.78	mg/kg
Chromium	11.3	9.4	12.1	0.70	mg/kg
Copper	10.2	7.7	6.3	0.30	mg/kg
Lead	24.0	10.8	12.1	3.60	mg/kg
Mercury	0.40	U	0.23	0.14	mg/kg
Zinc	30.8	26.9	26.8	0.20	mg/kg
PCBs	U	U	U	70	ug/kg
TOC	4,960	3,440	3,470	100	mg/kg
TOX	18.1	U	U	15.0	mg/kg
Nitroaromatics	U	U	U	19	ug/kg
Volatile Organics:					
Acetone	U	99 B	U	10	ug/kg
Methylene Chloride	U	12 B	U	10	ug/kg
Toluene	U	2 J	U	5	ug/kg
Semivolatiles:					
Phenanthrene	570 J	U	U	610	ug/kg
Fluoranthene	890	170 JX	220 JX	610	ug/kg
Pyrene	570 J	230 J	U	610	ug/kg
Benzo(a)Anthracene	400 J	U	U	450	ug/kg
Chrysene	560 J	U	U	450	ug/kg
Benzo(b)Fluoranthene	360 J	U	U	450	ug/kg
Benzo(k)Fluoranthene	470 J	U	U	450	ug/kg
Benzo(a)Pyrene	420 J	U	U	450	ug/kg
Indeno(1,2,3-cd)Pyrene	310 J	U	U	450	ug/kg
Benzo(g,h,i)Perylene	340 JX	U	U	450	ug/kg

Notes: (1) U - Not detected.
(2) J - Compound is present but less than the detection limit.
(3) X - EPA CLP criteria for confirmation not met but compound is present.
(4) B - Compound was also found in the blank sample.

BACKGROUND WELLS
GROUND WATER - ANALYTICAL RESULTS

Parameter	Sample Locations		Detection Limit	Units
	BGW16	BGW40		
Total Metals:				
Cadmium	7.6	U	3.0	ug/l
Chromium	213.0	97.2	7.0	ug/l
Copper	135.0	50.5	3.0	ug/l
Lead	51.9	50.7	28.0	ug/l
Mercury	1.2	U	0.20	ug/l
Zinc	101.0	244.0	3.0	ug/l
Chromium VI	U	U	10.0	ug/l
Filtered Metals:				
Cadmium	4.3	U	3.0	ug/l
Chromium	U	U	7.0	ug/l
Copper	U	U	3.0	ug/l
Lead	U	U	28.0	ug/l
Mercury	U	U	0.20	ug/l
Zinc	34.4	36.2	3.0	ug/l
Chromium VI	U	U	10.0	ug/l
pH	4.70	4.60	—	su
TOC	12,500	1,100	500	ug/l
TOX	U	11	8	ug/l
TDS	116	150	20	mg/l
TSS	5,150	2,920	4	mg/l
Volatile Organics:	U	U	—	ug/l
Semivolatile Organics:	U	U	—	ug/l

Note: U - Not detected.