WINZLER & KELLY
CONSULTING ENGINEERS

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October 9, 2003

Mr. Bruce Taylor and
Mr. Charles D. Aalfs
Blue Lake Forest Products
P.O. Box 1176
Arcata, CA 95518

**Re: Report of Findings for Phase II Investigation,
Blue Lake Forest Products/ Aalfs property, 1589 Glendale Drive,
Arcata, CA**

Dear Mr. Taylor and Mr. Aalfs:

INTRODUCTION

Winzler & Kelly Consulting Engineers is pleased to submit this Report of Findings for performing a limited Phase II assessment, as originally requested on June 27, 2003, and including the updated scope per the letter from Winzler & Kelly dated of July 17, 2003. The purpose of the investigation was to perform limited sampling at suspect areas on the Blue Lake Forest Products (BLFP) and Mr. Charles Aalfs parcels north of Glendale Drive and the former McNord property, south of Glendale Drive, in order to expedite the sale of these parcels. The scope of work includes the review and sampling of parcels Assessor Parcel Number (APN) 516-101-006, -017, -040, -041, -060, -064, -068, 516-111-004, -005, -006, 015, -033, & 516-151-019. It also includes the properties owned by Charles Aalfs APN 516-101-002 -059 & -063.

Purpose

The purpose of this hydrogeologic investigation was to assess potential hydrocarbon, metal, or pentachlorophenol (PCP) and tetrachlorophenol (TCP) impacts to the soil and groundwater at each of the BLFP and Aalfs' parcels noted above. Exploratory borings were used to collect soil and groundwater samples in each area of investigation. The borings were thereafter abandoned by refilling of the hole with concrete or cement.

Site Location

Blue Lake Forest Products and the Aalfs' property of interest are located around 1589 Glendale Drive, in Glendale, California. Glendale is an unincorporated area located immediately north of Highway 299, approximately two miles west of Blue Lake. Most of the existing mill complex is located along the north side of Glendale Drive. The property located along the south side of

Glendale Drive, the former McNord property, is currently undeveloped. A site vicinity map and site map can be found on Figures 1 & 2, respectively, in Attachment A.

Vicinity Description

Glendale is a sparsely populated rural community. The Blue Lake Forest Products mill complex and adjacent Aalfs' parcels are generally surrounded by industrial and commercial properties. The mill is located on the toe of the foothills, which rise to the north. Sparse residential housing exists along area roads to the east and west, which ascend northward into the foothills. Several residential homes, fronting on Glendale Drive, are located immediately south and west of the mill complex. Most of the mill site is essentially flat, with increasing up-slope of the site to the north.

Background

Background information was reviewed including interviews with Bruce Taylor and other appropriate personnel with knowledge of the prior uses of these parcels. Aerial photographs were also reviewed in order to investigate prior land use and to determine where potential contamination causing activities might have been located. This information was used to determine the extent of sampling necessary and the most representative locations to collect soil and groundwater samples. The areas most likely to have soil or groundwater impacts were selected, using the approach that if no impacts were observed in these areas, other areas of the property would also likely be free of impacts.

Aerial photos reviewed at the Humboldt County Department of Public Works span from 1948 to 1996 and are included in Appendix A. In 1948, the site was relatively undeveloped; a few houses north of Glendale Drive and one large building (located south of Glendale Drive and east of the future Dip Tank building) were present. By 1954, the Dip Tank Building, three mills with tee pee burners, and a square log pond were present on the site. The former Tread Mill was located on Aalfs' parcel APN 516-010-059, the BLFP Mill was located on APN 516-011-033 directly north of the Blue Lake Forest Product office buildings. The third mill, the former McNord Mill, is located south of Glendale Drive, and south west of the Dip Tank Building on APN 516-015-019. A log pond was located north of Glendale Drive and the BLFP mill, on APN 516-011-033. Refer to Figure 3, Attachment A, for the locations of these historic mills.

The former Trend and McNord Mills were stud mills, which produce framing type lumber and typically do not use wood preservatives or anti-fungal chemicals. The tee pee burners associated with these mills were used to burn the wood byproducts such as bark and saw dust (which again typically did not contain any manmade chemicals). The square log pond, north of the BLFP Mill, was used only as a storage and transportation device. Tannins, a naturally occurring chemical in evergreens, would likely have been the only agents found in the log ponds present at this site.

In 1958, the three mills and associated tee pee burners remain; only the McNord Mill tee pee burner is visibly smoking. The square log pond north of Glendale Drive remains and an additional oval log pond is present south of the McNord Mill. At the former Trend Mill site, which previously consisted of two separate buildings, the southern most building has been expanded and the northernmost building has been demolished. Just north east of the former Trend Mill in the 1958 photo, appears to be another log pond. The large building, located south of Glendale Drive and east of the future Dip Tank building in the 1954 photo, has been demolished.

In 1962, the three tee pee burners are visibly smoking and the mills are consequently assumed to be in operation. The large square pond north of Glendale Drive is still in use, but the ovate log pond south of the former McNord Mill appears to have been reduced to less than half of its original size.

By 1966, the two large ponds have been converted to log decks, the tee pee burners and mills remain. The former McNord Mill has been visibly expanded in the 1966 photo. Another addition to the site in the 1966 photos is a water tank located in the northeast corner of the large log deck north of Glendale Drive (a portion of which was previously the square log pond). Prior to 1966, the area east of the BLFP Mill and north of Glendale Drive had been an empty field; the field is now used for lumber storage.

The 1970 aerial photos are similar to the 1966 photos in that the previous log ponds remain to be used as log decks and the tee pee burners remain but are not smoking. There are few differences in site use and development from 1966 to 1970 with the exception that a large open-sided storage shed has been constructed in the northwest corner of the field used as lumber storage, east of the BLFP Mill.

From 1970 to 1974, the tee pee burner associated with the former Trend Mill appears to have been removed and a large storage shed building that remains at present, has been constructed; it is unclear from the photo whether this mill is still in operation.

In 1981, the buildings associated with the former McNord Mill no longer remain. Also in 1981, buildings associated with the former Trend Mill have been demolished, with the exception of the large storage shed mentioned above. The 1988 aerial photo of the site does not reveal any significant changes from the 1981 photos nor were there any significant changes since 1981 observable in the 1996 photo.

The BLFP Lumber Mill at this site has been operated by several owners since the 1940's and is currently owned by Blue Lake Forest Products (BLFP) as of December 2002. BLFP has since filed for bankruptcy and is currently not operating the site. McNamara and Peepe Corporation, a former owner and operator at the site, applied wood anti-stain solutions containing pentachlorophenol (PCP) and tetrachlorophenol (TCP) to lumber to prevent the growth of mold and fungus. Spillage and drippings of the wood anti-stain solutions had caused PCP and TCP contamination of the soil, surface water, and groundwater. Spillage and drippings of these solutions occurred when both McNamara and Peepe and a previous site owner, Molalla-Arcata Corporation, operated the lumber mill. PCP and TCP have not been used at the site since McNamara and Peepe declared bankruptcy in 1984. PCP and TCP were not used at the site while it was owned and operated by Blue Lake Forest Products.

In October 1985, emergency measures were taken by the Department of Toxic Substance Control (DTSC) to repackage PCP and other hazardous or unknown materials that were abandoned by McNamara and Peepe. The emergency measures consisted of transferring the contents of 13 deteriorating drums and an open, below-ground dip tank into new drums. These materials were disposed off-site in September 1989 and June 1990 at permitted hazardous waste disposal facilities.

A remedial investigation was conducted at the site from 1987 through 1989, funded by the bankruptcy trustee for the site. Initially, the remedial investigation was focused on five areas where contamination was suspected to be present. It was determined that the only area where significant levels of contamination existed was beneath and near the "green chain" (see Figure 2, Attachment A). The green chain is a conveyor system, which moves lumber from the sawmill and serves as an area where lumber is sorted by size. Wood anti-stain solution was applied by submersing lumber in a dip tank that was a part of the green chain. PCP had been detected at a groundwater monitoring well and a surface water drainage ditch near the green chain.

A *Remedial Action Plan* for the site was approved by the DTSC on December 5, 1994. The Plan called for consolidation of contaminated soils and a cap placed over the soils in the green chain area to prevent the PCP and TCP detected in the soil from being discharged to the groundwater beneath the site and to surface waters draining from the site. A concrete floor was also placed in the Dip Tank Building to help to ensure that current wood preservative practices, consisting of non-PCP containing preservatives, would be contained in the event of a spill.

On July 25, 1997 a Consent Decree was issued as a portion of the *State of California Department of Toxic Substances Control v. Blue Lake Forest Products, Inc.*, et al, Case No. C 97-2048 CW. The Consent Decree required BLFP to perform remedial measures, monitoring, and maintenance activities to address the PCP/TCP impacts.

An *Enforceable Monitoring and Maintenance Agreement* was executed on August 16, 1997. This Agreement required the implementation of the *Post-Remedial Operation and Maintenance Plan,* which was approved by the DTSC on April 25, 1997. The Agreement and the Maintenance Plan detailed the regular inspection and maintenance of the cap installed over soil near the green chain and of the concrete slab floor of the site's unit dip tank building. The Agreement and Maintenance Plan also detailed the periodic sampling and analysis of groundwater and surface waters adjacent to the green chain.

The remedial actions were implemented and completed by March 9, 1998, and the monitoring and maintenance actions were implemented immediately thereafter. A deed restriction was recorded on February 4, 1998.

A Five Year Comprehensive Review was written in December 2002. This review concluded that the existing green chain cap appears to be preventing surface waters from contacting the residual PCP/TCP soils and also to have prevented the PCP/TCP in the impacted soils from leaching into the groundwater. The area surrounding the former dip tank has been thoroughly cleaned and inspected by the North Coast Regional Water Quality Control Board. The property containing the former dip tank has been sold subsequent to December 2002, and monitoring of this area was recommended to cease due to the fact that all the groundwater samples collected from the monitoring well within this parcel contained non-detectable concentrations of all analytes tested since 1997.

Hydrogeologic Setting

Well drilling records indicate that several feet of gravel fill typically underlie the mill area. The substrate, to depths of 30 to 40 feet, appears to consist of interbedded clays, silts and sands, generally as a clayey mix, with interbeds of gravels and cobbles. Silty sands are variously described as gray, brown and black. Clays are commonly described as gray, greenish, and rusty orange (iron stained), with some organic rich clays noted in the flatter site areas. Gravels are described as rounded and/or fractured. The substrate in this area may represent river terrace deposits and/or valley alluvium.

The above description is consistent with the descriptions logged for the borings installed during this investigation. The site predominantly consists of one to two feet of sandy gravel or cement/concrete at the surface, underlain by silty clays with sand, to clayey silts with sand. Colors of these soils range from dark grays to yellowish browns.

Boring logs for all the borings installed with the hollow stem auger rig during this investigation can be found in Attachment B.

Mill Creek (also called Hall and Noisy Creek) flows southward out of the foothills and converge into Hall Creek approximately 1,500 feet east of the mill site and just north of Glendale Drive. Hall Creek then continues southwesterly towards the Mad River, passing about 550 feet southeast of the site. Lindsay Creek is located off the northwest corner of the site. All creeks and drainage courses in the area flow south-westerly into the Mad River channel, which is located about 1,100 feet southwest of the site. Glendale Drive and/or Highway 299 interrupt direct sheet-flow surface drainage from the mill site to the Mad River. A drainage ditch bisects the BLFP Mill site (See Figure 2), flowing east to southeasterly during the wet season. The drainage ditch crosses beneath Glendale Drive via a culvert, and continues southeasterly, entering Mill Creek, which then drains into the Mad River. No class A streams flow through the property.

Hydrographic data from existing monitoring wells on the site indicate that ground water levels range from approximately 7 to 33+ feet below the ground surface (bgs), with seasonal fluctuations of 10 feet or greater and a general groundwater gradient to the west. Groundwater interface estimated during this investigation ranged from 11 to 13 feet in the parcels south of Glendale Drive and from 7 to 22 feet in the parcels north of Glendale Drive.

The calculated historical groundwater gradients, based on existing monitoring wells onsite, are generally to the southwest as expected based on topographic relief and the direction toward the Mad River. Gradients range from southwest at 209.79 degrees Azimuth to north at 343.0 degrees Azimuth. The magnitude of the slope ranged from 0.73 feet per 100 feet to 2.16 feet per 100 feet (see Table 1, Attachment C).

PHASE II INVESTIGATION

A total of twenty borings were installed during this phase of work. Locations of these borings are displayed on Figure 4, Attachment A. The work was divided into three areas according to property owner and location. These divisions were as follows:

Former McNord Site South of Glendale Drive

APN 516-151-019, south of Glendale Drive, was the site of the former McNord Mill. The stud mill had a teepee burner, but reportedly no greenchain, however, this area was sampled in order to demonstrate the lack of impacts on this property. Six borings were installed on this parcel in a grid like pattern in order to obtain samples that are representative of the entire property. Borings were installed near the location of the former tee pee burner, under the Mill itself, and in the location of the former log ponds. Three of the borings were installed with a hand auger (B-1, B-6, and B-8) and three of these borings were installed with a hollow stem auger (B-2, B-13, & B-16) as detailed in a subsequent section. Soil samples were collected from the hand borings and soil and groundwater samples were collected from the drill rig borings.

Blue Lake Forest Products Parcels North of Glendale Drive

The hydrocarbon impacts due to the old underground storage tanks and the pentachlorophenol (PCP) impacts at the green chain and BLFP mill are well documented, and no additional sampling was required on the south end of APN 516-111-033. Assessor Parcel Numbers 516-101-17, -040, -064, -068, and the north end of 516-111-033 as well as 516-111-015 were determined as areas to be sampled based on the lack of previous investigation on these parcels. These are the sites of the former square log pond and more recent log deck as well as the milled log storage. Parcels adjacent to these are the locations of the current office buildings and other residential areas unlikely to have soil or groundwater impacts associated with industrial activities.

A total of eleven borings were installed in this area, six of which were installed with a hand auger (B-3*, B-5, B-7, B-9, B-10, & B-15) and five of which were installed by the hollow stem auger method (B-11, B-12, B-14, B-17, & B-19) as described below. Soil samples were collected from the hand borings and soil and groundwater samples were collected from the drill rig borings.

Aalfs' Parcels North of Glendale Drive

APNs 516-101-002, -059, & -063 were sampled in order to determine the effect the former Trend Mill may have had on the soil and groundwater in this area.

A total of three borings (B-3, B-4, & B-18) were installed by the hollow stem auger method as described below. Soil and groundwater samples were collected from these borings.

FIELD ACTIVITIES

Preparation

The following drilling preparation activities were performed prior to initiating or implementing any of proposed drilling activities at the site:

- Boring and Well Permits were obtained from the HCDEH;
- The proposed location of each boring and well was marked at the site with white paint and the Underground Services Alert (USA) was notified (at least 48 hours prior to any subsurface investigation) to determine and mark the locations of the subsurface utilities; and
- The HCDEH was notified at least five days in advance of the day proposed for the implementation of the field activities.

Drill Cuttings

Drill cuttings were placed in DOT approved 55-gallon drums. The labeled drums are stored adjacent to the installed boring pending characterization and disposal.

Boring Installation

A total of nineteen borings were installed at the site during August 8 through 15, 2003. Eleven of these borings were drilled with a hollow stem auger in order to collect soil samples at six inches and five feet bgs and groundwater samples near groundwater elevation. Nine of these borings were installed using a hand auger in order to collect soil samples at six inches bgs and three to five feet bgs.

On August 13, 14, & 15, 2003, Winzler & Kelly observed Diamond Core Drilling of Redding California during the construction of eleven borings (Borings B-2, B-3, B-4, B-11, B-12, B-13, B-14, B-16, B-17, B-18, & B-19). Borings were drilled using a hollow stem auger, and were installed in accordance with the Winzler & Kelly Standard Operating Procedures (SOP's), included in Attachment D. Borings were advanced to at least two feet below the groundwater interface. Soil samples were collected at six-inches and then five feet intervals bgs using a split spoon sampler lined with brass sleeves. A Winzler & Kelly field scientist described soil at each site according to the Unified Soil Classification System (USCS). Soil color was described according to a Munsell Color Chart. Boring construction logs are contained in Attachment B. Subsequent to sample collection and boring description, the borings were plugged with cement to the surface. Field notes are included in Attachment E.

Soil Sampling

Soil samples were collected at six-inches and then five feet intervals. Soil samples were collected in brass tubes via a 2-inch diameter split spoon sampler. All soil samples were collected from the borings per the Winzler & Kelly SOP for "Soil and Water Sampling from a Boring" (Attachment D). The soil samples were logged, labeled and held in a chilled cooler pending transport under Chain of Custody documentation to North Coast Laboratories for the following analyses:

- Pentachlorophenol & Tetrachlorophenol by Canadian Pulp Method
- Volatile Organics (full list) by EPA Method 8260
- CAM 5 metals (Cd, Cr, Ni, Pb, Zn) by EPA Method 200.7 & 200.9

Due to the high density of the first two feet bgs at three of the boring locations drilled with the hollow stem auger (B-12, B-16, & B-17), soil samples were not collected at six inches bgs but at two-feet bgs. Samples at six inches bgs in these locations contained a high density of large, coarse gravel or concrete.

On August 8, 11, & 12, 2003 Winzler & Kelly installed borings B-1, B-3, B-3*, B-5, B-6, B-7, B-8, B-9, B-10, & B-15 using a hand auger. These borings were installed from six inches to five feet deep depending on soil characteristics. Soil samples were only collected at six inches bgs at hand auger borings B-5, B-8, & B-10 due to the high density of gravels below six inches bgs.

Boring B-3 was installed using a hand auger to six inches below ground surface on August 11, 2003 and then was further installed using the hollow stem auger to a total depth of twenty five feet bgs on August 13, 2003. A sample was collected at six inches bgs by the hand auger method, and at 5 feet bgs by the hollow stem auger method. The boring label B-3 was inadvertently duplicated. Boring B-3* was installed by the hand auger method and boring B-3 was installed by both methods as described above. Please see Figure 3, Attachment A for the boring locations.

Grab Groundwater Sampling

A groundwater sample was collected from each boring installed with a hollow stem auger (B-2, B-3, B-4, B-11, B-12, B-13, B-14, B-16, B-17, B-18 & B-19). Groundwater samples were collected using a disposable bailer, in accordance with the Winzler & Kelly SOP's (Attachment D) and were submitted to North Coast Laboratories LTD, a state-certified laboratory for the following analyses:

- Pentachlorophenol & Tetrachlorophenol by Canadian Pulp Method
- Volatile Organics (full list) by EPA Method 8260
- CAM 5 metals (Cd, Cr, Ni, Pb, Zn) by EPA Method 200.7 & 200.9

Immediately after collection, groundwater samples were capped, labeled, and logged onto the chain-of-custody form, and placed in an iced cooler pending delivery to the analytical laboratory. All non-disposable sampling equipment was decontaminated by steam cleaning or with Alconox soap and distilled water between samples.

RESULTS OF INVESTIGATION

Results of the investigation have been described according to location and land owner. Laboratory analytical results for all samples collected can be found in Attachment F.

Soil Analytical Results

Former McNord Property Parcels South of Glendale Drive

Soil samples collected from borings installed on APN 516-151-019 (B-1, B-2, B-6, B-8, B-13 & B-16) contained generally low concentrations of heavy metals (see Table 2, Attachment C). Detections of metals in the soil is to be expected and the levels appear to be at what would be considered naturally occurring or "back ground" levels. The soil sample collected in boring B-2 at five feet contained 100 parts per million (ppm) chromium and 91 ppm Nickel, which may be slightly above background but are generally within the expected range. Cadmium was not detected above laboratory detection limits in any of the samples collected this area south of Glendale Drive. Averages of chromium, lead, nickel, and zinc detected at the six borings were 46.4, 11.6, 56.1, and 52.5 ppm respectively.

Pentachlorophenol (PCP) and Tetrachlorophenol (TCP) were not detected above laboratory detection limits in any of the borings installed on APN 516-151-019. Volatile organics were also not detected above laboratory detection limits at this parcel with the exception of toluene, which was reported at low levels in borings B-2 (6"), B-6 (2.5'), & B-13 (6") at 11.0, 7.4, and 11.0 parts per billion (ppb) respectively. Boring B-6 (2.5') also reported low levels of m, p, xylenes at 6.7 ppb. Toluene and xylene are present in many different industrial products including any petroleum based product such as gasoline, diesel, or lubricating oils. They also occur in paint, antifreeze, and other solvents. It is likely that the low levels present in the soil in this area are due to the years of running trucks and other heavy equipment in the area, and associated exhaust and minor leaks from the equipment. Toluene and xylene will both break down naturally in the environment. The drinking water maximum contaminant level (MCL) for toluene is 0.15 ppm or 150 ppb and xylene is 1.75 ppm (1,750 ppb). There is no established levels for soils, but given that the levels in the soil are lower than the drinking water MCL, they are likely not of concern.

<u>Blue Lake Forest Products Parcels North of Glendale Drive</u>
Soil samples collected from borings installed on APNs 516-101-017, -040, -064, -068, and the north end of 516-111-033 as well as 516-111-015 (B-3*, B-5, B-7, B-9, B-10, B-11, B-12, B-14, B-15, B-17, & B-19) also contained generally low concentrations of metals at typical background levels normally found in soil. The average detection of metals in the eleven borings installed on the parcels north of Glendale Drive was 50.4, 45.2, and 49.0 ppm for chromium, nickel, and zinc respectively. Chromium and nickel were detected in boring B-11 (5'), both at 150 ppm; all other borings detected results less than 100 ppm for chromium, nickel, and zinc. Detections of lead in this area were either below the laboratory detection limit of 10 ppm or just slightly above it. Cadmium was reported below the laboratory detection limits in all boring samples in this area with the exception of the sample collected at boring B-15 (6"), which reported 44 ppm. It is unclear why the cadmium would be present at these higher levels only in the area of B-15, particularly since this area has only been utilized as a log deck. Cadmium is used in electroplating and for pigments used in paint, printing ink and plastic. The sample collected at three feet in boring B-15 was below the laboratory detection limit (<2.0) for cadmium so it appears that this detection is very localized.

Pentachlorophenol (PCP) and Tetrachlorophenol (TCP) were not reported above laboratory detection limits on any of the parcels north of Glendale Drive. Volatile organics were below laboratory detection limits with the exception again of low levels of toluene detected in borings B-7 (3.5'), B-11 (6"), B-12 (2'), B-12 (5'), B-14 (2'), B-15 (6"), B-15 (3'), and B-19 (6"). Toluene was detected a 1,100 ppb in B-7 (6"). Ethylbenzene was reported only at boring B-7 (6") and boring B-19 (6") at 58 ppb and12 ppb, respectively. Again, these results are likely due to the years of equipment operation in the area, and the higher results at boring B-7 are likely due to a more recent spill in this area and should degrade with time.

Soil analytical results discussed above can be found in Table 3, Attachment C.

Aalfs' Parcels North of Glendale Drive

Soils samples collected from the three borings installed at APNs 516-101-002, -059, & -063 (B-3, B-4, & B-18) again reported metals at levels that would be considered background levels. Chromium, lead, nickel, and zinc were detected from these three borings on average at 57.7, 18.0, 50.3, and 49.3 ppm respectively. Cadmium was reported below laboratory detection limits in all the soil samples collected on the Aalfs' property.

Pentachlorophenol (PCP) and Tetrachlorophenol (TCP) were not reported above laboratory detection limits on all of the Aalfs parcels. Volatile organics were also below laboratory detection limits with the exception of low levels of toluene detected in borings B-3 (6"), B-4 (3"), and B-4 (5') at 13, 110, and 10 ppb respectively.

Soil analytical results discussed above can be found in Table 4, Attachment C.

Groundwater Analytical Results

Groundwater samples were collected only from the borings that were installed with the hollow stem drill rig.

Former McNord Property South of Glendale Drive

Metals were detected in the groundwater samples collected in this area of investigation at borings B-2, B-13, and B-16. The average detection of the samples collected in this area is 2,133 ppb for chromium, 286 ppb for lead, 3,133 ppb for nickel, and 3,433 ppb for zinc. Cadmium was detected in boring B-13 at 36 ppb and borings B-2 and B-16 were below the laboratory detection limits for cadmium. TCP was not detected above laboratory detection limits in these borings; however, PCP was detected in boring B-16 at 0.49 ppb. This detection is below the primary maximum contaminant level (MCL) of 1.0 ppb for PCP. The positive result for PCP at B-16 was confirmed by a second column test according to the laboratory reports. All VOCs were below the laboratory detection limits in all the borings except for a low level of toluene (0.87 ppb) reported in boring B-16.

The level of metals reported in the groundwater from these borings are above the drinking water MCLs for Cadmium, Chromium and Nickel. The MCLs are 5 ppb for Cadmium, 50 ppb for Chromium, and 100 ppb for Nickel. Lead has an action level of 15 ppb and Zinc has a second MCL of 5000 ppb. The levels reported are also higher than what typically naturally occurs in groundwater as reported in "Study and Interpretation of the Chemical Characteristics of Natural Water, 3rd ed., John Hem, USGS paper 2254." Cadmium typically has a median level of 1 ppb in natural water and Chromium is typically present at levels below 10 ppb. The median concentration for lead is 1 ppb, for Nickel is 10 ppb, and for Zinc is reported at 20 ppb.

It is unknown whether the levels of metals reported for the groundwater samples collected south of Glendale are due to former operations at this site or other sites in the area or are naturally occurring. However, the levels reported north of Glendale Avenue are an order of magnitude lower than those reported south of Glendale. It is recommended that no drinking or irrigation wells be installed in this area as the metal content of the water is considerably above the MCLs. However, these were shallow groundwater samples and any legally installed well must be at least 50 feet deep, which may result in the well drawing from a different aquifer than was sampled in this investigation. This area is also served by potable water from the Fieldbrook Community Services District and new development in this area would likely connect to the potable water system.

Groundwater analytical results discussed above can be found in Table 5, Attachment C.

<u>Blue Lake Forest Products Parcels North of Glendale Drive</u>
Metals were reported in the groundwater samples collected on BLFP property north of Glendale Drive at borings B-11, B-12, B-14, B-17, and B-19. The average detections of the five borings sampled in this area for chromium, lead, nickel, and zinc were 622, 87, 758, and 860 ppb respectively. Cadmium was not reported above laboratory detection limits in any of the samples. Neither volatile organics nor TCP were reported above the laboratory detection limits in this area. PCP, however, was detected at the laboratory detection limit at 0.30 ppb in B-14. This detection is below the primary maximum contaminant level of 1.0 ppb for PCP.

The result of 0.30 ppb PCP in B-14 was confirmed by a second column, according to the laboratory reports. In the sample collected from boring B-11, the laboratory control sample (LCS) recovery was slightly above the upper acceptance limit for zinc. This recovery indicates that the sample results may be slightly higher than the actual amount in the samples. Also, due to a laboratory error, sample B-11 was extracted one day outside of the holding time.

Again, the metal levels reported for these borings were above the corresponding primary MCLs for Chromium and Nickel and the action level for lead but below the secondary MCL for Zinc.

Groundwater analytical results discussed above can be found in Table 6, Attachment C.

<u>Aalfs' Parcels North of Glendale Drive</u>
Metals, with the exception of cadmium, were again reported in the samples collected from borings B-3, B-4, and B-18 on the Aalfs' parcels. The average detections of the three borings sampled in this area are 623, 71, 940, and 1,100 ppb for chromium, lead, nickel, and zinc respectively. Again, the metal levels reported for these borings were above the corresponding primary MCLs for Chromium and Nickel and the action level for lead but below the secondary MCL for Zinc. Neither volatile organics nor PCP/TCP were reported above laboratory detection limits in this area.

Due to laboratory error, samples B-18 and B-3 were extracted one day outside of the holding time. The LCS recovery was slightly above the upper acceptance limit for zinc in borings B-18 & B-3. This recovery indicates that the sample results may be slightly higher than the actual amount in the samples.

Groundwater analytical results discussed above can be found in Table 7, Attachment C.

CONCLUSIONS AND RECOMMENDATIONS

The levels of metals detected in soil samples collected in all three areas investigated during this phase of work were fairly uniform. The levels reported were all close to what would be considered background levels of metals in soil that would typically be found in native soils. Slightly raised levels of metals were detected in some of the soil samples, but the levels were only slightly above background levels and are not likely of concern.

Low levels of toluene, ethylbenzene and xylene were also detected at low levels in the soil at various points in all three areas. The levels detected are likely due to minor petroleum spills and leaks associated with the years of vehicle operation on the site and are at levels that do not appear to be of concern.

PCP and TCP were not reported above the laboratory detection levels in any of the soil samples collected from any of the sites. Levels of toluene and PCP detected in groundwater samples at boring B-16 and B-14 were lower than the drinking water maximum contaminant levels for these constituents and therefore should not be of concern.

Raised levels of metals were reported in all groundwater samples collected during this investigation. Levels of metals were noticeably higher in the area south of Glendale Drive than in the BLFP and Aalfs parcels north of Glendale Drive. The levels of metals detected in groundwater samples collected from the BLFP and Aalfs parcels north of Glendale Drive were fairly consistent with each other. The levels of metals reported in the groundwater were generally considerably above the constituents regulating level for drinking water. For this reason it is recommended that the groundwater under these parcels not be used as a potable or agricultural water source. However, it is unlikely that wells would be installed in this area as Fieldbrook Community Services District supplies potable water to this entire area.

Winzler & Kelly appreciates the opportunity to provide these services to you. If you have any questions regarding this report, please contact me at (707) 443-8326.

Sincerely,
WINZLER & KELLY

Patrick Kaspari, P.E.
Manager, Environmental Assessment
and Remediation Department

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Attachment A
- Figure 1: Site Vicinity Map
- Figure 2: Site Map
- Figure 3: Historical Use Map
- Figure 4: Boring Location Map
- Aerial Photos 1954 - 1996

Attachment B
- Boring Logs

Attachment C
- Table 1: Historical Groundwater Gradient Calculations
- Table 2: Soil Analytical Results- Parcels South of Glendale Drive
- Table 3: Soil Analytical Results- Parcels North of Glendale Drive
- Table 4: Soil Analytical Results- Aalfs Parcels
- Table 5: Groundwater Analytical Results- Parcels South of Glendale Drive
- Table 6: Groundwater Analytical Results- Parcels North of Glendale Drive
- Table 7: Groundwater Analytical Results- Aalfs Parcels

Attachment D
- Winzler & Kelly SOP's

Attachment E
- Field Notes

Attachment F
- Laboratory Analytical Results

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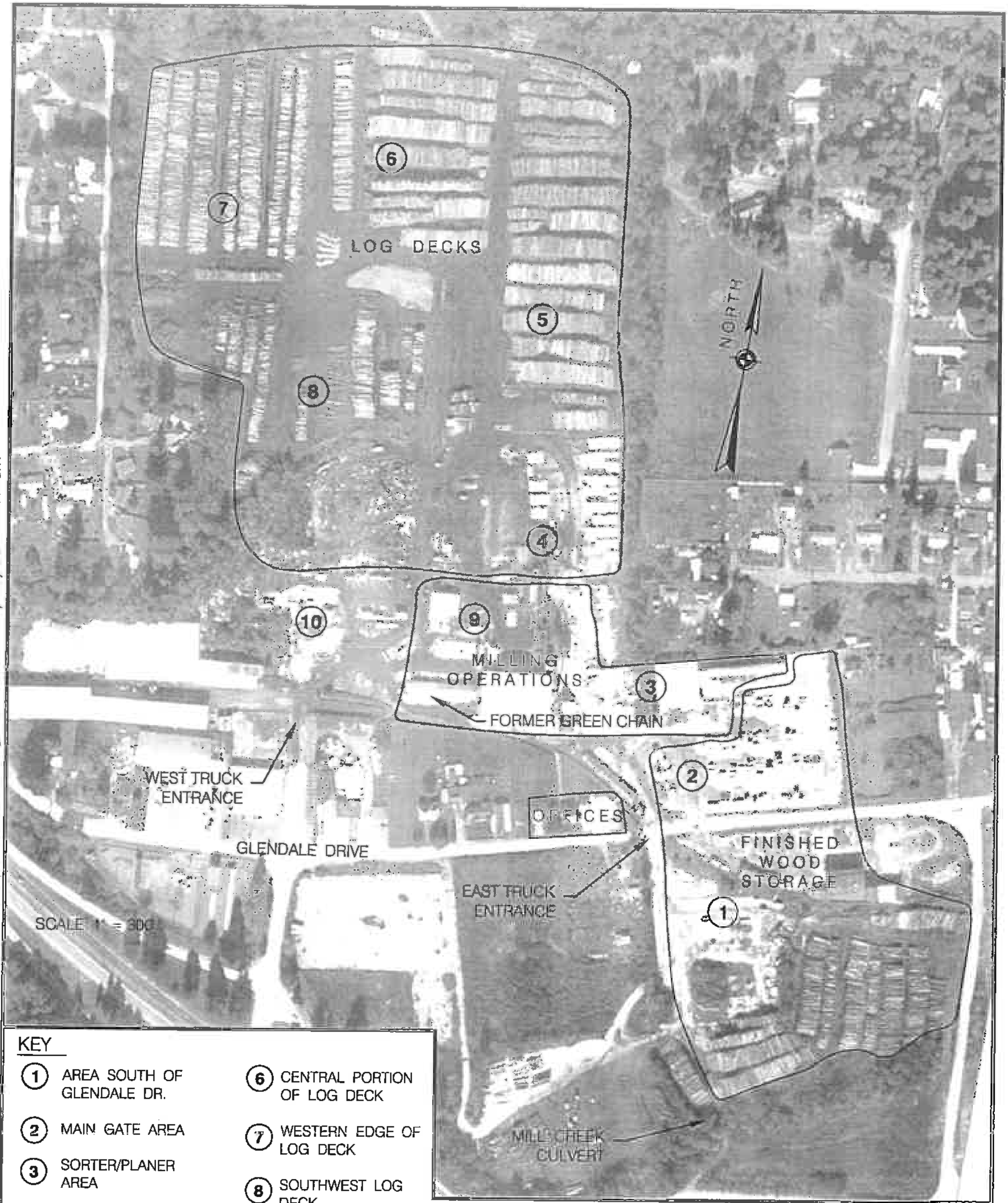


KEY

① AREA SOUTH OF GLENDALE DR.

② MAIN GATE AREA

③ SORTER/PLANER AREA

④ PROCESS WOOD STORAGE AREA

⑤ EASTERN EDGE OF LOG DECK

⑥ CENTRAL PORTION OF LOG DECK

⑦ WESTERN EDGE OF LOG DECK

⑧ SOUTHWEST LOG DECK

⑨ CENTRAL PORTION OF FACILITY

⑩ WEST ENTRANCE AREA

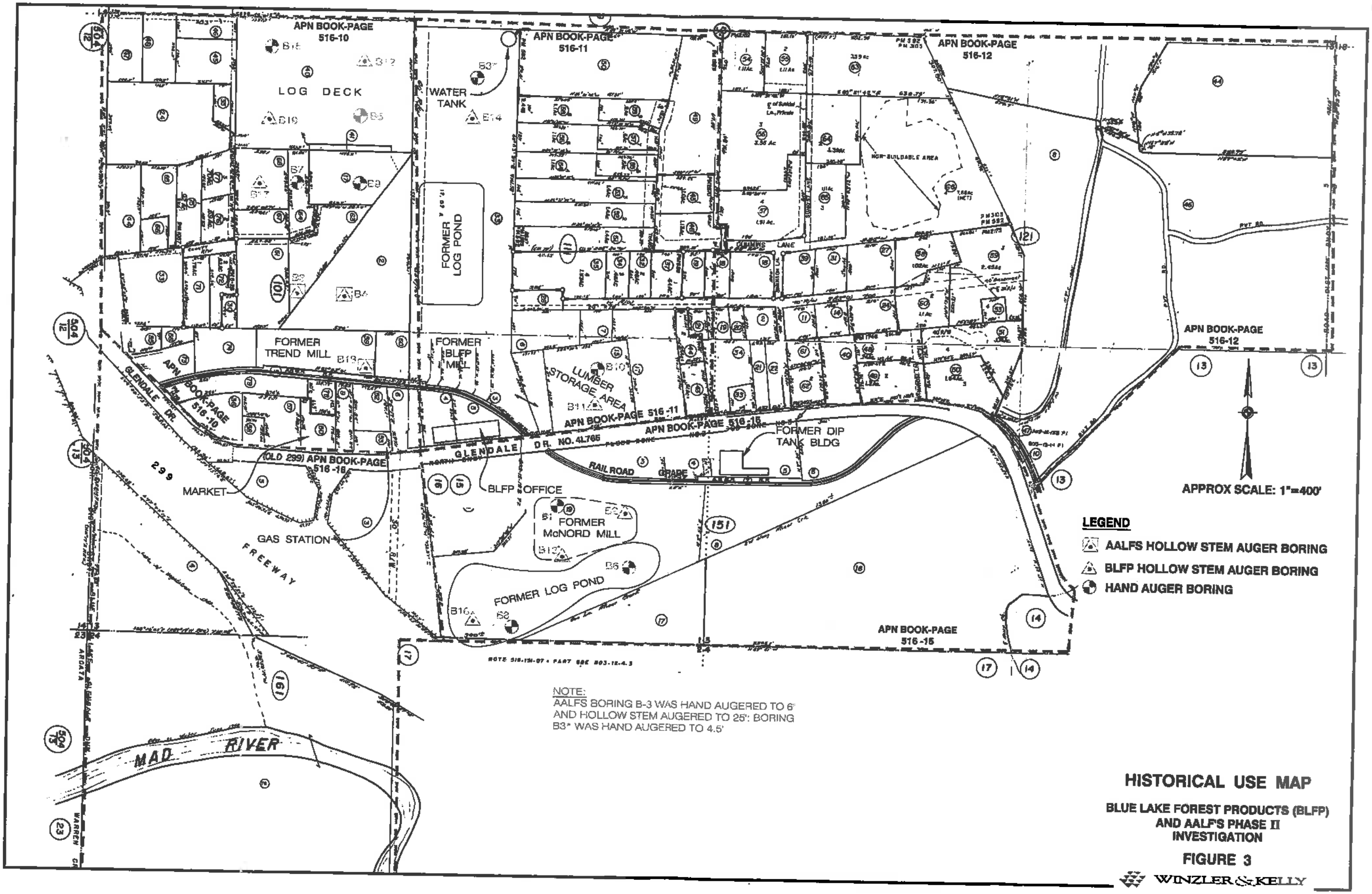
SITE MAP

BLUE LAKE FOREST PRODUCTS
1589 GLENDALE DR. ARCATA, CA

FIGURE 2

WINZLER & KELLY

FILE: J:\CAD\JOBS\2003\03142801\dwg\428a001f03.dwg DATE: Oct 08 03 @ 2:32pm



APPROX SCALE: 1"=400'

LEGEND

- ▲ AALFS HOLLOW STEM AUGER BORING
- △ BLFP HOLLOW STEM AUGER BORING
- ◐ HAND AUGER BORING

NOTE:
AALFS BORING B-3 WAS HAND AUGERED TO 6' AND HOLLOW STEM AUGERED TO 25'; BORING B3* WAS HAND AUGERED TO 4.5'

HISTORICAL USE MAP

BLUE LAKE FOREST PRODUCTS (BLFP)
AND AALF'S PHASE II
INVESTIGATION

FIGURE 3

WINZLER & KELLY

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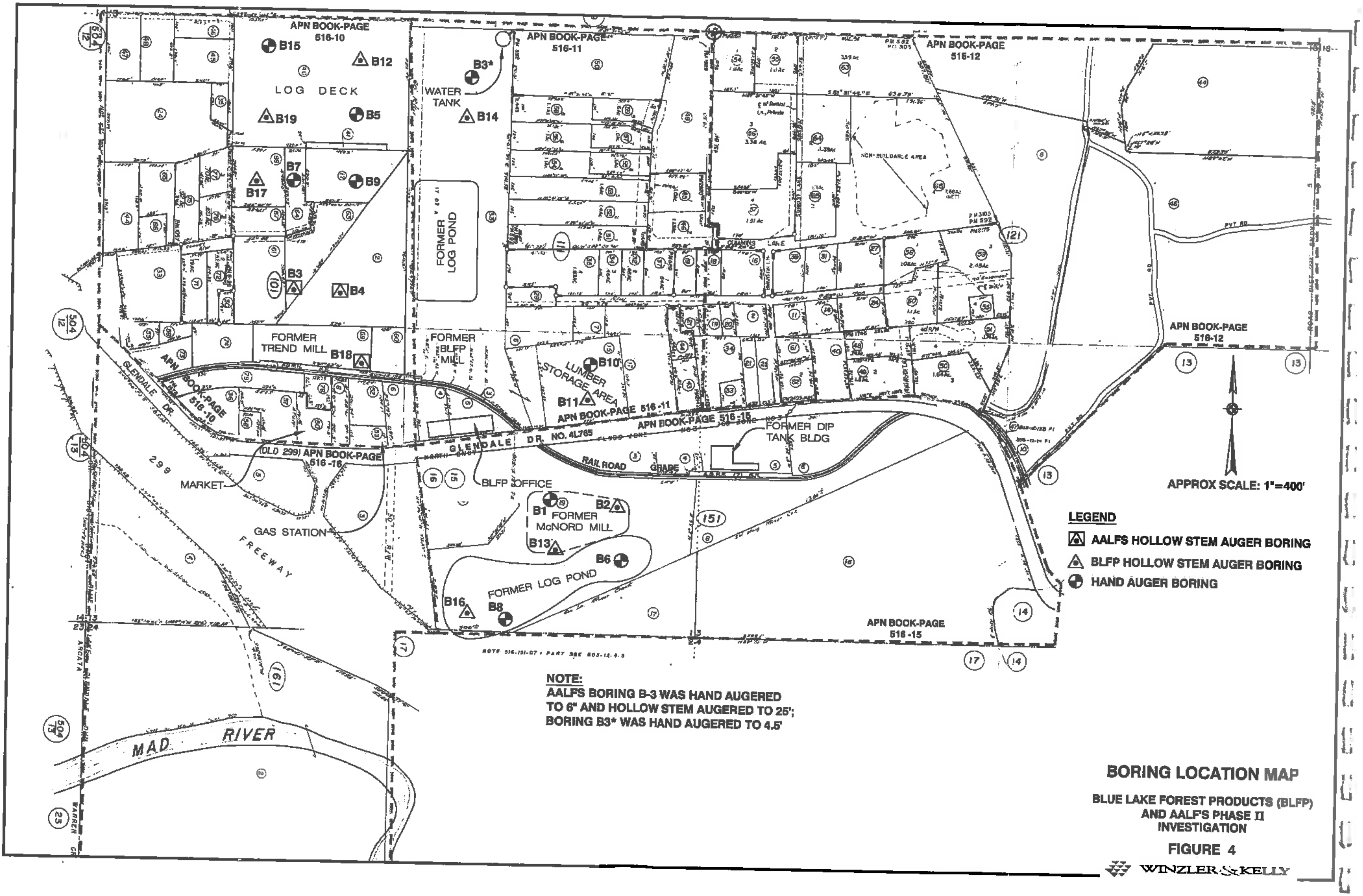


LEGEND

- AALFS HOLLOW STEM AUGER BORING
- BLFP HOLLOW STEM AUGER BORING
- ● HAND AUGER BORING

NOTE:
AALFS BORING B-3 WAS HAND AUGERED TO 6" AND HOLLOW STEM AUGERED TO 25';
BORING B3* WAS HAND AUGERED TO 4.5'

BORING LOCATION MAP

BLUE LAKE FOREST PRODUCTS (BLFP)
AND AALF'S PHASE II
INVESTIGATION

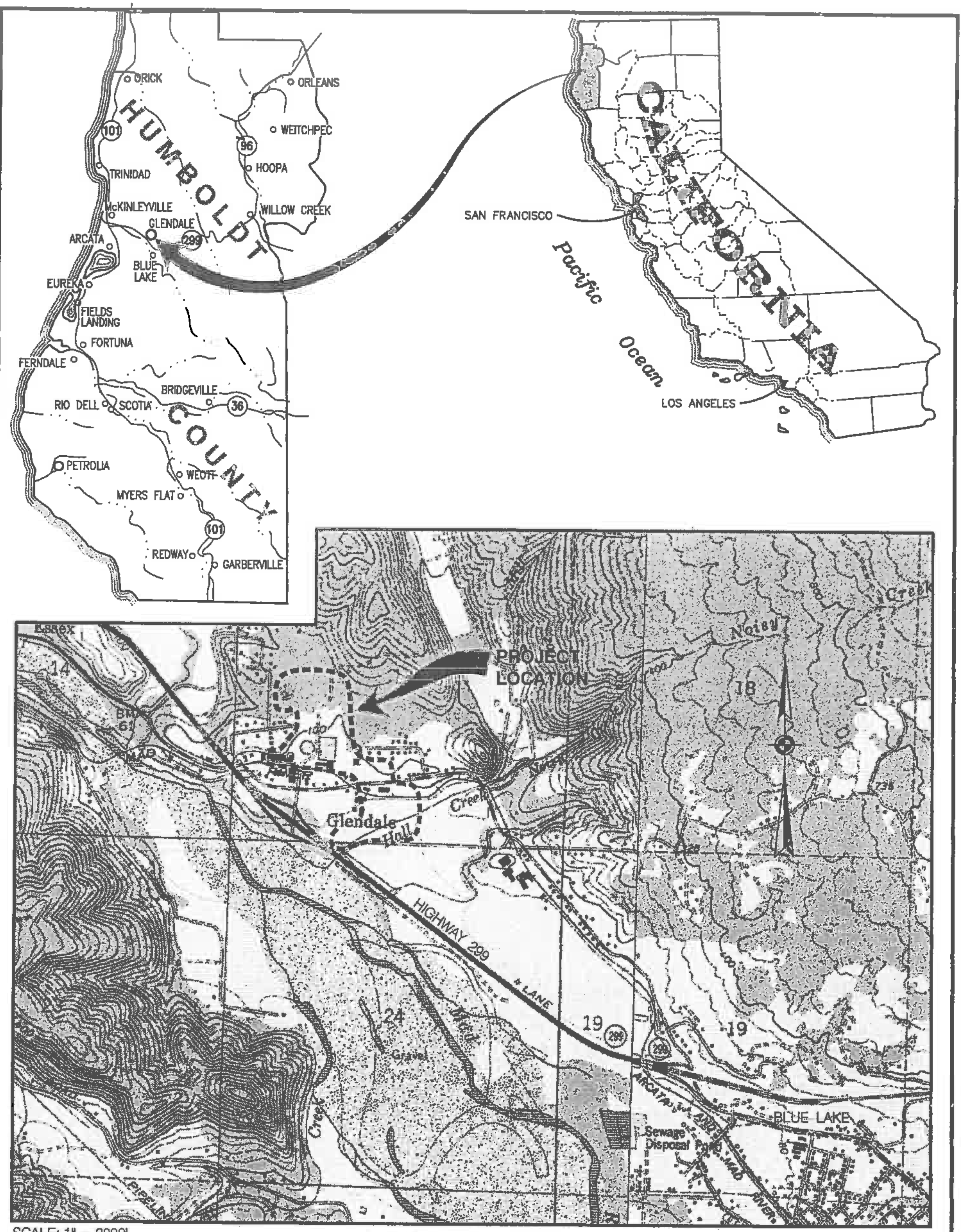
FIGURE 4

WINZLER & KELLY

Attachment A

Figures

03142801\dwg\428a001f01.dwg date: 9-27-01 @ 11am



SCALE: 1" = 2000'

VICINITY MAP

FIGURE 1

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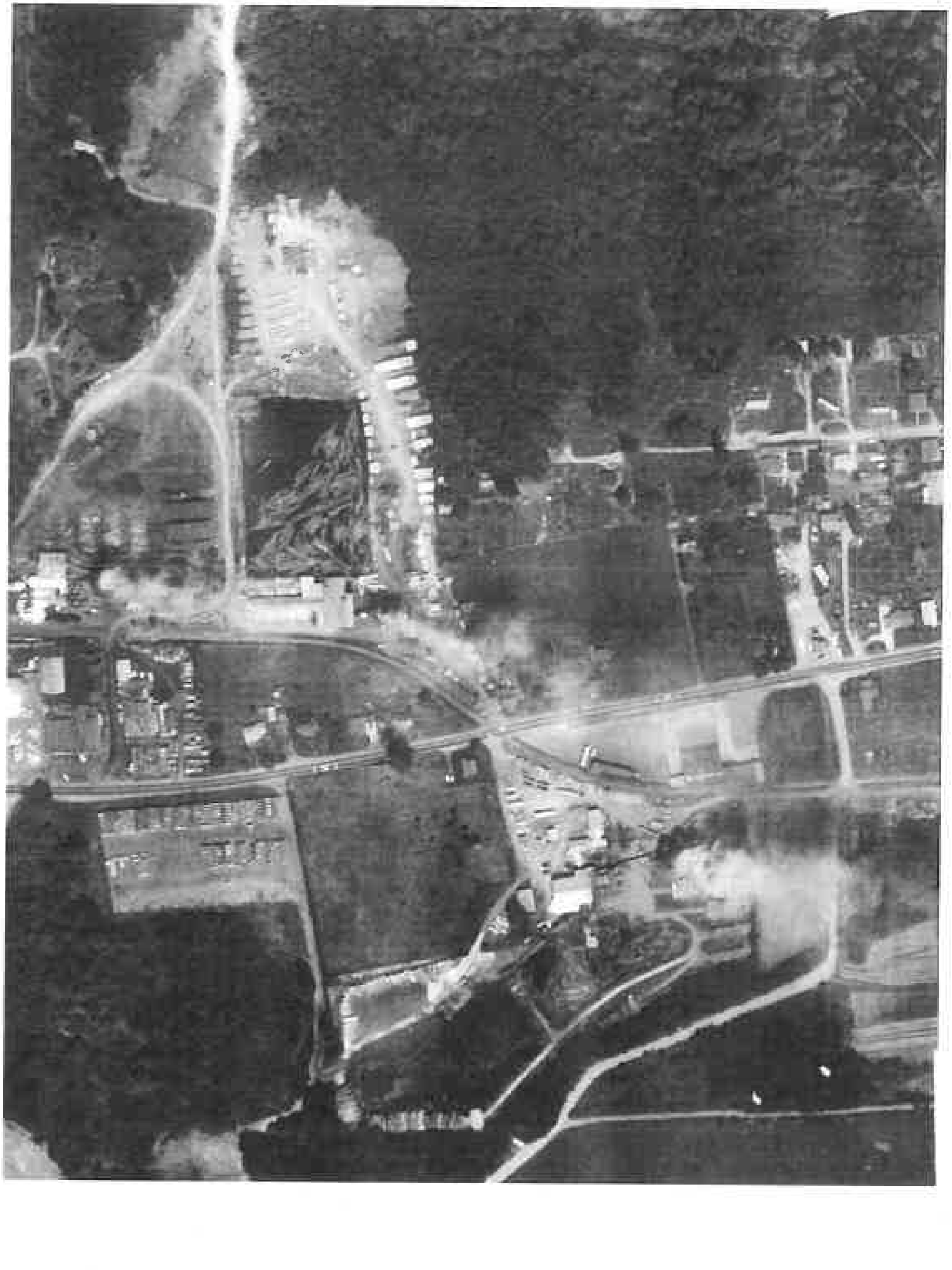
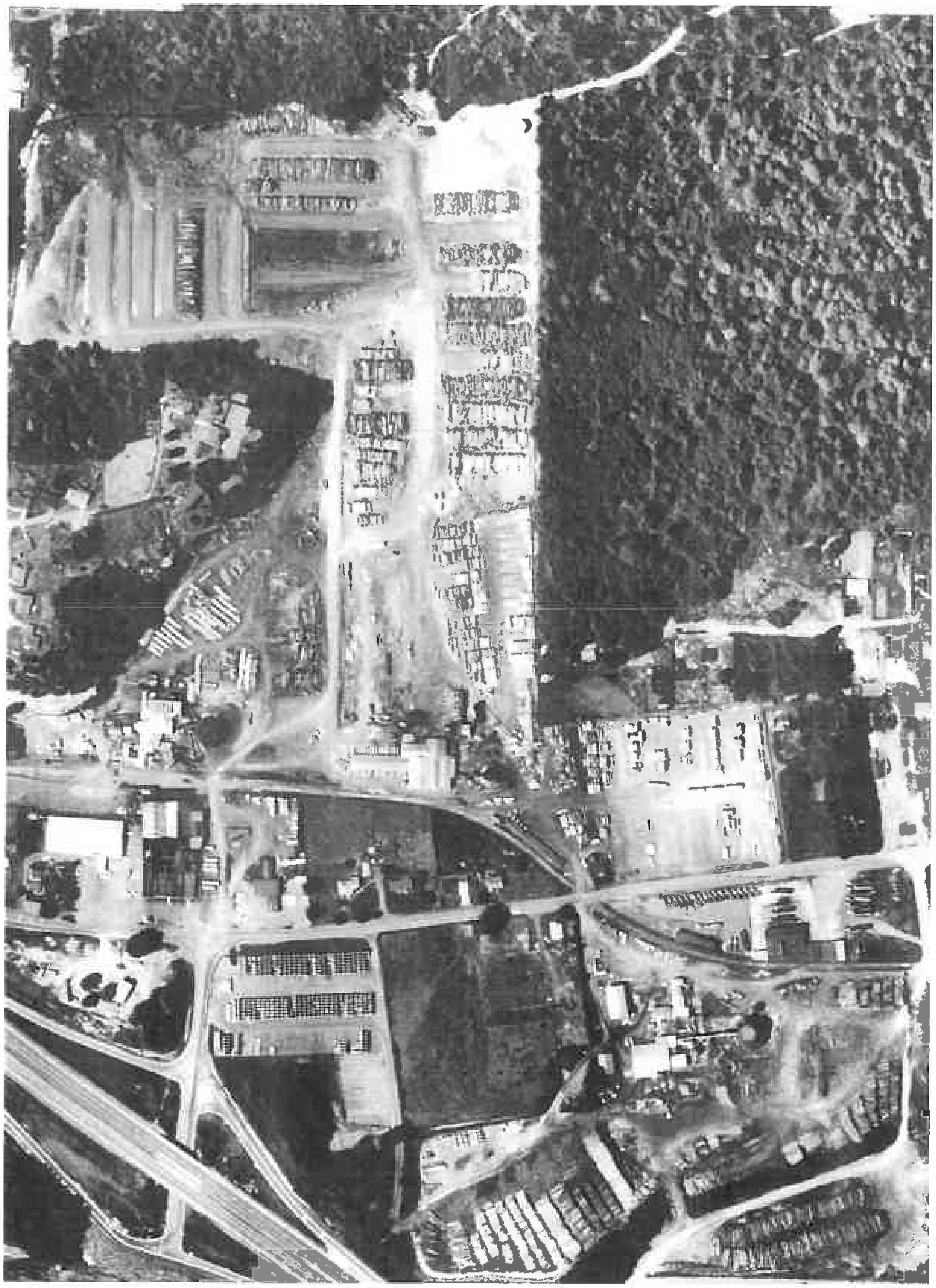
N

1954

1958

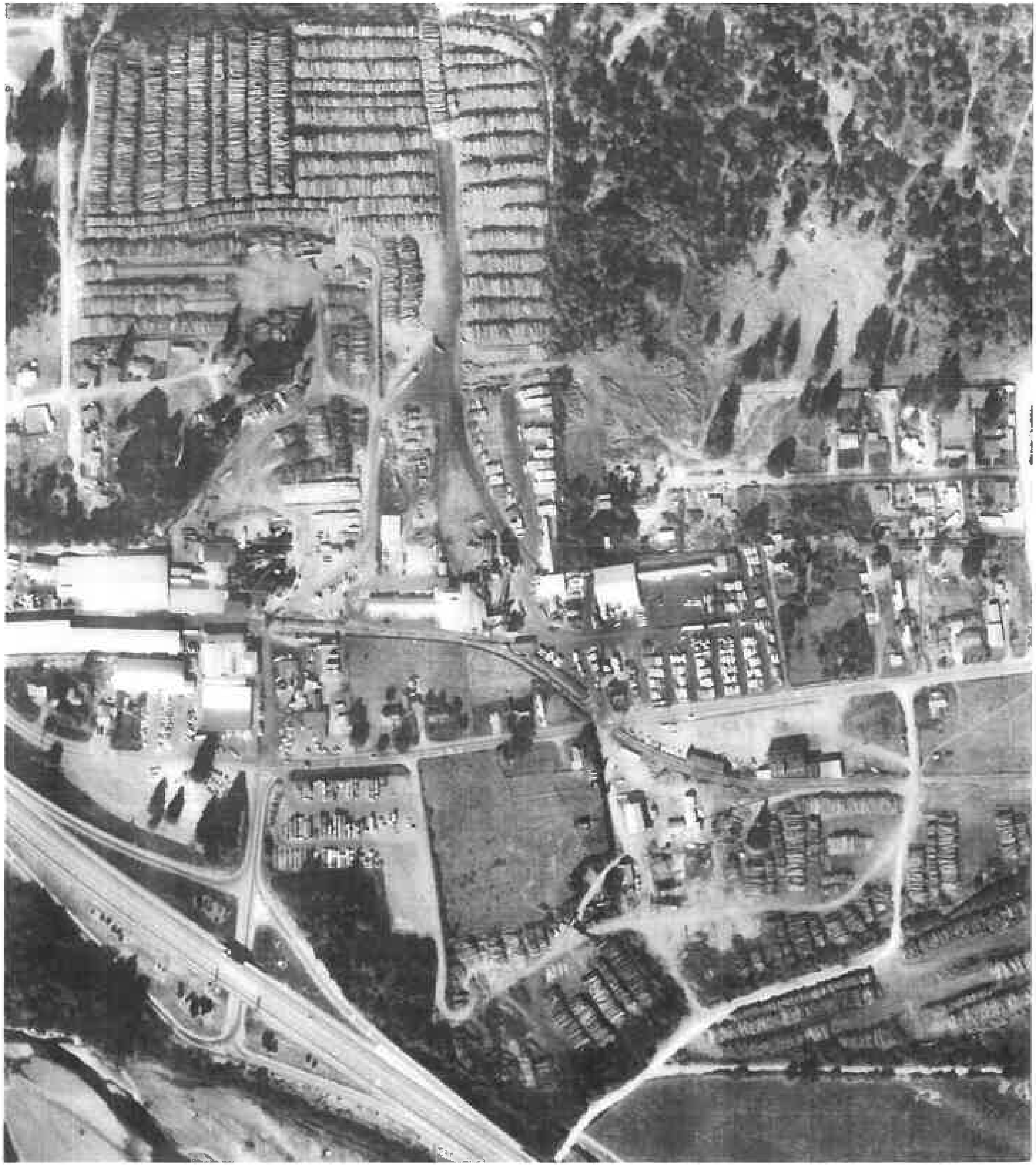


1962



1966

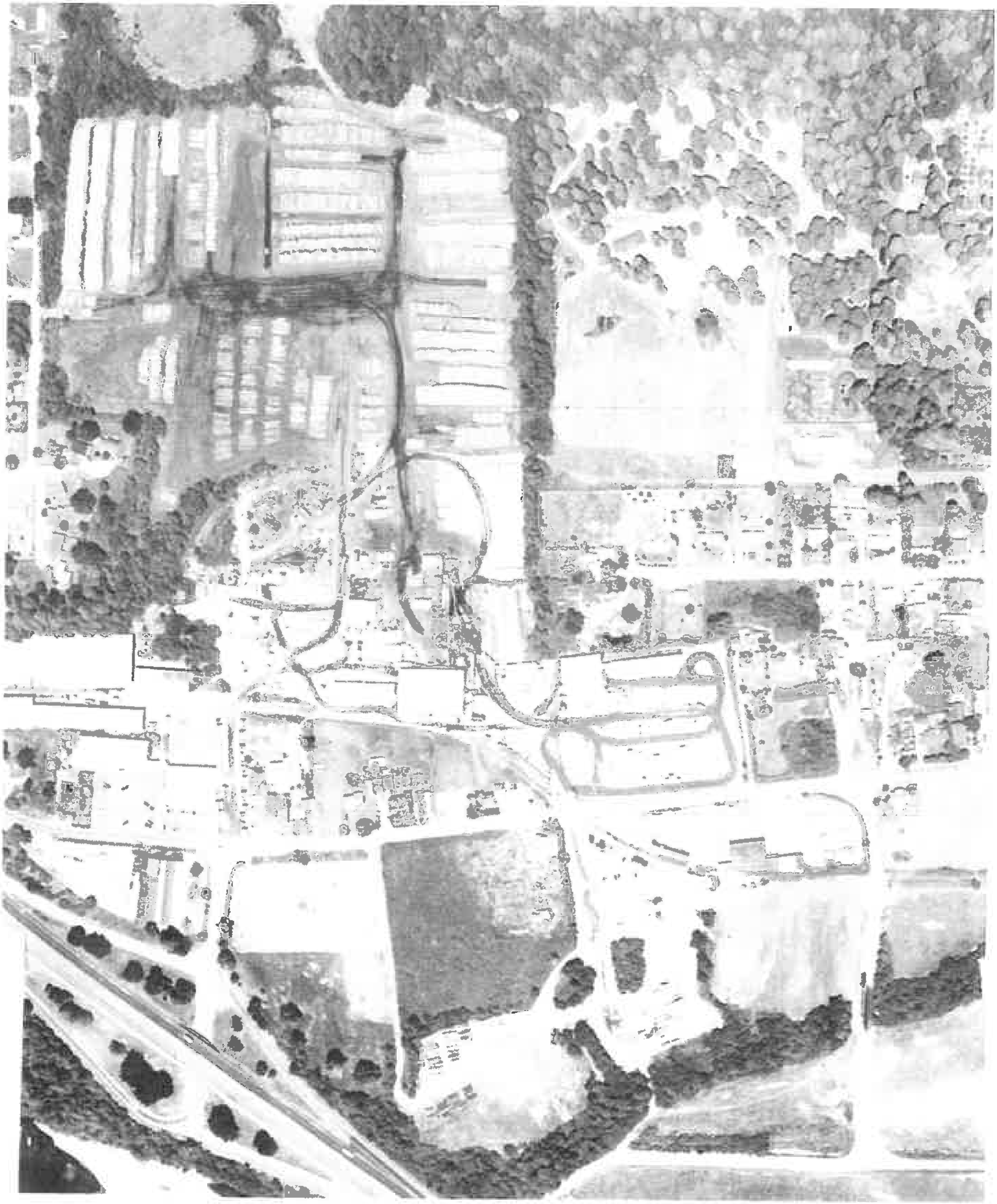
1970



1974

1981

1988



1996

Attachment B

Boring Logs

BORING LOG

PROJ. NAME: BLFP PHASE II INVESTIGATION		PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER		LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"		LOGGED BY: H. VADURRO	BORING #: B-2
BORING DIAMETER: 8"		DATE STARTED: 8/15/03	TIME: 0715
DRILLING CO.: DIAMOND CORE		DATE COMPLETED: 8/15/03	TIME: 0825
C57 LIC. #: 512406		TOTAL DEPTH OF BORING: 15.0 ft.	
DRILLER: DON		DEPTH TO GROUNDWATER: 12.0 ft.	
HAMMER WGT.: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRASS	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
1 2 3 4		X	18 30 28	B-2 (6")	GW	SANDY, WELL GRADED GRAVEL FOR 1ST 12", TURNING TO HEAVY DETRITUS. TRANSITION TO WELL GRADED GRAVELLY SILT W/ SAND FOR 1". TRANSITION TO WELL GRADED GRAVELLY SILT W/ SAND.	GRAY 10YR 6/1 DARK BROWN 10YR 3/3	DRY	MED DENSE		▨	BORING FILLED WITH CEMENT TO THE SURFACE (0-15')
5 6 7 8 9		X	30 36 29	B-2 (5')	SW	GRAVELLY SAND W/ SILT; HEAVILY MIXED W/ DETRITUS & MOTTLING.	BROWNISH YELLOW W/ WHITE MOTTLING 10YR 6/8 WITH 7.5YR 8/1 YELLOWISH BROWN W/ STRONG BROWN MOTTLING	MOIST	MED DENSE STIFF		▨	
10 11 12 13 14 15					ML	SANDY SILT.	DARK BROWN 10YR 3/3				▨ ▼	

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BORING LOG

PROJ. NAME: AALFS PHASE II INVESTIGATION	PROJECT NO.: 03184702.100	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER	LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B3
BORING DIAMETER: 8"	DATE STARTED: 8/13/03	TIME: 1420
DRILLING CO.: DIAMOND CORE	DATE COMPLETED: 8/13/03	TIME: 1520
C57 LIC. #: 512406	TOTAL DEPTH OF BORING: 25.0 ft.	
DRILLER: DON	DEPTH TO GROUNDWATER: 22.0 ft.	
HAMMER WGT.: 140 lbs. HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL/DIRT	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
		X		B3 (6")	GW	GRAVEL, WELL GRADED.	GRAY	DRY	HARD		▨	BORING FILLED WITH CEMENT TO THE SURFACE (0-25')
1		X X			GW/ML	SILT W/ GRAVEL.					▨	
2		X					DARK BROWN				▨	
3											▨	
4											▨	
5		X	9 10 12	B3 (5')		SANDY SILT. NO ODOR.	LIGHT YELLOWISH BROWN W/ LIGHT OLIVE BROWN MOTTLING 2.5Y 6/3 W/ 2.5Y 5/6	MOIST	STIFF		▨	
6											▨	
7											▨	
8											▨	
9											▨	
10											▨	
11											▨	
12											▨	
13					ML						▨	
14											▨	
15											▨	
16											▨	
17											▨	
18											▨	
19											▨	
20											▨	
21											▨	
22											▨ ▼	
23											▨	
24											▨	
25												

WINZLER & KELLY
CONSULTING ENGINEERS

BORING LOG

PROJ. NAME: AALFS PHASE II INVESTIGATION		PROJECT NO.: 03184702.100	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER		LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD:	ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B-4
BORING DIAMETER: 8"		DATE STARTED: 8/14/03	TIME: 1400
DRILLING CO.: DIAMOND CORE		DATE COMPLETED: 8/14/03	TIME: 1520
C57 LIC. #: 512406		TOTAL DEPTH OF BORING: 15.0 ft.	
DRILLER: DON		DEPTH TO GROUNDWATER: 10.0 ft.	
HAMMER WGT.: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRASS	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
		X	18	B-4 (3")		SANDY GRAVEL, WELL GRADED.	DARK GRAYISH BROWN 10YR 4/2	DRY	MED DENSE			
1		X	22									
		X	18									BORING FILLED WITH CEMENT TO THE SURFACE (0-15')
2												
3												
4												
5		X	31	B-4 (5')		SAME AS ABOVE FOR 1ST 6" TURNING TO SILTY, WELL GRADED GRAVEL W/ SAND & DETRITUS.	VERY DARK BROWN 10YR 2/2	SLIGHTLY MOIST	DENSE			
			21									
6			20									
7												
					GW							
8												
9												
10											▼	
11												
12												
13												
14												
15												

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BORING LOG

PROJ. NAME: BLFP PHASE II INVESTIGATION		PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER		LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"		LOGGED BY: H. VADURRO	BORING #: B-11
BORING DIAMETER: 8"		DATE STARTED: 8/13/03	TIME: 1030
DRILLING CO.: DIAMOND CORE		DATE COMPLETED: 8/13/03	TIME: 1145
C57 LIC. #: 512406		TOTAL DEPTH OF BORING: 25.0 ft.	
DRILLER: DON		DEPTH TO GROUNDWATER: 18.0 ft.	
HAMMER WGT.: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL/ASPHALT	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
0						ASPHALT/GRAVEL.						
1		X	50 FOR 5"	B-11 (6")				DRY	DENSE			BORING FILLED WITH CEMENT TO THE SURFACE (0-25')
3					GW	WELL GRADED GRAVEL WITH SAND.	VERY DARK GRAYISH BROWN 10YR 3/2					
5		X	18 25 44	B-11 (5')		SANDY SILT WITH GRAVEL. NO ODOR.	YELLOWISH BROWN WITH DARK GRAY MOTTLING 10YR 5/6 WITH 10YR 4/1	SLIGHTLY MOIST	VERY STIFF			
8					ML							
10						SAND COARSE GRAINED, SLIGHT SILT.						
17.5					SP							
18											▽	
25												

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BORING LOG

PROJ. NAME: BLUE LAKE FOREST PRODUCTS		PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER		LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"		LOGGED BY: H. VADURRO	BORING #: B-12
BORING DIAMETER: 8"		DATE STARTED: 8/14/03	TIME: 0745
DRILLING CO.: DIAMOND CORE		DATE COMPLETED: 8/14/03	TIME: 09:45
C57 LIC. #: 512406		TOTAL DEPTH OF BORING: 25.0 ft.	
DRILLER: DON		DEPTH TO GROUNDWATER: 7.0 ft.	
HAMMER WGT.: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL/WOODCHIPS	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
1						COBBLE, GRAVELLY SAND W/ SLIGHT SILT & DETRITUS.						
2		X	50 FOR 6"	B-12 (2')				DRY	DENSE			BORING FILLED WITH CEMENT TO THE SURFACE (0-25')
3						SILTY SAND WITH GRAVEL & DETRITUS.	VERY DARK GRAY 10YR 3/1					
4					SM							
5		X	11 14 16	B-12 (5')		SANDY SILT WITH GRAVEL & DETRITUS. NO ODOR.	VERY DARK GRAY W/ BROWISH YELLOW & DARK GRAY MIXED 10YR 3/1 W/ 10YR 6/6 & 2.5Y 4/1	MOIST	STIFF			
6												
7											▼	
8					ML							
9												
10												
11												
12												
13												
14												
15						YELLOWISH CLAY						
16												
17												
18					CL							
19												
20												
21												
22												
23												
24												
25												

WINZLER & KELLY
CONSULTING ENGINEERS

BORING LOG

PROJ. NAME: BLFP PHASE II INVESTIGATION		PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER		LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD:	ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B-13
BORING DIAMETER: 8"		DATE STARTED: 8/15/03	TIME: 0845
DRILLING CO.: DIAMOND CORE		DATE COMPLETED: 8/15/03	TIME:
C57 LIC. #: 512406		TOTAL DEPTH OF BORING: 10.0 ft.	
DRILLER: DON		DEPTH TO GROUNDWATER: 7.0 ft.	
HAMMER WGT.: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
						GRAVEL.						
1		X	80 FOR 6"	B-13 (6")			BROWN 10YR 5/3	DRY	VERY DENSE			
2												BORING FILLED WITH CEMENT TO THE SURFACE (0-10')
3						SANDY GRAVEL, WELL GRADED.						
4												
5		X	23 25 17	B-13 (5')	GW	WELL GRADED SANDY GRAVEL.	DARK GRAY N 4/	WET	MED DENSE			
6												
7											▼	
8												
9						WELL GRADED GRAVEL W/ SAND	DARK GRAY N 4/					
10												

WINZLER & KELLY
CONSULTING ENGINEERS

BORING LOG

PROJ. NAME: BLFP PHASE II INVESTIGATION	PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER	LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B-14
BORING DIAMETER: 8"	DATE STARTED: 8/14/03	TIME: 1010
DRILLING CO.: DIAMOND CORE	DATE COMPLETED: 8/14/03	TIME: 1100
C57 LIC. #: 512406	TOTAL DEPTH OF BORING: 25.0 ft.	
DRILLER: DON	DEPTH TO GROUNDWATER: 17.0 ft.	
HAMMER WGT.: 140 lbs. HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL/WOODCHIPS	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
						ASPHALT/WOODCHIPS.						
2		X	50 FOR 2	B-14 (2')	GW	SANDY GRAVEL WITH SLIGHT SILT, WELL GRADED. NO ODOR.	VERY DARK GRAY W/ GRAY MIXED 10YR 3/1 W/ 5/N	DRY	VERY DENSE			BORING FILLED WITH CEMENT TO THE SURFACE (0-25')
5		X	25 22 31	B-11 (5')		SAME AS ABOVE	VERY DARK GRAY & GRAY WITH BROWNISH YELLOW MOTTLING 10YR 3/1 & 10YR 5/1 W/ 10YR 6/8	DRY	DENSE			
7				BORING NOT CLASSIFIED BELOW 5 FEET								
11							OLIVE BROWN FOR THE LAST 3" 2.5Y 4/3					
17											▼	
25												

WINZLER & KELLY
CONSULTING ENGINEERS

BORING LOG

PROJ. NAME: BLFP PHASE II INVESTIGATION	PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER	LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B-16
BORING DIAMETER: 8"	DATE STARTED: 8/15/03	TIME: 1000
DRILLING CO.: DIAMOND CORE	DATE COMPLETED: 8/15/03	TIME:
C57 LIC. #: 512406	TOTAL DEPTH OF BORING: 15.0 ft.	
DRILLER: DON	DEPTH TO GROUNDWATER: 13.0 ft.	
HAMMER WGT.: 140 lbs. HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRASSY/GRAVEL	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
0						GRASSY/GRAVEL.						
1		X	100 FOR 5"	B-16 (5")		WELL SORTED GRAVEL WITH SAND.	BROWN 10YR 4/3	DRY	VERY DENSE			
2												BORING FILLED WITH CEMENT TO THE SURFACE (0-15')
3					GW							
4												
5		X	50 FOR 3"	N / A		SAME AS ABOVE.	10YR 4/3	DRY	VERY DENSE			
6												
7						OLD LOG BURIED, ~5' DEEP (BLACKENED).						
8												
9					OL/OH							
10		X	5 7 13	B-16 (10')			10YR 4/3	DRY	LOOSE			
11					GW	WELL SORTED GRAVEL WITH SAND.						
12						BURIED LOG (BLACKENED).						
13					SM						▼	
14						DARK SILTY SAND.						
15												

WINZLER & KELLY
CONSULTING ENGINEERS

BORING LOG

PROJ. NAME: BLFP PHASE II INVESTIGATION	PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER	LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B-17
BORING DIAMETER: 8"	DATE STARTED: 8/14/03	TIME: 1140
DRILLING CO.: DIAMOND CORE	DATE COMPLETED: 8/14/03	TIME: 1340
C57 LIC. #: 512406	TOTAL DEPTH OF BORING: 30.0 ft.	
DRILLER: DON	DEPTH TO GROUNDWATER: 18.0 ft.	
HAMMER WGT.: 140 lbs. HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL/ASPHALT	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
1					GW	WELL GRADED GRAVEL WITH SAND & DETRITUS.						
2		X	12 15 19	B-17 (2')	ML	SILT WITH SAND & WELL GRADED GRAVEL & DETRITUS. SOIL HIGHLY MIXED.	BLACK FOR 3" TRANSITION TO MIXED BROWNISH YELLOW (SOME LIGHT GREENISH GRAY). LOWER 12" IS HIGHLY MIXED BUT GENERALLY DARK GRAY. 10YR 2/1, MIXED 10YR 6/6 (SOME 5G 7/1). GENERALLY 10YR 4/1.	DRY	STIFF			BORING FILLED WITH CEMENT TO THE SURFACE (0-30')
3												
4												
5		X	8 11 14	B-17 (5')		SANDY SILT WITH LOTS OF DETRITUS & WELL GRADED GRAVEL.		MOIST	STIFF			
6					OL/OH	MOSTLY DETRITUS						
7–16												
17						SANDY, SILTY CLAY WITH DETRITUS.	VERY DARK GRAYISH BROWN TURNING TO OLIVE GRAY WITH OLIVE MOTTLING. 10YR 3/2 TURNING TO 5Y 4/2 WITH 5Y 4/3.					
18					SC						▼	
19–30												

WINZLER & KELLY
CONSULTING ENGINEERS

BORING LOG

PROJ. NAME: AALFS PHASE II INVESTIGATION	PROJECT NO.: 03184702.100	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER	LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON OD: ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B-18
BORING DIAMETER: 8"	DATE STARTED: 8/13/03	TIME: 1300
DRILLING CO.: DIAMOND CORE	DATE COMPLETED: 8/13/03	TIME: 1400
C57 LIC. #: 512406	TOTAL DEPTH OF BORING: 15.0 ft.	
DRILLER: DON	DEPTH TO GROUNDWATER: 11.5 ft.	
HAMMER WGT.: 140 lbs. HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
1		X	26 & 50	B-18 (6")	GW	GRAVEL, WELL GRADED.	BLACK N 2.5/					
2			FOR 6"			SILTY SAND W/ GRAVEL. NO ODOR.		DRY	HARD			BORING FILLED WITH CEMENT TO THE SURFACE (0-15')
3												
4												
5		X	18 30 36	B-18 (5')		SILTY SAND W/ GRAVEL. NO ODOR.	MOTTLED GLEY 1 (MOST ALL OF THE COLORS) W/ SPECS OF GREENISH BLACK (10Y 2.5/1).	DRY	VERY STIFF			
6												
7												
8					SM							
9												
10												
11											▼	
12												
13												
14												
15												

WINZLER & KELLY
CONSULTING ENGINEERS

BORING LOG

PROJ. NAME: BLFP PHASE II INVESTIGATION		PROJECT NO.: 03142801.001	Sheet 1 of 1
METHOD OF DRILL: HOLLOW STEM AUGER		LOCATION: GLENDALE DR, BLUE LAKE, CA	
SAMPLER: SPLIT SPOON	OD: ID: 2.0"	LOGGED BY: H. VADURRO	BORING #: B-19
BORING DIAMETER: 8"		DATE STARTED: 8/14/03	TIME: 0610
DRILLING CO.: DIAMOND CORE		DATE COMPLETED: 8/14/03	TIME: 0725
C57 LIC. #: 512406		TOTAL DEPTH OF BORING: 25.0 ft.	
DRILLER: DON		DEPTH TO GROUNDWATER: 18.0 ft.	
HAMMER WGT.: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: GRAVEL/WOODCHIPS	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	USCS SYMBOL	SOIL DESCRIPTION	COLOR	MOISTURE	CONSISTENCY	PID (ppm)	WELL CONSTR.	WELL DESCRIPTION
					GW	SILTY SAND W/ GRAVEL.						
1		X	30 @ 50	B-19 (6")				DRY	DENSE			
2												BORING FILLED WITH CEMENT TO THE SURFACE (0-25')
3							VERY DARK GRAY 10YR 3/1					
4												
5		X	11 16 27	B-19 (5')		SILTY SAND WITH GRAVEL & DETRITUS.	LIGHT OLIVE BROWN TURNING TO GREENISH GRAY W/ LIGHT OLIVE BROWN MOTTLING AT 5' MIDDLE TO BOTTOM. 2.5Y 5/3 TO 5G 6/1 W/ 2.5Y 5/6	SLIGHTLY MOIST	MED DENSE			
6												
7												
8												
9												
10												
11												
12												
13					SM							
14												
15												
16												
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19												
20												
21												
22												
23												
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25												

WINZLER & KELLY
CONSULTING ENGINEERS

Attachment C

Tables

Table 1
Groundwater Gradient Summary
Blue Lake Forest Products

Date	Gradient Direction (degrees azimuth)	Gradient Magnitude (ft/100 ft)
12-Jan-98	187.51	1.14
8-Apr-98	179.35	1.50
8-Jul-98	184.88	4.23
26-Jan-99	156.45	1.75
14-Jul-99	176.88	3.92
13-Apr-00	181.37	2.07
19-Oct-00	182.14	4.78
7-Jun-01	181.46	4.33

All gradient calculations revised to exclude MW-7 due to artificially low groundwater elevation

Table 2
Soil Analytical Results
BLFP Phase II Investigation
Parcels South Of Glendale Drive
Metal PCP/TCP results reported in parts per million (ug/g)
Volatile Organic results reported in parts per billion

Boring number	Installation Method	Sample Depth	Date sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Pentachlorophenol (PCP)	Tetrachlorophenol (TCP)	Volatile Organics
B-1	hand	6"	8/8/03	<2.0	**48**	**12**	**73**	**58**	<1.0	<1.0	ND
B-1	hand	2.6'	8/8/03	<2.0	**43**	**10**	**65**	**55**	<1.0	<1.0	ND
B-2	hollow stem	6"	8/15/03	<2.0	**53**	**13**	**56**	**64**	<1.0	<1.0	ND[1]
B-2	hollow stem	5'	8/15/03	<2.0	**100**	<10	**91**	**59**	<1.0	<1.0	ND
B-6	hand	6"	8/8/03	<2.0	**44**	<10	**57**	**52**	<1.0	<1.0	ND
B-6	hand	2.5'	8/11/03	<2.0	**41**	<10	**51**	**49**	<1.0	<1.0	ND[2]
B-8	hand	6"	8/11/03	<2.0	**36**	**11**	**46**	**47**	<1.0	<1.0	ND
B-13	hollow stem	6"	8/15/03	<2.0	**42**	**12**	**63**	**68**	<1.0	<1.0	ND[3]
B-13	hollow stem	5'	8/15/03	<2.0	**43**	<10	**62**	**46**	<1.0	<1.0	ND
B-16	hollow stem	5" *	8/15/03	<2.0	**30**	<10	**27**	**46**	<1.0	<1.0	ND
B-16	hollow stem	10' *	8/15/03	<2.0	**30**	<10	**26**	**34**	<1.0	<1.0	ND

[1] Toluene detected at 11 ppb

[2] Toluene detected at 7.4 ppb; m, p, xylene detected at 6.7 ppb

[3] Toluene detected at 11 ppb

*Samples collected at B-16 were at 5" and 10' below ground surface due to the density of gravel at six inches below ground surface.

Table 3

Soil Analytical Results

BLFP Phase II Investigation

Parcels North of Glendale Drive

Metal PCT/TCP results reported in parts per billion (ug/g)

Volatile Organic results reported in parts per million (ug/Kg)

Boring number	Installation Method	Sample Depth	Date sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Pentachloro-phenol (PCP)	Tetrachloro-phenol (TCP)	Volatile Organics
B-3*	hand	6"	8/11/03	<2.0	**32**	<10	**28**	**43**	<1.0	<1.0	ND
B-3*	hand	4.5'	8/11/03	<2.0	**96**	<10	**23**	**19**	<1.0	<1.0	ND
B-5	hand	6"	8/12/03	<2.0	**35**	**15**	**39**	**65**	<1.0	<1.0	ND
B-7	hand	6"	8/12/03	<2.0	**8.3**	<10	**8.6**	**16**	<1.0	<1.0	ND [1]
B-7	hand	3.5'	8/12/03	<2.0	**47**	**10**	**45**	**95**	<1.0	<1.0	ND [2]
B-9	hand	6"	8/13/03	<2.0	**38**	**11**	**43**	**51**	<1.0	<1.0	ND
B-9	hand	2'	8/13/03	<2.0	**38**	<10	**44**	**49**	<1.0	<1.0	ND
B-10	hand	6"	8/13/03	<2.0	**47**	<10	**53**	**54**	<1.0	<1.0	ND
B-11	hollow stem	6"	8/13/03	<2.0	**45**	<10	**64**	**63**	<1.0	<1.0	ND [3]
B-11	hollow stem	5'	8/13/03	<2.0	**150**	<10	**150**	**89**	<1.0	<1.0	ND
B-12	hollow stem	2' *	8/14/03	<2.0	**45**	<10	**58**	**50**	<1.0	<1.0	ND [4]
B-12	hollow stem	5'	8/14/03	<2.0	**65**	**11**	**32**	**73**	<1.0	<1.0	ND [5]
B-14	hollow stem	2' *	8/14/03	<2.0	**44**	<10	**58**	**51**	<1.0	<1.0	ND [6]
B-14	hollow stem	5'	8/14/03	<2.0	**58**	<10	**28**	**26**	<1.0	<1.0	ND
B-15	hand	6"	8/13/03	**44**	**44**	<10	**62**	**54**	<1.0	<1.0	ND [7]
B-15	hand	3'	8/12/03	<2.0	**24**	<10	**26**	**31**	<1.0	<1.0	ND [8]
B-17	hollow stem	2' *	8/14/03	<2.0	**57**	**11**	**56**	**51**	<1.0	<1.0	ND
B-17	hollow stem	5'	8/14/03	<2.0	**73**	<10	**34**	**33**	<1.0	<1.0	ND
B-19	hollow stem	6"	8/14/03	<2.0	**26**	<10	**31**	**49**	<1.0	<1.0	ND [9]
B-19	hollow stem	5'	8/14/03	<2.0	**35**	<10	**23**	**16**	<1.0	<1.0	ND

[1] Toluene detected at 1,100 ppb, Ethylbenzene detected at 58 ppb

[2] Toluene detected at 11 ppb

[3] Toluene detected at 11 ppb

[4] Toluene detected at 26 ppb

[5] Toluene detected at 10 ppb

[6] Toluene detected at 46 ppb

[7] Toluene detected at 10 ppb

[8] Toluene detected at 110 ppb

[9] Toluene detected at 90 ppb; Ethylbenzene detected at 12 ppb

*Samples were miss labeled at 6", actual samples were collected at 2' below ground surface

Table 4
Soil Analytical Results
Aalfs Phase II Investigation
Aalfs Parcels
Metal PCP/TCP results reported in parts per billion (ug/g)
Volatile Organic results reported in parts per million (ug/Kg)

Boring number	Installation Method	Sample Depth	Date sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Pentachloro-phenol (PCP)	Tetrachloro-phenol (TCP)	Volatile Organics
B-3	hand	6"	8/11/03	<2.0	**41**	**14**	**54**	**61**	<1.0	<1.0	ND [1]
B-3	hollow stem	5'	8/13/03	<2.0	**49**	<10	**19**	**18**	<1.0	<1.0	ND
B-4	hollow stem	3	8/14/03	<2.0	**37**	**25**	**45**	**77**	<1.0	<1.0	ND [2]
B-4	hollow stem	5'	8/14/03	<2.0	**74**	<10	**69**	**55**	<1.0	<1.0	ND [3]
B-18	hollow stem	6"	8/13/03	<2.0	**70**	**15**	**37**	**24**	<1.0	<1.0	ND
B-18	hollow stem	5'	8/13/03	<2.0	**75**	<10	**78**	**61**	<1.0	<1.0	ND

[1] Toluene detected at 13 ppb
[2] Toluene detected at 110 ppb
[3] Toluene detected at 10 ppb

Table 5

Groundwater Analytical Results
BLFP Phase II Investigation
Parcels South of Glendale Drive
Analytical results reported in parts per billion (ug/L)

Boring number	Date sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Pentachloro-phenol (PCP)	Tetrachloro- phenol (TCP)	Volatile Organics
B-2	8/15/03	<20	**2,000**	**420**	**3,000**	**3,500**	<0.30	<1.0	ND
B-13	8/15/03	**36**	**2,500**	**120**	**3,900**	**3,700**	<0.30	<1.0	ND
B-16	8/15/03	<20	**1,900**	**320**	**2,500**	**3,100**	**0.49**	<1.0	ND[1]

[1] Toluene detected at 0.87 ppb

Table 6
Groundwater Analytical Results
BLFP Phase II Investigation
Parcels North of Glendale Drive
Analytical results reported in parts per billion (ug/L)

Boring number	Date sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Pentachloro-phenol	Tetrachloro- phenol	Volatile Organics
B-11	8/13/2003	<10	**180**	**21**	**210**	**190**	<0.30	<1.0	ND
B-12	8/14/2003	<10	**350**	**53**	**590**	**690**	<0.30	<1.0	ND
B-14	8/14/2003	<10	**440**	**31**	**560**	**520**	**0.30**	<1.0	ND
B-17	8/14/2003	<10	**940**	**230**	**1,500**	**1,300**	<0.30	<1.0	ND
B-19	8/14/2003	<10	**1,200**	**100**	**930**	**1,600**	<0.30	<1.0	ND

Table 7
Groundwater Analytical Results
Aalfs Phase II Investigation
Aalfs Parcels

Analytical results reported in parts per billion (ug/L)

Boring number	Date sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Pentachloro-phenol (PCP)	Tetrachloro- phenol (TCP)	Volatile Organics
B-3	8/13/03	<10	**770**	<10	**1,000**	**750**	<0.30	<1.0	ND
B-4	8/14/03	<10	**320**	**25**	**250**	**320**	<0.30	<1.0	ND
B-18	8/13/03	<10	**780**	**71**	**940**	**1,100**	<0.30	<1.0	ND

Attachment D

Winzler & Kelly SOP's

WINZLER & KELLY CONSULTING ENGINEERS

STANDARD OPERATING PROCEDURES
for
SOIL AND WATER SAMPLING FROM A BORING

1. Objective

To establish accepted procedures for sampling soil and water from hollow-stem auger or direct push borings.

2. Background

During subsurface investigations it is necessary to obtain discrete soil and water samples from below the ground surface. Typically, heavy equipment is necessary to obtain these samples. This SOP establishes the procedures for collecting soil and groundwater samples from borings.

3. Personnel Required and Responsibilities

Project Manager: The Project Manager (PM) is responsible for ensuring that field personnel have been trained in the use of these procedures and for verifying that drilling water and soil sampling activities are performed in compliance with this SOP.

Project Scientist: The responsible professional in charge of the field work must determine the exact location and depth of each boring, and decide on the sampling interval. The project scientist must collect samples, prepare them for transport to the laboratory, and record lithologic and other observations. The Project Scientist is responsible for complying with this SOP.

Driller (Subcontractor): An appropriately licensed (C57) contractor must be equipped with truck- or tractor-mounted auger or direct push boring equipment and an OSHA-certified crew. The Driller is responsible for the safety and conduct of their employees. In addition, the Driller is responsible for the installation of borings according to the details specified in the Workplan. The Driller is responsible for maintaining industry standards and complying with the contract.

4. Equipment Required

Truck or tractor mounted auger or direct push rig

- Split spoon sampler or direct push sample barrel
- Brass or stainless steel sample liners and plastic end caps
- Aluminum foil or teflon sheeting
- Steam cleaner
- Containers for rinsate
- Disposable gloves
- Sample labels
- Munsell color charts
- Putty knife

- Boring logs
- Photoionization detector (PID)
- Ice/ice chest
- Sealable plastic storage bags
- Indelible marker

5. Procedure

Borings will be installed using hollow-stem augers, or 2-inch diameter pushrods. Borings will extend to the groundwater surface or deeper as specified by the project requirements. Typically, soil samples will be obtained either continuously, or at a minimum of 5-foot intervals for lithologic logging, on site field screening, and potential chemical analyses. Additional soil samples will be obtained at any notable changes in lithology and at any obvious areas of contamination.

- Soil samples will be collected in a split spoon sampler or direct-push sample barrel lined with clean brass or stainless steel sleeves. A six-inch interval of the sample will be capped with aluminum foil or Teflon sheeting and plastic end caps, labeled, wrapped in a plastic storage bag and stored in a cooler, on ice. Sample numbers and depths will be noted on the boring logs.
- The remaining sample will be used for color and soil type classification using the Unified Soil Classification System and Munsell color charts. A portion of each sample will be field-screened with a photo-ionization detector. Results of classification and field screening will be recorded on the boring logs.
- Sample equipment will be decontaminated with Alconox soap and distilled water between sampling intervals.
- Augers or push casing will be steam cleaned between each boring.
- If a hydropunch sampler is to be used to collect water samples, borings will terminate at the groundwater surface. A hydropunch-type groundwater sampling device will be lowered into the hollow stem augers or the drive casing, and driven three to four feet into the aquifer. Groundwater will be allowed to flow into the hydropunch.
- If a hydropunch type sampler is not used, the boring will be extended 3 to 5 feet into the aquifer. The augers or drive casing will be pulled back to allow for water to enter the boring. If caving of the bore hole occurs, temporary PVC casing may be lowered into the drive casing or hollow stem augers prior to retraction of the drive casing.
- Groundwater will be sampled using a small diameter stainless steel or disposable polyethylene bailer.
- Groundwater samples will be transferred from the bailer to appropriate size/type containers with the appropriate preservatives, as required by the project needs. Precautions will be taken to avoid capturing air bubbles in the samples. Sample containers will be labeled, wrapped in plastic bags and stored in a cooler, on ice. The water samples will be transported to a State-certified laboratory for the appropriate chemical analyses.
- Soil borings will be closed by filling to the surface with a cement/bentonite grout mixture, not exceeding 5% bentonite. The locations of each boring will be marked with spray paint.

Attachment E

Field Notes

WINZLER & KELLY
CONSULTING ENGINEERS

633 Third Street, Eureka, CA 95501-0417
P.O. Box 1345 Eureka, CA 95502-1345
(707) 443-8326 / FAX (707) 444-8330

By H.V. Date 8/13/03 Subject BLFP Phase II Investigation Sheet No. 1 of
Client Bruce Taylor & Dan Aalfs Job No.

0930 - arrive at site

fill up H_2O tank

1010 - prepare to drill B-11 } ~~2~~ one drum labled B-11

1200 - finish B-11

- decon equip. one ~~2~~ drums at this hole labled B-11 & B-18

1300 - drill B-18 -

- corner btw RR xing & entrance road

1430 ~~1400~~ - drill B-3 2 ~~one~~ drums both labled B-3 & B-18

~~1415~~

1430 -

1530 decon & set up B-19 (64)

1610 - Chain of Custody & deliver to lab

WINZLER & KELLY
CONSULTING ENGINEERS

633 Third Street, Eureka, CA 95501-0417
P.O. Box 1345 Eureka, CA 95502-1345
(707) 443-8326 / FAX (707) 444-8330

By HV Date 5/14/03 Subject ______ Sheet No. 2 of ____
Client BLFP + Aalfs Phase II Investigations. Job No. ______

0600 arrive at site

0610 - begin B-19 } one drum
0735 - end B-19 }

0745 - begin B-12 one drum at site (B-12 + B-19)
GW @ 7' bgs - wet - had to drill down to
25' to get water in to hole due to clay content
- fill with cement

1010 - begin B-14 } ~~one~~ two drums at site
1100 - end B-14 } both B-12 + B-14 labled ↑
- fill w/ cement

1140 - begin B-17
B-17 was labled to replace B-8
Carlos hand augered B-8
therefore, B-7 (shallow) is now B-17

1340 end B-17 (2 drums at site) both labled B-14 + B-17
B-17 1 + 1/2 drums

1400 begin B-4
1520 end B-4

8/15/03 BLFP Phase II Investigation 0314280 1, 001
Holly V.

0700 - arrive at site -
drill B-2
moved ~ 30' to the S. due to [illegible]
0825 end B-2
fill B-2 w/ cement
one drum left on site
decon -
set up for B-13

0945 - begin B-13

0955 - end

1000 - begin B-16
soil sample collected @ 5' (not 6')
no sample collected @ 5' (No Recovery)
only one 4oz. jar w/ soil available
for sample @ 10' - submitted to NCL
★ (What analysis is most important (if any) for this sample?)
1150 end B-16
cement B-16
1250 mobilize to BLFP UST's 2-4

1610 - back to this site to fill in borings
- Carlos took all samples to lab
drop off battery at NAPA for Don

BORING LOG

PROJ. NAME: BLF P Phase II Investigation	PROJECT NO. 03142801.001 — Sheet 1 of
METHOD OF DRILL: hollow stem auger	LOCATION: Glendale Drive, Blue Lake, CA
SAMPLER: [illegible] OD: 3" ID: 2.5	LOGGED BY: A. Vaduro — HOLE# B-2
BORING DIAMETER: 8"	DATE STARTED: 8/15/30 — TIME: 0715
DRILLING CO: Diamond Core	DATE COMPLETED: 8/15/30 — TIME: 0825
C57 LIC. # 512406	TOTAL DEPTH OF HOLE: 15'
DRILLER: Don	DEPTH TO GROUNDWATER: 12'
HAMMER WGT: 140 lbs. — HAMMER DROP: 30 inches	SURFACE CONDITIONS: grass

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			9	B-2(6')		10YR 3/1	dry	med. dense	GW	sandy well		Boring
			30							graded gravel		
2'			29							[illegible] 1/2"		~~Filled with~~
										[illegible]		~~Bentonite~~
3'						10YR 3/3				heavy [illegible]		~~3~~
						10YR 6/8				[illegible]		
4'						with 7.5YR				[illegible]		
						8/1 mottling			with	[illegible]		~~Bentonite with~~
5'			30	B-2(5')		10YR 5/3	moist	med dense	sand	[illegible]		~~5% bentonite~~
			36			7.5YR 5/6				[illegible]		~~to the surface~~
6'			29			mottling			SW	[illegible]		~~(0-3')~~
										[illegible]		filled with
7'										[illegible]		cement
										[illegible]		(0-5')
8'										[illegible]		
9'												
10'												
11'												
12'												
13'												
14'												
15'						10YR 3/3			ML	sandy silt		
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

WINZLER & KELLY

BORING LOG

PROJ. NAME: Aalfs Phase II Investigation	PROJECT NO. 03184702.100 Sheet 1 of
METHOD OF DRILL: hollow stem auger	LOCATION: Glendale Drive, Blue Lake CA
SAMPLER: split spoon OD: 3 ID: 2.5	LOGGED BY: H. Vaccaro HOLE# B3
BORING DIAMETER: 8"	DATE STARTED: 8/13/03 TIME: 1420
DRILLING CO: Diamond Core	DATE COMPLETED: 8/13/03 TIME: 1520
C57 LIC. # 512406	TOTAL DEPTH OF HOLE: 25'
DRILLER: Don	DEPTH TO GROUNDWATER: 22'
HAMMER WGT: 140 lbs. | HAMMER DROP: 30 inches	SURFACE CONDITIONS: gravel/dirt

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'												Boring
2'				See Carlo's Boring log B-3 8/11/03 (not B3*)								~~filled with~~ ~~Bentonite~~
3'												3-
4'												~~cement with 5% bentonite to the surface~~
5'			9 10 12	B3(5')		2.5Y6/3 with 2.5Y5/6 mottling	moist	stiff	ML	Sandy silt no odor		~~10-25'~~
6'												
7'												filled with cement to surface (10-25')
8'												
9'												
10'												
11'												
12'												
13'												
14'				Sample 6"								
15'												
16'				1" Gravel		Lt Gray						
17'						Dark Brown						
18'			15/20	Gravel Silt/clay								
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

WINZLER & KELLY

BORING LOG

PROJ. NAME: Aalfs Phase II Investigation	PROJECT NO. 03184702.100 Sheet 1 of
METHOD OF DRILL:	LOCATION: Glendale Drive, Blue Lake CA
SAMPLER: OD: ____ ID: ____	LOGGED BY: H. Vadurro HOLE# B-4
BORING DIAMETER:	DATE STARTED: 8/14/03 TIME: 1400
DRILLING CO: Diamond Core	DATE COMPLETED: 8/14/03 TIME: 1520
C57 LIC. #	TOTAL DEPTH OF HOLE: 15'
DRILLER:	DEPTH TO GROUNDWATER: 10'
HAMMER WGT: ____ lbs. HAMMER DROP: ____ inches	SURFACE CONDITIONS: grass

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			18 22 9	B4(3")		10YR4/2	dry	med dense	GW	sandy gravel well graded		Boring
2'												Filled with Bentonite
3'												3'
4'												cement with
5'			21 21 20	B-4(5')		10YR2/2	slightly moist	dense	GW	same as above for 1st 6" turns to		~5% bentonite to the surface (0-3')
6'									GW	mixed silty gravel with sand		
7'										and detritus well graded		& filled with cement to
8'												the surface (0-15')
9'												
10'												
11'												
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

WINZLER & KELLY

BORING LOG

PROJ. NAME: BLF PPhase II Investigation	PROJECT NO. 03142801.001	Sheet 1 of
METHOD OF DRILL: hollow stem auger	LOCATION: Glendale Drive, Blue Lake, CA	
SAMPLER: split spoon OD: 8 ID: [illegible]	LOGGED BY: H. Vadurro	HOLE# B-11
BORING DIAMETER: 8"	DATE STARTED: 8/13/30	TIME: 1030
DRILLING CO: Diamond Core	DATE COMPLETED: 8/13/30	TIME: 1145
C57 LIC. #: 512406	TOTAL DEPTH OF HOLE: 25'	
DRILLER: Don	DEPTH TO GROUNDWATER: 18'	
HAMMER WGT: 140 lbs. | HAMMER DROP: 30 inches	SURFACE CONDITIONS: asphalT/gravel	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			50 at 5"	B-11(6")		10YR3/2	dry	dense	GW	well graded gravel w/ sand		Boring
2'												~~Filled with~~ ~~Bentonite~~ ~~3-25'~~
3'												
4'												
5'			16 25 44	B-11(5')		10YR 5/6 [illegible] 10YR 4/1 mottling	slightly moist	[illegible]	ML	sandy silt with gravel no odor		~~cement with 5% bentonite to the surface (0-3')~~
6'												
7'												filled with cement to the surface (0-25')
8'												
9'												
10'										Sand, coarse grained, slight silt		
11'												
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

BORING LOG

PROJ. NAME: BLF Phase II Investigation	PROJECT NO. 03142801.001 Sheet 1 of
METHOD OF DRILL: hollow stem auger	LOCATION: Glendale Drive, Blue Lake, CA
SAMPLER: split spoon OD: 3" ID: 2.5"	LOGGED BY: H. Vaduro HOLE# B-12
BORING DIAMETER: 8"	DATE STARTED: 8/14/30 TIME: 0745
DRILLING CO: Diamond Core	DATE COMPLETED: 8/14/30 TIME: 0946
C57 LIC. # 512406	TOTAL DEPTH OF HOLE: ~~10'~~ 25'
DRILLER: Don	DEPTH TO GROUNDWATER: 7'
HAMMER WGT: 140 lbs. HAMMER DROP: 30 inches	SURFACE CONDITIONS: gravel / wood chips

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'										cobble gravelly sand with slight silt + detritus		Boring
2'			50 for 6"	B-12(6'')		10YR 3/1	dry	dense	SM	silty sand with gravel and detritus		~~Filled with~~ ~~Bentonite~~ ~~3~~
3'												
4'												
5'			11 14 16	B-12 (5')		10YR 3/1 with 10YR 6/6 + 2.5Y 4/1 mixed	moist	stiff	ML	sandy SILT mixed with gravel and detritus, no odor		cement with 6% bentonite to the surface ~~(0-2')~~
6'												
7'												backfilled with cement to the surface (0-10')
8'												
9'												
10'												
11'												
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'						yellow				clay		
27'												

* B12(6'') is actually taken at 2' depth due to rocky nature (cobble)

WINZLER & KELL

BORING LOG

PROJ. NAME: BLF P Phase II Investigation		PROJECT NO. 03142801.001	Sheet 1 of
METHOD OF DRILL: [illegible]		LOCATION: Glendale Drive, Blue Lake, CA	
SAMPLER: [illegible] OD: [illegible] ID: [illegible]		LOGGED BY: H. Vadurro	HOLE# B-13
BORING DIAMETER: [illegible]		DATE STARTED: 8/15/30	TIME: 0845
DRILLING CO: Diamond Core		DATE COMPLETED: 8/15/30	TIME:
C57 LIC. # [illegible]		TOTAL DEPTH OF HOLE: 10'	
DRILLER: [illegible]		DEPTH TO GROUNDWATER: 7'	
HAMMER WGT: [illegible] lbs.	HAMMER DROP: [illegible] inches	SURFACE CONDITIONS: gravel	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			[illegible]	B-13[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		Boring Filled with Bentonite
2'												
3'												
4'												
5'			[illegible]	[illegible]		[illegible]/BRN	[illegible]	[illegible]	[illegible]	[illegible]		~~Cement with 5% bentonite to the surface~~ (0-3')
6'												
7'												[illegible]
8'												
9'						[illegible]/BRN			GW	well graded gravel with sand		(3-10')
10'												
11'												
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

WINZLER & KELLY

BORING LOG

PROJ. NAME: BLF PPhase II Investigation		PROJECT NO. 03142801.001	Sheet 1 of
METHOD OF DRILL: hollow stem auger		LOCATION: Glendale Drive, Blue Lake, CA	
SAMPLER: split spoon	OD: 3" ID: 2.5	LOGGED BY: H. Vadurro	HOLE# B-14
BORING DIAMETER: 8"		DATE STARTED: 8/14/30	TIME: 1010
DRILLING CO: Diamond Core		DATE COMPLETED: 8/14/30	TIME: 1100
C57 LIC. # 512406		TOTAL DEPTH OF HOLE: 25'	
DRILLER: Don		DEPTH TO GROUNDWATER: 17'	
HAMMER WGT: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: gravel/wood chips	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			50 for 2	B-14(6")*		10YR3/1 w/GLEY1 5/N mixed	dry	[illegible]	GW	[illegible] sand & gravels [illegible] g sand & gravel with [illegible] silt [illegible]		Boring ~~Filled with~~ ~~Bentonite~~ 3-
2'												
3'												
4'												
5'			[illegible]	B-14(5')		10YR3/1 10YR5/1 with 10YR 6/4 mottling 2.5Y4/3 for the last 3 inches	dry	dense	GW	same as above to ~~[illegible]~~ ~~to 10YR5/1~~ ~~with 2.5YR6/8~~ mottling for 2 ~~[illegible]~~ 2.5Y4/3 for the last 3 inches		~~Cement with~~ ~~5% bentonite~~ to the surface (0-3') [illegible] to the surface (2-3')
6'												
7'												
8'												
9'												
10'												
11'				BORING NOT CLASSIFIED BELOW 5 FEET								
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

* B-14(6") is @ 2.0' bgs due to rocky conditions at surface. 2.0' below grade surface

WINZLER & KELLY

BORING LOG

PROJ. NAME: BLFP Phase II Investigation		PROJECT NO. 03142801.001	Sheet 1 of
METHOD OF DRILL: hollow stem auger		LOCATION: Glendale Drive Blue Lake, CA	
SAMPLER: split spoon OD: 3" ID: 2.5"		LOGGED BY: H. Vadurro	HOLE# B-16
BORING DIAMETER: 8"		DATE STARTED: 8/15/30	TIME: 1000
DRILLING CO: Diamond Core		DATE COMPLETED: 8/15/30	TIME:
C57 LIC. # 512406		TOTAL DEPTH OF HOLE: 15'	
DRILLER: Don		DEPTH TO GROUNDWATER: 13'	
HAMMER WGT: 140 lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: grassy / gravel	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			100	B-16(3")		10YR4/3	dry	very dense	GW	well sorted		
			for							gravel with		Boring
2'			5"							sand		
			[illegible]									filled with
3'			[illegible]									cement
			[illegible]									to the surface
4'												(0-15')
5'			50	N/A		10YR4/3	dry	medium dense	NR	first 6"		
6'			for						NR	last 6"		
			3"						GW	first 2" same as above		
7'									OL/OH	containing 4" old		
										tree buried that		
8'										is ~8' wide		
										in diameter		
9'										(darkened)		
10'			5	B-16(10')		10YR4/3	dry	loose	NR	first 14" NR		
11'			7						NR			
			13						GW	last 2" same as above		
12'									OL/OH	buried by darkend		
13'												
14'												
15'												
									SM	dark silty sand		
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

BORING LOG

PROJ. NAME: BLF P Phase II Investigation		PROJECT NO. 03142801.001	Sheet 1 of
METHOD OF DRILL: [illegible]		LOCATION: Glendale Drive, Blue Lake, CA	
SAMPLER: split spoon	OD: 4" ID: 2.5"	LOGGED BY: H. Vadurro	HOLE# B-17
BORING DIAMETER: 8"		DATE STARTED: 8/14/30	TIME: 1140
DRILLING CO: Diamond Core		DATE COMPLETED: 8/14/30	TIME: 1340
C57 LIC. # 512406		TOTAL DEPTH OF HOLE: ~~25'~~ 30'	
DRILLER: Don		DEPTH TO GROUNDWATER: 18'	
HAMMER WGT: [illegible] lbs.	HAMMER DROP: 30 inches	SURFACE CONDITIONS: gravel/wood chips	

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
									GW	well graded gravel		
1'										with sand +		
										detritus		Boring
2'			2	B-17(2')		10YR 2/1 for	dry	stiff				
			5			3" transition						~~Filled with~~
			9						ML	silt with sand		~~Bentonite~~
3'						to mixed				and well graded		~~3~~
						10YR 6/6				gravel and		
4'						(some GLEY1				detritus material		
						7/5G) –				soil highly		
5'			8	B-17(5')		at lower		stiff		mixed		~~Grouted with~~
			11			12" is						~~Sala bentonite~~
												~~to the surface~~
6'			14			highly mixed			ML	sandy silt with		(0–3')
						but otherwise				lots of detritus		
7'						10YR 4/1				and well graded		[illegible]
										gravel layer 1"		[illegible]
8'						10YR 3/2	moist		OL/OH	2" turning to		[illegible]
						turning to				2" mostly detritus		
9'						5Y 4/2			MH	remaining 10"		(0-30')
						with				sandy silty clay		
10'						5Y 4/3				with detritus		
						mottling						
11'												
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

BORING LOG

PROJ. NAME: Aalfs Phase II Investigation	PROJECT NO. 03184702.100 Sheet 1 of
METHOD OF DRILL: hollow stem auger	LOCATION: Glendale Drive, Blue Lake CA
SAMPLER: Split spoon OD: 2.5 ID: 2	LOGGED BY: H. Vadurro HOLE# B18
BORING DIAMETER: 8"	DATE STARTED: 8/13/03 TIME: 1300
DRILLING CO: Diamond Core	DATE COMPLETED: 8/13/03 TIME: 1400
C57 LIC. # 512406	TOTAL DEPTH OF HOLE: 15'
DRILLER: Don	DEPTH TO GROUNDWATER: 11.5'
HAMMER WGT: 140 lbs. HAMMER DROP: 30 inches	SURFACE CONDITIONS: gravel

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			26 4	B18(6")		gley 2.5N				gravel well graded		Boring
2'			50 for 6"				dry	hard	SM	~~about 2.5/N~~ silty sand w/gravel no odor		~~Filled with~~ ~~Bentonite~~
3'												
4'												
5'			16 30 36	B18(5')		mottled gley (most all the colors) with specs 10Y 2.1/1	dry	very stiff	SM	silty sand w/gravel no odor		~~Cement with~~ ~~5% bentonite~~ ~~to the surface~~ ~~(0-3')~~
6'												[illegible] [illegible] the surface (0-15')
7'												
8'												
9'												
10'												
11'												
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

BORING LOG

PROJ. NAME: BLF PPhase II Investigation	PROJECT NO. 03142801.001 — Sheet 1 of
METHOD OF DRILL: hollow stem auger	LOCATION: Glendale Drive, Blue Lake, CA
SAMPLER: Split spoon OD: 3 ID: 2.5"	LOGGED BY: H. Vaduro — HOLE# B19
BORING DIAMETER: 8"	DATE STARTED: 8/14/30 — TIME: 0610
DRILLING CO: Diamond Core	DATE COMPLETED: 8/14/30 — TIME: 0725
C57 LIC. # 512406	TOTAL DEPTH OF HOLE: 25'
DRILLER: Don	DEPTH TO GROUNDWATER: 18'
HAMMER WGT: 140 lbs. — HAMMER DROP: 30 inches	SURFACE CONDITIONS: gravel / wood chips

DEPTH	GRAPHIC SYMBOL	RECOVERY	BLOWS	SAMPLE NO.	PID (ppm)	COLOR	MOISTURE	CONSISTENCY	USCS SYMBOL	SOIL DESCRIPTION	WELL CONSTR.	WELL DESCRIPTION
1'			30 @ 50	B19(6")		10YR3/1	dry	dense	SM	silty sand w/ gravel		Boring
2'												~~Filled with Bentonite~~
3'												3 –
4'												
5'			11 16 27	B-19(5')		2.5Y5/3 turning to gley 6/5G with 2.5Y5/6 mottling at 5' (middle to bottom)	[illegible] slightly	med dense	SM	silty sand w/ gravel and detritus		~~cement with 5% bentonite to the surface (0–3')~~
6'												
7'												backfilled with cement to the surface
8'												
9'												(0 – 25')
10'												
11'												
12'												
13'												
14'												
15'												
16'												
17'												
18'												
19'												
20'												
21'												
22'												
23'												
24'												
25'												
26'												
27'												

WINZLER & KELLY

Attachment F
Laboratory Analytical Results

NORTH COAST
LABORATORIES LTD.

August 25, 2003

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Attn: Holly T. Vadurro

RE: 03142801.001, BLFP

Order No.: 0308389
Invoice No.: 36125
PO No.:
ELAP No. 1247-Expires July 2004

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	B-13 (6")
02A	B-13 (5')
03A	B-2 (6")
04A	B-2 (5')
05A	B-16 (5")
06A	B-16 (10')
07A	B-13
07B	B-13
08A	B-2
08B	B-2
09A	B-16
09B	B-16

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Lab Manager

Jesse G. Chaney, Jr.
Laboratory Director

North Coast Laboratories, Ltd. **Date:** *25-Aug-03*

CLIENT:	Winzler and Kelly
Project:	03142801.001, BLFP
Lab Order:	0308389

CASE NARRATIVE

PCP/TCP:
The positive result for B-16 was confirmed by second column. Suggest GC/MS.

Cadmium:
B-2 and B-16 were reported as ND with a dilution due to matrix interference.

Date: 25-Aug-03
WorkOrder: 0308389

ANALYTICAL REPORT

Client Sample ID: B-13 (6") **Received:** 8/15/03 **Collected:** 8/15/03 9:20
Lab ID: 0308389-01A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	42	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	12	10	µg/g	1.0	8/18/03	8/22/03
Nickel	63	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	68	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Surrogate: Dibromophenol	90.0	73.7-124	% Rec	1.0	8/19/03	8/20/03

Client Sample ID: B-13 (5') **Received:** 8/15/03 **Collected:** 8/15/03 9:20
Lab ID: 0308389-02A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	43	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	62	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	46	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Surrogate: Dibromophenol	91.7	73.7-124	% Rec	1.0	8/19/03	8/20/03

ANALYTICAL REPORT

Client Sample ID: B-2 (6") **Received:** 8/15/03 **Collected:** 8/15/03 7:50
Lab ID: 0308389-03A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	53	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	13	10	µg/g	1.0	8/18/03	8/22/03
Nickel	56	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	64	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Surrogate: Dibromophenol	91.6	73.7-124	% Rec	1.0	8/19/03	8/20/03

Client Sample ID: B-2 (5') **Received:** 8/15/03 **Collected:** 8/15/03 7:50
Lab ID: 0308389-04A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	100	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	91	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	59	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Surrogate: Dibromophenol	87.4	73.7-124	% Rec	1.0	8/19/03	8/20/03

Client Sample ID: B-16 (5") **Received:** 8/15/03 **Collected:** 8/15/03 11:00
Lab ID: 0308389-05A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	30	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	27	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	46	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Surrogate: Dibromophenol	80.7	73.7-124	% Rec	1.0	8/19/03	8/20/03

Client Sample ID: B-16 (10') **Received:** 8/15/03 **Collected:** 8/15/03 11:00
Lab ID: 0308389-06A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	30	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	26	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	34	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/19/03	8/20/03
Surrogate: Dibromophenol	93.2	73.7-124	% Rec	1.0	8/19/03	8/20/03

Client Sample ID: B-13 **Received:** 8/15/03 **Collected:** 8/15/03 9:20
Lab ID: 0308389-07A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	93.8	69.7-119	% Rec	1.0	8/21/03	8/22/03

ANALYTICAL REPORT

Client Sample ID: B-13 **Received:** 8/15/03 **Collected:** 8/15/03 9:20
Lab ID: 0308389-07B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	36	20	µg/L	2.0	8/19/03	8/21/03
Chromium	2,500	20	µg/L	2.0	8/19/03	8/21/03
Nickel	3,900	40	µg/L	2.0	8/19/03	8/21/03
Zinc	3,700	40	µg/L	2.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	120	20	µg/L	2.0	8/19/03	8/22/03

Client Sample ID: B-2 **Received:** 8/15/03 **Collected:** 8/15/03 7:50
Lab ID: 0308389-08A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	106	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B-2 **Received:** 8/15/03 **Collected:** 8/15/03 7:50
Lab ID: 0308389-08B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	20	µg/L	2.0	8/19/03	8/21/03
Chromium	2,000	20	µg/L	2.0	8/19/03	8/21/03
Nickel	3,000	40	µg/L	2.0	8/19/03	8/21/03
Zinc	3,500	40	µg/L	2.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	420	100	µg/L	10	8/19/03	8/22/03

ANALYTICAL REPORT

Client Sample ID: B-16 **Received:** 8/15/03 **Collected:** 8/15/03 11:00
Lab ID: 0308389-09A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	0.49	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	110	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B-16 **Received:** 8/15/03 **Collected:** 8/15/03 11:00
Lab ID: 0308389-09B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	20	µg/L	2.0	8/19/03	8/21/03
Chromium	1,900	20	µg/L	2.0	8/19/03	8/21/03
Nickel	2,500	40	µg/L	2.0	8/19/03	8/21/03
Zinc	3,100	40	µg/L	2.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	320	40	µg/L	4.0	8/19/03	8/22/03

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308389
Project: 03142801.001, BLFP

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:10:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361990**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID **MB-9666P** Batch ID: **9666** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/21/03 2:45:00 PM** Prep Date **8/19/03**
Client ID: Run ID: **INICP1_030821A** SeqNo: **361794**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	10									
Chromium	ND	10									
Nickel	ND	20									
Zinc	ND	20									

Sample ID **MB-9666A** Batch ID: **9666** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/19/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362157**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10									

Sample ID **MB-9676** Batch ID: **9676** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/20/03 3:11:27 PM** Prep Date **8/19/03**
Client ID: Run ID: **ORGC4_030820A** SeqNo: **361568**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	4.56	1.0	5.00	0	91.2%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308389
Project: 03142801.001, BLFP

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:21:08 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362064**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	0.30									
Dibromophenol	**5.42**	0.10	5.00	0	108%	70	119	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308389
Project: 03142801.001, BLFP

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:14:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361991**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	107.7	2.0	100	0	108%	85	115	0			
Chromium	103.9	2.0	100	0	104%	85	115	0			
Lead	105.9	10	100	0	106%	85	115	0			
Nickel	107.0	5.0	100	0	107%	85	115	0			
Zinc	103.0	5.0	100	0	103%	85	115	0			

Sample ID **LCS-9666P** Batch ID: **9666** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/21/03 2:49:00 PM** Prep Date **8/19/03**
Client ID: Run ID: **INICP1_030821A** SeqNo: **361795**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	567.9	10	500	0	114%	85	115	0			
Chromium	547.1	10	500	0	109%	85	115	0			
Nickel	545.4	20	500	0	109%	85	115	0			
Zinc	549.9	20	500	0	110%	85	115	0			

Sample ID **LCS-9666A** Batch ID: **9666** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/19/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362158**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	37.70	10	40.0	0	94.3%	85	115	0			

Sample ID **LCS-9676** Batch ID: **9676** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/20/03 3:33:23 PM** Prep Date **8/19/03**
Client ID: Run ID: **ORGC4_030820A** SeqNo: **361569**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.504	1.0	5.00	0	90.1%	67	131	0			
Pentachlorophenol	4.317	1.0	5.00	0	86.3%	65	140	0			
Dibromophenol	4.72	1.0	5.00	0	94.4%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308389
Project: 03142801.001, BLFP

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-9676** Batch ID: **9676** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/20/03 4:40:21 PM** Prep Date **8/19/03**
Client ID: Run ID: **ORGC4_030820A** SeqNo: **361572**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.341	1.0	5.00	0	86.8%	67	131	4.50	3.69%	15	
Pentachlorophenol	4.318	1.0	5.00	0	86.4%	65	140	4.32	0.0264%	15	
Dibromophenol	4.59	1.0	5.00	0	91.8%	74	124	4.72	2.70%	15	

Sample ID **LCS-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:43:04 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362065**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.802	1.0	5.00	0	96.0%	78	111	0			
Pentachlorophenol	1.521	0.30	1.50	0	101%	85	132	0			
Dibromophenol	5.31	0.10	5.00	0	106%	70	119	0			

Sample ID **LCSD-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 3:05:03 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362066**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.778	1.0	5.00	0	95.6%	78	111	4.80	0.508%	15	
Pentachlorophenol	1.560	0.30	1.50	0	104%	85	132	1.52	2.56%	15	
Dibromophenol	5.37	0.10	5.00	0	107%	70	119	5.31	1.11%	15	

NORTH COAST LABORATORIES LTD.

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707-822-4649 Fax 707-822-6831

Chain of Custody

P. 1 of 1

0308389

LABORATORY NUMBER:

Attention: Holly [illegible]
Results & Invoice to: [illegible]
Address: [illegible]
[illegible]
Phone: [illegible]
Copies of Report to:
Sampler (Sign & Print):

PROJECT INFORMATION

Project Number: [illegible]
Project Name: [illegible]
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS [illegible]	ANALYSIS [illegible]	ANALYSIS [illegible]
	B-13 (2")	5-15-08	[illegible]	Soil	X	X	X
	[illegible]	↓	[illegible]		X	X	X
	[illegible]		[illegible]		X	X	X
	[illegible]		[illegible]	↓	X	X	X
	[illegible]		[illegible]	Water	X	X	X
	[illegible]		[illegible]		X	X	X
	[illegible]		[illegible]	Soil	X	X	X
	[illegible]		[illegible]	Soil	X	X	X
	[illegible]	↓	[illegible]	Water	X	X	X

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[illegible]	[illegible]	[illegible]	5/15/08 1201

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-01A
Client I.D. Number: 0308385-1A/B-13 (6 Inches)

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	11	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/28/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-02A
Client I.D. Number: 0308385-2A/B-13 (5 Feet)

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg

	Compound	Concentration	Reporting Limit
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/28/03
Report Date

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-03A
Client I.D. Number: 0308385-3A/B-2 (6 Inches)

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	11	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/28/03
Report Date

Alpha Analytical, Inc.
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-04A
Client I.D. Number: 0308385-4A/B-2 (5 Feet)

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg	26	Ethylbenzene	ND	5.0 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg	27	m,p-Xylene	ND	5.0 µg/Kg
3	Chloroethane	ND	20 µg/Kg	28	Bromoform	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg	29	o-Xylene	ND	5.0 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg	30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg	31	1,3-Dichlorobenzene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg	32	1,4-Dichlorobenzene	ND	20 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg	33	1,2-Dichlorobenzene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg				
10	cis-1,2-Dichloroethene	ND	20 µg/Kg				
11	Chloroform	ND	20 µg/Kg				
12	1,2-Dichloroethane	ND	20 µg/Kg				
13	1,1,1-Trichloroethane	ND	20 µg/Kg				
14	Carbon tetrachloride	ND	20 µg/Kg				
15	Benzene	ND	5.0 µg/Kg				
16	1,2-Dichloropropane	ND	20 µg/Kg				
17	Trichloroethene	ND	20 µg/Kg				
18	Bromodichloromethane	ND	20 µg/Kg				
19	cis-1,3-Dichloropropene	ND	20 µg/Kg				
20	trans-1,3-Dichloropropene	ND	20 µg/Kg				
21	1,1,2-Trichloroethane	ND	20 µg/Kg				
22	Toluene	ND	5.0 µg/Kg				
23	Dibromochloromethane	ND	20 µg/Kg				
24	Tetrachloroethene	ND	20 µg/Kg				
25	Chlorobenzene	ND	20 µg/Kg				

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/28/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-05A
Client I.D. Number: 0308385-5A/B-16 (5 Inches)

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg

	Compound	Concentration	Reporting Limit
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/28/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-06A
Client I.D. Number: 0308385-6A/B-16 (10 Feet)

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	160 µg/Kg
2	Vinyl chloride	ND	40 µg/Kg
3	Chloroethane	ND	40 µg/Kg
4	Bromomethane	ND	40 µg/Kg
5	Trichlorofluoromethane	ND	40 µg/Kg
6	1,1-Dichloroethene	ND	40 µg/Kg
7	Dichloromethane	ND	160 µg/Kg
8	trans-1,2-Dichloroethene	ND	40 µg/Kg
9	1,1-Dichloroethane	ND	40 µg/Kg
10	cis-1,2-Dichloroethene	ND	40 µg/Kg
11	Chloroform	ND	40 µg/Kg
12	1,2-Dichloroethane	ND	40 µg/Kg
13	1,1,1-Trichloroethane	ND	40 µg/Kg
14	Carbon tetrachloride	ND	40 µg/Kg
15	Benzene	ND	20 µg/Kg
16	1,2-Dichloropropane	ND	40 µg/Kg
17	Trichloroethene	ND	40 µg/Kg
18	Bromodichloromethane	ND	40 µg/Kg
19	cis-1,3-Dichloropropene	ND	40 µg/Kg
20	trans-1,3-Dichloropropene	ND	40 µg/Kg
21	1,1,2-Trichloroethane	ND	40 µg/Kg
22	Toluene	ND	20 µg/Kg
23	Dibromochloromethane	ND	40 µg/Kg
24	Tetrachloroethene	ND	40 µg/Kg
25	Chlorobenzene	ND	40 µg/Kg
26	Ethylbenzene	ND	20 µg/Kg
27	m,p-Xylene	ND	20 µg/Kg
28	Bromoform	ND	40 µg/Kg
29	o-Xylene	ND	20 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	40 µg/Kg
31	1,3-Dichlorobenzene	ND	40 µg/Kg
32	1,4-Dichlorobenzene	ND	40 µg/Kg
33	1,2-Dichlorobenzene	ND	40 µg/Kg

Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/28/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-07A
Client I.D. Number: 0308385-7A/B-13

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/25/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl　Randy Gardner　Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/28/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-08A
Client I.D. Number: 0308385-8A/B-2

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/25/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/28/03

Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081905-09A
Client I.D. Number: 0308385-9A/B-16

Sampled: 08/15/03
Received: 08/19/03
Analyzed: 08/25/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	4.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	4.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	0.87	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/28/03
Report Date

yt

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC pH Report

Work Order NOC03081905 **Project:**

Alpha's Sample ID	Client's Sample ID	Matrix	pH
03081905-07A	0308385-7A/B-13	Aqueous	4
03081905-08A	0308385-8A/B-2	Aqueous	5
03081905-09A	0308385-9A/B-16	Aqueous	4

8/28/03
Report Date

Date: 28-Aug-03

QC Summary Report

Work Order: 03081905

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS04\DATA\030821\03082109.D** Batch ID: **MS4S0821A** Analysis Date: **08/21/2003 11:54**

Sample ID: **MBLK MS4S0821A** Units : **µg/Kg** Run ID: **GC/MSD_4_030821A** Prep Date: **08/21/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS04\DATA\030821\03082107.D** Batch ID: **MS4S0821A** Analysis Date: **08/21/2003 10:59**

Sample ID: **LCS MS4S0821A** Units : **µg/Kg** Run ID: **GC/MSD_4_030821A** Prep Date: **08/21/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	224	20	200		112	0	147			
Benzene	181	5	200		90	60	142			
Trichloroethene	181	20	200		91	60	142			
Toluene	173	5	200		86	58	143			
Chlorobenzene	173	20	200		86	57	144			
Ethylbenzene	178	5	200		89	58	147			
m,p-Xylene	371	5	400		93	57	147			
o-Xylene	171	5	200		86	58	149			

Comments:

ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Date:
28-Aug-03

QC Summary Report

Work Order:
03081905

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **C:\HPCHEM\MS04\DATA\030825\03082509.D** Batch ID: **MS4W0825A** Analysis Date: **08/25/2003 14:00**
Sample ID: **MBLK MS4W0825A** Units : **µg/L** Run ID: **GC/MSD_4_030825A** Prep Date: **08/25/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	1								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
1,1-Dichloroethane	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	0.5								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	0.5								
Dibromochloromethane	ND	1								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND	1								
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **C:\HPCHEM\MS04\DATA\030825\03082505.D** Batch ID: **MS4W0825A** Analysis Date: **08/25/2003 12:17**
Sample ID: **LCS MS4W0825A** Units : **µg/L** Run ID: **GC/MSD_4_030825A** Prep Date: **08/25/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	11.8	1	10		118	80	120			
Benzene	9.59	0.5	10		96	83	119			
Trichloroethene	10.2	1	10		102	76	127			
Toluene	9.58	0.5	10		96	80	120			
Chlorobenzene	10	1	10		100	76	124			
Ethylbenzene	10.2	0.5	10		102	80	120			
m,p-Xylene	21.3	0.5	20		106	77	124			
o-Xylene	10.5	0.5	10		105	77	125			

Comments:
ND - Not Detected at the Reporting Limit.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
S - Spike Recovery outside accepted recovery limits.
M - Spike Recovery outside accepted recovery limits due to matrix.
B - Analyte detected in the associated Method Blank.

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

CA

Page: 1 of 1

WorkOrder : NOC03081905

Report Due By : 5:00 PM On : 29-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Report Attention : Loretta Tomlin
CC Report :

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

Job :
PO :

Client's COC # : none

EDD Required : ~~Yes~~ no
Sampled by : Client
Cooler Temp : 4 °C

19-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests VOC_S	VOC_W	Sample Remarks
NOC03081905-01A	0308385-1A/B-13 (6 Inches)	SO	08/15/03 09:20	1	0	8		8260_Cs		
NOC03081905-02A	0308385-2A/B-13 (5 Feet)	SO	08/15/03 09:20	1	0	8		8260_Cs		
NOC03081905-03A	0308385-3A/B-2 (6 Inches)	SO	08/15/03 07:50	1	0	8		8260_Cs		
NOC03081905-04A	0308385-4A/B-2 (5 Feet)	SO	08/15/03 07:50	1	0	8		8260_Cs		
NOC03081905-05A	0308385-5A/B-16 (5 Inches)	SO	08/15/03 11:00	1	0	8		8260_Cs		
NOC03081905-06A	0308385-6A/B-16 (10 Feet)	SO	08/15/03 11:00	1	0	8		8260_Cs		
NOC03081905-07A	0308385-7A/B-13	AQ	08/15/03 09:20	3	0	8			8260_Cs	
NOC03081905-08A	0308385-8A/B-2	AQ	08/15/03 07:50	3	0	8			8260_Cs	
NOC03081905-09A	0308385-9A/B-16	AQ	08/15/03 11:00	3	0	8			8260_Cs	

Comments: Real and blue ice frozen, no security seals. CA/Sac samples. Include QC data. Report in PPB. :

	Signature	Print Name	Company	Date/Time
Received by:	Heidi Eskew	H. Eskew	Alpha Analytical, Inc.	8/19/03 10:50

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Page 1 of 1

NORTH COAST
LABORATORIES LTD.

Sub-Contract
Chain of Custody Record

Date Shipped: 8/18/03 **Carrier:** UPS

Air Bill #: ____________ **Cooler #:** ____________

Subcontractor:
Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5778

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to:
North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
	8/18/03 1530	Heidi Askew	8/19/03 10:50

Analysis Request

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:	
0308385-1A	B-13 (6")	8/15/03 9:20:00 AM	EPA 8260 List 9 Soil/Soil	NOC03081905-01
0308385-2A	B-13 (5')	8/15/03 9:20:00 AM	EPA 8260 List 9 Soil/Soil	-02
0308385-3A	B-2 (6")	8/15/03 7:50:00 AM	EPA 8260 List 9 Soil/Soil	-03
0308385-4A	B-2 (5')	8/15/03 7:50:00 AM	EPA 8260 List 9 Soil/Soil	-04
0308385-5A	B-16 (5")	8/15/03 11:00:00 AM	EPA 8260 List 9 Soil/Soil	-05
0308385-6A	B-16 (10')	8/15/03 11:00:00 AM	EPA 8260 List 9 Soil/Soil	-06
0308385-7A	B-13	8/15/03 9:20:00 AM	EPA 8260 List 9 Water	-07
0308385-8A	B-2	8/15/03 7:50:00 AM	EPA 8260 List 9 Water	-08
0308385-9A	B-16	8/15/03 11:00:00 AM	EPA 8260 List 9 Water	-09

Special Instructions: Please include QC Data. Report in ppb.

Date Due: 8/29/03 Rush Charges Authorized: NO Preservative: HCl

Return Chain of Custody to NCL

NORTH COAST LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. 1 of 1

0308385

LABORATORY NUMBER:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other: ______
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

Attention: Holly Vaduro
Results & Invoice to: Winzler + Kelly
Address: 633 Third St
Eureka, CA 95501
Phone: 443-8326
Copies of Report to: ______
Sampler (Sign & Print): ______

PROJECT INFORMATION

Project Number: 03142801.001
Project Name: BLFP
Purchase Order Number: ______

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE	CONTAINER	PCP + TCP	8260 Full	CAM 5
	B-13 (6")	8-15-03	9:20	Soil		2	X	X	X
	B-13 (5')		9:20			2	X	X	X
	B-2 (6")		7:50			2	X	X	X
	B-2 (5')		7:50			2	X	X	X
	B-13		9:20	Water		6	X	X	X
	B-2		7:50			6	X	X	X
	B-16 (5")		11:00	Soil		3	X	X	X
	B-16 (10')		11:00	Soil		1	X	X	X
	B-16		11:00	Water		6	X	X	X

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Carlos Acu	12:00 8-15-03		8/15/03 1201

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST
LABORATORIES LTD.

RECEIVED
AUG 15 2003
WK - EUREKA

August 14, 2003

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Attn: Holly T. Vadurro

RE: 03142801 001 BLFP Phase II Investigation

Order No.: 0308211
Invoice No.: 35903
PO No.:
ELAP No. 1247-Expires July 2004

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	B1 6"
02A	B1 2.6"
02B	B1 2.6"
03A	B6 6"
03B	B6 6"

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

entered

REPORT CERTIFIED BY

Laboratory Supervisor(s)

JKEdmundo
QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

North Coast Laboratories, Ltd. **Date:** *14-Aug-03*

CLIENT: Winzler and Kelly
Project: 03142801 001 BLFP Phase II Investigation
Lab Order: 0308211

CASE NARRATIVE

There were no exceptions to report with regards to the analyses performed.

Date: 14-Aug-03
WorkOrder: 0308211

ANALYTICAL REPORT

Client Sample ID: B1 6" **Received:** 8/8/03 **Collected:** 8/8/03 10:15
Lab ID: 0308211-01A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/10/03	8/11/03
Chromium	48	2.0	µg/g	1.0	8/10/03	8/11/03
Lead	12	10	µg/g	1.0	8/10/03	8/11/03
Nickel	73	5.0	µg/g	1.0	8/10/03	8/11/03
Zinc	58	5.0	µg/g	1.0	8/10/03	8/11/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/12/03	8/13/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/12/03	8/13/03
Surrogate: Dibromophenol	85.3	73.7-124	% Rec	1.0	8/12/03	8/13/03

Client Sample ID: B1 2.6" **Received:** 8/8/03 **Collected:** 8/8/03 12:30
Lab ID: 0308211-02A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/10/03	8/11/03
Chromium	43	2.0	µg/g	1.0	8/10/03	8/11/03
Lead	10	10	µg/g	1.0	8/10/03	8/11/03
Nickel	65	5.0	µg/g	1.0	8/10/03	8/11/03
Zinc	55	5.0	µg/g	1.0	8/10/03	8/11/03

Client Sample ID: B1 2.6" **Received:** 8/8/03 **Collected:** 8/8/03 12:30
Lab ID: 0308211-02B **Matrix:** Soil

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/12/03	8/13/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/12/03	8/13/03
Surrogate: Dibromophenol	94.4	73.7-124	% Rec	1.0	8/12/03	8/13/03

Date: 14-Aug-03
WorkOrder: 0308211

ANALYTICAL REPORT

Client Sample ID: B6 6"
Lab ID: 0308211-03A **Matrix:** Soil **Received:** 8/8/03 **Collected:** 8/8/03 13:30

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/10/03	8/11/03
Chromium	44	2.0	µg/g	1.0	8/10/03	8/11/03
Lead	ND	10	µg/g	1.0	8/10/03	8/11/03
Nickel	57	5.0	µg/g	1.0	8/10/03	8/11/03
Zinc	52	5.0	µg/g	1.0	8/10/03	8/11/03

Client Sample ID: B6 6"
Lab ID: 0308211-03B **Matrix:** Soil **Received:** 8/8/03 **Collected:** 8/8/03 13:30

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/12/03	8/13/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/12/03	8/13/03
Surrogate: Dibromophenol	99.7	73.7-124	% Rec	1.0	8/12/03	8/13/03

CLIENT: Winzler and Kelly
Work Order: 0308211
Project: 03142801 001 BLFP Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-9610P** Batch ID: **9610** Test Code: **6ICPS** Units: **µg/g** Analysis Date: **8/11/03 11:46:00 AM** Prep Date: **8/10/03**
Client ID: Run ID: **INICP1_030811A** SeqNo: **358686**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID: **MB-9628** Batch ID: **9628** Test Code: **PCPTS** Units: **µg/g** Analysis Date: **8/13/03 8:44:10 PM** Prep Date: **8/12/03**
Client ID: Run ID: **ORGC4_030813A** SeqNo: **359626**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	**5.34**	1.0	5.00	0	107%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 14-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308211
Project: 03142801 001 BLFP Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-9610P** Batch ID: **9610** Test Code: **6ICPS** Units: **µg/g** Analysis Date: **8/11/03 11:49:00 AM** Prep Date: **8/10/03**
Client ID: Run ID: **INICP1_030811A** SeqNo: **358687**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	109.7	2.0	100	0	110%	85	115	0			
Chromium	108.2	2.0	100	0	108%	85	115	0			
Lead	105.6	10	100	0	106%	85	115	0			
Nickel	105.2	5.0	100	0	105%	85	115	0			
Zinc	107.6	5.0	100	0	108%	85	115	0			

Sample ID: **LCS-9628** Batch ID: **9628** Test Code: **PCPTS** Units: **µg/g** Analysis Date: **8/13/03 9:06:15 PM** Prep Date: **8/12/03**
Client ID: Run ID: **ORGC4_030813A** SeqNo: **359627**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.338	1.0	5.00	0	86.8%	67	131	0			
Pentachlorophenol	3.897	1.0	5.00	0	77.9%	65	140	0			
Dibromophenol	4.93	1.0	5.00	0	98.6%	74	124	0			

Sample ID: **LCSD-9628** Batch ID: **9628** Test Code: **PCPTS** Units: **µg/g** Analysis Date: **8/13/03 9:28:15 PM** Prep Date: **8/12/03**
Client ID: Run ID: **ORGC4_030813A** SeqNo: **359628**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.433	1.0	5.00	0	88.7%	67	131	4.34	2.17%	15	
Pentachlorophenol	4.352	1.0	5.00	0	87.0%	65	140	3.90	11.0%	15	
Dibromophenol	4.96	1.0	5.00	0	99.3%	74	124	4.93	0.663%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

P. 1 of 1

NORTH COAST
LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☐ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

Attention:
Results & Invoice to:
Address:

Phone:
Copies of Report to:

Sampler (Sign & Print):

PROJECT INFORMATION

Project Number:
Project Name:
Purchase Order Number:

PRESERVATIVE

CONTAINER

ANALYSIS

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

altered

Alpha Analytical Number: NOC03081248-01A
Client I.D. Number: 0308224-1A/B1 6in.

Sampled: 08/08/03
Received: 08/12/03
Analyzed: 08/13/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/18/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081248-02A
Client I.D. Number: 0308224-2A/B1 2.6ft.

Sampled: 08/08/03
Received: 08/12/03
Analyzed: 08/13/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/18/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081248-03A
Client I.D. Number: 0308224-3A/B6 6in.

Sampled: 08/08/03
Received: 08/12/03
Analyzed: 08/13/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/18/03
Report Date

Date: *18-Aug-03*

QC Summary Report

Work Order: 03081248

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030812\03081222.D** Batch ID: **MS12S0812A** Analysis Date: **08/12/2003 15:01**
Sample ID: **MBLK MS12S0812A** Units : **µg/Kg** Run ID: **GC/MSD_12_030812A** Prep Date: **08/12/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030812\03081225.D** Batch ID: **MS12S0812A** Analysis Date: **08/12/2003 16:04**
Sample ID: **LCS MS12S0812A** Units : **µg/Kg** Run ID: **GC/MSD_12_030812A** Prep Date: **08/12/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	257	20	200		129	0	147			
Benzene	215	5	200		107	60	142			
Trichloroethene	225	20	200		112	60	142			
Toluene	211	5	200		105	58	143			
Chlorobenzene	217	20	200		108	57	144			
Ethylbenzene	226	5	200		113	58	147			
m,p-Xylene	466	5	400		117	57	147			
o-Xylene	235	5	200		118	58	149			

Comments:
ND - Not Detected at the Reporting Limit.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
S - Spike Recovery outside accepted recovery limits.
M - Spike Recovery outside accepted recovery limits due to matrix.
B - Analyte detected in the associated Method Blank.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page:
1 of 1

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : NOC03081248

Report Due By : 5:00 PM On : 19-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

EDD Required : No

Sampled by : Client

Job :

PO :

Report Attention : Loretta Tomlin

CC Report :

Client's COC # : none

Cooler Temp : 4 °C

12-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests voc_s		Sample Remarks
NOC03081248-01A	0308224-1A/B1 6in.	SO	08/08/03 10:15	1	0	5		8260_Cs		
NOC03081248-02A	0308224-2A/B1 2.6ft.	SO	08/08/03 12:30	1	0	5		8260_Cs		
NOC03081248-03A	0308224-3A/B6 6in.	SO	08/08/03 13:30	1	0	5		8260_Cs		

Comments: No custody seal. Frozen ice & frozen blue ice. CA samples. Please include QC data. Please fax results ASAP-due in one week. :

	Signature	Print Name	Company	Date/Time
Received by:		D. Balcen	Alpha Analytical, Inc.	8/12/03 [illegible]

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Page 1 of 1

NORTH COAST LABORATORIES LTD.

Sub-Contract
Chain of Custody Record

Date Shipped: 8/11/03 **Carrier:** ups

Air Bill #: ______ **Cooler #:** ______

Subcontractor:
Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5778

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to:
North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
	8/11/03 1530	DSBaker	8/12/03 1330

Analysis Request NCL03081248

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:
0308224-1A	B1 6"	8/8/03 10:15:00 AM	EPA 8260 List 9 Soil/Soil -01
0308224-2A	B1 2.6'	8/8/03 12:30:00 PM	EPA 8260 List 9 Soil/Soil -02
0308224-3A	B6 6"	8/8/03 1:30:00 PM	EPA 8260 List 9 Soil/Soil -03

Special Instructions: Please include QC Data. PLEASE FAX RESULTS ASAP!!

8/19/03 ✓ Due - 1 week !

Date Due: ~~[illegible]~~ Rush Charges Authorized: yes Preservative: None

Return Chain of Custody to NCL

P. 1 of 1

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 0308224

Attention: Winzler Kelly
Results & Invoice to: Holly V.
Address: 633 Third St
Eureka, CA 95501
Phone: 0 443-8326
Copies of Report to: Holly V.
Holly Vadurro
Sampler (Sign & Print): Holly Vadurro

PROJECT INFORMATION

Project Number: 03142901 001
Project Name: BLFP Phase II Investigation
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☒ 5–7 Day
☐ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

					PRESERVATIVE	none	|	|
					CONTAINER	11	13	13
LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS	CAM5	EPA 8260	PCP/TCP
	B1 6"	8/9/03	1015	soil	2 3	X	X	X
	B1 2.6'	8/9/03	1230	soil	3	X	X	X
	B6 6"	8/9/03	1330	soil	3	X	X	X

adlout (AM) 8/8/03

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
sampled on 8/8/03
Cold & Intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Holly Vadurro	8/8/03 1415 HV	Amanda Bast 8/8/03	14:15

SAMPLE DISPOSAL
☒ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus [✓ Hand]

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST
LABORATORIES LTD.

August 21, 2003

RECEIVED
AUG 22 2003
WK - EUREKA

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Attn: Pat Kaspari

RE: 03142801.001, Blue Lake Forest Products

Order No.: 0308348
Invoice No.: 36065
PO No.:
ELAP No. 1247-Expires July 2004

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	*B-3 (6")
02A	*B-3 (4.5')
03A	B-6 (2.5')
04A	B-8 (6")
05A	B-3 (6")
06A	B-5 (6")
07A	B-7 (6")
08A	B-7 (3.5')
09A	B-15 (6")
10A	B-10 (6")
11A	B-9 (6")
12A	B-9 (2')
13A	B-15 (3')

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

Entered

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

5680 West End Road • Arcata California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 21-Aug-03
WorkOrder: 0308348

ANALYTICAL REPORT

Client Sample ID: *B-3 (6") **Received:** 8/14/03 **Collected:** 8/11/03 15:18

Lab ID: 0308348-01A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	32	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	28	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	43	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Surrogate: Dibromophenol	95.8	73.7-124	% Rec	1.0	8/14/03	8/15/03

Client Sample ID: *B-3 (4.5') **Received:** 8/14/03 **Collected:** 8/11/03 15:45

Lab ID: 0308348-02A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	96	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	23	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	19	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Surrogate: Dibromophenol	96.4	73.7-124	% Rec	1.0	8/14/03	8/15/03

Date: 21-Aug-03
WorkOrder: 0308348

ANALYTICAL REPORT

Client Sample ID: B-6 (2.5') **Received:** 8/14/03 **Collected:** 8/11/03 11:30
Lab ID: 0308348-03A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	41	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	51	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	49	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Surrogate: Dibromophenol	94.9	73.7-124	% Rec	1.0	8/14/03	8/15/03

Client Sample ID: B-8 (6") **Received:** 8/14/03 **Collected:** 8/11/03 10:41
Lab ID: 0308348-04A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	36	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	11	10	µg/g	1.0	8/17/03	8/18/03
Nickel	46	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	47	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Surrogate: Dibromophenol	95.9	73.7-124	% Rec	1.0	8/14/03	8/15/03

Client Sample ID: B-3 (6") **Received:** 8/14/03 **Collected:** 8/11/03 13:10
Lab ID: 0308348-05A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	41	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	14	10	µg/g	1.0	8/17/03	8/18/03
Nickel	54	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	61	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/14/03	8/15/03
Surrogate: Dibromophenol	94.4	73.7-124	% Rec	1.0	8/14/03	8/15/03

Client Sample ID: B-5 (6") **Received:** 8/14/03 **Collected:** 8/12/03 15:30
Lab ID: 0308348-06A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	35	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	15	10	µg/g	1.0	8/17/03	8/18/03
Nickel	39	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	65	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	94.7	73.7-124	% Rec	1.0	8/15/03	8/18/03

Date: 21-Aug-03
WorkOrder: 0308348

ANALYTICAL REPORT

Client Sample ID: B-7 (6") **Received:** 8/14/03 **Collected:** 8/12/03 12:30

Lab ID: 0308348-07A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	8.3	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	8.6	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	16	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	89.8	73.7-124	% Rec	1.0	8/15/03	8/18/03

Client Sample ID: B-7 (3.5') **Received:** 8/14/03 **Collected:** 8/12/03 14:18

Lab ID: 0308348-08A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	47	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	10	10	µg/g	1.0	8/17/03	8/18/03
Nickel	45	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	95	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	90.3	73.7-124	% Rec	1.0	8/15/03	8/18/03

ANALYTICAL REPORT

Client Sample ID: B-15 (6") **Received:** 8/14/03 **Collected:** 8/12/03 10:45

Lab ID: 0308348-09A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	44	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	44	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	62	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	54	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	95.6	73.7-124	% Rec	1.0	8/15/03	8/19/03

Client Sample ID: B-10 (6") **Received:** 8/14/03 **Collected:** 8/13/03 11:45

Lab ID: 0308348-10A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	47	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	53	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	54	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	75.9	73.7-124	% Rec	1.0	8/15/03	8/19/03

ANALYTICAL REPORT

Client Sample ID: B-9 (6") **Received:** 8/14/03 **Collected:** 8/13/03 10:15

Lab ID: 0308348-11A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	38	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	11	10	µg/g	1.0	8/17/03	8/18/03
Nickel	43	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	51	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	92.9	73.7-124	% Rec	1.0	8/15/03	8/19/03

Client Sample ID: B-9 (2') **Received:** 8/14/03 **Collected:** 8/13/03 10:45

Lab ID: 0308348-12A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	38	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	44	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	49	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	92.1	73.7-124	% Rec	1.0	8/15/03	8/19/03

Date: 21-Aug-03
WorkOrder: 0308348

ANALYTICAL REPORT

Client Sample ID: B-15 (3') **Received:** 8/14/03 **Collected:** 8/12/03 12:00
Lab ID: 0308348-13A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	24	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	26	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	31	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	92.3	73.7-124	% Rec	1.0	8/15/03	8/19/03

CLIENT: Winzler and Kelly
Work Order: 0308348
Project: 03142801.001, Blue Lake Forest Products

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9657P** Batch ID: **9657** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/18/03 11:25:00 AM** Prep Date **8/17/03**
Client ID: Run ID: **INICP1_030818B** SeqNo: **360796**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID **MB-9648** Batch ID: **9648** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/15/03 11:03:30 AM** Prep Date **8/14/03**
Client ID: Run ID: **ORGC4_030815A** SeqNo: **360267**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	4.94	1.0	5.00	0	98.8%	74	124	0			

Sample ID **MB-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/18/03 8:07:23 PM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360965**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	5.04	1.0	5.00	0	101%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 21-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308348
Project: 03142801.001, Blue Lake Forest Products

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-9657P** Batch ID: **9657** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/18/03 11:29:00 AM** Prep Date **8/17/03**
Client ID: Run ID: **INICP1_030818B** SeqNo: **360797**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	109.1	2.0	100	0	109%	85	115	0			
Chromium	105.9	2.0	100	0	106%	85	115	0			
Lead	106.9	10	100	0	107%	85	115	0			
Nickel	108.5	5.0	100	0	108%	85	115	0			
Zinc	105.6	5.0	100	0	106%	85	115	0			

Sample ID **LCS-9648** Batch ID: **9648** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/15/03 11:25:29 AM** Prep Date **8/14/03**
Client ID: Run ID: **ORGC4_030815A** SeqNo: **360268**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.222	1.0	5.00	0	84.4%	67	131	0			
Pentachlorophenol	4.240	1.0	5.00	0	84.8%	65	140	0			
Dibromophenol	4.73	1.0	5.00	0	94.7%	74	124	0			

Sample ID **LCSD-9648** Batch ID: **9648** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/15/03 11:47:29 AM** Prep Date **8/14/03**
Client ID: Run ID: **ORGC4_030815A** SeqNo: **360269**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.251	1.0	5.00	0	85.0%	67	131	4.22	0.676%	15	
Pentachlorophenol	3.868	1.0	5.00	0	77.4%	65	140	4.24	9.19%	15	
Dibromophenol	4.85	1.0	5.00	0	96.9%	74	124	4.73	2.39%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308348
Project: 03142801.001, Blue Lake Forest Products

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/18/03 8:30:00 PM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360966**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.386	1.0	5.00	0	87.7%	67	131	0			
Pentachlorophenol	4.079	1.0	5.00	0	81.6%	65	140	0			
Dibromophenol	4.57	1.0	5.00	0	91.4%	74	124	0			

Sample ID **LCSD-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/18/03 8:52:41 PM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360967**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.341	1.0	5.00	0	86.8%	67	131	4.39	1.04%	15	
Pentachlorophenol	4.080	1.0	5.00	0	81.6%	65	140	4.08	0.0254%	15	
Dibromophenol	4.50	1.0	5.00	0	90.1%	74	124	4.57	1.48%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

P. 1 of 2

NORTH COAST
LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 0308348

Attention: Pat Kaspari
Results & Invoice to: Winzler + Kelly
Address: 633 Third st
Eureka, CA 95501
Phone: 443-8326
Copies of Report to:
Sampler (Sign & Print): C. Acu

PROJECT INFORMATION
Project Number: 03142801.001
Project Name: Blue Lake Forest Products
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☐ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: / /
Final Report: FAX ☐ Verbal ☐ By: / /

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CONTAINER	Pentachlorophenol + Tetrachloro-	Phenol by Canadian Pulp Method	Volatile organics (full list) 8260	CAM 5 metals (Cd, Cr, Ni, Pb, Zn) by 200.7 + 200.9
	*B-3 (6")	8-11-03	3:18	Soil	2	X	X	X	X
	*B-3 (4.5')		3:45			X	X	X	X
	B-6 (2.5')		11:30			X	X	X	X
	B-8 (6")		10:41			X	X	X	X
	B-3 (6")		1:10			X	X	X	X
	B-5 (6")	8-12-03	3:30			X	X	X	X
	B-7 (6")		12:30		3	X	X	X	X
	B-7 (3.5')		2:18		2	X	X	X	X
	B-15 (6")		10:45		3	X	X	X	X
	B-15 (3')	8/12/03	12:00						

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

also rec'd
B-15 3' @ 12:00
- added per CA to KT

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Carlos Acu	8-14-03		8/14/03 0940

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. 2 of 2

LABORATORY NUMBER: 0308348

Attention: Pat Kaspari
Results & Invoice to: Winzler + Kelly
Address: 633 Third St.
Eureka, CA 95501
Phone: 443-8326
Copies of Report to:

Sampler (Sign & Print): C. Acu

PROJECT INFORMATION
Project Number: 03142801.001
Project Name: Blue Lake Forest Products
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5-7 Day
☐ STD (2-3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: / /
Final Report: FAX ☐ Verbal ☐ By: / /

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE	CONTAINER	PCP + TCP by canadian pulp method	Volatile organics (full list) 8260	CAM 5 metals (Cd, Cr, Ni, Pb, Zn) by 200.7 + 200.9
	B-10 (6")	8-13-03	11:45	Soil		2	X	X	X
	B-9 (6")	↓	10:15	↓		↓	X	X	X
	B-9 (2')	↓	10:45	↓		↓	X	X	X

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Carlos Acu	9:40 8-14-03	K. Thompson	8/14/03 0940

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA ☐
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus [✓ Hand]

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-01A
Client I.D. Number: 0308358-1A/ *B-3 (6in.)

Sampled: 08/11/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	160 µg/Kg
2	Vinyl chloride	ND	40 µg/Kg
3	Chloroethane	ND	40 µg/Kg
4	Bromomethane	ND	40 µg/Kg
5	Trichlorofluoromethane	ND	40 µg/Kg
6	1,1-Dichloroethene	ND	40 µg/Kg
7	Dichloromethane	ND	160 µg/Kg
8	trans-1,2-Dichloroethene	ND	40 µg/Kg
9	1,1-Dichloroethane	ND	40 µg/Kg
10	cis-1,2-Dichloroethene	ND	40 µg/Kg
11	Chloroform	ND	40 µg/Kg
12	1,2-Dichloroethane	ND	40 µg/Kg
13	1,1,1-Trichloroethane	ND	40 µg/Kg
14	Carbon tetrachloride	ND	40 µg/Kg
15	Benzene	ND	20 µg/Kg
16	1,2-Dichloropropane	ND	40 µg/Kg
17	Trichloroethene	ND	40 µg/Kg
18	Bromodichloromethane	ND	40 µg/Kg
19	cis-1,3-Dichloropropene	ND	40 µg/Kg
20	trans-1,3-Dichloropropene	ND	40 µg/Kg
21	1,1,2-Trichloroethane	ND	40 µg/Kg
22	Toluene	ND	20 µg/Kg
23	Dibromochloromethane	ND	40 µg/Kg
24	Tetrachloroethene	ND	40 µg/Kg
25	Chlorobenzene	ND	40 µg/Kg
26	Ethylbenzene	ND	20 µg/Kg
27	m,p-Xylene	ND	20 µg/Kg
28	Bromoform	ND	40 µg/Kg
29	o-Xylene	ND	20 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	40 µg/Kg
31	1,3-Dichlorobenzene	ND	40 µg/Kg
32	1,4-Dichlorobenzene	ND	40 µg/Kg
33	1,2-Dichlorobenzene	ND	40 µg/Kg

Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/27/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-02A
Client I.D. Number: 0308358-2A/ *B-3 (4.5ft.)

Sampled: 08/11/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-03A
Client I.D. Number: 0308358-3A/ B-6 (2.5ft.)

Sampled: 08/11/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	7.4	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	6.7	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-04A
Client I.D. Number: 0308358-4A/ B-8 (6in.)

Sampled: 08/11/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	160 µg/Kg
2	Vinyl chloride	ND	40 µg/Kg
3	Chloroethane	ND	40 µg/Kg
4	Bromomethane	ND	40 µg/Kg
5	Trichlorofluoromethane	ND	40 µg/Kg
6	1,1-Dichloroethene	ND	40 µg/Kg
7	Dichloromethane	ND	160 µg/Kg
8	trans-1,2-Dichloroethene	ND	40 µg/Kg
9	1,1-Dichloroethane	ND	40 µg/Kg
10	cis-1,2-Dichloroethene	ND	40 µg/Kg
11	Chloroform	ND	40 µg/Kg
12	1,2-Dichloroethane	ND	40 µg/Kg
13	1,1,1-Trichloroethane	ND	40 µg/Kg
14	Carbon tetrachloride	ND	40 µg/Kg
15	Benzene	ND	20 µg/Kg
16	1,2-Dichloropropane	ND	40 µg/Kg
17	Trichloroethene	ND	40 µg/Kg
18	Bromodichloromethane	ND	40 µg/Kg
19	cis-1,3-Dichloropropene	ND	40 µg/Kg
20	trans-1,3-Dichloropropene	ND	40 µg/Kg
21	1,1,2-Trichloroethane	ND	40 µg/Kg
22	Toluene	ND	20 µg/Kg
23	Dibromochloromethane	ND	40 µg/Kg
24	Tetrachloroethene	ND	40 µg/Kg
25	Chlorobenzene	ND	40 µg/Kg
26	Ethylbenzene	ND	20 µg/Kg
27	m,p-Xylene	ND	20 µg/Kg
28	Bromoform	ND	40 µg/Kg
29	o-Xylene	ND	20 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	40 µg/Kg
31	1,3-Dichlorobenzene	ND	40 µg/Kg
32	1,4-Dichlorobenzene	ND	40 µg/Kg
33	1,2-Dichlorobenzene	ND	40 µg/Kg

Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

8/27/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-05A
Client I.D. Number: 0308358-5A/ B-3 (6in.)

Sampled: 08/11/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	13	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg

	Compound	Concentration	Reporting Limit
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-06A
Client I.D. Number: 0308358-6A/ B-5 (6in.)

Sampled: 08/12/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/27/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-07A
Client I.D. Number: 0308358-7A/ B-7 (6in.)

Sampled: 08/12/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	320 µg/Kg
2	Vinyl chloride	ND	80 µg/Kg
3	Chloroethane	ND	80 µg/Kg
4	Bromomethane	ND	80 µg/Kg
5	Trichlorofluoromethane	ND	80 µg/Kg
6	1,1-Dichloroethene	ND	80 µg/Kg
7	Dichloromethane	ND	320 µg/Kg
8	trans-1,2-Dichloroethene	ND	80 µg/Kg
9	1,1-Dichloroethane	ND	80 µg/Kg
10	cis-1,2-Dichloroethene	ND	80 µg/Kg
11	Chloroform	ND	80 µg/Kg
12	1,2-Dichloroethane	ND	80 µg/Kg
13	1,1,1-Trichloroethane	ND	80 µg/Kg
14	Carbon tetrachloride	ND	80 µg/Kg
15	Benzene	ND	40 µg/Kg
16	1,2-Dichloropropane	ND	80 µg/Kg
17	Trichloroethene	ND	80 µg/Kg
18	Bromodichloromethane	ND	80 µg/Kg
19	cis-1,3-Dichloropropene	ND	80 µg/Kg
20	trans-1,3-Dichloropropene	ND	80 µg/Kg
21	1,1,2-Trichloroethane	ND	80 µg/Kg
22	Toluene	1,100	40 µg/Kg
23	Dibromochloromethane	ND	80 µg/Kg
24	Tetrachloroethene	ND	80 µg/Kg
25	Chlorobenzene	ND	80 µg/Kg
26	Ethylbenzene	58	40 µg/Kg
27	m,p-Xylene	ND	40 µg/Kg
28	Bromoform	ND	80 µg/Kg
29	o-Xylene	ND	40 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	80 µg/Kg
31	1,3-Dichlorobenzene	ND	80 µg/Kg
32	1,4-Dichlorobenzene	ND	80 µg/Kg
33	1,2-Dichlorobenzene	ND	80 µg/Kg

Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-08A
Client I.D. Number: 0308358-8A/ B-7 (3.5ft.)

Sampled: 08/12/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	11	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.

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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-09A
Client I.D. Number: 0308358-9A/ B-15 (6in.)

Sampled: 08/12/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	10	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-10A
Client I.D. Number: 0308358-10A/ B-10 (6in.)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.

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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-11A
Client I.D. Number: 0308358-11A/ B-9 (6in.)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

8/27/03
Report Date

Alpha Analytical, Inc.
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-12A
Client I.D. Number: 0308358-12A/ B-9 (2ft.)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.

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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081528-13A
Client I.D. Number: 0308358-13A/ B-15 (3ft.)

Sampled: 08/12/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	400 µg/Kg
2	Vinyl chloride	ND	100 µg/Kg
3	Chloroethane	ND	100 µg/Kg
4	Bromomethane	ND	100 µg/Kg
5	Trichlorofluoromethane	ND	100 µg/Kg
6	1,1-Dichloroethene	ND	100 µg/Kg
7	Dichloromethane	ND	400 µg/Kg
8	trans-1,2-Dichloroethene	ND	100 µg/Kg
9	1,1-Dichloroethane	ND	100 µg/Kg
10	cis-1,2-Dichloroethene	ND	100 µg/Kg
11	Chloroform	ND	100 µg/Kg
12	1,2-Dichloroethane	ND	100 µg/Kg
13	1,1,1-Trichloroethane	ND	100 µg/Kg
14	Carbon tetrachloride	ND	100 µg/Kg
15	Benzene	ND	50 µg/Kg
16	1,2-Dichloropropane	ND	100 µg/Kg
17	Trichloroethene	ND	100 µg/Kg
18	Bromodichloromethane	ND	100 µg/Kg
19	cis-1,3-Dichloropropene	ND	100 µg/Kg
20	trans-1,3-Dichloropropene	ND	100 µg/Kg
21	1,1,2-Trichloroethane	ND	100 µg/Kg
22	Toluene	110	50 µg/Kg
23	Dibromochloromethane	ND	100 µg/Kg
24	Tetrachloroethene	ND	100 µg/Kg
25	Chlorobenzene	ND	100 µg/Kg
26	Ethylbenzene	ND	50 µg/Kg
27	m,p-Xylene	ND	50 µg/Kg
28	Bromoform	ND	100 µg/Kg
29	o-Xylene	ND	50 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	100 µg/Kg
31	1,3-Dichlorobenzene	ND	100 µg/Kg
32	1,4-Dichlorobenzene	ND	100 µg/Kg
33	1,2-Dichlorobenzene	ND	100 µg/Kg

Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Date:
27-Aug-03

QC Summary Report

Work Order:
03081528

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\HPCHEM\MS09\DATA\030818\03081838.D** Batch ID: **MS9S0818A** Analysis Date: **08/18/2003 23:32**
Sample ID: **MBLK MS9S0818A** Units : **µg/Kg** Run ID: **GC/MSD_9_030818B** Prep Date: **08/18/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\HPCHEM\MS09\DATA\030818\03081839.D** Batch ID: **MS9S0818A** Analysis Date: **08/18/2003 23:57**
Sample ID: **LCS MS9S0818A** Units : **µg/Kg** Run ID: **GC/MSD_9_030818B** Prep Date: **08/18/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	43.8	20	200		22	0	147			
Benzene	203	5	200		101	60	142			
Trichloroethene	227	20	200		113	60	142			
Toluene	203	5	200		101	58	143			
Chlorobenzene	206	20	200		103	57	144			
Ethylbenzene	202	5	200		101	58	147			
m,p-Xylene	422	5	400		105	57	147			
o-Xylene	212	5	200		106	58	149			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

CA

Page:
1 of 2

WorkOrder : NOC03081528

Report Due By : 5:00 PM On : 28-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

Report Attention : Loretta Tomlin
CC Report :

Job :
PO :

Client's COC # : none

EDD Required : No
Sampled by : Client
Cooler Temp : 4 °C

15-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	No. of Bottles SUB	TAT	PWS #	Requested Tests VOC_S	Sample Remarks
NOC03081528-01A	0308358-1A/ *B-3 (6in.)	SO	08/11/03 15:18	1	0	9		8260_Cs	
NOC03081528-02A	0308358-2A/ *B-3 (4.5ft.)	SO	08/11/03 15:45	1	0	9		8260_Cs	
NOC03081528-03A	0308358-3A/ B-6 (2.5ft.)	SO	08/11/03 11:30	1	0	9		8260_Cs	
NOC03081528-04A	0308358-4A/ B-8 (6in.)	SO	08/11/03 10:41	1	0	9		8260_Cs	
NOC03081528-05A	0308358-5A/ B-3 (6in.)	SO	08/11/03 13:10	1	0	9		8260_Cs	
NOC03081528-06A	0308358-6A/ B-5 (6in.)	SO	08/12/03 15:30	1	0	9		8260_Cs	
NOC03081528-07A	0308358-7A/ B-7 (6in.)	SO	08/12/03 12:30	1	0	9		8260_Cs	
NOC03081528-08A	0308358-8A/ B-7 (3.5ft.)	SO	08/12/03 14:18	1	0	9		8260_Cs	
NOC03081528-09A	0308358-9A/ B-15 (6in.)	SO	08/12/03 10:45	1	0	9		8260_Cs	
NOC03081528-10A	0308358-10A/ B-10 (6in.)	SO	08/13/03 11:45	1	0	9		8260_Cs	

Comments: No security seals intact, ice bottles and blue ice frozen. California samples. Please include QC Data. Report in ppb. :

	Signature	Print Name	Company	Date/Time
Received by:	Graciela Navarrete	G. Navarrete	Alpha Analytical, Inc.	8/15/03 3:10

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page:
2 of 2

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : NOC03081528

Report Due By : 5:00 PM On : 28-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

EDD Required : No

Sampled by : Client

Report Attention : Loretta Tomlin
CC Report :

Job :
PO :

Client's COC # : none

Cooler Temp : 4 °C

15-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests VOC_S	Sample Remarks
NOC03081528-11A	0308358-11A/ B-9 (6in.)	SO	08/13/03 10:15	1	0	9		8260_Cs	
NOC03081528-12A	0308358-12A/ B-9 (2ft.)	SO	08/13/03 10:45	1	0	9		8260_Cs	
NOC03081528-13A	0308358-13A/ B-15 (3ft.)	SO	08/12/03 12:00	1	0	9		8260_Cs	

Comments: No security seals intact, ice bottles and blue ice frozen. California samples. Please include QC Data. Report in ppb. :

	Signature	Print Name	Company	Date/Time
Received by:	Graciela Navarrete	G. Navarrete	Alpha Analytical, Inc.	8/15/03 @ 3:10

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Page 1 of 1

Sub-Contract
Chain of Custody Record

NORTH COAST LABORATORIES LTD.

Date Shipped: 8/14/03 **Carrier:** ups

Air Bill #: ____________ **Cooler #:** ____________

Subcontractor: Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5778

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to: North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

CA
9 day

03081528

	8/14/03 1530	Graciela Navarrete	8/15/03 @ 3:k
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time

Analysis Request

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:
0308358-1A	*B-3 (6")	8/11/03 3:18:00 PM	EPA 8260 List 9 Soil/Soil
0308358-2A	*B-3 (4.5')	8/11/03 3:45:00 PM	EPA 8260 List 9 Soil/Soil
0308358-3A	B-6 (2.5')	8/11/03 11:30:00 AM	EPA 8260 List 9 Soil/Soil
0308358-4A	B-8 (6")	8/11/03 10:41:00 AM	EPA 8260 List 9 Soil/Soil
0308358-5A	B-3 (6")	8/11/03 1:10:00 PM	EPA 8260 List 9 Soil/Soil
0308358-6A	B-5 (6")	8/12/03 3:30:00 PM	EPA 8260 List 9 Soil/Soil
0308358-7A	B-7 (6")	8/12/03 12:30:00 PM	EPA 8260 List 9 Soil/Soil
0308358-8A	B-7 (3.5')	8/12/03 2:18:00 PM	EPA 8260 List 9 Soil/Soil
0308358-9A	B-15 (6")	8/12/03 10:45:00 AM	EPA 8260 List 9 Soil/Soil
0308358-10A	B-10 (6")	8/13/03 11:45:00 AM	EPA 8260 List 9 Soil/Soil
0308358-11A	B-9 (6")	8/13/03 10:15:00 AM	EPA 8260 List 9 Soil/Soil
0308358-12A	B-9 (2')	8/13/03 10:45:00 AM	EPA 8260 List 9 Soil/Soil
0308358-13A	B-15 (3')	8/12/03 12:00	"

Special **Instructions:** Please include QC Data. Report in ppb.

Date Due: 8/28/03 Rush Charges Authorized: NC Preservative: ____________

Return Chain of Custody to NCL

Printed on Recycled Paper

NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. 2 of 2

LABORATORY NUMBER: 03083558

Attention: Pat Kaspari
Results & Invoice to: Winzler + Kelly
Address: 633 Third St
Eureka CA 95501
Phone: 443-8326
Copies of Report to:

Sampler (Sign & Print): C. Acu

PROJECT INFORMATION

Project Number: 03142801-001
Project Name: Blue Lake Forest Products
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day ☐ STD (2–3 Wk) ☐ Other:

PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: PCP + TeCP by Canadian pulp method	Volatile organics (soil/list) 8260	CAM 5 metals (Cd, Cr, Ni, Pb)	Di.) by 7199 + 2009
PRESERVATIVE								
CONTAINER								
	B-10 (6")	8-15-03	11:45	Soil	X	X	X	
	B-9 (6")	↓	10:15	↓	X	X	X	
	B-9 (3')	↓	10:45	↓	X	X	X	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
C. Acu	8/14/03	K. Thompson	8/14/03

SAMPLE DISPOSAL
NCL Disposal of Non-Contaminated
Return Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus [✓ Hand]

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. 1 of 2

LABORATORY NUMBER: 0308358

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☑ 5–7 Day
☐ STD (2–3 Wk) ☐ Other: ______
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

Attention: Pat Kaspari
Results & Invoice to: Winzler + Kelly
Address: 633 Third St
Eureka CA 95501
Phone: 443-8326
Copies of Report to: ______
Sampler (Sign & Print): C. Acu

PROJECT INFORMATION
Project Number: 03142801.001
Project Name: Blue Lake Forest Products
Purchase Order Number: ______

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: Pentachlorophenol + Tetrachlorophenol by Canadian Pulp Method	Volatile Organics (full list) 8260	CAM 5 metals (Cd, Cr, Ni, Pb, Zn) by 200.7 + 200.9
	*B-2 (6")	8-11-03	7:18	Soil	X X	X	X
	*B-2 (4.5')	↓	7:45	↓	X X	X	X
	B-6 (2.5')	↓	11:30	↓	X X	X	X
	B-8 (6")	↓	10:41	↓	X X	X	X
	B-3 (6")	↓	1:10	↓	X X	X	X
	B-5 (6")	8-12-03	3:30	↓	X X	X	X
	B-7 (6")	↓	12:36	↓	X X	X	X
	B-7 (3.5')	↓	2:18	↓	X X	X	X
	B-15 (6")	↓	10:45	↓	X X	X	X
	B-15 (3")	8/12/03	12:00				

PRESERVATIVE: ______
CONTAINER: ______

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[illegible]	8-14-03	K Thompson	8/14/03 [illegible]

SAMPLE DISPOSAL
NCL Disposal of Non-Contaminated
Return Pickup

CHAIN OF CUSTODY SEALS Y/N/NA ☐
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST
LABORATORIES LTD.

August 25, 2003

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Order No.: 0308322
Invoice No.: 36124
PO No.:
ELAP No. 1247-Expires July 2004

Attn: Holly T. Vadurro

RE: 03142801 001, BLFP Phase II Investigation

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	B11 (5')
02A	B11 (6")
03A	B11
03B	B11

ND = Not Detected at the Reporting Limit
Limit = Reporting Limit
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

5680 West End Road • Arcata California 95521-9202 • 707-822-4649 • FAX 707-822-6831

CLIENT: Winzler and Kelly
Project: 03142801 001, BLFP Phase II Investigation
Lab Order: 0308322

CASE NARRATIVE

PCP/TCP:
Due to a laboratory error, sample B11 was extracted 1 day outside of the holding time.

EPA 200.7:
The laboratory control sample (LCS) recovery was slightly above the upper acceptance limit for zinc. This recovery indicates that the sample results may be slightly higher than the actual amount in the samples.

Date: 25-Aug-03
WorkOrder: 0308322

ANALYTICAL REPORT

Client Sample ID: B11 (5') **Received:** 8/13/03 **Collected:** 8/13/03 11:00
Lab ID: 0308322-01A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	150	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	150	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	89	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	91.1	73.7-124	% Rec	1.0	8/15/03	8/18/03

Client Sample ID: B11 (6") **Received:** 8/13/03 **Collected:** 8/13/03 11:00
Lab ID: 0308322-02A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/17/03	8/18/03
Chromium	45	2.0	µg/g	1.0	8/17/03	8/18/03
Lead	ND	10	µg/g	1.0	8/17/03	8/18/03
Nickel	64	5.0	µg/g	1.0	8/17/03	8/18/03
Zinc	63	5.0	µg/g	1.0	8/17/03	8/18/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	93.1	73.7-124	% Rec	1.0	8/15/03	8/18/03

Client Sample ID: B11 **Received:** 8/13/03 **Collected:** 8/13/03 11:00
Lab ID: 0308322-03A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	107	69.7-119	% Rec	1.0	8/21/03	8/22/03

Date: 25-Aug-03
WorkOrder: 0308322

ANALYTICAL REPORT

Client Sample ID: B11 **Received:** 8/13/03 **Collected:** 8/13/03 11:00
Lab ID: 0308322-03B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/14/03	8/15/03
Chromium	180	10	µg/L	1.0	8/14/03	8/15/03
Nickel	210	20	µg/L	1.0	8/14/03	8/15/03
Zinc	190	20	µg/L	1.0	8/14/03	8/15/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	21	10	µg/L	1.0	8/14/03	8/22/03

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308322
Project: 03142801 001, BLFP Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-9657P** Batch ID: **9657** Test Code: **6ICPS** Units: **µg/g** Analysis Date: **8/18/03 11:25:00 AM** Prep Date: **8/17/03**
Client ID: Run ID: **INICP1_030818B** SeqNo: **360796**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID: **MB-9641P** Batch ID: **9641** Test Code: **ICPX** Units: **µg/L** Analysis Date: **8/15/03 11:15:00 AM** Prep Date: **8/14/03**
Client ID: Run ID: **INICP1_030815A** SeqNo: **360003**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	10									
Chromium	ND	10									
Nickel	ND	20									
Zinc	ND	20									

Sample ID: **MB-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date: **8/19/03 9:57:00 PM** Prep Date: **8/14/03**
Client ID: Run ID: **INAA2_030819C** SeqNo: **361386**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10									

Sample ID: **MB-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date: **8/22/03** Prep Date: **8/14/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362144**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308322
Project: 03142801 001, BLFP Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-9655**	Batch ID: **9655**	Test Code: **PCPTS**	Units: **µg/g**	Analysis Date: **8/18/03 8:07:23 PM**	Prep Date: **8/15/03**
Client ID:		Run ID: **ORGC4_030818A**		SeqNo: **360965**	

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	5.04	1.0	5.00	0	101%	74	124	0			

Sample ID: **MB-9691**	Batch ID: **9691**	Test Code: **PCPTW**	Units: **µg/L**	Analysis Date: **8/22/03 2:21:08 PM**	Prep Date: **8/21/03**
Client ID:		Run ID: **ORGC4_030822C**		SeqNo: **362064**	

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	0.30									
Dibromophenol	5.42	0.10	5.00	0	108%	70	119	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308322
Project: 03142801 001, BLFP Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-9657P** Batch ID: **9657** Test Code: **6ICPS** Units: **µg/g** Analysis Date: **8/18/03 11:29:00 AM** Prep Date: **8/17/03**
Client ID: Run ID: **INICP1_030818B** SeqNo: **360797**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	109.1	2.0	100	0	109%	85	115	0			
Chromium	105.9	2.0	100	0	106%	85	115	0			
Lead	106.9	10	100	0	107%	85	115	0			
Nickel	108.5	5.0	100	0	108%	85	115	0			
Zinc	105.6	5.0	100	0	106%	85	115	0			

Sample ID: **LCS-9641P** Batch ID: **9641** Test Code: **ICPX** Units: **µg/L** Analysis Date: **8/15/03 11:26:00 AM** Prep Date: **8/14/03**
Client ID: Run ID: **INICP1_030815A** SeqNo: **360006**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	563.4	10	500	0	113%	85	115	0			
Chromium	574.5	10	500	0	115%	85	115	0			
Nickel	560.4	20	500	0	112%	85	115	0			
Zinc	586.1	20	500	0	117%	85	115	0			S

Sample ID: **LCS-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date: **8/19/03 10:03:00 PM** Prep Date: **8/14/03**
Client ID: Run ID: **INAA2_030819C** SeqNo: **361387**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	42.18	10	40.0	0	105%	85	115	0			

Sample ID: **LCS-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date: **8/22/03** Prep Date: **8/14/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362145**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	39.01	10	40.0	0	97.5%	85	115	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308322
Project: 03142801 001, BLFP Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date: **8/18/03 8:30:00 PM** Prep Date: **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360966**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.386	1.0	5.00	0	87.7%	67	131	0			
Pentachlorophenol	4.079	1.0	5.00	0	81.6%	65	140	0			
Dibromophenol	4.57	1.0	5.00	0	91.4%	74	124	0			

Sample ID: **LCSD-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date: **8/18/03 8:52:41 PM** Prep Date: **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360967**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.341	1.0	5.00	0	86.8%	67	131	4.39	1.04%	15	
Pentachlorophenol	4.080	1.0	5.00	0	81.6%	65	140	4.08	0.0254%	15	
Dibromophenol	4.50	1.0	5.00	0	90.1%	74	124	4.57	1.48%	15	

Sample ID: **LCS-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date: **8/22/03 2:43:04 PM** Prep Date: **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362065**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.802	1.0	5.00	0	96.0%	78	111	0			
Pentachlorophenol	1.521	0.30	1.50	0	101%	85	132	0			
Dibromophenol	5.31	0.10	5.00	0	106%	70	119	0			

Sample ID: **LCSD-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date: **8/22/03 3:05:03 PM** Prep Date: **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362066**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.778	1.0	5.00	0	95.6%	78	111	4.80	0.508%	15	
Pentachlorophenol	1.560	0.30	1.50	0	104%	85	132	1.52	2.56%	15	
Dibromophenol	5.37	0.10	5.00	0	107%	70	119	5.31	1.11%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits

NORTH COAST LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. ______ of ______

LABORATORY NUMBER: 0308322

Attention: Holly V.
Results & Invoice to: Winzler & Kelly
Address: 633 Third St.
Eureka CA
Phone: 443-8326
Copies of Report to: Holly V.
Sampler (Sign & Print): Holly Vadurro Holly Vadurro

PROJECT INFORMATION
Project Number: 03142801 001
Project Name: BLFP Phase II Investigation
Purchase Order Number: ______

				PRESERVATIVE			
				CONTAINER	13		
				ANALYSIS	PCP/TCP	8260 full	CAM 5 (Total)
LAB ID	SAMPLE ID	DATE	TIME	MATRIX*			
	B11 (5')	8/13/03	1100	Soil	X	X	X
	B11 (6")	8/13/03	1100	Soil	X	X	X
	B11	8/13/03	1100	H_2O	X	X	X

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other: ______
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
Cold Intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Holly Vadurro	8/13/03 1610	K. Thompson	8/13/03 1610

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus [✓ Hand]

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081506-01A
Client I.D. Number: 0308331-1A/B11 (5 Feet)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg

	Compound	Concentration	Reporting Limit
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/26/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081506-02A
Client I.D. Number: 0308331-2A/B11(6 Inches)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	11	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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8/26/03
Report Date

Alpha Analytical, Inc.
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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081506-03A
Client I.D. Number: 0308331-3A/B11

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/26/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC pH Report

Work Order NOC03081506 **Project:**

Alpha's Sample ID	Client's Sample ID	Matrix	pH
03081506-03A	0308331-3A/B11	Aqueous	2

8/26/03
Report Date

Date: 27-Aug-03

QC Summary Report

Work Order: 03081506

Method Blank Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030819\03081904.D** Batch ID: **MS12W0819A** Analysis Date: **08/19/2003 08:53**
Sample ID: **MBLK MS12W0819A** Units : **µg/L** Run ID: **GC/MSD_12_030819A** Prep Date: **08/19/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	1								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
1,1-Dichloroethane	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	0.5								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	0.5								
Dibromochloromethane	ND	1								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND	1								
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								

Laboratory Control Spike Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030819\03081903.D** Batch ID: **MS12W0819A** Analysis Date: **08/19/2003 08:32**
Sample ID: **LCS MS12W0819A** Units : **µg/L** Run ID: **GC/MSD_12_030819A** Prep Date: **08/19/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	11	1	10		110	80	120			
Benzene	10.5	0.5	10		105	83	119			
Trichloroethene	11.1	1	10		111	76	127			
Toluene	10.7	0.5	10		107	80	120			
Chlorobenzene	10.5	1	10		105	76	124			
Ethylbenzene	11.2	0.5	10		112	80	120			
m,p-Xylene	23.1	0.5	20		115	77	124			
o-Xylene	11.3	0.5	10		113	77	125			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Date: *27-Aug-03*

QC Summary Report

Work Order: 03081506

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\HPCHEM\MS09\DATA\030818\03081838.D** Batch ID: **MS9S0818A** Analysis Date: **08/18/2003 23:32**
Sample ID: **MBLK MS9S0818A** Units : **µg/Kg** Run ID: **GC/MSD_9_030818B** Prep Date: **08/18/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\HPCHEM\MS09\DATA\030818\03081839.D** Batch ID: **MS9S0818A** Analysis Date: **08/18/2003 23:57**
Sample ID: **LCS MS9S0818A** Units : **µg/Kg** Run ID: **GC/MSD_9_030818B** Prep Date: **08/18/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	43.8	20	200		22	0	147			
Benzene	203	5	200		101	60	142			
Trichloroethene	227	20	200		113	60	142			
Toluene	203	5	200		101	58	143			
Chlorobenzene	206	20	200		103	57	144			
Ethylbenzene	202	5	200		101	58	147			
m,p-Xylene	422	5	400		105	57	147			
o-Xylene	212	5	200		106	58	149			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page:
1 of 1

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : NOC03081506

Report Due By : 5:00 PM On : 27-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

EDD Required : Yes

Sampled by : Client

Report Attention : Loretta Tomlin
CC Report :

Job :
PO :

Client's COC # : none

Cooler Temp : 4 °C

15-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests voc_s	voc_w	Sample Remarks
NOC03081506-01A	0308331-1A/B11 (5 Feet)	SO	08/13/03 11:00	1	0	8		8260_Cs		
NOC03081506-02A	0308331-2A/B11(6 Inches)	SO	08/13/03 11:00	1	0	8		8260_Cs		
NOC03081506-03A	0308331-3A/B11	AQ	08/13/03 11:00	3	0	8			8260_Cs	

Comments: Real ice frozen, no security seals. CA/Sac samples. Include QC data and report in ppb. :

	Signature	Print Name	Company	Date/Time
Received by:	Heidi Eskew	H. Eskew	Alpha Analytical, Inc.	8/15/03 1500

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Page 1 of 1

Sub-Contract
Chain of Custody Record

NORTH COAST LABORATORIES LTD.

Date Shipped: 8/14/03 **Carrier:** ups

Air Bill #: ____________ **Cooler #:** ____________

Subcontractor:
Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5778

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to:
North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

	8/14/03 1530	Heidi Askew	8/15/03 1500
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time

Analysis Request

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:		
0308331-1A	B11 (5')	8/13/03 11:00:00 AM	EPA 8260 List 9 Soil/Soil		NOC03081506-01
0308331-2A	B11 (6")	8/13/03 11:00:00 AM	EPA 8260 List 9 Soil/Soil		-02
0308331-3A	B11	8/13/03 11:00:00 AM	EPA 8260 List 9 Water	-HCl	-03

Special Instructions: Please include QC Data. Report in ppb.

Date Due: 8/27/03

Rush Charges Authorized: NC

Preservative: ____________

Return Chain of Custody to NCL

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. ______ of ______

0308331
~~0308329~~

LABORATORY NUMBER: [illegible]

Attention: Holly V.
Results & Invoice to: [illegible]
Address: [illegible]
Trinidad CA
Phone: 443-8326
Copies of Report to: Holly V.
Holly Vartino
Sampler (Sign & Print): Holly Vartino

PROJECT INFORMATION
Project Number: 03 1102/01 001
Project Name: [illegible]
Purchase Order Number:

PRESERVATIVE			
CONTAINER	15		
ANALYSIS	PCP/TCP	8260 HVOC	CAM 5 (Total)

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CONTAINER			
	B11 (5')	8/13/03	1100	Soil	2	X	X	X
	B11 (6")	8/13/03	1100	Soil	2	X	X	X
	B11	8/13/03	1100	H2O	6	X	X	X

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other: ______
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Holly Vartino	8/13/03 1010	R. Thompson	8/13/03 1010

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA ______
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST
LABORATORIES LTD.

August 25, 2003

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Attn: Holly T. Vadurro

Order No.: 0308367
Invoice No.: 36123
PO No.:
ELAP No. 1247-Expires July 2004

RE: 031428 001, BLFP Phase II Investigation

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	B12
01B	B12
02A	B-14
02B	B-14
03A	B-17
03B	B-17
04A	B-19
04B	B-19
05A	B-12 ~~(6")~~ collected at 2'
06A	B-12 (5')
07A	B-14 (6") collected at 2'
08A	B-14 (5')
09A	B-17 (2')
10A	B-17 (5')
11A	B-19 (6")
12A	B-19 (5')

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Lab Manager
Jesse G. Chaney, Jr.
Laboratory Director

North Coast Laboratories, Ltd. **Date:** *25-Aug-03*

CLIENT:	Winzler and Kelly
Project:	031428 001, BLFP Phase II Investigation
Lab Order:	0308367

CASE NARRATIVE

PCP/TCP:
The positive result for B-14 was confirmed by second column. Suggest GC/MS.

Date: 25-Aug-03
WorkOrder: 0308367

ANALYTICAL REPORT

Client Sample ID: B12 **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-01A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	107	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B12 **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-01B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/19/03	8/21/03
Chromium	350	10	µg/L	1.0	8/19/03	8/21/03
Nickel	590	20	µg/L	1.0	8/19/03	8/21/03
Zinc	690	20	µg/L	1.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	53	10	µg/L	1.0	8/19/03	8/22/03

Client Sample ID: B-14 **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-02A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	0.30	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	106	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B-14 **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-02B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/19/03	8/21/03
Chromium	440	10	µg/L	1.0	8/19/03	8/21/03
Nickel	560	20	µg/L	1.0	8/19/03	8/21/03
Zinc	520	20	µg/L	1.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	31	10	µg/L	1.0	8/19/03	8/22/03

Client Sample ID: B-17 **Received:** 8/14/03 **Collected:** 8/14/03 12:30
Lab ID: 0308367-03A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	97.9	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B-17 **Received:** 8/14/03 **Collected:** 8/14/03 12:30
Lab ID: 0308367-03B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/19/03	8/21/03
Chromium	940	10	µg/L	1.0	8/19/03	8/21/03
Nickel	1,500	20	µg/L	1.0	8/19/03	8/21/03
Zinc	1,300	20	µg/L	1.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	230	40	µg/L	4.0	8/19/03	8/22/03

Date: 25-Aug-03
WorkOrder: 0308367

ANALYTICAL REPORT

Client Sample ID: B-19 **Received:** 8/14/03 **Collected:** 8/14/03 6:35
Lab ID: 0308367-04A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	107	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B-19 **Received:** 8/14/03 **Collected:** 8/14/03 6:35
Lab ID: 0308367-04B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/19/03	8/21/03
Chromium	1,200	10	µg/L	1.0	8/19/03	8/21/03
Nickel	930	20	µg/L	1.0	8/19/03	8/21/03
Zinc	1,600	20	µg/L	1.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	100	40	µg/L	4.0	8/19/03	8/22/03

Client Sample ID: B-12 (6") (2') **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-05A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	45	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	58	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	50	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	89.6	73.7-124	% Rec	1.0	8/15/03	8/19/03

Date: 25-Aug-03
WorkOrder: 0308367

ANALYTICAL REPORT

Client Sample ID: B-12 (5') **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-06A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	65	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	11	10	µg/g	1.0	8/18/03	8/22/03
Nickel	32	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	73	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	90.7	73.7-124	% Rec	1.0	8/15/03	8/19/03

Client Sample ID: B-14 ~~(6")~~ 2' **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-07A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	44	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	58	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	51	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	91.5	73.7-124	% Rec	1.0	8/15/03	8/19/03

Date: 25-Aug-03
WorkOrder: 0308367

ANALYTICAL REPORT

Client Sample ID: B-14 (5') **Received:** 8/14/03 **Collected:** 8/14/03 0:00
Lab ID: 0308367-08A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	58	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	28	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	26	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	89.4	73.7-124	% Rec	1.0	8/15/03	8/19/03

Client Sample ID: B-17 (2') **Received:** 8/14/03 **Collected:** 8/14/03 12:30
Lab ID: 0308367-09A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	57	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	11	10	µg/g	1.0	8/18/03	8/22/03
Nickel	56	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	51	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	87.8	73.7-124	% Rec	1.0	8/15/03	8/19/03

Date: 25-Aug-03

WorkOrder: 0308367

ANALYTICAL REPORT

Client Sample ID: B-17 (5') **Received:** 8/14/03 **Collected:** 8/14/03 12:30

Lab ID: 0308367-10A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	73	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	34	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	33	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	85.4	73.7-124	% Rec	1.0	8/15/03	8/19/03

Client Sample ID: B-19 (6") **Received:** 8/14/03 **Collected:** 8/14/03 6:35

Lab ID: 0308367-11A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	26	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	31	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	49	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	88.6	73.7-124	% Rec	1.0	8/15/03	8/19/03

ANALYTICAL REPORT

Client Sample ID: B-19 (5') **Received:** 8/14/03 **Collected:** 8/14/03 6:35
Lab ID: 0308367-12A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	35	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	23	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	16	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	93.6	73.7-124	% Rec	1.0	8/15/03	8/19/03

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308367
Project: 031428 001, BLFP Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:10:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361990**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID **MB-9666P** Batch ID: **9666** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/21/03 2:45:00 PM** Prep Date **8/19/03**
Client ID: Run ID: **INICP1_030821A** SeqNo: **361794**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	10									
Chromium	ND	10									
Nickel	ND	20									
Zinc	ND	20									

Sample ID **MB-9666A** Batch ID: **9666** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/19/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362157**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10									

Sample ID **MB-9656** Batch ID: **9656** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/19/03 3:21:04 AM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360982**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	4.57	1.0	5.00	0	91.4%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits

CLIENT: Winzler and Kelly
Work Order: 0308367
Project: 031428 001, BLFP Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:21:08 PM** Prep Date **8/21/03**

Client ID: Run ID: **ORGC4_030822C** SeqNo: **362064**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	0.30									
Dibromophenol	**5.42**	0.10	5.00	0	108%	70	119	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308367
Project: 031428 001, BLFP Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:14:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361991**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	107.7	2.0	100	0	108%	85	115	0			
Chromium	103.9	2.0	100	0	104%	85	115	0			
Lead	105.9	10	100	0	106%	85	115	0			
Nickel	107.0	5.0	100	0	107%	85	115	0			
Zinc	103.0	5.0	100	0	103%	85	115	0			

Sample ID **LCS-9666P** Batch ID: **9666** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/21/03 2:49:00 PM** Prep Date **8/19/03**
Client ID: Run ID: **INICP1_030821A** SeqNo: **361795**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	567.9	10	500	0	114%	85	115	0			
Chromium	547.1	10	500	0	109%	85	115	0			
Nickel	545.4	20	500	0	109%	85	115	0			
Zinc	549.9	20	500	0	110%	85	115	0			

Sample ID **LCS-9666A** Batch ID: **9666** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/19/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362158**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	37.70	10	40.0	0	94.3%	85	115	0			

Sample ID **LCS-9656** Batch ID: **9656** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/19/03 3:44:15 AM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360983**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.300	1.0	5.00	0	86.0%	67	131	0			
Pentachlorophenol	4.100	1.0	5.00	0	82.0%	65	140	0			
Dibromophenol	4.69	1.0	5.00	0	93.7%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308367
Project: 031428 001, BLFP Phase II Investigation

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID **LCSD-9656** Batch ID: **9656** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/19/03 4:07:27 AM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360984**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.320	1.0	5.00	0	86.4%	67	131	4.30	0.458%	15	
Pentachlorophenol	4.272	1.0	5.00	0	85.4%	65	140	4.10	4.10%	15	
Dibromophenol	4.67	1.0	5.00	0	93.5%	74	124	4.69	0.294%	15	

Sample ID **LCS-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:43:04 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362065**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.802	1.0	5.00	0	96.0%	78	111	0			
Pentachlorophenol	1.521	0.30	1.50	0	101%	85	132	0			
Dibromophenol	5.31	0.10	5.00	0	106%	70	119	0			

Sample ID **LCSD-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 3:05:03 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362066**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.778	1.0	5.00	0	95.6%	78	111	4.80	0.508%	15	
Pentachlorophenol	1.560	0.30	1.50	0	104%	85	132	1.52	2.56%	15	
Dibromophenol	5.37	0.10	5.00	0	107%	70	119	5.31	1.11%	15	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. 1 of 2

0308367

LABORATORY NUMBER:

Attention: Holly Vadurro
Results & Invoice to: Winzler & Kelly
Address: 633 Third St.
Eureka, CA 95501
Phone: 443-8326
Copies of Report to: Holly Vadurro
Sampler (Sign & Print): Holly Vadurro

PROJECT INFORMATION

Project Number: 031428 001
Project Name: BLFP Phase II Investigation
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE / CONTAINER	8260 full	CAM 5	PCP TCP
	B-12 ✓	8/14/03		water	6	✓	✓	✓
	B-12 (6") ✓			soil	2	✓	✓	✓
	B-12 (5') ✓			soil	2	✓	✓	✓
	B-14 (6") ✓			soil	2	✓	✓	✓
	B-14 (5') ✓			soil	2	✓	✓	✓
	B-14 ✓			water	6	✓	✓	✓
	B-17 (2') ✓		1230	soil	2	✓	✓	✓
	B-17 (5') ✓		1230	soil	2	✓	✓	✓
	B-17 ✓		1230	water	6	✓	✓	✓

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

KTB —

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Holly Vadurro	8/14/03 1615	K. Thompson	8/14/03 1615

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

P. 2 of 2

NORTH COAST LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

0308367
LABORATORY NUMBER:

Attention: Holly Vadurro
Results & Invoice to: Winzler & Kelly
Address: 633 Third Street
Eureka, CA 95501
Phone: 443-8326
Copies of Report to: Holly Vadurro
Sampler (Sign & Print): Holly Vadurro

PROJECT INFORMATION

Project Number: 03142801 001
Project Name: BLFP Phase II Investigation
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day ☐ STD (2–3 Wk) ☐ Other: ____
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*		ANALYSIS: CAM 5	8260 full	PCP/TCP
	B-19 (6")	8/14/03	0635	soil	12	✓	✓	✓
	B-19 (5')	8/14/03	0635	soil	12	✓	✓	✓
	B-19	8/14/03	0635	water	6	✓	✓	✓

PRESERVATIVE
CONTAINER

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Holly Vadurro	8/14/03	K. Thompson	8/14/03 1615

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus [✓ Hand]

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-01A
Client I.D. Number: 0308369-1A/B12

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-02A
Client I.D. Number: 0308369-2A/B-14

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-03A
Client I.D. Number: 0308369-3A/B-17

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/27/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-04A
Client I.D. Number: 0308369-4A/B-19

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-05A
Client I.D. Number: 0308369-5A/B-12 ~~(6 Inches)~~ 2'

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	160 µg/Kg
2	Vinyl chloride	ND	40 µg/Kg
3	Chloroethane	ND	40 µg/Kg
4	Bromomethane	ND	40 µg/Kg
5	Trichlorofluoromethane	ND	40 µg/Kg
6	1,1-Dichloroethene	ND	40 µg/Kg
7	Dichloromethane	ND	160 µg/Kg
8	trans-1,2-Dichloroethene	ND	40 µg/Kg
9	1,1-Dichloroethane	ND	40 µg/Kg
10	cis-1,2-Dichloroethene	ND	40 µg/Kg
11	Chloroform	ND	40 µg/Kg
12	1,2-Dichloroethane	ND	40 µg/Kg
13	1,1,1-Trichloroethane	ND	40 µg/Kg
14	Carbon tetrachloride	ND	40 µg/Kg
15	Benzene	ND	20 µg/Kg
16	1,2-Dichloropropane	ND	40 µg/Kg
17	Trichloroethene	ND	40 µg/Kg
18	Bromodichloromethane	ND	40 µg/Kg
19	cis-1,3-Dichloropropene	ND	40 µg/Kg
20	trans-1,3-Dichloropropene	ND	40 µg/Kg
21	1,1,2-Trichloroethane	ND	40 µg/Kg
22	Toluene	26	20 µg/Kg
23	Dibromochloromethane	ND	40 µg/Kg
24	Tetrachloroethene	ND	40 µg/Kg
25	Chlorobenzene	ND	40 µg/Kg
26	Ethylbenzene	ND	20 µg/Kg
27	m,p-Xylene	ND	20 µg/Kg
28	Bromoform	ND	40 µg/Kg
29	o-Xylene	ND	20 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	40 µg/Kg
31	1,3-Dichlorobenzene	ND	40 µg/Kg
32	1,4-Dichlorobenzene	ND	40 µg/Kg
33	1,2-Dichlorobenzene	ND	40 µg/Kg

Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/27/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-06A
Client I.D. Number: 0308369-6A/B-12 (5 Feet)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	10	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

WH

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-07A
Client I.D. Number: 0308369-7A/B-14 (~~6 Inches~~) 2'

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit
1	Chloromethane	ND	160 µg/Kg	26	Ethylbenzene	ND	20 µg/Kg
2	Vinyl chloride	ND	40 µg/Kg	27	m,p-Xylene	ND	20 µg/Kg
3	Chloroethane	ND	40 µg/Kg	28	Bromoform	ND	40 µg/Kg
4	Bromomethane	ND	40 µg/Kg	29	o-Xylene	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	40 µg/Kg	30	1,1,2,2-Tetrachloroethane	ND	40 µg/Kg
6	1,1-Dichloroethene	ND	40 µg/Kg	31	1,3-Dichlorobenzene	ND	40 µg/Kg
7	Dichloromethane	ND	160 µg/Kg	32	1,4-Dichlorobenzene	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	40 µg/Kg	33	1,2-Dichlorobenzene	ND	40 µg/Kg
9	1,1-Dichloroethane	ND	40 µg/Kg				
10	cis-1,2-Dichloroethene	ND	40 µg/Kg				
11	Chloroform	ND	40 µg/Kg				
12	1,2-Dichloroethane	ND	40 µg/Kg				
13	1,1,1-Trichloroethane	ND	40 µg/Kg				
14	Carbon tetrachloride	ND	40 µg/Kg				
15	Benzene	ND	20 µg/Kg				
16	1,2-Dichloropropane	ND	40 µg/Kg				
17	Trichloroethene	ND	40 µg/Kg				
18	Bromodichloromethane	ND	40 µg/Kg				
19	cis-1,3-Dichloropropene	ND	40 µg/Kg				
20	trans-1,3-Dichloropropene	ND	40 µg/Kg				
21	1,1,2-Trichloroethane	ND	40 µg/Kg				
22	Toluene	46	20 µg/Kg				
23	Dibromochloromethane	ND	40 µg/Kg				
24	Tetrachloroethene	ND	40 µg/Kg				
25	Chlorobenzene	ND	40 µg/Kg				

Reporting Limits were increased due to sample foaming.

ND = Not Detected

R. Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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8/27/03
Report Date

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-08A
Client I.D. Number: 0308369-8A/B-14 (5 Feet)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-09A
Client I.D. Number: 0308369-9A/B-17 (2 Feet)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/21/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg	26	Ethylbenzene	ND	5.0 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg	27	m,p-Xylene	ND	5.0 µg/Kg
3	Chloroethane	ND	20 µg/Kg	28	Bromoform	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg	29	o-Xylene	ND	5.0 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg	30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg	31	1,3-Dichlorobenzene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg	32	1,4-Dichlorobenzene	ND	20 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg	33	1,2-Dichlorobenzene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg				
10	cis-1,2-Dichloroethene	ND	20 µg/Kg				
11	Chloroform	ND	20 µg/Kg				
12	1,2-Dichloroethane	ND	20 µg/Kg				
13	1,1,1-Trichloroethane	ND	20 µg/Kg				
14	Carbon tetrachloride	ND	20 µg/Kg				
15	Benzene	ND	5.0 µg/Kg				
16	1,2-Dichloropropane	ND	20 µg/Kg				
17	Trichloroethene	ND	20 µg/Kg				
18	Bromodichloromethane	ND	20 µg/Kg				
19	cis-1,3-Dichloropropene	ND	20 µg/Kg				
20	trans-1,3-Dichloropropene	ND	20 µg/Kg				
21	1,1,2-Trichloroethane	ND	20 µg/Kg				
22	Toluene	ND	5.0 µg/Kg				
23	Dibromochloromethane	ND	20 µg/Kg				
24	Tetrachloroethene	ND	20 µg/Kg				
25	Chlorobenzene	ND	20 µg/Kg				

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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8/27/03
Report Date

Alpha Analytical, Inc.
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-10A
Client I.D. Number: 0308369-10A/B-17 (5 Feet)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/22/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-11A
Client I.D. Number: 0308369-11A/B-19 (6 Inches)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/22/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	90	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	12	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081907-12A
Client I.D. Number: 0308369-12A/B-19 (5 Feet)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/22/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

8/27/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC pH Report

Work Order: NOC03081907 **Project:**

Alpha's Sample ID	Client's Sample ID	Matrix	pH
03081907-01A	0308369-1A/B12	Aqueous	2
03081907-02A	0308369-2A/B-14	Aqueous	2
03081907-03A	0308369-3A/B-17	Aqueous	2
03081907-04A	0308369-4A/B-19	Aqueous	2

8/27/03
Report Date

Date:
27-Aug-03

QC Summary Report

Work Order:
03081907

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **C:\HPCHEM\MS01\DATA\030821\03082105.D** Batch ID: **MS1W0821A** Analysis Date: **08/21/2003 11:32**
Sample ID: **MBLK MS1W0821A** Units : **µg/L** Run ID: **GC/MSD_1_030821A** Prep Date: **08/21/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	1								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
1,1-Dichloroethane	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	0.5								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	0.5								
Dibromochloromethane	ND	1								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND	1								
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **C:\HPCHEM\MS01\DATA\030821\03082103.D** Batch ID: **MS1W0821A** Analysis Date: **08/21/2003 10:40**
Sample ID: **LCS MS1W0821A** Units : **µg/L** Run ID: **GC/MSD_1_030821A** Prep Date: **08/21/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	10.2	1	10		102	80	120			
Benzene	10.4	0.5	10		104	83	119			
Trichloroethene	11.1	1	10		111	76	127			
Toluene	10.4	0.5	10		104	80	120			
Chlorobenzene	11	1	10		110	76	124			
Ethylbenzene	10.2	0.5	10		102	80	120			
m,p-Xylene	20.3	0.5	20		102	77	124			
o-Xylene	10.2	0.5	10		102	77	125			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Date:
27-Aug-03

QC Summary Report

Work Order:
03081907

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS04\DATA\030821\03082109.D** Batch ID: **MS4S0821A** Analysis Date: **08/21/2003 11:54**

Sample ID: **MBLK MS4S0821A** Units : **µg/Kg** Run ID: **GC/MSD_4_030821A** Prep Date: **08/21/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS04\DATA\030821\03082107.D** Batch ID: **MS4S0821A** Analysis Date: **08/21/2003 10:59**

Sample ID: **LCS MS4S0821A** Units : **µg/Kg** Run ID: **GC/MSD_4_030821A** Prep Date: **08/21/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	224	20	200		112	0	147			
Benzene	181	5	200		90	60	142			
Trichloroethene	181	20	200		91	60	142			
Toluene	173	5	200		86	58	143			
Chlorobenzene	173	20	200		86	57	144			
Ethylbenzene	178	5	200		89	58	147			
m,p-Xylene	371	5	400		93	57	147			
o-Xylene	171	5	200		86	58	149			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page:
1 of 2

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : NOC03081907

Report Due By : 5:00 PM On : 28-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

EDD Required : ~~Yes~~ NO

Sampled by : Client

Report Attention : Loretta Tomlin

CC Report :

Job :

PO :

Client's COC # : none

Cooler Temp : 4 °C

19-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	HOLD	VOC_S	VOC_W	Sample Remarks
NOC03081907-01A	0308369-1A/B12	AQ	08/14/03 00:00	3	0	7				8260_Cs	
NOC03081907-02A	0308369-2A/B-14	AQ	08/14/03 00:00	3	0	7				8260_Cs	
NOC03081907-03A	0308369-3A/B-17	AQ	08/14/03 12:30	3	0	7				8260_Cs	
NOC03081907-04A	0308369-4A/B-19	AQ	08/14/03 06:35	3	0	7				8260_Cs	
NOC03081907-05A	0308369-5A/B-12 (6 Inches)	SO	08/14/03 00:00	1	0	7			8260_Cs		
NOC03081907-06A	0308369-6A/B-12 (5 Feet)	SO	08/14/03 00:00	1	0	7			8260_Cs		
NOC03081907-07A	0308369-7A/B-14 (6 Inches)	SO	08/14/03 00:00	1	0	7			8260_Cs		
NOC03081907-08A	0308369-8A/B-14 (5 Feet)	SO	08/14/03 00:00	1	0	7			8260_Cs		
NOC03081907-09A	0308369-9A/B-17 (2 Feet)	SO	08/14/03 12:30	1	0	7			8260_Cs		
NOC03081907-10A	0308369-10A/B-17 (5 Feet)	SO	08/14/03 12:30	1	0	7			8260_Cs		

Comments: Real and blue ice frozen, no security seals. CA/Sac samples. Please include QC data. Report in PPB. Call before running travel blank. :

	Signature	Print Name	Company	Date/Time
Received by:	Heidi Eskew	H. Eskew	Alpha Analytical, Inc.	8/19/03 11:15

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page:
2 of 2

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : NOC03081907

Report Due By : 5:00 PM On : 28-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

EDD Required : Yes

Sampled by : Client

Job :
PO :

Report Attention : Loretta Tomlin
CC Report :

Client's COC # : none

Cooler Temp : 4 °C

19-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests HOLD	VOC_S	VOC_W	Sample Remarks
NOC03081907-11A	0308369-11A/B-19 (6 Inches)	SO	08/14/03 06:35	1	0	7			8260_Cs		
NOC03081907-12A	0308369-12A/B-19 (5 Feet)	SO	08/14/03 06:35	1	0	7			8260_Cs		
NOC03081907-13A	0308369-13A/Travel Blank	AQ	08/14/03 00:00	1	0	7		Hold			Client Provided. Hold per client COC.

Comments: Real and blue ice frozen, no security seals. CA/Sac samples. Please include QC data. Report in PPB. Call before running travel blank. :

	Signature	Print Name	Company	Date/Time
Received by:	Heidi Eskew	H. Eskew	Alpha Analytical, Inc.	8/19/03 11:15

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Page 1 of 1

Sub-Contract
Chain of Custody Record

NORTH COAST
LABORATORIES LTD.

Date Shipped: 8/18/03 **Carrier:** ups

Air Bill #: ______________ **Cooler #:** ______________

Subcontractor:
Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5778

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to:
North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

	8/18/03 1530	Heidi Askew	8/19/03 11:15
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time

Analysis Request

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:	
0308369-1A	B12	8/14/03	EPA 8260 List 9 Water/Groundwater	NOCO3081907-01
0308369-2A	B-14	8/14/03	EPA 8260 List 9 Water/Groundwater	-02
0308369-3A	B-17	8/14/03 12:30:00 PM	EPA 8260 List 9 Water/Groundwater	-03
0308369-4A	B-19	8/14/03 6:35:00 AM	EPA 8260 List 9 Water/Groundwater	-04
0308369-5A	**B-12 (6")**	8/14/03	EPA 8260 List 9 Soil	-05
0308369-6A	B-12 (5')	8/14/03	EPA 8260 List 9 Soil	-06
0308369-7A	B-14 (6")	8/14/03	EPA 8260 List 9 Soil	-07
0308369-8A	B-14 (5')	8/14/03	EPA 8260 List 9 Soil	-08
0308369-9A	B-17 (2')	8/14/03 12:30:00 PM	EPA 8260 List 9 Soil	-09
0308369-10A	B-17 (5')	8/14/03 12:30:00 PM	EPA 8260 List 9 Soil	-10
0308369-11A	B-19 (6")	8/14/03 6:35:00 AM	EPA 8260 List 9 Soil	-11
0308369-12A	B-19 (5')	8/14/03 6:35:00 AM	EPA 8260 List 9 Soil	-12
0308369-13A	Travel Blank		EPA 8260 List 9 Water/Trip Blank	-13

Special Instructions: Please include QC Data. Report in ppb. please call BEFORE running travel blank

---

Date Due: 8/28/03 Rush Charges Authorized: NO Preservative: HCl

Return Chain of Custody to NCL

Printed on Recycled Paper

P. ______ of 2

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: [illegible]

Attention: [illegible]
Results & Invoice to: [illegible]
Address: [illegible]
Phone: [illegible]
Copies of Report to: [illegible]
Sampler (Sign & Print): [illegible]

PROJECT INFORMATION

Project Number: [illegible]
Project Name: [illegible]
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
	[illegible] ✓	[illegible]		[illegible]
	[illegible] ✓			[illegible]
	[illegible] ✓			[illegible]
	[illegible] ✓			[illegible]
	[illegible] ✓			[illegible]
	[illegible] ✓			[illegible]
	[illegible] ✓			[illegible]
	[illegible] ✓			[illegible]
	[illegible] ✓			[illegible]

PRESERVATIVE
CONTAINER
ANALYSIS

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other: ______
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

[illegible]

Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[illegible]	[illegible] 1015	K. Thompson	[illegible]

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

P. 2 of 2

NORTH COAST LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 0308369

Attention: [illegible]
Results & Invoice to: [illegible]
Address: [illegible]
[illegible] CA [illegible]
Phone: [illegible]
Copies of Report to: [illegible]

Sampler (Sign & Print): [illegible]

PROJECT INFORMATION

Project Number: [illegible] 001
Project Name: [illegible]
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☐ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS	CAM 5	[illegible]	[illegible]
	B-19(6')	8/14/03	0655	soil	2	✓	✓	✓
	B-19(10')	8/14/03	0655	soil	2	✓	✓	✓
	B-19	8/14/03	0655	water	6	✓	✓	✓

PRESERVATIVE / CONTAINER

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[illegible]	8/14/03	K. Thompson	8/14/03 1615

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST
LABORATORIES LTD.

August 25, 2003

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Attn: Holly T. Vadurro

RE: 03184702.100, Aalfs Phase II Investigation

Order No.: 0308366
Invoice No.: 36122
PO No.:
ELAP No. 1247-Expires July 2004

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	B4
01B	B4
02A	B4 (5')
03A	B4 (3")

ND = Not Detected at the Reporting Limit
Limit = Reporting Limit
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

Edmundo
QA Unit

Lab Manager
Jesse G. Chaney, Jr.
Laboratory Director

Date: 25-Aug-03
WorkOrder: 0308366

ANALYTICAL REPORT

Client Sample ID: B4 **Received:** 8/14/03 **Collected:** 8/14/03 15:00
Lab ID: 0308366-01A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	104	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B4 **Received:** 8/14/03 **Collected:** 8/14/03 15:00
Lab ID: 0308366-01B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/19/03	8/21/03
Chromium	320	10	µg/L	1.0	8/19/03	8/21/03
Nickel	250	20	µg/L	1.0	8/19/03	8/21/03
Zinc	320	20	µg/L	1.0	8/19/03	8/21/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	25	10	µg/L	1.0	8/19/03	8/22/03

Client Sample ID: B4 (5') **Received:** 8/14/03 **Collected:** 8/14/03 15:00
Lab ID: 0308366-02A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	74	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	69	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	55	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	92.6	73.7-124	% Rec	1.0	8/15/03	8/19/03

Date: 25-Aug-03
WorkOrder: 0308366

ANALYTICAL REPORT

Client Sample ID: B4 (3") **Received:** 8/14/03 **Collected:** 8/14/03 15:00
Lab ID: 0308366-03A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	37	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	25	10	µg/g	1.0	8/18/03	8/22/03
Nickel	45	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	77	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/19/03
Surrogate: Dibromophenol	89.0	73.7-124	% Rec	1.0	8/15/03	8/19/03

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308366
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT
Method Blank

Sample ID **MB-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:10:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361990**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID **MB-9666P** Batch ID: **9666** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/21/03 2:45:00 PM** Prep Date **8/19/03**
Client ID: Run ID: **INICP1_030821A** SeqNo: **361794**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	10									
Chromium	ND	10									
Nickel	ND	20									
Zinc	ND	20									

Sample ID **MB-9666A** Batch ID: **9666** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/19/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362157**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10									

Sample ID **MB-9656** Batch ID: **9656** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/19/03 3:21:04 AM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360982**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	4.57	1.0	5.00	0	91.4%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308366
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:21:08 PM** Prep Date **8/21/03**

Client ID: Run ID: **ORGC4_030822C** SeqNo: **362064**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	0.30									
Dibromophenol	5.42	0.10	5.00	0	108%	70	119	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308366
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:14:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361991**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	107.7	2.0	100	0	108%	85	115	0			
Chromium	103.9	2.0	100	0	104%	85	115	0			
Lead	105.9	10	100	0	106%	85	115	0			
Nickel	107.0	5.0	100	0	107%	85	115	0			
Zinc	103.0	5.0	100	0	103%	85	115	0			

Sample ID **LCS-9666P** Batch ID: **9666** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/21/03 2:49:00 PM** Prep Date **8/19/03**
Client ID: Run ID: **INICP1_030821A** SeqNo: **361795**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	567.9	10	500	0	114%	85	115	0			
Chromium	547.1	10	500	0	109%	85	115	0			
Nickel	545.4	20	500	0	109%	85	115	0			
Zinc	549.9	20	500	0	110%	85	115	0			

Sample ID **LCS-9666A** Batch ID: **9666** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/19/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362158**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	37.70	10	40.0	0	94.3%	85	115	0			

Sample ID **LCS-9656** Batch ID: **9656** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/19/03 3:44:15 AM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360983**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.300	1.0	5.00	0	86.0%	67	131	0			
Pentachlorophenol	4.100	1.0	5.00	0	82.0%	65	140	0			
Dibromophenol	4.69	1.0	5.00	0	93.7%	74	124	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308366
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-9656** Batch ID: **9656** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/19/03 4:07:27 AM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360984**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.320	1.0	5.00	0	86.4%	67	131	4.30	0.458%	15	
Pentachlorophenol	4.272	1.0	5.00	0	85.4%	65	140	4.10	4.10%	15	
Dibromophenol	4.67	1.0	5.00	0	93.5%	74	124	4.69	0.294%	15	

Sample ID **LCS-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:43:04 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362065**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.802	1.0	5.00	0	96.0%	78	111	0			
Pentachlorophenol	1.521	0.30	1.50	0	101%	85	132	0			
Dibromophenol	5.31	0.10	5.00	0	106%	70	119	0			

Sample ID **LCSD-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 3:05:03 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362066**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.778	1.0	5.00	0	95.6%	78	111	4.80	0.508%	15	
Pentachlorophenol	1.560	0.30	1.50	0	104%	85	132	1.52	2.56%	15	
Dibromophenol	5.37	0.10	5.00	0	107%	70	119	5.31	1.11%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. 1 of 1

0308366

LABORATORY NUMBER:

Attention: Holly Vadurro
Results & Invoice to: Winzler & Kelly
Address: 633 Third St.
Eureka, CA 95501
Phone: 443-8326
Copies of Report to: Holly Vadurro

Sampler (Sign & Print): Holly Vadurro

PROJECT INFORMATION

Project Number: 03184702.100
Project Name: Aalfs Phase II Investigation
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE / CONTAINER / ANALYSIS	CAM5	8260 full	PCP/TCP
	B4 ✓	8/14/03	1500	water	6	X	X	X
	B4 (5') ✓	8/14/03	1500	soil	2	✓	✓	✓
	B4 (3") ✓	8/14/03	1500	soil	2	✓	✓	✓

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: / /
Final Report: FAX ☐ Verbal ☐ By: / /

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Holly Vadurro	8/14/03 1615	K. Thompson	8/14/03 1615

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF COUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus [✓ Hand]

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081906-01A
Client I.D. Number: 0308368-1A/B4

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/25/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	4.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	4.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R. Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/27/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081906-02A
Client I.D. Number: 0308368-2A/B4 (5 Feet)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/20/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit		Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg	26	Ethylbenzene	ND	5.0 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg	27	m,p-Xylene	ND	5.0 µg/Kg
3	Chloroethane	ND	20 µg/Kg	28	Bromoform	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg	29	o-Xylene	ND	5.0 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg	30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg	31	1,3-Dichlorobenzene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg	32	1,4-Dichlorobenzene	ND	20 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg	33	1,2-Dichlorobenzene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg				
10	cis-1,2-Dichloroethene	ND	20 µg/Kg				
11	Chloroform	ND	20 µg/Kg				
12	1,2-Dichloroethane	ND	20 µg/Kg				
13	1,1,1-Trichloroethane	ND	20 µg/Kg				
14	Carbon tetrachloride	ND	20 µg/Kg				
15	Benzene	ND	5.0 µg/Kg				
16	1,2-Dichloropropane	ND	20 µg/Kg				
17	Trichloroethene	ND	20 µg/Kg				
18	Bromodichloromethane	ND	20 µg/Kg				
19	cis-1,3-Dichloropropene	ND	20 µg/Kg				
20	trans-1,3-Dichloropropene	ND	20 µg/Kg				
21	1,1,2-Trichloroethane	ND	20 µg/Kg				
22	Toluene	10	5.0 µg/Kg				
23	Dibromochloromethane	ND	20 µg/Kg				
24	Tetrachloroethene	ND	20 µg/Kg				
25	Chlorobenzene	ND	20 µg/Kg				

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

8/27/03
Report Date

Alpha Analytical, Inc.
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ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081906-03A
Client I.D. Number: 0308368-3A/B4 (3 Inches)

Sampled: 08/14/03
Received: 08/19/03
Analyzed: 08/20/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	80 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	80 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	10 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	110	10 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg

	Compound	Concentration	Reporting Limit
26	Ethylbenzene	ND	10 µg/Kg
27	m,p-Xylene	ND	10 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	10 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

Some Reporting Limits were increased due to sample foaming.

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/27/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC pH Report

Work Order: NOC03081906 **Project:**

Alpha's Sample ID	Client's Sample ID	Matrix	pH
03081906-01A	0308368-1A/B4	Aqueous	2

8/27/03
Report Date

Date:
27-Aug-03

QC Summary Report

Work Order:
03081906

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030819\03081921.D** Batch ID: **MS12S0819A** Analysis Date: **08/19/2003 14:42**
Sample ID: **MBLK MS12S0819A** Units : **µg/Kg** Run ID: **GC/MSD_12_030819B** Prep Date: **08/19/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030820\03082005.D** Batch ID: **MS12S0819A** Analysis Date: **08/20/2003 09:13**
Sample ID: **LCS MS12S0820A** Units : **µg/Kg** Run ID: **GC/MSD_12_030819B** Prep Date: **08/20/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	243	20	200		122	0	147			
Benzene	203	5	200		102	60	142			
Trichloroethene	207	20	200		103	60	142			
Toluene	193	5	200		97	58	143			
Chlorobenzene	198	20	200		99	57	144			
Ethylbenzene	207	5	200		104	58	147			
m,p-Xylene	433	5	400		108	57	147			
o-Xylene	210	5	200		105	58	149			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Alpha Analytical, Inc.

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Date: *27-Aug-03*

QC Summary Report

Work Order: 03081906

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\HPCHEM\MS09\DATA\030825\03082511.D** Batch ID: **MS9W0825A** Analysis Date: **08/25/2003 11:21**
Sample ID: **MBLK MS9W0825A** Units : **µg/L** Run ID: **GC/MSD_9_030825A** Prep Date: **08/25/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	1								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
1,1-Dichloroethane	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	0.5								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	0.5								
Dibromochloromethane	ND	1								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND	1								
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\HPCHEM\MS09\DATA\030825\03082510.D** Batch ID: **MS9W0825A** Analysis Date: **08/25/2003 10:59**
Sample ID: **LCS MS9W0825A** Units : **µg/L** Run ID: **GC/MSD_9_030825A** Prep Date: **08/25/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	10.8	1	10		108	80	120			
Benzene	10.2	0.5	10		102	83	119			
Trichloroethene	11.9	1	10		119	76	127			
Toluene	11.2	0.5	10		112	80	120			
Chlorobenzene	11.7	1	10		117	76	124			
Ethylbenzene	11.7	0.5	10		117	80	120			
m,p-Xylene	23.6	0.5	20		118	77	124			
o-Xylene	11.7	0.5	10		117	77	125			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page:
1 of 1

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : NOC03081906

Report Due By : 5:00 PM On : 28-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Report Attention : Loretta Tomlin
CC Report :

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

Job :
PO :

Client's COC # : none

EDD Required ~~: Yes~~ NO
Sampled by : Client
Cooler Temp : 4 °C 19-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests voc_s	voc_w	Sample Remarks
NOC03081906-01A	0308368-1A/B4	AQ	08/14/03 15:00	3	0	7			8260_Cs	
NOC03081906-02A	0308368-2A/B4 (5 Feet)	SO	08/14/03 15:00	1	0	7		8260_Cs		
NOC03081906-03A	0308368-3A/B4 (3 Inches)	SO	08/14/03 15:00	1	0	7		8260_Cs		

Comments: Real and blue ice frozen, no security seals. CA/Sac samples. Please include QC data/Report in PPB. :

	Signature	Print Name	Company	Date/Time
Received by:	Heidi Eskew	H. Eskew	Alpha Analytical, Inc.	8/19/03 11:10

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NORTH COAST
LABORATORIES LTD.

Sub-Contract
Chain of Custody Record

Date Shipped: 8/18/03 **Carrier:** ups

Air Bill #: ______ **Cooler #:** ______

Subcontractor:
Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5778

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to:
North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

Relinquished By: (signature)	Date/Time 8/18/03 1530	Received By: (signature) Heidi Eskew	Date/Time 8/19/03 11:10
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time

Analysis Request

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:	
0308368-1A	B4	8/14/03 3:00:00 PM	EPA 8260 List 9 Water/Aqueous	NOC0308I906-01
0308368-2A	B4 (5')	8/14/03 3:00:00 PM	EPA 8260 List 9 Soil	-02
0308368-3A	B4 (3")	8/14/03 3:00:00 PM	EPA 8260 List 9 Soil	-03

Special Instructions: Please include QC Data. Report in ppb.

Date Due: 8/28/03

Rush Charges Authorized: NO

Preservative: HCl

Return Chain of Custody to NCL

P. 1 of 1

NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

(004) [illegible] 8/14/03 0308 368

LABORATORY NUMBER: [illegible]

Attention: Hollis V[illegible]
Results & Invoice to: Winzler & Kelly
Address: [illegible] Third St
Eureka CA 95501
Phone: 443-8326
Copies of Report to: Hollis V[illegible]
Sampler (Sign & Print): [illegible]

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other: ______
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 0314702.100
Project Name: [illegible]
Purchase Order Number: ______

PRESERVATIVE
CONTAINER
ANALYSIS: [illegible]

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
	B-4 ✓	8/14/03	1520	[illegible]
	B4 (5') ✓	8/14/03	1520	[illegible]
	B4 (3") ✓	8/14/03	1520	[illegible]

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[illegible]	8/14/03 1725	J.K. Thompson	8/14/03 1725

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST
LABORATORIES LTD.

August 25, 2003

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Order No.: 0308330
Invoice No.: 36121
PO No.:

ELAP No. 1247-Expires July 2004

Attn: Holly T. Vadurro

RE: 03184702.100, Aalfs Phase II Investigation

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	B18 (6")
02A	B18 (5')
04A	B3 (5')
05A	B18
05B	B18
06A	B3
06B	B3

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

Date: *25-Aug-03*

CLIENT: Winzler and Kelly
Project: 03184702.100, Aalfs Phase II Investigation
Lab Order: 0308330

CASE NARRATIVE

PCP/TCP:
Due to a laboratory error, samples B18 and B3 were extracted 1 day outside of the holding time.

EPA 200.7:
The laboratory control sample (LCS) recovery was slightltly above the upper acceptance limit for zinc. This recovery indicates that the sample results may be slightly higher than the actual amount in the samples.

Date: 25-Aug-03
WorkOrder: 0308330

ANALYTICAL REPORT

Client Sample ID: B18 (6") **Received:** 8/13/03 **Collected:** 8/13/03 13:30
Lab ID: 0308330-01A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	70	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	15	10	µg/g	1.0	8/18/03	8/22/03
Nickel	37	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	24	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	93.1	73.7-124	% Rec	1.0	8/15/03	8/18/03

Client Sample ID: B18 (5') **Received:** 8/13/03 **Collected:** 8/13/03 13:30
Lab ID: 0308330-02A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	75	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	78	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	61	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	95.9	73.7-124	% Rec	1.0	8/15/03	8/18/03

Date: 25-Aug-03
WorkOrder: 0308330

ANALYTICAL REPORT

Client Sample ID: B3 (5') **Received:** 8/13/03 **Collected:** 8/13/03 15:00
Lab ID: 0308330-04A **Matrix:** Soil

Test Name: ICAP Metals **Reference:** EPA 6010B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	2.0	µg/g	1.0	8/18/03	8/22/03
Chromium	49	2.0	µg/g	1.0	8/18/03	8/22/03
Lead	ND	10	µg/g	1.0	8/18/03	8/22/03
Nickel	19	5.0	µg/g	1.0	8/18/03	8/22/03
Zinc	18	5.0	µg/g	1.0	8/18/03	8/22/03

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Pentachlorophenol	ND	1.0	µg/g	1.0	8/15/03	8/18/03
Surrogate: Dibromophenol	94.6	73.7-124	% Rec	1.0	8/15/03	8/18/03

Client Sample ID: B18 **Received:** 8/13/03 **Collected:** 8/13/03 13:45
Lab ID: 0308330-05A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	104	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B18 **Received:** 8/13/03 **Collected:** 8/13/03 13:45
Lab ID: 0308330-05B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/14/03	8/15/03
Chromium	780	10	µg/L	1.0	8/14/03	8/15/03
Nickel	940	20	µg/L	1.0	8/14/03	8/15/03
Zinc	1,100	20	µg/L	1.0	8/14/03	8/15/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	71	10	µg/L	1.0	8/14/03	8/22/03

Date: 25-Aug-03
WorkOrder: 0308330

ANALYTICAL REPORT

Client Sample ID: B3 **Received:** 8/13/03 **Collected:** 8/13/03 15:00
Lab ID: 0308330-06A **Matrix:** Aqueous

Test Name: Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Tetrachlorophenol	ND	1.0	µg/L	1.0	8/21/03	8/22/03
Pentachlorophenol	ND	0.30	µg/L	1.0	8/21/03	8/22/03
Surrogate: Dibromophenol	107	69.7-119	% Rec	1.0	8/21/03	8/22/03

Client Sample ID: B3 **Received:** 8/13/03 **Collected:** 8/13/03 15:00
Lab ID: 0308330-06B **Matrix:** Aqueous

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Cadmium	ND	10	µg/L	1.0	8/14/03	8/15/03
Chromium	770	10	µg/L	1.0	8/14/03	8/15/03
Nickel	1,000	20	µg/L	1.0	8/14/03	8/15/03
Zinc	750	20	µg/L	1.0	8/14/03	8/15/03

Test Name: Lead **Reference:** EPA 200.9

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Lead	ND	10	µg/L	1.0	8/14/03	8/19/03

CLIENT: Winzler and Kelly
Work Order: 0308330
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:10:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361990**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2.0									
Chromium	ND	2.0									
Lead	ND	10									
Nickel	ND	5.0									
Zinc	ND	5.0									

Sample ID **MB-9641P** Batch ID: **9641** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/15/03 11:15:00 AM** Prep Date **8/14/03**
Client ID: Run ID: **INICP1_030815A** SeqNo: **360003**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	10									
Chromium	ND	10									
Nickel	ND	20									
Zinc	ND	20									

Sample ID **MB-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/19/03 9:57:00 PM** Prep Date **8/14/03**
Client ID: Run ID: **INAA2_030819C** SeqNo: **361386**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10									

Sample ID **MB-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/14/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362144**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0308330
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT

Method Blank

Sample ID **MB-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/18/03 8:07:23 PM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360965**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Dibromophenol	5.04	1.0	5.00	0	101%	74	124	0			

Sample ID **MB-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:21:08 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362064**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	0.30									
Dibromophenol	5.42	0.10	5.00	0	108%	70	119	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 25-Aug-03

CLIENT: Winzler and Kelly
Work Order: 0308330
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-9661P** Batch ID: **9661** Test Code: **6ICPS** Units: **µg/g** Analysis Date **8/22/03 1:14:00 PM** Prep Date **8/18/03**
Client ID: Run ID: **INICP1_030822A** SeqNo: **361991**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	107.7	2.0	100	0	108%	85	115	0			
Chromium	103.9	2.0	100	0	104%	85	115	0			
Lead	105.9	10	100	0	106%	85	115	0			
Nickel	107.0	5.0	100	0	107%	85	115	0			
Zinc	103.0	5.0	100	0	103%	85	115	0			

Sample ID **LCS-9641P** Batch ID: **9641** Test Code: **ICPX** Units: **µg/L** Analysis Date **8/15/03 11:26:00 AM** Prep Date **8/14/03**
Client ID: Run ID: **INICP1_030815A** SeqNo: **360006**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	563.4	10	500	0	113%	85	115	0			
Chromium	574.5	10	500	0	115%	85	115	0			
Nickel	560.4	20	500	0	112%	85	115	0			
Zinc	586.1	20	500	0	117%	85	115	0			S

Sample ID **LCS-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/19/03 10:03:00 PM** Prep Date **8/14/03**
Client ID: Run ID: **INAA2_030819C** SeqNo: **361387**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	42.18	10	40.0	0	105%	85	115	0			

Sample ID **LCS-9641A** Batch ID: **9641** Test Code: **PB200.9X** Units: **µg/L** Analysis Date **8/22/03** Prep Date **8/14/03**
Client ID: Run ID: **INAA2_030822A** SeqNo: **362145**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	39.01	10	40.0	0	97.5%	85	115	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits

CLIENT: Winzler and Kelly
Work Order: 0308330
Project: 03184702.100, Aalfs Phase II Investigation

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/18/03 8:30:00 PM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360966**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.386	1.0	5.00	0	87.7%	67	131	0			
Pentachlorophenol	4.079	1.0	5.00	0	81.6%	65	140	0			
Dibromophenol	4.57	1.0	5.00	0	91.4%	74	124	0			

Sample ID **LCSD-9655** Batch ID: **9655** Test Code: **PCPTS** Units: **µg/g** Analysis Date **8/18/03 8:52:41 PM** Prep Date **8/15/03**
Client ID: Run ID: **ORGC4_030818A** SeqNo: **360967**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.341	1.0	5.00	0	86.8%	67	131	4.39	1.04%	15	
Pentachlorophenol	4.080	1.0	5.00	0	81.6%	65	140	4.08	0.0254%	15	
Dibromophenol	4.50	1.0	5.00	0	90.1%	74	124	4.57	1.48%	15	

Sample ID **LCS-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 2:43:04 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362065**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.802	1.0	5.00	0	96.0%	78	111	0			
Pentachlorophenol	1.521	0.30	1.50	0	101%	85	132	0			
Dibromophenol	5.31	0.10	5.00	0	106%	70	119	0			

Sample ID **LCSD-9691** Batch ID: **9691** Test Code: **PCPTW** Units: **µg/L** Analysis Date **8/22/03 3:05:03 PM** Prep Date **8/21/03**
Client ID: Run ID: **ORGC4_030822C** SeqNo: **362066**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.778	1.0	5.00	0	95.6%	78	111	4.80	0.508%	15	
Pentachlorophenol	1.560	0.30	1.50	0	104%	85	132	1.52	2.56%	15	
Dibromophenol	5.37	0.10	5.00	0	107%	70	119	5.31	1.11%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits

NORTH COAST LABORATORIES LTD.
5680 West End Road · Arcata · CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. ________ of ________

(004) KThompson 8/13/03
~~0308322~~

LABORATORY NUMBER: 0308330

Attention: Holly V.
Results & Invoice to: W & K
Address: 633 Third Street
Eureka, CA 95501
Phone: 443-8326
Copies of Report to: Holly V.
Holly Vadurro
Sampler (Sign & Print): Holly Vadurro

PROJECT INFORMATION
Project Number: 0318470.2.100
Project Name: Aalfs Phase II Investigation
Purchase Order Number:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☐ STD (2–3 Wk) ☐ Other: ________
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE / CONTAINER / ANALYSIS	PCP/TCP	CAM5	8260 full
	B18 (6")	8/13/03	1330	soil	N	X	X	X
	B18 (5')	8/13/03	1330	Soil	N	X	X	X
	B18	8/13/03	1345	H2O	NS	X	X	X
	B3 (6")	8/13/03	1500	soil	NS	X	X	X
	B3 (5')	8/13/03	1500	soil	N	X	X	X
	B3	8/13/03	1500	H2O	6	X	X	X

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
- 1 soil jar, 1 brass for soils

Sample not received

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Holly Vadurro	8/13/03	K. Thompson	8/13/03 1610

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081507-01A
Client I.D. Number: 0308329-1A/B18 (6 Inches)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/20/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/26/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081507-02A
Client I.D. Number: 0308329-2A/B18 (5 Feet)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/20/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl   Randy Gardner   Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

8/26/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081507-03A
Client I.D. Number: 0308329-4A/B3 (5 Feet)

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/20/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	40 µg/Kg
2	Vinyl chloride	ND	20 µg/Kg
3	Chloroethane	ND	20 µg/Kg
4	Bromomethane	ND	20 µg/Kg
5	Trichlorofluoromethane	ND	20 µg/Kg
6	1,1-Dichloroethene	ND	20 µg/Kg
7	Dichloromethane	ND	40 µg/Kg
8	trans-1,2-Dichloroethene	ND	20 µg/Kg
9	1,1-Dichloroethane	ND	20 µg/Kg
10	cis-1,2-Dichloroethene	ND	20 µg/Kg
11	Chloroform	ND	20 µg/Kg
12	1,2-Dichloroethane	ND	20 µg/Kg
13	1,1,1-Trichloroethane	ND	20 µg/Kg
14	Carbon tetrachloride	ND	20 µg/Kg
15	Benzene	ND	5.0 µg/Kg
16	1,2-Dichloropropane	ND	20 µg/Kg
17	Trichloroethene	ND	20 µg/Kg
18	Bromodichloromethane	ND	20 µg/Kg
19	cis-1,3-Dichloropropene	ND	20 µg/Kg
20	trans-1,3-Dichloropropene	ND	20 µg/Kg
21	1,1,2-Trichloroethane	ND	20 µg/Kg
22	Toluene	ND	5.0 µg/Kg
23	Dibromochloromethane	ND	20 µg/Kg
24	Tetrachloroethene	ND	20 µg/Kg
25	Chlorobenzene	ND	20 µg/Kg
26	Ethylbenzene	ND	5.0 µg/Kg
27	m,p-Xylene	ND	5.0 µg/Kg
28	Bromoform	ND	20 µg/Kg
29	o-Xylene	ND	5.0 µg/Kg
30	1,1,2,2-Tetrachloroethane	ND	20 µg/Kg
31	1,3-Dichlorobenzene	ND	20 µg/Kg
32	1,4-Dichlorobenzene	ND	20 µg/Kg
33	1,2-Dichlorobenzene	ND	20 µg/Kg

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/26/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081507-04A
Client I.D. Number: 0308329-5A/B18

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/26/03
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Northcoast Laboratories
5680 West End Road
Arcata, CA 95521
Job#:

Attn: Loretta Tomlin
Phone: (707) 822-4649
Fax: (707) 822-6831

Alpha Analytical Number: NOC03081507-05A
Client I.D. Number: 0308329-6A/B3

Sampled: 08/13/03
Received: 08/15/03
Analyzed: 08/19/03

Volatile Organics by GC/MS
EPA Method SW8260B

	Compound	Concentration	Reporting Limit
1	Chloromethane	ND	2.0 µg/L
2	Vinyl chloride	ND	1.0 µg/L
3	Chloroethane	ND	1.0 µg/L
4	Bromomethane	ND	1.0 µg/L
5	Trichlorofluoromethane	ND	1.0 µg/L
6	1,1-Dichloroethene	ND	1.0 µg/L
7	Dichloromethane	ND	2.0 µg/L
8	trans-1,2-Dichloroethene	ND	1.0 µg/L
9	1,1-Dichloroethane	ND	1.0 µg/L
10	cis-1,2-Dichloroethene	ND	1.0 µg/L
11	Chloroform	ND	1.0 µg/L
12	1,2-Dichloroethane	ND	1.0 µg/L
13	1,1,1-Trichloroethane	ND	1.0 µg/L
14	Carbon tetrachloride	ND	1.0 µg/L
15	Benzene	ND	0.50 µg/L
16	1,2-Dichloropropane	ND	1.0 µg/L
17	Trichloroethene	ND	1.0 µg/L
18	Bromodichloromethane	ND	1.0 µg/L
19	cis-1,3-Dichloropropene	ND	1.0 µg/L
20	trans-1,3-Dichloropropene	ND	1.0 µg/L
21	1,1,2-Trichloroethane	ND	1.0 µg/L
22	Toluene	ND	0.50 µg/L
23	Dibromochloromethane	ND	1.0 µg/L
24	Tetrachloroethene	ND	1.0 µg/L
25	Chlorobenzene	ND	1.0 µg/L

	Compound	Concentration	Reporting Limit
26	Ethylbenzene	ND	0.50 µg/L
27	m,p-Xylene	ND	0.50 µg/L
28	Bromoform	ND	1.0 µg/L
29	o-Xylene	ND	0.50 µg/L
30	1,1,2,2-Tetrachloroethane	ND	1.0 µg/L
31	1,3-Dichlorobenzene	ND	1.0 µg/L
32	1,4-Dichlorobenzene	ND	1.0 µg/L
33	1,2-Dichlorobenzene	ND	1.0 µg/L

ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

8/26/03
Report Date

Alpha Analytical, Inc.
255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC pH Report

Work Order NOC03081507 **Project:**

Alpha's Sample ID	Client's Sample ID	Matrix	pH
03081507-04A	0308329-5A/B18	Aqueous	6
03081507-05A	0308329-6A/B3	Aqueous	2

8/26/03
Report Date

Alpha Analytical, Inc.
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Date: *27-Aug-03*

OC Summary Report

Work Order: 03081507

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030819\03081904.D** Batch ID: **MS12W0819A** Analysis Date: **08/19/2003 08:53**
Sample ID: **MBLK MS12W0819A** Units : **µg/L** Run ID: **GC/MSD_12_030819A** Prep Date: **08/19/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	2								
Vinyl chloride	ND	1								
Chloroethane	ND	1								
Bromomethane	ND	1								
Trichlorofluoromethane	ND	1								
1,1-Dichloroethene	ND	1								
Dichloromethane	ND	2								
trans-1,2-Dichloroethene	ND	1								
1,1-Dichloroethane	ND	1								
cis-1,2-Dichloroethene	ND	1								
Chloroform	ND	1								
1,2-Dichloroethane	ND	1								
1,1,1-Trichloroethane	ND	1								
Carbon tetrachloride	ND	1								
Benzene	ND	0.5								
1,2-Dichloropropane	ND	1								
Trichloroethene	ND	1								
Bromodichloromethane	ND	1								
cis-1,3-Dichloropropene	ND	1								
trans-1,3-Dichloropropene	ND	1								
1,1,2-Trichloroethane	ND	1								
Toluene	ND	0.5								
Dibromochloromethane	ND	1								
Tetrachloroethene	ND	1								
Chlorobenzene	ND	1								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
Bromoform	ND	1								
o-Xylene	ND	0.5								
1,1,2,2-Tetrachloroethane	ND	1								
1,3-Dichlorobenzene	ND	1								
1,4-Dichlorobenzene	ND	1								
1,2-Dichlorobenzene	ND	1								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030819\03081903.D** Batch ID: **MS12W0819A** Analysis Date: **08/19/2003 08:32**
Sample ID: **LCS MS12W0819A** Units : **µg/L** Run ID: **GC/MSD_12_030819A** Prep Date: **08/19/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	11	1	10		110	80	120			
Benzene	10.5	0.5	10		105	83	119			
Trichloroethene	11.1	1	10		111	76	127			
Toluene	10.7	0.5	10		107	80	120			
Chlorobenzene	10.5	1	10		105	76	124			
Ethylbenzene	11.2	0.5	10		112	80	120			
m,p-Xylene	23.1	0.5	20		115	77	124			
o-Xylene	11.3	0.5	10		113	77	125			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Date: *27-Aug-03*

QC Summary Report

Work Order: 03081507

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030819\03081921.D** Batch ID: **MS12S0819A** Analysis Date: **08/19/2003 14:42**
Sample ID: **MBLK MS12S0819A** Units : **µg/Kg** Run ID: **GC/MSD_12_030819B** Prep Date: **08/19/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
Chloromethane	ND	40								
Vinyl chloride	ND	20								
Chloroethane	ND	20								
Bromomethane	ND	20								
Trichlorofluoromethane	ND	20								
1,1-Dichloroethene	ND	20								
Dichloromethane	ND	40								
trans-1,2-Dichloroethene	ND	20								
1,1-Dichloroethane	ND	20								
cis-1,2-Dichloroethene	ND	20								
Chloroform	ND	20								
1,2-Dichloroethane	ND	20								
1,1,1-Trichloroethane	ND	20								
Carbon tetrachloride	ND	20								
Benzene	ND	5								
1,2-Dichloropropane	ND	20								
Trichloroethene	ND	20								
Bromodichloromethane	ND	20								
cis-1,3-Dichloropropene	ND	20								
trans-1,3-Dichloropropene	ND	20								
1,1,2-Trichloroethane	ND	20								
Toluene	ND	5								
Dibromochloromethane	ND	20								
Tetrachloroethene	ND	20								
Chlorobenzene	ND	20								
Ethylbenzene	ND	5								
m,p-Xylene	ND	5								
Bromoform	ND	20								
o-Xylene	ND	5								
1,1,2,2-Tetrachloroethane	ND	20								
1,3-Dichlorobenzene	ND	20								
1,4-Dichlorobenzene	ND	20								
1,2-Dichlorobenzene	ND	20								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**
File ID: **D:\MSDCHEM\MS12\DATA\030820\03082005.D** Batch ID: **MS12S0819A** Analysis Date: **08/20/2003 09:13**
Sample ID: **LCS MS12S0820A** Units : **µg/Kg** Run ID: **GC/MSD_12_030819B** Prep Date: **08/20/2003**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	Qual
1,1-Dichloroethene	243	20	200		122	0	147			
Benzene	203	5	200		102	60	142			
Trichloroethene	207	20	200		103	60	142			
Toluene	193	5	200		97	58	143			
Chlorobenzene	198	20	200		99	57	144			
Ethylbenzene	207	5	200		104	58	147			
m,p-Xylene	433	5	400		108	57	147			
o-Xylene	210	5	200		105	58	149			

Comments:
ND - Not Detected at the Reporting Limit.
S - Spike Recovery outside accepted recovery limits.
B - Analyte detected in the associated Method Blank.
D - If the spiked value is <25% of the reference value, recovery should not be calculated.
M - Spike Recovery outside accepted recovery limits due to matrix.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Page:
1 of 1

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : NOC03081507

Report Due By : 5:00 PM On : 27-Aug-03

Client:
Northcoast Laboratories
5680 West End Road

Arcata, CA 95521

Report Attention : Loretta Tomlin
CC Report :

Loretta Tomlin
TEL : (707) 822-4649
FAX : (707) 822-6831

Job :
PO :

Client's COC # : none

EDD Required : Yes
Sampled by : Client
Cooler Temp : 4 °C

15-Aug-03

QC Level : 3 = Final Rpt, MBLK, LCS, MS/MSD

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests voc_s	voc_w	Sample Remarks
NOC03081507-01A	0308329-1A/B18 (6 Inches)	SO	08/13/03 13:30	1	0	8		8260_Cs		
NOC03081507-02A	0308329-2A/B18 (5 Feet)	SO	08/13/03 13:30	1	0	8		8260_Cs		
NOC03081507-03A	0308329-4A/B3 (5 Feet)	SO	08/13/03 15:00	1	0	8		8260_Cs		This sample will arrive 8/19/03. Please keep with this group of samples for reporting purposes.
NOC03081507-04A	0308329-5A/B18	AQ	08/13/03 13:45	3	0	8			8260_Cs	
NOC03081507-05A	0308329-6A/B3	AQ	08/13/03 15:00	3	0	8			8260_Cs	

Comments: Real ice frozen, no security seals. CA/Sac samples. Include QC data. Report in ppb. :

	Signature	Print Name	Company	Date/Time
Received by:	Heidi Esken	H. Esken	Alpha Analytical, Inc.	8/15/03 1515

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

ATTN: Receiving

REVISED

775 355 0406

NORTH COAST
LABORATORIES LTD.

Page 1 of 1

Sub-Contract
Chain of Custody Record

Date Shipped: 8/14/03 **Carrier:** ups

Air Bill #: ____________ **Cooler #:** ____________

Subcontractor:
Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5776

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to:
North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
	8/14/03 1530	Heidi Oster	8/15/03 1515

Analysis Request

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:	
0308329-1A	B18 (6")	8/13/03 1:30:00 PM	EPA 8260 List 9 Soil/Soil	NOC03081507-01
0308329-2A	B18 (5')	8/13/03 1:30:00 PM	EPA 8260 List 9 Soil/Soil	-02
~~0308329-3A~~	~~B3 (3')~~	~~8/13/03 3:00:00 PM~~	~~EPA 8260 List 9 Soil/Soil~~	NOT sampled
* ← 0308329-4A	B3 (5')	8/13/03 3:00:00 PM	EPA 8260 List 9 Soil/Soil	-03
0308329-5A	B18	8/13/03 1:45:00 PM	EPA 8260 List 9 Water	-04
0308329-6A	B3	8/13/03 3:00:00 PM	EPA 8260 List 9 Water	HCL -05

* will arrive 8/19 @ Alpha - please keep with Jen's group for reporting purposes if possible. ok to extend TAT.

Special Instructions: Please include QC Data. Report in ppb.

Date Due: 8/27/03 Rush Charges Authorized: NO Preservative: ✓

Return Chain of Custody to NCL

Page 1 of 1

NORTH COAST LABORATORIES LTD.

Sub-Contract Chain of Custody Record

Date Shipped: 8/14/03 **Carrier:** ups

Air Bill #: ____________ **Cooler #:** ____________

Subcontractor:
Alpha Analytical - Nevada
255 Glendale Ave, #21
Sparks, NV 89431-5778

Phone: 702-355-1044
Attention Line: Sample Receiving

Send Results to:
North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Loretta Tomlin
(707) 822-4649

Relinquished By: (signature)	Date/Time	Received By: (signature)	Date/Time
	8/14/03 1530	Heidi Askew	8/15/03 1515

Analysis Request

NCL Sample #:	Sample ID:	Date Sampled:	Analysis / Matrix:	
0308329-1A	B18 (6")	8/13/03 1:30:00 PM	EPA 8260 List 9 Soil/Soil	NOC0308IS07 -01
0308329-2A	B18 (5')	8/13/03 1:30:00 PM	EPA 8260 List 9 Soil/Soil	-02
0308329-3A	B3 (6")	8/13/03 3:00:00 PM	~~EPA 8260 List 9 Soil/Soil~~	
0308329-4A	B3 (5')	8/13/03 3:00:00 PM	EPA 8260 List 9 Soil/Soil	-03
0308329-5A	B18	8/13/03 1:45:00 PM	EPA 8260 List 9 Water	-04
0308329-6A	B3	8/13/03 3:00:00 PM	EPA 8260 List 9 Water	JAI 05

Special Instructions: Please include QC Data. Report in ppb.

Date Due: 8/27/03 Rush Charges Authorized: NO Preservative: ____________

Return Chain of Custody to NCL

P. _____ of _____

NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: [illegible]

Attention: [illegible]
Results & Invoice to: [illegible]
Address: [illegible]
Phone: [illegible]
Copies of Report to: [illegible]
Sampler (Sign & Print): [illegible]

PROJECT INFORMATION

Project Number: [illegible]
Project Name: [illegible]
Purchase Order Number: _____

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☐ STD (2–3 Wk) ☐ Other: _____
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_4O_2Cl$; g—other

PRESERVATIVE
CONTAINER
ANALYSIS

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	
		[illegible]	[illegible]	
	[illegible]			
	[illegible]	[illegible]	[illegible]	
		[illegible]	[illegible]	

not submitted [illegible]

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

1 soil jar, 1 brass for soils

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[illegible]	[illegible]	[illegible]	[illegible] 16:10

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT