

**GROUNDWATER CHARACTERIZATION AND
MONITORING WELL INSTALLATION**

Cargill Salt – Alameda Facility

Alameda, California

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PROFESSIONAL CERTIFICATION


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1 INTRODUCTION

This report presents the results of groundwater sampling and monitoring well installation activities conducted by Crawford Consulting, Inc. (CCI) and Conor Pacific/EFW at the Cargill Salt Dispensing Systems Division facility, 2016 Clement Avenue in Alameda, California (Figure 1). The work was conducted to characterize volatile organic compounds (VOCs) in groundwater consistent with a request from the Alameda County Environmental Health Services (ACEHS, 1999) and a workplan submitted to the ACEHS (CCI, 1999). This section reviews the site background and summarizes the investigative and remedial activities to date.

1.1 SITE BACKGROUND

Alameda is an island on the east side of San Francisco Bay, separated from Oakland by a tidal canal (Figure 1). The island is underlain by unconsolidated marine and non-marine sediments, and is part of the East Bay Plain Groundwater Basin. The site is underlain by the Merritt Sand, and lies within the Merritt Sand Outcrop groundwater subarea (Muir, 1993). The Merritt Sand is not considered a primary source of water supply because of its limited areal extent and thickness. According to the Alameda County Flood Control and Water Conservation District, water from the area should only be used for irrigation or other non-potable uses because the Merritt Sand is a relatively thin unit susceptible to anthropomorphic contamination (Hickenbottom and Muir, 1988). There are no known supply wells within ½ mile down- or cross-gradient from the site (Groundworks Environmental, Inc. [GEI], 1995).

Cargill's Alameda facility is located on a rectangular lot in an industrial and residential neighborhood. The facility building occupies approximately one-third of the site and is separated from the vacant, unpaved side of the lot by an asphalt driveway (Figure 2). The site is bordered by a sheet-metal shop and a residential lot to the northwest, an apartment complex to the southwest, and a residential lot to the southeast.

From 1951 to 1978, the Alameda facility produced salt-dispensing units, which required casting and milling aluminum parts. Casting now occurs off site; the facility still mills and repairs salt-dispensing units.

Constituents of concern associated with site operations have included casting sands with elevated concentrations of metals, and solvents, machine oils, and grease used in casting and milling operations. As discussed below, previous investigations and remedial activities have investigated and remediated metals and VOCs in vadose-zone soil.

1.2 SUMMARY OF INVESTIGATIVE AND REMEDIAL ACTIVITIES

Cargill Salt initiated site investigative activities in 1993 to determine if facility operations had impacted site soils. Cargill Salt submitted the results of the soil sampling investigation to the ACEHS in October 1993 along with a workplan for excavation and disposal of impacted soils and assessment of potential impact to groundwater (GEI, 1993).

After approval of the workplan by ACEHS, Cargill Salt conducted several phases of soil remediation and groundwater characterization. Surficial soils impacted by metals were excavated for disposal off site. Vadose-zone soils with the highest degree of impact by VOCs were also excavated for off-site disposal (Figure 2).

The results of these activities were submitted to the ACEHS in a report, *Soil and Groundwater Investigations and Remedial Activities, July 1993 – September 1994, Cargill Salt – Alameda Facility, Alameda, California* (GEI, 1995). Recommendations for additional work to further delineate the lateral and vertical extent of VOCs in groundwater beneath the site were presented in the report.

A workplan for the additional delineation of VOCs in groundwater, *Workplan for Groundwater Characterization and Monitoring Well Installation, 2016 Clement Avenue, Alameda, California* (CCD), was submitted to the ACEHS in July 1999. After approval of the workplan by the ACEHS, Cargill Salt conducted groundwater sampling and well installation activities during August and November of 1999.

This report presents the procedures and results for groundwater sampling and monitoring well installation work conducted to further delineate the extent of VOCs in groundwater at the facility.

2 PLUME CHARACTERIZATION

The lateral and vertical extent of VOC impact to groundwater at the Alameda facility was further characterized by conducting a groundwater sampling program on August 16, 17, and 18, 1999. Conor Pacific/EFW conducted the work under County of Alameda Public Works Agency drilling permit number 99WR468 (Appendix A), and was supervised by CCL. The plume characterization program involved collecting depth-discrete groundwater samples along two transects positioned across the vacant lot of the facility (Figure 2) and analyzing the samples for VOCs. The extent of VOCs in groundwater defined by this task was then used to locate groundwater-monitoring wells for monitoring of the VOC plume.

2.1 PROCEDURES

Prior to conducting the groundwater-sampling program, all boring locations were marked and Underground Services Alert (USA) was notified. All boring locations were cleared for underground utilities by Cruz Brothers of Scotts Valley, California.

The groundwater sampling program consisted of using a groundwater-sampling probe to collect four samples at approximately 7.5, 11.5, 16.5, and 22.5 feet below ground surface (bgs) at six equally-spaced locations along the two transects shown on Figure 2. One additional groundwater grab sample was collected at a depth of 27.5 feet bgs from the sampling location most immediately downgradient from the soil excavation area where the highest concentrations of tetrachloroethene (PCE) were detected during previous work. The locations of the sampling points were chosen to provide good vertical and lateral definition of VOCs in on-site groundwater near the source area and further downgradient.

Grab samples were collected with the help of Precision Sampling, Inc. of Richmond California. Precision's small Vibra-Push rig was used to advance 1.75-inch-diameter steel drive casing equipped with a 1.5-foot-long retractable stainless steel screen and drop off tip. After reaching a target sample depth the drive casing was pulled back to expose the screen to the aquifer and allow groundwater to fill the drive casing. Grab samples were then collected from the drive casing using a stainless steel bailer. After collecting a sample the drive casing and screen were withdrawn from the boring to be cleaned. To collect the next deepest sample at each boring location, clean drive casing, screen, and a new drop off tip were advanced

through the same borehole to the next target depth and the sampling procedure was repeated. All down-hole equipment was steam cleaned before use. Rinsate was collected in 55-gallon drums for disposal off site.

After collecting samples from the four target depths at each boring, the borings were grouted to ground surface using a cement grout. Grout was tremied to the bottom of each boring using the drive casing of the sampling system.

All grab groundwater samples were properly preserved in 40-milliliter sample vials. Sample vials were labeled and stored in a cooler chilled with blue ice for delivery to the laboratory. Samples were submitted with appropriate chain-of-custody documentation to Sequoia Analytical for laboratory analyses of U.S. Environmental Protection Agency (EPA) Method 8010 VOCs using EPA Method 8021B. Sequoia Analytical is a state-certified laboratory in Petaluma, California.

2.2 FINDINGS

Certified analytical reports for the analyses of groundwater grab samples are presented in Appendix B. The results of the laboratory analyses are summarized in Table 1.

Cross-sectional isoconcentration plots of PCE and trichloroethene (TCE) are shown on Figures 3 and 4.

Five VOCs including PCE, TCE, 1,1-dichloroethene (1,1-DCE), cis-1, 2-DCE, and 1,1,1-trichloroethane (1,1,1-TCA) were detected in groundwater at concentrations from 0.532 to 2090 micrograms per liter ($\mu\text{g/l}$). As shown on Table 1, PCE was the predominant VOC detected similar to previous investigation results. The other VOCs are almost exclusively detected along the downgradient transect. The presence of TCE and cis-1, 2-DCE are most likely related to the presence of PCE, as both TCE and cis-1, 2-DCE are known to be degradation products of PCE. 1,1-DCE is a known breakdown product of both PCE and 1,1,1-TCA (Dragun, 1988). Thus the increased proportion of breakdown products detected downgradient indicates that PCE is naturally degrading.

PCE and TCE isoconcentrations plotted in Figures 3 and 4 show the lateral and vertical extent of the VOC plume across the facility. The southern, upgradient transect (borings B-1 through B-6, Figure 3) shows the VOC plume at highest concentrations near boring B-1, next to the fence line. The plume along this transect extends as far southeast as the paved driveway at the facility and likely extends partially under the northwest adjacent property. Based on the definition of the plume core shown in Figure 3 and the site's groundwater flow direction (see section 3.2.3 and Figure 7), it is estimated that VOCs in groundwater may extend laterally approximately 20 feet further to the northwest. Thus the total plume width at this transect is estimated to be approximately 50 feet wide. The vertical extent of the plume along this transect is approximately 23 feet bgs, near borings B-2 and B-3.

The northern, downgradient transect (borings B-7 through B-12, Figure 4) shows a more laterally extensive and deeper plume core located between borings B-9 and B-10. Along this transect, the plume again extends partially off the facility to the northwest. Similar to what was estimated for the upgradient transect and for the same reasons, VOCs in groundwater probably extend less than 20 feet further to the northwest. The southeast margin of the plume along the northern transect is estimated to extend beyond boring B-12 approximately 20 feet. The total plume width at this transect is estimated to be approximately 70 feet.

Information from previous investigations, including on-site source area results and results for grab groundwater from Clement Avenue, indicate that the VOC plume is approximately 200 feet long and extends approximately 40 feet off site. Previous investigations detected 22 µg/l PCE at upgradient boring AGB-2 next to the southern property boundary, and 4.2 µg/l PCE at downgradient boring AP-3 in Clement Avenue near the sanitary sewer (Figure 5) (GEI, 1995).

3 MONITORING WELL INSTALLATION

The position of the VOC plume delineated by the plume characterization program was used to select appropriate locations for three groundwater-monitoring wells. Two monitoring wells (MW-1 and MW-2) were proposed along the core of the VOC plume near boring B-1 and B-10 (Figure 2). A third monitoring well (MW-3) was proposed to monitor groundwater outside of the plume. Proposed well locations were approved by the ACEHS after review of the VOC isoconcentration plots presented in the previous section. Monitoring well installation activities were conducted in November and December 1999. Conor Pacific/EFW performed the work under County of Alameda Public Works Agency drilling permit number 99WR468 (Appendix A), and was supervised by CCI. The following section discusses monitoring well installation procedures and findings.

3.1 PROCEDURES

Monitoring well installation activities conducted at the Alameda facility included well installation, development and sampling, and surveying. Prior to installing the monitoring wells, well locations were marked and Underground Services Alert (USA) was notified. All monitoring well locations were cleared for underground utilities by Cruz Brothers of Scotts Valley, California.

3.1.1 Well Installation

Monitoring wells MW-1, MW-2, and MW-3 were installed on November 8, 1999 by Precision Sampling, Inc. of Richmond California under the supervision of Conor Pacific/EFW and CCI. Precision's small Vibra-Push rig was used to advance a 2.5-inch-diameter steel drive casing equipped with a 2-inch-diameter, 3-foot-long, butyrate-lined inner soil-sampling barrel.

Monitoring well borings were started by hand auger to four feet bgs to facilitate placement of a surface seal material and well monument during well construction. Soil samples were then collected using the Vibra-Push rig by advancing the drive casing and core barrel in three-foot intervals. After advancing each interval the core barrel was retrieved while the outer drive casing was left in place to keep the boring open and minimize vertical cross contamination.

Each section of soil core was removed from the sample barrel and logged using the Unified Soil Classification System. The sample barrel was then re-lined and lowered through the outer drive casing to be advanced again. This process was repeated until the desired depth of each boring was reached. The borings for monitoring wells MW-2 and MW-3 were advanced to 18 feet bgs, and the boring for MW-1 was advanced to 22 feet bgs. Hydrostratigraphic profiles for each boring are included in Appendix C.

Small-diameter groundwater monitoring wells were then constructed in each of the borings. The monitoring wells were constructed within the outer drive rods using 1-inch-diameter, Schedule 40, flush-threaded PVC casing and 0.010-inch, machine-slotted screen. Based on the results of the transect analyses, a twelve-foot interval of groundwater was screened from 5 or 6 feet bgs to 17 or 18 feet bgs. A sand pack (030-grade) was placed in the annular space around the casing from the bottom of the open boring to approximately 1.0 foot above the top of the well screen. At least a 2-foot-thick seal of bentonite pellets was placed above the sand pack. Above the bentonite, a sanitary seal of neat cement was placed to within one foot of the ground surface. A water-tight vault was installed at the surface. All well heads were capped with water-tight locking expansion well caps. Construction diagrams for each monitoring well are included in Appendix C.

All down-hole drilling equipment, casing, and screen were steam cleaned before use. Rinsate and soil cuttings were collected in 55-gallon drums for disposal off site.

3.1.2 Well Development and Sampling

Conor Pacific/EFW developed and sampled monitoring wells MW-1, MW-2, and MW-3 on November 16, 1999. Surge and bail techniques were used to develop each monitoring well. Purge water was monitored for temperature, electrical conductivity (EC), and pH. Imhoff cones were used to quantify sand and silt quantities of the purge water. During this process several casing volumes of water were removed from the well. Well development forms for each well are included in Appendix D.

At the completion of well development each monitoring well was sampled using a clean stainless steel bailer. All groundwater samples were properly preserved in 40-milliliter sample vials. Sample vials were labeled and stored in a cooler chilled with blue ice for

delivery to the laboratory. Samples were submitted with appropriate chain-of-custody documentation to Sequoia Analytical for laboratory analyses of EPA Method 8010 VOCs using EPA Method 8021B.

3.1.3 Well Surveying

Wade Hammond Surveyors of Newark, California, surveyed the locations and elevations of monitoring wells MW-1, MW-2, and MW-3 on December 3, 1999. Monitoring wells were surveyed for northing and eastings, top of casing elevations, and monument elevations (elevations were recorded relative to mean sea level [MSL]). The locations of the north and southwest corners of the facility building were also surveyed. Survey results are presented in Appendix D and are also included on monitoring well hydrostratigraphic logs and well construction diagrams (Appendix C).

3.2 FINDINGS

3.2.1 Hydrostratigraphy

Soil encountered in borings for wells MW-1, MW-2, and MW-3 are described in the hydrostratigraphic profile for each well (Appendix C). The soils encountered in each boring were similar to each other and previous borings. Silty and clayey sands with lenses of sandy clay were encountered. In the boring for MW-2, silty and clayey sands were encountered to a depth of 11 feet, with a sand lens at 4 to 5 feet bgs, above first encountered water. A sandy clay lens was encountered from approximately 11 to 12 feet bgs. Silty and clayey sands were again encountered beneath the sandy clay to a depth of 18 feet. The sandy clay lens correlates with the change in VOC concentrations seen in boring B-1 (Figure 3). A sandy clay lens was not encountered in the boring for MW-1, where the core of the VOC plume is seen at a greater depth (Figure 3). A sandy clay lens was encountered from approximately 15 to 16 feet bgs in the boring for MW-3, where no VOCs were detected in groundwater (see below).

First encountered water in each boring ranged from 5 feet bgs (5 feet MSL) at the boring for MW-2 to 7 feet bgs (0 feet MSL) at the boring for MW-1.

3.2.2 Well Development and Sampling

Well development forms for each monitoring well are included in Appendix D. In general, the wells were developed until water quality parameters had stabilized. Less than ten casing volumes were removed from wells MW-1 and MW-3 during development due to slow recharge. This slow recharge is a reflection of the low-yielding subsurface material at the site. An elevated pH of approximately 9.3 was noted in purge water from well MW-3.

Certified analytical results for groundwater samples collected from each monitoring well are included in Appendix E and summarized in Table 2 and Figure 6. PCE, TCE, or both were detected above their respective California Primary Maximum Contaminant Level (MCL) for drinking water, which is 5 µg/l for each, in two of the three wells. PCE was detected at a concentration of 840 µg/l in the groundwater sample from upgradient well MW-2; no TCE was detected. This concentration of PCE correlates well with the average concentration detected in boring B-1 and the concentration detected by previous investigations upgradient from this area (890 µg/l at boring AGB-3, Figure 5) (GEI, 1995). At downgradient well MW-1, PCE was detected at a concentration of 906 µg/l and TCE was detected at a concentration of 178 µg/l. These concentrations also correlate well with the average concentrations detected in boring B-10 and reasonably well with the concentrations detected by previous investigations upgradient from this area (1,400 and 79 µg/l, respectively at boring AGB-6, GEI, 1995). The presence of TCE in downgradient groundwater suggests that PCE is naturally degrading via reductive dechlorination to this compound. Further dechlorination to cis-1,2-DCE appears limited based on the low and infrequent detection of this compound. No other VOCs were detected at wells MW-1 and MW-2. No VOCs were detected at monitoring well MW-3. This is consistent with the results of previous investigations (boring AP-5, Figure 5) (GEI, 1995).

3.2.3 Groundwater Flow Direction and Gradient

Surveyed top of casing elevations and static water levels (collected at each monitoring well on November 16, 1999) were used to construct a groundwater contour plot for the facility (Figure 7). Top of casing and groundwater elevation information is summarized in Table 3. Groundwater levels across the facility range from 2.58 to 4.59 feet MSL. Groundwater flows towards the northeast at an approximate gradient of 0.01. This is consistent with the results of previous investigations (GEI, 1995) and the distribution of VOCs shown in Figures 3 and 4.

This relatively steep gradient is also a reflection of the low-yielding subsurface materials at the site.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

Groundwater grab sampling at multiple depths along two transects identified the location of the core of the VOC plume at the site. Work completed along the two transects indicate that the VOC plume is approximately 50 feet wide at the upgradient transect, and approximately 70 feet wide at the downgradient transect. Upgradient, the core of the plume, consisting primarily of PCE, is close to the northwestern property fence. Downgradient, the core of the VOC plume is seen at a greater depth to the northeast, reflecting the local groundwater flow direction. Information from the transect work and previous investigations indicate that the VOC plume extends approximately 40 feet off site, which is approximately 200 feet downgradient from the remediated on-site source area.

VOCs detected in groundwater were PCE, TCE, 1,1-DCE, cis-1,2-DCE and 1,1,1-TCA at concentrations ranging from 0.532 µg/l to 2,090 µg/l. PCE and its breakdown product TCE are the predominant VOCs detected in groundwater at the site. The presence of TCE and other breakdown products in downgradient groundwater suggests that PCE is naturally degrading. However, little cis-1,2-DCE is present, indicating that further degradation via reductive dechlorination is hampered.

Three groundwater-monitoring wells were installed to monitor groundwater quality, flow direction, and gradient. Two wells were installed along the core of the VOC plume (wells MW-1 and MW-2) and one cross-gradient from the plume (well MW-3). Boring logs for each monitoring well location show subsurface materials as silty to clayey sands with lenses of sandy clay that have influenced the upgradient distribution of VOCs. Groundwater flows towards the northeast at a gradient of approximately 0.01. These subsurface materials have low hydraulic conductivity and subsequently, will not yield significant quantities of groundwater.

The concentrations of PCE detected in the groundwater samples from MW-1 and MW-2 exceed California's Primary MCL for PCE in drinking water, which is 5 µg/l. The concentration of TCE detected in the groundwater sample from MW-1 exceeds California's

Primary MCL for TCE in drinking water, which is also 5 µg/l. To date, PCE and TCE exceeding MCLs has only been detected at on-site locations.

Although MCLs are exceeded in on-site groundwater, shallow groundwater at the site is not considered to be suitable as a source of drinking water (GEI, 1995). It may be suitable for irrigation, but site information indicates the yield to be too low to be practicably used.

4.2 RECOMMENDATIONS

Based on the results of this investigation and the discussions above, CCI and Conor Pacific/EFW recommend the following actions for the site.

- Confirm the groundwater analytical results of the newly installed monitoring wells and the groundwater flow direction and gradient via quarterly groundwater monitoring. ✓
- If possible, further delineate the extent of VOCs in groundwater off site, particularly near the fence line to the northwest and downgradient across Clement Avenue. The possibility of further delineation will depend on whether access will be restricted. ✓
- Investigate whether sewer lines and other utilities beneath Clement Avenue may be possible conduits or pathways for migration of VOCs in groundwater. ✓
- Collect hydraulic information (e.g., transmissivity) and natural attenuation information as part of evaluating the fate and transport of VOCs in the subsurface and the associated risk.
- Evaluate potential corrective action alternatives for the site.

As these recommendations are implemented and additional information on site conditions is obtained, these recommendations should be reevaluated and revised as appropriate.

REFERENCES

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LIMITATIONS

Services on this project were performed in accordance with current generally accepted environmental consulting principles and practices. This warranty is in lieu of all others, be it expressed or implied. Environmental conditions may exist at the site that could not be observed. Where the scope of services was limited to observations made during site reconnaissance, interviews, and/or review of readily available reports and literature, our conclusions and recommendations are necessarily based largely on information supplied by others, the accuracy and sufficiency of which may not have been independently reviewed by us. Our professional analyses are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions between such sampling points. Additional data from future work or changing conditions may lead to modifications to our professional opinions and recommendations. Any reliance on this report, or portions thereof, by a third party shall be at such party's sole risk.

Table 1
Summary of Analytical Results - Groundwater Grab Sampling
Cargill Salt, Alameda Facility

Transect Sample Designation	Sample Depth ft. bgs	Analytical Results ¹				
		PCE ug/l	TCE ug/l	1,1-DCE ug/l	c-1,2-DCE ug/l	1,1,1-TCA ug/l
B-1-7.5	7.0-8.0	1250	<50.0	<50.0	<50.0	<50.0
B-1-11.5	10.5-12.0	2090	<100	<100	<100	<100
B-1-16.5	14.5-17.0	33.1	<1.00	<1.00	<1.00	<1.00
B-1-22.5	21.0-23.0	4.01	<0.500	<0.500	<0.500	<0.500
B-2-7.5	7.0-8.0	102	<5.00	<5.00	<5.00	<5.00
B-2-11.5	10.0-13.0	25.5	<1.00	<1.00	<1.00	<1.00
B-2-16.5	15.5-17.0	0.532	<0.500	<0.500	<0.500	<0.500
B-2-22.5	21.0-23.0	0.613	<0.500	<0.500	<0.500	<0.500
B-2-27.5	27.0-28.0	<0.500	<0.500	<0.500	<0.500	<0.500
B-3-6.5	5.0-7.5	59.6	<2.50	<2.50	<2.50	<2.50
B-3-11.5	10.0-13.0	<0.500	<0.500	<0.500	<0.500	<0.500
B-3-16.5	15.0-17.0	<0.500	<0.500	<0.500	<0.500	<0.500
B-3-22.5	21.0-23.0	2.16	<0.500	<0.500	<0.500	<0.500
B-4-6.5	5.0-7.0	73.1	<2.50	<2.50	<2.50	<2.50
B-4-11.5	9.0-12.5	1.86	<0.500	<0.500	<0.500	<0.500
B-4-16.5	15.5-17.5	<0.500	<0.500	<0.500	<0.500	<0.500
B-4-22.5	21.5-23.5	<0.500	<0.500	<0.500	<0.500	<0.500
B-5-6.5	5.0-7.5	0.723	3.90	<0.500	<0.500	<0.500
B-5-11.5	10.5-12.5	<0.500	<0.500	<0.500	<0.500	<0.500
B-5-16.5	15.5-17.5	<0.500	<0.500	<0.500	<0.500	<0.500
B-5-22.5	21.5-23.5	<0.500	<0.500	<0.500	<0.500	<0.500
B-6-5.0	4.0-6.0	1.09	11.6	<0.500	0.87	<0.500
B-6-10.0	9.0-11.0	<0.500	<0.500	<0.500	<0.500	<0.500
B-6-15.0	14.0-16.0	<0.500	<0.500	<0.500	<0.500	<0.500
B-6-21.0	20.0-22.0	<0.500	<0.500	<0.500	<0.500	<0.500
B-7-6.5	5.0-7.5	29.8	2.66	<1.00	<1.00	<1.00
B-7-11.5	10.5-12.5	177	19.1	<2.50	<2.50	<2.50
B-7-16.5	15.0-18.0	406	41.2	<10.0	<10.0	<10.0
B-7-22.5	21.5-23.5	<0.500	<0.500	<0.500	<0.500	<0.500
B-8-6.5	5.0-7.5	20.5	0.867	<0.500	<0.500	<0.500
B-8-11.5	11.0-11.5	90.5 ^{2,3}	12.5	<0.500	<0.500	0.664 ⁴
B-8-16.5	15.0-18.0	503	75.6	<10.0	<10.0	<10.0
B-8-22.5	21.5-23.5	278	51.2	<5.00	<5.00	<5.00
B-9-6.5	5.0-7.5	58.8	3.21	<2.50	<2.50	<2.50
B-9-11.5	10.0-13.0	327	47.4	<10.0	<10.0	<10.0
B-9-16.5	15.0-18.0	1100	227	<25.0	<25.0	<25.0
B-9-22.5	21.5-23.5	0.672	<0.500	<0.500	<0.500	<0.500
B-10-6.5	5.0-7.5	386	34.4	<10.0	<10.0	<10.0
B-10-11.5	10.0-13.0	1600	266	<50.0	<50.0	<50.0
B-10-16.5	15.0-18.0	823	178	<25.0	<25.0	<25.0
B-10-22.5	21.5-23.5	1.91	<0.500	<0.500	<0.500	<0.500
B-11-6.5	5.0-7.5	574	44.0	<12.5	<12.5	<12.5
B-11-11.5	10.0-13.0	576	152	10.9	<10.0	<10.0
B-11-16.5	15.0-18.0	316	64.4	6.04	<5.00	<5.00
B-11-22.5	21.5-23.5	1.02	<0.500	<0.500	<0.500	<0.500
B-12-6.5	5.0-7.5	147	6.80	<5.00	<5.00	<5.00
B-12-11.5	10.0-13.0	275	46.7	<5.00	<5.00	<5.00
B-12-16.5	15.0-18.0	411	84.8	<10.0	<10.0	<10.0
B-12-22.5	21.5-23.5	0.575	<0.500	<0.500	<0.500	<0.500

Notes:

ft.bgs = feet below ground surface

PCE = Tetrachloroethene

TCE = Trichloroethene

1,1-DCE = 1,1-Dichloroethene

c-1,2-DCE = cis-1,2-Dichloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

ug/l = concentration in micrograms per liter

¹ Groundwater sampled by EPA Method 8021B, only Method 8010 list reported, all other Method 8010 list constituents not reported in this table are below the reporting limit

² This value is considered an estimate

³ Due to insufficient sample availability, a dilution could not be analyzed on this sample

⁴ Due to insufficient sample availability, a confirmation could not be analyzed for this sample

Table 2
Summary of Analytical Results - Groundwater Monitoring Wells
Cargill Salt, Alameda Facility

Well Designation	Analytical Results ¹	
	Tetrachloroethene (PCE) ug/l	Trichloroethene(TCE) ug/l
MW-1	906	178
MW-2	840	<50
MW-3	<0.500	<0.500

Notes:

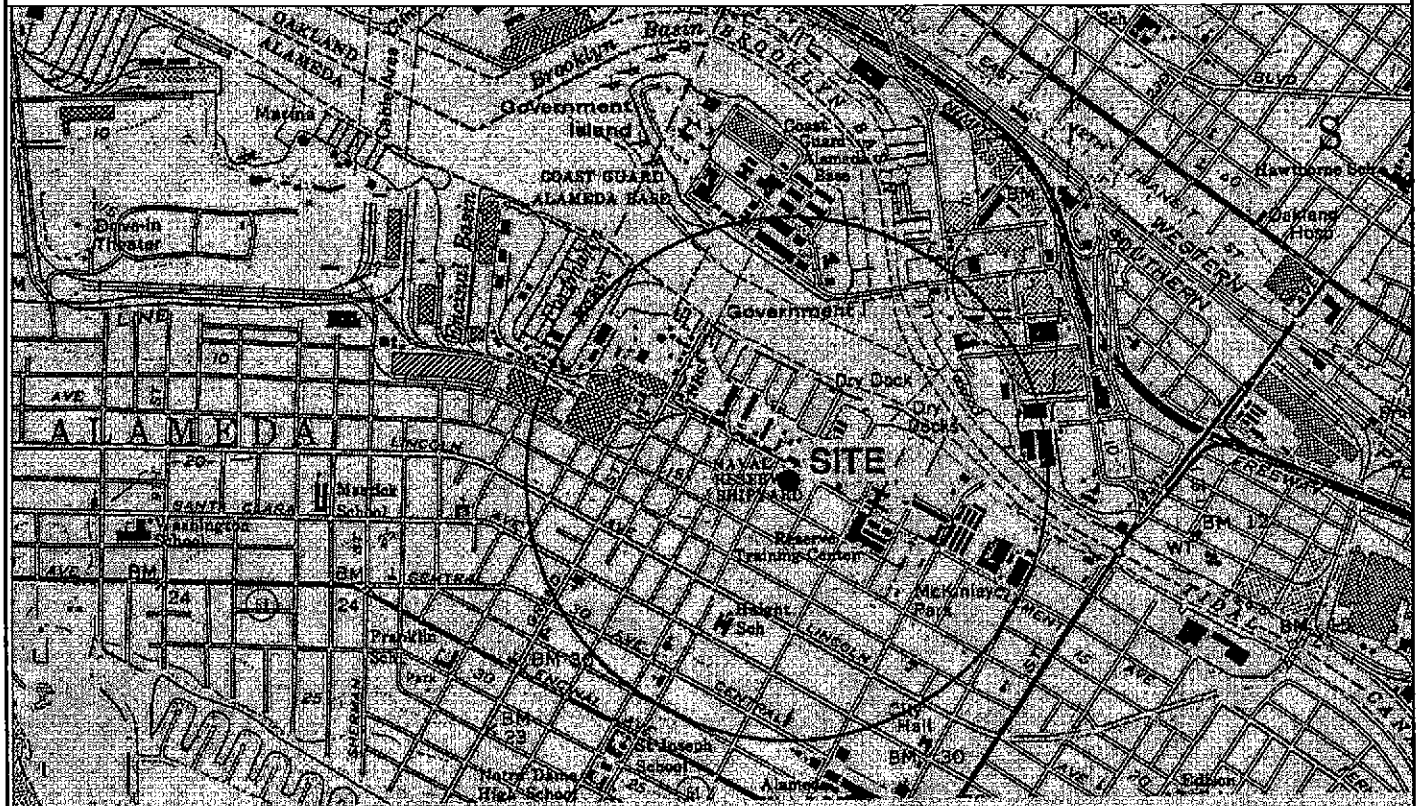
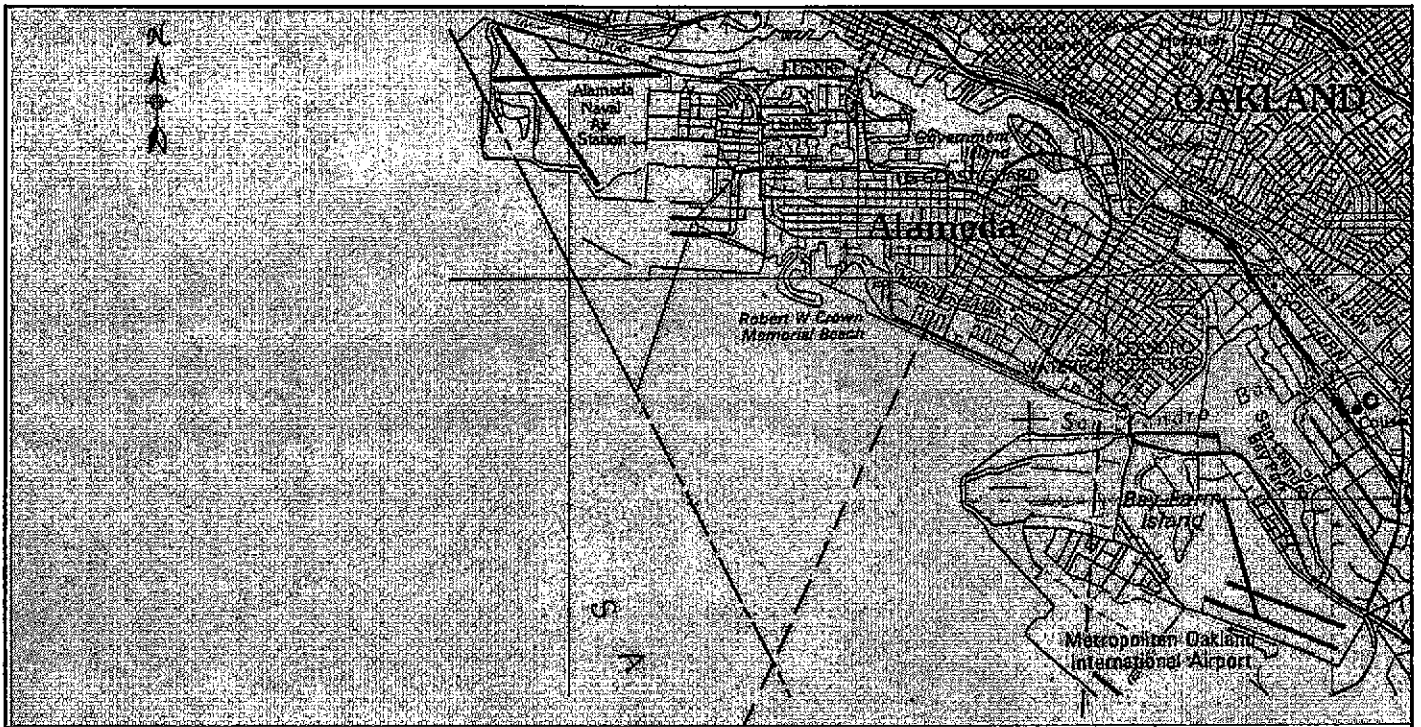
¹ EPA Method 8010 volatile organic compounds by Method 8021B
all other constituents are below the reporting limit

Table 3
Groundwater Levels, November 16, 1999
Cargill Salt, Alameda Facility

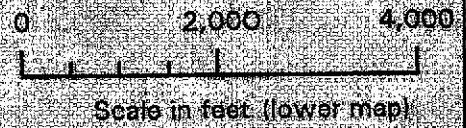
Well Designation	Top of Casing Elevation (ft. MSL) ¹	Depth to Water (ft. btoc)	Date of Measurement	Water-level Elevation (ft. MSL)
MW-1	6.75	3.75	11/16/1999	3.00
MW-2	9.81	5.22	11/16/1999	4.59
MW-3	6.92	4.34	11/16/1999	2.58

Notes:

ft. MSL = feet above mean sea level
ft. btoc = feet below top of casing

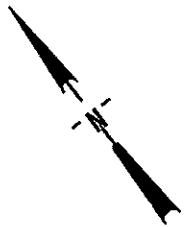


Base map (upper): U.S.G.S. 1:1,000,000-scale series (Topographic)
 San Francisco Quadrangle, California, 1978.
 Base map (lower): U.S.G.S. 7.5-minute series (Topographic)
 Oakland East and Oakland West Quadrangles, California,
 1959, Photorevised 1990.

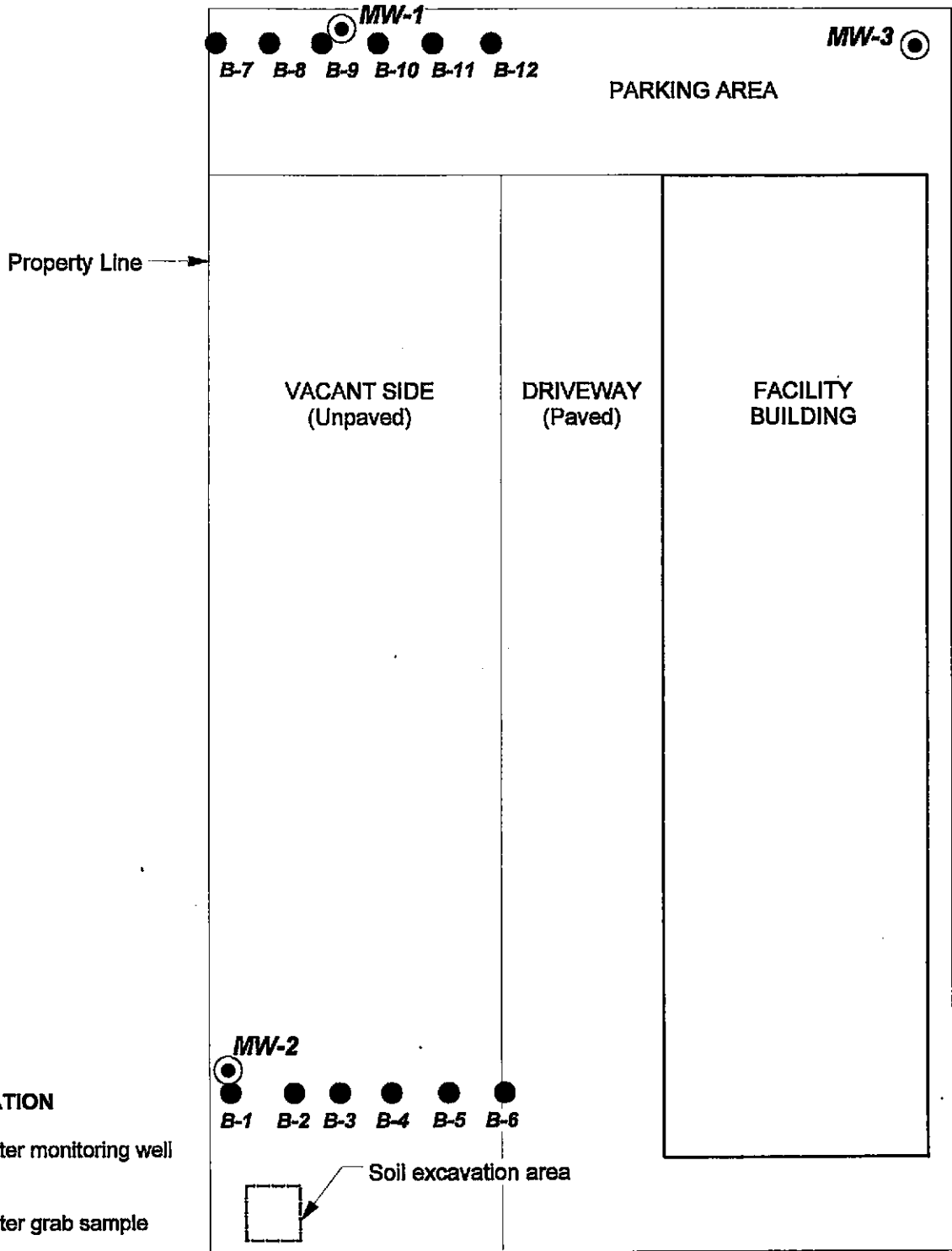


**CRAWFORD
 CONSULTING
 INC.**

**Cargill Salt Dispensing Systems Division
 2016 Clement Avenue, Alameda, California
 Figure 1. Site Location**



← Clement Avenue →



EXPLANATION

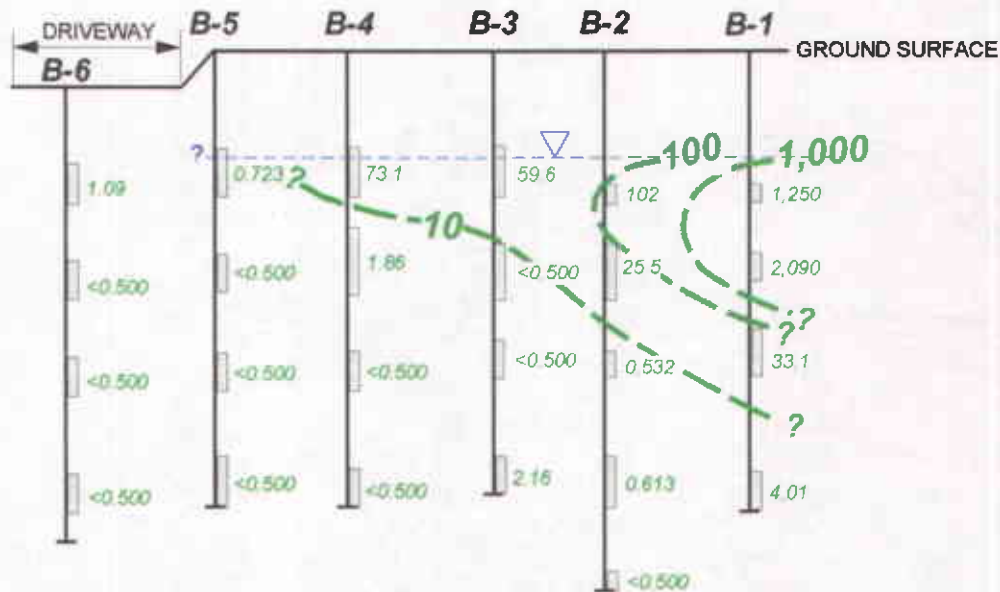
- Groundwater monitoring well location
- Groundwater grab sample location

I:\CRA\101\FIGURES\GW SAMPLING.DSF 12/23/99

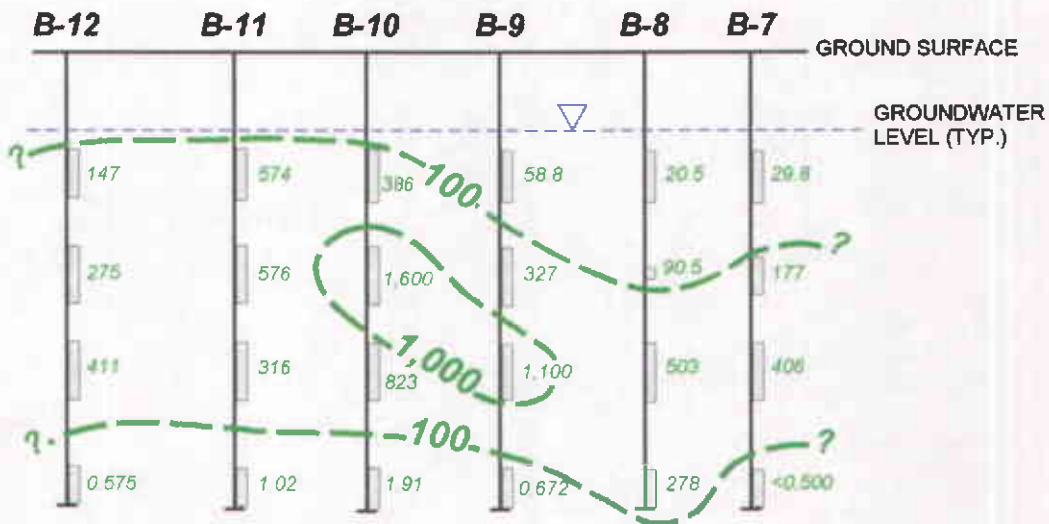


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Cargill Salt Dispensing Systems Division
2016 Clement Avenue, Alameda, California
**Figure 2. Groundwater Sampling and Monitoring Well
Locations**



TRANSECT B-1 TO B-6 PCE CONCENTRATIONS (ug/L)
(LOOKING SOUTHWARD)



TRANSECT B-7 TO B-12 PCE CONCENTRATIONS (ug/L)
(LOOKING SOUTHWARD)

EXPLANATION

- B-6 — Boring designation
- 1.09 — Sample interval showing PCE concentration (ug/L)
- 10 — PCE isoconcentration contour (ug/L)

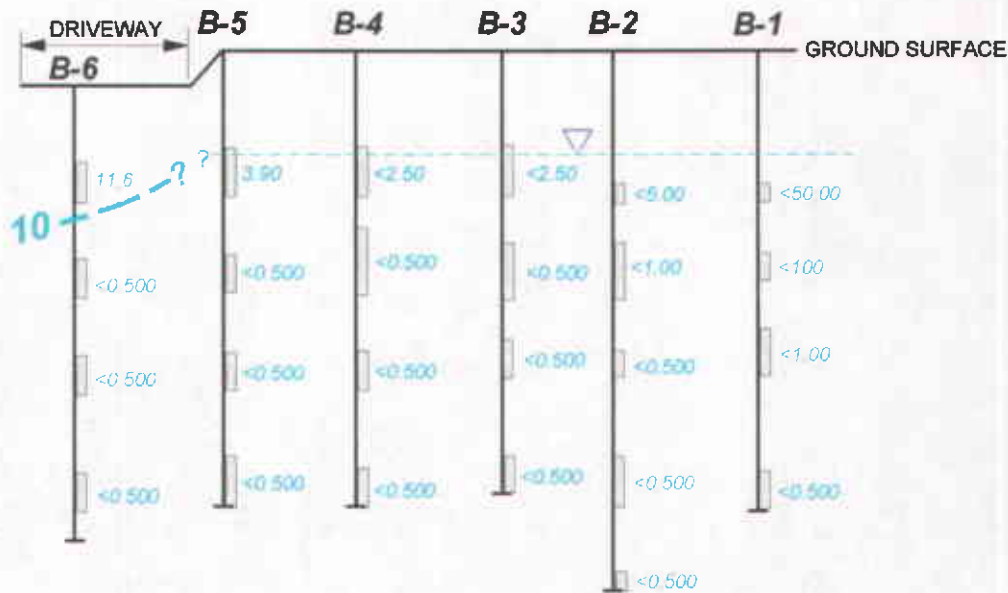
SCALE: 0 10 FEET
(Vertical and Horizontal)

FIGURE 3 PCE IN GW.DSF 1/4/00

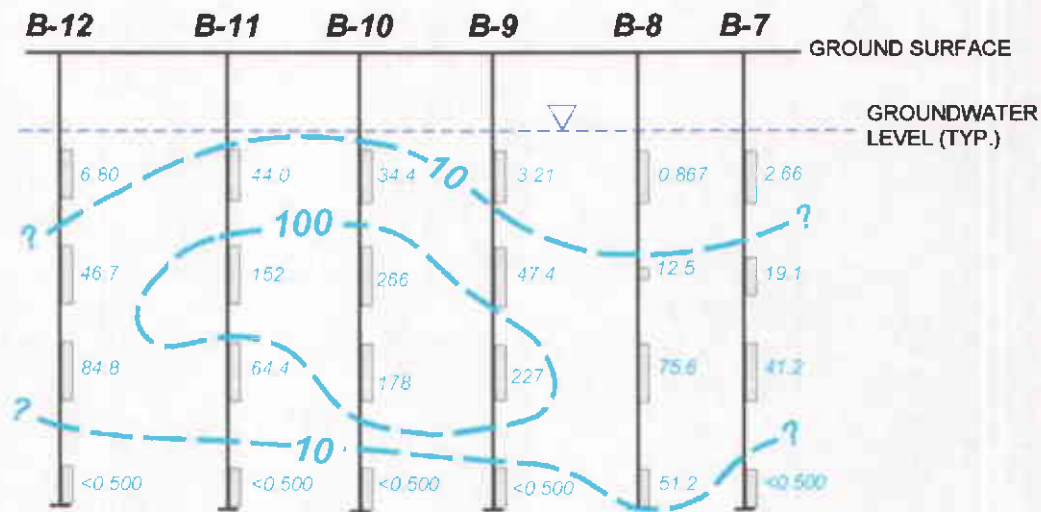


**CRAWFORD
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Cargill Salt Dispensing Systems Division
2016 Clement Avenue, Alameda, California
Figure 3. Transect PCE Concentrations in Groundwater



TRANSECT B-1 TO B-6 TCE CONCENTRATIONS (ug/L)
(LOOKING SOUTHWARD)



TRANSECT B-7 TO B-12 TCE CONCENTRATIONS (ug/L)
(LOOKING SOUTHWARD)

EXPLANATION

- B-6 — Boring designation
- 11.6 — Sample interval showing TCE concentration (ug/L)
- 10 — TCE isoconcentration contour (ug/L)

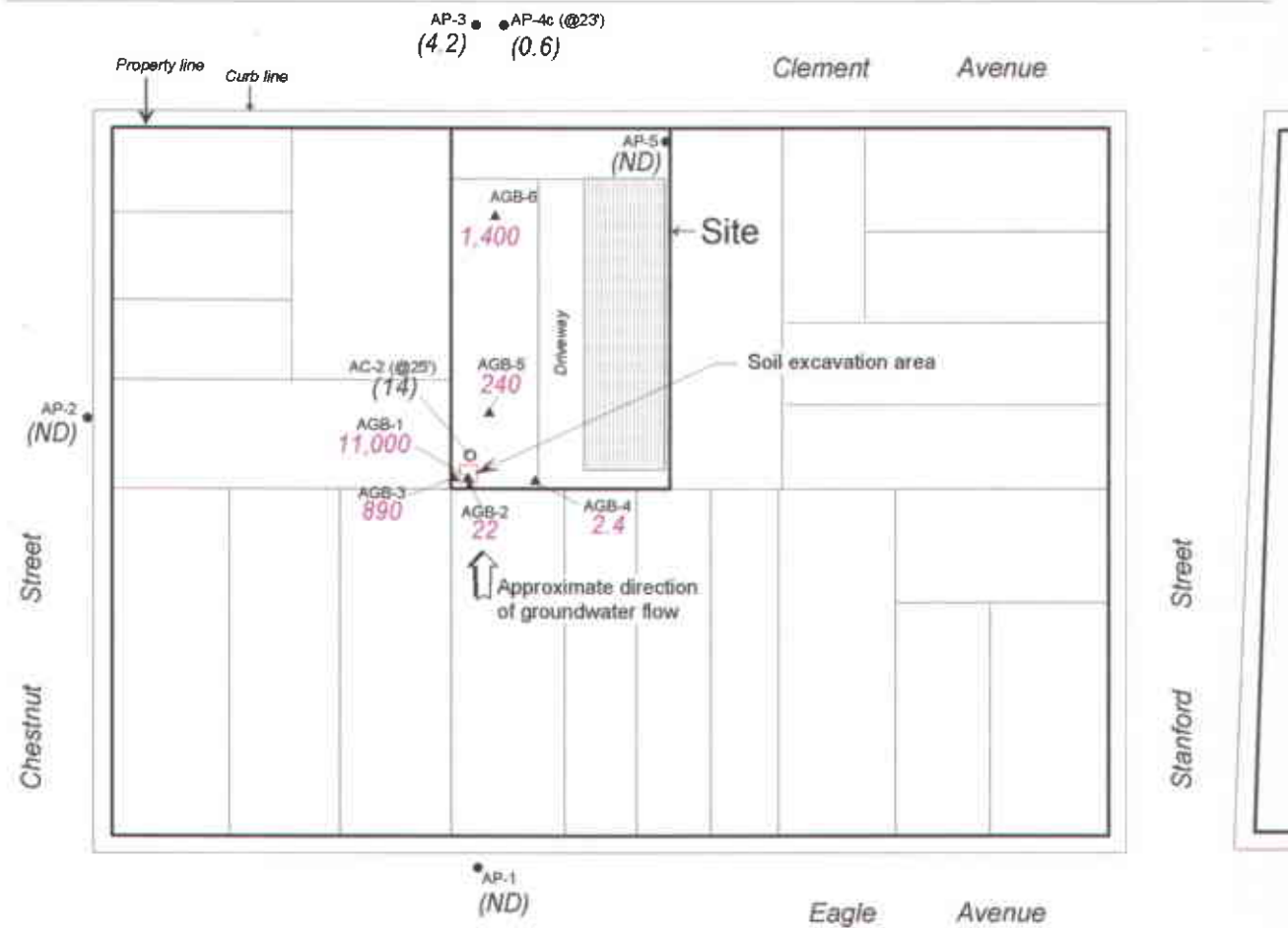


11CRA1101/FIGURES/TCE IN GW.DSP: 1/4/00



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Cargill Salt Dispensing Systems Division
2016 Clement Avenue, Alameda, California
Figure 4. Transect TCE Concentrations in Groundwater



Explanation

- ▲ AGB-5 Hand-augered groundwater sampling boring (Oct-93)
- AP-1 Groundwater sampling probe (Sept-94)
- AC-2 Soil-core boring grab sample (Sept-94)
- 240 PCE concentration (µg/L) in groundwater (Oct-93)
- (4.2) PCE concentration (µg/L) in groundwater (Sept-94)
- ND Not detected

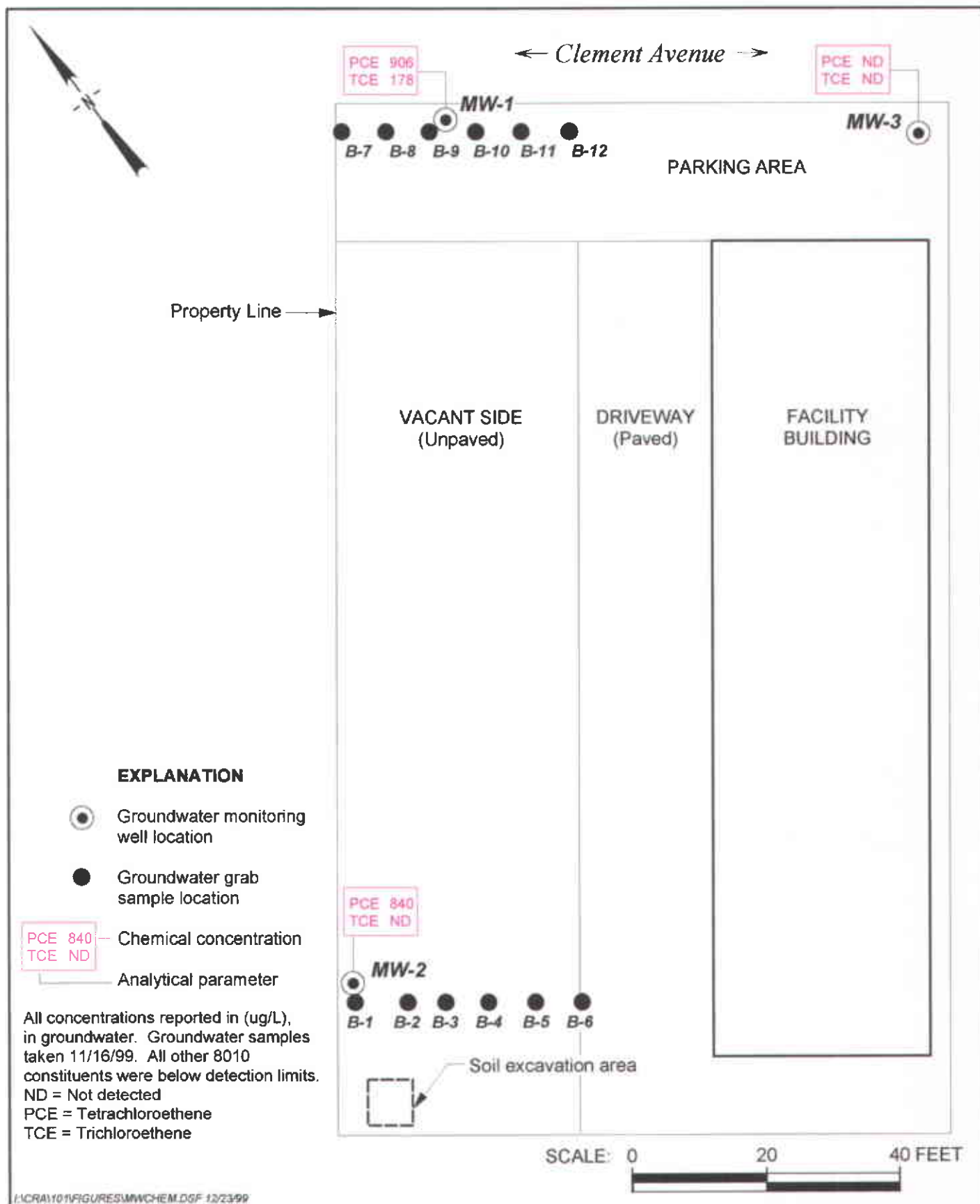


J:\CRAWFIGURES\VPCE9394-FIG5.D5F 1/3/00



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Cargill Salt Dispensing Systems Division
2016 Clement Avenue, Alameda, California
**Figure 5. PCE Concentrations in Groundwater
(October 1993 and September 1994)**



I:\CRA\10\FIGURES\MW\CHEM.DSF 12/23/99

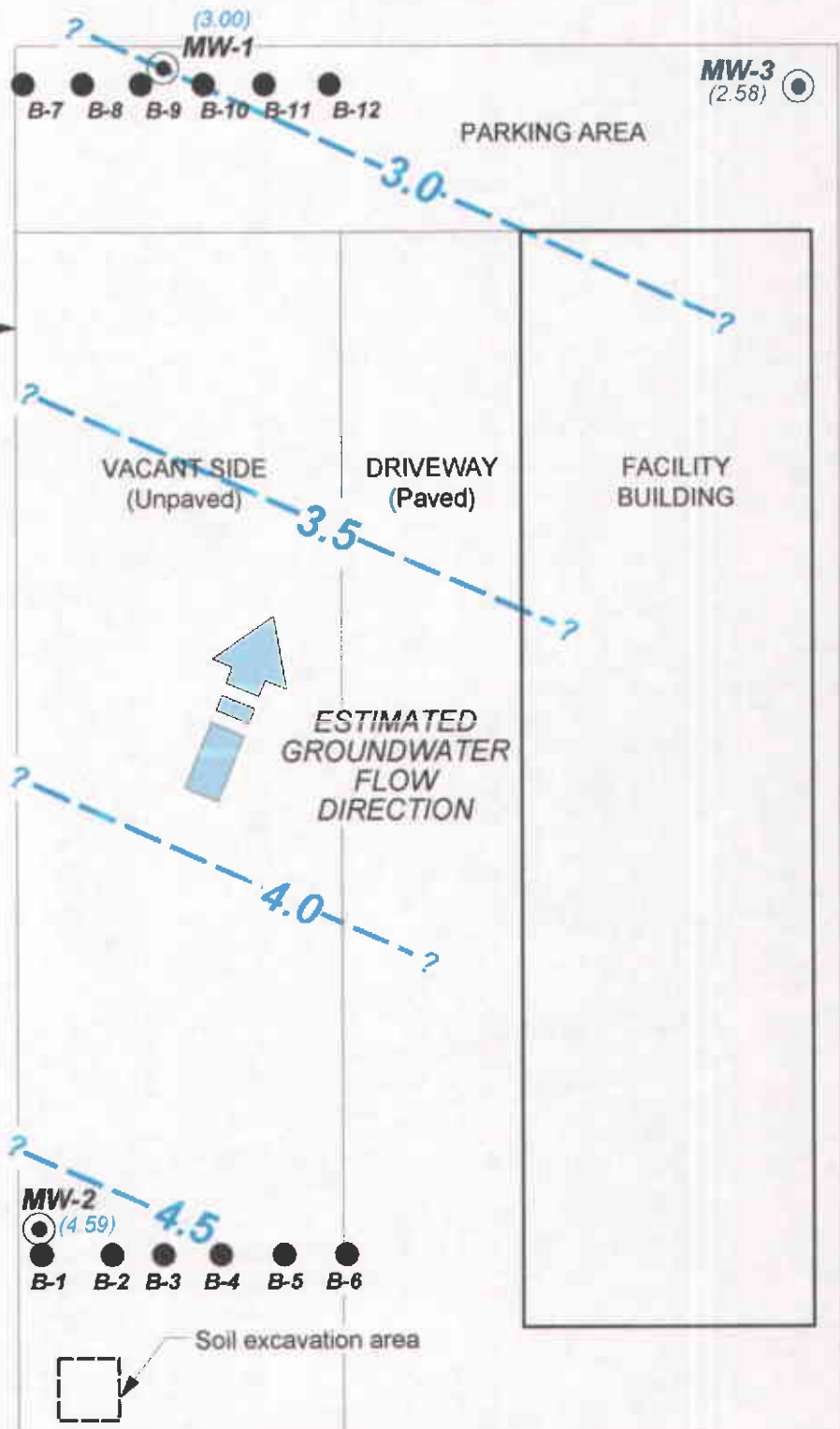


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INC.**



Cargill Salt Dispensing Systems Division
 2016 Clement Avenue, Alameda, California
Figure 6. VOC Concentrations in Groundwater



← Clement Avenue →



EXPLANATION

-  Groundwater monitoring well location
-  Groundwater grab sample location

(4.59) Groundwater elevation (Ft.-MSL); measured 11/16/99

?-4.0- Groundwater elevation contour (Ft.-MSL)

SCALE: 0 20 40 FEET



I:\CRA101\FIGURES\GW ELEV.DSF 12/28/99



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INC.**

Cargill Salt Dispensing Systems Division
2016 Clement Avenue, Alameda, California
Figure 7. Groundwater Elevation Contours

ALAMEDA COUNTY PUBLIC WORKS AGENCY



WATER RESOURCES SECTION

951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-3575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 2016 Clement Ave
Alameda, CA

PERMIT NUMBER 99WR468
WELL NUMBER _____
APN _____

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ R. CCF _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT
Name Burbona Pansom, Cargill Salt
Address 200 Central Ave
City Alameda, CA Zip 94501-4006

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
Name Robert Langdon, Conar Pacific/EFW
Address 2150 E. 5th Ave
City Alameda, CA Zip 94503
Fax 650 943-3815
Phone 650 943-3828

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input checked="" type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input checked="" type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

NA

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>		

DRILLER'S LICENSE NO. 636387

WELL PROJECTS

Drill Hole Diameter	<u>2 3/8</u> in.	Maximum	
Casing Diameter	<u>1</u> in.	Depth	<u>25</u> ft.
Surface Seal Depth	<u>2</u> ft.	Number	<u>3</u>

GEOTECHNICAL PROJECTS

Number of Borings	<u>20</u>	Maximum	
Hole Diameter	<u>2"</u> in.	Depth	<u>40</u> ft.

ESTIMATED STARTING DATE 8/16/99
ESTIMATED COMPLETION DATE 8/18/99

APPROVED [Signature] DATE 7-29-99

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [Signature] DATE 7/29/99

APPENDIX B

Certified Analytical Reports – Groundwater Grab Sampling



Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342

August 16, 1999

Robert Langdon
Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

RE: Cargill Salt/P908372

Dear Robert Langdon

Enclosed are the results of analyses for sample(s) received by the laboratory on August 16, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Portis
Project Manager

CA ELAP Certificate Number I-2374





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 Received: 8/16/99 Reported: 8/16/99
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ANALYTICAL REPORT FOR P908372

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B-2-27.5	P908372-01	Water	8/16/99





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 Received: 8/16/99 Reported: 8/16/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-2-27.5				P908372-01			Water	
Bromodichloromethane	9080208	8/16/99	8/16/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1-Dichlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		99.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		109	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 Received: 8/16/99 Reported: 8/16/99
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**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes
Batch: 9080208		Date Prepared: 8/9/99		Extraction Method: EPA 5030 waters					
Blank		9080208-BLK1							
Bromodichloromethane	8/9/99			ND	ug/l		0.500		
Bromoform	"			ND	"		0.500		
Bromomethane	"			ND	"		0.500		
Carbon tetrachloride	"			ND	"		0.500		
Chlorobenzene	"			ND	"		0.500		
Chloroethane	"			ND	"		0.500		
2-Chloroethylvinyl ether	"			ND	"		5.00		
Chloroform	"			ND	"		0.500		
Chloromethane	"			ND	"		0.500		
Dibromochloromethane	"			ND	"		0.500		
1,2-Dibromoethane (EDB)	"			ND	"		0.500		
1,2-Dichlorobenzene	"			ND	"		0.500		
1,3-Dichlorobenzene	"			ND	"		0.500		
1,4-Dichlorobenzene	"			ND	"		0.500		
1,1,1-Trichloroethane	"			ND	"		0.500		
1,1-Dichloroethane	"			ND	"		0.500		
1,2-Dichloroethane	"			ND	"		0.500		
1,1-Dichloroethene	"			ND	"		0.500		
cis-1,2-Dichloroethene	"			ND	"		0.500		
trans-1,2-Dichloroethene	"			ND	"		0.500		
1,2-Dichloropropane	"			ND	"		0.500		
cis-1,3-Dichloropropene	"			ND	"		0.500		
trans-1,3-Dichloropropene	"			ND	"		0.500		
Freon 113	"			ND	"		0.500		
Methylene chloride	"			ND	"		0.500		
1,1,2,2-Tetrachloroethane	"			ND	"		0.500		
Tetrachloroethene	"			ND	"		0.500		
1,1,2-Trichloroethane	"			ND	"		0.500		
1,1,1-Trichloroethane	"			ND	"		0.500		
Trichloroethene	"			ND	"		0.500		
Trichlorofluoromethane	"			ND	"		0.500		
Vinyl chloride	"			ND	"		0.500		
Surrogate: Bromochloromethane	"	30.0		29.8	"		65.0-135	99.3	
Surrogate: 1,4-Dichlorobutane	"	30.0		30.8	"		65.0-135	103	
Blank		9080208-BLK2							
Bromodichloromethane	8/10/99			ND	ug/l		0.500		
Bromoform	"			ND	"		0.500		
Bromomethane	"			ND	"		0.500		
Carbon tetrachloride	"			ND	"		0.500		





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 Received: 8/16/99 Reported: 8/16/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	9080208-BLK2									
Chlorobenzene	8/10/99			ND	ug/l	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
1,2-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,1,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		30.0	"	65.0-135	100			
Surrogate: 1,4-Dichlorobutane	"	30.0		31.3	"	65.0-135	104			
Blank	9080208-BLK3									
Bromodichloromethane	8/16/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				





Conor Pacific / EFW
 2650 East Bayshore Rd.
 Palo Alto, CA 94303

Project: Cargill Salt
 Project Number: CRA101
 Project Manager: Robert Langdon

Sampled: 8/16/99
 Received: 8/16/99
 Reported: 8/16/99

Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Blank (continued)										
9080208-BLK3										
Dibromochloromethane	8/16/99			ND	ug/l	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
on 113	"			ND	"	0.500				
ethylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		28.9	"	65.0-135	96.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		30.6	"	65.0-135	102			
LCS										
9080208-BS1										
Chlorobenzene	8/9/99	10.0		11.1	ug/l	65.0-135	111			
1,1-Dichloroethene	"	10.0		9.69	"	65.0-135	96.9			
Trichloroethene	"	10.0		9.39	"	65.0-135	93.9			
Surrogate: Bromochloromethane	"	30.0		29.4	"	65.0-135	98.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		30.4	"	65.0-135	101			
LCS										
9080208-BS2										
Chlorobenzene	8/10/99	10.0		11.0	ug/l	65.0-135	110			
1,1-Dichloroethene	"	10.0		9.41	"	65.0-135	94.1			
Trichloroethene	"	10.0		8.82	"	65.0-135	88.2			
Surrogate: Bromochloromethane	"	30.0		29.1	"	65.0-135	97.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		30.3	"	65.0-135	101			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 Received: 8/16/99 Reported: 8/16/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS										
9080208-BS3										
Chlorobenzene	8/16/99	10.0		10.9	ug/l	65.0-135	109			
1,1-Dichloroethene	"	10.0		9.65	"	65.0-135	96.5			
Trichloroethene	"	10.0		9.74	"	65.0-135	97.4			
Surrogate: Bromochloromethane	"	30.0		28.5	"	65.0-135	95.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.8	"	65.0-135	96.0			
Matrix Spike										
9080208-MS1 P908177-02										
Chlorobenzene	8/9/99	10.0	ND	10.7	ug/l	65.0-135	107			
1,1-Dichloroethene	"	10.0	ND	9.37	"	65.0-135	93.7			
Trichloroethene	"	10.0	1.15	9.49	"	65.0-135	83.4			
Surrogate: Bromochloromethane	"	30.0		28.1	"	65.0-135	93.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.4	"	65.0-135	94.7			
Matrix Spike Dup										
9080208-MSD1 P908177-02										
Chlorobenzene	8/9/99	10.0	ND	10.6	ug/l	65.0-135	106	20.0	0.939	
1,1-Dichloroethene	"	10.0	ND	9.65	"	65.0-135	96.5	20.0	2.94	
Trichloroethene	"	10.0	1.15	9.65	"	65.0-135	85.0	20.0	1.90	
Surrogate: Bromochloromethane	"	30.0		29.4	"	65.0-135	98.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		30.0	"	65.0-135	100			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 Received: 8/16/99 Reported: 8/16/99
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Notes and Definitions

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





EINARSON
FOWLER & WATSON

PO 08372

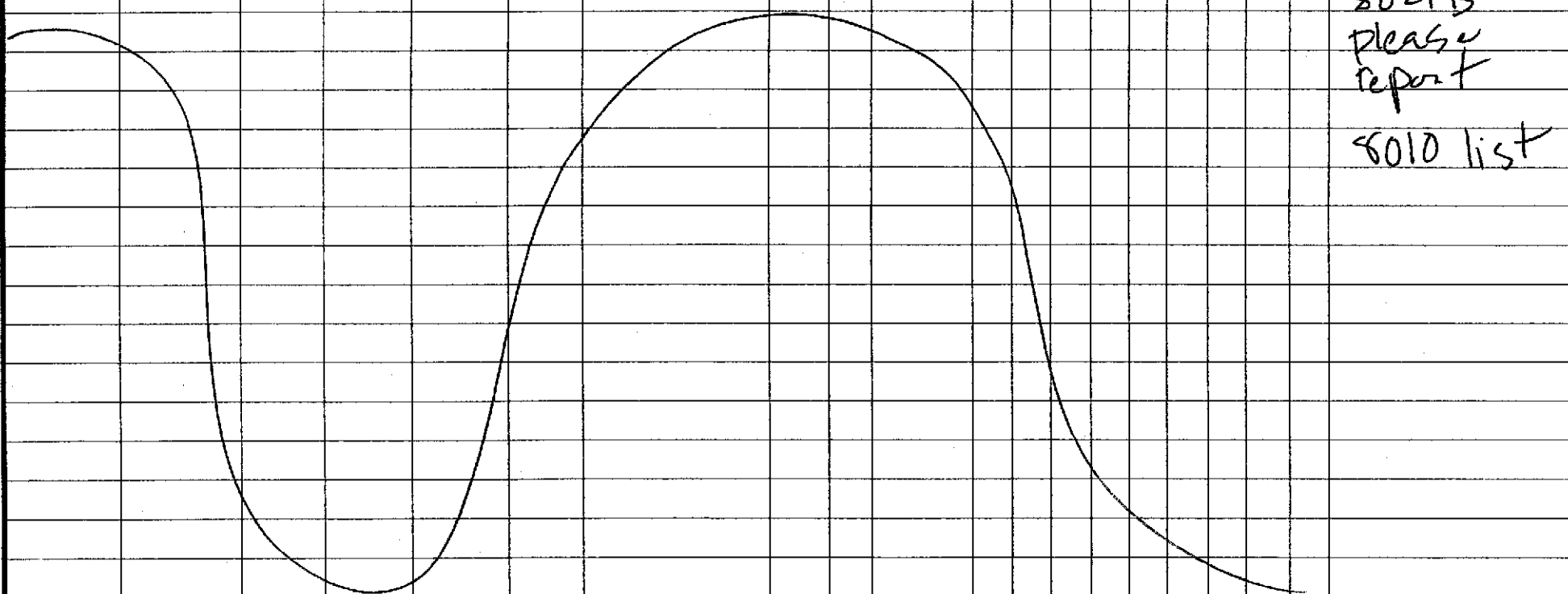
CHAIN OF CUSTODY

Page ___ of ___

CONTRACT LABORATORY: 480

TURN-AROUND TIME: Rapid

PO # _____

Project No. <u>CRA 101</u>			Site Name <u>Cargill Salt</u>						Analyses				Remarks
Sampler(s): (printed) <u>Robert + Langdon</u>			(signature) <u>Robert Langdon</u>						<div style="border: 1px solid black; padding: 5px; width: fit-content;"> * Method 8021 B please report 8010 list </div>				
Sample I.D.	Lab I.D.	Collection		Matrix	Depth	Container Information							8021 B *
		Date	Time			Type/Volume	Qty	Filt	Prsrv.				
<u>B2-27.5</u>		<u>4-16-99</u>	<u>0920</u>	<u>H₂O</u>	<u>27.5</u>	<u>VGA/40 ml</u>	<u>3</u>	<u>N</u>	<u>HCL</u>	<u>X</u>	<u>PO08372-01</u>		
													
Relinquished by: (signature) <u>[Signature]</u>			Received by: (signature) <u>[Signature]</u>			Date/Time: <u>10:55 8/16/99</u>			Send Results To: Attn: <u>Robert Langdon</u> EINARSON, FOWLER & WATSON 2650 East Bayshore Road Palo Alto, CA 94303 Phone (415) 843-3828 Fax (415) 843-3815				
Relinquished by: (signature) <u>[Signature]</u>			Received by: (signature) <u>[Signature]</u>			Date/Time: <u>8/16/99 12:02</u>							
Relinquished by: (signature)			Received by: (signature)			Date/Time:							



August 31, 1999

Robert Langdon
Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

RE: Cargill Salt/P908485

Dear Robert Langdon

Enclosed are the results of analyses for sample(s) received by the laboratory on August 20, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Portis
Project Manager

CA ELAP Certificate Number I-2374





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargili Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

ANALYTICAL REPORT FOR P908485

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B-1-7.5	P908485-01	Water	8/16/99
B-1-11.5	P908485-02	Water	8/16/99
B-1-16.5	P908485-03	Water	8/16/99
B-1-22.5	P908485-04	Water	8/16/99
B-2-7.5	P908485-05	Water	8/16/99
B-3-11.5	P908485-06	Water	8/16/99
B-2-11.5	P908485-07	Water	8/16/99
B-3-16.5	P908485-08	Water	8/16/99
B-3-16.5	P908485-09	Water	8/16/99
B-2-22.5	P908485-10	Water	8/16/99
B-3-22.5	P908485-11	Water	8/16/99
B-4-11.5	P908485-12	Water	8/17/99
B-4-22.5	P908485-13	Water	8/17/99
B-6-5	P908485-14	Water	8/17/99
B-8-6.5	P908485-15	Water	8/17/99
B-9-6.5	P908485-16	Water	8/17/99
B-7-6.5	P908485-17	Water	8/17/99
B-6-10	P908485-18	Water	8/17/99
B-6-15	P908485-19	Water	8/17/99
B-11-6.5	P908485-20	Water	8/17/99
B-6-21	P908485-21	Water	8/17/99





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

ANALYTICAL REPORT FOR P908485

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B-12-6.5	P908485-22	Water	8/17/99
B-10-6.5	P908485-23	Water	8/17/99
B-3-6.5	P908485-24	Water	8/17/99
B-5-11.5	P908485-25	Water	8/18/99
B-4-16.5	P908485-26	Water	8/18/99
B-4-6.5	P908485-27	Water	8/18/99
B-5-16.5	P908485-28	Water	8/18/99
B-5-6.5	P908485-29	Water	8/18/99
-22.5	P908485-30	Water	8/18/99
B-7-22.5	P908485-31	Water	8/18/99
B-8-11.5	P908485-32	Water	8/18/99
B-9-22.5	P908485-33	Water	8/18/99
B-9-16.5	P908485-34	Water	8/18/99
B-8-16.5	P908485-35	Water	8/18/99
B-9-11.5	P908485-36	Water	8/18/99
B-8-22.5	P908485-37	Water	8/18/99
B-7-11.5	P908485-38	Water	8/18/99
B-10-11.5	P908485-39	Water	8/18/99
B-7-16.5	P908485-40	Water	8/18/99
B-12-22.5	P908485-41	Water	8/18/99
B-10-16.5	P908485-42	Water	8/18/99





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

ANALYTICAL REPORT FOR P908485

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
B-11-11.5	P908485-43	Water	8/18/99
B-11-16.5	P908485-44	Water	8/18/99
B-12-16.5	P908485-45	Water	8/18/99
B-12-11.5	P908485-46	Water	8/18/99
B-11-22.5	P908485-47	Water	8/18/99
B-10-22.5	P908485-48	Water	8/18/99





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-1-7.5				P908485-01			Water	
Bromodichloromethane	9080565	8/23/99	8/23/99		50.0	ND	ug/l	
Bromoform	"	"	"		50.0	ND	"	
Bromomethane	"	"	"		50.0	ND	"	
Carbon tetrachloride	"	"	"		50.0	ND	"	
Chlorobenzene	"	"	"		50.0	ND	"	
Chloroethane	"	"	"		50.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		500	ND	"	
Chloroform	"	"	"		50.0	ND	"	
Chloromethane	"	"	"		50.0	ND	"	
Dibromochloromethane	"	"	"		50.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		50.0	ND	"	
1,2-Dichlorobenzene	"	"	"		50.0	ND	"	
1,3-Dichlorobenzene	"	"	"		50.0	ND	"	
1,4-Dichlorobenzene	"	"	"		50.0	ND	"	
Chlorodifluoromethane	"	"	"		50.0	ND	"	
1,1-Dichloroethane	"	"	"		50.0	ND	"	
1,2-Dichloroethane	"	"	"		50.0	ND	"	
1,1-Dichloroethene	"	"	"		50.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		50.0	ND	"	
1,2-Dichloropropane	"	"	"		50.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		50.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		50.0	ND	"	
Freon 113	"	"	"		50.0	ND	"	
Methylene chloride	"	"	"		50.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	1250	"	
1,1,2-Trichloroethane	"	"	"		50.0	ND	"	
1,1,1-Trichloroethane	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Trichlorofluoromethane	"	"	"		50.0	ND	"	
Vinyl chloride	"	"	"		50.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		90.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		100	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-1-11.5				P908485-02			Water	
Bromodichloromethane	9080565	8/23/99	8/23/99		100	ND	ug/l	
Bromoform	"	"	"		100	ND	"	
Bromomethane	"	"	"		100	ND	"	
Carbon tetrachloride	"	"	"		100	ND	"	
Chlorobenzene	"	"	"		100	ND	"	
Chloroethane	"	"	"		100	ND	"	
2-Chloroethylvinyl ether	"	"	"		1000	ND	"	
Chloroform	"	"	"		100	ND	"	
Chloromethane	"	"	"		100	ND	"	
Dibromochloromethane	"	"	"		100	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		100	ND	"	
1,2-Dichlorobenzene	"	"	"		100	ND	"	
1,3-Dichlorobenzene	"	"	"		100	ND	"	
1,4-Dichlorobenzene	"	"	"		100	ND	"	
Chlorodifluoromethane	"	"	"		100	ND	"	
1,1-Dichloroethane	"	"	"		100	ND	"	
1,2-Dichloroethane	"	"	"		100	ND	"	
1,1-Dichloroethene	"	"	"		100	ND	"	
cis-1,2-Dichloroethene	"	"	"		100	ND	"	
trans-1,2-Dichloroethene	"	"	"		100	ND	"	
1,2-Dichloropropane	"	"	"		100	ND	"	
cis-1,3-Dichloropropene	"	"	"		100	ND	"	
trans-1,3-Dichloropropene	"	"	"		100	ND	"	
Freon 113	"	"	"		100	ND	"	
Methylene chloride	"	"	"		100	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		100	ND	"	
Tetrachloroethene	"	"	"		100	2090	"	
1,1,2-Trichloroethane	"	"	"		100	ND	"	
1,1,1-Trichloroethane	"	"	"		100	ND	"	
Trichloroethene	"	"	"		100	ND	"	
Trichlorofluoromethane	"	"	"		100	ND	"	
Vinyl chloride	"	"	"		100	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		95.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		106	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-1-16.5				P908485-03			Water	
Bromodichloromethane	9080565	8/24/99	8/24/99		1.00	ND	ug/l	
Bromoform	"	"	"		1.00	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		1.00	ND	"	
Chlorobenzene	"	"	"		1.00	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		10.0	ND	"	
Chloroform	"	"	"		1.00	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		1.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		1.00	ND	"	
1,2-Dichlorobenzene	"	"	"		1.00	ND	"	
1,3-Dichlorobenzene	"	"	"		1.00	ND	"	
1,4-Dichlorobenzene	"	"	"		1.00	ND	"	
Chlorodifluoromethane	"	"	"		1.00	ND	"	
1,1-Dichloroethane	"	"	"		1.00	ND	"	
1,2-Dichloroethane	"	"	"		1.00	ND	"	
1,1-Dichloroethene	"	"	"		1.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		1.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		1.00	ND	"	
1,2-Dichloropropane	"	"	"		1.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		1.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		1.00	ND	"	
Freon 113	"	"	"		1.00	ND	"	
Methylene chloride	"	"	"		1.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		1.00	ND	"	
Tetrachloroethene	"	"	"		1.00	33.1	"	
1,1,2-Trichloroethane	"	"	"		1.00	ND	"	
1,1,1-Trichloroethane	"	"	"		1.00	ND	"	
Trichloroethene	"	"	"		1.00	ND	"	
Trichlorofluoromethane	"	"	"		1.00	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		93.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		101	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
 Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-1-22.5				P908485-04			Water	
Bromodichloromethane	9080565	8/23/99	8/23/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	4.10	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		101	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		108	"	





Conor Pacific / BFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-2-7.5				P908485-05			Water	
Bromodichloromethane	9080565	8/23/99	8/23/99		5.00	ND	ug/l	
Bromoform	"	"	"		5.00	ND	"	
Bromomethane	"	"	"		5.00	ND	"	
Carbon tetrachloride	"	"	"		5.00	ND	"	
Chlorobenzene	"	"	"		5.00	ND	"	
Chloroethane	"	"	"		5.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		50.0	ND	"	
Chloroform	"	"	"		5.00	ND	"	
Chloromethane	"	"	"		5.00	ND	"	
Dibromochloromethane	"	"	"		5.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		5.00	ND	"	
1,2-Dichlorobenzene	"	"	"		5.00	ND	"	
1,3-Dichlorobenzene	"	"	"		5.00	ND	"	
1,4-Dichlorobenzene	"	"	"		5.00	ND	"	
Chlorodifluoromethane	"	"	"		5.00	ND	"	
1,1-Dichloroethane	"	"	"		5.00	ND	"	
1,2-Dichloroethane	"	"	"		5.00	ND	"	
1,1-Dichloroethene	"	"	"		5.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		5.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		5.00	ND	"	
1,2-Dichloropropane	"	"	"		5.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		5.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		5.00	ND	"	
Freon 113	"	"	"		5.00	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		5.00	ND	"	
Tetrachloroethene	"	"	"		5.00	102	"	
1,1,2-Trichloroethane	"	"	"		5.00	ND	"	
1,1,1-Trichloroethane	"	"	"		5.00	ND	"	
Trichloroethene	"	"	"		5.00	ND	"	
Trichlorofluoromethane	"	"	"		5.00	ND	"	
Vinyl chloride	"	"	"		5.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		100	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		103	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
 Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-3-11.5				P908485-06			Water	
Bromodichloromethane	9080565	8/23/99	8/23/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		105	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		109	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
 Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-2-11.5				P908485-07			Water	
Bromodichloromethane	9080566	8/23/99	8/23/99		1.00	ND	ug/l	
Bromoform	"	"	"		1.00	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		1.00	ND	"	
Chlorobenzene	"	"	"		1.00	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		10.0	ND	"	
Chloroform	"	"	"		1.00	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		1.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		1.00	ND	"	
1,2-Dichlorobenzene	"	"	"		1.00	ND	"	
1,3-Dichlorobenzene	"	"	"		1.00	ND	"	
1,4-Dichlorobenzene	"	"	"		1.00	ND	"	
Chlorodifluoromethane	"	"	"		1.00	ND	"	
1,1-Dichloroethane	"	"	"		1.00	ND	"	
1,2-Dichloroethane	"	"	"		1.00	ND	"	
1,1-Dichloroethene	"	"	"		1.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		1.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		1.00	ND	"	
1,2-Dichloropropane	"	"	"		1.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		1.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		1.00	ND	"	
Freon 113	"	"	"		1.00	ND	"	
Methylene chloride	"	"	"		1.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		1.00	ND	"	
Tetrachloroethene	"	"	"		1.00	25.5	"	
1,1,2-Trichloroethane	"	"	"		1.00	ND	"	
1,1,1-Trichloroethane	"	"	"		1.00	ND	"	
Trichloroethene	"	"	"		1.00	ND	"	
Trichlorofluoromethane	"	"	"		1.00	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		98.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		96.0	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-3-16.5				P908485-08			Water	
Bromodichloromethane	9080566	8/23/99	8/23/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		95.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		92.7	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-2-16.5				P908485-09			Water	
Bromodichloromethane	9080566	8/23/99	8/23/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	0.532	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		96.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		96.7	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-2-22.5				P908485-10			Water	
Bromodichloromethane	9080566	8/23/99	8/23/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	0.613	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		103	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		98.3	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-3-22.5				P908485-11			Water	
Bromodichloromethane	9080566	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	2.16	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		93.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		95.7	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-4-11.5				P908485-12			Water	
Bromodichloromethane	9080565	8/23/99	8/23/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	1.86	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		94.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		101	"	





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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-4-22.5				P908485-13			Water	
Bromodichloromethane	9080566	8/23/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		97.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		96.7	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-6-5				P908485-14			Water	
Bromodichloromethane	9080566	8/23/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	0.870	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	1.09	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	11.6	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		109	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		106	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-8-6.5				P908485-15			Water	
Bromodichloromethane	9080566	8/23/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	20.5	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	0.867	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		101	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		97.3	"	





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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-9-6.5				P908485-16			Water	
Bromodichloromethane	9080566	8/23/99	8/24/99		2.50	ND	ug/l	
Bromoform	"	"	"		2.50	ND	"	
Bromomethane	"	"	"		2.50	ND	"	
Carbon tetrachloride	"	"	"		2.50	ND	"	
Chlorobenzene	"	"	"		2.50	ND	"	
Chloroethane	"	"	"		2.50	ND	"	
2-Chloroethylvinyl ether	"	"	"		25.0	ND	"	
Chloroform	"	"	"		2.50	ND	"	
Chloromethane	"	"	"		2.50	ND	"	
Dibromochloromethane	"	"	"		2.50	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		2.50	ND	"	
1,2-Dichlorobenzene	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		2.50	ND	"	
1,4-Dichlorobenzene	"	"	"		2.50	ND	"	
Chlorodifluoromethane	"	"	"		2.50	ND	"	
1,1-Dichloroethane	"	"	"		2.50	ND	"	
1,2-Dichloroethane	"	"	"		2.50	ND	"	
1,1-Dichloroethene	"	"	"		2.50	ND	"	
cis-1,2-Dichloroethene	"	"	"		2.50	ND	"	
trans-1,2-Dichloroethene	"	"	"		2.50	ND	"	
1,2-Dichloropropane	"	"	"		2.50	ND	"	
cis-1,3-Dichloropropene	"	"	"		2.50	ND	"	
trans-1,3-Dichloropropene	"	"	"		2.50	ND	"	
Freon 113	"	"	"		2.50	ND	"	
Methylene chloride	"	"	"		2.50	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		2.50	ND	"	
Tetrachloroethene	"	"	"		2.50	58.8	"	
1,1,2-Trichloroethane	"	"	"		2.50	ND	"	
1,1,1-Trichloroethane	"	"	"		2.50	ND	"	
Trichloroethene	"	"	"		2.50	3.21	"	
Trichlorofluoromethane	"	"	"		2.50	ND	"	
Vinyl chloride	"	"	"		2.50	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		98.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		96.3	"	





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**Volatile Organic Compounds by EPA Method 8021B
 Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-7-6.5				P908485-17			Water	
Bromodichloromethane	9080566	8/23/99	8/25/99		1.00	ND	ug/l	
Bromoform	"	"	"		1.00	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		1.00	ND	"	
Chlorobenzene	"	"	"		1.00	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		10.0	ND	"	
Chloroform	"	"	"		1.00	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		1.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		1.00	ND	"	
1,2-Dichlorobenzene	"	"	"		1.00	ND	"	
1,3-Dichlorobenzene	"	"	"		1.00	ND	"	
1,4-Dichlorobenzene	"	"	"		1.00	ND	"	
Chlorodifluoromethane	"	"	"		1.00	ND	"	
1,1-Dichloroethane	"	"	"		1.00	ND	"	
1,2-Dichloroethane	"	"	"		1.00	ND	"	
1,1-Dichloroethene	"	"	"		1.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		1.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		1.00	ND	"	
1,2-Dichloropropane	"	"	"		1.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		1.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		1.00	ND	"	
Freon 113	"	"	"		1.00	ND	"	
Methylene chloride	"	"	"		1.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		1.00	ND	"	
Tetrachloroethene	"	"	"		1.00	29.8	"	
1,1,2-Trichloroethane	"	"	"		1.00	ND	"	
1,1,1-Trichloroethane	"	"	"		1.00	ND	"	
Trichloroethene	"	"	"		1.00	2.66	"	
Trichlorofluoromethane	"	"	"		1.00	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		107	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		102	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-6-10				P908485-18			Water	
Bromodichloromethane	9080566	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		93.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		95.0	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-6-15				P908485-19			Water	
Bromodichloromethane	9080566	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		97.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		97.0	"	





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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-11-6.5				P908485-20			Water	
Bromodichloromethane	9080566	8/24/99	8/24/99		12.5	ND	ug/l	
Bromoform	"	"	"		12.5	ND	"	
Bromomethane	"	"	"		12.5	ND	"	
Carbon tetrachloride	"	"	"		12.5	ND	"	
Chlorobenzene	"	"	"		12.5	ND	"	
Chloroethane	"	"	"		12.5	ND	"	
2-Chloroethylvinyl ether	"	"	"		125	ND	"	
Chloroform	"	"	"		12.5	ND	"	
Chloromethane	"	"	"		12.5	ND	"	
Dibromochloromethane	"	"	"		12.5	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		12.5	ND	"	
1,2-Dichlorobenzene	"	"	"		12.5	ND	"	
1,3-Dichlorobenzene	"	"	"		12.5	ND	"	
1,4-Dichlorobenzene	"	"	"		12.5	ND	"	
Chlorodifluoromethane	"	"	"		12.5	ND	"	
1,1-Dichloroethane	"	"	"		12.5	ND	"	
1,2-Dichloroethane	"	"	"		12.5	ND	"	
1,1-Dichloroethene	"	"	"		12.5	ND	"	
cis-1,2-Dichloroethene	"	"	"		12.5	ND	"	
trans-1,2-Dichloroethene	"	"	"		12.5	ND	"	
1,2-Dichloropropane	"	"	"		12.5	ND	"	
cis-1,3-Dichloropropene	"	"	"		12.5	ND	"	
trans-1,3-Dichloropropene	"	"	"		12.5	ND	"	
Freon 113	"	"	"		12.5	ND	"	
Methylene chloride	"	"	"		12.5	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		12.5	ND	"	
Tetrachloroethene	"	"	"		12.5	574	"	
1,1,2-Trichloroethane	"	"	"		12.5	ND	"	
1,1,1-Trichloroethane	"	"	"		12.5	ND	"	
Trichloroethene	"	"	"		12.5	44.0	"	
Trichlorofluoromethane	"	"	"		12.5	ND	"	
Vinyl chloride	"	"	"		12.5	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		93.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		96.0	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-6-21				P908485-21			Water	
Bromodichloromethane	9080566	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		98.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		92.3	"	





Conor Pacific / EFW
 2650 East Bayshore Rd.
 Palo Alto, CA 94303

Project: Cargill Salt
 Project Number: CRA101
 Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
 Received: 8/20/99
 Reported: 8/31/99

Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-12-6.5				P908485-22			Water	
Bromodichloromethane	9080566	8/24/99	8/24/99		5.00	ND	ug/l	
Bromoform	"	"	"		5.00	ND	"	
Bromomethane	"	"	"		5.00	ND	"	
Carbon tetrachloride	"	"	"		5.00	ND	"	
Chlorobenzene	"	"	"		5.00	ND	"	
Chloroethane	"	"	"		5.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		50.0	ND	"	
Chloroform	"	"	"		5.00	ND	"	
Chloromethane	"	"	"		5.00	ND	"	
Dibromochloromethane	"	"	"		5.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		5.00	ND	"	
1,2-Dichlorobenzene	"	"	"		5.00	ND	"	
1,3-Dichlorobenzene	"	"	"		5.00	ND	"	
1,4-Dichlorobenzene	"	"	"		5.00	ND	"	
Chlorodifluoromethane	"	"	"		5.00	ND	"	
1,1-Dichloroethane	"	"	"		5.00	ND	"	
1,2-Dichloroethane	"	"	"		5.00	ND	"	
1,1-Dichloroethene	"	"	"		5.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		5.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		5.00	ND	"	
1,2-Dichloropropane	"	"	"		5.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		5.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		5.00	ND	"	
Freon 113	"	"	"		5.00	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,2-Tetrachloroethane	"	"	"		5.00	ND	"	
Tetrachloroethene	"	"	"		5.00	147	"	
1,1,2-Trichloroethane	"	"	"		5.00	ND	"	
1,1,1-Trichloroethane	"	"	"		5.00	ND	"	
Trichloroethene	"	"	"		5.00	6.80	"	
Trichlorofluoromethane	"	"	"		5.00	ND	"	
Vinyl chloride	"	"	"		5.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		93.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		98.3	"	





Conor Pacific / BFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-10-6.5				P908485-23			Water	
Bromodichloromethane	9080566	8/24/99	8/24/99		10.0	ND	ug/l	
Bromoform	"	"	"		10.0	ND	"	
Bromomethane	"	"	"		10.0	ND	"	
Carbon tetrachloride	"	"	"		10.0	ND	"	
Chlorobenzene	"	"	"		10.0	ND	"	
Chloroethane	"	"	"		10.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		100	ND	"	
Chloroform	"	"	"		10.0	ND	"	
Chloromethane	"	"	"		10.0	ND	"	
Dibromochloromethane	"	"	"		10.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		10.0	ND	"	
1,2-Dichlorobenzene	"	"	"		10.0	ND	"	
1,3-Dichlorobenzene	"	"	"		10.0	ND	"	
1,4-Dichlorobenzene	"	"	"		10.0	ND	"	
Chlorodifluoromethane	"	"	"		10.0	ND	"	
1,1-Dichloroethane	"	"	"		10.0	ND	"	
1,2-Dichloroethane	"	"	"		10.0	ND	"	
1,1-Dichloroethene	"	"	"		10.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		10.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		10.0	ND	"	
1,2-Dichloropropane	"	"	"		10.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		10.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		10.0	ND	"	
Freon 113	"	"	"		10.0	ND	"	
Methylene chloride	"	"	"		10.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		10.0	ND	"	
Tetrachloroethene	"	"	"		10.0	386	"	
1,1,2-Trichloroethane	"	"	"		10.0	ND	"	
1,1,1-Trichloroethane	"	"	"		10.0	ND	"	
Trichloroethene	"	"	"		10.0	34.4	"	
Trichlorofluoromethane	"	"	"		10.0	ND	"	
Vinyl chloride	"	"	"		10.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		90.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		98.0	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-3-6.5				P908485-24			Water	
Bromodichloromethane	9080566	8/24/99	8/25/99		2.50	ND	ug/l	
Bromoform	"	"	"		2.50	ND	"	
Bromomethane	"	"	"		2.50	ND	"	
Carbon tetrachloride	"	"	"		2.50	ND	"	
Chlorobenzene	"	"	"		2.50	ND	"	
Chloroethane	"	"	"		2.50	ND	"	
2-Chloroethylvinyl ether	"	"	"		25.0	ND	"	
Chloroform	"	"	"		2.50	ND	"	
Chloromethane	"	"	"		2.50	ND	"	
Dibromochloromethane	"	"	"		2.50	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		2.50	ND	"	
1,2-Dichlorobenzene	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		2.50	ND	"	
1,4-Dichlorobenzene	"	"	"		2.50	ND	"	
Chlorodifluoromethane	"	"	"		2.50	ND	"	
1,1-Dichloroethane	"	"	"		2.50	ND	"	
1,2-Dichloroethane	"	"	"		2.50	ND	"	
1,1-Dichloroethene	"	"	"		2.50	ND	"	
cis-1,2-Dichloroethene	"	"	"		2.50	ND	"	
trans-1,2-Dichloroethene	"	"	"		2.50	ND	"	
1,2-Dichloropropane	"	"	"		2.50	ND	"	
cis-1,3-Dichloropropene	"	"	"		2.50	ND	"	
trans-1,3-Dichloropropene	"	"	"		2.50	ND	"	
Freon 113	"	"	"		2.50	ND	"	
Methylene chloride	"	"	"		2.50	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		2.50	ND	"	
Tetrachloroethene	"	"	"		2.50	59.6	"	
1,1,2-Trichloroethane	"	"	"		2.50	ND	"	
1,1,1-Trichloroethane	"	"	"		2.50	ND	"	
Trichloroethene	"	"	"		2.50	ND	"	
Trichlorofluoromethane	"	"	"		2.50	ND	"	
Vinyl chloride	"	"	"		2.50	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		108	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		96.7	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
 Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-5-11.5				P908485-25			Water	
Bromodichloromethane	9080566	8/24/99	8/25/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		96.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		95.7	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-4-16.5				P908485-26			Water	
Bromodichloromethane	9080566	8/24/99	8/25/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		99.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		99.7	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-4-6.5				P908485-27			Water	
Bromodichloromethane	9080566	8/24/99	8/25/99		2.50	ND	ug/l	
Bromoform	"	"	"		2.50	ND	"	
Bromomethane	"	"	"		2.50	ND	"	
Carbon tetrachloride	"	"	"		2.50	ND	"	
Chlorobenzene	"	"	"		2.50	ND	"	
Chloroethane	"	"	"		2.50	ND	"	
2-Chloroethylvinyl ether	"	"	"		25.0	ND	"	
Chloroform	"	"	"		2.50	ND	"	
Chloromethane	"	"	"		2.50	ND	"	
Dibromochloromethane	"	"	"		2.50	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		2.50	ND	"	
1,2-Dichlorobenzene	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		2.50	ND	"	
1,4-Dichlorobenzene	"	"	"		2.50	ND	"	
Chlorodifluoromethane	"	"	"		2.50	ND	"	
1,1-Dichloroethane	"	"	"		2.50	ND	"	
1,2-Dichloroethane	"	"	"		2.50	ND	"	
1,1-Dichloroethene	"	"	"		2.50	ND	"	
cis-1,2-Dichloroethene	"	"	"		2.50	ND	"	
trans-1,2-Dichloroethene	"	"	"		2.50	ND	"	
1,2-Dichloropropane	"	"	"		2.50	ND	"	
cis-1,3-Dichloropropene	"	"	"		2.50	ND	"	
trans-1,3-Dichloropropene	"	"	"		2.50	ND	"	
Freon 113	"	"	"		2.50	ND	"	
Methylene chloride	"	"	"		2.50	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		2.50	ND	"	
Tetrachloroethene	"	"	"		2.50	73.1	"	
1,1,2-Trichloroethane	"	"	"		2.50	ND	"	
1,1,1-Trichloroethane	"	"	"		2.50	ND	"	
Trichloroethene	"	"	"		2.50	ND	"	
Trichlorofluoromethane	"	"	"		2.50	ND	"	
Vinyl chloride	"	"	"		2.50	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		94.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		93.3	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
 Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-5-16.5				P908485-28			Water	
Bromodichloromethane	9080607	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		93.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		91.3	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-5-6.5				P908485-29			Water	
Bromodichloromethane	9080607	8/24/99	8/25/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	0.723	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	3.90	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		100	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		101	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-5-22.5				P908485-30			Water	
Bromodichloromethane	9080607	8/24/99	8/25/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		100	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		98.0	"	





Conor Pacific / EFW
 2650 East Bayshore Rd.
 Palo Alto, CA 94303

Project: Cargill Salt
 Project Number: CRA101
 Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
 Received: 8/20/99
 Reported: 8/31/99

Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-7-22.5				P908485-31			Water	
Bromodichloromethane	9080605	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		99.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		103	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-8-11.5				P908485-32			Water	
Bromodichloromethane	9080565	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	90.5	"	1,E
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	0.664	"	2
Trichloroethene	"	"	"		0.500	12.5	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		96.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		105	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-9-22.5				P908485-33			Water	
Bromodichloromethane	9080565	8/24/99	8/24/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	0.672	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		96.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		99.0	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-9-16.5				P908485-34			Water	
Bromodichloromethane	9080565	8/24/99	8/24/99		25.0	ND	ug/l	
Bromoform	"	"	"		25.0	ND	"	
Bromomethane	"	"	"		25.0	ND	"	
Carbon tetrachloride	"	"	"		25.0	ND	"	
Chlorobenzene	"	"	"		25.0	ND	"	
Chloroethane	"	"	"		25.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		250	ND	"	
Chloroform	"	"	"		25.0	ND	"	
Chloromethane	"	"	"		25.0	ND	"	
Dibromochloromethane	"	"	"		25.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		25.0	ND	"	
1,2-Dichlorobenzene	"	"	"		25.0	ND	"	
1,3-Dichlorobenzene	"	"	"		25.0	ND	"	
1,4-Dichlorobenzene	"	"	"		25.0	ND	"	
Chlorodifluoromethane	"	"	"		25.0	ND	"	
1,1-Dichloroethane	"	"	"		25.0	ND	"	
1,2-Dichloroethane	"	"	"		25.0	ND	"	
1,1-Dichloroethene	"	"	"		25.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		25.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		25.0	ND	"	
1,2-Dichloropropane	"	"	"		25.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		25.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		25.0	ND	"	
Freon 113	"	"	"		25.0	ND	"	
Methylene chloride	"	"	"		25.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		25.0	ND	"	
Tetrachloroethene	"	"	"		25.0	1100	"	
1,1,2-Trichloroethane	"	"	"		25.0	ND	"	
1,1,1-Trichloroethane	"	"	"		25.0	ND	"	
Trichloroethene	"	"	"		25.0	227	"	
Trichlorofluoromethane	"	"	"		25.0	ND	"	
Vinyl chloride	"	"	"		25.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		102	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		106	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-8-16.5				P908485-35			Water	
Bromodichloromethane	9080565	8/24/99	8/24/99		10.0	ND	ug/l	
Bromoform	"	"	"		10.0	ND	"	
Bromomethane	"	"	"		10.0	ND	"	
Carbon tetrachloride	"	"	"		10.0	ND	"	
Chlorobenzene	"	"	"		10.0	ND	"	
Chloroethane	"	"	"		10.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		100	ND	"	
Chloroform	"	"	"		10.0	ND	"	
Chloromethane	"	"	"		10.0	ND	"	
Dibromochloromethane	"	"	"		10.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		10.0	ND	"	
1,2-Dichlorobenzene	"	"	"		10.0	ND	"	
1,3-Dichlorobenzene	"	"	"		10.0	ND	"	
1,4-Dichlorobenzene	"	"	"		10.0	ND	"	
Chlorodifluoromethane	"	"	"		10.0	ND	"	
1,1-Dichloroethane	"	"	"		10.0	ND	"	
1,2-Dichloroethane	"	"	"		10.0	ND	"	
1,1-Dichloroethene	"	"	"		10.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		10.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		10.0	ND	"	
1,2-Dichloropropane	"	"	"		10.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		10.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		10.0	ND	"	
Freon 113	"	"	"		10.0	ND	"	
Methylene chloride	"	"	"		10.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		10.0	ND	"	
Tetrachloroethene	"	"	"		10.0	503	"	
1,1,2-Trichloroethane	"	"	"		10.0	ND	"	
1,1,1-Trichloroethane	"	"	"		10.0	ND	"	
Trichloroethene	"	"	"		10.0	75.6	"	
Trichlorofluoromethane	"	"	"		10.0	ND	"	
Vinyl chloride	"	"	"		10.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		94.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		106	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-9-11.5				P908485-36			Water	
Bromodichloromethane	9080565	8/25/99	8/25/99		10.0	ND	ug/l	
Bromoform	"	"	"		10.0	ND	"	
Bromomethane	"	"	"		10.0	ND	"	
Carbon tetrachloride	"	"	"		10.0	ND	"	
Chlorobenzene	"	"	"		10.0	ND	"	
Chloroethane	"	"	"		10.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		100	ND	"	
Chloroform	"	"	"		10.0	ND	"	
Chloromethane	"	"	"		10.0	ND	"	
Dibromochloromethane	"	"	"		10.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		10.0	ND	"	
1,2-Dichlorobenzene	"	"	"		10.0	ND	"	
1,3-Dichlorobenzene	"	"	"		10.0	ND	"	
1,4-Dichlorobenzene	"	"	"		10.0	ND	"	
Chlorodifluoromethane	"	"	"		10.0	ND	"	
1,1-Dichloroethane	"	"	"		10.0	ND	"	
1,2-Dichloroethane	"	"	"		10.0	ND	"	
1,1-Dichloroethene	"	"	"		10.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		10.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		10.0	ND	"	
1,2-Dichloropropane	"	"	"		10.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		10.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		10.0	ND	"	
Freon 113	"	"	"		10.0	ND	"	
Methylene chloride	"	"	"		10.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		10.0	ND	"	
Tetrachloroethene	"	"	"		10.0	327	"	
1,1,2-Trichloroethane	"	"	"		10.0	ND	"	
1,1,1-Trichloroethane	"	"	"		10.0	ND	"	
Trichloroethene	"	"	"		10.0	47.4	"	
Trichlorofluoromethane	"	"	"		10.0	ND	"	
Vinyl chloride	"	"	"		10.0	ND	"	
<i>Surrogate: Bromochloromethane</i>	"	"	"	65.0-135		96.3	%	
<i>Surrogate: 1,4-Dichlorobutane</i>	"	"	"	65.0-135		106	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-8-22.5				P908485-37			Water	
Bromodichloromethane	9080565	8/24/99	8/25/99		5.00	ND	ug/l	
Bromoform	"	"	"		5.00	ND	"	
Bromomethane	"	"	"		5.00	ND	"	
Carbon tetrachloride	"	"	"		5.00	ND	"	
Chlorobenzene	"	"	"		5.00	ND	"	
Chloroethane	"	"	"		5.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		50.0	ND	"	
Chloroform	"	"	"		5.00	ND	"	
Chloromethane	"	"	"		5.00	ND	"	
Dibromochloromethane	"	"	"		5.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		5.00	ND	"	
1,2-Dichlorobenzene	"	"	"		5.00	ND	"	
1,3-Dichlorobenzene	"	"	"		5.00	ND	"	
1,4-Dichlorobenzene	"	"	"		5.00	ND	"	
Chlorodifluoromethane	"	"	"		5.00	ND	"	
1,1-Dichloroethane	"	"	"		5.00	ND	"	
1,2-Dichloroethane	"	"	"		5.00	ND	"	
1,1-Dichloroethene	"	"	"		5.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		5.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		5.00	ND	"	
1,2-Dichloropropane	"	"	"		5.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		5.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		5.00	ND	"	
Freon 113	"	"	"		5.00	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		5.00	ND	"	
Tetrachloroethene	"	"	"		5.00	278	"	
1,1,2-Trichloroethane	"	"	"		5.00	ND	"	
1,1,1-Trichloroethane	"	"	"		5.00	ND	"	
Trichloroethene	"	"	"		5.00	51.2	"	
Trichlorofluoromethane	"	"	"		5.00	ND	"	
Vinyl chloride	"	"	"		5.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		98.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		104	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-7-11.5				P908485-38			Water	
Bromodichloromethane	9080565	8/24/99	8/25/99		2.50	ND	ug/l	
Bromoform	"	"	"		2.50	ND	"	
Bromomethane	"	"	"		2.50	ND	"	
Carbon tetrachloride	"	"	"		2.50	ND	"	
Chlorobenzene	"	"	"		2.50	ND	"	
Chloroethane	"	"	"		2.50	ND	"	
2-Chloroethylvinyl ether	"	"	"		25.0	ND	"	
Chloroform	"	"	"		2.50	ND	"	
Chloromethane	"	"	"		2.50	ND	"	
Dibromochloromethane	"	"	"		2.50	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		2.50	ND	"	
1,2-Dichlorobenzene	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		2.50	ND	"	
1,4-Dichlorobenzene	"	"	"		2.50	ND	"	
Chlorodifluoromethane	"	"	"		2.50	ND	"	
1,1-Dichloroethane	"	"	"		2.50	ND	"	
1,2-Dichloroethane	"	"	"		2.50	ND	"	
1,1-Dichloroethene	"	"	"		2.50	ND	"	
cis-1,2-Dichloroethene	"	"	"		2.50	ND	"	
trans-1,2-Dichloroethene	"	"	"		2.50	ND	"	
1,2-Dichloropropane	"	"	"		2.50	ND	"	
cis-1,3-Dichloropropene	"	"	"		2.50	ND	"	
trans-1,3-Dichloropropene	"	"	"		2.50	ND	"	
Freon 113	"	"	"		2.50	ND	"	
Methylene chloride	"	"	"		2.50	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		2.50	ND	"	
Tetrachloroethene	"	"	"		5.00	177	"	
1,1,2-Trichloroethane	"	"	"		2.50	ND	"	
1,1,1-Trichloroethane	"	"	"		2.50	ND	"	
Trichloroethene	"	"	"		2.50	19.1	"	
Trichlorofluoromethane	"	"	"		2.50	ND	"	
Vinyl chloride	"	"	"		2.50	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		98.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		101	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-10-11.5				P908485-39			Water	
Bromodichloromethane	9080565	8/24/99	8/25/99		50.0	ND	ug/l	
Bromoform	"	"	"		50.0	ND	"	
Bromomethane	"	"	"		50.0	ND	"	
Carbon tetrachloride	"	"	"		50.0	ND	"	
Chlorobenzene	"	"	"		50.0	ND	"	
Chloroethane	"	"	"		50.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		500	ND	"	
Chloroform	"	"	"		50.0	ND	"	
Chloromethane	"	"	"		50.0	ND	"	
Dibromochloromethane	"	"	"		50.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		50.0	ND	"	
1,2-Dichlorobenzene	"	"	"		50.0	ND	"	
1,3-Dichlorobenzene	"	"	"		50.0	ND	"	
1,4-Dichlorobenzene	"	"	"		50.0	ND	"	
Chlorodifluoromethane	"	"	"		50.0	ND	"	
1,1-Dichloroethane	"	"	"		50.0	ND	"	
1,2-Dichloroethane	"	"	"		50.0	ND	"	
1,1-Dichloroethene	"	"	"		50.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		50.0	ND	"	
1,2-Dichloropropane	"	"	"		50.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		50.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		50.0	ND	"	
Freon 113	"	"	"		50.0	ND	"	
Methylene chloride	"	"	"		50.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	1600	"	
1,1,2-Trichloroethane	"	"	"		50.0	ND	"	
1,1,1-Trichloroethane	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	266	"	
Trichlorofluoromethane	"	"	"		50.0	ND	"	
Vinyl chloride	"	"	"		50.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		92.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		100	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-7-16.5				P908485-40			Water	
Bromodichloromethane	9080565	8/24/99	8/25/99		10.0	ND	ug/l	
Bromoform	"	"	"		10.0	ND	"	
Bromomethane	"	"	"		10.0	ND	"	
Carbon tetrachloride	"	"	"		10.0	ND	"	
Chlorobenzene	"	"	"		10.0	ND	"	
Chloroethane	"	"	"		10.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		100	ND	"	
Chloroform	"	"	"		10.0	ND	"	
Chloromethane	"	"	"		10.0	ND	"	
Dibromochloromethane	"	"	"		10.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		10.0	ND	"	
1,2-Dichlorobenzene	"	"	"		10.0	ND	"	
1,3-Dichlorobenzene	"	"	"		10.0	ND	"	
1,4-Dichlorobenzene	"	"	"		10.0	ND	"	
Chlorodifluoromethane	"	"	"		10.0	ND	"	
1,1-Dichloroethane	"	"	"		10.0	ND	"	
1,2-Dichloroethane	"	"	"		10.0	ND	"	
1,1-Dichloroethene	"	"	"		10.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		10.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		10.0	ND	"	
1,2-Dichloropropane	"	"	"		10.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		10.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		10.0	ND	"	
Freon 113	"	"	"		10.0	ND	"	
Methylene chloride	"	"	"		10.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		10.0	ND	"	
Tetrachloroethene	"	"	"		10.0	406	"	
1,1,2-Trichloroethane	"	"	"		10.0	ND	"	
1,1,1-Trichloroethane	"	"	"		10.0	ND	"	
Trichloroethene	"	"	"		10.0	41.2	"	
Trichlorofluoromethane	"	"	"		10.0	ND	"	
Vinyl chloride	"	"	"		10.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		100	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		108	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-12-22.5				P908485-41			Water	
Bromodichloromethane	9080565	8/24/99	8/25/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	0.575	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		97.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		103	"	





Conor Pacific / BFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-10-16.5				P908485-42			Water	
Bromodichloromethane	9080605	8/25/99	8/25/99		25.0	ND	ug/l	
Bromoform	"	"	"		25.0	ND	"	
Bromomethane	"	"	"		25.0	ND	"	
Carbon tetrachloride	"	"	"		25.0	ND	"	
Chlorobenzene	"	"	"		25.0	ND	"	
Chloroethane	"	"	"		25.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		250	ND	"	
Chloroform	"	"	"		25.0	ND	"	
Chloromethane	"	"	"		25.0	ND	"	
Dibromochloromethane	"	"	"		25.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		25.0	ND	"	
1,2-Dichlorobenzene	"	"	"		25.0	ND	"	
1,3-Dichlorobenzene	"	"	"		25.0	ND	"	
1,4-Dichlorobenzene	"	"	"		25.0	ND	"	
Chlorodifluoromethane	"	"	"		25.0	ND	"	
1,1-Dichloroethane	"	"	"		25.0	ND	"	
1,2-Dichloroethane	"	"	"		25.0	ND	"	
1,1-Dichloroethene	"	"	"		25.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		25.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		25.0	ND	"	
1,2-Dichloropropane	"	"	"		25.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		25.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		25.0	ND	"	
Freon 113	"	"	"		25.0	ND	"	
Methylene chloride	"	"	"		25.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		25.0	ND	"	
Tetrachloroethene	"	"	"		25.0	823	"	
1,1,2-Trichloroethane	"	"	"		25.0	ND	"	
1,1,1-Trichloroethane	"	"	"		25.0	ND	"	
Trichloroethene	"	"	"		25.0	178	"	
Trichlorofluoromethane	"	"	"		25.0	ND	"	
Vinyl chloride	"	"	"		25.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		98.3	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		101	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-11-11.5				P908485-43			Water	
Bromodichloromethane	9080605	8/25/99	8/25/99		10.0	ND	ug/l	
Bromoform	"	"	"		10.0	ND	"	
Bromomethane	"	"	"		10.0	ND	"	
Carbon tetrachloride	"	"	"		10.0	ND	"	
Chlorobenzene	"	"	"		10.0	ND	"	
Chloroethane	"	"	"		10.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		100	ND	"	
Chloroform	"	"	"		10.0	ND	"	
Chloromethane	"	"	"		10.0	ND	"	
Dibromochloromethane	"	"	"		10.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		10.0	ND	"	
1,2-Dichlorobenzene	"	"	"		10.0	ND	"	
1,3-Dichlorobenzene	"	"	"		10.0	ND	"	
1,4-Dichlorobenzene	"	"	"		10.0	ND	"	
Chlorodifluoromethane	"	"	"		10.0	ND	"	
1,1-Dichloroethane	"	"	"		10.0	ND	"	
1,2-Dichloroethane	"	"	"		10.0	ND	"	
1,1-Dichloroethene	"	"	"		10.0	10.9	"	
cis-1,2-Dichloroethene	"	"	"		10.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		10.0	ND	"	
1,2-Dichloropropane	"	"	"		10.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		10.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		10.0	ND	"	
Freon 113	"	"	"		10.0	ND	"	
Methylene chloride	"	"	"		10.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		10.0	ND	"	
Tetrachloroethene	"	"	8/26/99		12.5	576	"	
1,1,2-Trichloroethane	"	"	8/25/99		10.0	ND	"	
1,1,1-Trichloroethane	"	"	"		10.0	ND	"	
Trichloroethene	"	"	"		10.0	152	"	
Trichlorofluoromethane	"	"	"		10.0	ND	"	
Vinyl chloride	"	"	"		10.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		96.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		105	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-11-16.5				P908485-44			Water	
Bromodichloromethane	9080605	8/25/99	8/25/99		5.00	ND	ug/l	
Bromoform	"	"	"		5.00	ND	"	
Bromomethane	"	"	"		5.00	ND	"	
Carbon tetrachloride	"	"	"		5.00	ND	"	
Chlorobenzene	"	"	"		5.00	ND	"	
Chloroethane	"	"	"		5.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		50.0	ND	"	
Chloroform	"	"	"		5.00	ND	"	
Chloromethane	"	"	"		5.00	ND	"	
Dibromochloromethane	"	"	"		5.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		5.00	ND	"	
1,2-Dichlorobenzene	"	"	"		5.00	ND	"	
1,3-Dichlorobenzene	"	"	"		5.00	ND	"	
1,4-Dichlorobenzene	"	"	"		5.00	ND	"	
Chlorodifluoromethane	"	"	"		5.00	ND	"	
1,1-Dichloroethane	"	"	"		5.00	ND	"	
1,2-Dichloroethane	"	"	"		5.00	ND	"	
1,1-Dichloroethene	"	"	"		5.00	6.04	"	
cis-1,2-Dichloroethene	"	"	"		5.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		5.00	ND	"	
1,2-Dichloropropane	"	"	"		5.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		5.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		5.00	ND	"	
Freon 113	"	"	"		5.00	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		5.00	ND	"	
Tetrachloroethene	"	"	8/26/99		10.0	316	"	
1,1,2-Trichloroethane	"	"	8/25/99		5.00	ND	"	
1,1,1-Trichloroethane	"	"	"		5.00	ND	"	
Trichloroethene	"	"	"		5.00	64.4	"	
Trichlorofluoromethane	"	"	"		5.00	ND	"	
Vinyl chloride	"	"	"		5.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		101	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		106	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-12-16.5				P908485-45			Water	
Bromodichloromethane	9080605	8/25/99	8/25/99		10.0	ND	ug/l	
Bromoform	"	"	"		10.0	ND	"	
Bromomethane	"	"	"		10.0	ND	"	
Carbon tetrachloride	"	"	"		10.0	ND	"	
Chlorobenzene	"	"	"		10.0	ND	"	
Chloroethane	"	"	"		10.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		100	ND	"	
Chloroform	"	"	"		10.0	ND	"	
Chloromethane	"	"	"		10.0	ND	"	
Dibromochloromethane	"	"	"		10.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		10.0	ND	"	
1,2-Dichlorobenzene	"	"	"		10.0	ND	"	
1,3-Dichlorobenzene	"	"	"		10.0	ND	"	
1,4-Dichlorobenzene	"	"	"		10.0	ND	"	
Chlorodifluoromethane	"	"	"		10.0	ND	"	
1,1-Dichloroethane	"	"	"		10.0	ND	"	
1,2-Dichloroethane	"	"	"		10.0	ND	"	
1,1-Dichloroethene	"	"	"		10.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		10.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		10.0	ND	"	
1,2-Dichloropropane	"	"	"		10.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		10.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		10.0	ND	"	
Freon 113	"	"	"		10.0	ND	"	
Methylene chloride	"	"	"		10.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		10.0	ND	"	
Tetrachloroethene	"	"	"		10.0	411	"	
1,1,2-Trichloroethane	"	"	"		10.0	ND	"	
1,1,1-Trichloroethane	"	"	"		10.0	ND	"	
Trichloroethene	"	"	"		10.0	84.8	"	
Trichlorofluoromethane	"	"	"		10.0	ND	"	
Vinyl chloride	"	"	"		10.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		97.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		104	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-12-11.5				P908485-46			Water	
Bromodichloromethane	9080607	8/25/99	8/25/99		5.00	ND	ug/l	
Bromoform	"	"	"		5.00	ND	"	
Bromomethane	"	"	"		5.00	ND	"	
Carbon tetrachloride	"	"	"		5.00	ND	"	
Chlorobenzene	"	"	"		5.00	ND	"	
Chloroethane	"	"	"		5.00	ND	"	
2-Chloroethylvinyl ether	"	"	"		50.0	ND	"	
Chloroform	"	"	"		5.00	ND	"	
Chloromethane	"	"	"		5.00	ND	"	
Dibromochloromethane	"	"	"		5.00	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		5.00	ND	"	
1,2-Dichlorobenzene	"	"	"		5.00	ND	"	
1,3-Dichlorobenzene	"	"	"		5.00	ND	"	
1,4-Dichlorobenzene	"	"	"		5.00	ND	"	
Chlorodifluoromethane	"	"	"		5.00	ND	"	
1,1-Dichloroethane	"	"	"		5.00	ND	"	
1,2-Dichloroethane	"	"	"		5.00	ND	"	
1,1-Dichloroethene	"	"	"		5.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		5.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		5.00	ND	"	
1,2-Dichloropropane	"	"	"		5.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		5.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		5.00	ND	"	
Freon 113	"	"	"		5.00	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,1,2-Tetrachloroethane	"	"	"		5.00	ND	"	
Tetrachloroethene	"	"	"		5.00	275	"	
1,1,2-Trichloroethane	"	"	"		5.00	ND	"	
1,1,1-Trichloroethane	"	"	"		5.00	ND	"	
Trichloroethene	"	"	"		5.00	46.7	"	
Trichlorofluoromethane	"	"	"		5.00	ND	"	
Vinyl chloride	"	"	"		5.00	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		93.7	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		96.3	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-11-22.5				P908485-47			Water	
Bromodichloromethane	9080607	8/25/99	8/25/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	1.02	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		102	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		97.3	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-10-22.5				P908485-48			Water	
Bromodichloromethane	9080607	8/25/99	8/25/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Chlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	1.91	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		103	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		104	"	





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. %	RPD Limit	RPD %	Notes
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Batch: 9080565

Date Prepared: 8/23/99

Extraction Method: EPA 5030 waters

Blank

9080565-BLK1

Bromodichloromethane	8/23/99			ND	ug/l	0.500			
Bromoform	"			ND	"	0.500			
Bromomethane	"			ND	"	0.500			
Carbon tetrachloride	"			ND	"	0.500			
Chlorobenzene	"			ND	"	0.500			
Chloroethane	"			ND	"	0.500			
2-Chloroethylvinyl ether	"			ND	"	5.00			
Chloroform	"			ND	"	0.500			
Chloromethane	"			ND	"	0.500			
Dibromochloromethane	"			ND	"	0.500			
1,2-Dibromoethane (EDB)	"			ND	"	0.500			
1,2-Dichlorobenzene	"			ND	"	0.500			
1,3-Dichlorobenzene	"			ND	"	0.500			
1,4-Dichlorobenzene	"			ND	"	0.500			
1,1,1-Trichloroethane	"			ND	"	0.500			
1,1-Dichloroethane	"			ND	"	0.500			
1,2-Dichloroethane	"			ND	"	0.500			
1,1-Dichloroethene	"			ND	"	0.500			
cis-1,2-Dichloroethene	"			ND	"	0.500			
trans-1,2-Dichloroethene	"			ND	"	0.500			
1,2-Dichloropropane	"			ND	"	0.500			
cis-1,3-Dichloropropene	"			ND	"	0.500			
trans-1,3-Dichloropropene	"			ND	"	0.500			
Freon 113	"			ND	"	0.500			
Methylene chloride	"			ND	"	0.500			
1,1,2,2-Tetrachloroethane	"			ND	"	0.500			
Tetrachloroethene	"			ND	"	0.500			
1,1,2-Trichloroethane	"			ND	"	0.500			
1,1,1-Trichloroethane	"			ND	"	0.500			
Trichloroethene	"			ND	"	0.500			
Trichlorofluoromethane	"			ND	"	0.500			
Vinyl chloride	"			ND	"	0.500			
Surrogate: Bromochloromethane	"	30.0		30.9	"	65.0-135	103		
Surrogate: 1,4-Dichlorobutane	"	30.0		32.3	"	65.0-135	108		

Blank

9080565-BLK2

Bromodichloromethane	8/24/99			ND	ug/l	0.500			
Bromoform	"			ND	"	0.500			
Bromomethane	"			ND	"	0.500			
Carbon tetrachloride	"			ND	"	0.500			





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)		9080565-BLK2								
Chlorobenzene	8/24/99			ND	ug/l	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		29.2	"	65.0-135	97.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		30.4	"	65.0-135	101			
Blank		9080565-BLK3								
Bromodichloromethane	8/25/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Blank (continued)	9080565-BLK3									
Dibromochloromethane	8/25/99			ND	ug/l	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
on 113	"			ND	"	0.500				
ethylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		27.8	"	65.0-135	92.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		29.4	"	65.0-135	98.0			
LCS	9080565-BS1									
Chlorobenzene	8/23/99	10.0		9.81	ug/l	65.0-135	98.1			
1,1-Dichloroethene	"	10.0		9.72	"	65.0-135	97.2			
Trichloroethene	"	10.0		9.67	"	65.0-135	96.7			
Surrogate: Bromochloromethane	"	30.0		27.3	"	65.0-135	91.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.6	"	65.0-135	95.3			
LCS	9080565-BS2									
Chlorobenzene	8/24/99	10.0		11.8	ug/l	65.0-135	118			
1,1-Dichloroethene	"	10.0		9.07	"	65.0-135	90.7			
Trichloroethene	"	10.0		9.36	"	65.0-135	93.6			
Surrogate: Bromochloromethane	"	30.0		27.5	"	65.0-135	91.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.9	"	65.0-135	96.3			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
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<u>LCS</u>		<u>9080565-BS3</u>								
Chlorobenzene	8/25/99	10.0		11.4	ug/l	65.0-135	114			
1,1-Dichloroethene	"	10.0		9.48	"	65.0-135	94.8			
Trichloroethene	"	10.0		9.74	"	65.0-135	97.4			
Surrogate: Bromochloromethane	"	30.0		28.3	"	65.0-135	94.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.9	"	65.0-135	96.3			

<u>Matrix Spike</u>		<u>9080565-MS1</u>	<u>P908485-12</u>								
Chlorobenzene	8/23/99	10.0	ND	10.4	ug/l	65.0-135		104			
1,1-Dichloroethene	"	10.0	ND	8.99	"	65.0-135		89.9			
Trichloroethene	"	10.0	ND	8.78	"	65.0-135		87.8			
Surrogate: Bromochloromethane	"	30.0		24.8	"	65.0-135		82.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		26.4	"	65.0-135		88.0			

<u>Matrix Spike Dup</u>		<u>9080565-MSD1</u>	<u>P908485-12</u>								
Chlorobenzene	8/23/99	10.0	ND	9.72	ug/l	65.0-135	97.2	20.0	6.76		
1,1-Dichloroethene	"	10.0	ND	9.13	"	65.0-135	91.3	20.0	1.55		
Trichloroethene	"	10.0	ND	8.89	"	65.0-135	88.9	20.0	1.25		
Surrogate: Bromochloromethane	"	30.0		26.9	"	65.0-135	89.7				
Surrogate: 1,4-Dichlorobutane	"	30.0		28.2	"	65.0-135	94.0				

<u>Batch: 9080566</u>	<u>Date Prepared: 8/23/99</u>	<u>Extraction Method: EPA 5030 waters</u>								
<u>Blank</u>	<u>9080566-BLK1</u>									
Bromodichloromethane	8/23/99			ND	ug/l			0.500		
Bromoform	"			ND	"			0.500		
Bromomethane	"			ND	"			0.500		
Carbon tetrachloride	"			ND	"			0.500		
Chlorobenzene	"			ND	"			0.500		
Chloroethane	"			ND	"			0.500		
2-Chloroethylvinyl ether	"			ND	"			5.00		
Chloroform	"			ND	"			0.500		
Chloromethane	"			ND	"			0.500		
Dibromochloromethane	"			ND	"			0.500		
1,2-Dibromoethane (EDB)	"			ND	"			0.500		
1,2-Dichlorobenzene	"			ND	"			0.500		
1,3-Dichlorobenzene	"			ND	"			0.500		
1,4-Dichlorobenzene	"			ND	"			0.500		
Dichlorodifluoromethane	"			ND	"			0.500		
1,1-Dichloroethane	"			ND	"			0.500		
1,2-Dichloroethane	"			ND	"			0.500		
1,1-Dichloroethene	"			ND	"			0.500		
cis-1,2-Dichloroethene	"			ND	"			0.500		





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Blank (continued)	9080566-BLK1									
trans-1,2-Dichloroethene	8/23/99			ND	ug/l	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		28.0	"	65.0-135	93.3			
rogate: 1,4-Dichlorobutane	"	30.0		28.4	"	65.0-135	94.7			
Blank	9080566-BLK2									
Bromodichloromethane	8/24/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				





Conor Pacific / BFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
9080566-BLK2										
Methylene chloride	8/24/99			ND	ug/l	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		26.1	"	65.0-135	87.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		26.5	"	65.0-135	88.3			
LCS										
9080566-BS1										
Chlorobenzene	8/23/99	10.0		9.57	ug/l	65.0-135	95.7			
1,1-Dichloroethene	"	10.0		9.43	"	65.0-135	94.3			
Trichloroethene	"	10.0		8.73	"	65.0-135	87.3			
Surrogate: Bromochloromethane	"	30.0		25.7	"	65.0-135	85.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		26.6	"	65.0-135	88.7			
LCS										
9080566-BS2										
Chlorobenzene	8/24/99	10.0		9.58	ug/l	65.0-135	95.8			
1,1-Dichloroethene	"	10.0		9.54	"	65.0-135	95.4			
Trichloroethene	"	10.0		9.03	"	65.0-135	90.3			
Surrogate: Bromochloromethane	"	30.0		26.6	"	65.0-135	88.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		25.1	"	65.0-135	83.7			
Matrix Spike										
9080566-MS1 P908485-10										
Chlorobenzene	8/23/99	10.0	ND	9.72	ug/l	65.0-135	97.2			
1,1-Dichloroethene	"	10.0	ND	9.88	"	65.0-135	98.8			
Trichloroethene	"	10.0	ND	9.62	"	65.0-135	96.2			
Surrogate: Bromochloromethane	"	30.0		29.3	"	65.0-135	97.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		27.0	"	65.0-135	90.0			
Matrix Spike Dup										
9080566-MSD1 P908485-10										
Chlorobenzene	8/23/99	10.0	ND	9.61	ug/l	65.0-135	96.1	20.0	1.14	
1,1-Dichloroethene	"	10.0	ND	9.38	"	65.0-135	93.8	20.0	5.19	
Trichloroethene	"	10.0	ND	9.05	"	65.0-135	90.5	20.0	6.11	
Surrogate: Bromochloromethane	"	30.0		27.3	"	65.0-135	91.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		26.4	"	65.0-135	88.0			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Recov. Limits	RPD % Limit	RPD % Limit	Notes
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<u>Batch: 9080605</u>	<u>Date Prepared: 8/24/99</u>	<u>Extraction Method: EPA 5030 waters</u>							
<u>Blank</u>	<u>9080605-BLK1</u>								
Bromodichloromethane	8/24/99			ND	ug/l	0.500			
Bromoform	"			ND	"	0.500			
Bromomethane	"			ND	"	0.500			
Carbon tetrachloride	"			ND	"	0.500			
Chlorobenzene	"			ND	"	0.500			
Chloroethane	"			ND	"	0.500			
2-Chloroethylvinyl ether	"			ND	"	5.00			
Chloroform	"			ND	"	0.500			
Chloromethane	"			ND	"	0.500			
Dibromochloromethane	"			ND	"	0.500			
1,2-Dibromoethane (EDB)	"			ND	"	0.500			
1,2-Dichlorobenzene	"			ND	"	0.500			
1,3-Dichlorobenzene	"			ND	"	0.500			
1,4-Dichlorobenzene	"			ND	"	0.500			
1,1,1-Trichloroethane	"			ND	"	0.500			
1,1,2-Dichloroethane	"			ND	"	0.500			
1,2-Dichloroethane	"			ND	"	0.500			
1,1-Dichloroethene	"			ND	"	0.500			
cis-1,2-Dichloroethene	"			ND	"	0.500			
trans-1,2-Dichloroethene	"			ND	"	0.500			
1,2-Dichloropropane	"			ND	"	0.500			
cis-1,3-Dichloropropene	"			ND	"	0.500			
trans-1,3-Dichloropropene	"			ND	"	0.500			
Freon 113	"			ND	"	0.500			
Methylene chloride	"			ND	"	0.500			
1,1,2,2-Tetrachloroethane	"			ND	"	0.500			
Tetrachloroethene	"			ND	"	0.500			
1,1,2-Trichloroethane	"			ND	"	0.500			
1,1,1-Trichloroethane	"			ND	"	0.500			
Trichloroethene	"			ND	"	0.500			
Trichlorofluoromethane	"			ND	"	0.500			
Vinyl chloride	"			ND	"	0.500			
Surrogate: Bromochloromethane	"	30.0		29.2	"	65.0-135	97.3		
Surrogate: 1,4-Dichlorobutane	"	30.0		30.4	"	65.0-135	101		

<u>Blank</u>	<u>9080605-BLK2</u>								
Bromodichloromethane	8/25/99			ND	ug/l	0.500			
Bromoform	"			ND	"	0.500			
Bromomethane	"			ND	"	0.500			
Carbon tetrachloride	"			ND	"	0.500			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
9080605-BLK2										
Chlorobenzene	8/25/99			ND	ug/l	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		27.8	"	65.0-135	92.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		29.4	"	65.0-135	98.0			
Blank										
9080605-BLK3										
Bromodichloromethane	8/26/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Blank (continued)	9080605-BLK3									
Dibromochloromethane	8/26/99			ND	ug/l	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
on 113	"			ND	"	0.500				
ethylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		30.8	"	65.0-135	103			
Surrogate: 1,4-Dichlorobutane	"	30.0		32.3	"	65.0-135	108			
LCS	9080605-BS1									
Chlorobenzene	8/24/99	10.0		11.8	ug/l	65.0-135	118			
1,1-Dichloroethene	"	10.0		9.07	"	65.0-135	90.7			
Trichloroethene	"	10.0		9.36	"	65.0-135	93.6			
Surrogate: Bromochloromethane	"	30.0		27.5	"	65.0-135	91.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.9	"	65.0-135	96.3			
LCS	9080605-BS2									
Chlorobenzene	8/25/99	10.0		11.4	ug/l	65.0-135	114			
1,1-Dichloroethene	"	10.0		9.48	"	65.0-135	94.8			
Trichloroethene	"	10.0		9.74	"	65.0-135	97.4			
Surrogate: Bromochloromethane	"	30.0		28.3	"	65.0-135	94.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.9	"	65.0-135	96.3			





Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS										
9080605-BS3										
Chlorobenzene	8/26/99	10.0		11.6	ug/l	65.0-135	116			
1,1-Dichloroethene	"	10.0		9.76	"	65.0-135	97.6			
Trichloroethene	"	10.0		10.1	"	65.0-135	101			
Surrogate: Bromochloromethane	"	30.0		28.3	"	65.0-135	94.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		29.0	"	65.0-135	96.7			
Matrix Spike										
9080605-MS1 P908485-31										
Chlorobenzene	8/24/99	10.0	ND	10.9	ug/l	65.0-135	109			
1,1-Dichloroethene	"	10.0	ND	9.22	"	65.0-135	92.2			
Trichloroethene	"	10.0	ND	9.94	"	65.0-135	99.4			
Surrogate: Bromochloromethane	"	30.0		28.1	"	65.0-135	93.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		27.4	"	65.0-135	91.3			
Matrix Spike Dup										
9080605-MSD1 P908485-31										
Chlorobenzene	8/24/99	10.0	ND	10.6	ug/l	65.0-135	106	20.0	2.79	
1,1-Dichloroethene	"	10.0	ND	9.42	"	65.0-135	94.2	20.0	2.15	
Trichloroethene	"	10.0	ND	10.1	"	65.0-135	101	20.0	1.60	
Surrogate: Bromochloromethane	"	30.0		27.9	"	65.0-135	93.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		27.9	"	65.0-135	93.0			
Batch: 9080607 Date Prepared: 8/24/99 Extraction Method: EPA 5030 waters										
Blank										
9080607-BLK1										
Bromodichloromethane	8/24/99			ND	ug/l		0.500			
Bromoform	"			ND	"		0.500			
Bromomethane	"			ND	"		0.500			
Carbon tetrachloride	"			ND	"		0.500			
Chlorobenzene	"			ND	"		0.500			
Chloroethane	"			ND	"		0.500			
2-Chloroethylvinyl ether	"			ND	"		5.00			
Chloroform	"			ND	"		0.500			
Chloromethane	"			ND	"		0.500			
Dibromochloromethane	"			ND	"		0.500			
1,2-Dibromoethane (EDB)	"			ND	"		0.500			
1,2-Dichlorobenzene	"			ND	"		0.500			
1,3-Dichlorobenzene	"			ND	"		0.500			
1,4-Dichlorobenzene	"			ND	"		0.500			
Dichlorodifluoromethane	"			ND	"		0.500			
1,1-Dichloroethane	"			ND	"		0.500			
1,2-Dichloroethane	"			ND	"		0.500			
1,1-Dichloroethene	"			ND	"		0.500			
cis-1,2-Dichloroethene	"			ND	"		0.500			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Blank (continued)		9080607-BLK1								
trans-1,2-Dichloroethene	8/24/99			ND	ug/l	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
<i>Surrogate: Bromochloromethane</i>	"	30.0		26.1	"	65.0-135	87.0			
<i>rogate: 1,4-Dichlorobutane</i>	"	30.0		26.5	"	65.0-135	88.3			
Blank		9080607-BLK2								
Bromodichloromethane	8/25/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 8/16/99 to 8/18/99 Received: 8/20/99 Reported: 8/31/99
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**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
9080607-BLK2										
Methylene chloride	8/25/99			ND	ug/l	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		29.2	"	65.0-135	97.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		28.5	"	65.0-135	95.0			
LCS										
9080607-BS1										
Chlorobenzene	8/24/99	10.0		9.58	ug/l	65.0-135	95.8			
1,1-Dichloroethene	"	10.0		9.54	"	65.0-135	95.4			
Trichloroethene	"	10.0		9.03	"	65.0-135	90.3			
Surrogate: Bromochloromethane	"	30.0		26.6	"	65.0-135	88.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		25.1	"	65.0-135	83.7			
LCS										
9080607-BS2										
Chlorobenzene	8/25/99	10.0		9.54	ug/l	65.0-135	95.4			
1,1-Dichloroethene	"	10.0		9.62	"	65.0-135	96.2			
Trichloroethene	"	10.0		9.01	"	65.0-135	90.1			
Surrogate: Bromochloromethane	"	30.0		27.0	"	65.0-135	90.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		26.3	"	65.0-135	87.7			
Matrix Spike										
9080607-MS1 P908485-28										
Chlorobenzene	8/24/99	10.0	ND	9.41	ug/l	65.0-135	94.1			
1,1-Dichloroethene	"	10.0	ND	8.75	"	65.0-135	87.5			
Trichloroethene	"	10.0	ND	9.15	"	65.0-135	91.5			
Surrogate: Bromochloromethane	"	30.0		26.6	"	65.0-135	88.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		25.4	"	65.0-135	84.7			
Matrix Spike Dup										
9080607-MSD1 P908485-28										
Chlorobenzene	8/24/99	10.0	ND	9.47	ug/l	65.0-135	94.7	20.0	0.636	
1,1-Dichloroethene	"	10.0	ND	9.17	"	65.0-135	91.7	20.0	4.69	
Trichloroethene	"	10.0	ND	9.54	"	65.0-135	95.4	20.0	4.17	
Surrogate: Bromochloromethane	"	30.0		26.8	"	65.0-135	89.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		26.2	"	65.0-135	87.3			





Conor Pacific / EFW
2650 East Bayshore Rd.
Paio Alto, CA 94303

Project: Cargill Salt
Project Number: CRA101
Project Manager: Robert Langdon

Sampled: 8/16/99 to 8/18/99
Received: 8/20/99
Reported: 8/31/99

Notes and Definitions

#	Note
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
1	Due to insufficient sample availability, a dilution could not be analyzed on this sample.
2	Due to insufficient sample availability, a confirmation could not be analyzed on this sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference





Hydrostratigraphic Profile

Boring No. B-13
 Well No. MW-1
 Sheet 1 of 1

Site: Cargill Salt
 Client: Crawford Consulting, Inc.
 Project No. CRA101
 Date(s) Drilled: 11/8/99
 Date(s) Well Installed: 11/8/99
 Drilling Co./Driller: PSE/Sergio

Ground Elev. 7.03' MSL
 T.O.C. Elev. 6.75' MSL
 Coordinates; N E: 5039.7, 4980.8
 Drilling Method: Direct Push
 Borehole Total Depth (Ft): 22
 Final Borehole Dia. (Ft): 0.21

Drilling Summary: Hand auger w/ 6" auger to 4', continuous core from 4' to 22', install 1" monitoring well, see construction diagram for details

Depth (feet)	Sample Desig.	FID	Odo				Sample Type	Blows/Run	Recovery	Sample	Water Level	Depth (feet)	Graphics		Name & Unit	USCS	Color (Munsell)	Fines (%)				Fines Plasticity			Sand			Grvl.			Sorting Grading						Hardness - Clays (Density - Sands)						Moisture			Remarks				
			N	F	M	S							20	40				60	80	L	M	H	F	M	C	F	C	v. well	well	mod.	poor	v. poor	v. soft (v. is)	soft (is)	fm (m. drns)	stiff (drns)	v. stiff (drns)	hard (drns)	D	M	W									
													Sand & Grvl.																																					
1											1			Silty Sand (Fill)	SM	2.5Y 3/2 v. dk grey brn.																								6" Asphalt Shell Fragments										
2						ⓑ					2			Silty Sand w/ Clay	SM	2.5Y 5/4 lt. olive brn.																																		
3						ⓑ					3																																							
4											4																																							
5											5																																							
6											6			Silty Sand	SM	2.5Y 6/3 lt. yell. brn.																																		
7											7			Clayey Sand	SC	2.5Y 5/4 lt. olive brn.																																		
8											8																																							
9											9																																							
10											10																																							
11											11																																							
12											12																																							
13											13																																							
14											14			Silty Sand	SM	2.5Y 5/4 lt. olive brn.																																		
15											15			Clayey Sand	SC	2.5Y 6/3 lt. yell. brn.																																		
16											16																																							
17											17																																							
18											18																																							
19											19			Silty Sand w/ Clay	SM	2.5Y 6/2 lt. brn. grey																																		
20											20																																							
21											21																																							
22											22			Silty Sand	SM	2.5Y 5/4 lt. olive brn.																																		

Hydrostratigraphic Profile

Boring No. B-14
Well No. MW-2
Sheet 1 of 1

Site: Cargill Sult
Client: Crawford Consulting, Inc
Project No. CR1A 101
Date(s) Drilled: 11/8/99
Date(s) Well Installed: 11/8/99
Drilling Co./Driller: PSE/Sergio

Ground Elev. 10.00' MSL
T.O.C. Elev. 9.81 MSL
Coordinates; N E: 4950.8, 4997.4
Drilling Method: Direct Push
Borehole Total Depth (Ft): 18
Final Borehole Dia. (Ft): 0.21

Drilling Summary: Hand auger w/ 6" auger to 4', continuous core from 4' to 18' install 1" monitoring well, see construction diagram for details

Depth (feet)	Sample Desig.	FID NM	Odor A/M				Sample Type	Blows/Run NM	Recovery	Sample	Water Level	Depth (feet)	Graphics		Name & Unit	USCS	Color (Munsell)	Fines (%)				Fines Plasticity			Sand			Grvl.			Sorting Grading				Hardness - Clays (Density - Sands)					Moisture			Remarks
			N	F	M	S							Lithology	Structure				20	40	60	80	L	M	H	F	M	C	v. well	well	mod.	poor	v. poor	v. soft (v. ls)	stiff (ls)	firm (clns)	stiff (clns)	v. stiff (clns)	hd (v. clns)	D	M	W		
			80	60	40	20																																					
1																																											
2																																											
3																																											
4																																											
5																																								Rootlets, shell frag. to ~ 6', Iron oxide matting 6-16'			
6																																											
7																																											
8																																											
9																																											
10																																											
11																																											
12																																											
13																																											
14																																											
15																																											
16																																											
17																																											
18																																											

Hydrostratigraphic Profile

Boring No. B-15
Well No. MW-3
Sheet 1 of 1

Site: Cargill Salt
Client: Crawford Consulting, Inc.
Project No. CR101
Date(s) Drilled: 11/8/99
Date(s) Well Installed: 11/8/99
Drilling Co./Driller: PSE/Sergio

Ground Elev. 7.20' MSL
T.O.C. Elev. 6.92' MSL
Coordinates; N E: 4992.9 5053.9
Drilling Method: Direct Push
Borehole Total Depth (Ft): 18
Final Borehole Dia. (Ft): 0.21

Drilling Summary: Hand auger w/ 6" auger to 4', continuous core from 4' to 18', Postall 1" monitoring well, see construction diagram for details

Depth (feet)	Sample Desig.	FID	Odor	NM				Sample Type	Blows/Run	Recovery	Sample	Water Level	Depth (feet)	Graphics		Name & Unit	USCS	Color (Munsell)	Fines (%)				Fines Plasticity					Sand					Grvl.					Sorting Grading					Hardness - Clays (Density - Sands)					Moisture			Remarks
				N	F	M	S							L	M				H	F	M	C	F	C	v.well	well	mod.	poor	v.poor	v.stf (v.ist)	stf (is)	fm (m.dns)	stf (dns)	v.stf (dns)	hd (v.dns)	D	M	W													
1								3									2.5y 3/2																						✓	~ 6" Asphalt											
2								3									v. drk grey brn.																				✓														
3																	2.5y 5/4																				✓														
4																	H. olive brn.																			✓															
5																																				✓															
6																																				✓															
7											△ 11/8/99						2.5y 6/3																			✓															
8																H. yell. brn.																				✓	Iron oxide mottling 8'-11'														
9																2.5y 5/4																			✓																
10																	H. olive brn.																		✓																
11																																			✓																
12																																			✓																
13																																			✓																
14																	2.5y 5/4																			✓															
15																	H. olive brn.																		✓																
16																	2.5y 5/4																			✓															
17																	H. olive brn.																		✓	Iron oxide mottling 15' to 17'															
18																	2.5y 5/4																		✓																

BORING DESIGNATION: B-13

INSTALLATION

DATE: 11/8/99

BY: R. Langdon

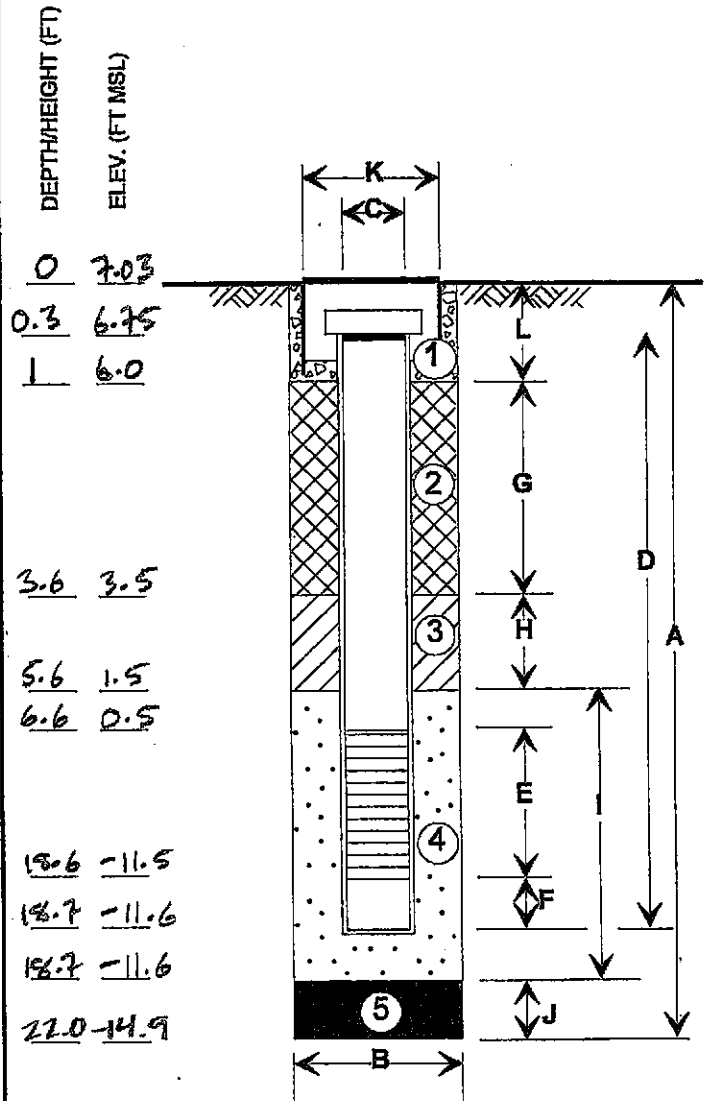
DIMENSIONS

A Total Depth of Boring (ft.)	<u>22</u>
B Borehole Diameter (in.)	<u>2.5</u>
C Well Casing Diameter (in.)	<u>1</u>
D Well Casing Length (ft.)	<u>18.37</u>
E Well Casing Slotted Interval (ft.)	<u>12</u>
F Well Casing End Cap or Sump (ft.)	<u>0.1</u>
G Annular Seal Interval (ft.)	<u>3.6</u>
H Annular Seal Interval (ft.)	<u>2.0</u>
I Sand Pack Interval (ft.)	<u>13.1</u>
J Bottom Material Interval (ft.)	<u>3.3</u>
K Protective Cover Diameter (in.)	<u>7</u>
L Monument Footing Interval (ft.)	<u>1</u>
Well Centralizer Depth(s) (ft.)	<u>NA</u>

MATERIALS DATA

Monument Footing	①	<u>Cement</u>
Annular Seal	②	<u>Cement</u>
Annular Seal	③	<u>1/4" bentonite pellets</u>
Sand Pack	④	<u>#30 sand</u>
Bottom Material	⑤	<u>Native</u>
Slotted Casing		<u>0.010" PVC</u>
Well Casing		<u>1" PVC</u>
Well Centralizers		<u>NA</u>
Protective Cover		<u>Steel</u>

WELL DESIGNATION
MW-1



SECTION VIEW (not to scale)

NOTES:

SITE: CARBELL GALT
 PROJ. NO: CRA 101
 N. E. 5039.7 4980.8
 WELL PERMIT NO:

BORING DESIGNATION: B-14

INSTALLATION

DATE: 11/8/99 BY: R Langdon

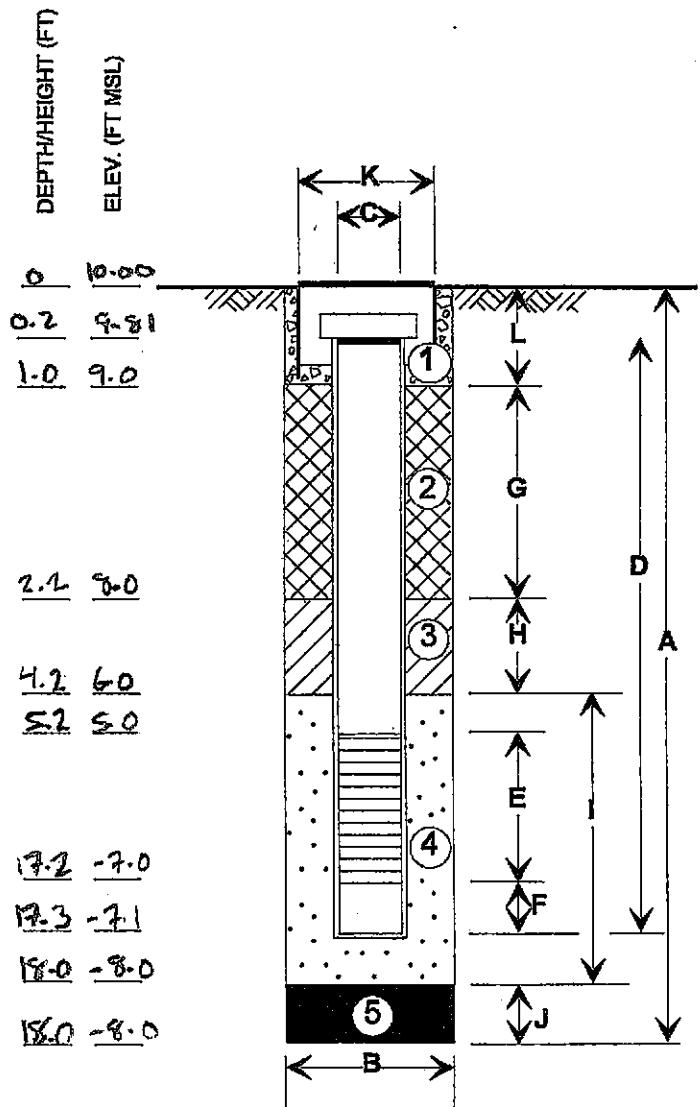
DIMENSIONS

A Total Depth of Boring (ft.)	<u>18</u>
B Borehole Diameter (in.)	<u>2.5</u>
C Well Casing Diameter (in.)	<u>1</u>
D Well Casing Length (ft.)	<u>17.1</u>
E Well Casing Slotted Interval (ft.)	<u>12</u>
F Well Casing End Cap or Sump (ft.)	<u>0.1</u>
G Annular Seal Interval (ft.)	<u>1.2</u>
H Annular Seal Interval (ft.)	<u>2.0</u>
I Sand Pack Interval (ft.)	<u>14.0</u>
J Bottom Material Interval (ft.)	<u>NA</u>
K Protective Cover Diameter (in.)	<u>7</u>
L Monument Footing Interval (ft.)	<u>1</u>
Well Centralizer Depth(s) (ft.)	<u>NA</u>

MATERIALS DATA

Monument Footing	①	<u>Cement</u>
Annular Seal	②	<u>Cement</u>
Annular Seal	③	<u>1/4" bentonite pellets</u>
Sand Pack	④	<u>#30 sand</u>
Bottom Material	⑤	<u>NA</u>
Slotted Casing		<u>0.010" PVC</u>
Well Casing		<u>1" PVC</u>
Well Centralizers		<u>NA</u>
Protective Cover		<u>Steel</u>

WELL DESIGNATION
MW-2



SECTION VIEW (not to scale)

NOTES:

SITE: CARBELL SALT
 PROJ. NO: CR101
 N. E. 4950-8 4887-4
 WELL PERMIT NO:

BORING DESIGNATION: B-15

INSTALLATION

DATE: 11/8/99 BY: R. Lowry/daw

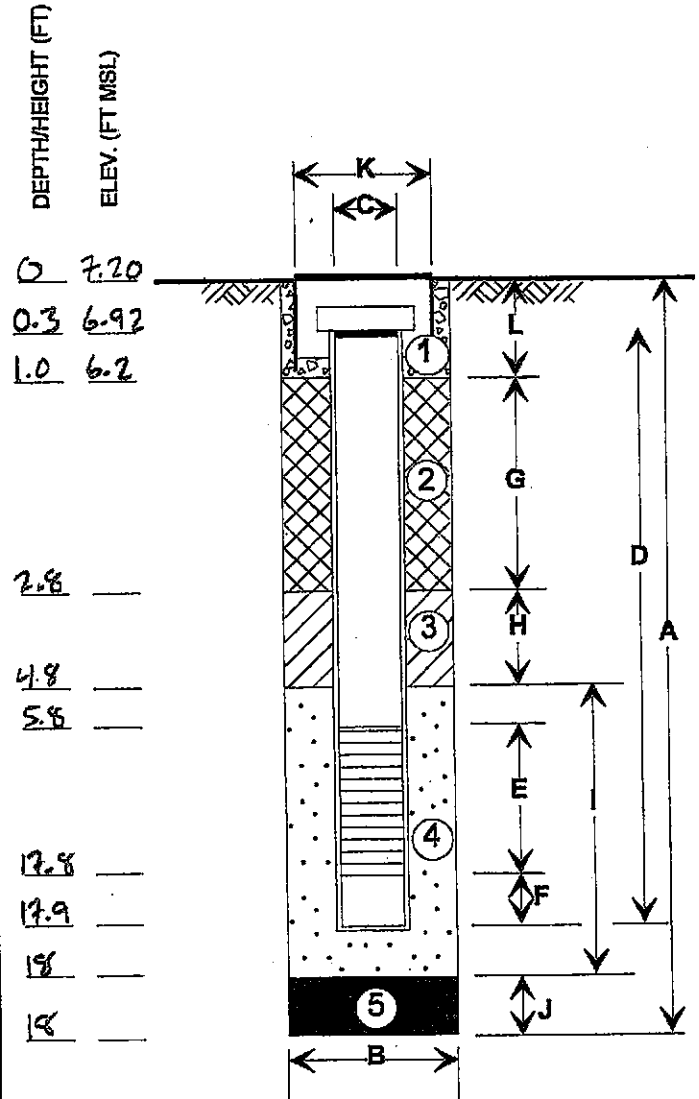
DIMENSIONS

A Total Depth of Boring (ft.)	<u>18</u>
B Borehole Diameter (in.)	<u>2.5</u>
C Well Casing Diameter (in.)	<u>1</u>
D Well Casing Length (ft.)	<u>17.64</u>
E Well Casing Slotted Interval (ft.)	<u>12</u>
F Well Casing End Cap or Sump (ft.)	<u>0.1</u>
G Annular Seal Interval (ft.)	<u>1.8</u>
H Annular Seal Interval (ft.)	<u>2.0</u>
I Sand Pack Interval (ft.)	<u>13.2</u>
J Bottom Material Interval (ft.)	<u>NA</u>
K Protective Cover Diameter (in.)	<u>7</u>
L Monument Footing Interval (ft.)	<u>1</u>
Well Centralizer Depth(s) (ft.)	<u>NA</u>

MATERIALS DATA

Monument Footing	①	<u>Cement</u>
Annular Seal	②	<u>Cement</u>
Annular Seal	③	<u>1/4" bentonite pellets</u>
Sand Pack	④	<u>#30 sand</u>
Bottom Material	⑤	<u>NA</u>
Slotted Casing		<u>0.010" PVC</u>
Well Casing		<u>1" PVC</u>
Well Centralizers		<u>NA</u>
Protective Cover		<u>Steel</u>

WELL DESIGNATION
MW-3



NOTES:

SITE: CARBELL SALT
 PROJ. NO: 02A101
 N. E. 4992.9 5033.9
 WELL PERMIT NO:

APPENDIX D

Well Development Forms and Survey Results

WELL DEVELOPMENT FORM
 EINARSON, FOWLER & WATSON

Project No. <u>CR1A101</u>	Date: <u>11/16/99</u>
Site Location: <u>Cargill Salt</u>	Well: <u>MW-1</u>
Name: <u>B. Langdon</u>	Depth/Diameter: <u>18.37/1"</u>
Development Method: <u>Surge/bail</u>	Initial DTW: <u>3.75</u>
Total Water Removed: <u>4.5 gal</u>	Final DTW: <u>10.09</u>
Water Contained? <u>55 gal, 0.11111</u>	Hydac#: <u>Horiba #1, Cole Parmer</u>
Important! Estimate of specific capacity or recharge to well: <u>conductivity probe</u>	

Time	Cum. Vol. Removed	Sand/Silt (ml/1,000ml)	Temp	EC	pH	DTW (TOC)	Appearance/Comments
0956	0 gal					3.75	TD = 18.37' (18.37 - 3.75) 0.04 gal/foot = 0.6 gal CAGING volume
1020	0.5 gal	0.5/5	19.1	479	8.78		BEGIN surge/bail
1032	0.6 gal		18.9	482	8.33	12.67	TD = 19.24
1059	1.2 gal	0.5/4	18.1	441	8.30	15.9	TD = 19.04, 170 ml SUSP.
1241						5.09	let recirculate
1430	1.8 gal		18.2	378	8.10	3.92	TD = 19.09
1454	2.2 gal		19.2	389	8.10	15.48	TD = 19.04
1535							Switch to peristaltic pump bailer won't pick materials off bottom
1545	3.2 gal						Well goes dry after approx 1 gal removed, let recharge
1624						9.45	Surge w/ bailer
1655	3.8 gal	3/7	18.2	372	8.05	0.4	Surge w/ peristaltic pump
1702	4.0 gal						well goes dry
1730	4.5 gal		18.2	385	8.05	10.09	Surge w/ bailer - Sample

WELL DEVELOPMENT FORM
EINARSON, FOWLER & WATSON

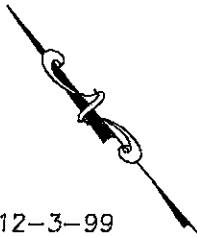
Project No. <u>CRA101</u>	Date: <u>11/16/99</u>
Site Location: <u>Cargill Salt</u>	Well: <u>mw-2</u>
Name: <u>T. LANGDON</u>	Depth/Diameter: <u>17.25' / 1"</u>
Development Method: <u>surge/bail</u>	Initial DTW: <u>5.22</u>
Total Water Removed: <u>5.5</u>	Final DTW: <u>8.03</u>
Water Contained? <u>55 gal drum</u>	Hydco#: <u>Horiba #1, Cole Parmer cond.</u>
Important! Estimate of specific capacity or recharge to well: <u>probe</u>	

Time	Cum. Vol. Removed	Sand/Silt (ml/1,000ml)	Temp °C	EC μS	pH	DTW (TOC)	Appearance/Comments
1115	0					5.22	TD = 16.63 (50 ft tag) (17 - 5.22) x 0.04 gal/ft = 0.5 gal Casing Vol., start surge/bail
1130	0.5 L		17.9	499	7.95		Turb = 384, H. brown
x 1245	1.5 gal	25/25	17.8	441	8.45	7.59	Turb > 384 (off scale) TD = 16.79
1200	2.0 gal		17.8	398	8.60	7.43	TD = 16.84, lt. brown
1215	2.5	4/6	17.7	374	8.90	8.12	TD = 16.92, lt. brown
1232	3.0	7/13	17.8	368	8.47	8.53	TD = 16.27, lt. brown
1252	3.5	4/6	17.7	334	8.68	7.40	TD = 16.19, lt. brown
1304	4.0		17.8	323	8.59	8.44	TD = 16.07, lt. brown
1315	4.5	3/2	17.7	364	8.65	8.18	TD = 16.07, lt. brown
1330	5.0		17.7	314	8.63	8.00	TD = 16.07, lt. brown
1400	5.5		17.7	323	8.64	8.03	TD = 16.07, lt. brown - Well is supposed to be deeper - bailer wait pick up sand - suggest removal w/ peristaltic pump - time permanently collect sample
1410							

WELL DEVELOPMENT FORM
 EINARSON, FOWLER & WATSON

Project No. CWA 101 Date: 11/16/99
 Site Location: Council Bluffs Well: MW-3
 Name: R. Klingman Depth/Diameter: 17.64/11"
 Development Method: Surve/Dial Initial DTW: 4.34
 Total Water Removed: Final DTW: Dry
 Water Contained? 55 gal Ann Hydac#: Horiba dt1 Cole Parmer
 Important! Estimate of specific capacity or recharge to well: Cond. Meter

Time	Cum Vol Removed	Sand/Silt (ml/1,000ml)	Temp	EC	pH	DTW (TOC)	Appearance/Comments
1543	0					4.34	TD = 17.49
1550	0.5 gal		17.5	470	8.65		(17.49 - 4.34) x 0.04 gal/ft = 0.53 gal in casing
1600	0.5 gal	40/40	17.5	435	9.45	11.5	TD = 17.61, water = lt. brown
1620	1.0 gal		17.3	419	9.58	14.72	TD = 17.49, H. brown
1715	2.0 gal		17.0	369	9.69	14.89	TD = 17.79, lt brown
1740							Surge well w/ boiler
1745	2.5 gal	8/4	17.2	330	9.33	Dry	purge w/ peristaltic pump well goes dry TD = 17.41' water sandy w/ silt, H. brown



GRAPHIC SCALE



(IN FEET)
1 inch = 50 ft.

DATE: 12-3-99

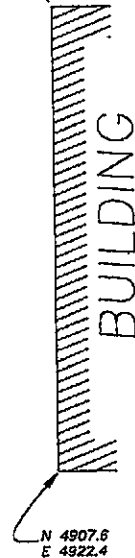
CLEMENT AVE.

BENCHMARK- CITY OF ALAMEDA DATUM
EL.=6.84 *
SUBTRACT 3.41' FOR USC&GS DATUM

MW-1
PVC=6.75
*RIM=7.03
N 5039.7
E 4980.8

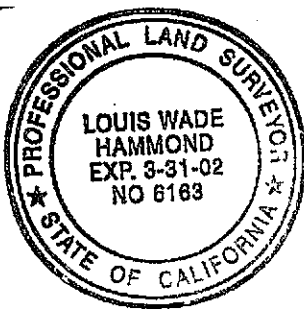
MW-3
PVC=6.92
*RIM=7.20
N 4892.8
E 5033.9

N 5000.0
E 5000.0



MW-2
PVC=9.81
*RIM=10.00
N 4950.8
E 4887.4

N 4907.6
E 4822.4



Louis Wade Hammond

WELL SURVEY

CARGILL SALT DISPENSING DIVISION
2016 CLEMENT AVE.
ALAMEDA, CA

L. Wade Hammond
Licensed Land Surveyor
No. 6163

36660 Newark Blvd. Suite D
Newark, California
94560

Tel: (510) 739-1600
Fax: (510) 739-1620

APPENDIX E

Certified Analytical Results – Groundwater Monitoring Wells



Sequoia
Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342

December 3, 1999

Robert Langdon
Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303

RE: Cargill Salt/P911561

Dear Robert Langdon

Enclosed are the results of analyses for sample(s) received by the laboratory on November 19, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Portis
Project Manager

CA ELAP Certificate Number I-2374





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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ANALYTICAL REPORT FOR P911561

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	P911561-01	Water	11/16/99
MW-2	P911561-02	Water	11/16/99
MW-3	P911561-03	Water	11/16/99





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-1</u>				<u>P911561-01</u>			<u>Water</u>	
Bromodichloromethane	9110534	11/22/99	11/22/99		50.0	ND	ug/l	
Bromoform	"	"	"		50.0	ND	"	
Bromomethane	"	"	"		50.0	ND	"	
Carbon tetrachloride	"	"	"		50.0	ND	"	
Chlorobenzene	"	"	"		50.0	ND	"	
Chloroethane	"	"	"		50.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		500	ND	"	
Chloroform	"	"	"		50.0	ND	"	
Chloromethane	"	"	"		50.0	ND	"	
Dibromochloromethane	"	"	"		50.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		50.0	ND	"	
1,2-Dichlorobenzene	"	"	"		50.0	ND	"	
1,3-Dichlorobenzene	"	"	"		50.0	ND	"	
1,4-Dichlorobenzene	"	"	"		50.0	ND	"	
Dichlorodifluoromethane	"	"	"		50.0	ND	"	
1,1-Dichloroethane	"	"	"		50.0	ND	"	
1,2-Dichloroethane	"	"	"		50.0	ND	"	
1,1-Dichloroethene	"	"	"		50.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		50.0	ND	"	
1,2-Dichloropropane	"	"	"		50.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		50.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		50.0	ND	"	
Freon 113	"	"	"		50.0	ND	"	
Methylene chloride	"	"	"		50.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	906	"	
1,1,2-Trichloroethane	"	"	"		50.0	ND	"	
1,1,1-Trichloroethane	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	178	"	
Trichlorofluoromethane	"	"	"		50.0	ND	"	
Vinyl chloride	"	"	"		50.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		100	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		116	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-2				P911561-02			Water	
Bromodichloromethane	9110534	11/22/99	11/22/99		50.0	ND	ug/l	
Bromoform	"	"	"		50.0	ND	"	
Bromomethane	"	"	"		50.0	ND	"	
Carbon tetrachloride	"	"	"		50.0	ND	"	
Chlorobenzene	"	"	"		50.0	ND	"	
Chloroethane	"	"	"		50.0	ND	"	
2-Chloroethylvinyl ether	"	"	"		500	ND	"	
Chloroform	"	"	"		50.0	ND	"	
Chloromethane	"	"	"		50.0	ND	"	
Dibromochloromethane	"	"	"		50.0	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		50.0	ND	"	
1,2-Dichlorobenzene	"	"	"		50.0	ND	"	
1,3-Dichlorobenzene	"	"	"		50.0	ND	"	
1,4-Dichlorobenzene	"	"	"		50.0	ND	"	
Dichlorodifluoromethane	"	"	"		50.0	ND	"	
1,1-Dichloroethane	"	"	"		50.0	ND	"	
1,2-Dichloroethane	"	"	"		50.0	ND	"	
1,1-Dichloroethene	"	"	"		50.0	ND	"	
cis-1,2-Dichloroethene	"	"	"		50.0	ND	"	
trans-1,2-Dichloroethene	"	"	"		50.0	ND	"	
1,2-Dichloropropane	"	"	"		50.0	ND	"	
cis-1,3-Dichloropropene	"	"	"		50.0	ND	"	
trans-1,3-Dichloropropene	"	"	"		50.0	ND	"	
Freon 113	"	"	"		50.0	ND	"	
Methylene chloride	"	"	"		50.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		50.0	ND	"	
Tetrachloroethene	"	"	"		50.0	840	"	
1,1,2-Trichloroethane	"	"	"		50.0	ND	"	
1,1,1-Trichloroethane	"	"	"		50.0	ND	"	
Trichloroethene	"	"	"		50.0	ND	"	
Trichlorofluoromethane	"	"	"		50.0	ND	"	
Vinyl chloride	"	"	"		50.0	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		99.0	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		111	"	





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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**Volatile Organic Compounds by EPA Method 8021B
Sequoia Analytical - Petaluma**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-3				P911561-03			Water	
Bromodichloromethane	9110534	11/22/99	11/22/99		0.500	ND	ug/l	
Bromoform	"	"	"		0.500	ND	"	
Bromomethane	"	"	"		0.500	ND	"	
Carbon tetrachloride	"	"	"		0.500	ND	"	
Chlorobenzene	"	"	"		0.500	ND	"	
Chloroethane	"	"	"		0.500	ND	"	
2-Chloroethylvinyl ether	"	"	"		5.00	ND	"	
Chloroform	"	"	"		0.500	ND	"	
Chloromethane	"	"	"		0.500	ND	"	
Dibromochloromethane	"	"	"		0.500	ND	"	
1,2-Dibromoethane (EDB)	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
Dichlorodifluoromethane	"	"	"		0.500	ND	"	
1,1-Dichloroethane	"	"	"		0.500	ND	"	
1,2-Dichloroethane	"	"	"		0.500	ND	"	
1,1-Dichloroethene	"	"	"		0.500	ND	"	
cis-1,2-Dichloroethene	"	"	"		0.500	ND	"	
trans-1,2-Dichloroethene	"	"	"		0.500	ND	"	
1,2-Dichloropropane	"	"	"		0.500	ND	"	
cis-1,3-Dichloropropene	"	"	"		0.500	ND	"	
trans-1,3-Dichloropropene	"	"	"		0.500	ND	"	
Freon 113	"	"	"		0.500	ND	"	
Methylene chloride	"	"	"		0.500	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		0.500	ND	"	
Tetrachloroethene	"	"	"		0.500	ND	"	
1,1,2-Trichloroethane	"	"	"		0.500	ND	"	
1,1,1-Trichloroethane	"	"	"		0.500	ND	"	
Trichloroethene	"	"	"		0.500	ND	"	
Trichlorofluoromethane	"	"	"		0.500	ND	"	
Vinyl chloride	"	"	"		0.500	ND	"	
Surrogate: Bromochloromethane	"	"	"	65.0-135		101	%	
Surrogate: 1,4-Dichlorobutane	"	"	"	65.0-135		125	"	





Conor Pacific / BFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
 Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9110534		Date Prepared: 11/18/99		Extraction Method: EPA 5030 waters						
Blank		9110534-BLK1								
Bromodichloromethane	11/18/99			ND	ug/l	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				
Carbon tetrachloride	"			ND	"	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		30.7	"	65.0-135	102			
Surrogate: 1,4-Dichlorobutane	"	30.0		36.2	"	65.0-135	121			
Blank		9110534-BLK3								
1,2,3-Trichloropropane	11/22/99			ND	ug/l	0.500				
Bromodichloromethane	"			ND	"	0.500				
Bromoform	"			ND	"	0.500				
Bromomethane	"			ND	"	0.500				





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	9110534-BLK3									
Carbon tetrachloride	11/22/99			ND	ug/l	0.500				
Chlorobenzene	"			ND	"	0.500				
Chloroethane	"			ND	"	0.500				
2-Chloroethylvinyl ether	"			ND	"	5.00				
Chloroform	"			ND	"	0.500				
Chloromethane	"			ND	"	0.500				
Dibromochloromethane	"			ND	"	0.500				
1,2-Dibromoethane (EDB)	"			ND	"	0.500				
1,2-Dichlorobenzene	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.500				
1,4-Dichlorobenzene	"			ND	"	0.500				
Dichlorodifluoromethane	"			ND	"	0.500				
1,1-Dichloroethane	"			ND	"	0.500				
1,2-Dichloroethane	"			ND	"	0.500				
1,1-Dichloroethene	"			ND	"	0.500				
cis-1,2-Dichloroethene	"			ND	"	0.500				
trans-1,2-Dichloroethene	"			ND	"	0.500				
1,2-Dichloropropane	"			ND	"	0.500				
cis-1,3-Dichloropropene	"			ND	"	0.500				
trans-1,3-Dichloropropene	"			ND	"	0.500				
Freon 113	"			ND	"	0.500				
Methylene chloride	"			ND	"	0.500				
1,1,2,2-Tetrachloroethane	"			ND	"	0.500				
Tetrachloroethene	"			ND	"	0.500				
1,1,2-Trichloroethane	"			ND	"	0.500				
1,1,1-Trichloroethane	"			ND	"	0.500				
Trichloroethene	"			ND	"	0.500				
Trichlorofluoromethane	"			ND	"	0.500				
Vinyl chloride	"			ND	"	0.500				
Surrogate: Bromochloromethane	"	30.0		31.7	"	65.0-135	106			
Surrogate: 1,4-Dichlorobutane	"	30.0		36.0	"	65.0-135	120			
LCS	9110534-BS1									
Chlorobenzene	11/18/99	10.0		9.98	ug/l	65.0-135	99.8			
1,1-Dichloroethene	"	10.0		9.72	"	65.0-135	97.2			
Trichloroethene	"	10.0		10.4	"	65.0-135	104			
Surrogate: Bromochloromethane	"	30.0		29.6	"	65.0-135	98.7			
Surrogate: 1,4-Dichlorobutane	"	30.0		29.7	"	65.0-135	99.0			
LCS	9110534-BS3									
1,2,3-Trichloropropane	11/22/99	10.0		10.2	ug/l	65.0-135	102			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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**Volatile Organic Compounds by EPA Method 8021B/Quality Control
Sequoia Analytical - Petaluma**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>LCS (continued)</u>										
	<u>9110534-BS3</u>									
Chlorobenzene	11/22/99	10.0		9.42	ug/l	65.0-135	94.2			
1,1-Dichloroethene	"	10.0		9.52	"	65.0-135	95.2			
Trichloroethene	"	10.0		9.62	"	65.0-135	96.2			
Surrogate: Bromochloromethane	"	30.0		28.9	"	65.0-135	96.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		29.6	"	65.0-135	98.7			
<u>Matrix Spike</u>										
	<u>9110534-MS1</u>		<u>P911505-01</u>							
Chlorobenzene	11/18/99	10.0	ND	9.56	ug/l	65.0-135	95.6			
1,1-Dichloroethene	"	10.0	ND	9.57	"	65.0-135	95.7			
Trichloroethene	"	10.0	ND	9.23	"	65.0-135	92.3			
Surrogate: Bromochloromethane	"	30.0		28.6	"	65.0-135	95.3			
Surrogate: 1,4-Dichlorobutane	"	30.0		29.0	"	65.0-135	96.7			
<u>Matrix Spike Dup</u>										
	<u>9110534-MSD1</u>		<u>P911505-01</u>							
Chlorobenzene	11/19/99	10.0	ND	9.56	ug/l	65.0-135	95.6	20.0	0	
1,1-Dichloroethene	"	10.0	ND	10.3	"	65.0-135	103	20.0	7.35	
Trichloroethene	"	10.0	ND	9.95	"	65.0-135	99.5	20.0	7.51	
Surrogate: Bromochloromethane	"	30.0		29.1	"	65.0-135	97.0			
Surrogate: 1,4-Dichlorobutane	"	30.0		30.6	"	65.0-135	102			





Conor Pacific / EFW 2650 East Bayshore Rd. Palo Alto, CA 94303	Project: Cargill Salt Project Number: CRA101 Project Manager: Robert Langdon	Sampled: 11/16/99 Received: 11/19/99 Reported: 12/3/99
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Notes and Definitions

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



CONTRACT LABORATORY: Seq-Ann

TURN-AROUND TIME: Standard

PO # _____

Project No.		Site Name				Analyses				Remarks
CRA 101		Cargill Salt				20213 * (Diagonal lines)				
Sampler(s): (printed)		(signature)								
Robert Langdon		<i>[Signature]</i>								
Sample I.D.	Lab I.D.	Collection		Matrix	Depth	Container Information				
		Date	Time			Type/Volume	Qty	Filt	Prsv.	
WW-1		11/16/99	1736	H ₂ O		VOIP/400ml	3	N	Hcl	9911561-01 ↓ 02 ↓ 03 * Please report 8010 list only
WW-2		↓	1446	↓		↓	3	↓	↓	
WW-3		↓	1832	↓		↓	3	↓	↓	

COOLER CUSTODY REQUIRED NOT IN CONTACT
 COOLER TEMPERATURE: 4 °C

Relinquished by: (signature) <i>[Signature]</i>	Received by: (signature) <i>[Signature]</i>	Date/Time: 11-19-99 1135
Relinquished by: (signature) <i>[Signature]</i>	Received by: (signature) <i>[Signature]</i>	Date/Time: 11-19 1300
Relinquished by: (signature) <i>[Signature]</i>	Received by: (signature) <i>[Signature]</i>	Date/Time: 11-19 1500

Send Results To: Robert Langdon
 Attn:
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