AP - 39

STAGE 1 & 2 REPORTS

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REPORT OF FINDINGS
SUBSURFACE ASSESSMENT
CONOCOPHILLIPS EAST VACUUM GLORIETA
EAST TANK BATTERY PLAYA
LEA COUNTY, NEW MEXICO

Prepared for:

ConocoPhillips

ConocoPhillips Remediation Technology
Maxim Project No. 4640027

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1.0 INTRODUCTION

This report describes the methods and results of work performed by Maxim Technologies, Inc. (Maxim) to characterize subsurface and groundwater conditions below a playa east of East Vacuum Glorieta East Unit, East Tank Battery (Site). The Site is located approximately 3.4 miles east of Buckeye, New Mexico, adjacent to County Rd 50, in Lea County, New Mexico (Figure 1). The Site is in Section 27, Township 17 South, Range 35 East (32°47.932'N: 103° 26.726'W) and may be found on the Hobbs, New Mexico-Texas topographic map (U.S.G.S. 1954). The property is owned by the State of New Mexico.

This investigation documents the subsurface vadose zone and groundwater conditions below the playa affected by a hydrocarbon and produced water release reported to the New Mexico Oil Conservation Division (NMOCD) by telephone on October 29, 2002. This report incorporates the May 18-20, 2004 activities and results with Maxim March 12, 2004 findings report entitled "Groundwater assessment ConocoPhillips East Vacuum Glorieta East Tank Battery Lea County, New Mexico."

1.1 BACKGROUND

The hydrocarbon and produced water release was discovered October 28, 2002, and was reported to NMOCD. Approximately 80 barrels of oil were released into a playa approximately 120 feet southeast of well number VAC ABO 6-80 and affected an area of approximately 80 by 150 feet in an adjacent playa. Immediately after the release, ConocoPhillips recovered 80 barrels of oil and 20 barrels of water. B&H Environmental Services (B&H) was called to the Site to delineate the contamination, and ConocoPhillips submitted their data in a letter to the NMOCD dated November 20, 2002. A compilation of their findings is presented in Appendix A, Table 1.

B&H bored six 2-foot below ground surface (fbgs) borings to delineate the spill horizontally and one 11-fbgs boring to delineate the spill vertically. Hydrocarbon concentrations were found in all borings, and concentrations were highest in the northwest portion of the playa. Hydrocarbon and chloride concentrations were noted down to 11 fbgs in the "vertical" boring located in the northwestern area of the spill Site at 1,240 milligrams per kilogram (mg/kg) and 3,470 mg/kg, respectively (Appendix A, Table 1). In the NMOCD letter, ConocoPhillips indicated groundwater in a nearby water well was 51 fbgs.

On April 7, 2003, BBC International deepened the B&H "vertical" boring to further delineate the vertical extent of contamination (Appendix A, Table 2). These data indicate that

hydrocarbon and chloride contamination were present down to a depth of 35 fbgs in the northeast portion of the spill Site.

On February 4-6, 2004, Maxim installed three soil borings at the Site to assess subsurface and groundwater conditions below the playa east of the Vacuum Glorieta East Unit, East Tank Battery. Soil boring VG-1 was located inside the playa and VG-2 and VG-3 were located out side the playa. The VG-1 boring established the presence and extent of hydrocarbon and chloride impact vertically in the vadose zone of the playa down to groundwater. VG-2 and VG-3, located north and southwest of the playa respectively, established the lateral extent of groundwater impact. PID readings in the three borings are presented in Appendix A, Table 3.

All soil sampling locations during the February 4-6, 2004 sampling event had measurable concentrations of volatile organic compounds (VOC) above background using the photo-ionization detector (PID). However, only VG-1 had readings above 10 ppm. Location VG-1 exhibited PID readings above 100 ppm to a depth of 40 fbgs. The highest reading of 9,999 ppm (instrument limit) was recorded in the 15-20 fbgs interval. A field check for total petroleum hydrocarbon (TPH) in soil was used to confirm the drilling end-point in boring location VG-1 (Appendix A, Table 3). Field testing indicated the presence of TPH at sampling intervals 40-55 fbgs. TPH concentrations were reported at >9,999, 1,554 and 4,140 ppm in sampling intervals 40-45, 45-50 and 50-55 fbgs, respectively. Field chloride concentrations in soil boring VG-1 ranged from 153 to 3,574 ppm, at sampling intervals 4-6 fbgs and 45-50 fbgs, respectively. The deepest sample, from 50-55 fbgs, reported chlorides at 2,824 ppm by field analysis.

Concentrations of diesel range organics (DRO) were noted in all soil sampling locations. Boring VG-1 exhibited DRO concentrations of 6,700 and 280 mg/kg from the 20-22 and 50-55 fbgs sampling intervals, respectively (Appendix A, Table 4). At locations VG-2 and VG-3, DRO concentrations were reported at 3.70 and 3.20 mg/kg, respectively, from a depth of 50-55 fbgs.

Gasoline range organics (GRO) were noted only in soil samples collected from boring VG-1. Boring VG-1 exhibited concentrations of 440 and 0.18 mg/kg from the 20-22 and 50-55 fbgs sampling intervals, respectively.

Benzene, toluene, ethylbenzene and total xylenes (BTEX) in soil were only noted in boring VG-1 (Appendix A, Table 4). BTEX concentrations were detected from the 20-22 fbgs sample interval at a total concentration of 17.59 mg/kg. Only xylenes (total), at 0.057 mg/kg, were detected in soil collected from the 50-55 fbgs interval.

The synthetic precipitation leachate procedures (SPLP) analysis of soil collected from the 20–22 fbgs interval in boring VG-1 indicated benzene to be below laboratory detection limits. Leachable concentrations of ethylbenzene, toluene and xylenes (total) were present at low levels, below the New Mexico Water Quality Control Commission (NMWQCC) cleanup standards.

Chloride in the soils was reported at detectable concentrations only in boring VG-1; at 1,380 mg/kg in the 20-22 fbgs sample interval and 2,040 mg/kg in the 50-55 fbgs sample interval (Appendix A, Table 4).

In March 12, 2004, Maxim reported groundwater quality data collected from the three monitoring wells (Appendix A, Table 5). BTEX was not detected in any water samples from monitoring well VG-2 and VG-3. Benzene, ethylbenzene and xylenes (total) were detected in monitoring well VG-1 at concentrations of 0.0031, 0.0024, and 0.0029 milligrams per liter (mg/l), respectively. Toluene was not detected in monitoring well VG-1. All values are below NMWQCC standards. Poly-aromatic hydrocarbon (PAH, semivolatile organic compounds) concentrations were not detected in any water samples collected from the three monitoring wells (Appendix A, Table 5).

Chloride concentrations in groundwater were reported in all samples collected during this investigation, and ranged from 33.7 mg/l in VG-3 to 1,040 mg/l in VG-1 (Appendix A, Table 5).

1.2 HEALTH AND SAFETY

Maxim required safety and health procedures appropriate for the level of environmental hazard known to exist at this Site. All contractors complied with ConocoPhillip's "Contractors Safety Manual" (revised 2003). Level D Personal Protective Equipment (PPE) was adequate for this activity. Personnel were equipped with respirators with organic vapor cartridges in the event of a sudden release of noxious fumes from the Site. For further details, please refer to the site-specific Health and Safety Plan (HASP) prepared on January 28, 2004. Maxim notified New Mexico One Call on May 7, 2004, where ConocoPhillips, Link Energy, Duke Energy Field Services, and Rice Operating have pipelines in the immediate vicinity of the release site and were made aware of Maxim's activities.

The NMOCD and the New Mexico Land Office were notified at least 48 hours prior to the initiation of this work.

1.3 INVESTIGATION-DERIVED WASTE

All soil cuttings generated by soil probe activities were staged on a bermed, plastic sheet until PID scanning and chloride analysis were completed. If the cuttings resulting from probing activities were not impacted (i.e. register <100 ppm on PID and chloride concentrations are <1,000 mg/kg), the cuttings were spread on the ground. If probe cuttings were impacted by one or both parameters (>100 ppm on PID and/or chloride concentrations are >1,000 mg/kg), the cuttings will remain on the bermed, plastic sheet and worked over a period of time until they register <100 ppm on a PID as a as a result of natural attenuation. At that point, the cuttings will be spread directly on the ground, if chloride concentrations are <1,000 mg/kg. If the probe cuttings are "highly contaminated" as defined by the NMOCD, Maxim will manage the material with other affected soils during final remediation.

1.4 TOPOGRAPHY, GEOLOGY AND HYDROGEOLOGY

The Vacuum Glorieta hydrocarbon and produced water release site is located within the Southern High Plains of the Ogallala Formation. Most rainfall drains into playas or ephemeral lakes, which range from a few feet to 50 feet or more in depth. Soils in this area are white caliche and black clays, red sandy loams, and sands. Based on drill cuttings collected during the subsurface investigation on February 4-5, 2004, the shallow subsurface geology consists of white to light gray caliche to approximately 6-9 fbgs, and light reddish brown sand with thin caliche and clay stringers to approximately 70 bgs. The dry playa contains dark gray clay to a depth of 7-9 feet overlying the caliche and sand sequence.

Topography and Drainage The land surface is a nearly level to very gently undulating constructional plain that has little dissection. Local topography is characterized by a dry playa located on a southeast-sloping plateau consisting of a level to gently rolling prairie broken by rivers, creeks and playas. Large areas within the region have poorly developed drainage systems. The elevation ranges from 4,000 feet above sea level in the northwestern part of the area to 3,850 feet in the southeastern part. There is a general slope of about 10 feet per mile from northwest to southeast.

Two local relic drainage ways, both un-named, cross just east of the area from northwest to southeast. These drainage ways end on a flat area to the southeast. These draws are shallow, usually dry and seldom carry runoff water.

Playas, or shallow ephemeral lakes, are common in the area. The playas provide the only surface drainage in many areas. Aquifer recharge occurs through these playa basins during and after significant rainfall events. Recharge is limited once the clays in the basins swell and effectively stop percolation of groundwater.

The only fresh surface water nearby is a pond created by discharge of cooling water from a power plant located approximately 6 miles to the southeast. There are many dry playas that briefly hold water following a rainfall event. The playas play an important role in aquifer recharge and support some wildlife when rainfall events are significant enough to cause runoff to accumulate in these naturally occurring depressions.

Geology: According to the Geologic Map of New Mexico, Vacuum Glorieta is underlain by the Pliocene-age Ogallala Formation, which consists of fluvial sand, silt, clay, and gravel capped by caliche. The Ogallala sand is very fine to medium grained quartz, silty in part, and calcareous, clay balls are common, clayey in upper part, indistinctly bedded to massive, crossbedded, unconsolidated to weakly cohesive, with local quartzite lenses, and colored various shades of gray and red. The sand may have silt and clay with caliche nodules, colored reddish brown, dusky red, and pink. Gravel, not everywhere present, is mostly quartz, some quartzite, sandstone, limestone, chert, igneous rock, metamorphic rock, and worn *Gryphaea* in intraformational channel deposits and in basal conglomerate. Caliche, sandy and pisolitic at top, hard, produces "caprock" along Mescalero Ridge. Maximum thickness is up to 100 feet.

Ogallala Aquifer The Site is underlain by the Ogallala Aquifer. The aquifer extends from the ground surface downward, ranging in thickness from 80 feet to more than 200 feet in the area. The formation consists of heterogeneous sequences of clay, silt, sand and gravel. A resistant layer of calcium carbonate-cemented caliche, known locally as the caprock, occurs near the surface of much of the area (Ashworth and Hopkins, 1995).

The Ogallala Formation can be divided up into the unsaturated zone and the saturated zone. The upper section of the Ogallala is unsaturated and is known as the "Vadose Zone". The lower section of the Ogallala Formation is the primary water-bearing unit and is the Ogallala Aquifer. Groundwater in the Ogallala aquifer generally flows from northwest to southeast, normally at right angles to water level contours. Velocities of less than one foot per day are typical, but higher velocities may occur along filled erosional valleys where coarser grained deposits have greater permeabilities.

The nearest water well to the Site is located approximately 675 feet northwest of the Site. No information is available on depth to water for this well. A water well (L010593) is located approximately 1,525 feet north with no depth to water information (New Mexico Office of the State Engineer's database). There is water well located approximately 2,190 feet to the south with depth to water reported as 33 feet. A water well (L10297), located to approximately 2,450 feet to the southwest, has a depth to water of 42 feet. A water well located approximately 2,460 feet east of the Site has depth to water of 85 feet. A water well (L04793 [3]) located approximately 2,285 feet to the southeast has no depth to water information. A water well (L05362) located approximately 3,500 feet west, has a depth to water of 80 feet.

Shallow groundwater at the Site occurs under unconfined conditions. In the three monitoring wells drilled at the Site, groundwater was encountered at a depth of approximately 60 feet. Based on groundwater elevations measured in the three monitoring wells, groundwater flow direction was determined to be southeast at a gradient of 0.004 feet per foot.

Recharge of the aquifer system in the District mainly occurs in two ways: (1) infiltration of precipitation runoff in and around playa lakes and (2) direct infiltration of precipitation into the coarse eolian surfical deposits.

2.0 SCOPE OF WORK

On May 5, 2004, Maxim initiated a GeoProbe soil survey to assess subsurface conditions below the playa east of the Vacuum Glorieta East Unit, East Tank Battery. Maxim used a truck-mounted hydraulic push probe unit to examine 17 locations inside the northern portion of the playa adjacent to the tank battery (Figure 2). The probe was pushed until refusal for all locations. Soil probes GP-3, -7, -8, -9, -11, -13, -14, -15, and -16 were located out side the affected area, GP-1, -2, -4, -5, -6, -10, and -14 were located inside the affected area and GP-17 represented background. The soils from these 17 penetrations were logged for sediment type or lithology, and the split-spoon cuttings were tested with a PID to determine the presence of hydrocarbons. The hydraulic probe, split-spoon penetrations were continuously sampled and

logged by the field geologist. The probes established the presence and extent of hydrocarbon and chloride impact horizontally and vertically in the shallow vadose zone of the playa (Table 1).

2.1 SOIL VAPOR

Soil samples were field screened (head-space analysis) to detect the presence of volatile organic compound (VOC) vapors using a PID. Each interval sample was bagged, labeled, and solar heated for approximately 15 minutes. After the waiting period, the bags were penetrated with the tip of the PID and a measurement taken of the VOC vapors present within the bag. Results of head-space analysis are presented in Table 1 and Appendix B.

2.2 SOIL

Two split spoon soil samples from each penetration were retained and submitted to the laboratory for hydrocarbon analyses. The sampling interval was based on PID measurement and on the judgment of the field geologist. The soil sample with the highest PID measurement and the sample from the probe total depth were retained for chemical analysis. Split spoon soil samples collected for chloride analysis were collected at 3-foot intervals and submitted to the laboratory.

Soil samples were placed into glass sample jars, sealed with Teflon-lined lids, and placed on ice for transportation under chain-of-custody to an analytical laboratory where they were analyzed for total petroleum hydrocarbons (TPH; Method 8015M GRO-DRO), benzene, toluene, ethylbenzene and total xylenes (BTEX, Method 8260), and chloride (USEPA Method 300).

2.3 GROUNDWATER

Groundwater was not encountered in any of the 17 Geoprobe soil penetrations. The deepest penetration was 18 fbgs at sampling location GP-6.

3.0 ANALYTICAL RESULTS

3.1 SOIL

A summary of subsurface soil conditions is presented in Table 1 and the complete analytical report is presented in Appendix C. The shallow subsurface geology outside of the playa consists of white to light gray caliche to approximately 20 fbgs, and light reddish brown sand with thin caliche and clay stringers to approximately 70 fbgs. The dry playa contains dark gray clay to a depth of 6-9 feet overlying the caliche and sand sequence.

PID readings in the 17 borings are presented in Table 1 and recorded on field logs (Appendix B). With the exception of GP-16, all sampling locations had measurable concentrations of VOCs above background using the PID. Penetrations at GP-1, -4, -5, and -6 had readings above

100 ppm. The highest readings were recorded at soil sampling location GP-1, with 1,416 ppm at 0-3 fbgs interval, 620 ppm at 3-6 fbgs interval, and 371 ppm at 6-9 fbgs interval.

The concentrations of TPH constituents reported by laboratory analysis in the soils are presented in Table 1. Detectable concentrations of DRO were noted at all sampling locations. Soil having TPH-DRO measurements above 100 mg/kg was noted at locations GP-1, -4, -5, -6, -10, and -12. Highest DRO concentrations measured above the caliche lenses at 0-3, 3-6, and 6-9 fbgs intervals were 4,100 mg/kg (GP-1), 810 mg/kg (GP-5), and 3,300 mg/kg (GP-5), respectively. Location GP-6 had DRO measurements of 7,500 and 3,600 mg/kg from the 12-15 and 15-18 fbgs sampling intervals, respectively.

Detectable concentrations of GRO were noted only in soil samples collected from penetrations GP-1, -4, -5, and –6. The highest TPH-GRO measurement was 150 mg/kg at GP-6 (12-15 fbgs interval). All other penetrations exhibiting TPH-GRO were less than 35 mg/kg.

Soil BTEX data are presented in Table 1. One or more constituents of BTEX were noted only in penetrations GP-1, -4, -5, and -6. Highest total BTEX concentration was measured at GP-6, (9.32 mg/kg at 12-15 fbgs sampling interval), and highest concentration of benzene was measured at GP-5 (0.54 mg/kg at 3-6 fbgs sampling interval).

Chloride concentrations in the soils are presented in Table 1 and Figures 3, 4' and 5). Chloride was reported at detectable concentrations in all penetrations with the exception of GP-8 and -14. Locations GP-1, -2, -3, -4, -5, and -6 reported chloride concentrations of between 619 and 5,000 mg/kg. Chloride concentrations ranging from non-detect to 863 mg/kg were measured at GP-7 and -13. In the background location (GP-17) chloride ranged from 15.5 to 135 mg/kg at sampling intervals 3-6 and 9-11 fbgs, respectively.

3.2 GROUNDWATER

Groundwater was not encountered during this soil sampling event. However, Maxim did report groundwater quality data in March 12, 2004 (Appendix A, Table 5). Monitoring well VG-1 is located in the spill boundary. Benzene, ethylbenzene and xylenes (total) were detected in this monitoring well at concentrations of 0.0031, 0.0024, and 0.0029 milligrams per liter (mg/l), respectively. Toluene was not detected. All values are below NMWQCC standards. Poly-aromatic hydrocarbon (PAH, semivolatile organic compounds) concentrations were not detected in water samples collected from the monitoring well. Chloride concentration in groundwater was reported to be 1,040 mg/l in VG-1 (Appendix A, Table 5).

4.0 CONCLUSIONS

Groundwater in the vicinity of the Site is less than 50 ft below the depth of contamination. Distance from the nearest fresh water supply well at the Site is less than 1,000 feet. Benzene concentration in soil was reported below 10 mg/kg and total BTEX concentration was reported below 50 mg/kg. TPH concentration in soil was detected above 100 mg/kg in earlier work.

Based on deep drill cuttings and shallow GeoProbe samples collected in the dry playa during previous and present subsurface investigations, the shallow subsurface geology can be described as dark gray clay to a depth of 7 - 9 fbgs, white to light gray caliche to approximately 20 fbgs, and light reddish brown sand with thin caliche and clay stringers to approximately 70 fbgs.

For the clayey soil above the caliche lenses, evidence suggests the hydrocarbon concentrated in an area defined by borings GP-1, -4, -5, -6, -10 and -12. Data from earlier locations, SB1 and VG-1 (Appendix A, Tables 2 and 4), and the current GP-6, suggests the hydrocarbons infiltrated the caliche zone and migrated into the sands above the aquifer (water level at 60 fbgs). Groundwater chemistry from previous sampling suggests that detectable amounts of hydrocarbons reached groundwater in the vicinity of monitoring well VG-1 below the playa bed (Appendix A, Table 5).

Chloride present in the spill area described above, also affected soils below the release area. The affected area includes locations GP-1 through GP-8. Data from earlier locations SB1 and VG-1 (Appendix A, Tables 2 and 4), and the current GP-6, suggest the chloride infiltrated the caliche zone and is present in the sands above the aquifer. Groundwater chemistry from previous sampling suggests that the chloride made contact with groundwater below the playa bed (Appendix A, Table 5).

5.0 RECOMMENDATIONS

Playa systems in southeastern New Mexico operate under a low-precipitation/high-evaporation regime. Hydrological changes resulting from changes in precipitation and evaporation are not generally a simple volume/area response. Instead, playas demonstrate changes in the timing, magnitude, frequency, and residence time of specific ephemeral flooding events; generally a much more complex response that is less well understood (Kotwicki and Isdale 1991; Bryant 1999). However, infiltration of the water from the playa does affect the local groundwater quality in the upper, unconfined Ogallala Aquifer.

The area of soil impact is approximately 0.25 acres in size or about 12.5 percent of the northern 2-acre half of the playa (Figure 6). Approximately 2,823 cubic yards (CY) of soil above the caliche zone has been affected by the hydrocarbon/produced water release. It is recommended that an impermeable barrier be installed in the playa to prevent further downward migration of hydrocarbons and chlorides in this area.

The barrier would be developed by excavating approximately 3 feet of the affected material (1,210 CY) above the caliche zone and hauling it to Controlled Recovery's Midway facility for disposal. The excavation would be further extended into clean soil around the edges of the affected area and the center of the excavation would be slightly crowned to promote lateral drainage over an installed geo-membrane. The geo-membrane cover over the excavated area would prevent further downward migration of hydrocarbons and chlorides out of the caliche and the sands below the caliche, by preventing infiltration of future precipitation through these

zones. The domed geo-membrane configuration would transport moisture away from the affected area and into the clean area. The excavation would be backfilled with sandy, clay soil above the geo-membrane layer.

Chloride concentration in the playa is a transitory effect caused by infiltration of the hydrocarbon/produced water into the aquifer and the resulting contaminate is above the NMWQCC standard of 250 mg/l chloride. Background chloride concentrations in groundwater below the playa can be demonstrated by samples collected in an earlier study from monitoring wells VG-2 and VG-3 which measured 109 and 33.7 mg/l, respectively.

Because of the geo-membrane installation, further migration of chloride to groundwater should be abated in the area of the spill. Therefore, Maxim suggests boring one additional monitoring well inside the playa, down gradient of VG-1 and establish a quarterly sampling program to monitor chloride concentration levels.

The objective in remediating the hydrocarbon/produced water spill in the playa is to minimize disturbance to the playa's natural soil structure and limit impact to groundwater below the playa. The proposed plan will achieve this objective.

6.0 REFERENCES

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TABLES

Table 1
ConocoPhillips
Vacuum Glorieta East Unit East Tank Battery Playa
May 19-20, 2004 GeoProbe Soil Sampling Event

Probe Sample No.	Depth (fbgs)	Soil Type	VOC (ppm)	Parameter (mg/kg)						
				DRO	GRO	Benzene	Ethylbenzene	Toluene	Total Xylenes	Chloride
GP-1	0-3	C	1416	**4100**	13	ND	ND	ND	0.44	**1410**
	3-6	C, Ca	620							**2780**
	6-8	Ca	371	**140**	ND	ND	ND	ND	ND	**5000**
GP-2	0-3	C	0	20	ND	ND	ND	ND	ND	**619**
	3-7	C	0.5	10	ND	ND	ND	ND	ND	**1090**
GP-3	0-3	C	0.4							**637**
	3-6	C	1.1	3.1	ND	ND	ND	ND	ND	**1780**
	6-9	Ca	0.1	ND	ND	ND	ND	ND	ND	**1490**
GP-4	0-3	C	14.9	**770**	0.20	ND	ND	ND	ND	**972**
	3-6	C, Ca		**800**	0.39	ND	0.01	ND	0.01	**2310**
GP-5	0-3	C	73.4							**3420**
	3-6	C	61.3	**810**	15	0.54	0.59	0.13	2.00	**2600**
	6-8	Ca	140	**3300**	11	0.08	0.96	0.03	0.55	**2550**
GP-6	0-3	C	12.2							**2640**
	3-6	C	0.6							**2070**
	6-9	Ca	251							**2820**
	9-12	Ca	185							**1990**
	12-15	Ca	294	**7500**	150	0.32	4.50	ND	4.50	**2790**
	15-18	Ca, S	235	**3600**	35	ND	2.70	0.25	3.70	**1960**
GP-7	0-3	C	5.9							14.4
	3-6	C	8.3	4.2	ND	ND	ND	ND	ND	72.6
	6-9	C	1.3							**326**
	9-11	Ca	2.9	3.4	ND	ND	ND	ND	ND	**855**
GP-8	0-3	C	7	21.0	ND	ND	ND	ND	ND	ND
	3-6	Ca	9	4.0	ND	ND	ND	ND	ND	ND
GP-9	0-3	C	0							ND
	3-6	C	0	2.1	ND	ND	ND	ND	ND	64.3
	6-8	Ca	0.6	1.8	ND	ND	ND	ND	ND	73
GP-10	0-3	C, Ca	10.1	**970**	ND	ND	ND	ND	ND	129
GP-11	0-3	C	21.9	13.0	ND	ND	ND	ND	ND	ND
	3-6	C	3.4							ND
	6-9	Ca	16.2	2.2	ND	ND	ND	ND	ND	164
GP-12	0-3	C	31.5	**470**	ND	ND	ND	ND	ND	ND
	3-6	C	17.9							12.4
	6-9	Ca	10.6	**370**	ND	ND	ND	ND	ND	17
GP-13	0-3	C	17.7	5.5	ND	ND	ND	ND	ND	ND
	3-6	C	8.5							38.1
	6-9	C, Ca	8.8	2.2	ND	ND	ND	ND	ND	**863**
GP-14	0-3	C	8.8	14.0	ND	ND	ND	ND	ND	ND
	3-6	Ca	5.7	1.9	ND	ND	ND	ND	ND	ND
GP-15	0-3	C	6.3	3.3	ND	ND	ND	ND	ND	44.6
	3-6	C	2.3							119
	6-9	Ca	0	4.1	ND	ND	ND	ND	ND	144
GP-16	0-3	C	0	24.0	ND	ND	ND	ND	ND	13.3
	3-6	C	0	3.9	ND	ND	ND	ND	ND	152
	6-9	C, Ca	0							
GP-17	0-3	C	0.1	6.2	ND	ND	ND	ND	ND	54.3
	3-6	C	0.1							15.5
	6-9	C	0							104
	9-11	Ca		2.2	ND	ND	ND	ND	ND	135

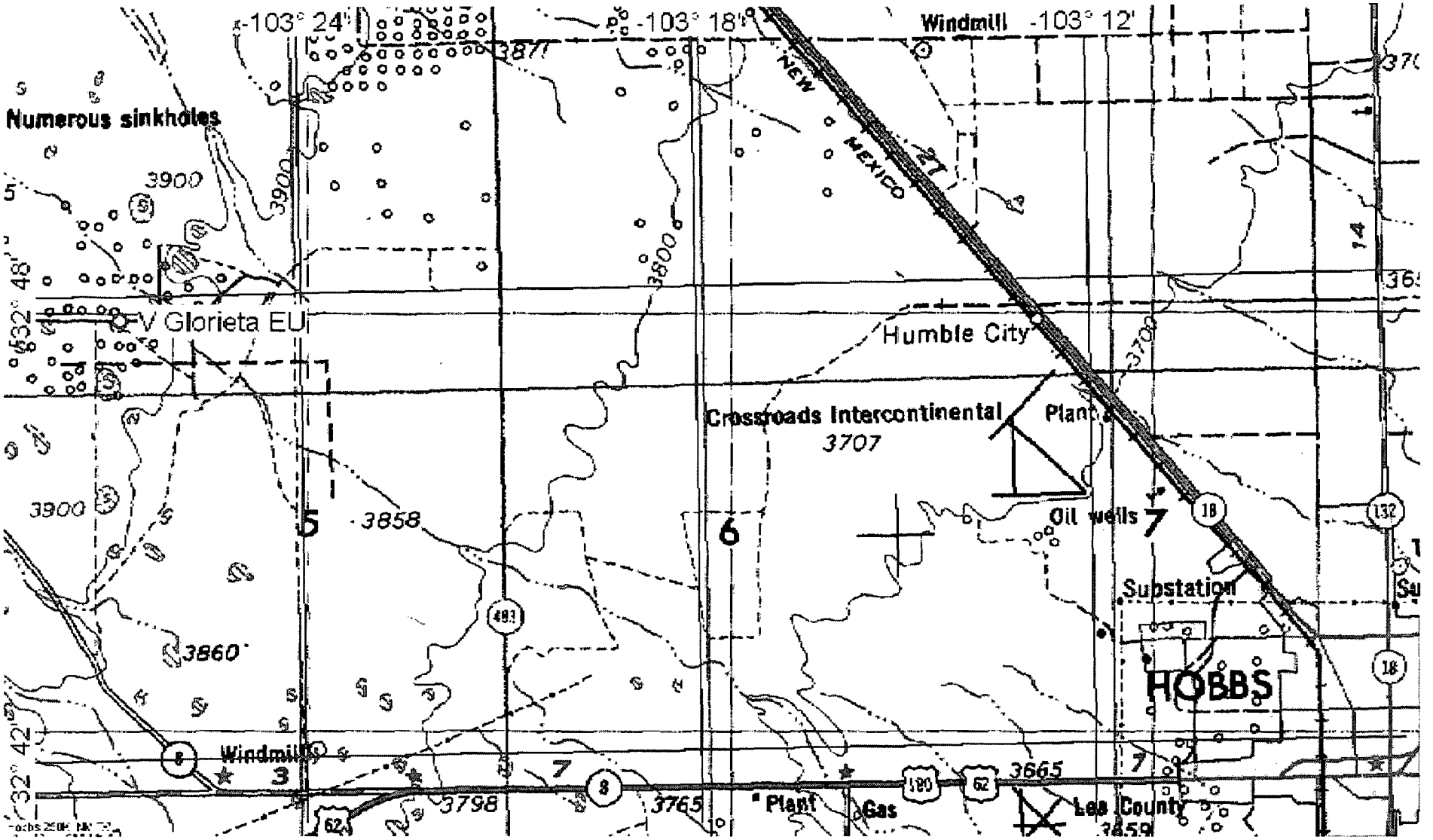
Notes:

Soil Types:
- C - Clay
- Ca - Caliche
- S - Sand

Blank fields indicate no data

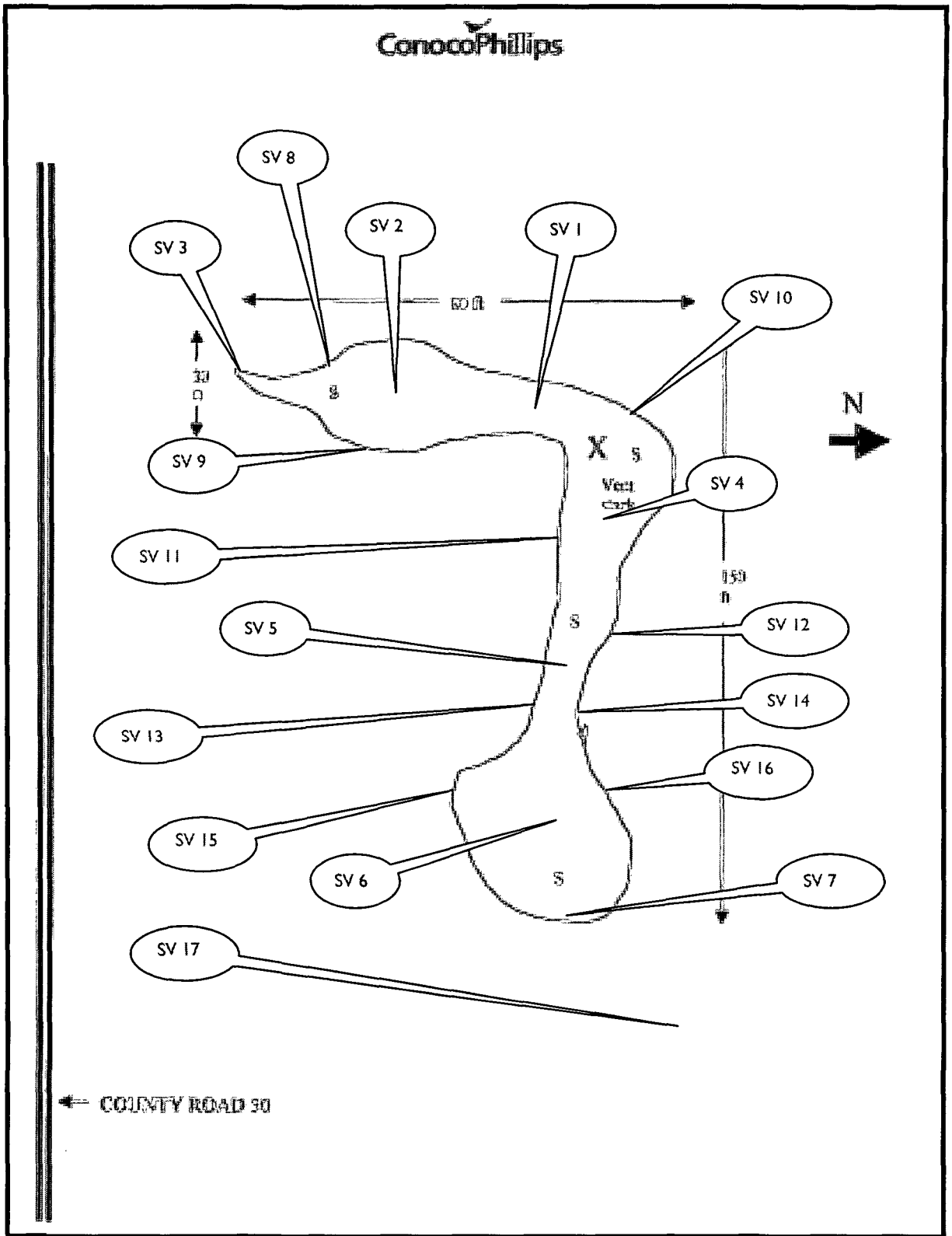
DRO - Diesel Range Organic
GRO - Gasoline Range Organic
ND - Not detected at laboratory reporting limit
fbgs - Feet below ground surface
ppm - Parts per million
mg/kg - Milligrams per kilograms

FIGURES



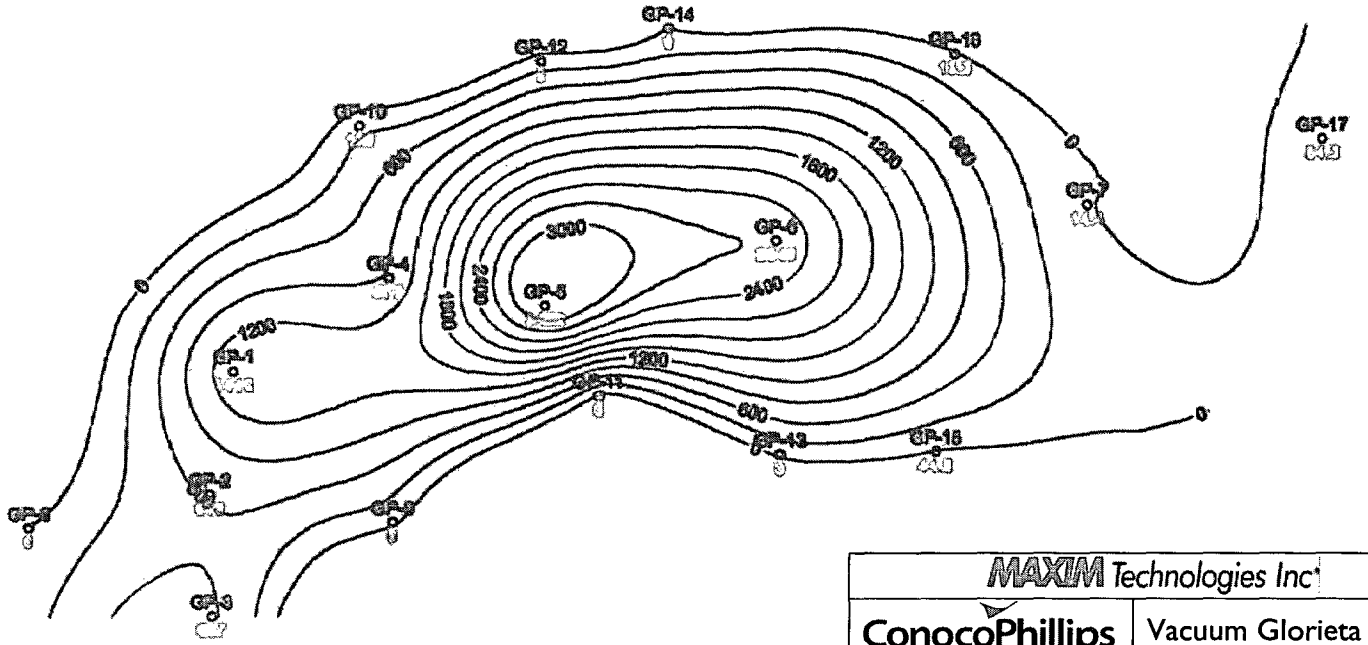
MAXIM Technologies Inc®	
ConocoPhillips	Vacuum Glorieta Unit

Figure 1. Vacuum Glorieta, East Unit, East Tank Battery Location



Source: B&H Environmental Services
November 5, 2002

MAXIM Technologies Inc	
ConocoPhillips	Vacuum Glorieta Unit
Figure 2. GeoProbe Locations	



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ConocoPhillips | Vacuum Glorieta Unit

Figure 3. GeoProbe Hole Locations (GP) and Chloride Concentrations (mg/kg) Isopleth at 0-3 fbgs

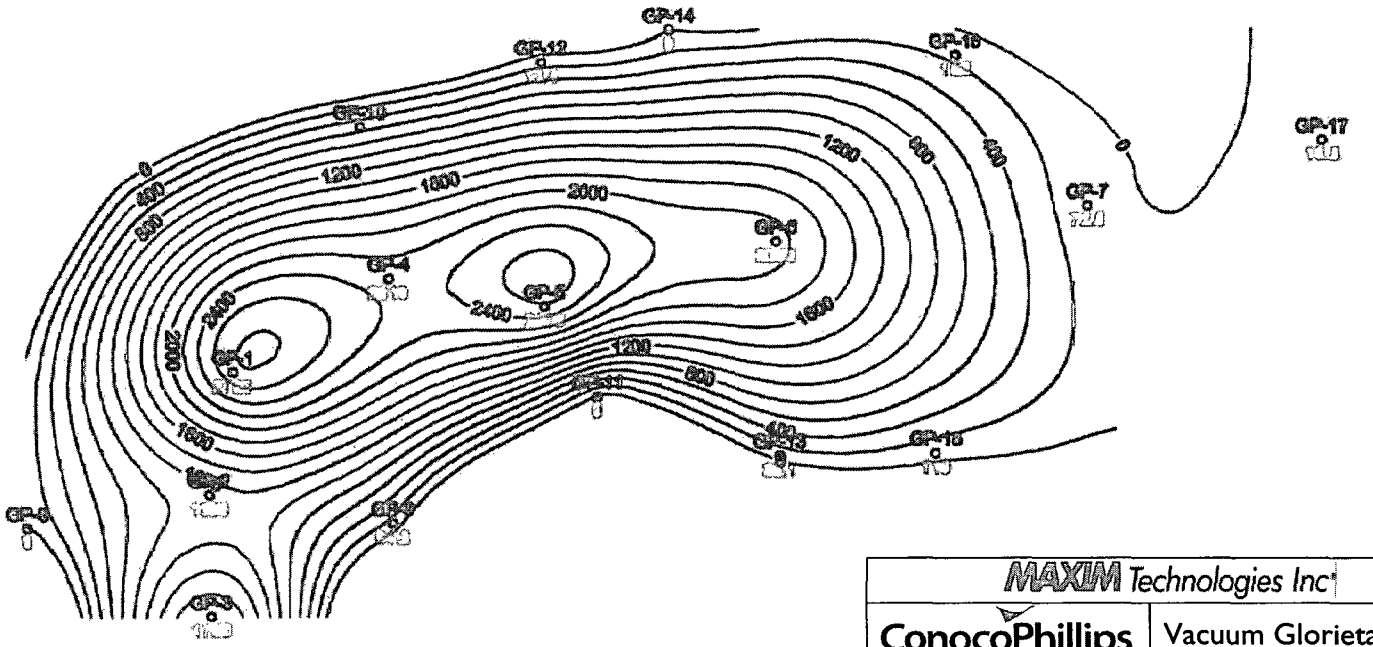

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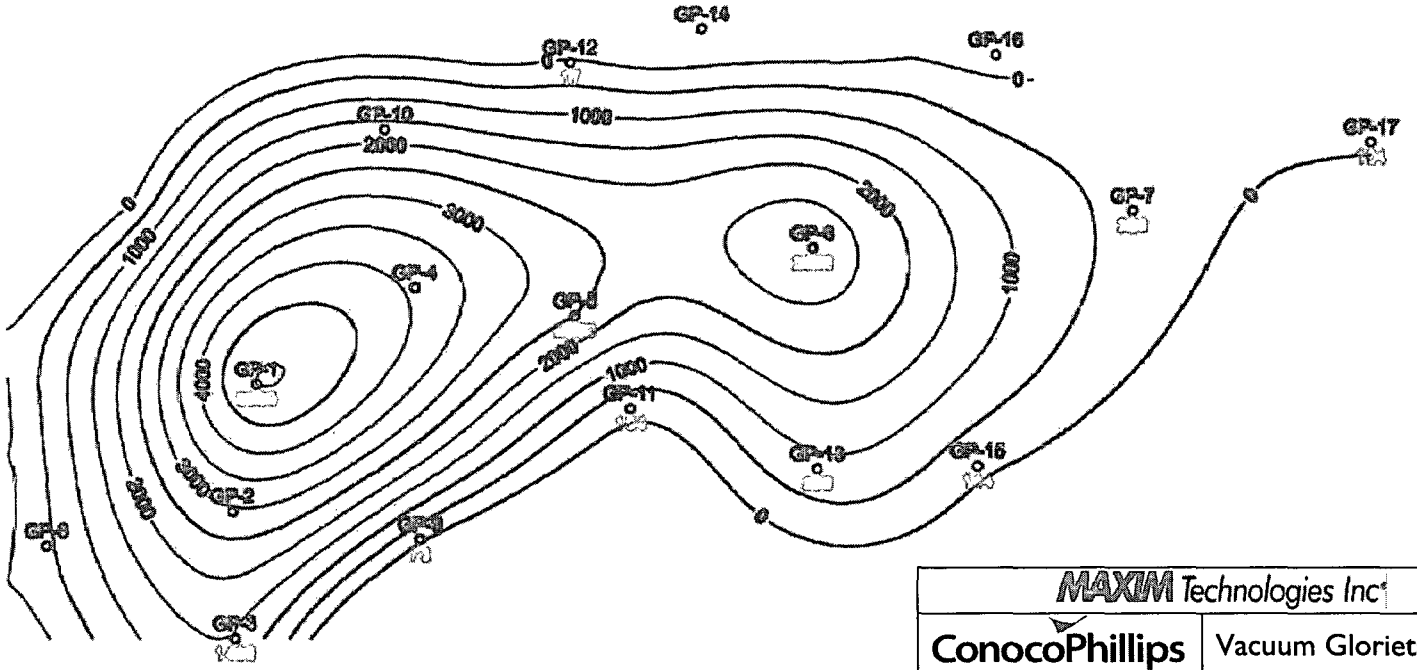
Figure 4. GeoProbe Hole Locations (GP) and Chloride Concentrations (mg/kg) Isopleth at 3-6 fbgs



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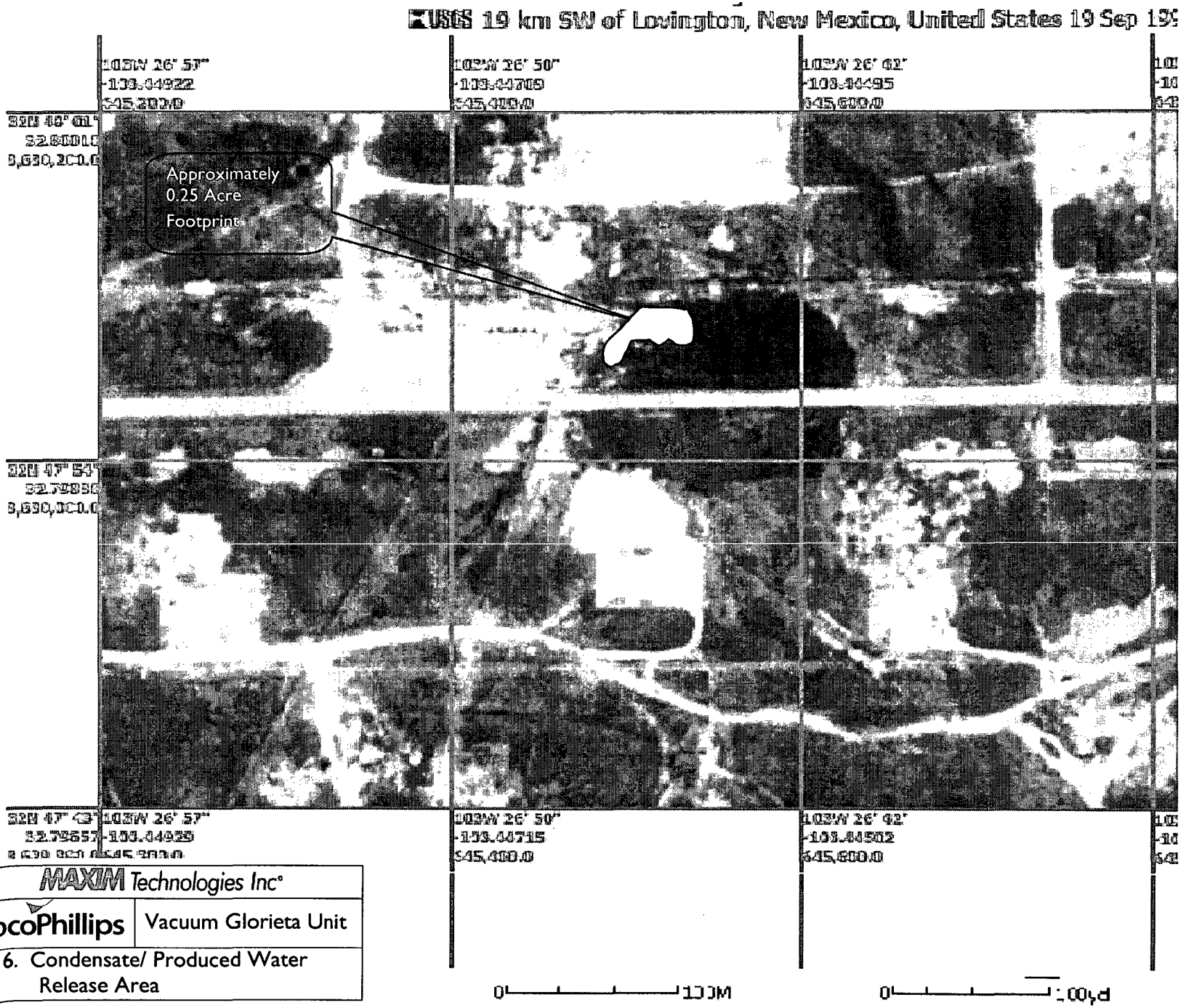
ConocoPhillips | Vacuum Glorieta Unit

Figure 5. GeoProbe Hole Locations (GP) and Chloride Concentrations (mg/kg) Isopleth at 6-9 fbgs



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ConocoPhillips | Vacuum Glorieta Unit

Figure 6. Condensate/ Produced Water Release Area

APPENDIX A

Historical Data

Appendix A, Table 1.
ConocoPhillips East Vacuum Glorieta East Tank Battery
November 5, 2002 Historic Data

B&H Environmental Services Sample Boring Locations								
Parameter	Depth (ft)	Vertical	South	East	North 1	North 2	West 1	West 2
TPH (ppm)	Surface	72700	261	159	200		980	995
	2		125	915	1290	985	5680	500
	4	1730						
	6	541						
	8							
	11	1240						
Chloride (ppm)	6	5440						
	8	3230						
	11	3470						

Blank field indicates not data

ConocoPhillips East Vacuum Glorieta
East Tank Battery
April 7, 2003 Historic Data

		11/20/2002 B&H Environmental Services Data*		BBC International								
Sample I.D.	Depth	TPH	Chloride	PID	Chloride	TPH* (mg/kg)		Chloride*	Benzene*	Toluene*	Ethyl-benzene*	Total Xylenes*
	(ft)	(ppm)	(ppm)	(ppm)	(ppm)	GRO	DRO	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	Surface	72700		ND	ND	ND	ND	ND	ND	ND	ND	ND
SB1	4	1730		ND	ND	ND	ND	ND	ND	ND	ND	ND
SB1	6	514	5440	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB1	8		3230	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB1	11	1240	3470	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB1	14	106	700	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB1	14-15			700	106	ND	ND	ND	ND	ND	ND	ND
SB1	15	109	880	820	109	ND	ND	ND	ND	ND	ND	ND
SB1	17	232	1600			ND	ND	ND	ND	ND	ND	ND
SB1	16-17			1600	232	ND	ND	ND	ND	ND	ND	ND
SB1	18	355	2120	2120	355	261	5170	1680	1.17	3.41	11.00	14.50
SB1	18-20			3900	247	ND	ND	ND	ND	ND	ND	ND
SB1	20	247	3900			ND	ND	ND	ND	ND	ND	ND
SB1	26-28			4400	269	154	2350	4160	0.42	1.05	3.86	6.95
SB1	28	269	4400			ND	ND	ND	ND	ND	ND	ND
SB1	28-30			3800	167	ND	ND	ND	ND	ND	ND	ND
SB1	30	167	3800			ND	ND	ND	ND	ND	ND	ND
SB1	34.5-35			4350	162	81.9	1520	3200	0.04	0.36	2.44	4.74
SB1	35	162	4350			ND	ND	ND	ND	ND	ND	ND

* BBC reported the same data in their 4/07/2003 Report

** Cardinal Laboratories, Methods 8015M, 4500-Cl^- B and 8260.

Appendix A, Table 3

ConocoPhillips East Vacuum Glorieta East Tank Battery
Soil Screening and Headspace Analysis
(February 4-5, 2003)

Depth (fbgs)	VG 1 PID (ppm)	VG 1 TPH (ppm)	VG 1 Cl (ppm)	Depth (fbgs)	VG 2 PID (ppm)	VG 3 PID (ppm)
0-2						
0-4	1289		-	0-5	1.7	1.4
4-6	1116		153			
4-9	591		168	5-10	0.8	0.2
9-15	243		114	10-15	4.2	0.1
15-20	>9999		620	15-20	0.6	1.2
20-22	907		1266			
20-25	322			20-25	1.4	3.2
25-27	274		2614			
25-30	290			25-30	0.9	0.7
30-32	245		2614			
30-35	133			30-35	0.6	1.6
35-40	138		3052	35-40	0.8	1
40-45	95.8	>9999	2614	40-45	0.9	1.6
45-50	71.9	1554.00	3574	45-50	0.4	0.4
50-55	35.4	4140.00	2824	50-55	0.3	0.3
				55-60	2.9	0.3

- Field analysis not completed owing to high suspended solids in the sample
fbgs - Feet below ground surface
ppm - Parts per million

Appendix A, Table 4

ConocoPhillips East Vacuum Glorieta East Tank Battery
Buckeye, Lea County, New Mexico
Soil Analysis
(January 4 - 5, 2004)

Parameters	Bore Hole Location				Quality Control
	VG - 1		VG - 2	VG - 3	
Sample Depth (fbgs)	20 - 22	50 - 55	55-60	55 - 60	Blank
Total Petroleum Hydrocarbon (mg/kg)					
Diesel Range	6,700.0	280.00	3.70	3.20	ND
Gasoline Range	440.0	0.18	ND	ND	ND
Total	7,140.0				
Volatile Organics (mg/kg)					
Benzene	0.89	ND	ND	ND	ND
Ethylbenzene	5.40	ND	ND	ND	ND
Toluene	1.30	ND	ND	ND	ND
Xylenes (Total)	10.00	0.0057	ND	ND	ND
Synthetic Precipitation Leaching Procedure (mg/l)					
Benzene	ND	-	-	-	-
Ethylbenzene	0.046	-	-	-	-
Toluene	0.006	-	-	-	-
Xylenes (Total)	0.094	-	-	-	-
Inorganic Analysis (mg/kg)					
Chloride	1380	2040	ND	ND	ND

fbgs = Feet below ground surface
mg/kg = Milligrams per kilogram
ND = Not detected at or below laboratory detection limits
- = Analysis not performed

Appendix A, Table 5

ConocoPhillips East Vacuum Glorieta East Tank Battery
Buckeye, Lea County, New Mexico
Groundwater Analysis
(January 6, 2004)

Analytical Parameters	Monitoring Well			Water Quality
Water Matrix	VG-1	VG-2	VG-3	Standards
Volatile Organics (mg/l)				
Benzene	0.0031	ND	ND	0.01
Ethylbenzene	0.0024	ND	ND	0.75
Toluene	ND	ND	ND	0.75
Xylenes (Total)	0.0029	ND	ND	0.62
Semivolatile Organic Compounds (mg/l)				
Acenaphthene	ND	ND	ND	
Acenaphthylene	ND	ND	ND	
Anthracene	ND	ND	ND	
Benzo (a) pyrene	ND	ND	ND	0.0007
Benzo (b) fluoranthene	ND	ND	ND	
Benzo (ghi) perylene	ND	ND	ND	
Benzo (k) fluoranthene	ND	ND	ND	
Chrysene	ND	ND	ND	
Dibenz (a,h) anthracene	ND	ND	ND	
Fluoranthene	ND	ND	ND	
Fluorene	ND	ND	ND	
Indeno (1,2,3 - cd) pyrene	ND	ND	ND	
Naphthalene	ND	ND	ND	0.03*
Phenanthrene	ND	ND	ND	
Pyrene	ND	ND	ND	
Inorganic Analysis (mg/l)				
Chloride	1040	109	33.7	250

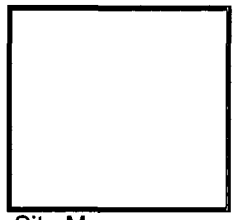
mg/l = milligrams per liter

ND = Not detected at or below laboratory detection limits

* PAH's total naphthalene plus monomethylnaphthalenes

MAXIM Boring/ Well Log

Client__Conoco_____ Project No.__4640008_____
Location__Vacuum Glorieta_____ Driller _Lane_____
Boring/Well No.__VG - 1_____ Drilling Co._Scarborough Drillin
Surface Elevation_3,928.84'_____ Boring Dia._5 in._____
Dates Drilled___02-04-04_____ Fluids used___Air_____
Logged By__Lichnovsky_____ Depth to Water___60'_____
Weather_Sunny and Cool_____

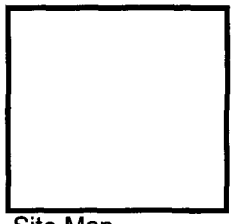


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark gray, plastic, strong hydrocarbon smell Split spoon 0-2 no rec.	0 - 4	1289		
5	Clay, light brown, sandy, Caliche, white, hard strong hydrocarbon smell Split spoon 4-6 PID 1116 1 foot rec.	4 - 9	591		
10	Caliche, white to light gray, hard with sandy clay stringers, hydrocarbon smell	9 - 15	243		
15	Caliche, white to light gray, hard Strong hydrocarbon smell	15 - 20	>9999		
20	Sand, light brown, very fine to fine, with thin caliche layers. Split spoon 20-22 PID 907 1 foot rec.	20 - 25	322		
25	Sand, light brown, very fine to fine, with thin caliche layers. Split spoon 25-27 PID 274 1 foot rec.	25 - 30	290		
30	Sand, light brown, very fine to fine, with thin caliche layers. Split spoon 30-32 PID 245 1 foot rec.	30 - 35	133		
35					

MAXIM Boring/ Well Log

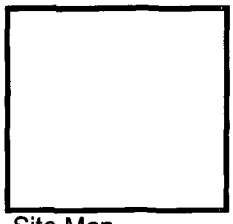
Client__Conoco_____ Project No.__4640008_____
Location__Vacuum Glorieta_____ Driller __Lane_____
Boring/Well No._VG-1_____ Drilling Co.__Scarborough____
Surface Elevation_____ Boring Dia._5 in._____
Dates Drilled__02-04-04_____ Fluids used___Air_____
Logged By__Lichnovsky_____ Depth to Water____60'_____
Weather__Sunny and cool_____


Site Map

	Description	Interval	PID	TPH	Well Design
35	Sand, light brown, very fine to fine, with thin caliche layers.	35 - 40	138		
40	Sand, light brown, very fine to fine, with thin caliche layers.	40 - 45	95.8	>9999	
45	Sand, light brown, very fine to fine, with thin caliche layers.	45 - 50	71.9	>9999	
50	Sand, light brown, very fine to fine, with thin caliche and gray clay stringers, moist	50 - 55	35.4	4140	
55	Wet, no samples to surface.	55 - 70			
60					
65					
70	TD 70 feet				

MAXIM Boring/ Well Log

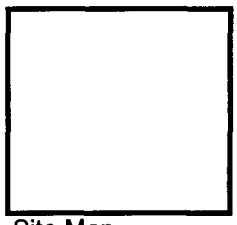
Client__Conoco_____ Project No.__4640008_____
Location__Vacuum Glorieta_____ Driller _Lane_____
Boring/Well No.__VG - 2_____ Drilling Co._Scarborough Drilling_
Surface Elevation____3,930.39'_____ Boring Dia._5 in._____
Dates Drilled___02-05-04_____ Fluids used___Air_____
Logged By__Lichnovsky_____ Depth to Water___63'_____
Weather_Sunny and Cool_____


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Caliche, white to light gray, hard with sandy clay stringers, no smell	0 - 5	1.7		
5	Caliche, white to light gray, hard	5 - 10	0.8		
10	Caliche, white to light gray, hard	10 - 15	4.2		
15	Caliche, white to light gray, hard	15 - 20	0.6		
20	Clay, light grayish brown, sandy	20 - 25	1.4		
25	Sand, light brown, very fine to fine, with thin caliche layers.	25 - 30	0.9		
30	Sand, light brown, very fine to fine, with thin caliche layers.	30 - 35	0.6		
35					

MAXIM Boring/ Well Log

Client__Conoco_____ Project No.__4640008_____
Location__Vacuum Glorieta_____ Driller __Lane_____
Boring/Well No._VG-2_____ Drilling Co.__Scarborough____
Surface Elevation_____ Boring Dia._5 in._____
Dates Drilled__02-05-04_____ Fluids used___Air_____
Logged By__Lichnovsky_____ Depth to Water____63'_____
Weather__Sunny and cool_____

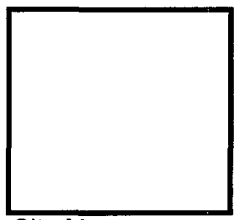


Site Map

	Description	Interval	PID	Graphic	Well Design
35	Sand, light brown, very fine to fine, with thin caliche layers.	35 - 40	0.8		
40	Sand, light brown, very fine to fine, with thin caliche layers.	40 - 45	0.9		
45	Sand, light brown, very fine to fine, with thin caliche layers.	45 - 50	0.4		
50	Sand, light brown, very fine to fine, with thin caliche layers.	50 - 55	0.3		
55	Sand, light brown, very fine to fine, with thin caliche and gray clay stringers, moist	55 - 60	2.9		
60	Wet, no samples to surface.	60 - 70			
65					
70	TD 70 feet				

MAXIM Boring/ Well Log

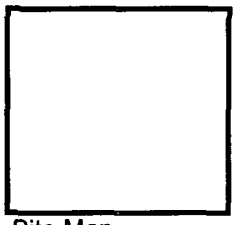
Client__Conoco_____ Project No.__4640008_____
Location__Vacuum Glorieta_____ Driller _Lane_____
Boring/Well No.__VG - 3_____ Drilling Co._Scarborough Drilling
Surface Elevation____3,930.84'_____ Boring Dia._5 in._____
Dates Drilled___02-05-04_____ Fluids used___Air_____
Logged By__Lichnovsky_____ Depth to Water___62'_____
Weather_Sunny and Cool_____


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Caliche, white to light gray, with sandy clay	0 - 5	1.4		
5	Sand, light yellowish brown to light tan, very fine to fine grained, with caliche layers	5 - 10	0.2		
10	Sand, light yellowish brown to light tan, very fine to fine grained, with caliche layers	10 - 15	0.1		
15	Caliche, white to light gray, hard	15 - 20	1.2		
20	Sand, light brown, very fine to fine, with thin caliche and light brown clay stringers	20 - 25	3.2		
25	Sand, light brown, very fine to fine, with thin caliche layers.	25 - 30	0.7		
30	Sand, light brown, very fine to fine, with thin caliche layers.	30 - 35	1.6		
35					

MAXIM Boring/ Well Log

Client__Conoco_____ Project No.__4640008_____
Location__Vacuum Glorieta_____ Driller __Lane_____
Boring/Well No._VG-3_____ Drilling Co.__Scarborough____
Surface Elevation_____ Boring Dia._5 in._____
Dates Drilled__02-05-04_____ Fluids used___Air_____
Logged By__Lichnovsky_____ Depth to Water____62'_____
Weather__Sunny and cool_____



Site Map

	Description	Interval	PID	Graphic	Well Design
35	Sand, light brown, very fine to fine, with thin caliche layers.	35 - 40	1.0		
40	Sand, light brown, very fine to fine, with thin caliche layers.	40 - 45	1.6		
45	Sand, light brown, very fine to fine, with thin caliche layers.	45 - 50	0.4		
50	Sand, light brown, very fine to fine, with thin caliche layers.	50 - 55	0.3		
55	Sand, light brown, very fine to fine, with thin caliche and gray clay stringers, moist	55 - 60	0.3		
60	Wet, no samples to surface.	60 - 70			
65					
70	TD 70 feet				

APPENDIX B

GeoProbe Logs

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-1_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

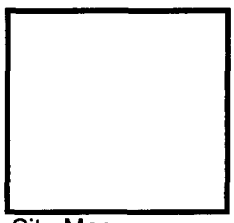
Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, black to reddish brown, strong smell	0 - 3	1416		
	Clay, reddish brown, slightly sandy, moderate smell	3 - *6*	*620*		
5	Caliche, white, chalky				
	Caliche, white, chalky to indurated	6 - 8	371		
8	TD 8 feet				

Page____of _____

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-2_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

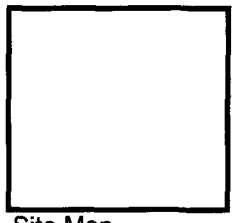


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown, no smell	0 - 3	0		
	Clay, dark reddish brown, slightly sandy	3 - 6	0.5		
5	Caliche, white, chalky	6 - 7			
7	Caliche, white, chalky to indurated. with gravel				
	TD 7 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-3_____ Drilling Co.__ESN, South____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____



Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown, no smell	0 - 3	0.4		
	Clay, reddish brown, slightly sandy	3 - 6	1.1		
5	Caliche, white, chalky				
	Caliche, white, chalky to indurated, with gravel	6 - 9	0.1		
9	TD 9 feet				

MAXIM GeoProbe/ Well Log

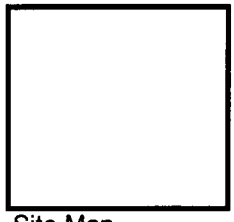
Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-4_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

Site Map

Description	Interval	PID	Graphic	Well Design
0 Clay, black to dark brown	0 - 3	14.9		
Clay, reddish brown, slightly sandy	3 - 6			
5 Caliche, white, chalky to indurated				
TD 6 feet				

MAXIM GeoProbe/ Well Log

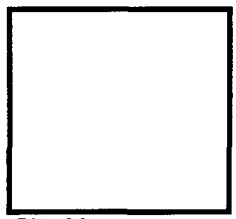
Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-5_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, black, strong smell	0 - 3	73.4		
	Clay, reddish brown, slightly sandy	3 - 6	61.3		
5	Caliche, white to dark gray, chalky to indurated	6 - 8	140		
8	TD 8 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-6_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

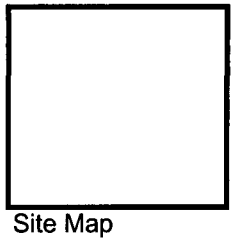


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, black	0 - 3	12.2		
	Clay, dark brown, slightly sandy	3 - 6	0.6		
5					
	Caliche, white to dark gray, chalky to indurated, with gravel lenses	6 - 9	251		
10	Caliche, white to dark gray, chalky to indurated,	9 - 12	185		
	Caliche, white to dark gray to orange chalky to indurated	12 - 15	294		
15					
	Caliche, white to dark gray to orange chalky to indurated Sand, black,	15 - 18	235		
	TD 18 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-7_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____



Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	5.9		
	Clay, dark brown, slightly sandy	3 - 6	8.3		
5					
	Clay, dark brown, slightly sandy, with light brown sand lenses	6 - 9	1.3		
10	Caliche, white, chalky to indurated,	9 - 11	2.9		
	TD 11 feet				

MAXIM GeoProbe/ Well Log

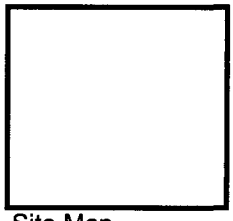
Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-8_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-19-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	7		
	Clay, reddish brown, slightly sandy	3 - 6	9		
5	Caliche, white, chalky to indurated				
	TD 6 feet				

MAXIM GeoProbe/ Well Log

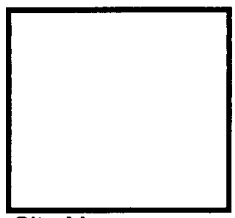
Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-9_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, brown	0 - 3	0		
	Clay, brown, slightly sandy	3 - 6	0		
5	Caliche, white, chalky				
	Caliche, white, chalky to indurated	6 - 8	0.6		
8	TD 8 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-10_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

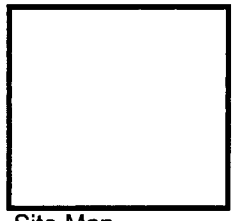


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	10.1		
	Caliche, white, chalky to indurated				
	TD 3 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No._____GP-11_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

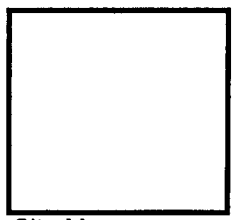


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	21.9		
	Clay, dark brown, slightly sandy	3 - 6	3.4		
5					
	Caliche, white, chalky to indurated	6 - 9	16.2		
9					
	TD 9 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-12_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____



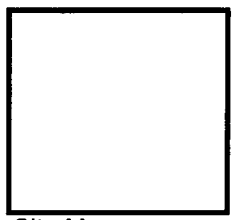
Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	31.5		
	Clay, dark brown, slightly sandy	3 - 6	17.9		
5	Caliche, white, chalky to indurated	6 - 9	10.6		
9	TD 9 feet				

Page____of _____

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-13_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

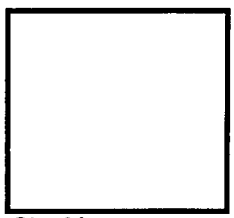


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	17.7		
	Clay, brown, sticky	3 - 6	8.5		
5					
	Clay, brown, slightly sandy	6 - 9	8.8		
	Caliche, white, chalky to indurated				
9					
	TD 9 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-14_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____

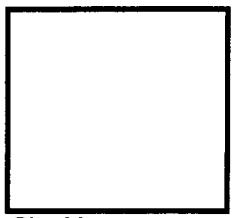


Site Map

Description	Interval	PID	Graphic	Well Design
0 Clay, dark brown	0 - 3	8.8		
Caliche, white, chalky to indurated	3 - 6	5.7		
5 TD 6 feet				

MAXIM GeoProbe/ Well Log

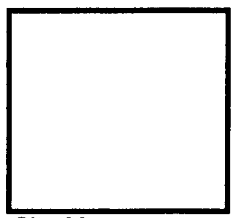
Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No._____GP-15_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	6.3		
	Clay, brown, sticky in part	3 - 6	2.3		
5	Caliche, white, chalky to indurated	6 - 9	0		
9	TD 9 feet				

MAXIM GeoProbe/ Well Log

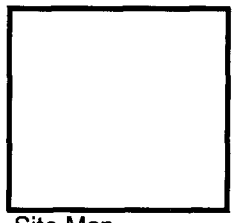
Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-16_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____


Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	0		
	Clay, dark brown, slightly sandy	3 - 6	0		
5					
	Clay, dark brown, slightly sandy Caliche, white, chalky to indurated	6 - 9	0		
9	TD 9 feet				

MAXIM GeoProbe/ Well Log

Client__Conoco_____ Project No.__4640031_____
Location_Vacuum Glorieta_____ Driller __Don_____
Boring/Well No.____GP-17_____ Drilling Co.__ESN, South_____
Surface Elevation_____ Boring Dia._2 in._____
Dates Drilled__5-20-04_____ Fluids used_____
Logged By__Lichnovsky_____ Depth to Water_____
Weather_____



Site Map

	Description	Interval	PID	Graphic	Well Design
0	Clay, dark brown	0 - 3	0.1		
	Clay, dark brown, slightly sandy	3 - 6	0.1		
5					
	Clay, brown	6 - 9	0		
10	Caliche, white, chalky to indurated,	9 - 11			
	TD 11 feet				

APPENDIX C

Analytical Report

SEVERN TRENT STL

Certificate of Analysis

STL Austin • 14046 Summit Drive, Austin, TX 78728 • Tel 512 244 0855 • Fax 512 244 0160 • *www.stlinc.com*

ANALYTICAL REPORT

PROJECT NO. BUCKEYE,NM

3740 Vacuum Glorieta East Unit

Lot #: I4E240110

Charles Durrett

Maxim Technologies
1703 W Industrial Ave
Midland, TX 79701

SEVERN TRENT LABORATORIES, INC.

Carla M. Butler
Project Manager

June 9, 2004

American Council of Independent Laboratories
International Association of Environmental Testing Laboratories

Case Narrative

STL LOT NUMBER: **I4E240110**

This report contains the analytical results for the 49 samples received under chain of custody by Severn Trent Laboratories (STL) on May 22, 2004. These samples are associated with your 3740 Vacuum Glorieta East Unit project.

All samples were received in good condition and within temperature requirements. Although not listed on the chain of custody, Mr. Frank Lichnovsky instructed the laboratory to analyze the collections received for VG-5 6-8 for the full suite of tests. Although all tests are requested on the chain of custody for VG-5 0-3, only one 60 ml jar was received. Mr. Lichnovsky confirmed only chloride analysis was needed for this sample. Three jars, not two as listed on the chain of custody, were received for VG-5 3-6. He confirmed all four analysis were needed for this sample.

Because the date/time collected was not present on the chain of custody, the information was taken from the bottle labels for sample VG-8.

Ethylbenzene was over the calibration curve in the initial 5X dilution of sample 036. The compound is reported at 590 ug/kg from a reanalysis at a 49.5X dilution. This result may be biased low when compared to the initial run. Lack of sample homogeneity is suspected.

All applicable quality control procedures met method-specified acceptance criteria except where noted in the case narrative or flagged on the result pages.

This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions, please feel free to call me at (512) 244-0855.

8015B GRO batch 4147169
The ending CCV for this batch was out of the 12 hour clock by approximately 4 hours due to instrument failure. The data for the CCV was not collected because the Nelson box malfunctioned. A CCV was analyzed as soon as the problem was brought to the analysts attention, and it passed CCV criteria.

EXECUTIVE SUMMARY - Detection Highlights

I4E240110

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
VG-9 3-6 05/20/04 08:00 002				
Diesel Range Organics	2100	1700	ug/kg	SW846 8015B
Chloride	64.3	50.0	mg/kg	MCAWW 300.0A
VG-9 6-8 05/20/04 08:00 003				
Diesel Range Organics	1800	1700	ug/kg	SW846 8015B
Chloride	73.0	50.0	mg/kg	MCAWW 300.0A
VG-10 0-3 05/20/04 08:30 004				
Diesel Range Organics	970000	85000	ug/kg	SW846 8015B
Chloride	129	50.0	mg/kg	MCAWW 300.0A
VG-11 0-3 05/20/04 09:15 005				
Diesel Range Organics	13000	1700	ug/kg	SW846 8015B
VG-11 6-9 05/20/04 09:15 007				
Diesel Range Organics	2200	1700	ug/kg	SW846 8015B
Chloride	164	50.0	mg/kg	MCAWW 300.0A
VG-12 0-3 05/20/04 09:45 008				
Diesel Range Organics	470000	85000	ug/kg	SW846 8015B
VG-12 3-6 05/20/04 09:45 009				
Chloride	12.4	10.0	mg/kg	MCAWW 300.0A
VG-12 6-9 05/20/04 09:45 010				
Diesel Range Organics	370000	85000	ug/kg	SW846 8015B
Chloride	17.0	10.0	mg/kg	MCAWW 300.0A
VG-13 0-3 05/20/04 10:45 011				
Diesel Range Organics	5500	1700	ug/kg	SW846 8015B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

I4E240110

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
VG-13 3-6 05/20/04 10:45 012				
Chloride	38.1	25.0	mg/kg	MCAWW 300.0A
VG-13 6-9 05/20/04 10:45 013				
Diesel Range Organics	2200	1700	ug/kg	SW846 8015B
Chloride	863	100	mg/kg	MCAWW 300.0A
VG-14 0-3 05/20/04 12:30 014				
Diesel Range Organics	14000	8500	ug/kg	SW846 8015B
VG-14 3-6 05/20/04 12:30 015				
Diesel Range Organics	1900	1700	ug/kg	SW846 8015B
VG-17 0-3 05/20/04 14:30 016				
Diesel Range Organics	6200	1700	ug/kg	SW846 8015B
Chloride	54.3	50.0	mg/kg	MCAWW 300.0A
VG-17 3-6 05/20/04 14:30 017				
Chloride	15.5	10.0	mg/kg	MCAWW 300.0A
VG-17 6-9 05/20/04 14:30 018				
Chloride	104	10.0	mg/kg	MCAWW 300.0A
VG-17 9-11 05/20/04 14:30 019				
Diesel Range Organics	2200	1700	ug/kg	SW846 8015B
Chloride	135	50.0	mg/kg	MCAWW 300.0A
VG-15 0-3 05/20/04 13:20 020				
Diesel Range Organics	3300	1700	ug/kg	SW846 8015B
Chloride	44.6	10.0	mg/kg	MCAWW 300.0A
VG-15 3-6 05/20/04 13:20 021				
Chloride	119	50.0	mg/kg	MCAWW 300.0A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

I4E240110

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
VG-15 6-9 05/20/04 13:20 022				
Diesel Range Organics	4100	1700	ug/kg	SW846 8015B
Chloride	144	50.0	mg/kg	MCAWW 300.0A
VG-16 0-3 05/20/04 13:45 023				
Diesel Range Organics	24000	1700	ug/kg	SW846 8015B
Chloride	13.3	10.0	mg/kg	MCAWW 300.0A
VG-16 3-6 05/20/04 13:45 024				
Diesel Range Organics	3900	1700	ug/kg	SW846 8015B
Chloride	152	50.0	mg/kg	MCAWW 300.0A
VG-1a 0-3 05/19/04 08:45 025				
Diesel Range Organics	4100000	170000	ug/kg	SW846 8015B
Gasoline Range Organics	13000	460	ug/kg	SW846 8015B
Xylenes (total)	440	25	ug/kg	SW846 8260B
Chloride	1410	200	mg/kg	MCAWW 300.0A
VG-1a 6-8 05/19/04 08:45 026				
Diesel Range Organics	140000	1700	ug/kg	SW846 8015B
Chloride	5000	500	mg/kg	MCAWW 300.0A
VG-1a 3-6 05/19/04 08:45 027				
Chloride	2780	500	mg/kg	MCAWW 300.0A
VG-2a 0-3 05/19/04 09:15 028				
Diesel Range Organics	20000	8500	ug/kg	SW846 8015B
Chloride	619	200	mg/kg	MCAWW 300.0A
VG-2a 3-7 05/19/04 09:15 029				
Diesel Range Organics	10000	1700	ug/kg	SW846 8015B
Chloride	1090	200	mg/kg	MCAWW 300.0A

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EXECUTIVE SUMMARY - Detection Highlights

I4E240110

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
VG-3a 0-3 05/19/04 10:15 030				
Chloride	637	200	mg/kg	MCAWW 300.0A
VG-3a 3-6 05/19/04 10:15 031				
Diesel Range Organics	3100	1700	ug/kg	SW846 8015B
Chloride	1780	200	mg/kg	MCAWW 300.0A
VG-3a 6-9 05/19/04 10:15 032				
Chloride	1490	200	mg/kg	MCAWW 300.0A
VG-4 0-3 05/19/04 11:15 033				
Diesel Range Organics	770000	8500	ug/kg	SW846 8015B
Gasoline Range Organics	200	99	ug/kg	SW846 8015B
Chloride	972	200	mg/kg	MCAWW 300.0A
VG-4 3-6 05/19/04 11:15 034				
Diesel Range Organics	800000	8500	ug/kg	SW846 8015B
Gasoline Range Organics	390	96	ug/kg	SW846 8015B
Ethylbenzene	9.5	5.0	ug/kg	SW846 8260B
Xylenes (total)	9.2	5.0	ug/kg	SW846 8260B
Chloride	2310	200	mg/kg	MCAWW 300.0A
VG-5 0-3 05/19/04 12:00 035				
Chloride	3420	500	mg/kg	MCAWW 300.0A
VG-5 3-6 05/19/04 12:00 036				
Diesel Range Organics	810000	8500	ug/kg	SW846 8015B
Gasoline Range Organics	15000	500	ug/kg	SW846 8015B
Benzene	540	25	ug/kg	SW846 8260B
Ethylbenzene	590	250	ug/kg	SW846 8260B
Toluene	130	25	ug/kg	SW846 8260B
Xylenes (total)	2000	25	ug/kg	SW846 8260B
Chloride	2600	500	mg/kg	MCAWW 300.0A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

I4E240110

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
VG-5 6-8 05/19/04 12:00 037				
Diesel Range Organics	3300000	85000	ug/kg	SW846 8015B
Gasoline Range Organics	11000	480	ug/kg	SW846 8015B
Benzene	75	10	ug/kg	SW846 8260B
Ethylbenzene	960	26	ug/kg	SW846 8260B
Toluene	28	10	ug/kg	SW846 8260B
Xylenes (total)	550	10	ug/kg	SW846 8260B
Chloride	2550	500	mg/kg	MCAWW 300.0A
VG-6 0-3 05/19/04 13:45 038				
Chloride	2640	500	mg/kg	MCAWW 300.0A
VG-6 3-6 05/19/04 13:45 039				
Chloride	2070	200	mg/kg	MCAWW 300.0A
VG-6 6-9 05/19/04 13:45 040				
Chloride	2820	500	mg/kg	MCAWW 300.0A
VG-6 9-12 05/19/04 13:45 041				
Chloride	1990	200	mg/kg	MCAWW 300.0A
VG-6 12-15 05/19/04 13:45 042				
Diesel Range Organics	7500000	85000	ug/kg	SW846 8015B
Gasoline Range Organics	150000	5000	ug/kg	SW846 8015B
Benzene	320	250	ug/kg	SW846 8260B
Ethylbenzene	4500	250	ug/kg	SW846 8260B
Xylenes (total)	4500	250	ug/kg	SW846 8260B
Chloride	2790	500	mg/kg	MCAWW 300.0A
VG-6 15-18 05/19/04 13:45 043				
Diesel Range Organics	3600000	85000	ug/kg	SW846 8015B
Gasoline Range Organics	35000	520	ug/kg	SW846 8015B
Ethylbenzene	2700	250	ug/kg	SW846 8260B
Toluene	250	250	ug/kg	SW846 8260B
Xylenes (total)	3700	250	ug/kg	SW846 8260B
Chloride	1960	200	mg/kg	MCAWW 300.0A

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

I4E240110

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
VG-7 0-3 05/19/04 14:45 044				
Chloride	14.4	10.0	mg/kg	MCAWW 300.0A
VG-7 3-6 05/19/04 14:45 045				
Diesel Range Organics	4200	1700	ug/kg	SW846 8015B
Chloride	72.6	50.0	mg/kg	MCAWW 300.0A
VG-7 6-9 05/19/04 14:45 046				
Chloride	326	200	mg/kg	MCAWW 300.0A
VG-7 9-11 05/19/04 14:45 047				
Diesel Range Organics	3400	1700	ug/kg	SW846 8015B
Chloride	855	200	mg/kg	MCAWW 300.0A
VG-8 0-3 05/19/04 15:30 048				
Diesel Range Organics	21000	8500	ug/kg	SW846 8015B
VG-8 3-6 05/19/04 15:30 049				
Diesel Range Organics	4000	1700	ug/kg	SW846 8015B

METHOD / ANALYST SUMMARY

I4E240110

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 300.0A	David A. Tocher	800002
SW846 8015B	Beth Driskill	008945
SW846 8015B	Scott Leslie	401008
SW846 8260B	Brian Peterson	400173

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

I4E240110

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GGW93	001	VG-9 0-3	05/20/04	08:00
GGW95	002	VG-9 3-6	05/20/04	08:00
GGW96	003	VG-9 6-8	05/20/04	08:00
GGXA3	004	VG-10 0-3	05/20/04	08:30
GGXA6	005	VG-11 0-3	05/20/04	09:15
GGXA8	006	VG-11 3-6	05/20/04	09:15
GGXCE	007	VG-11 6-9	05/20/04	09:15
GGXCJ	008	VG-12 0-3	05/20/04	09:45
GGXCN	009	VG-12 3-6	05/20/04	09:45
GGXCP	010	VG-12 6-9	05/20/04	09:45
GGXCQ	011	VG-13 0-3	05/20/04	10:45
GGXCR	012	VG-13 3-6	05/20/04	10:45
GGXCT	013	VG-13 6-9	05/20/04	10:45
GGXCV	014	VG-14 0-3	05/20/04	12:30
GGXC9	015	VG-14 3-6	05/20/04	12:30
GGXDC	016	VG-17 0-3	05/20/04	14:30
GGXDE	017	VG-17 3-6	05/20/04	14:30
GGXDG	018	VG-17 6-9	05/20/04	14:30
GGXDJ	019	VG-17 9-11	05/20/04	14:30
GGXDK	020	VG-15 0-3	05/20/04	13:20
GGXDM	021	VG-15 3-6	05/20/04	13:20
GGXDN	022	VG-15 6-9	05/20/04	13:20
GGXDP	023	VG-16 0-3	05/20/04	13:45
GGXDQ	024	VG-16 3-6	05/20/04	13:45
GGXDT	025	VG-1a 0-3	05/19/04	08:45
GGXDX	026	VG-1a 6-8	05/19/04	08:45
GGXD1	027	VG-1a 3-6	05/19/04	08:45
GGXD4	028	VG-2a 0-3	05/19/04	09:15
GGXD5	029	VG-2a 3-7	05/19/04	09:15
GGXD8	030	VG-3a 0-3	05/19/04	10:15
GGXEC	031	VG-3a 3-6	05/19/04	10:15
GGXEF	032	VG-3a 6-9	05/19/04	10:15
GGXEH	033	VG-4 0-3	05/19/04	11:15
GGXEL	034	VG-4 3-6	05/19/04	11:15
GGXEM	035	VG-5 0-3	05/19/04	12:00
GGXEQ	036	VG-5 3-6	05/19/04	12:00

(Continued on next page)

SAMPLE SUMMARY

I4E240110

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GGXE6	037	VG-5 6-8	05/19/04	12:00
GGXE7	038	VG-6 0-3	05/19/04	13:45
GGXFC	039	VG-6 3-6	05/19/04	13:45
GGXFD	040	VG-6 6-9	05/19/04	13:45
GGXFF	041	VG-6 9-12	05/19/04	13:45
GGXFG	042	VG-6 12-15	05/19/04	13:45
GGXFN	043	VG-6 15-18	05/19/04	13:45
GGXFQ	044	VG-7 0-3	05/19/04	14:45
GGXFR	045	VG-7 3-6	05/19/04	14:45
GGXFT	046	VG-7 6-9	05/19/04	14:45
GGXFW	047	VG-7 9-11	05/19/04	14:45
GGXF0	048	VG-8 0-3	05/19/04	15:30
GGXF2	049	VG-8 3-6	05/19/04	15:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

I4E240110

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	MCAWW 300.0A		4150065	4150039
002	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
003	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
004	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
005	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
006	SOLID	MCAWW 300.0A		4150065	4150039
007	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
008	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
009	SOLID	MCAWW 300.0A		4150065	4150039
010	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

I4E240110

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
011	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
012	SOLID	MCAWW 300.0A		4150065	4150039
013	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
014	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
015	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
016	SOLID	MCAWW 300.0A		4150065	4150039
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
017	SOLID	MCAWW 300.0A		4154075	4154037
018	SOLID	MCAWW 300.0A		4154075	4154037
019	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
020	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

I4E240110

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
021	SOLID	MCAWW 300.0A		4154075	4154037
022	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
023	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
024	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4153528	4153315
025	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4146126	4146081
	SOLID	SW846 8260B		4155479	4155340
026	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148358	4148194
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
027	SOLID	MCAWW 300.0A		4154075	4154037
028	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
029	SOLID	MCAWW 300.0A		4154075	4154037
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
030	SOLID	MCAWW 300.0A		4154162	4154088

(Continued on next page)

QC DATA ASSOCIATION SUMMARY

I4E240110

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
031	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
032	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
033	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
034	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
035	SOLID	MCAWW 300.0A		4154162	4154088
036	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4154197	4154109
	SOLID	SW846 8260B		4155479	4155340
037	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
	SOLID	SW846 8260B		4156453	4156250
038	SOLID	MCAWW 300.0A		4154162	4154088
039	SOLID	MCAWW 300.0A		4154162	4154088
040	SOLID	MCAWW 300.0A		4154162	4154088
041	SOLID	MCAWW 300.0A		4154162	4154088

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QC DATA ASSOCIATION SUMMARY

I4E240110

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
042	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4153385	4153213
	SOLID	SW846 8260B		4154197	4154109
043	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4154197	4154109
044	SOLID	MCAWW 300.0A		4154162	4154088
045	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4155479	4155340
046	SOLID	MCAWW 300.0A		4154162	4154088
047	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4153528	4153315
048	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4153528	4153315
049	SOLID	MCAWW 300.0A		4154162	4154088
	SOLID	SW846 8015B		4148360	4148196
	SOLID	SW846 8015B		4147169	4147142
	SOLID	SW846 8260B		4153528	4153315

CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 — 3740 Vacuum Glorieta East Unit — **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-9 0-3						
Sample #: 001 Date Sampled: 05/20/04 08:00 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	05/28/04	4150065
Client Sample ID: VG-9 3-6						
Sample #: 002 Date Sampled: 05/20/04 08:00 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**2100**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	97		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	96		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	97	ug/kg	SW846 8015B	05/24/04	4146126
4-Bromofluorobenzene (	90		%	SW846 8015B	05/24/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	89		%	SW846 8260B	05/25/04	4153528
Toluene-d8	115		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	102		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	99		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**64.3**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**
Client Sample ID: VG-9 6-8						
Sample #: 003 Date Sampled: 05/20/04 08:00 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**1800**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	92		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	95		%	SW846 8015B	06/02-06/06/04	4148358

(Continued on next page)

CLIENT DATA SUMMARY

CONOCOPHILLIPS

Lot #: I4E240110 — 3740 Vacuum Glorieta East Unit — **Date Reported:** 6/11/04

Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-9 6-8						
Sample #: 003 Date Sampled: 05/20/04 08:00 Date Received: 05/22/04 Matrix: SOLID						
Gasoline Range Organic	ND	98	ug/kg	SW846 8015B	05/24/04	4146126
4-Bromofluorobenzene (	91		%	SW846 8015B	05/24/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	88		%	SW846 8260B	05/25/04	4153528
Toluene-d8	115		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	101		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	102		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**73.0**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**
Client Sample ID: VG-10 0-3						
Sample #: 004 Date Sampled: 05/20/04 08:30 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**970000**	**85000**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	99	ug/kg	SW846 8015B	05/24/04	4146126
4-Bromofluorobenzene (	49		%	SW846 8015B	05/24/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	62 *		%	SW846 8260B	05/25/04	4153528
Toluene-d8	100		%	SW846 8260B	05/25/04	4153528

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

(Continued on next page)

CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-10 0-3						
Sample #: 004 Date Sampled: 05/20/04 08:30 Date Received: 05/22/04 Matrix: SOLID						
VOLATILE ORGANICS BY GC/MS						
Dibromofluoromethane	100		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	99		%	SW846 8260B	05/25/04	4153528
* Surrogate recovery is outside stated control limits.						
Surrogates outside acceptance criteria due to demonstrated matrix effect.						
CHLORIDE						
Chloride	**129**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**
Client Sample ID: VG-11 0-3						
Sample #: 005 Date Sampled: 05/20/04 09:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**13000**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	100		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	99		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	96	ug/kg	SW846 8015B	05/24/04	4146126
4-Bromofluorobenzene (	89		%	SW846 8015B	05/24/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	81		%	SW846 8260B	05/25/04	4153528
Toluene-d8	109		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	97		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	97		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	05/28/04	4150065

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-11 3-6						
Sample #: 006 Date Sampled: 05/20/04 09:15 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	05/28/04	4150065
Client Sample ID: VG-11 6-9						
Sample #: 007 Date Sampled: 05/20/04 09:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**2200**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	91		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	96		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	100	ug/kg	SW846 8015B	05/24/04	4146126
4-Bromofluorobenzene (	72		%	SW846 8015B	05/24/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	87		%	SW846 8260B	05/25/04	4153528
Toluene-d8	110		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	98		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	98		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**164**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**
Client Sample ID: VG-12 0-3						
Sample #: 008 Date Sampled: 05/20/04 09:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**470000**	**85000**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	96	ug/kg	SW846 8015B	05/24/04	4146126

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-12 0-3						
Sample #: 008 Date Sampled: 05/20/04 09:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
4-Bromofluorobenzene (41			%	SW846 8015B	05/24/04	4146126
DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.						
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25-05/26/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25-05/26/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25-05/26/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25-05/26/04	4153528
4-Bromofluorobenzene	66 *		%	SW846 8260B	05/25-05/26/04	4153528
Toluene-d8	99		%	SW846 8260B	05/25-05/26/04	4153528
Dibromofluoromethane	99		%	SW846 8260B	05/25-05/26/04	4153528
1,2-Dichloroethane-d4	98		%	SW846 8260B	05/25-05/26/04	4153528
* Surrogate recovery is outside stated control limits. Surrogates outside acceptance criteria due to demonstrated matrix effect.						
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	05/28/04	4150065
Client Sample ID: VG-12 3-6						
Sample #: 009 Date Sampled: 05/20/04 09:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**12.4**	**10.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**
Client Sample ID: VG-12 6-9						
Sample #: 010 Date Sampled: 05/20/04 09:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**370000**	**85000**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	97	ug/kg	SW846 8015B	05/24/04	4146126
4-Bromofluorobenzene (57			%	SW846 8015B	05/24/04	4146126

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-12 6-9						
Sample #: 010 Date Sampled: 05/20/04 09:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.						
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	73		%	SW846 8260B	05/25/04	4153528
Toluene-d8	107		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	99		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	100		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**17.0**	**10.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**
Client Sample ID: VG-13 0-3						
Sample #: 011 Date Sampled: 05/20/04 10:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**5500**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	101		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	102		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	98	ug/kg	SW846 8015B	05/24/04	4146126
4-Bromofluorobenzene (	89		%	SW846 8015B	05/24/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	82		%	SW846 8260B	05/25/04	4153528
Toluene-d8	107		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	98		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	96		%	SW846 8260B	05/25/04	4153528

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-13 0-3						
Sample #: 011 Date Sampled: 05/20/04 10:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	05/28/04	4150065
Client Sample ID: VG-13 3-6						
Sample #: 012 Date Sampled: 05/20/04 10:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**38.1**	**25.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**
Client Sample ID: VG-13 6-9						
Sample #: 013 Date Sampled: 05/20/04 10:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**2200**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	97		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	97		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	95	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	76		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	86		%	SW846 8260B	05/25/04	4153528
Toluene-d8	111		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	98		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	97		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**863**	**100**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-14 0-3						
Sample #: 014 Date Sampled: 05/20/04 12:30 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**14000**	**8500**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	103		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	108		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	96	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	81		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	4.9	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	4.9	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	4.9	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	4.9	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	84		%	SW846 8260B	05/25/04	4153528
Toluene-d8	110		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	99		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	99		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	06/01/04	4154075
Client Sample ID: VG-14 3-6						
Sample #: 015 Date Sampled: 05/20/04 12:30 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**1900**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	95		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	97		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	100	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	77		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-14 3-6						
Sample #: 015 Date Sampled: 05/20/04 12:30 Date Received: 05/22/04 Matrix: SOLID						
VOLATILE ORGANICS BY GC/MS						
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	86		%	SW846 8260B	05/25/04	4153528
Toluene-d8	110		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	97		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	96		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	06/01/04	4154075
Client Sample ID: VG-17 0-3						
Sample #: 016 Date Sampled: 05/20/04 14:30 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**6200**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	97		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	102		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	97	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	72		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	85		%	SW846 8260B	05/25/04	4153528
Toluene-d8	109		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	99		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	101		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**54.3**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**05/28/04**	**4150065**

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-17 3-6						
Sample #: 017 Date Sampled: 05/20/04 14:30 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**15.5**	**10.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-17 6-9						
Sample #: 018 Date Sampled: 05/20/04 14:30 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**104**	**10.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-17 9-11						
Sample #: 019 Date Sampled: 05/20/04 14:30 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**2200**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	95		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	100		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	96	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	59		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	88		%	SW846 8260B	05/25/04	4153528
Toluene-d8	110		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	99		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	101		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**135**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-15 0-3						
Sample #: 020 Date Sampled: 05/20/04 13:20 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**3300**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	92		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	98		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	94	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	94		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	82		%	SW846 8260B	05/25/04	4153528
Toluene-d8	107		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	97		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	97		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**44.6**	**10.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-15 3-6						
Sample #: 021 Date Sampled: 05/20/04 13:20 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**119**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-15 6-9						
Sample #: 022 Date Sampled: 05/20/04 13:20 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**4100**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	87		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	89		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	99	ug/kg	SW846 8015B	05/24-05/25/04	4146126

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-15 6-9						
Sample #: 022 Date Sampled: 05/20/04 13:20 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
4-Bromofluorobenzene (	81		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	86		%	SW846 8260B	05/25/04	4153528
Toluene-d8	109		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	97		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	97		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**144**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-16 0-3						
Sample #: 023 Date Sampled: 05/20/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**24000**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	104		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	138		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	95	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	82		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	84		%	SW846 8260B	05/25/04	4153528
Toluene-d8	109		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	98		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	97		%	SW846 8260B	05/25/04	4153528

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-16 0-3						
Sample #: 023 Date Sampled: 05/20/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**13.3**	**10.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-16 3-6						
Sample #: 024 Date Sampled: 05/20/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**3900**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	93		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	95		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	94	ug/kg	SW846 8015B	05/24-05/25/04	4146126
4-Bromofluorobenzene (	72		%	SW846 8015B	05/24-05/25/04	4146126
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	86		%	SW846 8260B	05/25/04	4153528
Toluene-d8	108		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	96		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	96		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**152**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-1a 0-3						
Sample #: 025 Date Sampled: 05/19/04 08:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**4100000**	**170000**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	0.0 DIL		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	**13000**	**460**	**ug/kg**	**SW846 8015B**	**05/24-05/25/04**	**4146126**

(Continued on next page)

CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-1a 0-3						
Sample #: 025 Date Sampled: 05/19/04 08:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
4-Bromofluorobenzene (	52		%	SW846 8015B	05/24-05/25/04	4146126
DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.						
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	25	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	ND	25	ug/kg	SW846 8260B	05/26/04	4155479
Toluene	ND	25	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	**440**	**25**	**ug/kg**	**SW846 8260B**	**05/26/04**	**4155479**
4-Bromofluorobenzene	108		%	SW846 8260B	05/26/04	4155479
Toluene-d8	97		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	99		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	104		%	SW846 8260B	05/26/04	4155479
CHLORIDE						
Chloride	**1410**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-1a 6-8						
Sample #: 026 Date Sampled: 05/19/04 08:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**140000**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/06/04**	**4148358**
o-Terphenyl	123		%	SW846 8015B	06/02-06/06/04	4148358
Dotriacontane	147		%	SW846 8015B	06/02-06/06/04	4148358
Gasoline Range Organic	ND	98	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	76		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
4-Bromofluorobenzene	87		%	SW846 8260B	05/26/04	4155479
Toluene-d8	109		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	99		%	SW846 8260B	05/26/04	4155479

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-1a 6-8						
Sample #: 026 Date Sampled: 05/19/04 08:45 Date Received: 05/22/04 Matrix: SOLID						
VOLATILE ORGANICS BY GC/MS						
1,2-Dichloroethane-d4	103		%	SW846 8260B	05/26/04	4155479
CHLORIDE						
Chloride	**5000**	**500**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-1a 3-6						
Sample #: 027 Date Sampled: 05/19/04 08:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**2780**	**500**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-2a 0-3						
Sample #: 028 Date Sampled: 05/19/04 09:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**20000**	**8500**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	95		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	90		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	100	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	79		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26-05/27/04	4155479
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/26-05/27/04	4155479
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26-05/27/04	4155479
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/26-05/27/04	4155479
4-Bromofluorobenzene	77		%	SW846 8260B	05/26-05/27/04	4155479
Toluene-d8	109		%	SW846 8260B	05/26-05/27/04	4155479
Dibromofluoromethane	103		%	SW846 8260B	05/26-05/27/04	4155479
1,2-Dichloroethane-d4	106		%	SW846 8260B	05/26-05/27/04	4155479
CHLORIDE						
Chloride	**619**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**

(Continued on next page)

CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 — 3740 Vacuum Glorieta East Unit — **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-2a 3-7						
Sample #: 029 Date Sampled: 05/19/04 09:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**10000**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	94		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	137		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	99	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	93		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
4-Bromofluorobenzene	82		%	SW846 8260B	05/26/04	4155479
Toluene-d8	109		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	97		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	99		%	SW846 8260B	05/26/04	4155479
CHLORIDE						
Chloride	**1090**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/01/04**	**4154075**
Client Sample ID: VG-3a 0-3						
Sample #: 030 Date Sampled: 05/19/04 10:15 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**637**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-3a 3-6						
Sample #: 031 Date Sampled: 05/19/04 10:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**3100**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	108		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	104		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	95	ug/kg	SW846 8015B	05/25/04	4147169

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-3a 3-6						
Sample #: 031 Date Sampled: 05/19/04 10:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
4-Bromofluorobenzene (	81		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
4-Bromofluorobenzene	83		%	SW846 8260B	05/26/04	4155479
Toluene-d8	109		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	98		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	101		%	SW846 8260B	05/26/04	4155479
CHLORIDE						
Chloride	**1780**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-3a 6-9						
Sample #: 032 Date Sampled: 05/19/04 10:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	ND	1700	ug/kg	SW846 8015B	06/02-06/05/04	4148360
o-Terphenyl	91		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	99		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	100	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	92		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
4-Bromofluorobenzene	84		%	SW846 8260B	05/26/04	4155479
Toluene-d8	110		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	99		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	103		%	SW846 8260B	05/26/04	4155479

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-3a 6-9						
Sample #: 032 Date Sampled: 05/19/04 10:15 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**1490**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-4 0-3						
Sample #: 033 Date Sampled: 05/19/04 11:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**770000**	**8500**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	204 *		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	418 *		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	**200**	**99**	**ug/kg**	**SW846 8015B**	**05/25/04**	**4147169**
4-Bromofluorobenzene (	42		%	SW846 8015B	05/25/04	4147169

* Surrogate recovery is outside stated control limits.
Surrogates outside acceptance criteria due to demonstrated matrix effect.

VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
4-Bromofluorobenzene	62 *		%	SW846 8260B	05/26/04	4155479
Toluene-d8	84 *		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	108		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	114		%	SW846 8260B	05/26/04	4155479

* Surrogate recovery is outside stated control limits.
Surrogates outside acceptance criteria due to demonstrated matrix effect.

CHLORIDE						
Chloride	**972**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-4 3-6						
Sample #: 034 Date Sampled: 05/19/04 11:15 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**800000**	**8500**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	246 *		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	219 *		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	**390**	**96**	**ug/kg**	**SW846 8015B**	**05/25/04**	**4147169**
4-Bromofluorobenzene (	56		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	**9.5**	**5.0**	**ug/kg**	**SW846 8260B**	**05/26/04**	**4155479**
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	**9.2**	**5.0**	**ug/kg**	**SW846 8260B**	**05/26/04**	**4155479**
4-Bromofluorobenzene	83		%	SW846 8260B	05/26/04	4155479
Toluene-d8	109		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	98		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	104		%	SW846 8260B	05/26/04	4155479
CHLORIDE						
Chloride	**2310**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-5 0-3						
Sample #: 035 Date Sampled: 05/19/04 12:00 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**3420**	**500**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-5 3-6						
Sample #: 036 Date Sampled: 05/19/04 12:00 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**810000**	**8500**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	241 *		%	SW846 8015B	06/02-06/05/04	4148360

* Surrogate recovery is outside stated control limits.
Surrogates outside acceptance criteria due to demonstrated matrix effect.

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-5 3-6						
Sample #: 036 Date Sampled: 05/19/04 12:00 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Dotriacontane	356 *		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	**15000**	**500**	**ug/kg**	**SW846 8015B**	**05/25/04**	**4147169**
4-Bromofluorobenzene (	46		%	SW846 8015B	05/25/04	4147169
* Surrogate recovery is outside stated control limits. Surrogates outside acceptance criteria due to demonstrated matrix effect.						
VOLATILE ORGANICS BY GC/MS						
Benzene	**540**	**25**	**ug/kg**	**SW846 8260B**	**05/26/04**	**4155479**
Toluene	**130**	**25**	**ug/kg**	**SW846 8260B**	**05/26/04**	**4155479**
Xylenes (total)	**2000**	**25**	**ug/kg**	**SW846 8260B**	**05/26/04**	**4155479**
4-Bromofluorobenzene	85		%	SW846 8260B	05/26/04	4155479
Toluene-d8	108		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	95		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	101		%	SW846 8260B	05/26/04	4155479
Ethylbenzene	**590**	**250**	**ug/kg**	**SW846 8260B**	**05/27/04**	**4154197**
4-Bromofluorobenzene	95		%	SW846 8260B	05/27/04	4154197
Toluene-d8	114		%	SW846 8260B	05/27/04	4154197
Dibromofluoromethane	102		%	SW846 8260B	05/27/04	4154197
1,2-Dichloroethane-d4	110		%	SW846 8260B	05/27/04	4154197
Results biased low compared to 5X dilution. Sample homogeneity issues suspected. Actual dilution factor = 49.5						
CHLORIDE						
Chloride	**2600**	**500**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-5 6-8						
Sample #: 037 Date Sampled: 05/19/04 12:00 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**3300000**	**85000**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	0.0 DIL		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	0.0 DIL		%	SW846 8015B	06/02-06/05/04	4148360

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
3740 Vacuum Glorieta East Unit
Project: BUCKEYE,NM

Lot #: I4E240110 **Date Reported:** 6/11/04

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-5 6-8						
Sample #: 037 Date Sampled: 05/19/04 12:00 Date Received: 05/22/04 Matrix: SOLID						
Gasoline Range Organic	**11000**	**480**	**ug/kg**	**SW846 8015B**	**05/25/04**	**4147169**
4-Bromofluorobenzene (	63		%	SW846 8015B	05/25/04	4147169
DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.						
VOLATILE ORGANICS BY GC/MS						
Benzene	**75**	**10**	**ug/kg**	**SW846 8260B**	**05/26-05/27/04**	**4155479**
Toluene	**28**	**10**	**ug/kg**	**SW846 8260B**	**05/26-05/27/04**	**4155479**
Xylenes (total)	**550**	**10**	**ug/kg**	**SW846 8260B**	**05/26-05/27/04**	**4155479**
4-Bromofluorobenzene	86		%	SW846 8260B	05/26-05/27/04	4155479
Toluene-d8	108		%	SW846 8260B	05/26-05/27/04	4155479
Dibromofluoromethane	97		%	SW846 8260B	05/26-05/27/04	4155479
1,2-Dichloroethane-d4	102		%	SW846 8260B	05/26-05/27/04	4155479
Ethylbenzene	**960**	**26**	**ug/kg**	**SW846 8260B**	**06/01/04**	**4156453**
4-Bromofluorobenzene	90		%	SW846 8260B	06/01/04	4156453
Toluene-d8	101		%	SW846 8260B	06/01/04	4156453
Dibromofluoromethane	90		%	SW846 8260B	06/01/04	4156453
1,2-Dichloroethane-d4	93		%	SW846 8260B	06/01/04	4156453
CHLORIDE						
Chloride	**2550**	**500**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-6 0-3						
Sample #: 038 Date Sampled: 05/19/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**2640**	**500**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-6 3-6						
Sample #: 039 Date Sampled: 05/19/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**2070**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-6 6-9						
Sample #: 040 Date Sampled: 05/19/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**2820**	**500**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-6 9-12						
Sample #: 041 Date Sampled: 05/19/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**1990**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-6 12-15						
Sample #: 042 Date Sampled: 05/19/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**7500000**	**85000**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	0.0 DIL		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	0.0 DIL		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	**150000**	**5000**	**ug/kg**	**SW846 8015B**	**06/01/04**	**4153385**
4-Bromofluorobenzene (	50		%	SW846 8015B	06/01/04	4153385

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.
Actual dilution factor = 49.5

VOLATILE ORGANICS BY GC/MS						
Benzene	**320**	**250**	**ug/kg**	**SW846 8260B**	**05/27/04**	**4154197**
Ethylbenzene	**4500**	**250**	**ug/kg**	**SW846 8260B**	**05/27/04**	**4154197**
Toluene	ND	250	ug/kg	SW846 8260B	05/27/04	4154197
Xylenes (total)	**4500**	**250**	**ug/kg**	**SW846 8260B**	**05/27/04**	**4154197**
4-Bromofluorobenzene	95		%	SW846 8260B	05/27/04	4154197
Toluene-d8	108		%	SW846 8260B	05/27/04	4154197
Dibromofluoromethane	97		%	SW846 8260B	05/27/04	4154197
1,2-Dichloroethane-d4	107		%	SW846 8260B	05/27/04	4154197

Actual dilution factor = 49.5

(Continued on next page)

CLIENT DATA SUMMARY

CONOCOPHILLIPS
3740 Vacuum Glorieta East Unit
Project: BUCKEYE,NM

Lot #: I4E240110 Date Reported: 6/11/04

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-6 12-15						
Sample #: 042 Date Sampled: 05/19/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
Chloride						
CHLORIDE						
Chloride	***2790***	***500***	**mg/kg**	**MCAWW 300.0A**	***06/02/04***	**4154162**
Client Sample ID: VG-6 15-18						
Sample #: 043 Date Sampled: 05/19/04 13:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**3600000**	**85000**	**ug/kg**	**SW846 8015B**	**06/02-06/08/04**	**4148360**
o-Terphenyl	0.0 DIL		%	SW846 8015B	06/02-06/08/04	4148360
Dotriacontane	0.0 DIL		%	SW846 8015B	06/02-06/08/04	4148360
Gasoline Range Organic	**35000**	**520**	**ug/kg**	**SW846 8015B**	**05/25/04**	**4147169**
4-Bromofluorobenzene (	132		%	SW846 8015B	05/25/04	4147169
DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.						
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	250	ug/kg	SW846 8260B	05/27-05/28/04	4154197
Ethylbenzene	**2700**	**250**	**ug/kg**	**SW846 8260B**	**05/27-05/28/04**	**4154197**
Toluene	**250**	**250**	**ug/kg**	**SW846 8260B**	**05/27-05/28/04**	**4154197**
Xylenes (total)	**3700**	**250**	**ug/kg**	**SW846 8260B**	**05/27-05/28/04**	**4154197**
4-Bromofluorobenzene	85		%	SW846 8260B	05/27-05/28/04	4154197
Toluene-d8	99		%	SW846 8260B	05/27-05/28/04	4154197
Dibromofluoromethane	86		%	SW846 8260B	05/27-05/28/04	4154197
1,2-Dichloroethane-d4	97		%	SW846 8260B	05/27-05/28/04	4154197
Actual dilution factor = 50						
CHLORIDE						
Chloride	**1960**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**

(Continued on next page)

CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit Date Reported: 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-7 0-3						
Sample #: 044 Date Sampled: 05/19/04 14:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**14.4**	**10.0**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-7 3-6						
Sample #: 045 Date Sampled: 05/19/04 14:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**4200**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	98		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	100		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	100	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	87		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Toluene	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/26/04	4155479
4-Bromofluorobenzene	85		%	SW846 8260B	05/26/04	4155479
Toluene-d8	110		%	SW846 8260B	05/26/04	4155479
Dibromofluoromethane	97		%	SW846 8260B	05/26/04	4155479
1,2-Dichloroethane-d4	101		%	SW846 8260B	05/26/04	4155479
CHLORIDE						
Chloride	**72.6**	**50.0**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-7 6-9						
Sample #: 046 Date Sampled: 05/19/04 14:45 Date Received: 05/22/04 Matrix: SOLID						
CHLORIDE						
Chloride	**326**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**

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CLIENT DATA SUMMARY

CONOCOPHILLIPS
Lot #: I4E240110 3740 Vacuum Glorieta East Unit **Date Reported:** 6/11/04
Project: BUCKEYE,NM

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-7 9-11						
Sample #: 047 Date Sampled: 05/19/04 14:45 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**3400**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	96		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	104		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	100	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	92		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	86		%	SW846 8260B	05/25/04	4153528
Toluene-d8	109		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	97		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	97		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	**855**	**200**	**mg/kg**	**MCAWW 300.0A**	**06/02/04**	**4154162**
Client Sample ID: VG-8 0-3						
Sample #: 048 Date Sampled: 05/19/04 15:30 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**21000**	**8500**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	101		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	107		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	99	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	82		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528

(Continued on next page)

CLIENT DATA SUMMARY

CONOCOPHILLIPS
3740 Vacuum Glorieta East Unit
Project: BUCKEYE,NM

Lot #: I4E240110 **Date Reported:** 6/11/04

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Client Sample ID: VG-8 0-3						
Sample #: 048 Date Sampled: 05/19/04 15:30 Date Received: 05/22/04 Matrix: SOLID						
VOLATILE ORGANICS BY GC/MS						
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	84		%	SW846 8260B	05/25/04	4153528
Toluene-d8	109		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	99		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	100		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	06/02/04	4154162
Client Sample ID: VG-8 3-6						
Sample #: 049 Date Sampled: 05/19/04 15:30 Date Received: 05/22/04 Matrix: SOLID						
EXTRACTABLE PETROLEUM HYDROCARBONS						
Diesel Range Organics	**4000**	**1700**	**ug/kg**	**SW846 8015B**	**06/02-06/05/04**	**4148360**
o-Terphenyl	102		%	SW846 8015B	06/02-06/05/04	4148360
Dotriacontane	106		%	SW846 8015B	06/02-06/05/04	4148360
Gasoline Range Organic	ND	100	ug/kg	SW846 8015B	05/25/04	4147169
4-Bromofluorobenzene (	71		%	SW846 8015B	05/25/04	4147169
VOLATILE ORGANICS BY GC/MS						
Benzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Toluene	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B	05/25/04	4153528
4-Bromofluorobenzene	84		%	SW846 8260B	05/25/04	4153528
Toluene-d8	108		%	SW846 8260B	05/25/04	4153528
Dibromofluoromethane	97		%	SW846 8260B	05/25/04	4153528
1,2-Dichloroethane-d4	99		%	SW846 8260B	05/25/04	4153528
CHLORIDE						
Chloride	ND	10.0	mg/kg	MCAWW 300.0A	06/02/04	4154162

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHEL61AA **Matrix.....:** SOLID
MB Lot-Sample #: I4F010000-528

Prep Date.....: 05/25/04 **Analysis Time..:** 14:18
Analysis Date..: 05/25/04 **Prep Batch #...:** 4153528
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	89	(71 - 123)
Toluene-d8	113	(88 - 118)
Dibromofluoromethane	100	(84 - 114)
1,2-Dichloroethane-d4	99	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHFJ51AA **Matrix.....:** SOLID
MB Lot-Sample #: I4F020000-197

Prep Date.....: 05/27/04 **Analysis Time..:** 17:00
Analysis Date..: 05/27/04 **Prep Batch #...:** 4154197
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	250	ug/kg	SW846 8260B
Ethylbenzene	ND	250	ug/kg	SW846 8260B
Toluene	ND	250	ug/kg	SW846 8260B
Xylenes (total)	ND	250	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	85	(72 - 116)
Toluene-d8	112	(89 - 119)
Dibromofluoromethane	99	(85 - 115)
1,2-Dichloroethane-d4	101	(73 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHKH01AA **Matrix.....:** SOLID
MB Lot-Sample #: I4F030000-479

Prep Date.....: 05/26/04 **Analysis Time..:** 14:36
Analysis Date..: 05/26/04 **Prep Batch #...:** 4155479
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	88	(71 - 123)
Toluene-d8	114	(88 - 118)
Dibromofluoromethane	101	(84 - 114)
1,2-Dichloroethane-d4	107	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHM8L1AA **Matrix.....:** SOLID
MB Lot-Sample #: I4F040000-453

Prep Date.....: 06/01/04 **Analysis Time..:** 18:20
Analysis Date..: 06/01/04 **Prep Batch #...:** 4156453
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	88	(70 - 130)
Toluene-d8	103	(70 - 130)
Dibromofluoromethane	92	(70 - 130)
1,2-Dichloroethane-d4	96	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GG02W1AA **Matrix.....:** SOLID
MB Lot-Sample #: I4E250000-126

Prep Date.....: 05/24/04 **Analysis Time..:** 13:36
Analysis Date..: 05/24/04 **Prep Batch #...:** 4146126
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Gasoline Range Organics	ND	100	ug/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	76	(37 - 153)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GG3Q61AA **Matrix.....:** SOLID
MB Lot-Sample #: I4E260000-169

Prep Date.....: 05/25/04 **Analysis Time..:** 11:44
Analysis Date..: 05/25/04 **Prep Batch #...:** 4147169
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Gasoline Range Organics	ND	100	ug/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	102	(37 - 153)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHD7Q1AA **Matrix.....:** SOLID
MB Lot-Sample #: I4F010000-385

Prep Date.....: 06/01/04 **Analysis Time..:** 11:51
Analysis Date..: 06/01/04 **Prep Batch #...:** 4153385
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Gasoline Range Organics	ND	5000	ug/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	108	(37 - 153)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Actual dilution factor = 50

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: I4E240110 **Work Order #...:** GG7A01AA **Matrix.....:** SOLID
MB Lot-Sample #: I4E270000-358

Prep Date.....: 06/02/04 **Analysis Time..:** 23:58
Analysis Date..: 06/05/04 **Prep Batch #...:** 4148358
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diesel Range Organics	ND	1700	ug/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	88	(37 - 131)
Dotriacontane	91	(10 - 151)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: I4E240110 **Work Order #...:** GG7CW1AA **Matrix.....:** SOLID
MB Lot-Sample #: I4E270000-360

Prep Date.....: 06/02/04 **Analysis Time..:** 18:46
Analysis Date..: 06/04/04 **Prep Batch #...:** 4148360
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diesel Range Organics	ND	1700	ug/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	84	(37 - 131)
Dotriacontane	135	(10 - 151)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: I4E240110 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride		Work Order #: GHC4H1AA		MB Lot-Sample #:	I4E290000-065	
	ND	5.0	mg/kg	MCAWW 300.0A	05/28/04	4150065
		Dilution Factor: 1				
		Analysis Time..: 08:08				
Chloride		Work Order #: GHE901AA		MB Lot-Sample #:	I4F020000-075	
	ND	10.0	mg/kg	MCAWW 300.0A	06/01/04	4154075
		Dilution Factor: 1				
		Analysis Time..: 08:22				
Chloride		Work Order #: GHFFR1AA		MB Lot-Sample #:	I4F020000-162	
	ND	10.0	mg/kg	MCAWW 300.0A	06/02/04	4154162
		Dilution Factor: 1				
		Analysis Time..: 08:06				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHEL61AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: I4F010000-528 GHEL61AD-LCSD
Prep Date.....: 05/25/04 **Analysis Date..:** 05/25/04
Prep Batch #...: 4153528 **Analysis Time..:** 13:28
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	93	(90 - 126)			SW846 8260B
	94	(90 - 126)	1.4	(0-30)	SW846 8260B
Ethylbenzene	90	(82 - 118)			SW846 8260B
	91	(82 - 118)	0.51	(0-30)	SW846 8260B
Toluene	87	(76 - 125)			SW846 8260B
	88	(76 - 125)	2.0	(0-30)	SW846 8260B
Xylenes (total)	89	(80 - 116)			SW846 8260B
	90	(80 - 116)	1.3	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	97	(71 - 123)
	97	(71 - 123)
Toluene-d8	115	(88 - 118)
	115	(88 - 118)
Dibromofluoromethane	100	(84 - 114)
	100	(84 - 114)
1,2-Dichloroethane-d4	99	(69 - 115)
	98	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHFJ51AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: I4F020000-197 GHFJ51AD-LCSD
Prep Date.....: 05/27/04 **Analysis Date..:** 05/27/04
Prep Batch #...: 4154197 **Analysis Time..:** 15:43
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	107	(91 - 127)			SW846 8260B
	100	(91 - 127)	7.1	(0-30)	SW846 8260B
Ethylbenzene	100	(80 - 118)			SW846 8260B
	93	(80 - 118)	7.8	(0-30)	SW846 8260B
Toluene	96	(76 - 124)			SW846 8260B
	88	(76 - 124)	8.9	(0-30)	SW846 8260B
Xylenes (total)	98	(79 - 115)			SW846 8260B
	90	(79 - 115)	7.8	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	91	(72 - 116)
	91	(72 - 116)
Toluene-d8	113	(89 - 119)
	113	(89 - 119)
Dibromofluoromethane	100	(85 - 115)
	100	(85 - 115)
1,2-Dichloroethane-d4	105	(73 - 112)
	103	(73 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHKH01AE-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: I4F030000-479 GHKH01AF-LCSD
Prep Date.....: 05/22/04 **Analysis Date..:** 05/26/04
Prep Batch #...: 4155479 **Analysis Time..:** 13:21
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	98	(90 - 126)			SW846 8260B
	94	(90 - 126)	4.0	(0-30)	SW846 8260B
Ethylbenzene	93	(82 - 118)			SW846 8260B
	88	(82 - 118)	4.8	(0-30)	SW846 8260B
Toluene	89	(76 - 125)			SW846 8260B
	84	(76 - 125)	5.2	(0-30)	SW846 8260B
Xylenes (total)	91	(80 - 116)			SW846 8260B
	87	(80 - 116)	4.6	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	94	(71 - 123)
	95	(71 - 123)
Toluene-d8	115	(88 - 118)
	115	(88 - 118)
Dibromofluoromethane	101	(84 - 114)
	100	(84 - 114)
1,2-Dichloroethane-d4	106	(69 - 115)
	107	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHM8L1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: I4F040000-453 GHM8L1AD-LCSD
Prep Date.....: 06/01/04 **Analysis Date..:** 06/01/04
Prep Batch #...: 4156453 **Analysis Time..:** 16:07
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Ethylbenzene	96	(82 - 118)			SW846 8260B
	99	(82 - 118)	2.8	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	95	(71 - 123)
	96	(71 - 123)
Toluene-d8	106	(88 - 118)
	105	(88 - 118)
Dibromofluoromethane	95	(84 - 114)
	95	(84 - 114)
1,2-Dichloroethane-d4	101	(69 - 115)
	98	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GG02W1AC **Matrix.....:** SOLID
LCS Lot-Sample#: I4E250000-126
Prep Date.....: 05/24/04 **Analysis Date..:** 05/24/04
Prep Batch #...: 4146126 **Analysis Time..:** 17:55
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Gasoline Range Organics	**108**	**(66 - 129)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	84	(49 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GG3Q61AC **Matrix.....:** SOLID
LCS Lot-Sample#: I4E260000-169
Prep Date.....: 05/25/04 **Analysis Date..:** 05/25/04
Prep Batch #...: 4147169 **Analysis Time..:** 11:00
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Gasoline Range Organics	**105**	**(66 - 129)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	95	(49 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GHD7Q1AC **Matrix.....:** SOLID
LCS Lot-Sample#: I4F010000-385
Prep Date.....: 06/01/04 **Analysis Date..:** 06/01/04
Prep Batch #...: 4153385 **Analysis Time..:** 11:08
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Gasoline Range Organics	**113**	**(66 - 129)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	99	(49 - 147)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Actual dilution factor = 50

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: I4E240110 **Work Order #...:** GG7A01AC **Matrix.....:** SOLID
LCS Lot-Sample#: I4E270000-358
Prep Date.....: 06/02/04 **Analysis Date..:** 06/06/04
Prep Batch #...: 4148358 **Analysis Time..:** 00:44
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Diesel Range Organics	**88**	**(32 - 132)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	86	(37 - 131)
Dotriacontane	73	(10 - 151)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: I4E240110 **Work Order #...:** GG7CW1AC **Matrix.....:** SOLID
LCS Lot-Sample#: I4E270000-360
Prep Date.....: 06/02/04 **Analysis Date..:** 06/04/04
Prep Batch #...: 4148360 **Analysis Time..:** 19:33
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Diesel Range Organics	**95**	**(32 - 132)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	87	(37 - 131)
Dotriacontane	98	(10 - 151)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I4E240110 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride		Work Order #: GHC4H1AC	LCS Lot-Sample#: I4E290000-065		
	102	(80 - 120)	MCAWW 300.0A	05/28/04	4150065
		Dilution Factor: 1	Analysis Time..: 08:21		
Chloride		Work Order #: GHE901AC	LCS Lot-Sample#: I4F020000-075		
	105	(80 - 120)	MCAWW 300.0A	06/01/04	4154075
		Dilution Factor: 1	Analysis Time..: 08:36		
Chloride		Work Order #: GHFFR1AC	LCS Lot-Sample#: I4F020000-162		
	105	(80 - 120)	MCAWW 300.0A	06/02/04	4154162
		Dilution Factor: 1	Analysis Time..: 08:19		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GGW961AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E240110-003 GGW961AG-MSD
Date Sampled...: 05/20/04 08:00 **Date Received..:** 05/22/04 10:30
Prep Date.....: 05/25/04 **Analysis Date..:** 05/25/04
Prep Batch #...: 4153528 **Analysis Time..:** 16:21
Dilution Factor: 1 **% Moisture.....:**

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	101	(90 - 126)			SW846 8260B
	92	(90 - 126)	9.8	(0-30)	SW846 8260B
Ethylbenzene	96	(82 - 118)			SW846 8260B
	87	(82 - 118)	11	(0-30)	SW846 8260B
Toluene	93	(76 - 125)			SW846 8260B
	83	(76 - 125)	12	(0-30)	SW846 8260B
Xylenes (total)	94	(80 - 116)			SW846 8260B
	84	(80 - 116)	12	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	95	(71 - 123)
	92	(71 - 123)
Toluene-d8	114	(88 - 118)
	113	(88 - 118)
Dibromofluoromethane	98	(84 - 114)
	98	(84 - 114)
1,2-Dichloroethane-d4	98	(69 - 115)
	98	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GGXEQ1AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E240110-036 GGXEQ1AG-MSD
Date Sampled...: 05/19/04 12:00 **Date Received..:** 05/22/04 10:30
Prep Date.....: 05/27/04 **Analysis Date..:** 05/28/04
Prep Batch #...: 4154197 **Analysis Time..:** 02:08
Dilution Factor: 1.01 **% Moisture.....:**

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	93	(91 - 127)			SW846 8260B
	89 a	(91 - 127)	5.3	(0-30)	SW846 8260B
Ethylbenzene	85	(80 - 118)			SW846 8260B
	82	(80 - 118)	4.2	(0-30)	SW846 8260B
Toluene	84	(76 - 124)			SW846 8260B
	82	(76 - 124)	2.9	(0-30)	SW846 8260B
Xylenes (total)	84	(79 - 115)			SW846 8260B
	82	(79 - 115)	3.9	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	89	(72 - 116)
	88	(72 - 116)
Toluene-d8	103	(89 - 119)
	100	(89 - 119)
Dibromofluoromethane	92	(85 - 115)
	91	(85 - 115)
1,2-Dichloroethane-d4	103	(73 - 112)
	103	(73 - 112)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

Actual MSD dilution factor = 50

Actual MS dilution factor = 50.5

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GGVMD1DC-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E220113-001 GGVMD1DD-MSD
Date Sampled...: 05/21/04 14:30 **Date Received..:** 05/22/04 08:40
Prep Date.....: 05/22/04 **Analysis Date..:** 05/26/04
Prep Batch #...: 4155479 **Analysis Time..:** 18:44
Dilution Factor: 0.82 **% Moisture.....:** 26

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	73 a	(90 - 126)			SW846 8260B
	59 a	(90 - 126)	21	(0-30)	SW846 8260B
Ethylbenzene	69 a	(82 - 118)			SW846 8260B
	53 a	(82 - 118)	25	(0-30)	SW846 8260B
Toluene	65 a	(76 - 125)			SW846 8260B
	51 a	(76 - 125)	24	(0-30)	SW846 8260B
Xylenes (total)	68 a	(80 - 116)			SW846 8260B
	52 a	(80 - 116)	26	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	73	(71 - 123)
	77	(71 - 123)
Toluene-d8	90	(88 - 118)
	96	(88 - 118)
Dibromofluoromethane	79 *	(84 - 114)
	87	(84 - 114)
1,2-Dichloroethane-d4	82	(69 - 115)
	92	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

* Surrogate recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GG07D1AD-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E250139-013 GG07D1AE-MSD
Date Sampled...: 05/20/04 12:05 **Date Received..:** 05/25/04 08:30
Prep Date.....: 05/22/04 **Analysis Date..:** 06/02/04
Prep Batch #...: 4156453 **Analysis Time..:** 10:31
Dilution Factor: 1.09 **% Moisture.....:** 32

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Ethylbenzene	110	(82 - 118)			SW846 8260B
	86	(82 - 118)	30	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	66 *	(71 - 123)
	70 *	(71 - 123)
Toluene-d8	93	(88 - 118)
	96	(88 - 118)
Dibromofluoromethane	97	(84 - 114)
	99	(84 - 114)
1,2-Dichloroethane-d4	97	(69 - 115)
	98	(69 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GGM7M1AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E200231-003 GGM7M1AG-MSD
Date Sampled...: 05/19/04 10:10 **Date Received..:** 05/20/04 09:00
Prep Date.....: 05/24/04 **Analysis Date..:** 05/24/04
Prep Batch #...: 4146126 **Analysis Time..:** 17:03
Dilution Factor: 2 **% Moisture.....:** 100

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Gasoline Range Organics	**95**	**(66 - 129)**			**SW846 8015B**
	58 a	**(66 - 129)**	**22**	**(0-30)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	75	(37 - 153)
	133	(37 - 153)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GGXD41AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E240110-028 GGXD41AG-MSD
Date Sampled...: 05/19/04 09:15 **Date Received..:** 05/22/04 10:30
Prep Date.....: 05/25/04 **Analysis Date..:** 05/25/04
Prep Batch #...: 4147169 **Analysis Time..:** 20:46
Dilution Factor: 0.99 **% Moisture.....:**

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Gasoline Range Organics	**76**	**(66 - 129)**			**SW846 8015B**
	80	**(66 - 129)**	**5.3**	**(0-30)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	69	(37 - 153)
	74	(37 - 153)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: I4E240110 **Work Order #...:** GGXFG1AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E240110-042 GGXFG1AG-MSD
Date Sampled...: 05/19/04 13:45 **Date Received..:** 05/22/04 10:30
Prep Date.....: 06/01/04 **Analysis Date..:** 06/01/04
Prep Batch #...: 4153385 **Analysis Time..:** 13:37
Dilution Factor: 0.98 **% Moisture.....:**

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Gasoline Range Organics	**90**	**(66 - 129)**			**SW846 8015B**
	66	**(66 - 129)**	**11**	**(0-30)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene (GRO	47	(37 - 153)
	58	(37 - 153)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Actual MSD dilution factor = 48.5

Actual MS dilution factor = 49

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: I4E240110 **Work Order #...:** GGXDJ1AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E240110-019 GGXDJ1AG-MSD
Date Sampled...: 05/20/04 14:30 **Date Received..:** 05/22/04 10:30
Prep Date.....: 06/02/04 **Analysis Date..:** 06/06/04
Prep Batch #...: 4148358 **Analysis Time..:** 12:02
Dilution Factor: 1 **% Moisture.....:**

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Diesel Range Organics	**91**	**(32 - 132)**			**SW846 8015B**
	95	**(32 - 132)**	**4.2**	**(0-30)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	98	(37 - 131)
	95	(37 - 131)
Dotriacontane	100	(10 - 151)
	98	(10 - 151)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: I4E240110 **Work Order #...:** GGXFW1AF-MS **Matrix.....:** SOLID
MS Lot-Sample #: I4E240110-047 GGXFW1AG-MSD
Date Sampled...: 05/19/04 14:45 **Date Received..:** 05/22/04 10:30
Prep Date.....: 06/02/04 **Analysis Date..:** 06/05/04
Prep Batch #...: 4148360 **Analysis Time..:** 20:10
Dilution Factor: 1 **% Moisture.....:**

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Diesel Range Organics	**92**	**(32 - 132)**			**SW846 8015B**
	80	**(32 - 132)**	**12**	**(0-30)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	93	(37 - 131)
	95	(37 - 131)
Dotriacontane	97	(10 - 151)
	98	(10 - 151)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I4E240110 **Matrix.....:** SOLID
Date Sampled...: 05/19/04 10:15 **Date Received..:** 05/22/04 10:30

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
						% Moisture.....:	
Chloride			WO#: GGXCE1AF-MS/GGXCE1AG-MSD			MS Lot-Sample #: I4E240110-007	
	100	(75 - 125)			MCAWW 300.0A	05/28/04	4150065
	102	(75 - 125)	0.99	(0-20)	MCAWW 300.0A	05/28/04	4150065
		Dilution Factor: 1					
		Analysis Time..: 12:06					
						% Moisture.....:	
Chloride			WO#: GGXCT1AF-MS/GGXCT1AG-MSD			MS Lot-Sample #: I4E240110-013	
	99	(75 - 125)			MCAWW 300.0A	06/01/04	4154075
	96	(75 - 125)	0.96	(0-20)	MCAWW 300.0A	06/01/04	4154075
		Dilution Factor: 1					
		Analysis Time..: 09:02					
						% Moisture.....:	
Chloride			WO#: GGXD81AC-MS/GGXD81AD-MSD			MS Lot-Sample #: I4E240110-030	
	101	(75 - 125)			MCAWW 300.0A	06/02/04	4154162
	101	(75 - 125)	0.15	(0-20)	MCAWW 300.0A	06/02/04	4154162
		Dilution Factor: 1					
		Analysis Time..: 08:45					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Report Attachment

Note that if this report contains tests performed for the following methods, the associated method deviations are applicable.

EPA 410.1 COD: Laboratory uses different analytical wavelength as specified by instrument manufacturer.
EPA 340.2 Fluoride: Preliminary Bellack distillation not performed.
EPA 8151A: Laboratory utilizes alternate extraction solvent.
Iowa OA-1: Benzene, toluene, ethylbenzene and xylenes (BTEX) not analyzed along with Gasoline Range Organics if client does not require BTEX.
EPA TO-12: Samples are not analyzed in duplicate.
EPA TO-14A and TO-15: Zero humidified nitrogen is used in place of air for method blanks.

TRRP Reporting Requirements

If this package contains reports requiring TRRP (Texas Risk Reduction Program) reporting criteria, the following information applies.

The REPORTING LIMIT is equivalent to the TRRP acronym MQL (method quantitation limit).
The MDL is equivalent to the TRRP acronym SQL (sample quantitation limit).

SEVERN TRENT **STL**

CHAIN-OF-CUSTODY ADDENDUM

Lot No: I4E240110

RECEIVED BY: BJ

COC NUMBER:

DATE/TIME RECEIVED: 5/22/04 1030

QUOTE/PROFILE: 56961

UNPACKED DATE/TIME: 5/22/04 1100

CLIENT/PROJECT: Matrix Tech

SAMPLES LOGGED IN: LOG-IN REVIEWED:

Number of Shipping Containers Received with Chain of Custody 2

CC

DW

VOC AIR / FILTER SAMPLES ☐ YES **SEE SECTIONS 1.0, 2.0, & 6.0**

1.0 CONTAINERS EXAMINED UPON RECEIPT: BJ

Container Sealed: ☑ YES ☐ NO

Custody Seal Signed/Dated: ☑ YES ☐ NO

Custody Seal Present: ☑ YES ☐ NO

Containers checked for radioactivity: ☐ YES ☐ NO ☑ N/A

If seal not intact or Geiger counter reading >0.5 mR/hr, list air bill number of that container(s):

2.0 VOC CANISTERS EXAMINED UPON RECEIPT:

Canister Valves Closed: ☐ YES ☐ NO

Samples Received Match Chain: ☐ YES ☐ NO

Canister Valves Capped: ☐ YES ☐ NO

See Additional Comments (Section 5.0 and / or 7.0) ☐ YES ☐ NO

Packing Material Used: (circle)

None / Absorbent / Paper / Bubble Wrap

Chain-of-Custody form properly maintained: ☐ YES ☐ NO

Can Size: ☐ 6L ☐ 15L Other

3.0 SAMPLE TEMPERATURE UPON RECEIPT: BJ **IR THERMOMETER #:** P-5

The temperature of the container(s) is: *[acceptable tolerance 4°C ± 2°; (NC, WI: 1-4.4°C)]*

2°C	2°C									

If temperature is outside acceptable tolerance, Project Manager was notified (_____PM). Date: _____ Time: _____

Samples received do not require cooling _____ OK to analyze samples: ☑ YES ☐ NO

PRESERVATION OF SAMPLES REQUIRED: ☑ NA ☐ YES **VERIFIED BY:** BJ

Base samples are>pH 12: ☐ YES ☐ NO

Acid preserved are<pH 2: ☐ YES ☐ NO

Cyanide samples checked for sulfides: ☐ YES

Sulfide samples appear to be preserved with zinc acetate: ☐ YES ☐ NO

Samples checked for chlorine per specification: ☐ YES

Free chlorine present: ☐ YES ☐ NO

If sample preservation is outside acceptable tolerance, Project Manager was notified (_____PM)

Date: _____ Time: _____ ☐ see pH adjustment form

VOLATILE SAMPLES FILLED COMPLETELY, IF NOT, LIST ID AND HEADSPACE OF VOAs CONTAINING BUBBLES EXCEEDING 6MM IN DIAMETER:

Sample ID	mm Headspace

Sample ID	mm Headspace

4.0 CONDITION OF BOTTLES/CONTAINERS VERIFIED BY: BJ

Samples received match COC: ☑ YES ☐ NO Bottles received intact: ☑ YES ☐ NO

See additional discrepancies/comments section: ☐ YES ☑ NO Samples received from USDA restricted area: ☐ YES ☑ NO

Chain-of-Custody form properly maintained: ☑ YES ☐ NO VOA trip blanks included: ☐ YES ☐ NO ☑ N/A

5.0 ADDITIONAL DISCREPANCIES

Appears on COC		Appears on Label		
Sample ID	Date/Time	Sample ID	Date/Time	Comments

6.0 SHIPPING DOCUMENTATION:

Air/freight bill is available and attached to COC: ☑ YES ☐ NO Air bill #: _____

Hand-delivered Carrier: _____ Date: _____ Time: _____

7.0 OTHER COMMENTS:

Received VG-5 0-3 60mL log for all per Frank

VG-5 3-6 2x60mL, 120mL log all 4 tests per Frank

VG-5 6-8 2x60mL 120mL - not on COC; log per Frank

VG-8 Date + Time 5-19-04 1530 per Frank

CORRECTIVE ACTION:

Client's Name: Frank Jechnowski Informed verbally on: 5-25-04 By: CMB

Client's Name: _____ Informed verbally on: _____ By: _____

Sample(s) processed "as is" comments: _____

Samples(s) on hold until: _____ If released, notify: _____

REVIEW:

Project Management: CMB Date: 5-25-04

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

028057

STL4149 (1202)

Client: Maxim Technologies Inc.	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 1703 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab Location: Austin, TX	Analysis
City: Midland / State: TX / Zip Code: 79701	Site Contact: Charles Durrett		
Project Number/Name: 3740 Vacuum Glorieta East Unit	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: 3740MAX0003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	300 Chloride	8260B BTEX	8015M GRO	8015M DRO
VG-5 0-3	5-19-04	1200	Soil	2 oz	Glass	2	None	2" sleeve ea	X	X	X	
VG-5 0-3				4 oz		1		See COC Add	X			X
VG-5 3-6				2 oz		1			X	X	X	
VG-5 3-6				4 oz		1			X			X
VG-5 [illegible]						1			X			
VG-5						1				X		
VG-5						1						X
VG-6 0-3	5-19-04	1345	Soil	2 oz		1			X			
VG-6 3-6				2 oz		1			X			
VG-6 6-9				2 oz		1			X			
VG-6 9-12				2 oz		1			X			
VG-6 12-15 [illegible]				2 oz		2			X	X	X	
VG-6 12-15				4 oz		1			X			X
VG-6 15-18				2 oz		2				X		
VG-6 15-18				4 oz		1			X			X

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: [X] Normal [ ] Rush [ ] Other ____

QC Level: [X] I. [ ] II. [ ] III.

Project Specific Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]			1. Received By: Bill Jenkins	5/22/04	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

76/84

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

028058

STL4149 (1202)

Client: Maxim Technologies Inc	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 1703 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab Location: Austin, TX	Analysis
City: Midland / State: TX / Zip Code: 79701	Site Contact: Charles Durrett		
Project Number/Name: 3740 Vacuum Glorieta East Unit	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: 3740 MAX 003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments
VG-7 0-3	5-19-04	1445	Soil	2 oz	Glass	1	None	2° 5 relay
VG-7 3-6				2 oz		2		
VG-7 3-6 [redacted]				4 oz		1		
VG-7 6-9 [redacted]				2 oz		1		
VG-7 9-11 [redacted]				2 oz		2		
VG-7 9-11				4 oz		1		
~~VG-7~~								
VG-8 0-3			Soil	2 oz	Glass	2	None	
VG-8 0-3 [redacted]				4 oz		1		
VG-8 3-6 [redacted]				2 oz		2		
VG-8 3-6 11-15				4 oz		1		
~~VG-8~~								
~~VG-8~~								
~~VG-8~~								

Analysis: 300 Chloride; 8260B BTEX; 8015M GRO; 8015M DRO

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: [X] Normal [ ] Rush [ ] Other ____

QC Level: [X] I. [ ] II. [ ] III.

Project Specific Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: M. J. Fisher			1. Received By: Bill Jenkins	5/22/04	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

77/84

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

028065

STL4149 (1202)

Client: Maxim Technologies Inc.	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 1703 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab location: Austin, Tx	Analysis
City: Midland / State: TX / Zip Code: 79701	Site Contact: Charles Durrett		
Project Number/Name: 3740 Vacuum Glorieta East Fork	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: 3740 MAX 003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	300 Chloride	8260B BTEX	8015M GRO	8015M DRO
VG-9 0-3	5-20-04	0800	Soil	2 oz	Glass	1	None	2° 5/22/04	X			
VG-9 3-6	↓	↓	↓	2 oz	↓	1	↓	See COC Add	X	X	X	
VG-9 3-6				4 oz		1			X			X
VG-9 6-8				2 oz		1			X	X	X	
VG-9 6-8				4 oz		1			X			X
VG-9						1				X		
VG-9						1					X	
VG-10 0-3	5-20-04	8:30	Soil	2 oz	Glass	1	None		X	X	X	
VG-10 0-3	↓	8:30	↓	4 oz	↓	1	↓		X			X
VG-10						1			X			
VG-10						1			X			
VG-10						1			X			
VG-10						1				X		
VG-10						1					X	

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: [X] Normal [ ] Rush [ ] Other ____

QC Level: [X] I. [ ] II. [ ] III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: T. J. Linhard			1. Received By: Bill Jenkins	5/22/04	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

78/84

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

028059

STL4149 (1202)

Client: Maxim Technologies Inc	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 1703 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab Location: Austin, TX	Analysis
City: Midland	State: TX	Zip Code: 79701	Site Contact: Charles Durrett
Project Number/Name: 3740 Vacuum Glorieta East Unit			Carrier/Waybill Number:
Contract/Purchase Order/Quote Number: 3740 MAX 003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	300 Chloride	8260B & TEX	8015M GRO	8015M DRO
VG-11 0-3	5-20-04	0915	Soil	2 oz	Glass	2	None	2° 5/22/04	X	X	X	
VG-11 0-3				4 oz		1			X			X
VG-11 3-6				2 oz		1			X			
VG-11 6-9				2 oz		2			X	X	X	
VG-11 6-9				4 oz		1			X			X
VG-11						1				X		
VG-11						1						X
VG-12 0-3	5-20-04	945	Soil	2 oz	Glass	2	None		X	X	X	
VG-12 0-3				4 oz		1			X			X
VG-12 3-6				2 oz		1			X			
VG-12 6-9				2 oz		2			X	X	X	
VG-12 6-9				4 oz		1			X			X
VG-12						1				X		
VG-12						1						X

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: [X] Normal [ ] Rush [ ] Other ____

QC Level: [X] I. [ ] II. [ ] III.

Project Specific Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: J. L. Linn	5-21-04	1800	1. Received By: Bill Jenkins	5/22/04	1030
2. Relinquished By:	Date	Time	2. Received By:	Date	Time
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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Chain of Custody Record

STL4149 (1202)

SEVERN TRENT **STL** 028060

Severn Trent Laboratories, Inc.

Client: Maxim Technologies Inc	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 170 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab Location: Austin, TX	
City: Midland State: TX Zip Code: 79701	Site Contact: Charles Durrett		
Project Number/Name: 3740 Vacuum Glorieta East Unit	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: 3740MAX003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	300 Chloride	8260B BTEX	8015M GRO	8015M DRO
VG-13 0-3	5-20-04	1045	Soil	2oz	Glass	2	None	2" 5/22/04	X	X	X	
VG-13 0-3	↓	1045	↓	4 oz	↓	1	↓		X			X
VG-13 3-6	↓	↓	↓	2oz	↓	1	↓		X			
VG-13 6-9	↓	↓	↓	2oz	↓	2	↓		X	X	X	
VG-13 6-9	↓	↓	↓	4 oz	↓	1	↓		X			X
~~VG-13~~						1				X		
~~VG-13~~						1					X	
VG-14 0-3	5-20-04	1230	Soil	2oz	Glass	2	None		X	X	X	
VG-14 0-3	↓	↓	↓	4oz	↓	1			X			X
VG-14 3-6	↓	↓	↓	2oz	↓	2			X	X	X	
VG-14 3-6	↓	↓	↓	4oz	↓	1			X			X
~~VG-14~~									X			
~~VG-14~~										X		
~~VG-14~~											X	

Special Instructions

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☒ Normal ☐ Rush ☐ Other ______

QC Level: ☒ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	5-21-04	1800	1. Received By: Bill [signature]	5/22/04	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: *WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy*

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

028063

STL4149 (1202)

Client: Maxim Technologies Inc	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 1703 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab Location: Austin, TX	Analysis
City: Midland / State: TX / Zip Code: 79701	Site Contact: Charles Durrett		
Project Number/Name: 3740 Vacuum Glorieta East Unit	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: 3740MAX003			

Sample I.D. Number and Description		Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	300 Chloride	8260B BTEX	8015M GRO	8015M DRO
VG-17	0-3	5-20-04	1430	soil	2 oz	Glass	2	None	2° 5/22/04	X	X	X	
VG-17	0-3				4 oz		1			X			X
VG-17	3-6				2 oz		1			X			
VG-17	6-9				2 oz		1			X			
VG-17	9-11				2 oz		2			X	X	X	
VG-17	9-11				4 oz		1			X		X	
VG-17												X	

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: [X] Normal [ ] Rush [ ] Other ____

QC Level: [X] I. [ ] II. [ ] III.

Project Specific Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: M. L. Durrett	5-21-04	1800	1. Received By: Bill Duke	5/22/04	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

028064

STL4149 (1202)

Client	Project Manager	Date	Page ____ of ____
Maxim Technologies Inc.	Charles Durrett		
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Location**	**Analysis**
1703 West Industrial	432-686-8081	Austin, TX	
City / **State** / **Zip Code**	**Site Contact**		
Midland / TX / 79701	Charles Durrett		
Project Number/Name	**Carrier/Waybill Number**		
3740 Vacuum Glorieta East Unit			
Contract/Purchase Order/Quote Number			
3740 MAX003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	300 Chloride	8260B BTEX	8015M GRO	8015M DRO
VG-15 0-3	5-20-04	1320	Soil	2 oz	Glass	2	None	2° 5/22/04	X	X	X	
VG-15 0-3 [redacted]				4 oz		1			X		X	
VG-15 3-6 [redacted]				2 oz		1			X		X	
VG-15 6-9 [redacted]				2 oz		2			X	X	X	
VG-15 6-9 [redacted]				4 oz		1			X		X	
VG-15						1				X		
VG-15						1				X		
	5-20-04	1345										
VG-16 0-3			Soil	2 oz	Glass	2	None		X	X	X	
VG-16 0-3 [redacted]				4 oz		1			X		X	
VG-16 3-6 [redacted]				2 oz		2			X	X	X	
VG-16 3-6 [redacted]				4 oz		1			X		X	
VG-16 [redacted]									X			
VG-16										X		
VG-16										X		

Special Instructions

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☒ Normal ☐ Rush ☐ Other _____

QC Level

☒ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: T. L. Luhr	5-21-04	1800	1. Received By: Bill Jenkins	5/22/04	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample: CANARY - Returned to Client with Report: PINK - Field Copy

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Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

028061

STL4149 (1202)

Client: Maxim Technologies Inc	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 1703 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab Location: Austin, TX	Analysis
City: Midland / State: TX / Zip Code: 79701	Site Contact: Charles Durrett		
Project Number/Name: 3740 Vacuum Glorieta East Unit	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: 3740 MAX003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Type	No.	Preservative	Condition on Receipt/Comments	300 chloride	8260B BTEX	8015-M GRO	8015-M DRO
VG-1a 0-3	5-19-04	0845	Soil	2 oz	glass	2.	None	2° 5/22/04		X	X	
VG-1a 0-3				4 oz		1.			X			X
VG-1a 6-8				2 oz		2.				X	X	
VG-1a 6-8				4 oz		1.			X			X
VG-1a 3-6				2 oz		1.			X			
VG-2a 0-3	5-19-04	0915	Soil	2 oz	glass	2.				X	X	
VG-2a 0-3				4 oz		1.			X			X
VG-2a 3-7				2 oz		2.				X	X	
VG-2a 3-7				4 oz		1.			X			X

Special Instructions

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: [X] Normal [ ] Rush [ ] Other ____

QC Level: [X] I. [ ] II. [ ] III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: J. L. Lib			1. Received By: Bill Juli	5/22/04	1030
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

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Chain of Custody Record

STL4149 (1202)

SEVERN TRENT **STL** 028056

Severn Trent Laboratories, Inc.

Client: Maxim Technologies Inc	Project Manager: Charles Durrett	Date:	Page ____ of ____
Address: 1703 West Industrial	Telephone Number (Area Code)/Fax Number: 432-686-8081	Lab Location: Austin, Tx	
City: Midland State: Tx Zip Code: 79701	Site Contact: Charles Durrett		
Project Number/Name: 3740 Vacuum Glorieta East Unit	Carrier/Waybill Number:		
Contract/Purchase Order/Quote Number: 3740MAX003			

Sample I.D. Number and Description	Date	Time	Sample Type	Containers Volume	Containers Type	Containers No.	Preservative	Condition on Receipt/Comments	300 Chloride	8260B BTEX	8015M GRO	8015M DRO
VG-3a 0-3	5-19-04	1015	Soil	2 oz	Glass	1.	None	2° 5/22/04	X			
VG-3a 3-6	↓	↓	↓	2 oz	↓	2.	↓		X	X	X	
VG-3a 3-6				4 oz		1.			X			X
VG-3a 6-9				2 oz		1			X	X	X	
VG-3a 6-9				4 oz		1			X			X
~~VG-3a~~						1				X		
~~VG-3a~~						1					X	
						1						
VG-4 0-3	5-19-04	1115	Soil	2 oz	Glass	2.	None		X	X	X	
VG-4 0-3	↓	↓	↓	4 oz	↓	1.	↓		X			X
VG-4 3-6				2 oz		1			X	X	X	
VG-4 3-6				4 oz		1			X			X
~~VG-4~~						1			X			
~~VG-4~~						1				X		
~~VG-4~~						1					X	

Special Instructions

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☒ Normal ☐ Rush ☐ Other ____

QC Level: ☒ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

1. Relinquished By: [signature]	Date	Time	1. Received By: Bill [signature]	Date: 5/22/04	Time: 1030
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy