Groundwater Cleanup Completion Report

Alexander Farms Facility

March 2009

Prepared for

Dan Alexander

Prepared by

Riverside Consulting, Inc.
Yakima, Washington

RIVERSIDE
CONSULTING, INC.

Contents

1.0 Introduction

On May 7, 1998, the Washington State Department of Ecology (Ecology) issued an emergency order to Dan Alexander, owner of the Alexander Farms Facility, following discovery of dinoseb-contaminated drinking water in two wells on and near the site's property (RI; WSI 2003). The state ordered Alexander to investigate and clean up the dinoseb-contaminated soil and groundwater originating from the property in accordance with WAC 173-340, as applicable, and Consent Decree No. 04-2-02240-9, filed October 29, 2004, in Thurston County Superior Court, Washington.

In response to the decree, White Shield, Inc. (WSI) conducted site investigations and removal actions (May-September 1998). The U.S. Environmental Protection Agency (EPA) then conducted a Removal Assessment (May 1998-December 1999) and a Removal Action (November 1998-December 1999). The EPA's Removal Action included excavation, treatment, and disposal of about 9,300 cubic yards of dionseb-contaminated soil.

After contaminated soil was removed from the site, Riverside Consulting Inc. (Riverside) was hired to perform and implement work necessary to demonstrate that the soil and underlying groundwater met applicable cleanup standards. This report describes actions taken in an effort to demonstrate groundwater on the site achieved compliance with applicable cleanup requirements. (See Riverside 2004 for a report of soil cleanup completion.)

2.0 Background and Site Description

The Alexander Farms Facility is located in Prosser, Washington. The farm headquarters was operated under the name Yakima Chief Ranch (YCR) headquarters from 1974 until about 1991 by Dan and Harriet Alexander. From 1976 to 1985, the facility used dinoseb to control downy mildew in crops. It was applied as needed, typically two to three times per year.

On April 15, 1998, Ecology received a complaint of discolored water from the Tobin well, located west of the farm headquarters property (Figure 1-1). Ecology reported a dinoseb concentration of 290 µg/L in the well (RI; WSI 2003).

On April 22, 1998, the Benton County Health Department notified Ecology of discolored water from another well, at the Etzel residence, located about 1.3 miles south of the Alexander Farms site. Dinoseb contamination also was found in this well. On May 7, 1998, Dan Alexander was issued an emergency order by Ecology to investigate and clean up dinoseb-contaminated soil and groundwater originating from his property.

2.1 Contaminant of Concern

Dinoseb is an organic solid that forms yellowish-orange crystals with a pungent odor. Acute exposure health effects include sweating, headache, and mood changes. Chronic health effects include decreased body and thyroid weight, degeneration of testes, and thickening of the intestinal lining. There is inadequate evidence to evaluate whether dinoseb has the potential to cause cancer due to lifetime exposure in drinking water.

2.2 Cleanup Standard and Points of Compliance

Ecology established cleanup standards for the Alexander Farms site based on the EPA's maximum contaminant level of 7 µg/L. At this level, there are no known or anticipated adverse effects on human health or the environment, taking into account a margin of safety.

The point of compliance for groundwater at the site is defined in WAC 173-340-720(8)(a): "The standard point of compliance shall be established throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which would be potentially affected by the site." Thus, the point of compliance is the point or points where the groundwater cleanup level must be obtained for the site to be in compliance with the cleanup standard (WSI 2003).

2.3 Surface Water Hydrology

Mean annual precipitation in the Prosser area is approximately 7.9 in., and the pan evaporation rate is approximately 38 in./year. The evapotranspiration potential exceeds the mean annual precipitation. Geotechnical data collected at the Alexander Farms site, as part of the remedial investigation, show that the soil profile beneath the ground surface consists of about 2 ft of light brown silt underlain by a thin layer of volcanic ash. According to the results of the geotechnical investigation, the thin layer of volcanic ash has the characteristics of an aquitard. The potential water-holding capacity of the upper 2 ft of silt material is 5 in./ft of soil thickness and exceeds the mean annual precipitation.

The ground surface at the site is relatively level, and the infiltration potential of the surface soil exceeds the direct storm water runoff rate at the site. Thus, a very low potential exists for the generation of storm water runoff. Because of the high water-holding capacity of the upper soil, and the presence of the aquitard, rainfall that infiltrates the soil is retained within the upper 2 ft of the soil column. Water stored in the upper 2 ft of the soil profile becomes available to evapotranspiration as a result of capillary action. Because of soil profile characteristics, low rainfall, and high evapotranspiration potential, discharge of surface water runoff from the site is unlikely.

2.4 Geology and Hydrogeology

White Shield, Inc. defined the following four stratigraphic units underlying the Alexander Farms site:

- Unit 1 – shallow aquifer
- Unit 2 – clay rich volcaniclastic caliche layer
- Unit 3 – intermediate aquifer
- Unit 4 – deep aquifer.

Unit 1 extends from the existing ground surface to a depth of from 10 to 17 ft feet below the ground surface (bgs) and consists of sand, silt, and fine gravel. Unit 1 corresponds

stratigraphically to the Pleistocene-aged Touchet Beds. The lower portion of Unit 1 is generally saturated during the irrigation season and unsaturated during the non-irrigation season.

Unit 1 has been significantly disturbed at the site by various excavations, including excavation for a 10,000-gallon underground storage tank, a 12,000-gallon storage tank, various pipelines, and the pesticide rinse pad dry-well.

Unit 2 is a tan-colored clay-rich sandy gravel that varies in thickness from 0.3 to 2.0 ft. Its lithology is volcanic and was deposited as a distal portion of a lahar belonging to the Miocene-aged Ellensburg Formation. White Shield has proposed that Unit 2 acts as an aquitard, restricting or at least slowing the vertical flow of water from Unit 1 to Unit 3.

Unit 3 lies directly beneath Unit 2, extending from a depth of 19 to 27 ft bgs. Unit 3 is the top of the Elephant Mountain Member's flow. The pore space in the upper part of the flow was observed to be filled with the fine-grained Unit 2 material from above. The lower portions of the flow exhibit enough fracture porosity to make the unit a usable aquifer. Unit 3 is saturated throughout the year and is used as a domestic source of drinking water in the lower Yakima Valley. Water levels indicate Unit 3 is intimately connected to Units 1-4.

Unit 4 consists of fractured basalt representing the base of the Elephant Mountain Member's flow. Unit 4 also is saturated throughout the year and is used as a domestic source of drinking water.

Groundwater levels in all stratigraphic units fluctuate between 5 and 15 ft bgs. Water levels in all the stratigraphic units fluctuate in unison with nearly identical water levels, implying the intimate connection between them.

3.0 Methods

Groundwater remediation at the Alexander Farms site was conducted by Monitored Natural Attenuation, Alternative 3 of Ecology's *Cleanup Action Plan.* This method was selected because, based on analyses of historical groundwater data, Ecology believed the natural attenuation processes occurring within the aquifer beneath the site would reduce groundwater contamination levels below 7 µg/L , the EPA standard, within 20 years.

The Consent Decree mandated that groundwater at the Alexander Farms site be monitored until it met the standard of 7 µg/L for eight consecutive quarters (two years). Columbia Environmental Science, Inc. performed groundwater sampling and analysis of the Alexander Farms site in accordance the *Sampling and Analysis Plan* submitted by Riverside to Ecology.

3.1 Monitoring and Sampling Frequency

Columbia Environmental Sciences, Inc. performed quarterly groundwater sampling and monitoring from April 2005 until January 2008. Sampling began after dinoseb-contaminated soil was cleaned up and continued until contamination levels were below cleanup levels. Sampling was conducted for a eight consecutive quarters (two years), as required by the Consent Decree.

3.2 Sampling and Handling Procedures

After initial measurements were recorded, monitoring wells were purged using a submersible pump. During purging, pH, temperature, and oxygen content were monitored and recorded to verify that indicator parameters were stabilized. Successive 5-gallon incremental measurements varied less than 10%. A minimum of three casing volumes of groundwater was removed from sufficiently producing wells. Purge water was placed in a polyethylene holding tank and stored onsite while awaiting analytical results. Sample jars were completely filled, immediately sealed with Teflon-lined screw caps, and placed in a field cooler on ice pending delivery to the analytical laboratory. Sample containers were clearly labeled using a unique sample number. Chain-of-custody procedures were followed for all sampling events.

3.3 Waste Designation and Management

Dinoseb is listed in WAC 173-303-9905 as a dangerous waste. All wastes derived from the cleanup action with concentrations in excess of the Model Toxics Control Act (MTCA) Method B cleanup levels were subject to onsite treatment and/or offsite disposal. Clean water with a dinoseb concentration below the cleanup level was disposed of onsite.

Liquids generated during sampling activities were limited to (1) sampling water from wells and (2) water from decontamination procedures. Water from these procedures was placed in a polyethylene tank while awaiting analysis and disposal approval.

Wastewater was characterized for disposal in accordance with protocols defined in the *Sampling* and *Analysis Plan* Riverside submitted to Ecology. Extracted groundwater with a dinoseb concentration less than the MTCA Method B cleanup level for surface water (7 ppb) can be disposed of to the surface. Based on disposal criteria, Riverside used the following disposal options:

Option 1 – On-Site Disposal
Wastewater with dinoseb concentrations below 7 ppb were disposed of onsite.

Option 2 – Disposal
Any wastewater collected during groundwater monitoring, purging, and sampling was placed in a polyethylene tank while awaiting analysis and disposal approval.

4.0 Analytical Testing and Quality Assurance/Quality Control

Onsite Environmental, Redmond, Washington, performed all laboratory analyses of water samples. Quality Assurance and Quality Control (QA/QC) samples were collected during groundwater cleanup to provide for data validation. Two types of QA/QC samples were collected and shipped to the laboratory with the other samples: (1) blind replicate - 1 sample per 20 water samples, and (2) decontamination rinsate - at least 1 rinsate sample after collecting a maximum of 20 water samples.

5.0 Results

Fourteen wells were sampled and monitored at the Alexander Farms site (Figure 7-1). Analytical results for each well are presented in Appendix A. The following nine wells present potential areas of concern, as noted.

- YCR-1 - Analytical results indicate high concentrations of dinoseb, up to 3,900 ppb in August 2000, although the level of dinoseb concentration has decreased significantly since the Sunnyside Valley Irrigation District (SVID) canal was lined in April 2001 (from a high of 1,800 ppb in May 2000 to 2.3 ppb in May 2001). This well is located in a critical location within the dinoseb plume's southwesterly flow path.

- YCR-3 - Analytical results indicate an increase in the concentration of dinoseb since the SVID canal was lined, from no detection to 146 ppb in November 2001. This well is located in a critical location within the dinoseb plume's southwesterly flow path.

- YCR-5 - Analytical results have indicated a range of dinoseb concentrations, from no detection to 520 ppb. No dinoseb has been detected since the SVID canal was lined.

- YCR-8 - Analytical results have indicated a range of dinoseb concentrations, from no detection to 550 ppb from June 1998 to 2004. Results also indicate a potential decrease in dinoseb concentrations since the SVID canal was lined. This well is located in a critical location and was used for groundwater monitoring purposes.

- YCR-10 - Analytical results indicate a steady decrease in the concentrations of dinoseb (from a previous high of 140 ppb in May 2000) to no detection since the SVID canal was lined. This well is located in a critical location within the dinoseb plume's southwesterly flow path.

- YCR-13 - Analytical results have indicated a range of dinoseb concentrations, from no detection to 1200 ppb. Since the SVID canal was lined, analytical results have indicated from no detection to a low (0.34 ppb) concentration of dinoseb. This well is located in a critical location within the dinoseb plume's southwesterly flow path.

- YCR-21 - Analytical results indicate a potential increase in dinoseb concentration, from no detection to 340 ppb in June 2001. Since June 2001, a high concentration (up to 140 ppb) of dinoseb has been detected in this well. This well is located in a critical location within the dinoseb plume's southwesterly flow path.

- YCR-24 - Analytical results indicate an increase in the concentration of dinoseb since the SVID canal was lined, from no detection to 240 ppb in August 2001. This well is located in a critical location within the dinoseb plume's southwesterly flow path.

- YCR-25 - This well was used to monitor the leading edge of the plume.

- YCR-26 - This well was also used to monitor the leading edge of the plume.

6.0 Conclusions

The Consent Decree mandated that groundwater at the Alexander Farms site be monitored until it met the standard of 7 µg/L for eight consecutive quarters (two years). Groundwater sampling and monitoring occurred quarterly from April 2005 until January 2008. Groundwater cleanup was constructed in compliance with the plans and specifications set forth in the *Construction Plans and Specifications Report* (Riverside 2005).

Based on the results of eight consecutive quarters of testing, we conclude that groundwater associated with the Alexander Farms Facility currently meets the EPA standard of 7 µg/L for dinoseb.

7.0 References

Riverside Consulting, Inc. (Riverside), 2005, *Engineering Design Report, Alexander Farms Site*, Kennewick, Washington.

Riverside Consulting, Inc. (Riverside), 2005, *Construction Plans and Specifications Report, Alexander Farms Site*, Kennewick, Washington.

Riverside Consulting, Inc. (Riverside), 2004, *Soil Cleanup Completion Report, Alexander Farm Site*, Kennewick, Washington.

State of Washington Thurston County Superior Court, 2004, State of Washington Department of Ecology v. Dan Alexander and Harriet Alexander, husband and wife, formerly dba Yakima Chief Ranches, Consent Decree, No. 04-2-02240-9, October 29, 2004.

Superfund Technical Assessment and Response Team (START), *Final Removal Action Report, Alexander Farms Site*, Grandview, Washington.

White Shield, Inc. (WSI), 2003, *Remedial Investigation Report, Alexander Farms Site*, Kennewick, Washington.

Appendix A –Figures

Site Location Map

Alexander Farms Site
Benton County, Washington

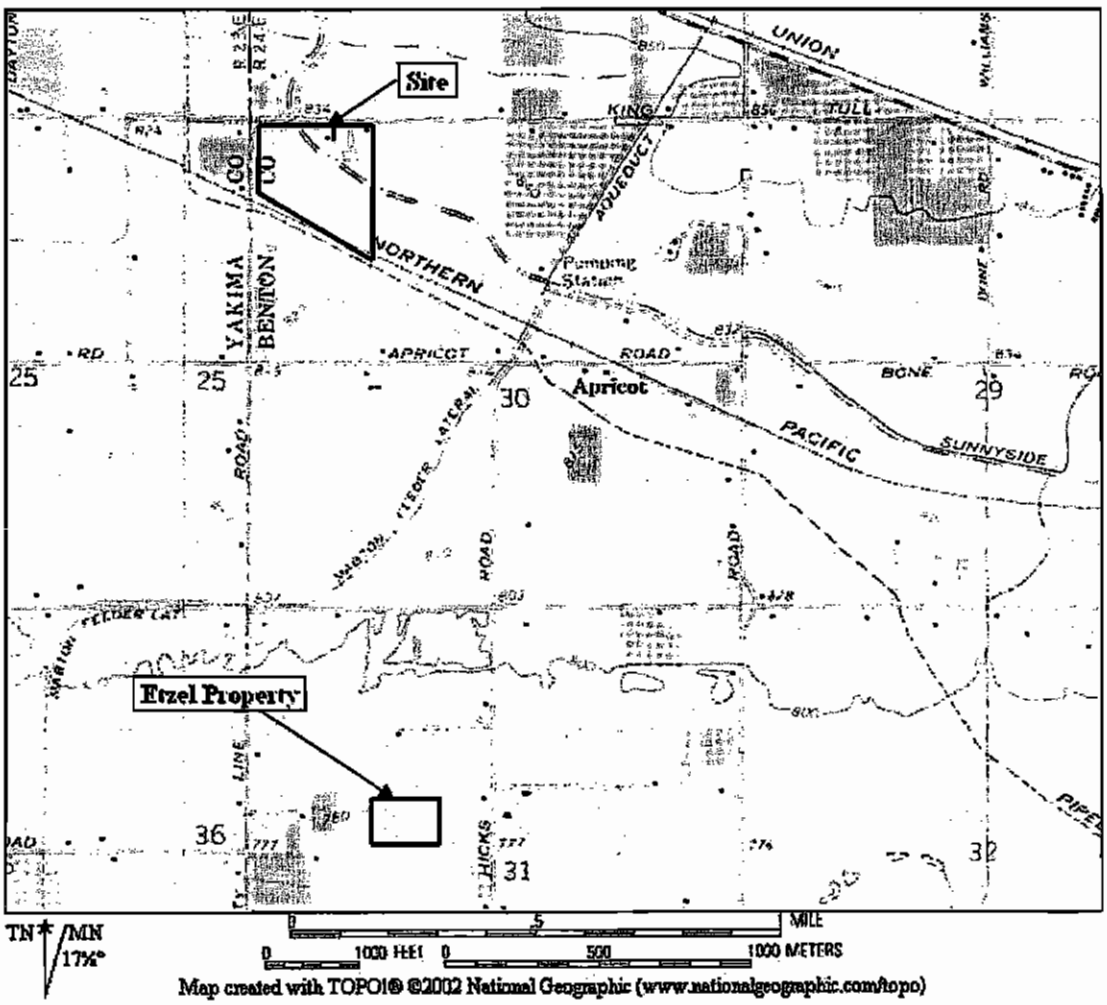
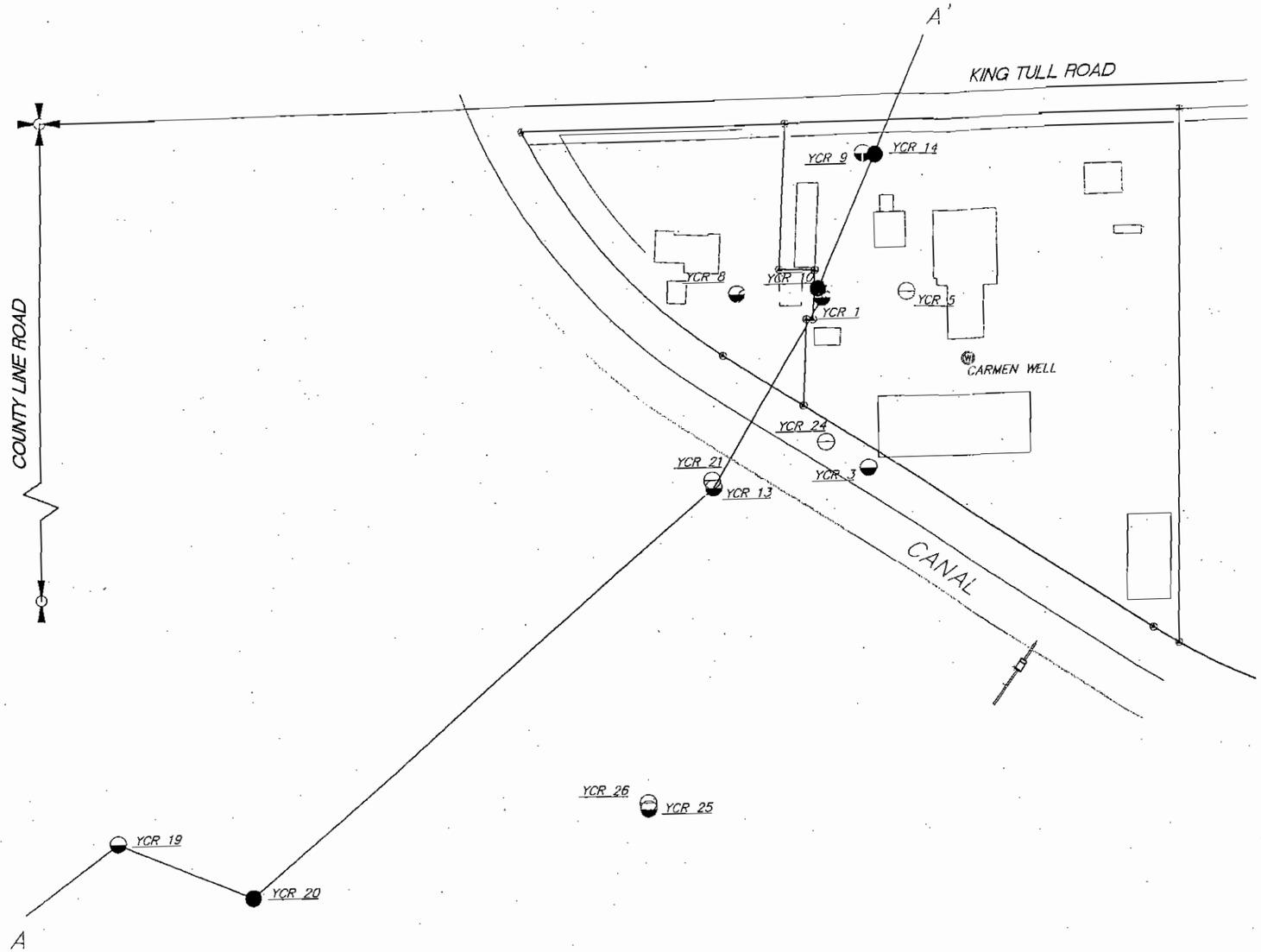


Figure 1



LEGEND

YCR 7 — Shallow monitoring well

YCR 1 — Intermediate monitoring well

YCR 10 — Deep monitoring well

Domestic well

GRAPHIC SCALE

77 0 38 77 155

(IN FEET)

1 inch = 155 ft.

SHEET TITLE:
MONITORING WELL AND CROSS-SECTION LOCATION PLAN

CLIENT:

ALEXANDER FARMS
GRANDVIEW, WA

SCALE H: 1" = 155' JOB # YCR-0398 DRAWING NAME: 3-7

V: N/A AS-BUILT 7 1999 DRAWN BY: RLF

WHITE SHIELD, INC.
CIVIL ENGINEERING
SURVEYING
ENVIRONMENTAL SERVICES
P.O. BOX 477
GRANDVIEW, WA
98930
PHONE (509) 882-1144
FAX (509) 882-4566

FIGURE

7 – 1

Appendix B – Groundwater Monitoring Well Analysis Results

Shallow (screened interval 5 ft to 15 ft bgs) Monitoring Wells
Groundwater Analysis Results
Alexander Farms Site
Benton County, Washington

Well Designation (Casing Elevation)	Sample Number	Sampling Date	Depth to Water (ft)	MSL Groundwater Elevations (ft)	Dinoseb Conc. in µg/L (ppb)	Site Events	EPA drinking water standard in µg/L (ppb)
YCR-5	-	5-Apr-05	14.5	821.56	-	minimal H2O	7.0
MSL=836.06	-	6-Jul-05	-	-	-	dry well	7.0
	-	28-Oct-05	14.4	821.66	-	minimal H2O	7.0
	-	4-Jan-06	14.5	821.56	-	minimal H2O	7.0
	-	5-Apr-06	14.5	821.56	-	minimal H2O	7.0
	-	6-Jul-06	14	821.06	-	minimal H2O	7.0
	YCR5-1006	5-Oct-06	14.5	821.56	0.043		7.0
	-	4-Jan-07	14.7	821.76	-	minimal H2O	7.0
YCR-21	YCR21-0405	5-Apr-05	10.9	819.53	ND		7.0
MSL=830.43	YCR21-0705	6-Jul-05	10.0	820.43	ND		7.0
	YCR21-0905	28-Oct-05	10.2	820.23	ND		7.0
	-	4-Jan-06	10.7	819.73	-	minimal H2O	7.0
	YCR21-0406	5-Apr-06	10.7	819.73	ND		7.0
	YCR21-0706	6-Jul-06	10.01	820.33	ND		7.0
	YCR21-1006	5-Oct-06	10.2	820.23	ND		7.0
	YCR21-0107	4-Jan-07	10.7	819.73	ND		7.0
YCR-24	YCR24-0405	6-Apr-05	12.2	821.65	3.3		7.0
MSL=832.35	YCR24-0705	6-Jul-05	10.5	821.85	1.1		7.0
	YCR24-0905	28-Oct-05	11.5	820.85	0.95		7.0
	YCR24-0106	4-Jan-06	12	820.35	0.67		7.0
	YCR24-0406	5-Apr-06	12.1	820.25	0.54		7.0
	YCR24-0706	6-Jul-06	10.3	822.05	0.18		7.0
	YCR24-1006	5-Oct-06	11.4	820.95	0.058		7.0
	YCR24-0107	4-Jan-07	12.0	820.35	0.13		7.0
YCR-26	YCR26-0405	5-Apr-05	10.7	816.06	ND		7.0
MSL=826.76	YCR26-0705	6-Jul-05	7.9	818.86	ND		7.0
	YCR26-0905	28-Oct-05	8.3	818.46	ND		7.0
	YCR26-0106	4-Jan-06	9.5	817.26	ND		7.0
	YCR26-0406	5-Apr-06	9.6	817.16	ND		7.0
	YCR26-0706	6-Jul-06	9.2	817.56	ND		7.0
	YCR26-1006	5-Oct-06	9.4	817.36	ND		7.0
	YCR26-0107	4-Jan-07	8.5	818.26	ND		7.0

Notes:

1. ND = Not Detected above laboratory practical quantitation limit (PQL).
2. NA = Not Analyzed because of laboratory error.
3. **Bold** indicates concentrations above the EPA drinking water standard for Dinoseb (7 µg/L).
4. * = Estimated concentration below laboratory PQL.
5. - = Not sampled.

Intermediate (screened interval 13 ft to 35 ft bgs) Monitoring Wells
Groundwater Analysis Results
Alexander Farms Site
Benton County, Washington

Well Designation (Casing Elevation)	Sample Number	Sampling Date	Depth to Water (ft)	MSL Groundwater Elevations (ft)	Dinoseb Conc. in µg/L (ppb)	Site Events	EPA drinking water standard in µg/L (ppb)
YCR-1	YCR1-0405	6-Apr-05	15.55	820.62	0.028		7.0
MSL=836.17	YCR1-0705	6-Jul-05	14.2	821.97	ND		7.0
	YCR1-0905	28-Oct-05	14.7	821.47	ND		7.0
	YCR1-0106	4-Jan-06	15.5	820.67	ND		7.0
	YCR1-0406	5-Apr-06	15.35	820.82	ND		7.0
	YCR1-0706	6-Jul-06	14.6	821.57	0.061		7.0
	YCR1-1016	5-Oct-06	14.6	821.57	ND		7.0
	YCR1-0107	4-Jan-07	15.2	820.97	ND		7.0
YCR-3	YCR3-0405	5-Apr-05	15	820.05	ND		7.0
MSL=835.05	YCR3-0705	6-Jul-05	13.9	821.15	ND		7.0
	YCR3-0905	28-Oct-05	14.2	820.85	ND		7.0
	YCR3-0106	4-Jan-06	14.8	820.25	ND		7.0
	YCR3-0406	5-Apr-06	15.7	819.35	ND		7.0
	YCR3-0706	6-Jul-06	14.1	820.95	0.061		7.0
	YCR3-1006	5-Oct-06	14.5	820.55	ND		7.0
	YCR3-0107	4-Jan-07	14.7	820.35	0.031		7.0
YCR-8	YCR8-0405	6-Apr-05	14.8	820.32	ND		7.0
MSL=835.12	YCR8-0705	6-Jul-05	13.7	821.42	ND		7.0
	YCR8-0905	28-Oct-05	13.9	821.22	ND		7.0
	YCR8-0106	4-Jan-06	14.5	820.62	ND		7.0
	YCR8-0406	5-Apr-06	14.7	820.42	ND		7.0
	YCR8-0706	6-Jul-06	13.8	821.32	ND		7.0
	YCR8-1006	5-Oct-06	14.9	820.22	ND		7.0
	YCR8-0107	4-Jan-07	14.5	820.62	ND		7.0
YCR-13	YCR13-0405	5-Apr-05	10.3	819.55	ND		7.0
MSL=829 85	YCR13-0705	6-Jul-05	9.5	820.35	ND		7.0
	YCR13-0905	28-Oct-05	9.1	820.75	ND		7.0
	YCR13-0106	4-Jan-06	10.1	819.75	ND		7.0
	YCR13-0406	5-Apr-06	10.11	819.74	ND		7.0
	YCR13-0706	6-Jul-06	9.5	820.35	ND		7.0
	YCR13-1006	5-Oct-06	9.6	820.25	ND		7.0
	YCR13-0107	4-Jan-07	10.1	819.75	ND		7.0
YCR-25	YCR25-0405	5-Apr-05	9.5	817.32	ND		7.0
MSL=826.82	YCR25-0705	6-Jul-05	9.8	817.02	ND		7.0
	YCR25-0905	28-Oct-05	9.1	817.72	ND		7.0
	YCR25-0106	5-Jan-06	9.3	817.52	ND		7.0
	YCR25-0406	5-Apr-06	9.3	817.52	ND		7.0
	YCR25-0706	6-Jul-06	9	817.82	ND		7.0
	YCR25-1006	5-Oct-06	9.1	817.82	ND		7.0
	YCR25-0107	4-Jan-07	9.3	817.52	ND		7.0

Notes:

1. ND = Not Detected above laboratory practical quantitation limit (PQL).
2. NA = Not Analyzed because of laboratory error.
3. Bold Indicates concentrations above the EPA drinking water standard for Dinoseb (7 µg/L).
4. * = Estimated concentration below laboratory PQL.
5. - = Not sampled.

Deep (screened interval 50 ft 7 in. to 75 ft 7 in. bgs) Monitoring Wells
Groundwater Analysis Results
Alexander Farms Site
Benton County, Washington

Well Designation (Casing Elevation)	Sample Number	Sampling Date	Depth to Water (ft)	MSL Groundwater Elevations (ft)	Dinoseb Conc. in µg/L (ppb)	Site Events	EPA drinking water standard in µg/L (ppb)
YCR-10	YCR10-0405	5-Apr-05	14.5	821.81	ND		7.0
MSL=836.31	YCR10-0705	6-Jul-05	13.2	823.11	ND		7.0
	YCR10-0905	28-Oct-05	13.5	822.81	ND		7.0
	YCR10-0106	4-Jan-06	14.2	822.11	ND		7.0
	YCR10-0406	5-Apr-06	14.2	822.11	ND		7.0
	YCR10-0706	5-Jul-06	13.4	822.91	ND		7.0
	YCR10-1006	5-Oct-06	13.4	822.91	ND		7.0
	YCR10-0107	4-Jan-07	14.1	822.21	ND		7.0

Notes:

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2. NA = Not Analyzed because of laboratory error.
3. **Bold** indicates concentrations above the EPA drinking water standard for Dinoseb (7 µg/L).
4. * = Estimated concentration below laboratory PQL.
5. - = Not sampled.

Appendix C – Groundwater Analytical Results and Quality Control Data

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 14, 2005

Ron Hicks
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project 104-001-01
Laboratory Reference No. 0504-077

Dear Ron:

Enclosed are the analytical results and associated quality control data for samples submitted on April 8, 2005.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

Case Narrative

Samples were collected on April 5 and 6, 2005 and received by the laboratory on April 8, 2005. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	4-8-05
Date Analyzed:	4-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-077-01
Client ID:	**YCR3-0405**

Analyte	Result	PQL	Flags
Dinoseb	ND	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	100	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 4-8-05
Date Analyzed: 4-12-05

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 04-077-02
Client ID: **YCR10-0405**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	102	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	4-8-05
Date Analyzed:	4-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-077-03
Client ID:	**YCR13-0405**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	103	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	4-8-05
Date Analyzed:	4-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-077-04
Client ID:	**YCR21-0405**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	110	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	4-8-05
Date Analyzed:	4-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-077-05
Client ID:	**YCR25-0405**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	104	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	4-8-05
Date Analyzed:	4-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-077-06
Client ID:	**YCR26-0405**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	94	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	4-8-05
Date Analyzed:	4-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-077-07
Client ID:	**YCR1-0405**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**0.028**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	96	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	4-8-05
Date Analyzed:	4-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-077-08
Client ID:	**YCR8-0405**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	95	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 4-8-05
Date Analyzed: 4-12-05

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 04-077-09
Client ID: **YCR24-0405**

Analyte	Result	PQL	Flags
Dinoseb	**3.3**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	105	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A
METHOD BLANK QUALITY CONTROL

Date Extracted: 4-8-05
Date Analyzed: 4-12-05

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: MB0408W1

Analyte	Result	PQL	Flags
Dinoseb	ND	0.024	

Surrogate	Percent Recovery	Control Limits
DCAA	97	51-118

Flags:

Date of Report: April 14, 2005
Samples Submitted: April 8, 2005
Laboratory Reference: 0504-077
Project: 104-001-01

DINOSEB by EPA 8151A
SB/SBD QUALITY CONTROL

Date Extracted: 4-8-05
Date Analyzed: 4-12-05

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: SB0408W1

Analyte	Spike Level	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
Dinoseb	0.945	0.878	93	0.868	92	1	

Surrogate	Percent Recovery	Percent Recovery	Control Limits
DCAA	98	98	51-118

Flags:

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain Of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting, Inc
Project Number: 104-001-01
Project Name: Alexander YCR
Project Manager: Ronald J. Hicks
Sampled by: CESI - Deborah L. Phipps, Ryan Legg, Ryan Steagle

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days)
☐ _____ (other)

Laboratory Number: 04-077

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Dioxin				% Moisture
1	YCR3-0405	4/05/05	1310	W	2																X				
2	YCR10-0405	4/05/05	1036	W	2																X				
3	YCR13-0405	4/05/05	1749	W	2																X				
4	YCR21-0405	4/05/05	1846	W	2																X				
5	YCR25-0405	4/05/05	1615	W	2																X				
6	YCR26-0405	4/05/05	1435	W	2																X				
7	YCR1-0405	4/06/05	1250	W	2																X				
8	YCR8-0405	4/06/05	1450	W	2																X				
9	YCR24-0405	4/06/05	1045	W	2																X				

	Signature	Company	Date	Time
Relinquished by	Patricia M. Smith	Columbia Env. Sciences (CESI)	4/07/05	1515
Received by		OnSite Env.	4/8/05	1125
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:
Please Fax Copy to (509)783-7938
Columbia Environmental Sciences, Inc
8382 Gage Blvd, St. A
Kennewick, WA 99336
ATTN: Deborah L. Phipps

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

July 14, 2005

Ronald Hicks
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project 104-001-01
Laboratory Reference No. 0507-051

Dear Ronald:

Enclosed are the analytical results and associated quality control data for samples submitted on July 8, 2005.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

Case Narrative

Samples were collected on July 6, 2005 and received by the laboratory on July 8, 2005. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-01
Client ID:	**YCR10-0705**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	64	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-02
Client ID:	**YCR3-0705**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	73	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-03
Client ID:	**YCR1-0705**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	70	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-04
Client ID:	**YCR24-0705**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**1.1**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	71	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-05
Client ID:	YCR8-0705

Analyte	Result	PQL	Flags
Dinoseb	ND	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	66	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-06
Client ID:	**YCR21-0705**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	73	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 101-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-07
Client ID:	**YCR26-0705**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	70	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-08
Client ID:	**YCR13-0705**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	66	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 04-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-051-09
Client ID:	**YCR25-0705**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	66	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A
METHOD BLANK QUALITY CONTROL

Date Extracted:	7-11-05
Date Analyzed:	7-12-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	MB0711W1

Analyte	Result	PQL	Flags
Dinoseb	ND	0.024	

Surrogate	Percent Recovery	Control Limits
DCAA	70	51-118

Flags:

Date of Report: July 14, 2005
Samples Submitted: July 8, 2005
Laboratory Reference: 0507-051
Project: 104-001-01

DINOSEB
by EPA 8151A
SB/SBD QUALITY CONTROL

Date Extracted: 7-11-05
Date Analyzed: 7-12-05

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: SB0711W1

Analyte	Spike Level	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
Dinoseb	0.945	0.616	65	0.615	65	0	

Surrogate	Percent Recovery	Percent Recovery	Control Limits
DCAA	77	75	51-118

Flags:

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting, Inc
Project Number: 104-001-01
Project Name: Alexander YCR
Project Manager: Ronald J. Hicks
Sampled by: CESI - Ryan Stanclo & Patricia Smith

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days)
☐ _____ (other)

Laboratory Number: 07-051

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Dioxin				% Moisture
1	YCR1D-0705	7/06/05	0955	W	2																X				
2	YCR3-0705	7/06/05	1030	W	2																X				
3	YCR1-0705	7/06/05	1115	W	2																X				
4	YCR24-0705	7/06/05	1220	W	2																X				
5	YCR8-0705	7/06/05	1257	W	2																X				
6	YCR21-0705	7/06/05	1355	W	2																X				
7	YCR26-0705	7/06/05	1420	W	2																X				
8	YCR13-0705	7/06/05	1510	W	2																X				
9	YCR25-0705	7/06/05	1545	W	2																X				

	Signature	Company	Date	Time
Relinquished by	Patricia M. Smith	Columbia Env Sciences (CESI)	7/06/05	1000
Received by	M. Yan	OSE	7/8/05	1110
Relinquished by				
Received by				
Relinquished by				
Received by				

Reviewed by/Date

Reviewed by/Date

Comments/Special Instructions:

Please Fax copy to 509 783-7938
Columbia Environmental Sciences, Inc.
8382 Gage Blvd, St. A
Kennewick, WA 99336
ATTN: Deborah L. Phipps

Chromatograms with final report ☐

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

October 11, 2005

Breann Zimmerman
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project Alexander Farms
Laboratory Reference No. 0509-255

Dear Breann:

Enclosed are the analytical results and associated quality control data for samples submitted on September 30, 2005.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

Case Narrative

Samples were collected on September 28, 2005 and received by the laboratory on September 30, 2005. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-7-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-01
Client ID:	**YCR24-0905**

Analyte	Result	PQL	Flags
Dinoseb	**0.95**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	53	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-5-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-02
Client ID:	**YCR01-0905**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	52	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-7-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-03
Client ID:	**YCR03-0905**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	57	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-5-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-04
Client ID:	**YCR10-0905**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	56	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-5-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-05
Client ID:	**YCR08-0905**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	53	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-5-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-06
Client ID:	**YCR26-0905**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	55	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-7-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-07
Client ID:	**YCR25-0905**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	52	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-5-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-08
Client ID:	**YCR21-0905**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	52	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A

Date Extracted:	10-4-05
Date Analyzed:	10-7-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	09-255-09
Client ID:	**YCR13-0905**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	54	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A
METHOD BLANK QUALITY CONTROL

Date Extracted:	10-4-05
Date Analyzed:	10-5-05
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	MB1004W1

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.024	

Surrogate	Percent Recovery	Control Limits
DCAA	54	51-118

Flags:

Date of Report: October 11, 2005
Samples Submitted: September 30, 2005
Laboratory Reference: 0509-255
Project: Alexander Farms

DINOSEB by EPA 8151A
SB/SBD QUALITY CONTROL

Date Extracted: 10-4-05
Date Analyzed: 10-5-05

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: SB1004W1

Analyte	Spike Level	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
Dinoseb	0.945	0.625	66	0.605	64	3	

Surrogate	Percent Recovery	Percent Recovery	Control Limits
DCAA	68	67	51-118

Flags:

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Laboratory Number: 09-255

Company: Riverside Consulting
Project Number:
Project Name: Alexander Farms
Project Manager: Breann Zimmerman
Sampled by: CESI

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days)
☐ _____ (other)

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Dinoseb				% Moisture
1	YCR24-0905	9/28/05	10:00	W	2																X				
2	YCR01-0905	9/28/05	11:08	W	2																X				
3	YCR03-0905	9/28/05	12:15	W	2																X				
4	YCR 10-0905	9/28/05	13:15	W	2																X				
5	YCR08-0905	9/28/05	14:15	W	2																X				
6	YCR26-0905	9/28/05	16:02	W	2																X				
7	YCR25-0905	9/28/05	16:35	W	2																X				
8	YCR 21-0905	9/28/05	17:30	W	2																X				
9	YCR 13-0905	9/28/05	18:10	W	2																X				

	Signature	Company	Date	Time
Relinquished by	Ryan M. Stuyt	CESI	9/29/05	10:40
Received by		Client Ex.	9/30/05	1130
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

Chromatograms with final report ☐

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

January 16, 2006

Breann Zimmerman
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project 104-001-01
Laboratory Reference No. 0601-028

Dear Breann:

Enclosed are the analytical results and associated quality control data for samples submitted on January 6, 2006.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

Case Narrative

Samples were collected on January 4 and 5, 2006 and received by the laboratory on January 6, 2006. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Dinoseb EPA 8151A Analysis

Due to insufficient sample, a spike blank and spike blank duplicate was extracted. The RPD between the spike blank (SB) and spike blank duplicate (SBD) was 19%, above the control limit of 14%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-01
Client ID:	**0106-YCR3**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	77	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-02
Client ID:	**0106-YCR24**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**0.67**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	86	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-03
Client ID:	**0106-YCR10**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	67	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-04
Client ID:	**0106-YCR1**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	76	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-05
Client ID:	**0106-YCR8**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	75	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-06
Client ID:	**0106-YCR26**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	80	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-07
Client ID:	**0106-YCR13**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	79	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	01-028-08
Client ID:	**0106-YCR25**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	97	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A
METHOD BLANK QUALITY CONTROL

Date Extracted:	1-10-06
Date Analyzed:	1-11-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	MB0110W1

Analyte	Result	PQL	Flags
Dinoseb	ND	0.024	

Surrogate	Percent Recovery	Control Limits
DCAA	85	51-118

Flags:

Date of Report: January 16, 2006
Samples Submitted: January 6, 2006
Laboratory Reference: 0601-028
Project: 104-001-01

DINOSEB
by EPA 8151A
SB/SBD QUALITY CONTROL

Date Extracted: 1-10-06
Date Analyzed: 1-11-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: SB0110W1

Analyte	Spike Level	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
Dinoseb	0.945	0.520	55	0.429	45	19	L

Surrogate	Percent Recovery	Percent Recovery	Control Limits
DCAA	63	61	51-118

Flags:

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain Of Custody

Page 1 of 3

1/6/11

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting, Inc
Project Number: 104-001-01
Project Name: Alexander YCR
Project Manager: Breann Zimmerman
Sampled by: CESI

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☒ Standard (7 working days)
- ☐ _____ (other)

Laboratory Number: 01-028

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Diesel.				% Moisture
1	0106-YCR3	1/4/06	1105	W	2																X				
2	0106-YCR24	1/4/06	1205	W	2																X				
3	0106-YCR10	1/4/06	1235	W	2																X				
4	0106-YCR1	1/4/06	1440	W	2																X				
5	0106-YCR8	1/4/06	1445	W	2																X				
6	0106-YCR26	1/4/06	1625	W	2																X				
7	0106-YCR13	1/4/06	1745	W	2																X				
8	0106-YCR25	1/5/06	0840	W	2																X				

	Signature	Company	Date	Time
Relinquished by	Ryan M. Stiegh	CESI	1/5/06	1230
Received by	M. Van	OSE	1/6/06	1145
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

Please Fax (copy) to (509) 783-7938
Columbia Environmental Sciences, Inc.
8582 Gage Blvd. Ste. A
Kennewick, WA 99336
Attn: Deborah L. Phipps

Chromatograms with final report ☐

Chain of Custody Cooler copies

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting, Inc.
Project Number: 104-001-01
Project Name: Alexander YCR
Project Manager: ~~Ron~~ Breann Zimmerman
Sampled by: CEST

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☑ Standard (7 working days)
☐ _____ (other)

Laboratory Number: 01-028

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Diesel				% Moisture
	0106-YCR1	1/4/06	1440	W	2																X				
	0106-YCR8	1/4/06	1445	W	2																X				
	0106-YCR26	1/4/06	1625	W	2																X				

	Signature	Company	Date	Time
Relinquished by	Ryan M. Stacy	CEST	1/5/06	1230
Received by		OSE	1/6/06	1145
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

Chromatograms with final report ☐

Chain Of Custody

Water copies

Page 3 of 3

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting, Inc
Project Number: 104-001-01
Project Name: Alexander YCR
Project Manager: Breann Zimmerman
Sampled by: CESI

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days)
☐ _____ (other)

Laboratory Number: 01-028

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Diesel				% Moisture
	0106-YCR13	1/4/06	1745	W	2																X				
	0106-YCR25	1/5/06	0840	W	2																X				

	Signature	Company	Date	Time
Relinquished by		CESI	1/5/06	1230
Received by			1/6/06	1145
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

Chromatograms with final report ☐

DISTRIBUTION LEGEND

OnSite
Environmental Inc.
Analytical Testing and Mobile Laboratory Services

April 19, 2006

Breann Zimmerman
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project 104-001-01
Laboratory Reference No. 0604-053

Dear Breann:

Enclosed are the analytical results and associated quality control data for samples submitted on April 7, 2006.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881 • Fax (425) 885-4603

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

Case Narrative

Samples were collected on April 5, 2006 and received by the laboratory on April 7, 2006. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Dinoseb EPA 8151A Analysis

The percent difference values for the following analytes were greater than the quality control limit of -15% (high bias) on both columns in the following:

HERBCCV-00416-1: DCAA (surr)
HERBCCV-00416-2: DCAA (surr)
HERBCCV-00416-3: DCAA (surr)

Since an increased response on the instrument was observed, no further action is necessary.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-01
Client ID:	**YCR24-0406**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**0.54**	0.024	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	117	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-02
Client ID:	**YCR3-0406**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	93	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-03
Client ID:	**YCR10-0406**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	94	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-04
Client ID:	**YCR8-0406**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.025	

Surrogate	Percent Recovery	Control Limits
DCAA	94	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-05
Client ID:	**YCR1-0406**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.026	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	96	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-06
Client ID:	**YCR21-0406**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.025	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	88	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-07
Client ID:	**YCR26-0406**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	100	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-08
Client ID:	**YCR13-0406**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.025	

Surrogate	Percent Recovery	Control Limits
DCAA	103	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	04-053-09
Client ID:	**YCR25-0406**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	94	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A
METHOD BLANK QUALITY CONTROL

Date Extracted:	4-10-06
Date Analyzed:	4-18-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	MB0410W1

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.024	

Surrogate	Percent Recovery	Control Limits
DCAA	86	51-118

Flags:

Date of Report: April 19, 2006
Samples Submitted: April 7, 2006
Laboratory Reference: 0604-053
Project: 104-001-01

DINOSEB
by EPA 8151A
SB/SBD QUALITY CONTROL

Date Extracted: 4-10-06
Date Analyzed: 4-18-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: SB0410W1

Analyte	Spike Level	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
Dinoseb	0.945	0.731	77	0.791	84	8	

Surrogate	Percent Recovery	Percent Recovery	Control Limits
DCAA	95	93	51-118

Flags:

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days)
☐ _____ (other)

Laboratory Number: 04-053

Company: Riverside Consulting, Inc
Project Number: 104-001-01
Project Name: Alexander Farms
Project Manager: Breann Zimmerman
Sampled by: CESI

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VOH	EPH	Dioxins				% Moisture
1	YCR24-0406	4/5/06	0900	W	2																X				
2	YCR3-0406	4/5/06	1105	W	2																X				
3	YCR10-0406	4/5/06	1203	W	2																X				
4	YCR8-0406	4/5/06	1240	W	2										1.95						X				
5	YCR1-0406	4/5/06	1325	W	2																X				
6	YCR21-0406	4/5/06	1420	W	2																X				
7	YCR26-0406	4/5/06	1445	W	2																X				
8	YCR13-0406	4/5/06	1537	W	2																X				
9	YCR25-0406	4/5/06	1620	W	2							1100									X				

	Signature	Company	Date	Time
Relinquished by	by M. Stagl	CESI	4/6/06	1100
Received by	M. Vann	OSE	4/7/06	1400
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

Please Fax copy to (509) 783-7139
Columbia Environmental Sciences, Inc
8382 Gage Blvd Ste A
Kennewick, WA 99336
Attn: Deborah Phipps.

Chromatograms with final report ☐

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

July 17, 2006

Breann Zimmerman
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project 104-001-01
Laboratory Reference No. 0607-046

Dear Breann:

Enclosed are the analytical results and associated quality control data for samples submitted on July 10, 2006.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

Case Narrative

Samples were collected on July 5, 2006 and received by the laboratory on July 10, 2006. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-01
Client ID:	**0706-YCR 1**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**0.061**	0.022	**P**

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	80	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-02
Client ID:	**0706-YCR 24**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**0.18**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	84	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-03
Client ID:	**0706-YCR 3**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**0.061**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	79	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-04
Client ID:	0706-YCR 8

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	77	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-05
Client ID:	**0706-YCR 10**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.023	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	83	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-06
Client ID:	**0706-YCR 21**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.023	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	83	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-07
Client ID:	**0706-YCR 26**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.023	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	89	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-08
Client ID:	**0706-YCR 13**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	76	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	07-046-09
Client ID:	**0706-YCR 25**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.022	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	89	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A
METHOD BLANK QUALITY CONTROL

Date Extracted:	7-10-06
Date Analyzed:	7-13-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	MB0710W1

Analyte	Result	PQL	Flags
Dinoseb	ND	0.024	

Surrogate	Percent Recovery	Control Limits
DCAA	66	51-118

Flags:

Date of Report: July 17, 2006
Samples Submitted: July 10, 2006
Laboratory Reference: 0607-046
Project: 104-001-01

DINOSEB
by EPA 8151A
SB/SBD QUALITY CONTROL

Date Extracted: 7-10-06
Date Analyzed: 7-13-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: SB0710W1

Analyte	Spike Level	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
Dinoseb	0.9450	0.635	67	0.561	59	12	

Surrogate	Percent Recovery	Percent Recovery	Control Limits
DCAA	69	68	51-118

Flags:

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting
Project Number: 104-001-01
Project Name: Alexander Farms
Project Manager: Breann Zimmerman
Sampled by: CESI

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☒ Standard (7 working days) (TPH analysis 5 working days)
- ☐ _____ (other)

Laboratory Number: 07-046

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Dinoseb				% Moisture
1	0706-YCR 1	7/5/06	0955	W	2																X				
2	0706-YCR 24	7/5/06	1000	W	2																X				
3	0706-YCR 3	7/5/06	1145	W	2																X				
4	0706-YCR 8	7/5/06	1400	W	2																X				
5	0706-YCR 10	7/5/06	1458	W	2																X				
6	0706-YCR 21	7/5/06	1530	W	2																X				
7	0706-YCR 26	7/5/06	1630	W	2																X				
8	0706-YCR 13	7/5/06	1757	W	2																X				
9	0706-YCR 25	7/5/06	1815	W	2																X				

	Signature	Company	Date	Time
Relinquished by		CESI	7/6/06	1000
Received by		CESI	7/7/06	1030
Relinquished by				
Received by		CESI	7/10/06	1130
Relinquished by				
Received by				

Reviewed by/Date

Reviewed by/Date

Comments/Special Instructions:

Please Fax Copy to (509) ~~783-5537~~ 783-7938
Columbia Environmental Sciences, Inc
6503 W. Okanogan Ave. Ste C
Kennewick, WA 99336
Attn: Deborah Phipps

Chromatograms with final report ☐

OnSite
Environmental Inc.
Analytical Testing and Mobile Laboratory Services

October 13, 2006

Ron Hicks
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project 104-001-01
Laboratory Reference No. 0610-021

Dear Ron:

Enclosed are the analytical results and associated quality control data for samples submitted on October 3, 2006.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

Case Narrative

Samples were collected on October 2, 2006 and received by the laboratory on October 3, 2006. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	10-5-06
Date Analyzed:	10-8-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	10-021-01
Client ID:	**YCR21-1006**

Analyte	**Result**	**PQL**	**Flags**
Dinoseb	**ND**	0.023	

Surrogate	**Percent Recovery**	**Control Limits**
DCAA	86	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-8-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-02
Client ID: **YCR26-1006**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	76	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-8-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-03
Client ID: **YCR13-1006**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	77	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted:	10-5-06
Date Analyzed:	10-8-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	10-021-04
Client ID:	**YCR25-1006**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	73	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-12-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-05
Client ID: **YCR5-1006**

Analyte	Result	PQL	Flags
Dinoseb	**0.043**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	110	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-8-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-06
Client ID: **YCR1-1006**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	79	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-8-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-07
Client ID: **YCR24-1006**

Analyte	Result	PQL	Flags
Dinoseb	**0.058**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	79	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-8-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-08
Client ID: **YCR3-1006**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	76	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-8-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-09
Client ID: **YCR10-1006**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.023	

Surrogate	Percent Recovery	Control Limits
DCAA	81	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A

Date Extracted: 10-5-06
Date Analyzed: 10-8-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: 10-021-10
Client ID: **YCR8-1006**

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.022	

Surrogate	Percent Recovery	Control Limits
DCAA	74	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A
METHOD BLANK QUALITY CONTROL

Date Extracted:	10-5-06
Date Analyzed:	10-7-06
Matrix:	Water
Units:	ug/L (ppb) free acid equivalent
Lab ID:	MB1005W1

Analyte	Result	PQL	Flags
Dinoseb	**ND**	0.024	

Surrogate	Percent Recovery	Control Limits
DCAA	80	51-118

Flags:

Date of Report: October 13, 2006
Samples Submitted: October 3, 2006
Laboratory Reference: 0610-021
Project: 104-001-01

DINOSEB by EPA 8151A
SB/SBD QUALITY CONTROL

Date Extracted: 10-5-06
Date Analyzed: 10-7-06

Matrix: Water
Units: ug/L (ppb) free acid equivalent

Lab ID: SB1005W1

Analyte	Spike Level	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
Dinoseb	1.00	0.720	72	0.698	70	3	

Surrogate	Percent Recovery	Percent Recovery	Control Limits
DCAA	91	88	51-118

Flags:

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons indicative of diesel fuel are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

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W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid/silica gel cleanup procedure.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting
Project Number: 104-001-01
Project Name: Alexander Farms
Project Manager: Ron Hicks
Sampled by: Columbia Environmental Sciences, Inc.

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days)
☐ _____ (other)

Laboratory Number: 10-021

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Dinoseb				% Moisture
1	YCR21-1006	10/2/06	0925	W	2																X				
2	YCR26-1006	10/2/06	0940	W	2																X				
3	YCR13-1006	10/2/06	1115	W	2																X				
4	YCR25-1006	10/2/06	1210	W	2																X				
5	YCR 5-1006	10/2/06	1300	W	2																X				
6	YCR 1-1006	10/2/06	1455	W	2																X				
7	YCR24-1006	10/2/06	1500	W	2																X				
8	YCR3-1006	10/2/06	1650	W	2																X				
9	YCR10-1006	10/2/06	1825	W	2																X				
10	YCR8-1006	10/2/06	1920	W	2																X				

	Signature	Company	Date	Time
Relinquished by	Ryan M. Stuyt	CESI	10/3/06	0925
Received by	CM. Vlaw	OSE	10/4/06	1115
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions:

Please send a copy of Analytical Results to:

Deborah Phipps
CESI
6503 W. Okanogan Ave, Ste. C
Kennewick, WA 99336
(Fax) (509) 783-7938.

Chromatograms with final report ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 17, 2007

Ron Hicks
Riverside Consulting, Inc.
6722 W. Kennewick Avenue, Suite C
Kennewick, WA 99336

Re: Analytical Data for Project Alexander Farms - YCR
Laboratory Reference No. 0701-050

Dear Ron:

Enclosed are the analytical results and associated quality control data for samples submitted on January 6, 2007.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: January 17, 2007
Samples Submitted: January 6, 2007
Laboratory Reference: 0701-050
Project: Alexander Farms - YCR

DINOSEB by EPA 8151A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**0107YCR8**					
Laboratory ID:	01-050-07					
Dinoseb	ND	0.022	EPA 8151A	01-09-07	01-16-07	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*54*	*51-118*				
Client ID:	**0107YCR10**					
Laboratory ID:	01-050-08					
Dinoseb	ND	0.022	EPA 8151A	01-09-07	01-16-07	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*58*	*51-118*				
Client ID:	**0107YCR24**					
Laboratory ID:	01-050-09					
Dinoseb	0.13	0.023	EPA 8151A	01-09-07	01-16-07	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*68*	*51-118*				

Date of Report: January 17, 2007
Samples Submitted: January 6, 2007
Laboratory Reference: 0701-050
Project: Alexander Farms - YCR

DINOSEB by EPA 8151A
QUALITY CONTROL

Matrix: Water
Units ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0109W1					
Dinoseb	**ND**	0.024	EPA 8151	01-09-07	01-16-07	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCAA	*51*	*51-118*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0109W1										
	SB	SBD	SB	SBD		SB	SBD				
Dinoseb	**0.361**	**0.379**	0.500	0.500	N/A	**72**	**76**	44-106	5	14	
Surrogate:											
DCAA						*66*	*73*	*51-118*			

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • Fax: (425) 885-4603

Company: Riverside Consulting, Inc.
Project Number:
Project Name: Alexander Farms - YCR
Project Manager: Ron Hicks
Sampled by: CBE - R. Stengle & R. Yates

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Day ☐ 3 Day
☒ Standard (7 working days)
☐ _____ (other)

Laboratory Number: 01-050

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	VPH	EPH	Dioxin				% Moisture
1	0107 YCR 3	1/4/07	1335	W	2																X				
2	0107 YCR 25	1/4/07	1105	W	2																X				
3	0107 YCR 1	1/4/07	1333	W	2																X				
4	0107 YCR 21	1/4/07	0815	W	2																X				
5	0107 YCR 26	1/4/07	0903	W	2																X				
6	0107 YCR 13	1/4/07	1030	W	2																X				
7	0107 YCR 8	1/4/07	1655	W	2																X				
8	0107 YCR 10	1/4/07	1720	W	2																X				
9	0107 YCR 24	1/4/07	1435	W	2																X				

	Signature	Company	Date	Time
Relinquished by		Columbia Env. Scienc	1/5/07	1100
Received by		OnSite Env.	1/6/07	900
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date		Reviewed by/Date		

Comments/Special Instructions.

Please e-mail copy of results to:
cesidlp@pocketinet.com

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy