

Results of Phase II Passive Soil Gas Sampling  
Performed October – November, 2011  
Cotter Milling Facility, Canon City, Colorado

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**Introduction**

Phase II passive soil gas sampling was conducted in October and November 2011, at the Cotter Milling Facility in Canon City, Colorado. The Phase II sampling was performed as a follow up to the Phase I passive soil gas sampling performed in August 2011. The Phase I investigation indicated that passive soil gas sampling was a viable method to identify TCE in soil gas. The Phase II sampling broadened the scope of the Phase I investigation, with a goal to identify TCE source areas, particularly in the vicinity of the former grind/leach building and the former catalyst plant.

The passive soil gas investigation was performed as described in the Technical Memorandum dated July 27, 2011, and as described in the Phase I passive soil gas report dated September 30, 2011.

**Work Performed**

One-hundred-one samples were collected as part of the Phase II soil gas investigation. Ninety-two samples were collected from new Phase II sample locations. Four field duplicates were collected with the 92 Phase II samples. Four additional Phase II samples were collected from previous Phase I sample locations to evaluate comparability of TCE results between sampling events. One trip blank was collected. One installed soil gas sampler (location SG-80) was lost in the field due to construction activities, and this sample was not retrieved. All Phase II sample locations are shown in Figure 1.

As performed for the Phase I investigation, state plane coordinates for the Phase II soil gas sample locations were up-loaded to a GPS device. These locations were staked in the field on October 17 and 18, 2011 using the GPS capability. The accuracy of the GPS locations, based on field verification, was determined to be approximately +/-10 feet. The passive soil gas samplers were installed at each of the Phase II locations on October 18 and 19, 2011.

Soil gas sampler installation was performed as follows. A 3-foot-long, and 1-inch diameter, steel bar and a heavy sledge hammer were used to drive holes to a depth of 2-2.5 feet at each sample location. Once driven, the bar was carefully removed with minimal caving to the hole. The soil gas sampler was attached to a wire, the cap on the sample was removed, and the sampler was lowered down the hole to a depth of approximately 1 foot. It is noted that the Phase I samplers were placed deeper in the holes, and were much more difficult to retrieve, as the deeper holes tended to cave. The shallower placement was an improved procedure. A wad of crumpled aluminum foil was then placed in the hole at a depth of 1-3 inches to hold it open. The wire extended from the hole by 1-foot. A rock was then firmly placed over the top of the hole as a protective cover. The protruding wire was marked with survey flagging.

The passive soil gas samplers were left in the ground for three weeks. This compares to two weeks in the ground for the Phase I samplers. The Phase II samplers could not be removed at two weeks, due to inclement weather conditions. Photos of the passive soil gas sampling were presented in Appendix A of the Phase I report.

The soil gas samplers were retrieved on November 9 and 10, 2011. Each sampler was pulled from the ground by the wire, and capped. Samplers were returned to Vista GeoSciences laboratory on November 10, 2011 for login and analysis. Samples were analyzed using gas chromatography/mass spectroscopy (GCMS) by modified method 8260.

## Results

TCE was detected in more than 80 percent of the Phase II passive soil gas samples. Results for TCE are presented in Table 1 and in Figure 2. Rows highlighted in orange represent samples that had TCE concentrations in excess of the calibration range for the analysis. These results are flagged with an “E” qualifier. TCE desorption from the passive samplers is a one-shot analytical process, so dilution analyses were not performed. Results for the “out of calibration range analyses” are estimated based on relative peak heights. TCE detections with “J” flags were reported at concentrations below the 5.0 nanogram (ng) standard reporting limit. A complete copy of the VistaGeoscience laboratory analytical report is provided in Appendix A.

Quality Control – Four blind field duplicate soil gas samples were collected with primary Phase II soil gas samples. A comparison of the field duplicate results is provided below.

Sample ID	TCE (ng)	RPD %
SG41	127.5	94
SG-DUP-01	45.6	

Sample ID	TCE (ng)	RPD %
SG98	7.7	+/- RL
SG-DUP-03	2.1 J	

Sample ID	TCE (ng)	RPD %
SG47	24.3	49
SG-DUP-02	14.7	

Sample ID	TCE (ng)	RPD %
SG62	950.1E	143
SG-DUP-04	159.4	

Four Phase II samples were collected at locations directly adjacent to previous Phase I sample locations. These are essentially “co-located” samples, collected at different times. A comparison of co-located the Phase I and Phase II sample results is presented below.

Sample ID	TCE (ng)	RPD %
SG3 (Phase I)	10.94	120
SG3 (Phase II)	2.7 J	

Sample ID	TCE (ng)	RPD %
SG19 (Phase I)	6.03	+/- RL
SG19 (Phase II)	2.1 J	

Sample ID	TCE (ng)	RPD %
SG14 (Phase I)	<5.0	0
SG14 (Phase II)	<5.0	

Sample ID	TCE (ng)	RPD %
SG20 (Phase I)	112	3.6
SG20 (Phase II)	108.6	

+/- RL = Results agree within the 5.0 ng reporting limit increment

Evaluation of the field duplicate samples showed that the sample vial located closest to the bottom of the hole (always the primary sample) had the higher TCE concentration in each case. The lower bottle may have blocked some vapors from entering the upper sample bottle (always the duplicate). Better precision was shown by the results of the four Phase I samples that were re-sampled during Phase II. A co-located sample approach (two holes next to each other with one sampler each) appears to be a better technique to assess field duplicate precision than two bottles in one hole (see photos from Phase I passive soil gas report for duplicate sample setup).

A numeric comparison of the field duplicate precision is presented in terms of relative percent difference (RPD) between the samples results. RPDs less than 100 percent are typical for duplicate soil samples in a homogeneous matrix. RPDs less than 40 percent generally represent good precision between duplicate groundwater samples. The RPDs for the soil gas samples suggest that duplicate results that agree within a factor of two or three times, are comparable.

One trip blank was analyzed, with a TCE detection of 0.3 ng. This low level TCE detection in the trip blank is not considered to represent any bias to the Phase II sampling results.

## **Discussion**

The following observations were made based on review of the Phase II passive soil gas sampling results:

- The highest TCE concentrations reported come from the samples collected at the footprint of the former catalyst plant. The highest TCE concentration for the investigation at SG-95 (90,640 ng) represents the center of the catalyst plant.
- Four samples from the Grind Leach plant footprint also have elevated TCE concentrations, with the highest concentration at SG-105 (10,540 ng), located at the center of the grind leach plant.
- During sampling, a chemical odor was often notable coming from the soils around the two former plants.
- The three samples collected from the downgradient extent of the creek bottom sampling (SG-117, SG-118, and SG-119) have elevated TCE concentrations. This may represent downgradient conditions from the plant, or proximity to groundwater containing TCE, or both.
- Samples collected along both sides of the railroad tracks had generally very low TCE detections. The rail line does not appear to be a source area.
- Samples collected in the northwest corner of the restricted area have elevated TCE concentrations (SG-62, SG-63, SG-65, and SG-66; and sample SG-49 along

the fence). These could be associated with the equipment that has been moved to this area for storage, or a signature from groundwater.

- The Phase I results indicated that soil gas may not be indicative of groundwater contamination. The bigger picture provided with the addition of the Phase II results indicates that soil gas may be a very good tool to identify potential soil source areas. TCE detections in soil gas from locations farther from potential source areas could be emanating from groundwater. The TCE soil gas detections from the three downgradient locations in the bed of Sand Creek may be associated with groundwater, as the depth to groundwater is very shallow at these locations.
- Field conditions between the Phase I and Phase II sampling events were quite different (dry versus wet), and the phase II samples were in the ground three weeks compared to two weeks for the Phase I samples. Based on the results of the four re-samples, the two events appear to be comparable. Passive soil gas sampling appears to be a robust sampling technique.

The two-phase passive soil gas sampling program appears to have been very successful, as it has identified clear targets for further investigation of TCE source areas. Further soil gas investigation is not proposed at this time.

### **Proposed Work**

A soil investigation for TCE is proposed, based on the results of the two-phase passive soil gas sampling work performed. A soil sampling work plan has been prepared and will be submitted as a standalone document.

Table 1 - Phase II Passive Soil Gas Survey Results, November 2011 Sampling, Cotter Mill, Canon City, Colorado

Boring ID	Surveyed Date	Installed Date	Sampled Date	Comments	TCE Amount (ng)
SG27	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	<5.0
SG28	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	17.2
SG29	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	9.3
SG30	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	24.6
SG31	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	107.4
SG32	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	12.0
SG33	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks - location moved north to toe of slope	4.4
SG34	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	<5.0
SG35	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	5.3
SG36	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	0.9 J
SG37	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks - location moved south to toe of slope	5.4
SG38	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	<5.0
SG39	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	2.4 J
SG40	10/17/2011	10/18/2011	11/9/2011	RxR bed/tracks	<5.0
SG41	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area - <b>Collected duplicate SG-DUP-01</b>	127.5
SG42	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area	54.3
SG43	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area	45.1
SG44	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area	8.3
SG45	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area	1,043 E
SG46	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area	<5.0
SG47	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area - <b>Collected duplicate SG-DUP-02</b>	24.3
SG48	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area	81.5
SG49	10/17/2011	10/18/2011	11/9/2011	Along fence	1,905 E
SG50	10/17/2011	10/18/2011	11/9/2011	Adjacent Phase 1	0.8 J
SG51	10/17/2011	10/18/2011	11/9/2011	Adjacent Phase 1	130.5
SG52	10/17/2011	10/18/2011	11/9/2011	Adjacent Phase 1	630.9 E
SG53	10/17/2011	10/18/2011	11/9/2011	Adjacent Phase 1	117.8
SG54	10/17/2011	10/18/2011	11/9/2011	Adjacent Phase 1	13.5
SG55	10/17/2011	10/18/2011	11/9/2011	Adjacent Phase 1	21.0
SG56	10/17/2011	10/18/2011	11/9/2011	Former Barrow Area	23.3
SG57	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	10.1
SG58	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	24.7
SG59	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	60.1

Table 1 - Phase II Passive Soil Gas Survey Results, November 2011 Sampling, Cotter Mill, Canon City, Colorado (continued)

Boring ID	Surveyed Date	Installed Date	Sampled Date	Comments	TCE Amount (ng)
SG60	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	<5.0
SG61	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	14.9
SG62	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area - <b>Collected duplicate SG-DUP-04</b>	950.1 E
SG63	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	1,333 E
SG64	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	41.8
SG65	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	628.1 E
SG66	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	695.0 E
SG67	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	161.1
SG68	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	167.3
SG69	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	27.8
SG70	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	22.8
SG71	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	<5.0
SG72	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	26
SG73	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	<5.0
SG74	10/17/2011	10/19/2011	11/9/2011	NW Restricted Area	<5.0
SG75	10/17/2011	10/18/2011	11/9/2011	Grind leach - Location moved 15' NW to fork in roads	3.3 J
SG76	10/17/2011	10/18/2011	11/10/2011	Grind leach	10.1
SG77	10/17/2011	10/18/2011	11/10/2011	Grind leach	2.9 J
SG78	10/17/2011	10/18/2011	11/10/2011	Grind leach	1.0 J
SG79	10/17/2011	10/18/2011	11/10/2011	Grind leach	1.2 J
SG80	10/17/2011	10/18/2011	NA	<b>Grind leach / Sample run over and lost</b>	NA
SG81	10/17/2011	10/19/2011	11/10/2011	Grind leach	1.8 J
SG82	10/17/2011	10/19/2011	11/10/2011	Grind leach	5.1
SG83	10/17/2011	10/18/2011	11/9/2011	Grind leach	<5.0
SG84	10/17/2011	10/18/2011	11/10/2011	Grind leach	3.5 J
SG85	10/17/2011	10/18/2011	11/10/2011	Grind leach	18.4
SG86	10/17/2011	10/18/2011	11/9/2011	Grind leach	<5.0
SG87	10/17/2011	10/18/2011	11/10/2011	Grind leach	8.2
SG88	10/18/2011	10/19/2011	11/9/2011	Catalyst plant	25,570 E
SG89	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	4.4 J
SG90	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	79.2
SG91	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	4,077 E
SG92	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	711.6 E
SG93	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	24,100 E
SG94	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	78,560 E
SG95	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	90,640 E

Table 1 - Phase II Passive Soil Gas Survey Results, November 2011 Sampling, Cotter Mill, Canon City, Colorado (continued)

Boring ID	Surveyed Date	Installed Date	Sampled Date	Comments	TCE Amount (ng)
SG96	10/18/2011	10/19/2011	11/9/2011	Grind leach	26.8
SG97	10/18/2011	10/19/2011	11/10/2011	Grind leach	2.8 J
SG98	10/17/2011	10/19/2011	11/10/2011	Grind leach - <b>Collected duplicate SG-DUP-03</b>	7.7
SG99	10/17/2011	10/19/2011	11/10/2011	Grind leach	34.3
SG100	10/17/2011	10/19/2011	11/10/2011	Grind leach	2,967 E
SG101	10/17/2011	10/19/2011	11/10/2011	Grind leach	362.1 E
SG102	10/17/2011	10/19/2011	11/10/2011	Grind leach	6.0
SG103	10/17/2011	10/19/2011	11/10/2011	Grind leach	28.7
SG104	10/17/2011	10/19/2011	11/10/2011	Grind leach	658.9 E
SG105	10/17/2011	10/19/2011	11/10/2011	Grind leach	10,540 E
SG106	10/17/2011	10/19/2011	11/10/2011	Grind leach	23.2
SG107	10/17/2011	10/19/2011	11/9/2011	Catalyst plant - Asphalt cap in area and sample	<5.0
SG108	10/17/2011	10/19/2011	11/9/2011	Catalyst plant	9.0
SG109	10/17/2011	10/19/2011	11/9/2011	Grind leach	<5.0
SG110	10/17/2011	10/19/2011	11/10/2011	Grind leach	<5.0
SG111	10/17/2011	10/18/2011	11/9/2011	Creek	6.5
SG112	10/17/2011	10/18/2011	11/9/2011	Creek	1.1 J
SG113	10/17/2011	10/18/2011	11/9/2011	Creek	<5.0
SG114	10/17/2011	10/19/2011	11/9/2011	Creek	<5.0
SG115	10/17/2011	10/19/2011	11/9/2011	Creek	2.6 J
SG116	10/17/2011	10/19/2011	11/9/2011	Creek	<5.0
SG117	10/17/2011	10/19/2011	11/9/2011	Creek	1,595 E
SG118	10/17/2011	10/19/2011	11/9/2011	Creek	2,574 E
SG119	10/17/2011	10/19/2011	11/9/2011	Creek	1,639 E
SG3		10/18/2011	11/9/2011	Redo from phase 1 – initial TCE =10.94	2.7 J
SG14		10/18/2011	11/9/2011	Redo from phase 1 – initial TCE = <5.0	<5.0
SG19		10/18/2011	11/9/2011	Redo from phase 1 – initial TCE 6.03	2.1 J
SG20		10/18/2011	11/9/2011	Redo from phase 1 – initial TCE 112.2	108.6
Trip blank	NA	10/18/2011	11/9/2011	Trip Blank	0.3 J



Tuesday, November 22, 2011

Will Huskie  
Nankoweep Environmental Consultants  
202 Plateau Parkway  
Golden, CO 80401

RE: 11097.02 Cotter Mine

Order No.: 1111001

Dear Will:

Vista GeoScience received 101 sample(s) on 11/10/2011 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Roger Bain  
Senior Chemist

**CLIENT:** Nankowep Environmental Consultants  
**Project:** 11097.02 Cotter Mine  
**Lab Order:** 1111001

## CASE NARRATIVE

Samples were received on 11/10/11 from Nankowep and were accompanied by a chain of custody form. The samples and their containers appeared to be in good condition and the chain of custody form was complete and accurate.

Samples were analyzed using the methods outlined in the following references:  
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846,.

Calibration - The laboratory instruments are calibrated using method appropriate standards. On each day project samples are analyzed the instrument calibration is verified using a mid level Continuing Calibration Verification (CCV). Calculations are carried out by the data system to compute the actual concentration of analyte in the original sample.

Method Blanks, Trip Blanks and Instrument Blanks - Blanks are analyzed after each initial calibration, continuing calibration verification, and after samples determined to have high concentrations of analytes to verify system cleanliness. Method blanks are analyzed to verify the cleanliness of procedures requiring sample preparation prior to analysis. Trip blanks are prepared by the laboratory and accompany the samples to verify that there was no contamination during transport.

Batch QC - Prior to analysis, the project samples are associated with a QC batch. This batch is then prepared and analyzed along with QC samples prepared at the same time and using the same reagents and standards. The QC samples associated with a sample batch may include Method Blanks (MB). The results of the batch QC samples are included in the QC section of the report.

### Analyst Comments:

The Trichloroethene reported for samples SG94 and SG95 are only approximations, due to overloading of the MS detector. Several of the Trichloroethene results are over linear range and reported with an E flagged. Some of the samples have results that are reported below the lower calibration level and are flagged with a J.

Roger Bain  
Senior Chemist

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-001A

**Client Sample ID:** SG27  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: RB
Trichloroethene	ND	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-002A

**Client Sample ID:** SG28  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: RB
Trichloroethene	17.2	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-003A

**Client Sample ID:** SG29  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	9.3	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-004A

**Client Sample ID:** SG30  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	24.6	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-005A

**Client Sample ID:** SG31  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	107.4	5.0		ng	1	11/16/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-006A

**Client Sample ID:** SG32  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	12.0	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-007A

**Client Sample ID:** SG33  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: RB
Trichloroethene	4.4	5.0	J	ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-008A

**Client Sample ID:** SG34  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: <b>RB</b> 11/16/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-009A

**Client Sample ID:** SG35  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	5.3	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-010A

**Client Sample ID:** SG36  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	0.9	5.0	J	ng	1	11/16/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-011A

**Client Sample ID:** SG37  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	5.4	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-012A

**Client Sample ID:** SG38  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	ND	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-013A

**Client Sample ID:** SG39  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: RB
Trichloroethene	2.4	5.0	J	ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-014A

**Client Sample ID:** SG40  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: <b>RB</b> 11/16/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-015A

**Client Sample ID:** SG41  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	127.5	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-016A

**Client Sample ID:** SG42  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	54.3	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-017A

**Client Sample ID:** SG43  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	45.1	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-018A

**Client Sample ID:** SG44  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	8.3	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-019A

**Client Sample ID:** SG45  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	1043	5.0	E	ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-020A

**Client Sample ID:** SG46  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	ND	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-021A

**Client Sample ID:** SG47  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	24.3	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-022A

**Client Sample ID:** SG48  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	81.5	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-023A

**Client Sample ID:** SG49  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	1905	5.0	E	ng	1	11/16/2011

Analyst: **RB**

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-024A

**Client Sample ID:** SG50  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: RB
Trichloroethene	0.8	5.0	J	ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-025A

**Client Sample ID:** SG51  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	130.5	5.0		ng	1	11/16/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-026A

**Client Sample ID:** SG52  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	630.9	5.0	E	ng	1	11/16/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-027A

**Client Sample ID:** SG53  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	117.8	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-028A

**Client Sample ID:** SG54  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	13.5	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-029A

**Client Sample ID:** SG55  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	21.0	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-030A

**Client Sample ID:** SG56  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	23.3	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-031A

**Client Sample ID:** SG57  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	10.1	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-032A

**Client Sample ID:** SG58  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	24.7	5.0		ng	1	11/16/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-033A

**Client Sample ID:** SG59  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	60.1	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-034A

**Client Sample ID:** SG60  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: RB 11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-035A

**Client Sample ID:** SG61  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	14.9	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-036A

**Client Sample ID:** SG62  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	950.1	5.0	E	ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-037A

**Client Sample ID:** SG63  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	1333	5.0	E	ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-038A

**Client Sample ID:** SG64  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	41.8	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-039A

**Client Sample ID:** SG65  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: RB
Trichloroethene	628.1	5.0	E	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-040A

**Client Sample ID:** SG66  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	695.0	5.0	E	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-041A

**Client Sample ID:** SG67  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	161.1	5.0		ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-042A

**Client Sample ID:** SG68  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	167.3	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-043A

**Client Sample ID:** SG69  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	27.8	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-044A

**Client Sample ID:** SG70  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	22.8	5.0		ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-045A

**Client Sample ID:** SG71  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: RB 11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-046A

**Client Sample ID:** SG72  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	26.0	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-047A

**Client Sample ID:** SG73  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: <b>RB</b> 11/19/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-048A

**Client Sample ID:** SG74  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	5.0		ng	1	11/19/2011

Analyst: RB

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-049A

**Client Sample ID:** SG75  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	3.3	5.0	J	ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-050A

**Client Sample ID:** SG76  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	10.1	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-051A

**Client Sample ID:** SG77  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	2.9	5.0	J	ng	1	11/19/2011

Analyst: RB

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-052A

**Client Sample ID:** SG78  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	1.0	5.0	J	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-053A

**Client Sample ID:** SG79  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	1.2	5.0	J	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-054A

**Client Sample ID:** SG81  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	1.8	5.0	J	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-055A

**Client Sample ID:** SG82  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: RB
Trichloroethene	5.1	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-056A

**Client Sample ID:** SG83  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: <b>RB</b> 11/19/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-057A

**Client Sample ID:** SG84  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	3.5	5.0	J	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-058A

**Client Sample ID:** SG85  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	18.4	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-059A

**Client Sample ID:** SG86  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: RB 11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-060A

**Client Sample ID:** SG87  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	8.2	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-061A

**Client Sample ID:** SG88  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	25570	5.0	E	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-062A

**Client Sample ID:** SG89  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	4.4	5.0	J	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-063A

**Client Sample ID:** SG90  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	79.2	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-064A

**Client Sample ID:** SG91  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	4077	5.0	E	ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-065A

**Client Sample ID:** SG92  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	711.6	5.0	E	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-066A

**Client Sample ID:** SG93  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	24100	5.0	E	ng	1	11/19/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-067A

**Client Sample ID:** SG94  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	78560	5.0	E	ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-068A

**Client Sample ID:** SG95  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	90640	5.0	E	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-069A

**Client Sample ID:** SG96  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	26.8	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-070A

**Client Sample ID:** SG97  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	2.8	5.0	J	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-071A

**Client Sample ID:** SG98  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	7.7	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-072A

**Client Sample ID:** SG99  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	34.3	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-073A

**Client Sample ID:** SG100  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	2967	5.0	E	ng	1	11/19/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-074A

**Client Sample ID:** SG101  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	362.1	5.0	E	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-075A

**Client Sample ID:** SG102  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	6.0	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-076A

**Client Sample ID:** SG103  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	28.7	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-077A

**Client Sample ID:** SG104  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	658.9	5.0	E	ng	1	11/21/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-078A

**Client Sample ID:** SG105  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	10540	5.0	E	ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-079A

**Client Sample ID:** SG106  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	23.2	5.0		ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-080A

**Client Sample ID:** SG107  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: RB 11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-081A

**Client Sample ID:** SG108  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	9.0	5.0		ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-082A

**Client Sample ID:** SG109  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: RB 11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-083A

**Client Sample ID:** SG110  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: <b>RB</b> 11/21/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-084A

**Client Sample ID:** SG111  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	6.5	5.0		ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-085A

**Client Sample ID:** SG112  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	1.1	5.0	J	ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-086A

**Client Sample ID:** SG113  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	ND	5.0		ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-087A

**Client Sample ID:** SG114  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: <b>RB</b> 11/21/2011

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-088A

**Client Sample ID:** SG115  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	2.6	5.0	J	ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-089A

**Client Sample ID:** SG116  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	ND	5.0		ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-090A

**Client Sample ID:** SG117  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	1595	5.0	E	ng	1	11/21/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-091A

**Client Sample ID:** SG118  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	2574	5.0	E	ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-092A

**Client Sample ID:** SG119  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	1639	5.0	E	ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-093A

**Client Sample ID:** SG-DUP-01  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	45.6	5.0		ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-094A

**Client Sample ID:** SG-DUP-02  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	14.7	5.0		ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-095A

**Client Sample ID:** SG-DUP-03  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	2.1	5.0	J	ng	1	11/21/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-096A

**Client Sample ID:** SG-DUP-04  
**Tag Number:**  
**Collection Date:** 11/10/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	159.4	5.0		ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-097A

**Client Sample ID:** SG3  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	2.7	5.0	J	ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-098A

**Client Sample ID:** SG14  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b> Trichloroethene	ND	<b>SW8260B</b> 5.0		ng	1	Analyst: RB 11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-099A

**Client Sample ID:** SG19  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>						Analyst: <b>RB</b>
Trichloroethene	2.1	5.0	J	ng	1	11/19/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

**Vista GeoScience**

**Date:** 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-100A

**Client Sample ID:** SG20  
**Tag Number:**  
**Collection Date:** 11/9/2011  
**Matrix:**

**Date Received:** 11/10/2011

<b>Analyses</b>	<b>Result</b>	<b>Limit</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>VAPORTEC BY 8260B MODIFIED</b>						
Trichloroethene	108.6	5.0		ng	1	11/19/2011

Analyst: **RB**

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit

# Vista GeoScience

Date: 22-Nov-11

**CLIENT:** Nankowep Environmental Consultants  
**Lab Order:** 1111001  
**Project:** 11097.02 Cotter Mine  
**Lab ID:** 1111001-101A

**Client Sample ID:** TB-01  
**Tag Number:**  
**Collection Date:**  
**Matrix:**

**Date Received:** 11/10/2011

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VAPORTEC BY 8260B MODIFIED</b>			<b>SW8260B</b>			Analyst: <b>RB</b>
Trichloroethene	0.3	5.0	J	ng	1	11/16/2011

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

Lab Order: 1111001  
Client: NankowEEP Environmental Consultants  
Project: 11097.02 Cotter Mine

**DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1111001-001A	SG27	11/9/2011		VaporTec Wires by 8260B modified			11/16/2011
1111001-002A	SG28			VaporTec Wires by 8260B modified			11/16/2011
1111001-003A	SG29			VaporTec Wires by 8260B modified			11/16/2011
1111001-004A	SG30			VaporTec Wires by 8260B modified			11/16/2011
1111001-005A	SG31			VaporTec Wires by 8260B modified			11/16/2011
1111001-006A	SG32			VaporTec Wires by 8260B modified			11/16/2011
1111001-007A	SG33			VaporTec Wires by 8260B modified			11/16/2011
1111001-008A	SG34			VaporTec Wires by 8260B modified			11/16/2011
1111001-009A	SG35			VaporTec Wires by 8260B modified			11/16/2011
1111001-010A	SG36			VaporTec Wires by 8260B modified			11/16/2011
1111001-011A	SG37			VaporTec Wires by 8260B modified			11/16/2011
1111001-012A	SG38			VaporTec Wires by 8260B modified			11/16/2011
1111001-013A	SG39			VaporTec Wires by 8260B modified			11/16/2011
1111001-014A	SG40			VaporTec Wires by 8260B modified			11/16/2011
1111001-015A	SG41			VaporTec Wires by 8260B modified			11/16/2011
1111001-016A	SG42			VaporTec Wires by 8260B modified			11/16/2011
1111001-017A	SG43			VaporTec Wires by 8260B modified			11/16/2011
1111001-018A	SG44			VaporTec Wires by 8260B modified			11/16/2011
1111001-019A	SG45			VaporTec Wires by 8260B modified			11/16/2011
1111001-020A	SG46			VaporTec Wires by 8260B modified			11/16/2011
1111001-021A	SG47			VaporTec Wires by 8260B modified			11/16/2011
1111001-022A	SG48			VaporTec Wires by 8260B modified			11/16/2011
1111001-023A	SG49			VaporTec Wires by 8260B modified			11/16/2011
1111001-024A	SG50			VaporTec Wires by 8260B modified			11/16/2011
1111001-025A	SG51			VaporTec Wires by 8260B modified			11/16/2011
1111001-026A	SG52			VaporTec Wires by 8260B modified			11/16/2011
1111001-027A	SG53			VaporTec Wires by 8260B modified			11/16/2011
1111001-028A	SG54			VaporTec Wires by 8260B modified			11/16/2011

**Lab Order:** 1111001  
**Client:** Nankowweep Environmental Consultants  
**Project:** 11097.02 Cotter Mine

**DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1111001-029A	SG55	11/9/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-030A	SG56			VaporTec Wires by 8260B modified			11/16/2011
1111001-031A	SG57			VaporTec Wires by 8260B modified			11/16/2011
1111001-032A	SG58			VaporTec Wires by 8260B modified			11/16/2011
1111001-033A	SG59			VaporTec Wires by 8260B modified			11/16/2011
1111001-034A	SG60			VaporTec Wires by 8260B modified			11/16/2011
1111001-035A	SG61			VaporTec Wires by 8260B modified			11/16/2011
1111001-036A	SG62			VaporTec Wires by 8260B modified			11/16/2011
1111001-037A	SG63			VaporTec Wires by 8260B modified			11/16/2011
1111001-038A	SG64			VaporTec Wires by 8260B modified			11/19/2011
1111001-039A	SG65			VaporTec Wires by 8260B modified			11/19/2011
1111001-040A	SG66			VaporTec Wires by 8260B modified			11/19/2011
1111001-041A	SG67			VaporTec Wires by 8260B modified			11/19/2011
1111001-042A	SG68			VaporTec Wires by 8260B modified			11/19/2011
1111001-043A	SG69			VaporTec Wires by 8260B modified			11/19/2011
1111001-044A	SG70			VaporTec Wires by 8260B modified			11/16/2011
1111001-045A	SG71			VaporTec Wires by 8260B modified			11/19/2011
1111001-046A	SG72			VaporTec Wires by 8260B modified			11/19/2011
1111001-047A	SG73			VaporTec Wires by 8260B modified			11/19/2011
1111001-048A	SG74			VaporTec Wires by 8260B modified			11/19/2011
1111001-049A	SG75			VaporTec Wires by 8260B modified			11/19/2011
1111001-050A	SG76	11/10/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-051A	SG77			VaporTec Wires by 8260B modified			11/19/2011
1111001-052A	SG78			VaporTec Wires by 8260B modified			11/19/2011
1111001-053A	SG79			VaporTec Wires by 8260B modified			11/19/2011
1111001-054A	SG81			VaporTec Wires by 8260B modified			11/19/2011
1111001-055A	SG82			VaporTec Wires by 8260B modified			11/19/2011
1111001-056A	SG83	11/9/2011		VaporTec Wires by 8260B modified			11/19/2011

**Lab Order:** 1111001  
**Client:** Nankowweep Environmental Consultants  
**Project:** 11097.02 Cotter Mine

**DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1111001-057A	SG84	11/10/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-058A	SG85			VaporTec Wires by 8260B modified			11/19/2011
1111001-059A	SG86	11/9/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-060A	SG87	11/10/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-061A	SG88	11/9/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-062A	SG89			VaporTec Wires by 8260B modified			11/19/2011
1111001-063A	SG90			VaporTec Wires by 8260B modified			11/19/2011
1111001-064A	SG91			VaporTec Wires by 8260B modified			11/19/2011
1111001-065A	SG92			VaporTec Wires by 8260B modified			11/19/2011
1111001-066A	SG93			VaporTec Wires by 8260B modified			11/19/2011
1111001-067A	SG94			VaporTec Wires by 8260B modified			11/19/2011
1111001-068A	SG95			VaporTec Wires by 8260B modified			11/19/2011
1111001-069A	SG96			VaporTec Wires by 8260B modified			11/19/2011
1111001-070A	SG97	11/10/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-071A	SG98			VaporTec Wires by 8260B modified			11/19/2011
1111001-072A	SG99			VaporTec Wires by 8260B modified			11/19/2011
1111001-073A	SG100			VaporTec Wires by 8260B modified			11/19/2011
1111001-074A	SG101			VaporTec Wires by 8260B modified			11/19/2011
1111001-075A	SG102			VaporTec Wires by 8260B modified			11/19/2011
1111001-076A	SG103			VaporTec Wires by 8260B modified			11/19/2011
1111001-077A	SG104			VaporTec Wires by 8260B modified			11/21/2011
1111001-078A	SG105			VaporTec Wires by 8260B modified			11/21/2011
1111001-079A	SG106			VaporTec Wires by 8260B modified			11/21/2011
1111001-080A	SG107	11/9/2011		VaporTec Wires by 8260B modified			11/21/2011
1111001-081A	SG108			VaporTec Wires by 8260B modified			11/21/2011
1111001-082A	SG109			VaporTec Wires by 8260B modified			11/21/2011
1111001-083A	SG110	11/10/2011		VaporTec Wires by 8260B modified			11/21/2011
1111001-084A	SG111	11/9/2011		VaporTec Wires by 8260B modified			11/21/2011

**Lab Order:** 1111001  
**Client:** Nankowweep Environmental Consultants  
**Project:** 11097.02 Cotter Mine

**DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1111001-085A	SG112	11/9/2011		VaporTec Wires by 8260B modified			11/21/2011
1111001-086A	SG113			VaporTec Wires by 8260B modified			11/21/2011
1111001-087A	SG114			VaporTec Wires by 8260B modified			11/21/2011
1111001-088A	SG115			VaporTec Wires by 8260B modified			11/21/2011
1111001-089A	SG116			VaporTec Wires by 8260B modified			11/21/2011
1111001-090A	SG117			VaporTec Wires by 8260B modified			11/21/2011
1111001-091A	SG118			VaporTec Wires by 8260B modified			11/21/2011
1111001-092A	SG119			VaporTec Wires by 8260B modified			11/21/2011
1111001-093A	SG-DUP-01			VaporTec Wires by 8260B modified			11/19/2011
1111001-094A	SG-DUP-02			VaporTec Wires by 8260B modified			11/19/2011
1111001-095A	SG-DUP-03			VaporTec Wires by 8260B modified			11/21/2011
1111001-096A	SG-DUP-04	11/10/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-097A	SG3	11/9/2011		VaporTec Wires by 8260B modified			11/19/2011
1111001-098A	SG14			VaporTec Wires by 8260B modified			11/19/2011
1111001-099A	SG19			VaporTec Wires by 8260B modified			11/19/2011
1111001-100A	SG20			VaporTec Wires by 8260B modified			11/19/2011
1111001-101A	TB-01			VaporTec Wires by 8260B modified			11/16/2011

# Vista GeoScience

Client: NANKOWEEP  
 Address: 493 Canyon Pt Cr Golden, CO  
 Phone: 720 480 0652 Fax:  Fax  
 E-Mail: whustkie@yahoo.com  E-Mail Prelim Results

## Laboratory Chain of Custody Record

**SAMPLE INFORMATION** Sampler Name: Will Huskie

Client Project #:

Date:  
 Client Project Manager: Will Huskie  
 Project/Site Name: Cotton Canon City  
 Project/Site Address: 11097.02  
 Lab Project #:

TLC ONLY

Sampler Signature: *[Signature]* Nov 10/2011

Easting	Northing	Count	Boring ID	Surveyed Date	Installed Date	Sampled Date
2074800	207115	1	SG27	10/17/2011	10/18/2011	10/9/2011
2074959	207151	2	SG28	10/17/2011	10/18/2011	10/9/2011 (Broken Vial)
2075109	207174	3	SG29	10/17/2011	10/18/2011	10/9/2011
2075255	207214	4	SG30	10/17/2011	10/18/2011	10/9/2011
2075407	207250	5	SG31	10/17/2011	10/18/2011	10/9/2011
2075549	207273	6	SG32	10/17/2011	10/18/2011	10/9/2011
2075669	207260	7	SG33	10/17/2011	10/18/2011	10/9/2011
2074743	207036	8	SG34	10/17/2011	10/18/2011	10/9/2011
2074901	207076	9	SG35	10/17/2011	10/18/2011	10/9/2011
2075039	207105	10	SG36	10/17/2011	10/18/2011	10/9/2011
2075195	207147	11	SG37	10/17/2011	10/18/2011	10/9/2011
2075354	207185	12	SG38	10/17/2011	10/18/2011	10/9/2011
2075488	207212	13	SG39	10/17/2011	10/18/2011	10/9/2011
2075596	207218	14	SG40	10/17/2011	10/18/2011	10/9/2011
2075627	207136	15	SG41	10/17/2011	10/18/2011	10/9/2011
2075541	207132	16	SG42	10/17/2011	10/18/2011	10/9/2011
2075449	207109	17	SG43	10/17/2011	10/18/2011	10/9/2011
2075493	206935	18	SG44	10/17/2011	10/18/2011	10/9/2011
2075635	206935	19	SG45	10/17/2011	10/18/2011	10/9/2011
2075560	206840	20	SG46	10/17/2011	10/18/2011	10/9/2011
2075518	207025	21	SG47	10/17/2011	10/18/2011	10/9/2011
2075602	207034	22	SG48	10/17/2011	10/18/2011	10/9/2011
2075671	207042	23	SG49	10/17/2011	10/18/2011	10/9/2011
2074957	206992	24	SG50	10/17/2011	10/18/2011	10/9/2011
2074823	206985	25	SG51	10/17/2011	10/18/2011	10/9/2011
2074815	206864	26	SG52	10/17/2011	10/18/2011	10/9/2011
2074871	206918	27	SG53	10/17/2011	10/18/2011	10/9/2011
2075314	207101	28	SG54	10/17/2011	10/18/2011	10/9/2011
2075394	207046	29	SG55	10/17/2011	10/18/2011	10/9/2011
2075436	206987	30	SG56	10/17/2011	10/18/2011	10/9/2011
2075732	207195	31	SG57	10/17/2011	10/19/2011	10/9/2011
2075871	207160	32	SG58	10/17/2011	10/19/2011	10/9/2011
2076017	207107	33	SG59	10/17/2011	10/19/2011	10/9/2011
2076190	207059	34	SG60	10/17/2011	10/19/2011	10/9/2011
2076328	206977	35	SG61	10/17/2011	10/19/2011	10/9/2011
2075768	207097	36	SG62	10/17/2011	10/19/2011	10/9/2011

Rec. JOHN V. FONTANA *[Signature]*  
 11/10/11 15:35

Easting	Northing	Count	Boring ID	Surveyed Date	Installed Date	Sampled Date
2075925	207050	37	SG63	10/17/2011	10/19/2011	10/9/2011
2076089	206992	38	SG64	10/17/2011	10/19/2011	10/9/2011
2076217	206954	39	SG65	10/17/2011	10/19/2011	10/9/2011
2075715	206989	40	SG66	10/17/2011	10/19/2011	10/9/2011
2075826	206985	41	SG67	10/17/2011	10/19/2011	10/9/2011
2075969	206939	42	SG68	10/17/2011	10/19/2011	10/9/2011
2076080	206876	43	SG69	10/17/2011	10/19/2011	10/9/2011
2075768	206857	44	SG70	10/17/2011	10/19/2011	10/9/2011
2075990	206813	45	SG71	10/17/2011	10/19/2011	10/9/2011
2075858	206777	46	SG72	10/17/2011	10/19/2011	10/9/2011
2075736	206693	47	SG73	10/17/2011	10/19/2011	10/9/2011
2075923	206662	48	SG74	10/17/2011	10/19/2011	10/9/2011
2075759	206104	49	SG75	10/17/2011	10/18/2011	10/9/2011
2075915	206108	50	SG76	10/17/2011	10/18/2011	10/10/2011
2076045	206101	51	SG77	10/17/2011	10/18/2011	10/10/2011
2076139	206112	52	SG78	10/17/2011	10/18/2011	10/10/2011
2076234	206114	53	SG79	10/17/2011	10/18/2011	10/10/2011
2076320	206110		SG80	10/17/2011	10/18/2011	NA
2076402	206108	54	SG81	10/17/2011	10/19/2011	10/10/2011
2076471	206110	55	SG82	10/17/2011	10/19/2011	10/10/2011
2075766	205946	56	SG83	10/17/2011	10/18/2011	10/9/2011
2075906	205942	57	SG84	10/17/2011	10/18/2011	10/10/2011
2076034	205942	58	SG85	10/17/2011	10/18/2011	10/10/2011
2075839	206181	59	SG86	10/17/2011	10/18/2011	10/9/2011
2075976	206179	60	SG87	10/17/2011	10/18/2011	10/10/2011
2076223	205638	61	SG88	10/18/2011	10/19/2011	10/9/2011
2076227	205545	62	SG89	10/17/2011	10/19/2011	10/9/2011
2076391	205551	63	SG90	10/17/2011	10/19/2011	10/9/2011
2076395	205631	64	SG91	10/17/2011	10/19/2011	10/9/2011
2076301	205642	65	SG92	10/17/2011	10/19/2011	10/9/2011
2076303	205537	66	SG93	10/17/2011	10/19/2011	10/9/2011
2076265	205589	67	SG94	10/17/2011	10/19/2011	10/9/2011
2076337	205591	68	SG95	10/17/2011	10/19/2011	10/9/2011
2076148	205889	69	SG96	10/18/2011	10/19/2011	10/9/2011
2076152	205982	70	SG97	10/18/2011	10/19/2011	10/10/2011
2076355	205980	71	SG98	10/17/2011	10/19/2011	10/10/2011
2076360	205887	72	SG99	10/17/2011	10/19/2011	10/10/2011
2076213	205883	73	SG100	10/17/2011	10/19/2011	10/10/2011
2076288	205883	74	SG101	10/17/2011	10/19/2011	10/10/2011
2076219	205997	75	SG102	10/17/2011	10/19/2011	10/10/2011
2076292	205994	76	SG103	10/17/2011	10/19/2011	10/10/2011
2076202	205940	77	SG104	10/17/2011	10/19/2011	10/10/2011
2076263	205938	78	SG105	10/17/2011	10/19/2011	10/10/2011
2076316	205936	79	SG106	10/17/2011	10/19/2011	10/10/2011
2076481	205562	80	SG107	10/17/2011	10/19/2011	10/9/2011
2076479	205686	81	SG108	10/17/2011	10/19/2011	10/9/2011
2076475	205829	82	SG109	10/17/2011	10/19/2011	10/9/2011
2076475	205955	83	SG110	10/17/2011	10/19/2011	10/10/2011
2075377	206110	84	SG111	10/17/2011	10/18/2011	10/9/2011
2075495	206183	85	SG112	10/17/2011	10/18/2011	10/9/2011
2075640	206238	86	SG113	10/17/2011	10/18/2011	10/9/2011
2075776	206290	87	SG114	10/17/2011	10/19/2011	10/9/2011
2075900	206383	88	SG115	10/17/2011	10/19/2011	10/9/2011

lost



Easting	Northing	Count	Boring ID	Surveyed Date	Installed Date	Sampled Date
2075959	206557	89	SG116	10/17/2011	10/19/2011	10/9/2011
2076026	206693	90	SG117	10/17/2011	10/19/2011	10/9/2011
2076181	206786	91	SG118	10/17/2011	10/19/2011	10/9/2011
2076334	206861	92	SG119	10/17/2011	10/19/2011	10/9/2011
		93	SG-DUP-01			10/9/2011
		94	SG-DUP-02			10/9/2011
		95	SG-DUP-03			10/9/2011
		96	SG-DUP-04			10/10/2011
		97	TB-01			na
2074950	206884	98	SG3		10/18/2011	10/9/2011
2075240	206827	99	SG14		10/18/2011	10/9/2011
2075328	207030	100	SG19		10/18/2011	10/9/2011
2075435	206985	101	SG20		10/18/2011	10/9/2011