

USHP000530



**DATA VALIDATION  
SHIPROCK, NM  
UMTRA**

**July 2000  
Water Sampling**

Prepared by the  
U.S. Department of Energy  
Grand Junction Office



**RECORD COPY**

## SHIPROCK, NEW MEXICO

Sampled July 2000

### DATA PACKAGE CONTENTS

This data package includes the following information:

- | <u>Item No.</u> | <u>Description of Contents</u>   |
|-----------------|--|
| 1.              | <b>Site Hydrologist Summary</b>  |
| 2.              | <b>Data Package Assessment</b> , which includes the following: <ul style="list-style-type: none"><li>a. Field procedures verification checklist</li><li>b. Confirmation that chain-of-custody was maintained.</li><li>c. Confirmation that holding time requirements were met.</li><li>d. Evaluation of the adequacy of the QC sample results.</li></ul>                               |
| 3.              | <b>Data Assessment Summary</b> , which describes problems identified in the data validation process and summarizes the validator's findings.   |
| 4.              | <b>Anomalous Data Review Checksheets</b> which list the subset of data that merits explanation or follow-up action. The "Disposition" column of this report describes the evaluator's judgments on the listed anomalies.   |
| 5.              | <b>UMTRA Database Printouts</b> of analytical data organized as follows: <ul style="list-style-type: none"><li>a. Ground Water Quality Data (included on disk)</li><li>b. Surface Water Quality Data (included on disk)</li><li>c. Equipment Blank Data (included on disk)</li><li>d. Time Versus Concentration Graphs</li><li>e. Static Ground Water Level Measurement Data</li></ul> |
| 6.              | <b>Sampling and Analysis Work Order and Trip Reports.</b>  |

**Site:** Shiprock

**Sampling Period:** July 10 - 17, 2000

SUMMARY CRITERIA

1. **Did concentrations in water from any domestic wells sampled exceed a ground water standard, a primary drinking water standard, or health advisory?**

Domestic wells were not sampled during this event.

2. **Were standards exceeded at any point-of-compliance wells?**

There are no point-of-compliance wells established at the Shiprock site.

3. **As a result of this sampling round, is there any indication of unexpected contaminated ground water movement?**

The distribution and rate of movement of contaminated ground water at the site was assessed in the draft Final Site Observational Work Plan (SOWP) issued in November 2000. Ground water sampling data from this sampling round did not indicate any unexpected movement of contaminated ground water outside of what is portrayed in the SOWP. Wells with sample concentrations that exceeded UMTRA ground water standards are listed in Table 1. Graphs that show nitrate, selenium, and uranium concentrations versus time for some of the wells sampled in this event are included with the analytical data.

4. **Is there statistical evidence that UMTRA Project related contaminants were detected in a surface body of water in greater concentrations than upstream ambient water quality?**

Surface water concentrations were compared to benchmark values derived using data from sampling locations 888 and 898, which are located upstream of the site on the San Juan River. At location 939, which is on a distributary channel of the San Juan River, values of gross alpha, selenium, and uranium exceeded benchmark values (Table 2). San Juan River water flows through the distributary channel when the river stage is high; however, at the time of this sampling, the river stage was low and no river water was flowing through the channel. Therefore, the exceedances at 939 reflect contaminated water emerging in seeps from the terrace system to the south. Benchmark values were not exceeded from the samples at locations 894 and 940 on the San Juan River. Locations and benchmark values that were exceeded are listed in Table 2.

The draft SOWP indicated no unacceptable human health risks are associated with exposure to surface water in washes and seeps. The interim action further reduced potential risks in these areas. No river samples had benchmark exceedances, and two other samples (658 and 939) that had exceedances are on the floodplain and not along the river. Therefore, withdrawal of water from the intake structure on the north side of the river and its use as a backup drinking water supply will not adversely affect human health.

Table 1. Shiprock Wells Exceeding UMTRA standards in July 2000.

Analyte	Standard <sup>1</sup>	Site Code	Wells Exceeding Standards
Nitrate	44.27	SHP02	830 (91.7), 1011 (609.0)
Selenium	0.01	SHP02	827 (0.0585)
Uranium	0.044	SHP02	827 (0.729), 1011 (0.226)

<sup>1</sup> Values are in mg/l.

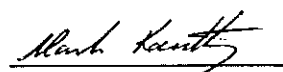
Table 2. Locations that Exceeded Surface Water Benchmarks in January, June, and July 2000.

Location Code	Site Code	Location Comments	Analyte	BENCH-MARK <sup>1</sup>	JAN 2000	JUNE 2000	JULY 2000
658	SHP01	Floodplain wetland	Nitrate	3.63	5.63	0.0314U	0.0628
			Radium-226	0.14	0.34	0.38	0.38
			Selenium	0.0018	0.0119	0.0016	0.0005
			Uranium	0.0038	0.0632	0.0134	0.0063
939	SHP01	Distributary channel of San Juan River	Gross Alpha <sup>2</sup>	8.4	32.77	10.04U	9.03
			Nitrate	3.63	98.2	5.92	1.410
			Selenium	0.0018	0.114	0.0155	0.0066
			Uranium	0.0038	0.0393	0.0085	0.0043
786	SHP02	Escarpment seep at US Hwy 666 bridge	Nitrate	3.63	281	319	323
			Radium-226	0.14	0.68	0.48	0.46
			Selenium	0.0018	0.16	0.161	0.179
			Uranium	0.0038	0.0433	0.0434	0.0421
886	SHP02	Many Devils Wash, above knickpoint	Molybdenum	0.0075	0.0195	0.0243	0.0254
			Nitrate	3.63	2930	3150	3200
			Radium-226	0.14	0.15	0.29	0.29
			Selenium	0.0018	1.89	1.57	1.620
889	SHP02	Many Devils Wash, just below knickpoint	Uranium	0.0038	0.144	0.152	0.154
			Molybdenum	0.0075	0.0341	0.0718	0.0772
			Nitrate	3.63	3520	6750	6560
			Radium-226	0.14	0.25	0.52	0.48
933	SHP02	1st wash, W of US Hwy 666	Selenium	0.0018	2.32	3.95	3.980
			Uranium	0.0038	0.171	0.265	0.278
			Nitrate	3.63	376	500	429
			Radium-226	0.14	0.16	0.42	0.15
934	SHP02	Upper part of 2nd wash, W of US Hwy 666	Selenium	0.0018	0.226	0.258	0.274
			Uranium	0.0038	0.0706	0.0784	0.0734
			Nitrate	3.63	74.5	90	106
			Gross Alpha	8.4	32.84	24.28U	26.21U
935	SHP02	Seep just upstream from 1st wash confluence with distributary channel	Radium-226	0.14	below	below	0.16
			Selenium	0.0018	0.101	0.0872	0.103
			Uranium	0.0038	0.0329	0.0313	0.0303
			Gross Alpha	8.4	92.85	79.69	53.19U
			Molybdenum	0.0075	0.0197	0.0121	0.0107
			Nitrate	3.63	515	451	419
935	SHP02	Seep just upstream from 1st wash confluence with distributary channel	Radium-226	0.14	0.83	0.93	0.86
			Selenium	0.0018	0.428	0.241	0.275
935	SHP02	Seep just upstream from 1st wash confluence with distributary channel	Uranium	0.0038	0.102	0.0667	0.0665
			Selenium	0.0018	0.428	0.241	0.275

Table 2. Locations that Exceeded Surface Water Benchmarks in January, June, and July 2000.

936	SHP02	Seep between 1st wash and 2nd wash, W of US Hwy 666	Gross Alpha	8.4	63.16	44.38	34.99U
			Nitrate	3.63	218	234	237
			Radium-226	0.14	0.56	0.55	0.31
			Selenium	0.0018	0.172	0.203	0.262
			Uranium	0.0038	0.0486	0.0493	0.0482
942	SHP02	Pond N of Shiprock high School and US Hwy 64	Gross Alpha	8.4	27.8	35.16	27.98U
			Nitrate	3.63	105	91.3	185
			Selenium	0.0018	0.19	0.156	0.340
			Uranium	0.0038	0.0339	0.0332	0.0295

<sup>1</sup> Values are in mg/l, except for gross alpha and radium-226, which are in pCi/l. <sup>2</sup> Units of gross alpha are used instead of net alpha because they are being compared to benchmark values instead of the standard. Uranium and radon activities have not been subtracted.

  
 Mark Kautsky  
 Site Hydrologist

12-20-00  
 Date

  
 Craig Goodknight  
 Site Lead

12/20/00  
 Date

# **DATA ASSESSMENT**

# UGW Water Sampling Field Activities Verification Checklist

Project Shiprock  
 Date(s) of Verification 10/25/00

Date(s) of Water Sampling <sup># JP</sup> ~~7/12~~ → ~~7/14/00~~ 7/10 → 7/17/00  
 Name of Verifier JEFF PRICE

**Response Comments**  
 (Yes, No, N/A)

1. Is the SAP the primary document directing field procedures?

YES

List other documents, SOP's, instructions.

Work order

2. Were the sampling locations specified in the planning documents sampled?

YES

Except for dry locations ~~802~~ 655, 884, 987, and 657 ~~957, 958.~~

3. Was field equipment calibrated as specified in the above named documents?

YES

Were the number and types (alkalinity, temperature, Ec, pH, turbidity, DO, ORP) of field measurements taken as specified?

YES

Were the standard solutions used for the calibration and operational checks of the field instruments brought to within 10 degrees C of the temperature of the water to be sampled?

YES

Except for locations 815, 839, 844, 933, 938, 846, 827.

Was the calibration information recorded on the field data sheets?

YES

4. Was depth to water measured before purging?

YES

Was this information used to calculate purge volume?

YES

5. If conventional purging was used, were the wells purged until parameters stabilized and 3 casing volumes were removed, until the well was purged dry, or until 10 casing volumes were removed?

YES

6. If low-flow purging was used, was the purge rate less than 0.125 gal/min, and was the drawdown less than 0.3 ft?

NA

7. Were duplicates taken at a frequency of one per 20 samples? YES \_\_\_\_\_
8. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment? NO Frequency = 25 to 1. \_\_\_\_\_
9. Were trip blanks prepared and included with each shipment of VOC samples? NA \_\_\_\_\_
10. Were QC samples assigned a fictitious site identification number? YES \_\_\_\_\_  
Was the true identity of the samples recorded in the field notes? YES \_\_\_\_\_
11. Were samples collected in the containers specified? YES \_\_\_\_\_  
Were certified pre-cleaned containers used for the sampling? YES \_\_\_\_\_
12. Were samples filtered and preserved as specified? YES \_\_\_\_\_
13. Were the number and types of samples collected as specified? YES Except as noted in attached trip report. \_\_\_\_\_
14. Were chain of custody records completed and was sample custody maintained? YES \_\_\_\_\_
15. Were sample ticket book numbers recorded on field data forms and on the chain of custody? YES \_\_\_\_\_
16. Are field data sheets signed and dated by the team leader? YES \_\_\_\_\_
17. Was all other pertinent information documented on the field data sheets? YES \_\_\_\_\_
18. Was the presence or absence of ice in the cooler documented at every sample location? YES \_\_\_\_\_
19. Were water levels measured at the locations specified in the planning documents? YES \_\_\_\_\_



DATA PACKAGE ASSESSMENT

REQUISITION NUMBERS: 17078 SITE: UGW SHP LABORATORY: G50 ANALYSIS DATES: 7/17-9/5/2000

REVIEWER: Kym Bevan Lynn Bevan 10/23/2000

	NAME (print)		SIGNATURE		DATE		ICP-MS		GFAA	FAA	Cu Se NaBH <sub>4</sub>	U-234, 235, 238 Th-232, 230, 232 Po-210 As	R-226, 228 LSc	PC	C/P NO <sub>3</sub> SO <sub>4</sub> IC	TDS Gravimetric	NH <sub>4</sub> Colorimetric	Sr-87, 90 Other		
	ICP-MS	ICP-AES	ICP-MS	ICP-AES	ICP-MS	ICP-AES														
CHAIN OF CUSTODY	ok	ok	NA	NA	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
HOLDING TIME	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
CALIB. VERIFICATION (For AS, internal tracer)	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
PREP. BLANKS (Only if digestion)	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
INT/CONT CAL. BLANKS	0	0	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
ICP SERIAL DILUTION	ok	ok	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ICS (ICP only)	ok	ok	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LAB. CONTROL SAMPLE	ok	ok	NA	NA	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
DUPLICATES	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
POSTDIGEST. SPKS. (Only if MS fails)	NA	NA	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
MATRIX SPKS.	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok
OVERALL ASSESS.	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok	ok

REVIEWER COMMENTS: ① See attached

ITEMS REQUIRING ATTENTION:

FALSE POSITIVE HITS CAUSED BY BLANK CONTAMINATION :

Antimony - ~~997 (268578)~~, All results except 268599 (889) get a "L" flag.

Cadmium - 268599 (948), 268625 (898), 268627 (894), 268629 (895), 268631 (940), 268634 (1206), 268636 (1205), 268638 (1204), 268640 (1201), 268642 (555), 268644 (1203), 268651 (957), 268655 (1210),

Chromium - 268625 (898),

Molybdenum - 268578 (897), 268579 (897), 268586 (956), 268587 (956), 268592 (2010), 268593 (554), 268594 (554), 268621 (898), 268622 (898), 268624 (898), 268626 (894), 268627 (894), 268628 (895), 268629 (895), 268630 (940), 268631 (940), 268633 (1206), 268634 (1206), 268635 (1205), 268636 (1205), 268637 (1204), 268638 (1204), 268639 (1201), 268640 (1201), 268641 (555), 268642 (555), 268643 (1203), 268644 (1203), 268649 (658), 268650 (957), 268651 (957), 268652 (2002), 268653 (939), 268654 (1210), 268655 (1210).

Selenium - 268593 (554), 268594 (554), 268639 (1201),

Uranium - 268632 (2001)

Chloride - 268632 (2001)

~~Fluoride~~

Fluoride - 268578 (897), 268579 (897), 268586 (956)

Ammonium - 268638 (1204), 268639 (1201), 268640 (1201), 268641 (555)  
268642 (555), 268643 (1203), 268644 (1203), 268650 (957)  
268651 (957),

**SHIPROCK, NEW MEXICO  
JULY 2000 SAMPLING  
DATA ASSESSMENT SUMMARY**

The DOE-GJO Analytical Laboratory analyzed samples and reported results for this sampling event under requisition number 17078 for the UMTRA ground water project.

**RADIOCHEMICAL ANALYSIS**

The determination of gross alpha was performed using gas proportional counting: Although not requested, gross beta results are included in this report because gross beta activity is determined concurrently with gross alpha activity. The detection limits for gross alpha are higher than those specified in the planning documents due to high TDS in the samples. Polonium-210 and the uranium isotopes were analyzed by alpha spectrometry. Radium-226/228 were analyzed using liquid scintillation.

Radiological results that were less than the minimum detectable activity (MDA) and/or the 3-sigma counting statistic range were qualified with a "U" flag (non-detect) in the database, as reflected on the database printouts.

**METALS AND MAJOR CATIONS ANALYSIS**

The determination of calcium, chromium, iron, magnesium, manganese, potassium, sodium and strontium were performed by inductively coupled plasma-atomic emission spectrometry (ICP-AES). Antimony, cadmium, molybdenum and uranium were analyzed by inductively coupled plasma-mass spectrometry (ICP-MS). Arsenic and selenium were determined by hydride generation atomic absorption spectroscopy (NaBH<sub>4</sub>).

All antimony results, except for 268589 (889), get "U" flags for blank contamination problems. Cadmium results for 268599 (948), 268625 (898), 268627 (894), 268629 (895), 268631 (940), 268634 (1206), 268636 (1205), 268638 (1204), 268640 (1201), 268642 (555), 268644 (1203), 268651 (957) and 268655 (1210); chromium result for 268625 (898); molybdenum results for 268578 (897), 268579 (897), 268586 (956), 268587 (956), 268592 (2010 filtered duplicate of 956), 268593 (554), 268594 (554), 268621 (888), 268622 (888), 268624 (898), 268626 (894), 268627 (894), 268628 (895), 268629 (895), 268630 (940), 268631 (940), 268633 (1206), 268634 (1206), 268635 (1205), 268636 (1205), 268637 (1204), 268638 (1204), 268639 (1201), 268640 (1201), 268641 (555), 268642 (555), 268643 (1203), 268644 (1203), 268649 (658), 268650 (957), 268651 (957), 268652 (2002 filtered duplicate of 957), 268653 (939), 268654 (1210) and 268655 (1210); selenium results for 268593 (554), 268594 (554) and 268639 (1201); and uranium result 268632 (2001) get "U" flags for blank contamination problems.

**INORGANIC ANALYSIS**

Chloride, fluoride, nitrate, and sulfate were determined by ion chromatography (IC). TDS was determined gravimetrically, and ammonium was determined by spectrophotometry (colorimetry).

The chloride result for 268632 (2001); fluoride results for 268578 (897), 268579 (897) and 268586 (956); and ammonium results for 268638 (1204), 268639 (1201), 268641 (555), 268642 (555), 268643 (1203), 268644 (1203), 268650 (957) and 268651 (957) get "U" flags for blank contamination problems.

## FIELD ANALYSIS/ACTIVITIES

There were no wells with a measured pH greater than 9; therefore, "G" flags indicating potential grout contamination were not required. The following wells were qualified with an "L" flag in the database indicating that less than three casing volumes were removed prior to sampling: 1007 (268591) and 1011 (268595).

One equipment blank was collected and analyzed for the same constituents as the Shiprock environmental samples. There were no UMTRA related contaminants detected in the equipment blanks in concentrations above the CRDL or the MDA/3-sigma; therefore, equipment blank results are considered acceptable. One field duplicate was collected during the sampling event. Although there is no established regulatory criteria for the evaluation of field duplicates, the EPA guidance for *laboratory* duplicates was used. With the exception of the ammonium result, the duplicate sample results met these criteria and should be considered acceptable.

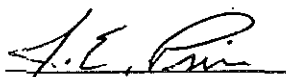
## SAR

Because of technical constraints, a suspected anomalies report (SAR) could not be generated for the Shiprock site and is not included in this data package. **Instead, historical data were reviewed as part of the evaluation of suspected anomalous data.** Data from this sampling event were compared to historical minimum and maximum values. Results that were greater than 150 percent of the historical maximum value or less than 50 percent of the historical minimum value (excluding results with less than 5 historical data points) are listed on the Anomalous Data Review Checksheet.


## SUMMARY

All analytical quality control criteria were met except as qualified on the Ground Water Quality Data by Parameter, Surface Water Quality by Parameter, or equipment blank/trip blank database printouts. The meaning of data qualifiers is as defined on the UMTRA database printout or as defined in the USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, Multi-Media Multi-Concentration, Document Number ILMO2.0, 1991. All data in this package are considered validated and may be treated as final results.

A disk copy of the ground water, surface water, and equipment blank database printouts with the qualifiers incorporated are included in this package.

  
\_\_\_\_\_  
Jeff Price  
Data Validation Lead

11/27/00  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Craig Goodknight  
Project Lead

11/27/00  
\_\_\_\_\_  
Date

# **DATA REVIEW CHECKSHEET**



# **WATER QUALITY DATA**



GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:02

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0850	07/13/2000	0001	AL	B	333	#	-	-
	mg/L	0850	07/13/2000	N001	AL	B	324	#	-	-
ORP of Zobell Solution	mV	0850	07/13/2000	N001	AL	B	228	#	-	-
Oxidation Reduction Potenti	mV	0850	07/13/2000	N001	AL	B	60	#	-	-
pH	s.u.	0850	07/13/2000	N001	AL	B	7.44	#	-	-
Specific Conductance	umhos/cm	0850	07/13/2000	N001	AL	B	3690	#	-	-
Temperature	C	0850	07/13/2000	N001	AL	B	17.7	#	-	-
Temperature of Zobell Soluti	C	0850	07/13/2000	N001	AL	B	14.1	#	-	-
Turbidity	NTU	0850	07/13/2000	N001	AL	B	8.76	#	-	-
Uranium-234	pCi/L	0850	07/13/2000	0001	AL	B	10.59	#	0.17	± 1.77
Uranium-235	pCi/L	0850	07/13/2000	0001	AL	B	0.34	U #	0.16	± 0.32
Uranium-238	pCi/L	0850	07/13/2000	0001	AL	B	6.28	#	0.11	± 1.32

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:02

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
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RECORDS: SELECTED FROM USEE200 WHERE site\_code='SHP01' AND quality\_assurance = TRUE AND (NOT (data\_validation\_qualifiers LIKE "R" OR data\_validation\_qualifiers LIKE "X" ) OR IsNull(data\_validation\_qualifiers)) AND DATE\_SAMPLED between #7/5/2000# and #7/25/2000#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- \* Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- J Estimated value.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- F Low flow sampling method used.
- R Unusable result.
- G Possible grout contamination, pH > 9.
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:04

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0815	07/11/2000	0001	AL		1290	#	-	-
	mg/L	0815	07/11/2000	N001	AL		1256	#	-	-
	mg/L	0827	07/12/2000	0001	AL		977	#	-	-
	mg/L	0827	07/12/2000	N001	AL		992	#	-	-
	mg/L	0833	07/11/2000	0001	AL		385	#	-	-
	mg/L	0833	07/11/2000	N001	AL		392	#	-	-
	mg/L	0838	07/11/2000	0001	AL		315	#	-	-
	mg/L	0838	07/11/2000	N001	AL		305	#	-	-
	mg/L	0839	07/11/2000	0001	AL		754	#	-	-
	mg/L	0839	07/11/2000	N001	AL		698	#	-	-
	mg/L	0844	07/11/2000	0001	AL		429	#	-	-
	mg/L	0844	07/11/2000	N001	AL		397	#	-	-
	mg/L	0846	07/11/2000	0001	AL		269	#	-	-
	mg/L	0846	07/11/2000	N001	AL		267	#	-	-
	mg/L	1007	07/12/2000	N001	FL		1548	L #	-	-
	Ammonium	mg/L	0830	07/11/2000	0001	KM		22.400	#	-
mg/L		1011	07/13/2000	0001	QA		2.870	L #	-	-
Chloride	mg/L	1011	07/13/2000	0001	QA		224.000	L #	-	-
Fluoride	mg/L	1011	07/13/2000	0001	QA		0.626	B L #	-	-
Gross Alpha	pCi/L	1007	07/12/2000	0001	FL		961.17	L #	142.81	± 169.
Gross Beta	pCi/L	1007	07/12/2000	0001	FL		638.99	L #	131.05	± 104.
Manganese	mg/L	0827	07/12/2000	0001	AL		1.080	#	0.0015	-
Nitrate	mg/L	0830	07/11/2000	0001	KM		91.700	#	-	-
	mg/L	1011	07/13/2000	0001	QA		609.000	L #	-	-
ORP of Zobell Solution	mV	0815	07/11/2000	N001	AL		203	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:04

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
ORP of Zobell Solution	mV	0827	07/12/2000	N001	AL		210	#	-	-
	mV	0830	07/11/2000	N001	KM		218	#	-	-
	mV	0833	07/11/2000	N001	AL		210	#	-	-
	mV	0838	07/11/2000	N001	AL		228	#	-	-
	mV	0839	07/11/2000	N001	AL		203	#	-	-
	mV	0844	07/11/2000	N001	AL		210	#	-	-
	mV	0846	07/11/2000	N001	AL		228	#	-	-
	mV	1007	07/12/2000	N001	FL		215	L #	-	-
Oxidation Reduction Potenti	mV	0815	07/11/2000	N001	AL		196	#	-	-
	mV	0827	07/12/2000	N001	AL		180	#	-	-
	mV	0830	07/11/2000	N001	KM		162	#	-	-
	mV	0833	07/11/2000	N001	AL		174	#	-	-
	mV	0838	07/11/2000	N001	AL		173	#	-	-
	mV	0839	07/11/2000	N001	AL		164	#	-	-
	mV	0844	07/11/2000	N001	AL		173	#	-	-
	mV	0846	07/11/2000	N001	AL		152	#	-	-
	mV	1007	07/12/2000	N001	FL		191	L #	-	-
	mV	1011	07/13/2000	N001	QA		162	L #	-	-
pH	s.u.	0815	07/11/2000	N001	AL		6.72	#	-	-
	s.u.	0827	07/12/2000	N001	AL		6.52	#	-	-
	s.u.	0830	07/11/2000	N001	KM		5.23	#	-	-
	s.u.	0833	07/11/2000	N001	AL		7.01	#	-	-
	s.u.	0838	07/11/2000	N001	AL		6.92	#	-	-
	s.u.	0839	07/11/2000	N001	AL		6.72	#	-	-
	s.u.	0844	07/11/2000	N001	AL		7	#	-	-
	s.u.	0846	07/11/2000	N001	AL		6.94	#	-	-
	s.u.	1007	07/12/2000	N001	FL		6.87	L #	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:04

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	1011	07/13/2000	N001	QA		6.96	L #	-	-
Polonium-210	pCi/L	1007	07/12/2000	0001	FL		0.34	UL #	0.23	± 0.34
Selenium	mg/L	0827	07/12/2000	0001	AL		0.0585	#	0.0005	-
Specific Conductance	umhos/cm	0815	07/11/2000	N001	AL		13440	#	-	-
	umhos/cm	0827	07/12/2000	N001	AL		8990	#	-	-
	umhos/cm	0830	07/11/2000	N001	KM		2890	#	-	-
	umhos/cm	0833	07/11/2000	N001	AL		7140	#	-	-
	umhos/cm	0838	07/11/2000	N001	AL		2700	#	-	-
	umhos/cm	0839	07/11/2000	N001	AL		13860	#	-	-
	umhos/cm	0844	07/11/2000	N001	AL		7570	#	-	-
	umhos/cm	0846	07/11/2000	N001	AL		4670	#	-	-
	umhos/cm	1007	07/12/2000	N001	FL		12620	L #	-	-
	umhos/cm	1011	07/13/2000	N001	QA		8730	L #	-	-
Sulfate	mg/L	1011	07/13/2000	0001	QA		5420.000	L #	-	-
Temperature	C	0815	07/11/2000	N001	AL		16.9	#	-	-
	C	0827	07/12/2000	N001	AL		18.4	#	-	-
	C	0830	07/11/2000	N001	KM		24.8	#	-	-
	C	0833	07/11/2000	N001	AL		15	#	-	-
	C	0838	07/11/2000	N001	AL		15.7	#	-	-
	C	0839	07/11/2000	N001	AL		19.6	#	-	-
	C	0844	07/11/2000	N001	AL		15.5	#	-	-
	C	0846	07/11/2000	N001	AL		15.4	#	-	-
	C	1007	07/12/2000	N001	FL		18.9	L #	-	-
	C	1011	07/13/2000	N001	QA		18.7	L #	-	-
Temperature of Zobell Soluti	C	0815	07/11/2000	N001	AL		31.9	#	-	-
	C	0827	07/12/2000	N001	AL		26.9	#	-	-

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:04

PARAMETER	UNITS	LOCATION ID	SAMPLE:		ZONE COMPL	FLOW REL	RESULT	QUALIFIERS:		DETECTION LIMIT	UN-CERTAINTY
			DATE	ID				LAB	DATA QA		
Temperature of Zobell Soluti	C	0830	07/11/2000	N001	KM		27		#	-	-
	C	0833	07/11/2000	N001	AL		28.6		#	-	-
	C	0838	07/11/2000	N001	AL		18		#	-	-
	C	0839	07/11/2000	N001	AL		31.9		#	-	-
	C	0844	07/11/2000	N001	AL		28.6		#	-	-
	C	0846	07/11/2000	N001	AL		18		#	-	-
	C	1007	07/12/2000	N001	FL		25		L #	-	-
Turbidity	NTU	0815	07/11/2000	N001	AL		5.34		#	-	-
	NTU	0827	07/12/2000	N001	AL		51		#	-	-
	NTU	0830	07/11/2000	N001	KM		400		#	-	-
	NTU	0833	07/11/2000	N001	AL		8.97		#	-	-
	NTU	0838	07/11/2000	N001	AL		2.61		#	-	-
	NTU	0844	07/11/2000	N001	AL		8.86		#	-	-
	NTU	0846	07/11/2000	N001	AL		7.4		#	-	-
	NTU	1007	07/12/2000	N001	FL		1000	>	L #	-	-
Uranium	mg/L	0827	07/12/2000	0001	AL		0.729		#	0.0005	-
	mg/L	1011	07/13/2000	0001	QA		0.226		L #	0.0001	-
Uranium-234	pCi/L	0815	07/11/2000	0001	AL		182.92		#	0.2	± 14.4
	pCi/L	0833	07/11/2000	0001	AL		65.26		#	0.28	± 6.86
	pCi/L	0838	07/11/2000	0001	AL		22.67		#	0.16	± 2.86
	pCi/L	0839	07/11/2000	0001	AL		190.32		#	0.21	± 18.1
	pCi/L	0844	07/11/2000	0001	AL		54.77		#	0.15	± 4.63
	pCi/L	0846	07/11/2000	0001	AL		27.21		#	0.16	± 3.23
Uranium-235	pCi/L	0815	07/11/2000	0001	AL		5.25		#	0.18	± 1.27
	pCi/L	0833	07/11/2000	0001	AL		1.6		#	0.21	± 0.77
	pCi/L	0838	07/11/2000	0001	AL		0.55		U #	0.12	± 0.39

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:04

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Uranium-235	pCi/L	0839	07/11/2000	0001	AL		6.68	#	0.2	± 1.75
	pCi/L	0844	07/11/2000	0001	AL		1.76	#	0.13	± 0.61
	pCi/L	0846	07/11/2000	0001	AL		0.8	#	0.14	± 0.47
Uranium-238	pCi/L	0815	07/11/2000	0001	AL		111.64 + 182.92 = 294.56	#	0.17	± 9.46
	pCi/L	0833	07/11/2000	0001	AL		40.63 + 65.26 = 105.89	#	0.12	± 4.85
	pCi/L	0838	07/11/2000	0001	AL		12.89 + 22.67 = 35.56	#	0.13	± 2.02
	pCi/L	0839	07/11/2000	0001	AL		146.76 + 190.32 = 337.08	#	0.18	± 14.4
	pCi/L	0844	07/11/2000	0001	AL		29.68 + 54.77 = 84.45	#	0.11	± 3.01
	pCi/L	0846	07/11/2000	0001	AL		15.15 + 27.21 = 42.36	#	0.12	± 2.24

GROUND WATER QUALITY DATA BY PARAMETER (USEE200) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)

REPORT DATE: 10/31/2000 1:04

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE ID	ZONE COMPL	FLOW REL.	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN- CERTAINTY
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RECORDS: SELECTED FROM USEE200 WHERE site\_code='SHP02' AND quality\_assurance = TRUE AND (NOT (data\_validation\_qualifiers LIKE "R" OR data\_validation\_qualifiers LIKE "X" ) OR IsNull(data\_validation\_qualifiers)) AND DATE\_SAMPLED between #7/5/2000# and #7/25/2000#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.  
Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- J Estimated value.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- F Low flow sampling method used.
- R Unusable result.
- G Possible grout contamination, pH > 9
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.



SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE	ID		LAB	DATA	QA		
Alkalinity as CaCO3	mg/L	0554	07/12/2000	0001	117	#	-	-	-	-
	mg/L	0554	07/12/2000	N001	113	#	-	-	-	-
	mg/L	0555	07/15/2000	0001	109	#	-	-	-	-
	mg/L	0555	07/15/2000	N001	105	#	-	-	-	-
	mg/L	0658	07/16/2000	0001	211	#	-	-	-	-
	mg/L	0658	07/16/2000	N001	229	#	-	-	-	-
	mg/L	0888	07/13/2000	0001	114	#	-	-	-	-
	mg/L	0888	07/13/2000	N001	120	#	-	-	-	-
	mg/L	0894	07/14/2000	0001	115	#	-	-	-	-
	mg/L	0894	07/14/2000	N001	118	#	-	-	-	-
	mg/L	0895	07/14/2000	0001	125	#	-	-	-	-
	mg/L	0895	07/14/2000	N001	110	#	-	-	-	-
	mg/L	0897	07/11/2000	0001	113	#	-	-	-	-
	mg/L	0897	07/11/2000	N001	103	#	-	-	-	-
	mg/L	0898	07/13/2000	0001	103	#	-	-	-	-
	mg/L	0898	07/13/2000	N001	107	#	-	-	-	-
	mg/L	0939	07/16/2000	0001	139	#	-	-	-	-
	mg/L	0939	07/16/2000	N001	134	#	-	-	-	-
	mg/L	0940	07/14/2000	0001	110	#	-	-	-	-
	mg/L	0940	07/14/2000	N001	125	#	-	-	-	-
	mg/L	0947	07/13/2000	0001	65	#	-	-	-	-
	mg/L	0947	07/13/2000	N001	60	#	-	-	-	-
	mg/L	0956	07/12/2000	0001	114	#	-	-	-	-
	mg/L	0956	07/12/2000	N001	113	#	-	-	-	-
	mg/L	0957	07/16/2000	0001	118	#	-	-	-	-
	mg/L	0957	07/16/2000	N001	112	#	-	-	-	-
	mg/L	1201	07/15/2000	0001	108	#	-	-	-	-
	mg/L	1201	07/15/2000	N001	112	#	-	-	-	-
	mg/L	1203	07/15/2000	0001	115	#	-	-	-	-
	mg/L	1203	07/15/2000	N001	111	#	-	-	-	-
	mg/L	1204	07/14/2000	0001	99	#	-	-	-	-
	mg/L	1204	07/14/2000	N001	92	#	-	-	-	-
	mg/L	1205	07/14/2000	0001	99	#	-	-	-	-
	mg/L	1205	07/14/2000	N001	106	#	-	-	-	-
	mg/L	1206	07/14/2000	0001	99	#	-	-	-	-
	mg/L	1206	07/14/2000	N001	88	#	-	-	-	-
	mg/L	1210	07/16/2000	0001	112	#	-	-	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE	ID		LAB	DATA	QA		
Alkalinity as CaCO3	mg/L	1210	07/16/2000	N001	106			#	-	-
Ammonium	mg/L	0554	07/12/2000	0001	0.0133	B		#	-	-
	mg/L	0554	07/12/2000	N003	0.0191	B		#	-	-
	mg/L	0555	07/15/2000	0001	0.0271	B	U	#	-	-
	mg/L	0555	07/15/2000	N003	0.0303	B	U	#	-	-
	mg/L	0658	07/16/2000	0001	0.141			#	-	-
	mg/L	0888	07/13/2000	0001	0.0176	B		#	-	-
	mg/L	0888	07/13/2000	N003	0.0059	B		#	-	-
	mg/L	0894	07/14/2000	0001	0.0088	B		#	-	-
	mg/L	0894	07/14/2000	N003	0.0117	B		#	-	-
	mg/L	0895	07/14/2000	0001	0.0059	B		#	-	-
	mg/L	0895	07/14/2000	N003	0.0047	U		#	0.0047	-
	mg/L	0897	07/11/2000	0001	0.0133	B		#	-	-
	mg/L	0897	07/11/2000	N003	0.0133	B		#	-	-
	mg/L	0898	07/13/2000	0001	0.0088	B		#	-	-
	mg/L	0898	07/13/2000	N003	0.0176	B		#	-	-
	mg/L	0939	07/16/2000	0001	0.016	B		#	-	-
	mg/L	0940	07/14/2000	0001	0.0059	B		#	-	-
	mg/L	0940	07/14/2000	N003	0.0047	U		#	0.0047	-
	mg/L	0947	07/13/2000	0001	0.0249	B		#	-	-
	mg/L	0947	07/13/2000	N003	0.022	B		#	-	-
	mg/L	0948	07/13/2000	0001	0.0162	B		#	-	-
	mg/L	0948	07/13/2000	N003	0.0047	U		#	0.0047	-
	mg/L	0956	07/12/2000	0001	0.0162	B		#	-	-
	mg/L	0956	07/12/2000	0002	1.090			#	-	-
	mg/L	0956	07/12/2000	N003	0.0162	B		#	-	-
	mg/L	0957	07/16/2000	0001	0.0303	B	U	#	-	-
	mg/L	0957	07/16/2000	0002	0.016	B		#	-	-
	mg/L	0957	07/16/2000	N003	0.0303	B	U	#	-	-
	mg/L	1201	07/15/2000	0001	0.0303	B	U	#	-	-
	mg/L	1201	07/15/2000	N003	0.0238	B		#	-	-
	mg/L	1203	07/15/2000	0001	0.0303	B	U	#	-	-
	mg/L	1203	07/15/2000	N003	0.0238	B	U	#	-	-
mg/L	1204	07/14/2000	0001	0.0292	B		#	-	-	
mg/L	1204	07/14/2000	N003	0.0271	B	U	#	-	-	
mg/L	1205	07/14/2000	0001	0.0059	B		#	-	-	
mg/L	1205	07/14/2000	N003	0.0147	B		#	-	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Ammonium	mg/L	1206	07/14/2000	0001	0.0088 B			#	-	-
	mg/L	1206	07/14/2000	N003	0.0088 B			#	-	-
	mg/L	1210	07/16/2000	0001	0.0126 B			#	-	-
	mg/L	1210	07/16/2000	N003	0.0093 B			#	-	-
Antimony	mg/L	0554	07/12/2000	0001	0.0003 B	U		#	0.0001	-
	mg/L	0554	07/12/2000	N003	0.0003 B	U		#	0.0001	-
	mg/L	0555	07/15/2000	0001	0.0003 B	U		#	0.0001	-
	mg/L	0555	07/15/2000	N003	0.0015 B	U		#	0.0001	-
	mg/L	0658	07/16/2000	0001	0.0002 B	U		#	0.0001	-
	mg/L	0888	07/13/2000	0001	0.0003 B	U		#	0.0001	-
	mg/L	0888	07/13/2000	N003	0.0008 B	U		#	0.0001	-
	mg/L	0894	07/14/2000	0001	0.0004 B	U		#	0.0001	-
	mg/L	0894	07/14/2000	N003	0.0023 B	U		#	0.0001	-
	mg/L	0895	07/14/2000	0001	0.0004 B	U		#	0.0001	-
	mg/L	0895	07/14/2000	N003	0.0029 B	U		#	0.0001	-
	mg/L	0897	07/11/2000	0001	0.0002 B	U		#	0.0001	-
	mg/L	0897	07/11/2000	N003	0.0007 B	U		#	0.0001	-
	mg/L	0898	07/13/2000	0001	0.0005 B	U		#	0.0001	-
	mg/L	0898	07/13/2000	N003	0.0021 B	U		#	0.0001	-
	mg/L	0939	07/16/2000	0001	0.0002 B	U		#	0.0001	-
	mg/L	0940	07/14/2000	0001	0.0004 B	U		#	0.0001	-
	mg/L	0940	07/14/2000	N003	0.002 B	U		#	0.0001	-
	mg/L	0947	07/13/2000	0001	0.001 B	U		#	0.0001	-
	mg/L	0947	07/13/2000	N003	0.0013 B	U		#	0.0001	-
	mg/L	0948	07/13/2000	0001	0.0011 B	U		#	0.0001	-
	mg/L	0948	07/13/2000	N003	0.0022 B	U		#	0.0001	-
	mg/L	0956	07/12/2000	0001	0.0002 B	U		#	0.0001	-
	mg/L	0956	07/12/2000	0002	0.0002 B	U		#	0.0001	-
	mg/L	0956	07/12/2000	N003	0.0004 B	U		#	0.0001	-
	mg/L	0957	07/16/2000	0001	0.0002 B	U		#	0.0001	-
	mg/L	0957	07/16/2000	0002	0.0002 B	U		#	0.0001	-
	mg/L	0957	07/16/2000	N003	0.001 B	U		#	0.0001	-
	mg/L	1201	07/15/2000	0001	0.0002 B	U		#	0.0001	-
	mg/L	1201	07/15/2000	N003	0.0014 B	U		#	0.0001	-
	mg/L	1203	07/15/2000	0001	0.0005 B	U		#	0.0001	-
	mg/L	1203	07/15/2000	N003	0.0016 B	U		#	0.0001	-
mg/L	1204	07/14/2000	0001	0.0003 B	U		#	0.0001	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Antimony	mg/L	1204	07/14/2000	N003	0.0014	B	U	#	0.0001	-
	mg/L	1205	07/14/2000	0001	0.0003	B	U	#	0.0001	-
	mg/L	1205	07/14/2000	N003	0.0026	B	U	#	0.0001	-
	mg/L	1206	07/14/2000	0001	0.0003	B	U	#	0.0001	-
	mg/L	1206	07/14/2000	N003	0.0019	B	U	#	0.0001	-
	mg/L	1210	07/16/2000	0001	0.0002	B	U	#	0.0001	-
	mg/L	1210	07/16/2000	N003	0.0012	B	U	#	0.0001	-
Arsenic	mg/L	0554	07/12/2000	0001	0.0005	B		#	0.0003	-
	mg/L	0554	07/12/2000	N003	0.0009	B		#	0.0003	-
	mg/L	0555	07/15/2000	0001	0.0004	B		#	0.0003	-
	mg/L	0555	07/15/2000	N003	0.001	B		#	0.0003	-
	mg/L	0658	07/16/2000	0001	0.0029	B		#	0.0003	-
	mg/L	0888	07/13/2000	0001	0.0005	B		#	0.0003	-
	mg/L	0888	07/13/2000	N003	0.0009	B		#	0.0003	-
	mg/L	0894	07/14/2000	0001	0.0005	B		#	0.0003	-
	mg/L	0894	07/14/2000	N003	0.001	B		#	0.0003	-
	mg/L	0895	07/14/2000	0001	0.0005	B		#	0.0003	-
	mg/L	0895	07/14/2000	N003	0.0011	B		#	0.0003	-
	mg/L	0897	07/11/2000	0001	0.0004	B		#	0.0003	-
	mg/L	0897	07/11/2000	N003	0.0008	B		#	0.0003	-
	mg/L	0898	07/13/2000	0001	0.0005	B		#	0.0003	-
	mg/L	0898	07/13/2000	N003	0.0019	B		#	0.0003	-
	mg/L	0939	07/16/2000	0001	0.0005	B		#	0.0003	-
	mg/L	0940	07/14/2000	0001	0.0005	B		#	0.0003	-
	mg/L	0940	07/14/2000	N003	0.0009	B		#	0.0003	-
	mg/L	0947	07/13/2000	0001	0.0003	U		#	0.0003	-
	mg/L	0947	07/13/2000	N003	0.0005	B		#	0.0003	-
	mg/L	0948	07/13/2000	0001	0.0003	U		#	0.0003	-
	mg/L	0948	07/13/2000	N003	0.0006	B		#	0.0003	-
	mg/L	0956	07/12/2000	0001	0.0003	B		#	0.0003	-
	mg/L	0956	07/12/2000	0002	0.0004	B		#	0.0003	-
	mg/L	0956	07/12/2000	N003	0.0009	B		#	0.0003	-
	mg/L	0957	07/16/2000	0001	0.0004	B		#	0.0003	-
	mg/L	0957	07/16/2000	0002	0.0003	B		#	0.0003	-
	mg/L	0957	07/16/2000	N003	0.0009	B		#	0.0003	-
	mg/L	1201	07/15/2000	0001	0.0004	B		#	0.0003	-
	mg/L	1201	07/15/2000	N003	0.0009	B		#	0.0003	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA QA		
Arsenic	mg/L	1203	07/15/2000	0001	0.0004	B	#	0.0003	-
	mg/L	1203	07/15/2000	N003	0.0009	B	#	0.0003	-
	mg/L	1204	07/14/2000	0001	0.0006	B	#	0.0003	-
	mg/L	1204	07/14/2000	N003	0.0011	B	#	0.0003	-
	mg/L	1205	07/14/2000	0001	0.0005	B	#	0.0003	-
	mg/L	1205	07/14/2000	N003	0.0012	B	#	0.0003	-
	mg/L	1206	07/14/2000	0001	0.0005	B	#	0.0003	-
	mg/L	1206	07/14/2000	N003	0.0011	B	#	0.0003	-
	mg/L	1210	07/16/2000	0001	0.0005	B	#	0.0003	-
	mg/L	1210	07/16/2000	N003	0.0009	B	#	0.0003	-
Boron	mg/L	0888	07/13/2000	0001	0.0452	B	#	0.0081	-
	mg/L	0888	07/13/2000	N003	0.0512	B	#	0.0081	-
	mg/L	0898	07/13/2000	0001	0.0487	B	#	0.0081	-
	mg/L	0898	07/13/2000	N003	0.0405	B	#	0.0081	-
	mg/L	0947	07/13/2000	0001	0.864		#	0.0081	-
	mg/L	0947	07/13/2000	N003	0.887		#	0.0081	-
	mg/L	0948	07/13/2000	0001	0.820		#	0.0081	-
	mg/L	0948	07/13/2000	N003	0.825		#	0.0081	-
Cadmium	mg/L	0554	07/12/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0554	07/12/2000	N003	0.0002	U	#	0.0002	-
	mg/L	0555	07/15/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0555	07/15/2000	N003	0.0015	U	#	0.0002	-
	mg/L	0658	07/16/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0888	07/13/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0888	07/13/2000	N003	0.0002	U	#	0.0002	-
	mg/L	0894	07/14/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0894	07/14/2000	N003	0.0028	U	#	0.0002	-
	mg/L	0895	07/14/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0895	07/14/2000	N003	0.0035	U	#	0.0002	-
	mg/L	0897	07/11/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0897	07/11/2000	N003	0.0002	U	#	0.0002	-
	mg/L	0898	07/13/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0898	07/13/2000	N003	0.0028	U	#	0.0002	-
	mg/L	0939	07/16/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0940	07/14/2000	0001	0.0002	U	#	0.0002	-
	mg/L	0940	07/14/2000	N003	0.0024	U	#	0.0002	-
mg/L	0947	07/13/2000	0001	0.0002	U	#	0.0002	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Cadmium	mg/L	0947	07/13/2000	N003	0.0002	U #	0.0002	-
	mg/L	0948	07/13/2000	0001	0.0002	U #	0.0002	-
	mg/L	0948	07/13/2000	N003	0.0013	U #	0.0002	-
	mg/L	0956	07/12/2000	0001	0.0002	U #	0.0002	-
	mg/L	0956	07/12/2000	0002	0.0002	U #	0.0002	-
	mg/L	0956	07/12/2000	N003	0.0002	U #	0.0002	-
	mg/L	0957	07/16/2000	0001	0.0002	U #	0.0002	-
	mg/L	0957	07/16/2000	0002	0.0002	U #	0.0002	-
	mg/L	0957	07/16/2000	N003	0.0005	U #	0.0002	-
	mg/L	1201	07/15/2000	0001	0.0002	U #	0.0002	-
	mg/L	1201	07/15/2000	N003	0.0013	U #	0.0002	-
	mg/L	1203	07/15/2000	0001	0.0002	U #	0.0002	-
	mg/L	1203	07/15/2000	N003	0.0015	U #	0.0002	-
	mg/L	1204	07/14/2000	0001	0.0002	U #	0.0002	-
	mg/L	1204	07/14/2000	N003	0.0016	U #	0.0002	-
	mg/L	1205	07/14/2000	0001	0.0002	U #	0.0002	-
	mg/L	1205	07/14/2000	N003	0.0024	U #	0.0002	-
	mg/L	1206	07/14/2000	0001	0.0002	U #	0.0002	-
	mg/L	1206	07/14/2000	N003	0.0021	U #	0.0002	-
	mg/L	1210	07/16/2000	0001	0.0002	U #	0.0002	-
mg/L	1210	07/16/2000	N003	0.0009	U #	0.0002	-	
Calcium	mg/L	0554	07/12/2000	0001	57.000	#	0.0504	-
	mg/L	0554	07/12/2000	N003	59.700	#	0.0504	-
	mg/L	0555	07/15/2000	0001	56.400	#	0.0504	-
	mg/L	0555	07/15/2000	N003	59.400	#	0.0504	-
	mg/L	0658	07/16/2000	0001	199.000	#	0.0504	-
	mg/L	0888	07/13/2000	0001	57.500	#	0.0504	-
	mg/L	0888	07/13/2000	N003	60.000	#	0.0504	-
	mg/L	0894	07/14/2000	0001	59.500	#	0.0504	-
	mg/L	0894	07/14/2000	N003	61.700	#	0.0504	-
	mg/L	0895	07/14/2000	0001	57.400	#	0.0504	-
	mg/L	0895	07/14/2000	N003	61.400	#	0.0504	-
	mg/L	0897	07/11/2000	0001	60.000	#	0.0504	-
	mg/L	0897	07/11/2000	N003	62.900	#	0.0504	-
	mg/L	0898	07/13/2000	0001	55.900	#	0.0504	-
	mg/L	0898	07/13/2000	N003	59.300	#	0.0504	-
	mg/L	0939	07/16/2000	0001	101.000	#	0.0504	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Calcium	mg/L	0940	07/14/2000	0001	58.200	#	0.0504	-
	mg/L	0940	07/14/2000	N003	62.000	#	0.0504	-
	mg/L	0947	07/13/2000	0001	84.100	#	0.0504	-
	mg/L	0947	07/13/2000	N003	88.500	#	0.0504	-
	mg/L	0948	07/13/2000	0001	86.800	#	0.0504	-
	mg/L	0948	07/13/2000	N003	90.800	#	0.0504	-
	mg/L	0956	07/12/2000	0001	60.900	#	0.0504	-
	mg/L	0956	07/12/2000	0002	60.800	#	0.0504	-
	mg/L	0956	07/12/2000	N003	63.600	#	0.0504	-
	mg/L	0957	07/16/2000	0001	56.300	#	0.0504	-
	mg/L	0957	07/16/2000	0002	56.000	#	0.0504	-
	mg/L	0957	07/16/2000	N003	60.000	#	0.0504	-
	mg/L	1201	07/15/2000	0001	57.100	#	0.0504	-
	mg/L	1201	07/15/2000	N003	59.500	#	0.0504	-
	mg/L	1203	07/15/2000	0001	57.200	#	0.0504	-
	mg/L	1203	07/15/2000	N003	58.600	#	0.0504	-
	mg/L	1204	07/14/2000	0001	54.500	#	0.0504	-
	mg/L	1204	07/14/2000	N003	56.600	#	0.0504	-
	mg/L	1205	07/14/2000	0001	56.800	#	0.0504	-
	mg/L	1205	07/14/2000	N003	59.700	#	0.0504	-
	mg/L	1206	07/14/2000	0001	54.400	#	0.0504	-
	mg/L	1206	07/14/2000	N003	60.200	#	0.0504	-
	mg/L	1210	07/16/2000	0001	55.000	#	0.0504	-
	mg/L	1210	07/16/2000	N003	58.600	#	0.0504	-
Chloride	mg/L	0554	07/12/2000	0001	14.800	#	-	-
	mg/L	0554	07/12/2000	N003	14.800	#	-	-
	mg/L	0555	07/15/2000	0001	13.600	#	-	-
	mg/L	0555	07/15/2000	N003	13.600	#	-	-
	mg/L	0658	07/16/2000	0001	76.100	#	-	-
	mg/L	0888	07/13/2000	0001	14.300	#	-	-
	mg/L	0888	07/13/2000	N003	14.400	#	-	-
	mg/L	0894	07/14/2000	0001	14.400	#	-	-
	mg/L	0894	07/14/2000	N003	14.500	#	-	-
	mg/L	0895	07/14/2000	0001	14.100	#	-	-
	mg/L	0895	07/14/2000	N003	14.400	#	-	-
	mg/L	0897	07/11/2000	0001	14.200	#	-	-
	mg/L	0897	07/11/2000	N003	14.700	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN- CERTAINTY	
			DATE	ID		LAB	DATA QA			
Chloride	mg/L	0898	07/13/2000	0001	14.400			#	-	-
	mg/L	0898	07/13/2000	N003	14.500			#	-	-
	mg/L	0939	07/16/2000	0001	14.900			#	-	-
	mg/L	0940	07/14/2000	0001	13.900			#	-	-
	mg/L	0940	07/14/2000	N003	14.000			#	-	-
	mg/L	0947	07/13/2000	0001	48.000			#	-	-
	mg/L	0947	07/13/2000	N003	47.800			#	-	-
	mg/L	0948	07/13/2000	0001	44.600			#	-	-
	mg/L	0948	07/13/2000	N003	44.300			#	-	-
	mg/L	0956	07/12/2000	0001	13.800			#	-	-
	mg/L	0956	07/12/2000	0002	13.900			#	-	-
	mg/L	0956	07/12/2000	N003	14.000			#	-	-
	mg/L	0957	07/16/2000	0001	13.800			#	-	-
	mg/L	0957	07/16/2000	0002	13.900			#	-	-
	mg/L	0957	07/16/2000	N003	14.100			#	-	-
	mg/L	1201	07/15/2000	0001	13.600			#	-	-
	mg/L	1201	07/15/2000	N003	13.600			#	-	-
	mg/L	1203	07/15/2000	0001	13.800			#	-	-
	mg/L	1203	07/15/2000	N003	13.800			#	-	-
	mg/L	1204	07/14/2000	0001	14.600			#	-	-
	mg/L	1204	07/14/2000	N003	14.600			#	-	-
	mg/L	1205	07/14/2000	0001	14.400			#	-	-
	mg/L	1205	07/14/2000	N003	14.300			#	-	-
	mg/L	1206	07/14/2000	0001	14.400			#	-	-
	mg/L	1206	07/14/2000	N003	14.500			#	-	-
	mg/L	1210	07/16/2000	0001	14.600			#	-	-
	mg/L	1210	07/16/2000	N003	14.600			#	-	-
	Chromium	mg/L	0888	07/13/2000	0001	0.0035	U		#	0.0035
mg/L		0888	07/13/2000	N003	0.0093	B		#	0.0035	-
mg/L		0898	07/13/2000	0001	0.0035	U		#	0.0035	-
mg/L		0898	07/13/2000	N003	0.004	B	U	#	0.0035	-
mg/L		0947	07/13/2000	0001	0.0035	U		#	0.0035	-
mg/L		0947	07/13/2000	N003	0.0061	B		#	0.0035	-
mg/L		0948	07/13/2000	0001	0.0042	B		#	0.0035	-
mg/L		0948	07/13/2000	N003	0.0085	B		#	0.0035	-
Copper	mg/L	0555	07/15/2000	0001	0.0031	U		#	0.0031	-
	mg/L	0555	07/15/2000	N003	0.0034	U		#	0.0031	-



SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Copper	mg/L	0658	07/16/2000	0001	0.0031	U #	0.0031	-
	mg/L	0888	07/13/2000	0001	0.0031	U #	0.0031	-
	mg/L	0888	07/13/2000	N003	0.0034	U #	0.0031	-
	mg/L	0894	07/14/2000	0001	0.0031	U #	0.0031	-
	mg/L	0894	07/14/2000	N003	0.0034	U #	0.0031	-
	mg/L	0895	07/14/2000	0001	0.0031	U #	0.0031	-
	mg/L	0895	07/14/2000	N003	0.0034	U #	0.0031	-
	mg/L	0898	07/13/2000	0001	0.0031	U #	0.0031	-
	mg/L	0898	07/13/2000	N003	0.0034	U #	0.0031	-
	mg/L	0939	07/16/2000	0001	0.0031	U #	0.0031	-
	mg/L	0940	07/14/2000	0001	0.0031	U #	0.0031	-
	mg/L	0940	07/14/2000	N003	0.0034	U #	0.0031	-
	mg/L	0957	07/16/2000	0001	0.0031	U #	0.0031	-
	mg/L	0957	07/16/2000	0002	0.0031	U #	0.0031	-
	mg/L	0957	07/16/2000	N003	0.0034	U #	0.0031	-
	mg/L	1201	07/15/2000	0001	0.0031	U #	0.0031	-
	mg/L	1201	07/15/2000	N003	0.0034	U #	0.0031	-
	mg/L	1203	07/15/2000	0001	0.0031	U #	0.0031	-
	mg/L	1203	07/15/2000	N003	0.0034	U #	0.0031	-
	mg/L	1204	07/14/2000	0001	0.0031	U #	0.0031	-
	mg/L	1204	07/14/2000	N003	0.0034	U #	0.0031	-
	mg/L	1205	07/14/2000	0001	0.0031	U #	0.0031	-
	mg/L	1205	07/14/2000	N003	0.0034	U #	0.0031	-
	mg/L	1206	07/14/2000	0001	0.0031	U #	0.0031	-
	mg/L	1206	07/14/2000	N003	0.0034	U #	0.0031	-
	mg/L	1210	07/16/2000	0001	0.0031	U #	0.0031	-
	mg/L	1210	07/16/2000	N003	0.0034	U #	0.0031	-
Fluoride	mg/L	0554	07/12/2000	0001	0.310	#	-	-
	mg/L	0554	07/12/2000	N003	0.309	#	-	-
	mg/L	0555	07/15/2000	0001	0.302	#	-	-
	mg/L	0555	07/15/2000	N003	0.304	#	-	-
	mg/L	0658	07/16/2000	0001	2.750	#	-	-
	mg/L	0888	07/13/2000	0001	0.313	#	-	-
	mg/L	0888	07/13/2000	N003	0.377	#	-	-
	mg/L	0894	07/14/2000	0001	0.323	#	-	-
	mg/L	0894	07/14/2000	N003	0.314	#	-	-
mg/L	0895	07/14/2000	0001	0.323	#	-	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY	
						LAB	DATA	QA			
Fluoride	mg/L	0895	07/14/2000	N003	0.508				#	-	-
	mg/L	0897	07/11/2000	0001	0.314		U		#	-	-
	mg/L	0897	07/11/2000	N003	0.325		U		#	-	-
	mg/L	0898	07/13/2000	0001	0.293				#	-	-
	mg/L	0898	07/13/2000	N003	0.307				#	-	-
	mg/L	0939	07/16/2000	0001	0.343				#	-	-
	mg/L	0940	07/14/2000	0001	0.315				#	-	-
	mg/L	0940	07/14/2000	N003	0.332				#	-	-
	mg/L	0947	07/13/2000	0001	1.170				#	-	-
	mg/L	0947	07/13/2000	N003	1.140				#	-	-
	mg/L	0948	07/13/2000	0001	1.160				#	-	-
	mg/L	0948	07/13/2000	N003	1.100				#	-	-
	mg/L	0956	07/12/2000	0001	0.323			U	#	-	-
	mg/L	0956	07/12/2000	0002	0.318				#	-	-
	mg/L	0956	07/12/2000	N003	0.325				#	-	-
	mg/L	0957	07/16/2000	0001	0.300				#	-	-
	mg/L	0957	07/16/2000	0002	0.292				#	-	-
	mg/L	0957	07/16/2000	N003	0.289				#	-	-
	mg/L	1201	07/15/2000	0001	0.308				#	-	-
	mg/L	1201	07/15/2000	N003	0.303				#	-	-
	mg/L	1203	07/15/2000	0001	0.302				#	-	-
	mg/L	1203	07/15/2000	N003	0.294				#	-	-
	mg/L	1204	07/14/2000	0001	0.311				#	-	-
	mg/L	1204	07/14/2000	N003	0.296				#	-	-
	mg/L	1205	07/14/2000	0001	0.307				#	-	-
	mg/L	1205	07/14/2000	N003	0.297				#	-	-
	mg/L	1206	07/14/2000	0001	0.335				#	-	-
	mg/L	1206	07/14/2000	N003	0.308				#	-	-
	mg/L	1210	07/16/2000	0001	0.295				#	-	-
	mg/L	1210	07/16/2000	N003	0.310				#	-	-
Gross Alpha	pCi/L	0554	07/12/2000	0001	8.01	U			#	8.01	± 4.72
	pCi/L	0554	07/12/2000	N003	8.13	U			#	8.13	± 4.55
	pCi/L	0555	07/15/2000	0001	7.99	U			#	7.99	± 4.48
	pCi/L	0555	07/15/2000	N003	7.90	U			#	7.9	± 4.33
	pCi/L	0658	07/16/2000	0001	33.28	U			#	33.28	± 17.9
	pCi/L	0888	07/13/2000	0001	8.0	U			#	8.05	± 4.62
	pCi/L	0888	07/13/2000	N003	8.12	U			#	8.12	± 4.92

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Gross Alpha	pCi/L	0894	07/14/2000	0001	8.13	U	#	8.13 ± 4.72
	pCi/L	0894	07/14/2000	N003	8.22	U	#	8.22 ± 5.08
	pCi/L	0895	07/14/2000	0001	8.31	U	#	8.31 ± 5.46
	pCi/L	0895	07/14/2000	N003	8.30	U	#	8.3 ± 5.01
	pCi/L	0897	07/11/2000	0001	8.10	U	#	8.1 ± 4.74
	pCi/L	0897	07/11/2000	N003	8.08	U	#	8.08 ± 5.04
	pCi/L	0898	07/13/2000	0001	8.10	U	#	8.1 ± 4.47
	pCi/L	0898	07/13/2000	N003	8.0	U	#	8.03 ± 4.32
	pCi/L	0939	07/16/2000	0001	9.03	U	#	9.03 ± 5.24
	pCi/L	0940	07/14/2000	0001	8.23	U	#	8.23 ± 5.09
	pCi/L	0940	07/14/2000	N003	8.29	U	#	8.29 ± 4.64
	pCi/L	0947	07/13/2000	0001	10.8	U	#	10.89 ± 5.85
	pCi/L	0947	07/13/2000	N003	10	U	#	10.91 ± 5.88
	pCi/L	0948	07/13/2000	0001	10.87	U	#	10.87 ± 6.13
	pCi/L	0948	07/13/2000	N003	10.96	U	#	10.96 ± 6.75
	pCi/L	0956	07/12/2000	0001	8.11	U	#	8.11 ± 4.41
	pCi/L	0956	07/12/2000	0002	8.11	U	#	8.11 ± 4.13
	pCi/L	0956	07/12/2000	N003	8.10	U	#	8.1 ± 4.96
	pCi/L	0957	07/16/2000	0001	7.97	U	#	7.97 ± 4.51
	pCi/L	0957	07/16/2000	0002	7.91	U	#	7.91 ± 4.75
	pCi/L	0957	07/16/2000	N003	7.95	U	#	7.95 ± 4.76
	pCi/L	1201	07/15/2000	0001	8.1	U	#	8.13 ± 4.97
	pCi/L	1201	07/15/2000	N003	8.10	U	#	8.1 ± 4.48
	pCi/L	1203	07/15/2000	0001	8.00	U	#	8 ± 4.14
	pCi/L	1203	07/15/2000	N003	8.15	U	#	8.15 ± 4.50
	pCi/L	1204	07/14/2000	0001	7.99	U	#	7.99 ± 4.48
	pCi/L	1204	07/14/2000	N003	7.95	U	#	7.95 ± 4.23
	pCi/L	1205	07/14/2000	0001	8.13	U	#	8.13 ± 4.82
pCi/L	1205	07/14/2000	N003	8.09	U	#	8.09 ± 4.35	
pCi/L	1206	07/14/2000	0001	8.23	U	#	8.23 ± 4.86	
pCi/L	1206	07/14/2000	N003	8.17	U	#	8.17 ± 4.16	
pCi/L	1210	07/16/2000	0001	8.02	U	#	8.02 ± 4.49	
pCi/L	1210	07/16/2000	N003	7.94	U	#	7.94 ± 4.56	
Gross Beta	pCi/L	0554	07/12/2000	0001	12.01	U	#	12.01 ± 6.58
	pCi/L	0554	07/12/2000	N003	12.00	U	#	12 ± 7.01
	pCi/L	0555	07/15/2000	0001	11.99	UB	#	11.99 ± 6.73
	pCi/L	0555	07/15/2000	N003	11.98	UB	#	11.98 ± 6.46

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Gross Beta	pCi/L	0658	07/16/2000	0001	31.6	U #	31.61	± 18.1
	pCi/L	0888	07/13/2000	0001	12.00	U #	12	± 6.75
	pCi/L	0888	07/13/2000	N003	12.02	U #	12.02	± 6.95
	pCi/L	0894	07/14/2000	0001	12.01	U #	12.01	± 6.84
	pCi/L	0894	07/14/2000	N003	12.04	U #	12.04	± 7.00
	pCi/L	0895	07/14/2000	0001	12.06	UB #	12.06	± 7.34
	pCi/L	0895	07/14/2000	N003	12.04	UB #	12.04	± 7.24
	pCi/L	0897	07/11/2000	0001	12.00	U #	12	± 7.25
	pCi/L	0897	07/11/2000	N003	12.02	U #	12.02	± 7.00
	pCi/L	0898	07/13/2000	0001	11.99	U #	11.99	± 7.18
	pCi/L	0898	07/13/2000	N003	11.9	U #	11.98	± 7.06
	pCi/L	0939	07/16/2000	0001	12.12	U #	12.12	± 6.96
	pCi/L	0940	07/14/2000	0001	12.04	UB #	12.04	± 6.94
	pCi/L	0940	07/14/2000	N003	12.02	UB #	12.02	± 7.10
	pCi/L	0947	07/13/2000	0001	12.3	U #	12.33	± 7.39
	pCi/L	0947	07/13/2000	N003	12.34	U #	12.34	± 7.14
	pCi/L	0948	07/13/2000	0001	12.33	U #	12.33	± 7.54
	pCi/L	0948	07/13/2000	N003	12.37	U #	12.37	± 7.52
	pCi/L	0956	07/12/2000	0001	11.99	U #	11.99	± 7.21
	pCi/L	0956	07/12/2000	0002	11.98	U #	11.98	± 7.00
	pCi/L	0956	07/12/2000	N003	12.02	U #	12.02	± 7.06
	pCi/L	0957	07/16/2000	0001	11.98	U #	11.98	± 7.00
	pCi/L	0957	07/16/2000	0002	11.99	U #	11.99	± 6.87
	pCi/L	0957	07/16/2000	N003	11.99	U #	11.99	± 7.16
	pCi/L	1201	07/15/2000	0001	12.02	UB #	12.02	± 7.06
	pCi/L	1201	07/15/2000	N003	12.00	UB #	12	± 6.87
	pCi/L	1203	07/15/2000	0001	11.97	UB #	11.97	± 6.89
	pCi/L	1203	07/15/2000	N003	12.00	UB #	12	± 7.11
	pCi/L	1204	07/14/2000	0001	11.99	UB #	11.99	± 6.84
	pCi/L	1204	07/14/2000	N003	11.9	UB #	11.97	± 6.80
	pCi/L	1205	07/14/2000	0001	12	UB #	12.01	± 7.06
	pCi/L	1205	07/14/2000	N003	11.99	UB #	11.99	± 7.05
pCi/L	1206	07/14/2000	0001	12.02	UB #	12.02	± 7.34	
pCi/L	1206	07/14/2000	N003	11.9	UB #	11.99	± 6.87	
pCi/L	1210	07/16/2000	0001	11.99	U #	11.99	± 6.94	
pCi/L	1210	07/16/2000	N003	11.9	U #	11.99	± 6.82	
Iron	mg/L	0554	07/12/2000	0001	0.0091	U #	0.0091	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Iron	mg/L	0554	07/12/2000	N003	0.229			#	0.0091	-
	mg/L	0555	07/15/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0555	07/15/2000	N003	0.105			#	0.0091	-
	mg/L	0658	07/16/2000	0001	0.154			#	0.0091	-
	mg/L	0888	07/13/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0888	07/13/2000	N003	0.231			#	0.0091	-
	mg/L	0894	07/14/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0894	07/14/2000	N003	0.159			#	0.0091	-
	mg/L	0895	07/14/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0895	07/14/2000	N003	0.113			#	0.0091	-
	mg/L	0897	07/11/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0897	07/11/2000	N003	0.237			#	0.0091	-
	mg/L	0898	07/13/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0898	07/13/2000	N003	0.353			#	0.0091	-
	mg/L	0939	07/16/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0940	07/14/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0940	07/14/2000	N003	0.176			#	0.0091	-
	mg/L	0947	07/13/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0947	07/13/2000	N003	0.777			#	0.0091	-
	mg/L	0948	07/13/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0948	07/13/2000	N003	0.859			#	0.0091	-
	mg/L	0956	07/12/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0956	07/12/2000	0002	0.0091 U			#	0.0091	-
	mg/L	0956	07/12/2000	N003	0.238			#	0.0091	-
	mg/L	0957	07/16/2000	0001	0.0091 U			#	0.0091	-
	mg/L	0957	07/16/2000	0002	0.0091 U			#	0.0091	-
	mg/L	0957	07/16/2000	N003	0.354			#	0.0091	-
	mg/L	1201	07/15/2000	0001	0.0091 U			#	0.0091	-
	mg/L	1201	07/15/2000	N003	0.141			#	0.0091	-
	mg/L	1203	07/15/2000	0001	0.0091 U			#	0.0091	-
	mg/L	1203	07/15/2000	N003	0.141			#	0.0091	-
	mg/L	1204	07/14/2000	0001	0.0091 U			#	0.0091	-
	mg/L	1204	07/14/2000	N003	0.132			#	0.0091	-
	mg/L	1205	07/14/2000	0001	0.0091 U			#	0.0091	-
	mg/L	1205	07/14/2000	N003	0.216			#	0.0091	-
	mg/L	1206	07/14/2000	0001	0.0091 U			#	0.0091	-
	mg/L	1206	07/14/2000	N003	0.663			#	0.0091	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Iron	mg/L	1210	07/16/2000	0001	0.0091	U #	0.0091	-
	mg/L	1210	07/16/2000	N003	0.198	#	0.0091	-
Lead	mg/L	0888	07/13/2000	0001	0.0007	B #	0.0001	-
	mg/L	0888	07/13/2000	N003	0.0014	B #	0.0001	-
	mg/L	0898	07/13/2000	0001	0.0008	B #	0.0001	-
	mg/L	0898	07/13/2000	N003	0.0028	B #	0.0001	-
	mg/L	0947	07/13/2000	0001	0.0007	B #	0.0001	-
	mg/L	0947	07/13/2000	N003	0.0017	B #	0.0001	-
	mg/L	0948	07/13/2000	0001	0.0007	B #	0.0001	-
	mg/L	0948	07/13/2000	N003	0.0013	B #	0.0001	-
Magnesium	mg/L	0554	07/12/2000	0001	11.500	#	0.024	-
	mg/L	0554	07/12/2000	N003	11.600	#	0.024	-
	mg/L	0555	07/15/2000	0001	10.800	#	0.024	-
	mg/L	0555	07/15/2000	N003	11.500	#	0.024	-
	mg/L	0658	07/16/2000	0001	37.400	#	0.024	-
	mg/L	0888	07/13/2000	0001	10.900	#	0.024	-
	mg/L	0888	07/13/2000	N003	11.200	#	0.024	-
	mg/L	0894	07/14/2000	0001	12.400	#	0.024	-
	mg/L	0894	07/14/2000	N003	12.900	#	0.024	-
	mg/L	0895	07/14/2000	0001	11.500	#	0.024	-
	mg/L	0895	07/14/2000	N003	12.700	#	0.024	-
	mg/L	0897	07/11/2000	0001	11.200	#	0.024	-
	mg/L	0897	07/11/2000	N003	11.700	#	0.024	-
	mg/L	0898	07/13/2000	0001	10.800	#	0.024	-
	mg/L	0898	07/13/2000	N003	11.300	#	0.024	-
	mg/L	0939	07/16/2000	0001	27.300	#	0.024	-
	mg/L	0940	07/14/2000	0001	11.400	#	0.024	-
	mg/L	0940	07/14/2000	N003	12.100	#	0.024	-
	mg/L	0947	07/13/2000	0001	53.700	#	0.024	-
	mg/L	0947	07/13/2000	N003	55.600	#	0.024	-
	mg/L	0948	07/13/2000	0001	50.500	#	0.024	-
	mg/L	0948	07/13/2000	N003	52.400	#	0.024	-
	mg/L	0956	07/12/2000	0001	11.600	#	0.024	-
	mg/L	0956	07/12/2000	0002	12.100	#	0.024	-
	mg/L	0956	07/12/2000	N003	12.000	#	0.024	-
	mg/L	0957	07/16/2000	0001	11.200	#	0.024	-
	mg/L	0957	07/16/2000	0002	11.200	#	0.024	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0957	07/16/2000	N003	11.900	#	0.024	-
	mg/L	1201	07/15/2000	0001	11.000	#	0.024	-
	mg/L	1201	07/15/2000	N003	11.400	#	0.024	-
	mg/L	1203	07/15/2000	0001	11.200	#	0.024	-
	mg/L	1203	07/15/2000	N003	11.400	#	0.024	-
	mg/L	1204	07/14/2000	0001	11.400	#	0.024	-
	mg/L	1204	07/14/2000	N003	11.600	#	0.024	-
	mg/L	1205	07/14/2000	0001	11.000	#	0.024	-
	mg/L	1205	07/14/2000	N003	11.800	#	0.024	-
	mg/L	1206	07/14/2000	0001	11.800	#	0.024	-
	mg/L	1206	07/14/2000	N003	13.400	#	0.024	-
	mg/L	1210	07/16/2000	0001	12.300	#	0.024	-
	mg/L	1210	07/16/2000	N003	12.900	#	0.024	-
Manganese	mg/L	0554	07/12/2000	0001	0.0105	#	0.0015	-
	mg/L	0554	07/12/2000	N003	0.0328	#	0.0015	-
	mg/L	0555	07/15/2000	0001	0.0135	#	0.0015	-
	mg/L	0555	07/15/2000	N003	0.027	#	0.0015	-
	mg/L	0658	07/16/2000	0001	0.291	#	0.0015	-
	mg/L	0888	07/13/2000	0001	0.0065 B	#	0.0015	-
	mg/L	0888	07/13/2000	N003	0.0368	#	0.0015	-
	mg/L	0894	07/14/2000	0001	0.0411	#	0.0015	-
	mg/L	0894	07/14/2000	N003	0.0698	#	0.0015	-
	mg/L	0895	07/14/2000	0001	0.0149	#	0.0015	-
	mg/L	0895	07/14/2000	N003	0.0425	#	0.0015	-
	mg/L	0897	07/11/2000	0001	0.0091 B	#	0.0015	-
	mg/L	0897	07/11/2000	N003	0.0321	#	0.0015	-
	mg/L	0898	07/13/2000	0001	0.0074 B	#	0.0015	-
	mg/L	0898	07/13/2000	N003	0.0396	#	0.0015	-
	mg/L	0939	07/16/2000	0001	0.331	#	0.0015	-
	mg/L	0940	07/14/2000	0001	0.0166	#	0.0015	-
	mg/L	0940	07/14/2000	N003	0.0404	#	0.0015	-
	mg/L	0947	07/13/2000	0001	0.0065 B	#	0.0015	-
	mg/L	0947	07/13/2000	N003	0.0173	#	0.0015	-
	mg/L	0948	07/13/2000	0001	0.0114	#	0.0015	-
mg/L	0948	07/13/2000	N003	0.0561	#	0.0015	-	
mg/L	0956	07/12/2000	0001	0.013	#	0.0015	-	
mg/L	0956	07/12/2000	0002	0.0139	#	0.0015	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Manganese	mg/L	0956	07/12/2000	N003	0.0433			#	0.0015	-
	mg/L	0957	07/16/2000	0001	0.0131			#	0.0015	-
	mg/L	0957	07/16/2000	0002	0.0131			#	0.0015	-
	mg/L	0957	07/16/2000	N003	0.0362			#	0.0015	-
	mg/L	1201	07/15/2000	0001	0.0218			#	0.0015	-
	mg/L	1201	07/15/2000	N003	0.0353			#	0.0015	-
	mg/L	1203	07/15/2000	0001	0.0136			#	0.0015	-
	mg/L	1203	07/15/2000	N003	0.0268			#	0.0015	-
	mg/L	1204	07/14/2000	0001	0.0148			#	0.0015	-
	mg/L	1204	07/14/2000	N003	0.0267			#	0.0015	-
	mg/L	1205	07/14/2000	0001	0.0111			#	0.0015	-
	mg/L	1205	07/14/2000	N003	0.030			#	0.0015	-
	mg/L	1206	07/14/2000	0001	0.0117			#	0.0015	-
	mg/L	1206	07/14/2000	N003	0.0798			#	0.0015	-
	mg/L	1210	07/16/2000	0001	0.0158			#	0.0015	-
	mg/L	1210	07/16/2000	N003	0.0302			#	0.0015	-
	Molybdenum	mg/L	0554	07/12/2000	0001	0.0009	B	U	#	0.0003
mg/L		0554	07/12/2000	N003	0.0013	B	U	#	0.0003	-
mg/L		0555	07/15/2000	0001	0.0008	B	U	#	0.0003	-
mg/L		0555	07/15/2000	N003	0.0021	B	U	#	0.0003	-
mg/L		0658	07/16/2000	0001	0.0009	B	U	#	0.0003	-
mg/L		0888	07/13/2000	0001	0.0011	B	U	#	0.0003	-
mg/L		0888	07/13/2000	N003	0.0024	B	U	#	0.0003	-
mg/L		0894	07/14/2000	0001	0.0011	B	U	#	0.0003	-
mg/L		0894	07/14/2000	N003	0.0033	B	U	#	0.0003	-
mg/L		0895	07/14/2000	0001	0.0011	B	U	#	0.0003	-
mg/L		0895	07/14/2000	N003	0.0037	B	U	#	0.0003	-
mg/L		0897	07/11/2000	0001	0.0009	B	U	#	0.0003	-
mg/L		0897	07/11/2000	N003	0.0019	B	U	#	0.0003	-
mg/L		0898	07/13/2000	0001	0.0014	B	U	#	0.0003	-
mg/L		0898	07/13/2000	N003	0.0088	B		#	0.0003	-
mg/L		0939	07/16/2000	0001	0.0017	B	U	#	0.0003	-
mg/L		0940	07/14/2000	0001	0.0012	B	U	#	0.0003	-
mg/L		0940	07/14/2000	N003	0.0027	B	U	#	0.0003	-
mg/L		0947	07/13/2000	0001	0.0159			#	0.0003	-
mg/L		0947	07/13/2000	N003	0.018			#	0.0003	-
mg/L	0948	07/13/2000	0001	0.0146			#	0.0003	-	



SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:		DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA QA		
Molybdenum	mg/L	0948	07/13/2000	N003	0.0174		#	0.0003	-
	mg/L	0956	07/12/2000	0001	0.0007	B	U	#	0.0003
	mg/L	0956	07/12/2000	0002	0.0011	B	U	#	0.0003
	mg/L	0956	07/12/2000	N003	0.0015	B	U	#	0.0003
	mg/L	0957	07/16/2000	0001	0.0008	B	U	#	0.0003
	mg/L	0957	07/16/2000	0002	0.001	B	U	#	0.0003
	mg/L	0957	07/16/2000	N003	0.0015	B	U	#	0.0003
	mg/L	1201	07/15/2000	0001	0.001	B	U	#	0.0003
	mg/L	1201	07/15/2000	N003	0.0023	B	U	#	0.0003
	mg/L	1203	07/15/2000	0001	0.0009	B	U	#	0.0003
	mg/L	1203	07/15/2000	N003	0.0021	B	U	#	0.0003
	mg/L	1204	07/14/2000	0001	0.0012	B	U	#	0.0003
	mg/L	1204	07/14/2000	N003	0.0021	B	U	#	0.0003
	mg/L	1205	07/14/2000	0001	0.0009	B	U	#	0.0003
	mg/L	1205	07/14/2000	N003	0.0028	B	U	#	0.0003
	mg/L	1206	07/14/2000	0001	0.0009	B	U	#	0.0003
	mg/L	1206	07/14/2000	N003	0.0028	B	U	#	0.0003
	mg/L	1210	07/16/2000	0001	0.0009	B	U	#	0.0003
	mg/L	1210	07/16/2000	N003	0.002	B	U	#	0.0003
	Nitrate	mg/L	0554	07/12/2000	0001	0.0767	B	#	-
mg/L		0554	07/12/2000	N003	0.0767	B	#	-	-
mg/L		0555	07/15/2000	0001	0.0758	B	#	-	-
mg/L		0555	07/15/2000	N003	0.0671	B	#	-	-
mg/L		0658	07/16/2000	0001	0.0628	U	#	0.0628	-
mg/L		0888	07/13/2000	0001	0.102	B	#	-	-
mg/L		0888	07/13/2000	N003	0.0978	B	#	-	-
mg/L		0894	07/14/2000	0001	0.193	B	#	-	-
mg/L		0894	07/14/2000	N003	0.212	B	#	-	-
mg/L		0895	07/14/2000	0001	0.110	B	#	-	-
mg/L		0895	07/14/2000	N003	0.110	B	#	-	-
mg/L		0897	07/11/2000	0001	0.133	B	#	-	-
mg/L		0897	07/11/2000	N003	0.140	B	#	-	-
mg/L		0898	07/13/2000	0001	0.122	B	#	-	-
mg/L		0898	07/13/2000	N003	0.125	B	#	-	-
mg/L		0939	07/16/2000	0001	1.410		#	-	-
mg/L		0940	07/14/2000	0001	0.157	B	#	-	-
mg/L		0940	07/14/2000	N003	0.102	B	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:			
		ID	DATE	ID	LAB		DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Nitrate	mg/L	0947	07/13/2000	0001		0.0434	B	#	-	-
	mg/L	0947	07/13/2000	N003		0.0314	U	#	0.0314	-
	mg/L	0948	07/13/2000	0001		0.348	B	#	-	-
	mg/L	0948	07/13/2000	N003		0.313	B	#	-	-
	mg/L	0956	07/12/2000	0001		0.103	B	#	-	-
	mg/L	0956	07/12/2000	0002		0.109	B	#	-	-
	mg/L	0956	07/12/2000	N003		0.107	B	#	-	-
	mg/L	0957	07/16/2000	0001		0.118	B	#	-	-
	mg/L	0957	07/16/2000	0002		0.113	B	#	-	-
	mg/L	0957	07/16/2000	N003		0.118	B	#	-	-
	mg/L	1201	07/15/2000	0001		0.082	B	#	-	-
	mg/L	1201	07/15/2000	N003		0.0677	B	#	-	-
	mg/L	1203	07/15/2000	0001		0.0552	B	#	-	-
	mg/L	1203	07/15/2000	N003		0.0422	B	#	-	-
	mg/L	1204	07/14/2000	0001		0.0314	U	#	0.0314	-
	mg/L	1204	07/14/2000	N003		0.0369	B	#	-	-
	mg/L	1205	07/14/2000	0001		0.0407	B	#	-	-
	mg/L	1205	07/14/2000	N003		0.040	B	#	-	-
	mg/L	1206	07/14/2000	0001		0.0509	B	#	-	-
	mg/L	1206	07/14/2000	N003		0.128	B	#	-	-
mg/L	1210	07/16/2000	0001		0.333	B	#	-	-	
mg/L	1210	07/16/2000	N003		0.322	B	#	-	-	
ORP of Zobell Solution	mV	0554	07/12/2000	N001		215		#	-	-
	mV	0555	07/15/2000	N001		213		#	-	-
	mV	0658	07/16/2000	N001		211		#	-	-
	mV	0888	07/13/2000	N001		201		#	-	-
	mV	0894	07/14/2000	N001		211		#	-	-
	mV	0895	07/14/2000	N001		213		#	-	-
	mV	0897	07/11/2000	N001		215		#	-	-
	mV	0898	07/13/2000	N001		209		#	-	-
	mV	0939	07/16/2000	N001		210		#	-	-
	mV	0940	07/14/2000	N001		206		#	-	-
	mV	0947	07/13/2000	N001		211		#	-	-
	mV	0956	07/12/2000	N001		213		#	-	-
	mV	0957	07/16/2000	N001		210		#	-	-
	mV	1201	07/15/2000	N001		213		#	-	-
	mV	1203	07/15/2000	N001		209		#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
ORP of Zobell Solution	mV	1204	07/14/2000	N001	212	#	-	-
	mV	1205	07/14/2000	N001	197	#	-	-
	mV	1206	07/14/2000	N001	206	#	-	-
	mV	1210	07/16/2000	N001	203	#	-	-
Oxidation Reduction Potenti	mV	0554	07/12/2000	N001	37	#	-	-
	mV	0555	07/15/2000	N001	79	#	-	-
	mV	0658	07/16/2000	N001	-73	#	-	-
	mV	0888	07/13/2000	N001	103	#	-	-
	mV	0894	07/14/2000	N001	74	#	-	-
	mV	0895	07/14/2000	N001	75	#	-	-
	mV	0897	07/11/2000	N001	131	#	-	-
	mV	0898	07/13/2000	N001	81	#	-	-
	mV	0939	07/16/2000	N001	120	#	-	-
	mV	0940	07/14/2000	N001	101	#	-	-
	mV	0947	07/13/2000	N001	100	#	-	-
	mV	0948	07/13/2000	N001	59	#	-	-
	mV	0956	07/12/2000	N001	125	#	-	-
	mV	0957	07/16/2000	N001	107	#	-	-
	mV	1201	07/15/2000	N001	75	#	-	-
	mV	1203	07/15/2000	N001	76	#	-	-
	mV	1204	07/14/2000	N001	131	#	-	-
	mV	1205	07/14/2000	N001	117	#	-	-
	mV	1206	07/14/2000	N001	86	#	-	-
	mV	1210	07/16/2000	N001	82	#	-	-
pH	s.u.	0554	07/12/2000	N001	8.59	#	-	-
	s.u.	0555	07/15/2000	N001	8.47	#	-	-
	s.u.	0658	07/16/2000	N001	8.1	#	-	-
	s.u.	0888	07/13/2000	N001	8.83	#	-	-
	s.u.	0894	07/14/2000	N001	8.25	#	-	-
	s.u.	0895	07/14/2000	N001	8.44	#	-	-
	s.u.	0897	07/11/2000	N001	8.38	#	-	-
	s.u.	0898	07/13/2000	N001	8.57	#	-	-
	s.u.	0939	07/16/2000	N001	7.66	#	-	-
	s.u.	0940	07/14/2000	N001	8.61	#	-	-
	s.u.	0947	07/13/2000	N001	8.5	#	-	-
	s.u.	0948	07/13/2000	N001	8.68	#	-	-
	s.u.	0956	07/12/2000	N001	8.35	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0957	07/16/2000	N001	8.48	#	-	-
	s.u.	1201	07/15/2000	N001	8.37	#	-	-
	s.u.	1203	07/15/2000	N001	8.63	#	-	-
	s.u.	1204	07/14/2000	N001	8.46	#	-	-
	s.u.	1205	07/14/2000	N001	8.56	#	-	-
	s.u.	1206	07/14/2000	N001	8.64	#	-	-
	s.u.	1210	07/16/2000	N001	8.57	#	-	-
	Polonium-210	pCi/L	0554	07/12/2000	0001	0.31	U #	0.31
pCi/L		0554	07/12/2000	N003	0.23	U #	0.23	± 0.22
pCi/L		0555	07/15/2000	0001	0.12	U #	0.12	± 0.12
pCi/L		0555	07/15/2000	N003	0.14	U #	0.14	± 0.20
pCi/L		0658	07/16/2000	0001	0.40	U #	0.4	± 0.38
pCi/L		0888	07/13/2000	0001	0.15	U #	0.15	± 0.15
pCi/L		0888	07/13/2000	N003	0	U #	0.13	± 0.12
pCi/L		0894	07/14/2000	0001	0.1	U #	0.14	± 0.18
pCi/L		0894	07/14/2000	N003	0.14	U #	0.14	± 0.11
pCi/L		0895	07/14/2000	0001	0.13	U #	0.13	± 0.14
pCi/L		0895	07/14/2000	N003	0.33	U #	0.33	± 0.24
pCi/L		0897	07/11/2000	0001	0.24	U #	0.24	± 0.23
pCi/L		0897	07/11/2000	N003	0.29	U #	0.29	± 0.27
pCi/L		0898	07/13/2000	0001	0.10	U #	0.1	± 0.12
pCi/L		0898	07/13/2000	N003	0.1	U #	0.14	± 0.18
pCi/L		0939	07/16/2000	0001	0.17	U #	0.17	± 0.16
pCi/L		0940	07/14/2000	0001	0.33	U #	0.33	± 0.29
pCi/L		0940	07/14/2000	N003	0.25	U #	0.25	± 0.26
pCi/L		0947	07/13/2000	0001	0.22	U #	0.22	± 0.22
pCi/L		0947	07/13/2000	N003	0.24	U #	0.24	± 0.23
pCi/L		0948	07/13/2000	0001	0.18	U #	0.18	± 0.24
pCi/L		0948	07/13/2000	N003	0.1	U #	0.16	± 0.20
pCi/L		0956	07/12/2000	0001	0.27	U #	0.27	± 0.22
pCi/L		0956	07/12/2000	0002	0.19	U #	0.19	± 0.14
pCi/L		0956	07/12/2000	N003	0.26	U #	0.26	± 0.26
pCi/L		0957	07/16/2000	0001	0.25	U #	0.25	± 0.21
pCi/L		0957	07/16/2000	0002	0.27	U #	0.27	± 0.27
pCi/L		0957	07/16/2000	N003	0.26	U #	0.26	± 0.26
pCi/L		1201	07/15/2000	0001	0.25	U #	0.25	± 0.19
pCi/L		1201	07/15/2000	N003	0.20	U #	0.2	± 0.25

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Polonium-210	pCi/L	1203	07/15/2000	0001	0.15	U #	0.15	± 0.14
	pCi/L	1203	07/15/2000	N003	0.12	U #	0.12	± 0.16
	pCi/L	1204	07/14/2000	0001	0.2	U #	0.24	± 0.26
	pCi/L	1204	07/14/2000	N003	0.25	U #	0.25	± 0.25
	pCi/L	1205	07/14/2000	0001	0.16	U #	0.16	± 0.12
	pCi/L	1205	07/14/2000	N003	0.30	U #	0.3	± 0.26
	pCi/L	1206	07/14/2000	0001	0.17	U #	0.17	± 0.16
	pCi/L	1206	07/14/2000	N003	0.27	U #	0.27	± 0.24
	pCi/L	1210	07/16/2000	0001	0.29	U #	0.29	± 0.27
	pCi/L	1210	07/16/2000	N003	0.30	U #	0.3	± 0.30
Potassium	mg/L	0554	07/12/2000	0001	2.590	#	0.0456	-
	mg/L	0554	07/12/2000	N003	2.560	#	0.0456	-
	mg/L	0555	07/15/2000	0001	2.370	#	0.0456	-
	mg/L	0555	07/15/2000	N003	2.340	#	0.0456	-
	mg/L	0658	07/16/2000	0001	12.900	#	0.0456	-
	mg/L	0888	07/13/2000	0001	2.520	#	0.0456	-
	mg/L	0888	07/13/2000	N003	2.520	#	0.0456	-
	mg/L	0894	07/14/2000	0001	2.510	#	0.0456	-
	mg/L	0894	07/14/2000	N003	2.410	#	0.0456	-
	mg/L	0895	07/14/2000	0001	2.420	#	0.0456	-
	mg/L	0895	07/14/2000	N003	2.420	#	0.0456	-
	mg/L	0897	07/11/2000	0001	2.470	#	0.0456	-
	mg/L	0897	07/11/2000	N003	2.490	#	0.0456	-
	mg/L	0898	07/13/2000	0001	2.510	#	0.0456	-
	mg/L	0898	07/13/2000	N003	2.590	#	0.0456	-
	mg/L	0939	07/16/2000	0001	3.140	#	0.0456	-
	mg/L	0940	07/14/2000	0001	2.550	#	0.0456	-
	mg/L	0940	07/14/2000	N003	2.430	#	0.0456	-
	mg/L	0947	07/13/2000	0001	7.150	#	0.0456	-
	mg/L	0947	07/13/2000	N003	7.470	#	0.0456	-
	mg/L	0948	07/13/2000	0001	6.830	#	0.0456	-
	mg/L	0948	07/13/2000	N003	7.160	#	0.0456	-
	mg/L	0956	07/12/2000	0001	2.480	#	0.0456	-
	mg/L	0956	07/12/2000	0002	2.540	#	0.0456	-
	mg/L	0956	07/12/2000	N003	2.460	#	0.0456	-
	mg/L	0957	07/16/2000	0001	2.350	#	0.0456	-
mg/L	0957	07/16/2000	0002	2.300	#	0.0456	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Potassium	mg/L	0957	07/16/2000	N003	2.380			#	0.0456	-
	mg/L	1201	07/15/2000	0001	2.340			#	0.0456	-
	mg/L	1201	07/15/2000	N003	2.320			#	0.0456	-
	mg/L	1203	07/15/2000	0001	2.380			#	0.0456	-
	mg/L	1203	07/15/2000	N003	2.340			#	0.0456	-
	mg/L	1204	07/14/2000	0001	2.590			#	0.0456	-
	mg/L	1204	07/14/2000	N003	2.530			#	0.0456	-
	mg/L	1205	07/14/2000	0001	2.540			#	0.0456	-
	mg/L	1205	07/14/2000	N003	2.520			#	0.0456	-
	mg/L	1206	07/14/2000	0001	2.580			#	0.0456	-
	mg/L	1206	07/14/2000	N003	2.730			#	0.0456	-
	mg/L	1210	07/16/2000	0001	2.410			#	0.0456	-
	mg/L	1210	07/16/2000	N003	2.440			#	0.0456	-
Radium-226	pCi/L	0554	07/12/2000	0001	0.10	U		#	0.1	± 0.06
	pCi/L	0554	07/12/2000	N003	0.11	U		#	0.11	± 0.07
	pCi/L	0555	07/15/2000	0001	0.13	U		#	0.13	± 0.08
	pCi/L	0555	07/15/2000	N003	0.10	U		#	0.1	± 0.06
	pCi/L	0658	07/16/2000	0001	0.38			#	0.14	± 0.10
	pCi/L	0888	07/13/2000	0001	0.10	U		#	0.1	± 0.06
	pCi/L	0888	07/13/2000	N003	0.11	U		#	0.11	± 0.06
	pCi/L	0894	07/14/2000	0001	0.15	U		#	0.15	± 0.08
	pCi/L	0894	07/14/2000	N003	0.16	U		#	0.16	± 0.09
	pCi/L	0895	07/14/2000	0001	0	U		#	0.14	± 0.08
	pCi/L	0895	07/14/2000	N003	0.10	U		#	0.1	± 0.06
	pCi/L	0897	07/11/2000	0001	0.10	U		#	0.1	± 0.06
	pCi/L	0897	07/11/2000	N003	0.10	U		#	0.1	± 0.06
	pCi/L	0898	07/13/2000	0001	0.10	U		#	0.1	± 0.06
	pCi/L	0898	07/13/2000	N003	0.10	U		#	0.1	± 0.06
	pCi/L	0939	07/16/2000	0001	0.09	U		#	0.09	± 0.06
	pCi/L	0940	07/14/2000	0001	0.09	U		#	0.09	± 0.06
	pCi/L	0940	07/14/2000	N003	0.13			#	0.11	± 0.07
	pCi/L	0947	07/13/2000	0001	0.13			#	0.12	± 0.07
	pCi/L	0947	07/13/2000	N003	0.13			#	0.1	± 0.07
pCi/L	0948	07/13/2000	0001	0.11	U		#	0.11	± 0.07	
pCi/L	0948	07/13/2000	N003	0.15			#	0.1	± 0.06	
pCi/L	0956	07/12/2000	0001	0.10	U		#	0.1	± 0.06	
pCi/L	0956	07/12/2000	0002	0.09	U		#	0.09	± 0.06	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
		ID	DATE	ID		LAB	DATA	QA		
Radium-226	pCi/L	0956	07/12/2000	N003	0.11	U	#	0.11	± 0.06	
	pCi/L	0957	07/16/2000	0001	0.10	U	#	0.1	± 0.06	
	pCi/L	0957	07/16/2000	0002	0.10	U	#	0.1	± 0.06	
	pCi/L	0957	07/16/2000	N003	0.13		#	0.09	± 0.06	
	pCi/L	1201	07/15/2000	0001	0.11	U	#	0.11	± 0.07	
	pCi/L	1201	07/15/2000	N003	0.10	U	#	0.1	± 0.06	
	pCi/L	1203	07/15/2000	0001	0.11		#	0.09	± 0.06	
	pCi/L	1203	07/15/2000	N003	0.15	U	#	0.15	± 0.09	
	pCi/L	1204	07/14/2000	0001	0.13	U	#	0.13	± 0.08	
	pCi/L	1204	07/14/2000	N003	0.1	U	#	0.1	± 0.06	
	pCi/L	1205	07/14/2000	0001	0.09	U	#	0.09	± 0.06	
	pCi/L	1205	07/14/2000	N003	0.2		#	0.13	± 0.09	
	pCi/L	1206	07/14/2000	0001	0.09	U	#	0.09	± 0.06	
	pCi/L	1206	07/14/2000	N003	0.10	U	#	0.1	± 0.06	
	pCi/L	1210	07/16/2000	0001	0.09	U	#	0.09	± 0.06	
	pCi/L	1210	07/16/2000	N003	0.09	U	#	0.09	± 0.06	
Radium-228	pCi/L	0554	07/12/2000	0001	0.57	U	#	0.57	± 0.34	
	pCi/L	0554	07/12/2000	N003	0.6	U	#	0.64	± 0.37	
	pCi/L	0555	07/15/2000	0001	0.98	U	#	0.98	± 0.57	
	pCi/L	0555	07/15/2000	N003	0.75	U	#	0.75	± 0.44	
	pCi/L	0658	07/16/2000	0001	0.79	U	#	0.79	± 0.46	
	pCi/L	0888	07/13/2000	0001	0.57	U	#	0.57	± 0.33	
	pCi/L	0888	07/13/2000	N003	0.62	U	#	0.62	± 0.37	
	pCi/L	0894	07/14/2000	0001	0.83	U	#	0.83	± 0.49	
	pCi/L	0894	07/14/2000	N003	0.89	U	#	0.89	± 0.52	
	pCi/L	0895	07/14/2000	0001	0.82	U	#	0.82	± 0.48	
	pCi/L	0895	07/14/2000	N003	0.71	U	#	0.71	± 0.42	
	pCi/L	0897	07/11/2000	0001	0.56	U	#	0.56	± 0.33	
	pCi/L	0897	07/11/2000	N003	0.56	U	#	0.56	± 0.32	
	pCi/L	0898	07/13/2000	0001	0.57	U	#	0.57	± 0.33	
	pCi/L	0898	07/13/2000	N003	0	U	#	0.56	± 0.33	
	pCi/L	0939	07/16/2000	0001	0.53	U	#	0.53	± 0.31	
	pCi/L	0940	07/14/2000	0001	0.69	U	#	0.69	± 0.40	
	pCi/L	0940	07/14/2000	N003	0.78	U	#	0.78	± 0.45	
	pCi/L	0947	07/13/2000	0001	0.66	U	#	0.66	± 0.39	
	pCi/L	0947	07/13/2000	N003	0.5	U	#	0.59	± 0.35	
pCi/L	0948	07/13/2000	0001	0.63	U	#	0.63	± 0.37		

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Radium-228	pCi/L	0948	07/13/2000	N003	0.56	U		#	0.56	± 0.32
	pCi/L	0956	07/12/2000	0001	0	U		#	0.53	± 0.31
	pCi/L	0956	07/12/2000	0002	0.53	U		#	0.53	± 0.31
	pCi/L	0956	07/12/2000	N003	0.62	U		#	0.62	± 0.36
	pCi/L	0957	07/16/2000	0001	0.54	U		#	0.54	± 0.31
	pCi/L	0957	07/16/2000	0002	0.59	U		#	0.59	± 0.34
	pCi/L	0957	07/16/2000	N003	0.5	U		#	0.53	± 0.31
	pCi/L	1201	07/15/2000	0001	0.82	U		#	0.82	± 0.48
	pCi/L	1201	07/15/2000	N003	0.74	U		#	0.74	± 0.43
	pCi/L	1203	07/15/2000	0001	0.69	U		#	0.69	± 0.40
	pCi/L	1203	07/15/2000	N003	0.85	U		#	0.85	± 0.49
	pCi/L	1204	07/14/2000	0001	0.94	U		#	0.94	± 0.54
	pCi/L	1204	07/14/2000	N003	0.70	U		#	0.7	± 0.40
	pCi/L	1205	07/14/2000	0001	0.6	U		#	0.67	± 0.39
	pCi/L	1205	07/14/2000	N003	0.98	U		#	0.98	± 0.57
	pCi/L	1206	07/14/2000	0001	0.67	U		#	0.67	± 0.39
	pCi/L	1206	07/14/2000	N003	0.72	U		#	0.72	± 0.42
	pCi/L	1210	07/16/2000	0001	0.53	U		#	0.53	± 0.31
	pCi/L	1210	07/16/2000	N003	0.55	U		#	0.55	± 0.32
	Selenium	mg/L	0554	07/12/2000	0001	0.0002	B	U	#	0.0001
mg/L		0554	07/12/2000	N003	0.0005	B	U	#	0.0001	-
mg/L		0555	07/15/2000	0001	0.0005	B		#	0.0001	-
mg/L		0555	07/15/2000	N003	0.0005	B		#	0.0001	-
mg/L		0658	07/16/2000	0001	0.0005	B		#	0.0001	-
mg/L		0888	07/13/2000	0001	0.0001	U		#	0.0001	-
mg/L		0888	07/13/2000	N003	0.0006	B		#	0.0001	-
mg/L		0894	07/14/2000	0001	0.0001	U		#	0.0001	-
mg/L		0894	07/14/2000	N003	0.0006	B		#	0.0001	-
mg/L		0895	07/14/2000	0001	0.0001	B		#	0.0001	-
mg/L		0895	07/14/2000	N003	0.0005	B		#	0.0001	-
mg/L		0897	07/11/2000	0001	0.0005	B		#	0.0001	-
mg/L		0897	07/11/2000	N003	0.0005	B		#	0.0001	-
mg/L		0898	07/13/2000	0001	0.0001	U		#	0.0001	-
mg/L		0898	07/13/2000	N003	0.0017	B		#	0.0001	-
mg/L		0939	07/16/2000	0001	0.0066			#	0.0001	-
mg/L		0940	07/14/2000	0001	0.0001	U		#	0.0001	-
mg/L		0940	07/14/2000	N003	0.0004	B		#	0.0001	-



SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Selenium	mg/L	0947	07/13/2000	0001	0.0014	B		#	0.0001	-
	mg/L	0947	07/13/2000	N003	0.0019	B		#	0.0001	-
	mg/L	0948	07/13/2000	0001	0.0015	B		#	0.0001	-
	mg/L	0948	07/13/2000	N003	0.002	B		#	0.0001	-
	mg/L	0956	07/12/2000	0001	0.0005	B		#	0.0001	-
	mg/L	0956	07/12/2000	0002	0.0001	U		#	0.0001	-
	mg/L	0956	07/12/2000	N003	0.0005	B		#	0.0001	-
	mg/L	0957	07/16/2000	0001	0.0006	B		#	0.0001	-
	mg/L	0957	07/16/2000	0002	0.001	B		#	0.0001	-
	mg/L	0957	07/16/2000	N003	0.0006	B		#	0.0001	-
	mg/L	1201	07/15/2000	0001	0.0004	B	U	#	0.0001	-
	mg/L	1201	07/15/2000	N003	0.0005	B		#	0.0001	-
	mg/L	1203	07/15/2000	0001	0.0004	B		#	0.0001	-
	mg/L	1203	07/15/2000	N003	0.0004	B		#	0.0001	-
	mg/L	1204	07/14/2000	0001	0.0005	B		#	0.0001	-
	mg/L	1204	07/14/2000	N003	0.0005	B		#	0.0001	-
	mg/L	1205	07/14/2000	0001	0.0005	B		#	0.0001	-
	mg/L	1205	07/14/2000	N003	0.0006	B		#	0.0001	-
	mg/L	1206	07/14/2000	0001	0.0004	B		#	0.0001	-
	mg/L	1206	07/14/2000	N003	0.0005	B		#	0.0001	-
mg/L	1210	07/16/2000	0001	0.0007	B		#	0.0001	-	
mg/L	1210	07/16/2000	N003	0.0009	B		#	0.0001	-	
Sodium	mg/L	0554	07/12/2000	0001	40.200			#	0.434	-
	mg/L	0554	07/12/2000	N003	41.000			#	0.434	-
	mg/L	0555	07/15/2000	0001	36.900			#	0.434	-
	mg/L	0555	07/15/2000	N003	40.200			#	0.434	-
	mg/L	0658	07/16/2000	0001	1030.000			#	4.34	-
	mg/L	0888	07/13/2000	0001	37.300			#	0.434	-
	mg/L	0888	07/13/2000	N003	39.300			#	0.434	-
	mg/L	0894	07/14/2000	0001	44.000			#	0.434	-
	mg/L	0894	07/14/2000	N003	46.700			#	0.434	-
	mg/L	0895	07/14/2000	0001	39.000			#	0.434	-
	mg/L	0895	07/14/2000	N003	45.800			#	0.434	-
	mg/L	0897	07/11/2000	0001	38.500			#	0.434	-
	mg/L	0897	07/11/2000	N003	41.200			#	0.434	-
	mg/L	0898	07/13/2000	0001	37.400			#	0.434	-
	mg/L	0898	07/13/2000	N003	41.500			#	0.434	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Sodium	mg/L	0939	07/16/2000	0001	53.700			#	0.434	-
	mg/L	0940	07/14/2000	0001	38.000			#	0.434	-
	mg/L	0940	07/14/2000	N003	41.500			#	0.434	-
	mg/L	0947	07/13/2000	0001	157.000			#	0.434	-
	mg/L	0947	07/13/2000	N003	162.000			#	0.434	-
	mg/L	0948	07/13/2000	0001	148.000			#	0.434	-
	mg/L	0948	07/13/2000	N003	153.000			#	0.434	-
	mg/L	0956	07/12/2000	0001	38.600			#	0.434	-
	mg/L	0956	07/12/2000	0002	40.000			#	0.434	-
	mg/L	0956	07/12/2000	N003	40.900			#	0.434	-
	mg/L	0957	07/16/2000	0001	38.100			#	0.434	-
	mg/L	0957	07/16/2000	0002	38.300			#	0.434	-
	mg/L	0957	07/16/2000	N003	41.600			#	0.434	-
	mg/L	1201	07/15/2000	0001	37.800			#	0.434	-
	mg/L	1201	07/15/2000	N003	39.700			#	0.434	-
	mg/L	1203	07/15/2000	0001	38.800			#	0.434	-
	mg/L	1203	07/15/2000	N003	40.000			#	0.434	-
	mg/L	1204	07/14/2000	0001	39.200			#	0.434	-
	mg/L	1204	07/14/2000	N003	40.800			#	0.434	-
	mg/L	1205	07/14/2000	0001	37.400			#	0.434	-
	mg/L	1205	07/14/2000	N003	41.000			#	0.434	-
	mg/L	1206	07/14/2000	0001	39.100			#	0.434	-
	mg/L	1206	07/14/2000	N003	43.900			#	0.434	-
	mg/L	1210	07/16/2000	0001	43.300			#	0.434	-
mg/L	1210	07/16/2000	N003	45.900			#	0.434	-	
Specific Conductance	umhos/cm	0554	07/12/2000	N001	554			#	-	-
	umhos/cm	0555	07/15/2000	N001	553			#	-	-
	umhos/cm	0658	07/16/2000	N001	5260			#	-	-
	umhos/cm	0888	07/13/2000	N001	540			#	-	-
	umhos/cm	0894	07/14/2000	N001	619			#	-	-
	umhos/cm	0895	07/14/2000	N001	575			#	-	-
	umhos/cm	0897	07/11/2000	N001	598			#	-	-
	umhos/cm	0898	07/13/2000	N001	544			#	-	-
	umhos/cm	0939	07/16/2000	N001	838			#	-	-
	umhos/cm	0940	07/14/2000	N001	589			#	-	-
	umhos/cm	0947	07/13/2000	N001	1464			#	-	-
	umhos/cm	0948	07/13/2000	N001	1441			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS:		
		ID	DATE	ID	LAB		DATA	QA	DETECTION LIMIT
Specific Conductance	umhos/cm	0956	07/12/2000	N001	575	#	-	-	
	umhos/cm	0957	07/16/2000	N001	569	#	-	-	
	umhos/cm	1201	07/15/2000	N001	550	#	-	-	
	umhos/cm	1203	07/15/2000	N001	553	#	-	-	
	umhos/cm	1204	07/14/2000	N001	555	#	-	-	
	umhos/cm	1205	07/14/2000	N001	595	#	-	-	
	umhos/cm	1206	07/14/2000	N001	638	#	-	-	
	umhos/cm	1210	07/16/2000	N001	573	#	-	-	
Strontium	mg/L	0554	07/12/2000	0001	0.787	#	0.0001	-	
	mg/L	0554	07/12/2000	N003	0.791	#	0.0001	-	
	mg/L	0555	07/15/2000	0001	0.774	#	0.0001	-	
	mg/L	0555	07/15/2000	N003	0.775	#	0.0001	-	
	mg/L	0658	07/16/2000	0001	12.300	#	0.0002	-	
	mg/L	0888	07/13/2000	0001	0.783	#	0.0001	-	
	mg/L	0888	07/13/2000	N003	0.779	#	0.0001	-	
	mg/L	0894	07/14/2000	0001	0.810	#	0.0001	-	
	mg/L	0894	07/14/2000	N003	0.808	#	0.0001	-	
	mg/L	0895	07/14/2000	0001	0.781	#	0.0001	-	
	mg/L	0895	07/14/2000	N003	0.805	#	0.0001	-	
	mg/L	0897	07/11/2000	0001	0.804	#	0.0001	-	
	mg/L	0897	07/11/2000	N003	0.816	#	0.0001	-	
	mg/L	0898	07/13/2000	0001	0.762	#	0.0001	-	
	mg/L	0898	07/13/2000	N003	0.773	#	0.0001	-	
	mg/L	0939	07/16/2000	0001	1.250	#	0.0001	-	
	mg/L	0940	07/14/2000	0001	0.801	#	0.0001	-	
	mg/L	0940	07/14/2000	N003	0.809	#	0.0001	-	
	mg/L	0947	07/13/2000	0001	1.870	#	0.0001	-	
	mg/L	0947	07/13/2000	N003	1.880	#	0.0001	-	
	mg/L	0948	07/13/2000	0001	1.800	#	0.0001	-	
	mg/L	0948	07/13/2000	N003	1.790	#	0.0001	-	
	mg/L	0956	07/12/2000	0001	0.814	#	0.0001	-	
	mg/L	0956	07/12/2000	0002	0.821	#	0.0001	-	
	mg/L	0956	07/12/2000	N003	0.825	#	0.0001	-	
	mg/L	0957	07/16/2000	0001	0.787	#	0.0001	-	
	mg/L	0957	07/16/2000	0002	0.780	#	0.0001	-	
	mg/L	0957	07/16/2000	N003	0.788	#	0.0001	-	
	mg/L	1201	07/15/2000	0001	0.773	#	0.0001	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Strontium	mg/L	1201	07/15/2000	N003	0.777	#	0.0001	-
	mg/L	1203	07/15/2000	0001	0.768	#	0.0001	-
	mg/L	1203	07/15/2000	N003	0.772	#	0.0001	-
	mg/L	1204	07/14/2000	0001	0.774	#	0.0001	-
	mg/L	1204	07/14/2000	N003	0.777	#	0.0001	-
	mg/L	1205	07/14/2000	0001	0.784	#	0.0001	-
	mg/L	1205	07/14/2000	N003	0.789	#	0.0001	-
	mg/L	1206	07/14/2000	0001	0.796	#	0.0001	-
	mg/L	1206	07/14/2000	N003	0.812	#	0.0001	-
	mg/L	1210	07/16/2000	0001	0.795	#	0.0001	-
	mg/L	1210	07/16/2000	N003	0.799	#	0.0001	-
	Strontium-89	pCi/L	0956	07/12/2000	0001	4	U	# 4
pCi/L		0956	07/12/2000	0002	4.2	U	# 4.2	± 2.10
pCi/L		0956	07/12/2000	N003	4	U	# 4	± 2.10
pCi/L		0957	07/16/2000	0001	4.1	U	# 4.1	± 2.00
pCi/L		0957	07/16/2000	0002	4.3	U	# 4.3	± 2.20
pCi/L		0957	07/16/2000	N003	4.1	U	# 4.1	± 2.00
Strontium-90	pCi/L	0956	07/12/2000	0001	1.70	U	# 1.7	± 0.94
	pCi/L	0956	07/12/2000	0002	1.83	U	# 1.83	± 1.04
	pCi/L	0956	07/12/2000	N003	1.74	U	# 1.74	± 0.95
	pCi/L	0957	07/16/2000	0001	1.84	U	# 1.84	± 1.03
	pCi/L	0957	07/16/2000	0002	2.00	U	# 2	± 1.09
	pCi/L	0957	07/16/2000	N003	1.87	U	# 1.87	± 1.03
Sulfate	mg/L	0554	07/12/2000	0001	136.000	#	-	-
	mg/L	0554	07/12/2000	N003	137.000	#	-	-
	mg/L	0555	07/15/2000	0001	135.000	#	-	-
	mg/L	0555	07/15/2000	N003	137.000	#	-	-
	mg/L	0658	07/16/2000	0001	2690.000	#	-	-
	mg/L	0888	07/13/2000	0001	131.000	#	-	-
	mg/L	0888	07/13/2000	N003	131.000	#	-	-
	mg/L	0894	07/14/2000	0001	156.000	#	-	-
	mg/L	0894	07/14/2000	N003	160.000	#	-	-
	mg/L	0895	07/14/2000	0001	143.000	#	-	-
	mg/L	0895	07/14/2000	N003	144.000	#	-	-
	mg/L	0897	07/11/2000	0001	133.000	#	-	-
	mg/L	0897	07/11/2000	N003	136.000	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
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PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Sulfate	mg/L	0898	07/13/2000	0001	131.000			#	-	-
	mg/L	0898	07/13/2000	N003	128.000			#	-	-
	mg/L	0939	07/16/2000	0001	338.000			#	-	-
	mg/L	0940	07/14/2000	0001	143.000			#	-	-
	mg/L	0940	07/14/2000	N003	142.000			#	-	-
	mg/L	0947	07/13/2000	0001	671.000			#	-	-
	mg/L	0947	07/13/2000	N003	670.000			#	-	-
	mg/L	0948	07/13/2000	0001	624.000			#	-	-
	mg/L	0948	07/13/2000	N003	625.000			#	-	-
	mg/L	0956	07/12/2000	0001	138.000			#	-	-
	mg/L	0956	07/12/2000	0002	139.000			#	-	-
	mg/L	0956	07/12/2000	N003	139.000			#	-	-
	mg/L	0957	07/16/2000	0001	142.000			#	-	-
	mg/L	0957	07/16/2000	0002	142.000			#	-	-
	mg/L	0957	07/16/2000	N003	141.000			#	-	-
	mg/L	1201	07/15/2000	0001	135.000			#	-	-
	mg/L	1201	07/15/2000	N003	136.000			#	-	-
	mg/L	1203	07/15/2000	0001	136.000			#	-	-
	mg/L	1203	07/15/2000	N003	136.000			#	-	-
	mg/L	1204	07/14/2000	0001	139.000			#	-	-
	mg/L	1204	07/14/2000	N003	140.000			#	-	-
	mg/L	1205	07/14/2000	0001	139.000			#	-	-
	mg/L	1205	07/14/2000	N003	138.000			#	-	-
	mg/L	1206	07/14/2000	0001	157.000			#	-	-
	mg/L	1206	07/14/2000	N003	153.000			#	-	-
	mg/L	1210	07/16/2000	0001	161.000			#	-	-
	mg/L	1210	07/16/2000	N003	160.000			#	-	-
Temperature	C	0554	07/12/2000	N001	27.7			#	-	-
	C	0555	07/15/2000	N001	23.7			#	-	-
	C	0658	07/16/2000	N001	24.3			#	-	-
	C	0888	07/13/2000	N001	29			#	-	-
	C	0894	07/14/2000	N001	22.3			#	-	-
	C	0895	07/14/2000	N001	23.8			#	-	-
	C	0897	07/11/2000	N001	25.1			#	-	-
	C	0898	07/13/2000	N001	30.1			#	-	-
	C	0939	07/16/2000	N001	23.2			#	-	-
	C	0940	07/14/2000	N001	29.3			#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION		SAMPLE:		RESULT	QUALIFIERS: DETECTION UN-		
		ID	DATE	ID	LAB DATA QA		LIMIT	CERTAINTY	
Temperature	C	0947	07/13/2000	N001		25.4	#	-	-
	C	0948	07/13/2000	N001		25.1	#	-	-
	C	0956	07/12/2000	N001		24	#	-	-
	C	0957	07/16/2000	N001		25.6	#	-	-
	C	1201	07/15/2000	N001		23.9	#	-	-
	C	1203	07/15/2000	N001		24.1	#	-	-
	C	1204	07/14/2000	N001		30.6	#	-	-
	C	1205	07/14/2000	N001		29.8	#	-	-
	C	1206	07/14/2000	N001		30.4	#	-	-
	C	1210	07/16/2000	N001		29.4	#	-	-
Temperature of Zobell Soluti	C	0554	07/12/2000	N001		24.8	#	-	-
	C	0555	07/15/2000	N001		24.4	#	-	-
	C	0658	07/16/2000	N001		25	#	-	-
	C	0888	07/13/2000	N001		31.6	#	-	-
	C	0894	07/14/2000	N001		24.9	#	-	-
	C	0895	07/14/2000	N001		24	#	-	-
	C	0897	07/11/2000	N001		25	#	-	-
	C	0898	07/13/2000	N001		26.6	#	-	-
	C	0939	07/16/2000	N001		26.1	#	-	-
	C	0940	07/14/2000	N001		28.7	#	-	-
	C	0947	07/13/2000	N001		26.7	#	-	-
	C	0956	07/12/2000	N001		26.4	#	-	-
	C	0957	07/16/2000	N001		26.1	#	-	-
	C	1201	07/15/2000	N001		24.4	#	-	-
	C	1204	07/14/2000	N001		26.5	#	-	-
	C	1205	07/14/2000	N001		34.4	#	-	-
	C	1206	07/14/2000	N001		28.7	#	-	-
	C	1210	07/16/2000	N001		30.3	#	-	-
Thorium-228	pCi/L	0956	07/12/2000	0001		0.21	U	#	0.21 ± 0.22
	pCi/L	0956	07/12/2000	0002		0.27	U	#	0.27 ± 0.25
	pCi/L	0956	07/12/2000	N003		0.31	U	#	0.31 ± 0.27
	pCi/L	0957	07/16/2000	0001		0.46	U	#	0.46 ± 0.42
	pCi/L	0957	07/16/2000	0002		0.30	U	#	0.3 ± 0.24
	pCi/L	0957	07/16/2000	N003		0.26	U	#	0.26 ± 0.26
Thorium-230	pCi/L	0956	07/12/2000	0001		0.3	U	#	0.11 ± 0.26
	pCi/L	0956	07/12/2000	0002		0.2	U	#	0.16 ± 0.25

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Thorium-230	pCi/L	0956	07/12/2000	N003	0.11	U #	0.11	± 0.18
	pCi/L	0957	07/16/2000	0001	0.20	U #	0.2	± 0.19
	pCi/L	0957	07/16/2000	0002	0.11	U #	0.11	± 0.16
	pCi/L	0957	07/16/2000	N003	0.18	U #	0.08	± 0.19
Thorium-232	pCi/L	0956	07/12/2000	0001	0.09	U #	0.09	± 0.03
	pCi/L	0956	07/12/2000	0002	0	U #	0.1	± 0.06
	pCi/L	0956	07/12/2000	N003	0	U #	0.1	± 0.06
	pCi/L	0957	07/16/2000	0001	0.07	U #	0.07	± 0.08
	pCi/L	0957	07/16/2000	0002	0.10	U #	0.1	± 0.08
	pCi/L	0957	07/16/2000	N003	0	U #	0.1	± 0.07
Total Dissolved Solids	mg/L	0554	07/12/2000	0001	362	#	-	-
	mg/L	0554	07/12/2000	N003	378	#	-	-
	mg/L	0555	07/15/2000	0001	387	#	-	-
	mg/L	0555	07/15/2000	N003	380	#	-	-
	mg/L	0658	07/16/2000	0001	4090	#	-	-
	mg/L	0888	07/13/2000	0001	388	#	-	-
	mg/L	0888	07/13/2000	N003	405	#	-	-
	mg/L	0894	07/14/2000	0001	418	#	-	-
	mg/L	0894	07/14/2000	N003	418	#	-	-
	mg/L	0895	07/14/2000	0001	402	#	-	-
	mg/L	0895	07/14/2000	N003	410	#	-	-
	mg/L	0897	07/11/2000	0001	370	#	-	-
	mg/L	0897	07/11/2000	N003	370	#	-	-
	mg/L	0898	07/13/2000	0001	408	#	-	-
	mg/L	0898	07/13/2000	N003	393	#	-	-
	mg/L	0939	07/16/2000	0001	657	#	-	-
	mg/L	0940	07/14/2000	0001	400	#	-	-
	mg/L	0940	07/14/2000	N003	375	#	-	-
	mg/L	0947	07/13/2000	0001	1110	#	-	-
	mg/L	0947	07/13/2000	N003	1150	#	-	-
	mg/L	0948	07/13/2000	0001	1050	#	-	-
	mg/L	0948	07/13/2000	N003	1050	#	-	-
	mg/L	0956	07/12/2000	0001	375	#	-	-
	mg/L	0956	07/12/2000	0002	378	#	-	-
	mg/L	0956	07/12/2000	N003	382	#	-	-
	mg/L	0957	07/16/2000	0001	365	#	-	-
	mg/L	0957	07/16/2000	0002	387	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS: DETECTION UN-		
			DATE	ID		LAB DATA QA	LIMIT	CERTAINTY
Total Dissolved Solids	mg/L	0957	07/16/2000	N003	367	#	-	-
	mg/L	1201	07/15/2000	0001	375	#	-	-
	mg/L	1201	07/15/2000	N003	368	#	-	-
	mg/L	1203	07/15/2000	0001	387	#	-	-
	mg/L	1203	07/15/2000	N003	380	#	-	-
	mg/L	1204	07/14/2000	0001	360	#	-	-
	mg/L	1204	07/14/2000	N003	370	#	-	-
	mg/L	1205	07/14/2000	0001	390	#	-	-
	mg/L	1205	07/14/2000	N003	363	#	-	-
	mg/L	1206	07/14/2000	0001	422	#	-	-
	mg/L	1206	07/14/2000	N003	420	#	-	-
	mg/L	1210	07/16/2000	0001	400	#	-	-
	mg/L	1210	07/16/2000	N003	407	#	-	-
Turbidity	NTU	0897	07/11/2000	N001	51	#	-	-
Uranium	mg/L	0554	07/12/2000	0001	0.0019	#	0.0001	-
	mg/L	0554	07/12/2000	N003	0.0018	#	0.0001	-
	mg/L	0555	07/15/2000	0001	0.0018	#	0.0001	-
	mg/L	0555	07/15/2000	N003	0.0018	#	0.0001	-
	mg/L	0658	07/16/2000	0001	0.0063	#	0.0001	-
	mg/L	0888	07/13/2000	0001	0.0018	#	0.0001	-
	mg/L	0888	07/13/2000	N003	0.0018	#	0.0001	-
	mg/L	0894	07/14/2000	0001	0.0025	#	0.0001	-
	mg/L	0894	07/14/2000	N003	0.0028	#	0.0001	-
	mg/L	0895	07/14/2000	0001	0.0022	#	0.0001	-
	mg/L	0895	07/14/2000	N003	0.0026	#	0.0001	-
	mg/L	0897	07/11/2000	0001	0.0019	#	0.0001	-
	mg/L	0897	07/11/2000	N003	0.002	#	0.0001	-
	mg/L	0898	07/13/2000	0001	0.0016	#	0.0001	-
	mg/L	0898	07/13/2000	N003	0.0021	#	0.0001	-
	mg/L	0939	07/16/2000	0001	0.0043	#	0.0001	-
	mg/L	0940	07/14/2000	0001	0.0021	#	0.0001	-
	mg/L	0940	07/14/2000	N003	0.0021	#	0.0001	-
	mg/L	0947	07/13/2000	0001	0.0038	#	0.0001	-
	mg/L	0947	07/13/2000	N003	0.0039	#	0.0001	-
mg/L	0948	07/13/2000	0001	0.0041	#	0.0001	-	
mg/L	0948	07/13/2000	N003	0.0045	#	0.0001	-	
mg/L	0956	07/12/2000	0001	0.0019	#	0.0001	-	



SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0956	07/12/2000	0002	0.0019	#	0.0001	-
	mg/L	0956	07/12/2000	N003	0.002	#	0.0001	-
	mg/L	0957	07/16/2000	0001	0.0019	#	0.0001	-
	mg/L	0957	07/16/2000	0002	0.002	#	0.0001	-
	mg/L	0957	07/16/2000	N003	0.0021	#	0.0001	-
	mg/L	1201	07/15/2000	0001	0.0018	#	0.0001	-
	mg/L	1201	07/15/2000	N003	0.0019	#	0.0001	-
	mg/L	1203	07/15/2000	0001	0.0019	#	0.0001	-
	mg/L	1203	07/15/2000	N003	0.0018	#	0.0001	-
	mg/L	1204	07/14/2000	0001	0.0019	#	0.0001	-
	mg/L	1204	07/14/2000	N003	0.002	#	0.0001	-
	mg/L	1205	07/14/2000	0001	0.0019	#	0.0001	-
	mg/L	1205	07/14/2000	N003	0.0019	#	0.0001	-
	mg/L	1206	07/14/2000	0001	0.0022	#	0.0001	-
	mg/L	1206	07/14/2000	N003	0.0026	#	0.0001	-
	mg/L	1210	07/16/2000	0001	0.0024	#	0.0001	-
mg/L	1210	07/16/2000	N003	0.0025	#	0.0001	-	
Vanadium	mg/L	0555	07/15/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0555	07/15/2000	N003	0.0014 U	#	0.0013	-
	mg/L	0658	07/16/2000	0001	0.0022 B	#	0.0013	-
	mg/L	0888	07/13/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0888	07/13/2000	N003	0.0014 U	#	0.0013	-
	mg/L	0894	07/14/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0894	07/14/2000	N003	0.0016 B	#	0.0013	-
	mg/L	0895	07/14/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0895	07/14/2000	N003	0.0014 U	#	0.0013	-
	mg/L	0898	07/13/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0898	07/13/2000	N003	0.0022 B	#	0.0013	-
	mg/L	0939	07/16/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0940	07/14/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0940	07/14/2000	N003	0.0014 U	#	0.0013	-
	mg/L	0957	07/16/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0957	07/16/2000	0002	0.0013 U	#	0.0013	-
	mg/L	0957	07/16/2000	N003	0.0014 U	#	0.0013	-
	mg/L	1201	07/15/2000	0001	0.0013 U	#	0.0013	-
mg/L	1201	07/15/2000	N003	0.0014 U	#	0.0013	-	
mg/L	1203	07/15/2000	0001	0.0013 U	#	0.0013	-	

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN- CERTAINTY
			DATE	ID		LAB	DATA	QA		
Vanadium	mg/L	1203	07/15/2000	N003	0.0014 U			#	0.0013	-
	mg/L	1204	07/14/2000	0001	0.0013 U			#	0.0013	-
	mg/L	1204	07/14/2000	N003	0.0014 U			#	0.0013	-
	mg/L	1205	07/14/2000	0001	0.0013 U			#	0.0013	-
	mg/L	1205	07/14/2000	N003	0.0014 U			#	0.0013	-
	mg/L	1206	07/14/2000	0001	0.0013 U			#	0.0013	-
	mg/L	1206	07/14/2000	N003	0.0025 B			#	0.0013	-
	mg/L	1210	07/16/2000	0001	0.0013 U			#	0.0013	-
	mg/L	1210	07/16/2000	N003	0.0014 U			#	0.0013	-
Zinc	mg/L	0554	07/12/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0554	07/12/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0555	07/15/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0555	07/15/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0658	07/16/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0888	07/13/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0888	07/13/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0894	07/14/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0894	07/14/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0895	07/14/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0895	07/14/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0897	07/11/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0897	07/11/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0898	07/13/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0898	07/13/2000	N003	0.0149 B			#	0.0127	-
	mg/L	0939	07/16/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0940	07/14/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0940	07/14/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0947	07/13/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0947	07/13/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0948	07/13/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0948	07/13/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0956	07/12/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0956	07/12/2000	0002	0.0127 U			#	0.0127	-
	mg/L	0956	07/12/2000	N003	0.0141 U			#	0.0127	-
	mg/L	0957	07/16/2000	0001	0.0127 U			#	0.0127	-
	mg/L	0957	07/16/2000	0002	0.0127 U			#	0.0127	-
	mg/L	0957	07/16/2000	N003	0.0141 U			#	0.0127	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP01, SHIPROCK  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS:			DETECTION LIMIT	UN-CERTAINTY
			DATE	ID		LAB	DATA	QA		
Zinc	mg/L	1201	07/15/2000	0001	0.0127	U		#	0.0127	-
	mg/L	1201	07/15/2000	N003	0.0141	U		#	0.0127	-
	mg/L	1203	07/15/2000	0001	0.0127	U		#	0.0127	-
	mg/L	1203	07/15/2000	N003	0.0141	U		#	0.0127	-
	mg/L	1204	07/14/2000	0001	0.0127	U		#	0.0127	-
	mg/L	1204	07/14/2000	N003	0.0141	U		#	0.0127	-
	mg/L	1205	07/14/2000	0001	0.0127	U		#	0.0127	-
	mg/L	1205	07/14/2000	N003	0.0141	U		#	0.0127	-
	mg/L	1206	07/14/2000	0001	0.0127	U		#	0.0127	-
	mg/L	1206	07/14/2000	N003	0.0141	U		#	0.0127	-
	mg/L	1210	07/16/2000	0001	0.0127	U		#	0.0127	-
	mg/L	1210	07/16/2000	N003	0.0141	U		#	0.0127	-

RECORDS: SELECTED FROM USEE800 WHERE site\_code='SHP01' AND quality\_assurance = TRUE AND (NOT (data\_validation\_qualifiers LIKE '\*R\*' OR data\_validation\_qualifiers LIKE '\*X\*') OR IsNull(data\_validation\_qualifiers)) AND DATE\_SAMPLED between #7/5/2000# and #7/25/2000#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- \* Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- J Estimated value.
- G Possible grout contamination, pH > 9.
- R Unusable result.
- U Parameter analyzed for but was not detected.
- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity as CaCO3	mg/L	0786	07/16/2000	0001	189	#	-	-
	mg/L	0786	07/16/2000	N001	203	#	-	-
	mg/L	0886	07/12/2000	0001	655	#	-	-
	mg/L	0886	07/12/2000	N001	657	#	-	-
	mg/L	0889	07/12/2000	0001	459	#	-	-
	mg/L	0889	07/12/2000	N001	474	#	-	-
	mg/L	0933	07/15/2000	0001	376	#	-	-
	mg/L	0933	07/15/2000	N001	387	#	-	-
	mg/L	0934	07/15/2000	0001	300	#	-	-
	mg/L	0934	07/15/2000	N001	283	#	-	-
	mg/L	0935	07/16/2000	0001	332	#	-	-
	mg/L	0935	07/16/2000	N001	335	#	-	-
	mg/L	0936	07/16/2000	0001	296	#	-	-
	mg/L	0936	07/16/2000	N001	299	#	-	-
	mg/L	0942	07/15/2000	0001	246	#	-	-
	mg/L	0942	07/15/2000	N001	246	#	-	-
Ammonium	mg/L	0786	07/16/2000	0001	0.0957	B #	-	-
	mg/L	0886	07/12/2000	0001	0.619	#	-	-
	mg/L	0889	07/12/2000	0001	0.0133	B #	-	-
	mg/L	0933	07/15/2000	0001	0.177	#	-	-
	mg/L	0934	07/15/2000	0001	0.0728	B #	-	-
	mg/L	0935	07/16/2000	0001	0.0126	B #	-	-
	mg/L	0936	07/16/2000	0001	0.0459	B #	-	-
	mg/L	0942	07/15/2000	0001	0.0499	B #	-	-
Antimony	mg/L	0786	07/16/2000	0001	0.0006	B U #	0.0001	-
	mg/L	0886	07/12/2000	0001	0.0008	B U #	0.0001	-
	mg/L	0889	07/12/2000	0001	0.0028	B #	0.0001	-
	mg/L	0933	07/15/2000	0001	0.0012	B U #	0.0001	-
	mg/L	0934	07/15/2000	0001	0.0003	B U #	0.0001	-
	mg/L	0935	07/16/2000	0001	0.0004	B U #	0.0001	-
	mg/L	0936	07/16/2000	0001	0.0002	B U #	0.0001	-
	mg/L	0942	07/15/2000	0001	0.0003	B U #	0.0001	-
Arsenic	mg/L	0786	07/16/2000	0001	0.0003	U #	0.0003	-
	mg/L	0886	07/12/2000	0001	0.0003	U #	0.0003	-
	mg/L	0889	07/12/2000	0001	0.0003	U #	0.0003	-
	mg/L	0933	07/15/2000	0001	0.0003	U #	0.0003	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Arsenic	mg/L	0934	07/15/2000	0001	0.0003 U	#	0.0003	-
	mg/L	0935	07/16/2000	0001	0.0003 U	#	0.0003	-
	mg/L	0936	07/16/2000	0001	0.0003 U	#	0.0003	-
	mg/L	0942	07/15/2000	0001	0.0003 U	#	0.0003	-
Boron	mg/L	0786	07/16/2000	0001	0.717	#	0.0081	-
	mg/L	0935	07/16/2000	0001	0.626	#	0.0081	-
Cadmium	mg/L	0786	07/16/2000	0001	0.0002 U	#	0.0002	-
	mg/L	0886	07/12/2000	0001	0.0002 U	#	0.0002	-
	mg/L	0889	07/12/2000	0001	0.0002 U	#	0.0002	-
	mg/L	0933	07/15/2000	0001	0.0002 U	#	0.0002	-
	mg/L	0934	07/15/2000	0001	0.0002 U	#	0.0002	-
	mg/L	0935	07/16/2000	0001	0.0002 U	#	0.0002	-
	mg/L	0936	07/16/2000	0001	0.0002 U	#	0.0002	-
	mg/L	0942	07/15/2000	0001	0.0002 U	#	0.0002	-
Calcium	mg/L	0786	07/16/2000	0001	436.000	#	0.0504	-
	mg/L	0886	07/12/2000	0001	457.000	#	0.0504	-
	mg/L	0889	07/12/2000	0001	506.000	#	0.504	-
	mg/L	0933	07/15/2000	0001	486.000	#	0.0504	-
	mg/L	0934	07/15/2000	0001	446.000	#	0.0504	-
	mg/L	0935	07/16/2000	0001	468.000	#	0.0504	-
	mg/L	0936	07/16/2000	0001	526.000	#	0.504	-
	mg/L	0942	07/15/2000	0001	461.000	#	0.0504	-
Chloride	mg/L	0786	07/16/2000	0001	184.000	#	-	-
	mg/L	0886	07/12/2000	0001	1330.000	#	-	-
	mg/L	0889	07/12/2000	0001	2890.000	#	-	-
	mg/L	0933	07/15/2000	0001	214.000	#	-	-
	mg/L	0934	07/15/2000	0001	41.800	#	-	-
	mg/L	0935	07/16/2000	0001	184.000	#	-	-
	mg/L	0936	07/16/2000	0001	89.900	#	-	-
	mg/L	0942	07/15/2000	0001	61.300	#	-	-
Copper	mg/L	0786	07/16/2000	0001	0.0031 U	#	0.0031	-
	mg/L	0933	07/15/2000	0001	0.0031 U	#	0.0031	-
	mg/L	0934	07/15/2000	0001	0.0031 U	#	0.0031	-
	mg/L	0935	07/16/2000	0001	0.0031 U	#	0.0031	-
	mg/L	0936	07/16/2000	0001	0.0031 U	#	0.0031	-
	mg/L	0942	07/15/2000	0001	0.0031 U	#	0.0031	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Fluoride	mg/L	0786	07/16/2000	0001	0.556	#	-	-
	mg/L	0886	07/12/2000	0001	0.913	B	#	-
	mg/L	0889	07/12/2000	0001	1.530	B	#	-
	mg/L	0933	07/15/2000	0001	0.570	#	-	-
	mg/L	0934	07/15/2000	0001	0.610	#	-	-
	mg/L	0935	07/16/2000	0001	0.710	#	-	-
	mg/L	0936	07/16/2000	0001	0.508	#	-	-
	mg/L	0942	07/15/2000	0001	0.662	#	-	-
Gross Alpha	pCi/L	0786	07/16/2000	0001	52.42	U	#	52.42 ± 29.6
	pCi/L	0886	07/12/2000	0001	317.0	U	#	317.02 ± 181.
	pCi/L	0889	07/12/2000	0001	624.49	U	#	624.49 ± 336.
	pCi/L	0933	07/15/2000	0001	54.09	U	#	54.09 ± 32.3
	pCi/L	0934	07/15/2000	0001	26.21	U	#	26.21 ± 16.6
	pCi/L	0935	07/16/2000	0001	53.19	U	#	53.19 ± 35.3
	pCi/L	0936	07/16/2000	0001	34.99	U	#	34.99 ± 20.4
	pCi/L	0942	07/15/2000	0001	27.98	U	#	27.98 ± 16.9
Gross Beta	pCi/L	0786	07/16/2000	0001	50.46	U	#	50.46 ± 30.5
	pCi/L	0886	07/12/2000	0001	314.37	U	#	314.37 ± 180.
	pCi/L	0889	07/12/2000	0001	626.52	U	#	626.52 ± 368.
	pCi/L	0933	07/15/2000	0001	50.75	UB	#	50.75 ± 30.3
	pCi/L	0934	07/15/2000	0001	25.29	UB	#	25.29 ± 15.4
	pCi/L	0935	07/16/2000	0001	50.76	U	#	50.76 ± 30.0
	pCi/L	0936	07/16/2000	0001	31.87	U	#	31.87 ± 19.0
	pCi/L	0942	07/15/2000	0001	25.52	UB	#	25.52 ± 14.8
Iron	mg/L	0786	07/16/2000	0001	0.0091	U	#	0.0091 -
	mg/L	0886	07/12/2000	0001	0.0255	B	#	0.0091 -
	mg/L	0889	07/12/2000	0001	0.0302		#	0.0091 -
	mg/L	0933	07/15/2000	0001	0.0091	U	#	0.0091 -
	mg/L	0934	07/15/2000	0001	0.010	B	#	0.0091 -
	mg/L	0935	07/16/2000	0001	0.0091	U	#	0.0091 -
	mg/L	0936	07/16/2000	0001	0.0091	U	#	0.0091 -
	mg/L	0942	07/15/2000	0001	0.0091	U	#	0.0091 -
Magnesium	mg/L	0786	07/16/2000	0001	461.000		#	0.024 -
	mg/L	0886	07/12/2000	0001	1120.000		#	1.2 -
	mg/L	0889	07/12/2000	0001	2610.000		#	0.24 -
	mg/L	0933	07/15/2000	0001	490.000		#	0.024 -

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Magnesium	mg/L	0934	07/15/2000	0001	132.000	#	0.024	-
	mg/L	0935	07/16/2000	0001	496.000	#	0.24	-
	mg/L	0936	07/16/2000	0001	286.000	#	0.024	-
	mg/L	0942	07/15/2000	0001	174.000	#	0.024	-
Manganese	mg/L	0786	07/16/2000	0001	0.0033 B	#	0.0015	-
	mg/L	0886	07/12/2000	0001	0.051	#	0.0015	-
	mg/L	0889	07/12/2000	0001	0.0327	#	0.0015	-
	mg/L	0933	07/15/2000	0001	0.0088 B	#	0.0015	-
	mg/L	0934	07/15/2000	0001	0.0049 B	#	0.0015	-
	mg/L	0935	07/16/2000	0001	0.0021 B	#	0.0015	-
	mg/L	0936	07/16/2000	0001	0.0089 B	#	0.0015	-
	mg/L	0942	07/15/2000	0001	0.0017 B	#	0.0015	-
Molybdenum	mg/L	0786	07/16/2000	0001	0.0067 B	#	0.0003	-
	mg/L	0886	07/12/2000	0001	0.0254	#	0.0003	-
	mg/L	0889	07/12/2000	0001	0.0772	#	0.0003	-
	mg/L	0933	07/15/2000	0001	0.0058 B	#	0.0003	-
	mg/L	0934	07/15/2000	0001	0.0026 B	#	0.0003	-
	mg/L	0935	07/16/2000	0001	0.0107	#	0.0003	-
	mg/L	0936	07/16/2000	0001	0.0078 B	#	0.0003	-
	mg/L	0942	07/15/2000	0001	0.0061 B	#	0.0003	-
Nitrate	mg/L	0786	07/16/2000	0001	323.000	#	-	-
	mg/L	0886	07/12/2000	0001	3200.000	#	-	-
	mg/L	0889	07/12/2000	0001	6560.000	#	-	-
	mg/L	0933	07/15/2000	0001	429.000	#	-	-
	mg/L	0934	07/15/2000	0001	106.000	#	-	-
	mg/L	0935	07/16/2000	0001	419.000	#	-	-
	mg/L	0936	07/16/2000	0001	237.000	#	-	-
	mg/L	0942	07/15/2000	0001	185.000	#	-	-
ORP of Zobell Solution	mV	0786	07/16/2000	N001	211	#	-	-
	mV	0886	07/12/2000	N001	220	#	-	-
	mV	0889	07/12/2000	N001	220	#	-	-
	mV	0933	07/15/2000	N001	200	#	-	-
	mV	0934	07/15/2000	N001	202	#	-	-
	mV	0935	07/16/2000	N001	203	#	-	-
	mV	0936	07/16/2000	N001	203	#	-	-
	mV	0942	07/15/2000	N001	202	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
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PARAMETER	UNITS	LOCATION ID	SAMPLE:		RESULT	QUALIFIERS: DETECTION UN-		
			DATE	ID		LAB	DATA	QA
Oxidation Reduction Potenti	mV	0786	07/16/2000	N001	131	#	-	-
	mV	0886	07/12/2000	N001	158	#	-	-
	mV	0889	07/12/2000	N001	165	#	-	-
	mV	0933	07/15/2000	N001	124	#	-	-
	mV	0934	07/15/2000	N001	67	#	-	-
	mV	0935	07/16/2000	N001	134	#	-	-
	mV	0936	07/16/2000	N001	111	#	-	-
	mV	0942	07/15/2000	N001	119	#	-	-
pH	s.u.	0786	07/16/2000	N001	8.1	#	-	-
	s.u.	0886	07/12/2000	N001	8.03	#	-	-
	s.u.	0889	07/12/2000	N001	8.34	#	-	-
	s.u.	0933	07/15/2000	N001	7.03	#	-	-
	s.u.	0934	07/15/2000	N001	7.19	#	-	-
	s.u.	0935	07/16/2000	N001	7.53	#	-	-
	s.u.	0936	07/16/2000	N001	7.14	#	-	-
	s.u.	0942	07/15/2000	N001	7.08	#	-	-
Polonium-210	pCi/L	0786	07/16/2000	0001	0.13	U	#	0.13 ± 0.11
	pCi/L	0886	07/12/2000	0001	0.25	U	#	0.25 ± 0.26
	pCi/L	0889	07/12/2000	0001	0.18	U	#	0.18 ± 0.23
	pCi/L	0933	07/15/2000	0001	0.23	U	#	0.23 ± 0.25
	pCi/L	0934	07/15/2000	0001	0.23	U	#	0.23 ± 0.18
	pCi/L	0935	07/16/2000	0001	0.22	U	#	0.22 ± 0.21
	pCi/L	0936	07/16/2000	0001	0.25	U	#	0.25 ± 0.23
	pCi/L	0942	07/15/2000	0001	0.16	U	#	0.16 ± 0.18
Potassium	mg/L	0786	07/16/2000	0001	21.800		#	0.0456 -
	mg/L	0886	07/12/2000	0001	59.900		#	0.0456 -
	mg/L	0889	07/12/2000	0001	117.000		#	0.0456 -
	mg/L	0933	07/15/2000	0001	14.300		#	0.0456 -
	mg/L	0934	07/15/2000	0001	5.800		#	0.0456 -
	mg/L	0935	07/16/2000	0001	15.800		#	0.0456 -
	mg/L	0936	07/16/2000	0001	10.100		#	0.0456 -
	mg/L	0942	07/15/2000	0001	5.790		#	0.0456 -
Radium-226	pCi/L	0786	07/16/2000	0001	0.46		#	0.11 ± 0.09
	pCi/L	0886	07/12/2000	0001	0.29		#	0.11 ± 0.08
	pCi/L	0889	07/12/2000	0001	0.48		#	0.16 ± 0.11
	pCi/L	0933	07/15/2000	0001	0.15		#	0.1 ± 0.07



SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Radium-226	pCi/L	0934	07/15/2000	0001	0.16	#	0.09	± 0.06
	pCi/L	0935	07/16/2000	0001	0.86	#	0.1	± 0.11
	pCi/L	0936	07/16/2000	0001	0.31	#	0.13	± 0.10
	pCi/L	0942	07/15/2000	0001	0.11	#	0.09	± 0.06
Radium-228	pCi/L	0786	07/16/2000	0001	0.61	U #	0.61	± 0.36
	pCi/L	0886	07/12/2000	0001	0.84	#	0.52	± 0.32
	pCi/L	0889	07/12/2000	0001	4.12	#	0.57	± 0.41
	pCi/L	0933	07/15/2000	0001	0.62	U #	0.62	± 0.37
	pCi/L	0934	07/15/2000	0001	0.65	U #	0.65	± 0.39
	pCi/L	0935	07/16/2000	0001	0.5	U #	0.53	± 0.32
	pCi/L	0936	07/16/2000	0001	0.78	U #	0.78	± 0.46
	pCi/L	0942	07/15/2000	0001	0.65	U #	0.65	± 0.38
Selenium	mg/L	0786	07/16/2000	0001	0.179	#	0.0025	-
	mg/L	0886	07/12/2000	0001	1.620	#	0.01	-
	mg/L	0889	07/12/2000	0001	3.980	#	0.02	-
	mg/L	0933	07/15/2000	0001	0.274	#	0.005	-
	mg/L	0934	07/15/2000	0001	0.103	#	0.002	-
	mg/L	0935	07/16/2000	0001	0.275	#	0.005	-
	mg/L	0936	07/16/2000	0001	0.262	#	0.005	-
	mg/L	0942	07/15/2000	0001	0.340	#	0.002	-
Sodium	mg/L	0786	07/16/2000	0001	813.000	#	4.34	-
	mg/L	0886	07/12/2000	0001	8950.000	#	21.7	-
	mg/L	0889	07/12/2000	0001	16900.000	#	43.4	-
	mg/L	0933	07/15/2000	0001	724.000	#	4.34	-
	mg/L	0934	07/15/2000	0001	188.000	#	0.434	-
	mg/L	0935	07/16/2000	0001	736.000	#	4.34	-
	mg/L	0936	07/16/2000	0001	384.000	#	0.434	-
	mg/L	0942	07/15/2000	0001	272.000	#	0.434	-
Specific Conductance	umhos/cm	0786	07/16/2000	N001	6270	#	-	-
	umhos/cm	0886	07/12/2000	N001	20500	#	-	-
	umhos/cm	0889	07/12/2000	N001	26000	#	-	-
	umhos/cm	0933	07/15/2000	N001	6190	#	-	-
	umhos/cm	0934	07/15/2000	N001	2600	#	-	-
	umhos/cm	0935	07/16/2000	N001	6300	#	-	-
	umhos/cm	0936	07/16/2000	N001	4580	#	-	-
	umhos/cm	0942	07/15/2000	N001	3490	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Strontium	mg/L	0786	07/16/2000	0001	7.460	#	0.0001	-
	mg/L	0886	07/12/2000	0001	10.500	#	0.0002	-
	mg/L	0889	07/12/2000	0001	14.000	#	0.0002	-
	mg/L	0933	07/15/2000	0001	6.910	#	0.0001	-
	mg/L	0934	07/15/2000	0001	4.400	#	0.0001	-
	mg/L	0935	07/16/2000	0001	7.650	#	0.0001	-
	mg/L	0936	07/16/2000	0001	7.140	#	0.0001	-
	mg/L	0942	07/15/2000	0001	5.090	#	0.0001	-
Sulfate	mg/L	0786	07/16/2000	0001	4190.000	#	-	-
	mg/L	0886	07/12/2000	0001	21100.000	#	-	-
	mg/L	0889	07/12/2000	0001	42400.000	#	-	-
	mg/L	0933	07/15/2000	0001	3870.000	#	-	-
	mg/L	0934	07/15/2000	0001	1730.000	#	-	-
	mg/L	0935	07/16/2000	0001	4110.000	#	-	-
	mg/L	0936	07/16/2000	0001	2750.000	#	-	-
	mg/L	0942	07/15/2000	0001	2020.000	#	-	-
Temperature	C	0786	07/16/2000	N001	20.2	#	-	-
	C	0886	07/12/2000	N001	33.3	#	-	-
	C	0889	07/12/2000	N001	31.2	#	-	-
	C	0933	07/15/2000	N001	27.7	#	-	-
	C	0934	07/15/2000	N001	25.3	#	-	-
	C	0935	07/16/2000	N001	23.9	#	-	-
	C	0936	07/16/2000	N001	22.2	#	-	-
	C	0942	07/15/2000	N001	24	#	-	-
Temperature of Zobell Soluti	C	0786	07/16/2000	N001	25	#	-	-
	C	0886	07/12/2000	N001	21.9	#	-	-
	C	0889	07/12/2000	N001	21.9	#	-	-
	C	0933	07/15/2000	N001	31.4	#	-	-
	C	0934	07/15/2000	N001	30	#	-	-
	C	0935	07/16/2000	N001	30.3	#	-	-
	C	0936	07/16/2000	N001	30.3	#	-	-
	C	0942	07/15/2000	N001	30	#	-	-
Total Dissolved Solids	mg/L	0786	07/16/2000	0001	7170	#	-	-
	mg/L	0886	07/12/2000	0001	37700	#	-	-
	mg/L	0889	07/12/2000	0001	72600	#	-	-
	mg/L	0933	07/15/2000	0001	6940	#	-	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
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PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	ID	RESULT	QUALIFIERS: LAB DATA QA	DETECTION LIMIT	UN-CERTAINTY
Total Dissolved Solids	mg/L	0934	07/15/2000	0001	3080	#	-	-
	mg/L	0935	07/16/2000	0001	7160	#	-	-
	mg/L	0936	07/16/2000	0001	4860	#	-	-
	mg/L	0942	07/15/2000	0001	3580	#	-	-
Uranium	mg/L	0786	07/16/2000	0001	0.0421	#	0.0001	-
	mg/L	0886	07/12/2000	0001	0.154	#	0.0001	-
	mg/L	0889	07/12/2000	0001	0.278	#	0.0001	-
	mg/L	0933	07/15/2000	0001	0.0734	#	0.0001	-
	mg/L	0934	07/15/2000	0001	0.0303	#	0.0001	-
	mg/L	0935	07/16/2000	0001	0.0665	#	0.0001	-
	mg/L	0936	07/16/2000	0001	0.0482	#	0.0001	-
	mg/L	0942	07/15/2000	0001	0.0295	#	0.0001	-
Vanadium	mg/L	0786	07/16/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0933	07/15/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0934	07/15/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0935	07/16/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0936	07/16/2000	0001	0.0013 U	#	0.0013	-
	mg/L	0942	07/15/2000	0001	0.0013 U	#	0.0013	-
Zinc	mg/L	0786	07/16/2000	0001	0.106	#	0.0127	-
	mg/L	0886	07/12/2000	0001	0.0127 U	#	0.0127	-
	mg/L	0889	07/12/2000	0001	0.0127 U	#	0.0127	-
	mg/L	0933	07/15/2000	0001	0.0127 U	#	0.0127	-
	mg/L	0934	07/15/2000	0001	0.0127 U	#	0.0127	-
	mg/L	0935	07/16/2000	0001	0.0127 U	#	0.0127	-
	mg/L	0936	07/16/2000	0001	0.0127 U	#	0.0127	-
	mg/L	0942	07/15/2000	0001	0.0127 U	#	0.0127	-

SURFACE WATER QUALITY DATA BY PARAMETER (USEE800) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:07 pm

PARAMETER	UNITS	LOCATION ID	SAMPLE: DATE	UN- CERTAINTY	QUALIFIERS: LAB DATA QA	DETECTION LIMIT
-----------	-------	-------------	--------------	---------------	-------------------------	-----------------

RECORDS: SELECTED FROM USEE800 WHERE site\_code='SHP02' AND quality\_assurance = TRUE AND (NOT (data\_validation\_qualifiers LIKE "R" OR data\_validation\_qualifiers LIKE "X" ) OR IsNull(data\_validation\_qualifiers)) AND DATE\_SAMPLED between #7/5/2000# and #7/25/2000#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- Replicate analysis not within control limits.
- + Correlation coefficient for MSA < 0.995.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- C Pesticide result confirmed by GC-MS.
- M GFAA duplicate injection precision not met.
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- S Result determined by method of standard addition (MSA).
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- D Analyte determined in diluted sample.
- P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
- X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
- > Result above upper detection limit.
- J Estimated

DATA QUALIFIERS:

- J Estimated value.
- G Possible grout contamination, pH > 9.
- R Unusable result.
- U Parameter analyzed for but was not detected.
- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling
- X Location is undefined.

QA QUALIFIER: # = validated according to Quality Assurance guidelines

STATIC GROUND WATER LEVELS (USEE700) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 10/31/2000 1:13 pm

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)	WATER LEVEL FLAG
			DATE	TIME			
0815		4953.67	07/11/2000	14:12	25.71	4927.96	
0827		4946.92	07/12/2000	14:59	26.08	4920.84	
0830		4960.77	07/11/2000	10:14	9.97	4950.80	
0833		4940.52	07/11/2000	16:13	27.15	4913.37	
0838		4937.70	07/11/2000	16:58	24.66	4913.04	
0839		4943.21	07/11/2000	14:50	24.88	4918.33	
0844		4948.46	07/11/2000	15:40	30.85	4917.61	
0846		4934.57	07/11/2000	17:33	23.63	4910.94	
1003		4957.84	07/12/2000	16:00	90.65	4867.19	
1007		4962.01	07/11/2000	11:00	44.65	4917.36	
1011		4945.96	07/12/2000	15:30	26.90	4919.06	

RECORDS: SELECTED FROM USEE700 WHERE site\_code='SHP02' AND LOG\_DATE between #7/5/2000# and #7/25/2000#

FLOW CODES:

WATER LEVEL FLAGS:

STATIC GROUND WATER LEVELS (USEE700) FOR SITE SHP01, SHIPROCK  
REPORT DATE: 10/31/2000 1:13 pm

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)	WATER LEVEL FLAG
			DATE	TIME			
0850	B	4907.51	07/13/2000	15:18	8.85	4898.66	
0862		4893.83	07/12/2000	13:30	93.80	4800.03	

RECORDS: SELECTED FROM USEE700 WHERE site\_code='SHP01' AND LOG\_DATE between #7/5/2000# and #7/25/2000#

FLOW CODES:

B BACKGROUND

WATER LEVEL FLAGS:

## Equipment Blank Data for Shiprock 7/2000 Sampling Event

10/31/2000

ANALYTE	SITE CODE	LOCATION CODE	DATE	SAMPLE ID	UNIT	RESULT	LAB QUALIFIERS	DATA VAL QUALIFIERS	DETECTION LIMIT	UNCERTAINTY
Ammonium	SHP01	0999	07/14/2000	0001	mg/L	0.0047	U		0.0047	
Antimony	SHP01	0999	07/14/2000	0001	mg/L	0.0002	B	U	0.0001	
Arsenic	SHP01	0999	07/14/2000	0001	mg/L	0.0003	U		0.0003	
Cadmium	SHP01	0999	07/14/2000	0001	mg/L	0.0002	U		0.0002	
Calcium	SHP01	0999	07/14/2000	0001	mg/L	0.0578	B		0.0504	
Chloride	SHP01	0999	07/14/2000	0001	mg/L	0.113	B	U		
Copper	SHP01	0999	07/14/2000	0001	mg/L	0.0031	U		0.0031	
Fluoride	SHP01	0999	07/14/2000	0001	mg/L	0.0125	U		0.0125	
Gross Alpha	SHP01	0999	07/14/2000	0001	pCi/L	6.47	U		6.47	3.71
Gross Beta	SHP01	0999	07/14/2000	0001	pCi/L	11.8	UB		11.8	6.79
Iron	SHP01	0999	07/14/2000	0001	mg/L	0.0091	U		0.0091	
Magnesium	SHP01	0999	07/14/2000	0001	mg/L	0.024	U		0.024	
Manganese	SHP01	0999	07/14/2000	0001	mg/L	0.0015	U		0.0015	
Molybdenum	SHP01	0999	07/14/2000	0001	mg/L	0.0003	U		0.0003	
Nitrate	SHP01	0999	07/14/2000	0001	mg/L	0.121	B			
Polonium-210	SHP01	0999	07/14/2000	0001	pCi/L	0.3	U		0.3	0.26
Potassium	SHP01	0999	07/14/2000	0001	mg/L	0.0456	U		0.0456	
Radium-226	SHP01	0999	07/14/2000	0001	pCi/L	0.08	U		0.08	0.05
Radium-228	SHP01	0999	07/14/2000	0001	pCi/L	0.61	U		0.61	0.36
Selenium	SHP01	0999	07/14/2000	0001	mg/L	0.0001	U		0.0001	
Sodium	SHP01	0999	07/14/2000	0001	mg/L	0.434	U		0.434	
Strontium	SHP01	0999	07/14/2000	0001	mg/L	0.0001	U		0.0001	
Sulfate	SHP01	0999	07/14/2000	0001	mg/L	0.0589	U		0.0589	
Total Dissolved Solids	SHP01	0999	07/14/2000	0001	mg/L	10	U		10	
Uranium	SHP01	0999	07/14/2000	0001	mg/L	0.00014	B	U	0.0001	
Vanadium	SHP01	0999	07/14/2000	0001	mg/L	0.0013	U		0.0013	
Zinc	SHP01	0999	07/14/2000	0001	mg/L	0.0127	U		0.0127	

# **WATER LEVELS**



STATIC GROUND WATER LEVELS (USEE700) FOR SITE SHP02, SHIPROCK (TAILINGS AREA)  
 REPORT DATE: 11/14/2000 11:26 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT NGVD)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	GROUND WATER ELEVATION (FT NGVD)	WATER LEVEL FLAG
			DATE	TIME			
0815		4953.67	07/11/2000	14:12	25.71	4927.96	
0827		4946.92	07/12/2000	14:59	26.08	4920.84	
0830		4960.77	07/11/2000	10:14	9.97	4950.80	
0833		4940.52	07/11/2000	16:13	27.15	4913.37	
0838		4937.70	07/11/2000	16:58	24.66	4913.04	
0839		4943.21	07/11/2000	14:50	24.88	4918.33	
0844		4948.46	07/11/2000	15:40	30.85	4917.61	
0846		4934.57	07/11/2000	17:33	23.63	4910.94	
1003		4957.84	07/12/2000	16:00	90.65	4867.19	
1007		4962.01	07/11/2000	11:00	44.65	4917.36	
1011		4945.96	07/12/2000	15:30	26.90	4919.06	

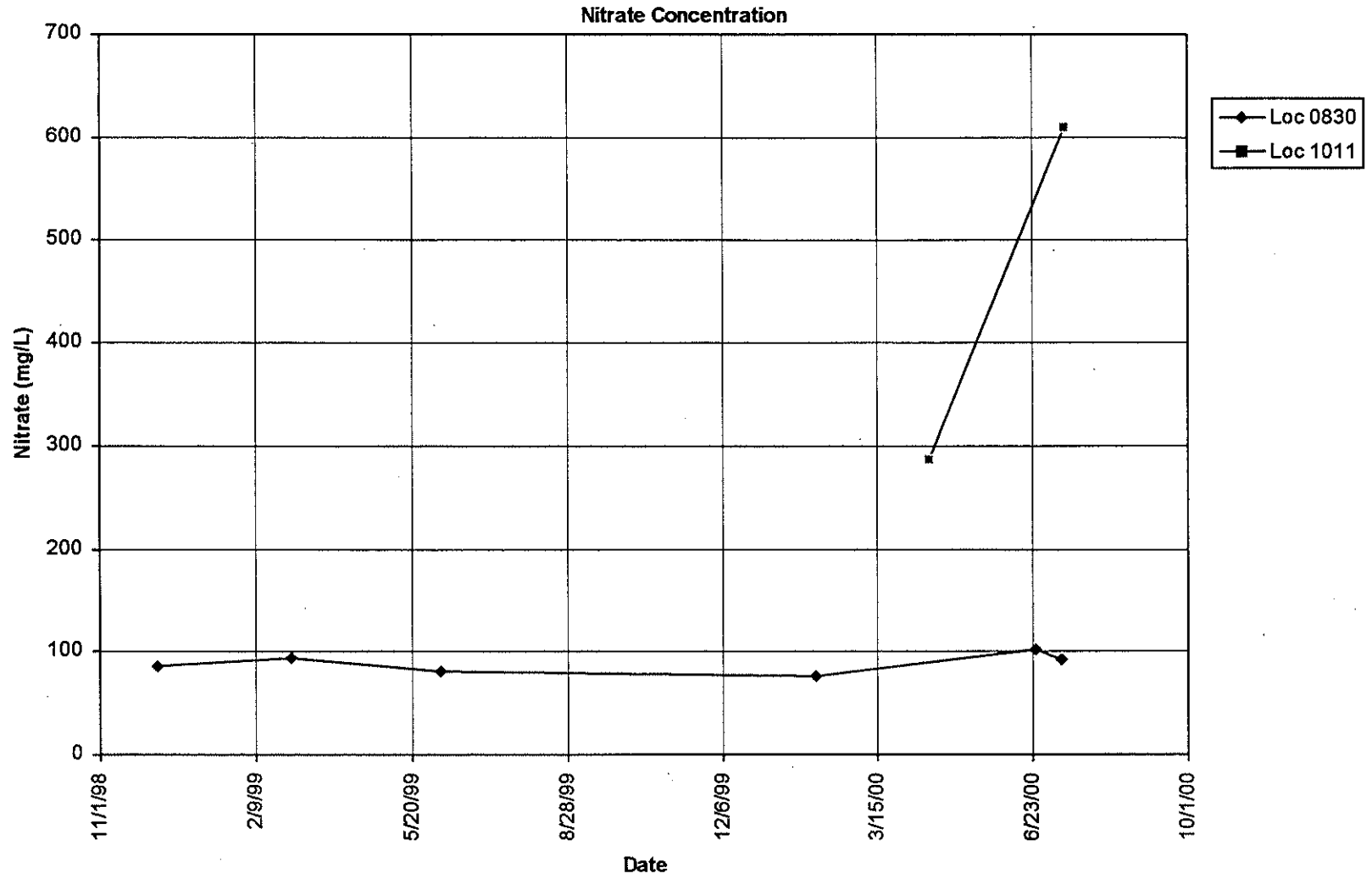
RECORDS: SELECTED FROM USEE700 WHERE site\_code='SHP02' AND LOG\_DATE between #7/1/2000# and #7/30/2000#

FLOW CODES:

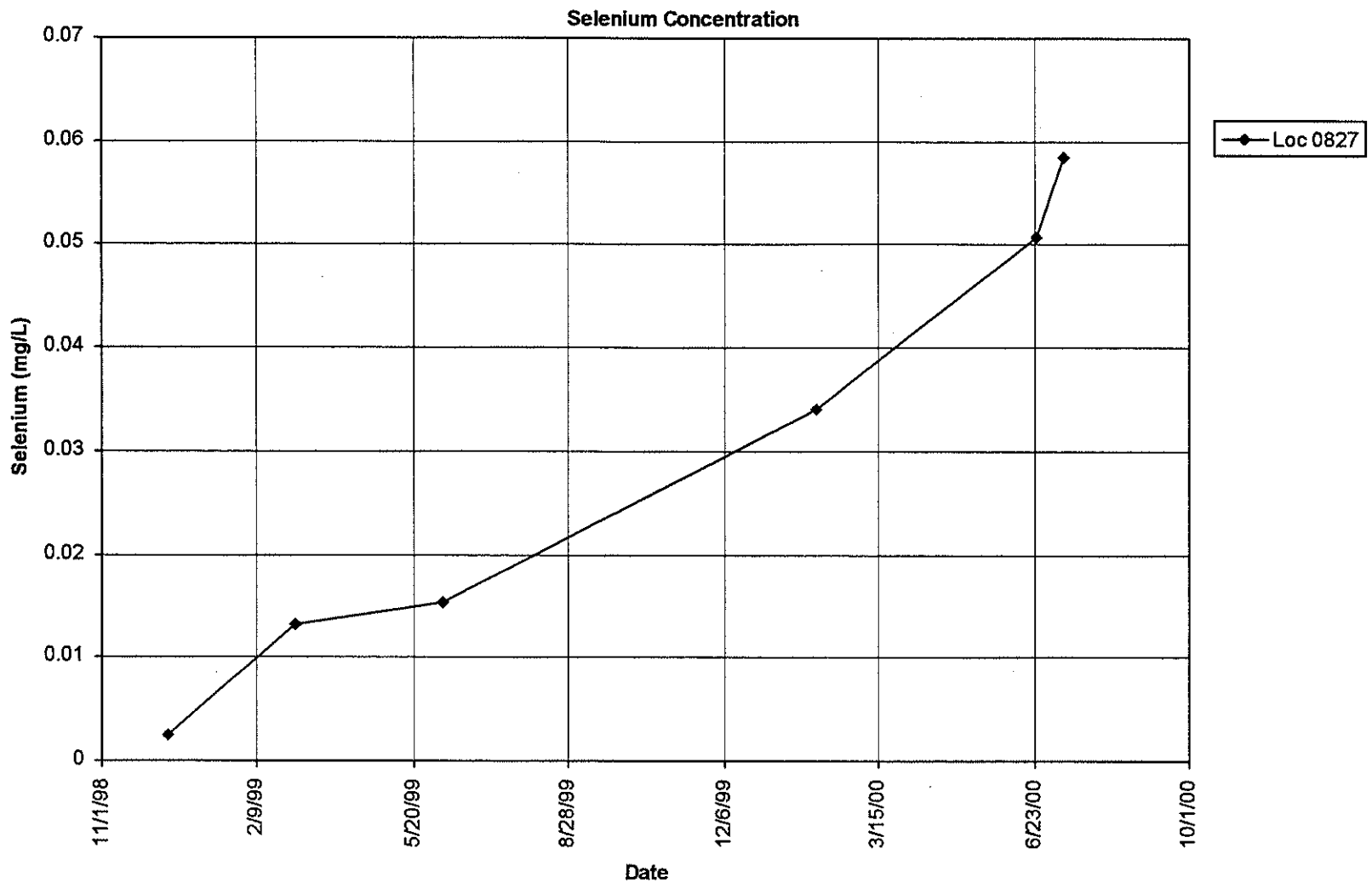
WATER LEVEL FLAGS:

# **TIME VERSUS CONCENTRATION GRAPHS**

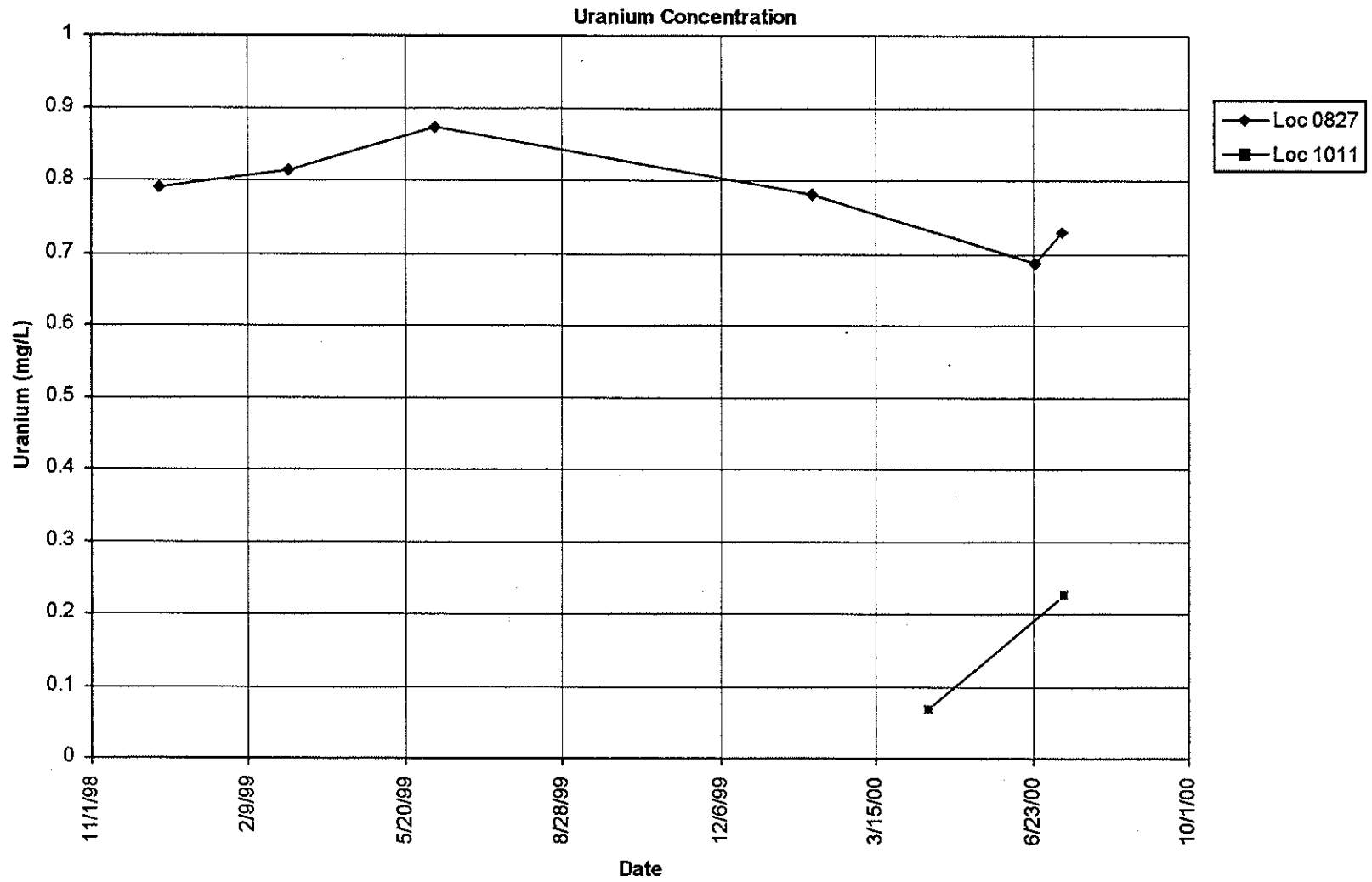
SHIPROCK (TAILINGS AREA) (SHP02)



SHIPROCK (TAILINGS AREA) (SHP02)



SHIPROCK (TAILINGS AREA) (SHP02)



**SAMPLING WORK ORDER AND  
TRIP REPORT**



CONTRACT NO.: DE-AC13-96GJ87335  
TASK ORDER NO.: MAC00-05  
CONTROL NO.: 3100-N/A

MEMO TO: Sam Marutzky  
FROM: David Traub *David Traub*  
DATE: July 31, 2000  
SUBJECT: Trip Report - Shiprock: UMTRA Ground Water

Dates of Sampling Event: July 10 through July 17, 2000

Team Members: Dave Traub and Robert Lucero

**General:** This sampling event was scheduled to sample surface locations during a planned low flow water release into the San Juan River. The Bureau of Reclamation did not conduct the low flow event; however, the river was almost at historic low flow so samples were collected. Several samples also were collected from monitoring wells that had been sampled two weeks ago but were not sampled for all of the analytes.

**Number of Locations Sampled:** All samples were filtered. Several of the surface water samples were also collected unfiltered. Alkalinity was measured in the field both filtered and unfiltered.

**Locations Not Sampled:** Several wells did not contain sufficient water to sample all requested analytes. Surface Locations 655, 884, 887, ~~957, and 958~~ <sup>and 657</sup> were dry. Seeps 425 + 426 were not sampled. 662, 885 not sampled.

**Location Specific Information:** Samples were collected using a battery powered peristaltic pump, an AC powered peristaltic pump, or a 12V submersible pump.

Due to the very low river level many of the surface water locations were sampled up to 90 feet away from the normally sampled locations. Several of the 1200 series surface locations could not be located as they were poorly marked and the underbrush has grown up around the stakes.

Well 1007 Not enough water to sample all, collected gross alpha only, no Po210.  
Loc 897 Collected at usual location  
Loc 886 Stagnant pool, ~3" deep by 3ft. by 5 ft.  
Loc 889 No detectable flow but nick point is wet.  
Well 862 Only 8" of water in well, could not retrieve any with bailers.  
Well 1011 Well dry after ¼ gallon purged. Collected anions and NO<sub>3</sub>, took U from nitrate bottle. Obstruction in casing at 5 feet below top.

**RECORD COPY**

- Well 1003 Bailed only ½ gallon. This well purged 5 gallons 2 weeks ago. Lot of sand, poorly developed. Not enough water to sample after purging. Poor to no recovery.
- Loc. 948 Pond over 1 – 2 ft. deep. 30 x 50 feet across, fish, 18" visibility, greenish.
- Loc. 898 Needs a brush hog to clear a path. (Or a dozer)
- Loc. 655 Dry, but was wet not too long ago. Mud cracks about 2" deep.
- Loc. 940 Collected 70 feet north of normal location in river.
- Loc. 1206 Collected in river about 40 feet north of beaver gnawed stick with orange flagging. No stake
- Loc. 1205 Collected about 15 feet north of original location. Michelle D. at site. No stake.
- Loc. 1204 Collected at stake from pool with current flow.
- Loc. 1201 Collected in current 70 feet north of presumed location. No stake found.
- Loc. 555 Could not find stake for Loc. 1202 so took sample at Loc. 555 instead.
- Loc. 1203 Collected 30 feet north of stake.
- Loc. 942 Collected at original 942 location by gate. This was dry 2 weeks ago when sample was collected in large drainage to north.
- Loc. 934 Dog feces and dead frog in water.
- Loc. 933 Lots of trash in water.
- Loc. 786 Collected water for two days to fill bottles.
- Loc. 658 Water only 3" deep, lots of insects, very murky.
- Loc. 939 Some flow in creek, 10-20 gpm.
- Loc. 1210 Sample collected approximately 90 feet out from where the stake is supposed to be. No stake found.
- Loc. 935 Lots of water and small biting insects.

**Data Loggers:** The data logger was replaced and restarted in well 826. This logger was pulled out in early June due to a communications error. The data up through the June removal was retrieved. The logger was sent back to the manufacturer for repair and a replacement was set in the well.

**Quality Control Sample Cross Reference:** Equipment blanks were collected for both surface and well samples. Sample duplicate, Loc. 2010 (NDM 041, filtered), was collected at Loc. 956 (NDM 035, filtered). The equipment blank, Loc. 2001 (NDM 060), was collected through the water sampling Tygon tubing and peristaltic pump after sampling and decontamination at Location 940. Another surface water sample duplicate, Location 2002, (NDM 080, filtered) was collected at Location 957 (NDM 078, filtered).

**Water Level Measurements:** Water level measurements were completed on the wells that were sampled.

**Well Inspection Summary:** All sampled wells were in good condition.



**Requisition Numbers:** All locations were sampled for the UMTRA Ground Water Project. The Requisition Number is 17078. Samples were delivered to the laboratory on Friday, July 14, and on Monday, July 17. All samples were received in good condition.

**Equipment:** No problems.

**Regulatory Issues:** None

**Site Issues:** If these surface locations will continue to be sampled, some extra time must be allotted to clear the undergrowth and allow access to the locations. Many hours were spent trying to locate several of the surface sites.

**Sample ID Numbers:**

Sample ID	Location	Comment	Sample ID	Location	Comment
NDM 026	830	Also collected milky white material	NDM 061	1206	Filtered
NDM 027	897	Filtered	NDM 062	1206	Not Filtered
NDM 028	897	Not Filtered	NDM 063	1205	Filtered
NDM 029	815	U 234-238 only	NDM 064	1205	Not Filtered
NDM 030	839	U 234-238 only	NDM 065	1204	Filtered
NDM 031	844	U 234-238 only	NDM 066	1204	Not Filtered
NDM 032	833	U 234-238 only	NDM 067	1201	Filtered
NDM 033	838	U 234-238 only	NDM 068	1201	Not Filtered
NDM 034	846	U 234-238 only	NDM 069	555	(Couldn't locate 1202 so did this one instead)
NDM 035	956	Filtered	NDM 070	555	Not Filtered
NDM 036	956	Not Filtered	NDM 071	1203	Filtered
NDM 037	886		NDM 072	1203	Not Filtered
NDM 038	889		NDM 073	942	
NDM 039	827	Metals only	NDM 074	934	
NDM 040	1007	Gross alpha and Po210	NDM 075	933	
NDM 041	2010	Sample Dup at Loc. 956	NDM 076	786	
NDM 042	554	Filtered	NDM 077	658	
NDM 043	554	Not Filtered	NDM 078	957	Filtered
NDM 044	1011	Only U, nitrates and anions. Not enough water.	NDM 079	957	Not Filtered
NDM 045	947	Filtered	NDM 080	2002	Sample Dup of 957 Filtered
NDM 046	947	Not Filtered	NDM 081	939	
NDM 047	948	Filtered	NDM 083	1210	Filtered
NDM 048	948	Not Filtered	NDM 084	1210	Not Filtered
NDM 049	888	Filtered	NDM 085	935	
NDM 050	888	Not Filtered	NDM 086	936	
NDM 051	850	U 234-238			

Sample ID	Location	Comment	Sample ID	Location	Comment
NDM 052	898	Filtered			
NDM 053	898	Not Filtered			
NDM 054	894	Filtered			
NDM 055	894	Not Filtered			
NDM 056	895	Filtered			
NDM 057	895	Not Filtered			
NDM 058	940	Filtered			
NDM 059	940	Not Filtered			
NDM 060	2001	Equip. Blank Surf.			

**Notes for Next Sampling Event:**

Take a chain saw or rent a brush hog to clear routes to surface locations. May need roadbase dumped on floodplain access road, through the gate, and past the culvert to east floodplain.

DT/lcg

Distribution:

cc: C. Bahrke  
C. Goodknight  
D. Metzler  
K. Miller  
Project Record File GWSHP 14.12 thru P. Taylor

CONTRACT NO.: DE-AC13-96GJ87335  
TASK ORDER NO.: MAC00-05  
CONTROL NO.: 3100-T00-0762

July 7, 2000

Technical/Project Manager  
Department of Energy  
Grand Junction Office  
2597 B3/4 Road  
Grand Junction, CO 81503  
ATTN: Donald Metzler

SUBJECT: Contract No. DE-AC13-96GJ87335—July 2000 UMTRA Ground Water Sampling at Shiprock, New Mexico

Dear Mr. Metzler:

Attached are the map and tables specifying the sampling locations and analytes for this special monitoring event at the Shiprock, New Mexico, UMTRA site. Water quality data will be collected mainly from surface locations, and sampling is scheduled to begin the week of July 10, 2000. Several monitor wells that were either missed or had insufficient water recovered from the June 2000 routine sampling event will also be sampled. In addition, two new surface water sampling locations will be established on the Chaco River, which joins the San Juan River about two miles upstream from the site.

The reason for sampling at this time is to take advantage of the 5-day (July 10-14) low-flow test that the U.S. Bureau of Reclamation will conduct on the San Juan River by reducing releases from Navajo Reservoir. Low flows expected on the San Juan River (in the 500 cfs range) will present an optimum time to evaluate the effect, from an ecological risk perspective, of any millsite contaminants entering the river. Also, other surface water locations, which are scheduled to be sampled quarterly because of their analyses from the February 2000 sampling exceeded benchmark values, will be sampled.

The following lists show the Ground Water Project well locations (with associated zone of completion) and surface water locations that will be sampled during this sampling event.

**Ground Water Project Monitor Wells (filtered)\***

**SHP01**

862 Km

850 Al

**SHP02**

827 Al/Km      1007 Fl/Km      833 Al      844 Al/Km

830 Km      1003 Km      838 Al      846 Al/Km

1011 Qa Km      815 Al/Km      839 Al/Km

**RECORD COPY.**

\*NOTE: Al = Alluvium; Fl = Fill material; Km = Mancos Shale; Qa = Quaternary

Donald Metzler

July 7, 2000

Page 2

Control No.: 3100-T00-0762

Surface Water (filtered)

SHP01

655 887

657 939

658

SHP02

425 786 886 934 942

426 884 889 935

662 885 933 936

Surface Water (filtered and unfiltered)

SHP01

554 897 948 1202 1206

888 898 956 1203 1210

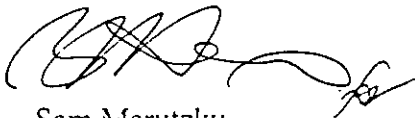
894 940 957 1204

895 947 1201 1205

QA/QC samples will be collected as directed in the *Sampling and Analysis Plan for the UMTRA Ground Water Project*. Samples collected for alkalinity will be filtered and unfiltered. Water level information will be collected from the sampled wells only. Monitor well inspections will be conducted and documented to confirm the status of all sampled wells. Access agreements are being reviewed and are expected to be completed by the beginning of fieldwork.

If you have any questions, please call me at extension 6059 or Dave Miller at extension 6652.

Sincerely,



Sam Marutzky  
Project Manager

SM/ld  
Attachments

cc w/o att: D. E. Miller, MACTEC  
K. Miller  
D. Traub  
Contract File (J. Dearborn)

cc w/att: C. Bahrke  
C. Goodknight  
R. Chessmore  
Project Record File GWSHP 14.06 thru P. Taylor

Shiprock Monitor Wells		
Site	Well	Analytes
01	850	U <sub>234</sub> and U <sub>238</sub>
01	862	Mn, Se, SO <sub>4</sub> , U TDS
02	815	U <sub>234</sub> and U <sub>238</sub>
02	827	Mn, Se, U
02	830	NH <sub>4</sub> , NO <sub>3</sub>
02	833	U <sub>234</sub> and U <sub>238</sub>
02	838	U <sub>234</sub> and U <sub>238</sub>
02	839	U <sub>234</sub> and U <sub>238</sub>
02	844	U <sub>234</sub> and U <sub>238</sub>
02	846	U <sub>234</sub> and U <sub>238</sub>
02	1003	Ra-226, Ra-228, Po-210, gross alpha, alkalinity
02	1007	Gross alpha, Po 210
02	1011	Normal Suite

Shiprock Surface Water Samples		
Site	Location	Analytes
01	554	Normal Suite
01	655	Normal Suite
01	657	Normal Suite
01	658	Normal Suite
01	887	Normal Suite
01	888	Normal Suite, plus B, Cr, Pb
01	894	Normal Suite
01	895	Normal Suite
01	897	Normal Suite
01	898	Normal Suite, plus B, Cr, Pb
01	939	Normal Suite
01	940	Normal Suite
01	947	Normal Suite, plus B, Cr, Pb
01	948	Normal Suite, plus B, Cr, Pb
01	956	Normal Suite, plus gross beta, Sr <sup>89</sup> +Sr <sup>90</sup> , Th <sup>232</sup> , Th <sup>230</sup> , Th <sup>232</sup>
01	957	Normal Suite, plus gross beta, Sr <sup>89</sup> +Sr <sup>90</sup> , Th <sup>232</sup> , Th <sup>230</sup> , Th <sup>232</sup>
01	1201	Normal Suite
01	1202	Normal Suite
01	1203	Normal Suite
01	1204	Normal Suite
01	1205	Normal Suite
01	1206	Normal Suite
01	1210	Normal Suite
02	425	Normal Suite, plus B
02	426	Normal Suite, plus B
02	662	Normal Suite
02	786	Normal Suite, plus B
02	884	Normal Suite
02	885	Normal Suite
02	886	Normal Suite
02	889	Normal Suite
02	933	Normal Suite
02	934	Normal Suite
02	935	Normal Suite, plus B
02	936	Normal Suite
02	942	Normal Suite

Shiprock Normal Analytes		
Field Measurements	Ground Water Wells	Surface Water
Analyte		
Alkalinity	X	X
Dissolved Oxygen	X	X
Redox Potential	X	X
PH	X	X
Specific Conductance	X	X
Turbidity	X	
Temperature	X	X
Lab Measurements		
Ammonium	X	X
Antimony	X	X
Arsenic	X	X
Cadmium	X	X
Calcium	X	X
Chloride	X	X
Copper		X
Fluoride	X	X
Gross Alpha	X	X
Iron	X	X
Magnesium	X	X
Manganese	X	X
Molybdenum	X	X
Nitrate	X	X
Polonium-210	X	X
Potassium	X	X
Radium-226	X	X
Radium-228	X	X
Selenium	X	X
Sodium	X	X
Strontium	X	X
Sulfate	X	X
Total Dissolved Solids	X	X
Uranium	X	X
Vanadium		X
Zinc		X