WESTERN NUCLEAR, INC.

2801 YOUNGFIELD, SUITE 340, GOLDEN, COLORADO 80401
TELEPHONE (303) 274-1767 FAX (303) 274-1762

40-1162

February 11, 2004

Robert A. Nelson
Chief, Uranium Processing Section
Division of Fuel Cycle Safety and Safeguards
Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, MD 20850

Re: Groundwater and Surface Water Monitoring Results for Third and Fourth Quarters, 2003, and Annual CAP Summary, Docket No. 1162, License Condition Nos. 24 and 74, SUA-56

Dear Mr. Nelson:

Enclosed are three (3) copies of the Western Nuclear, Inc. (WNI) Split Rock Site Groundwater and Surface Water Monitoring Results for the Third and Fourth Quarters, 2003. This report provides the laboratory results for the Split Rock Site water quality compliance monitoring program (LC No. 24) and the groundwater corrective action program (CAP) monitoring program (LC No. 74). A summary of the 2003 groundwater corrective action program (CAP) is also included.

Monitoring Data

Included in this report are:

- A map illustrating the groundwater monitoring locations
- A table cross referencing historical well names with current well names
- Tabular summaries of current reporting period numerical data for both compliance and CAP monitoring programs
- Graphs showing the entire monitoring history for each well for several key constituents (field pH, Total Dissolved Solids [TDS], sulfate [SO_4] and uranium [U_{nat}])
- Laboratory data sheets for the reporting period

This report only summarizes data from the most current monitoring period (i.e. second half of 2003). The historical data is available in semi-annual reports prior to the semi-annual report for the First and Second Quarter, 2000.

The data contained in this report reflect the requirements of the current license (Amendment 92, 9/20/00). As requested on May 14, 1997 by Inspector Mr. Bob Evans (NRC – Arlington, Texas), only copies of the laboratory data sheets are provided to the Arlington office.

RIMS 01

Groundwater Corrective Action Program (CAP) Summary

The groundwater CAP was operated during 2003 as required by License Condition 74. A total of 8.65 million gallons was pumped into the evaporation ponds. Pumping occurred from April 21, 2003 through June 11, 2003. Approximately 4.5 million gallons were pumped from the Northwest Valley (Well 4E) and 4.15 million gallons were pumped from the Southwest Valley (3.81 million gallons from Well C and 0.34 million gallons from Well B).

The enhanced evaporation system was operated from June 13, 2003 through September 11, 2003. Except during maintenance, the enhanced evaporation system was in continuous operation. A total of 7.63 million gallons was lost to evaporation between April 21, 2003 and September 11, 2003. As indicated by the results of the groundwater quality data discussed above, little change to overall groundwater quality is occurring as a result of the groundwater CAP.

The groundwater monitoring data are consistent with previous monitoring results and with the data enclosed in the Site Groundwater Characterization and Evaluation report submitted to your office on October 31, 1999 as part of WNI's comprehensive Site Closure Plan. The characterization and evaluation report proposed an alternative for long-term protection of public health and safety and of the environment from potential risks related to groundwater impacted by byproduct material. The proposed alternative, which is currently under review by NRC, will replace the existing CAP and will provide the requisite reasonable assurance that protective conditions will be maintained at the Site. WNI looks forward to NRC's approval of the proposed alternative.

Should you have any questions, please contact us at your earliest convenience.

Sincerely,

Louis Miller for

Lawrence J. Corte
President

cc: Jeffrey City File (w/ attachments)
Brad DeWaard (w/ attachments)
NRC – Arlington (attachments only)

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WN-25 160'
WN-26 95'
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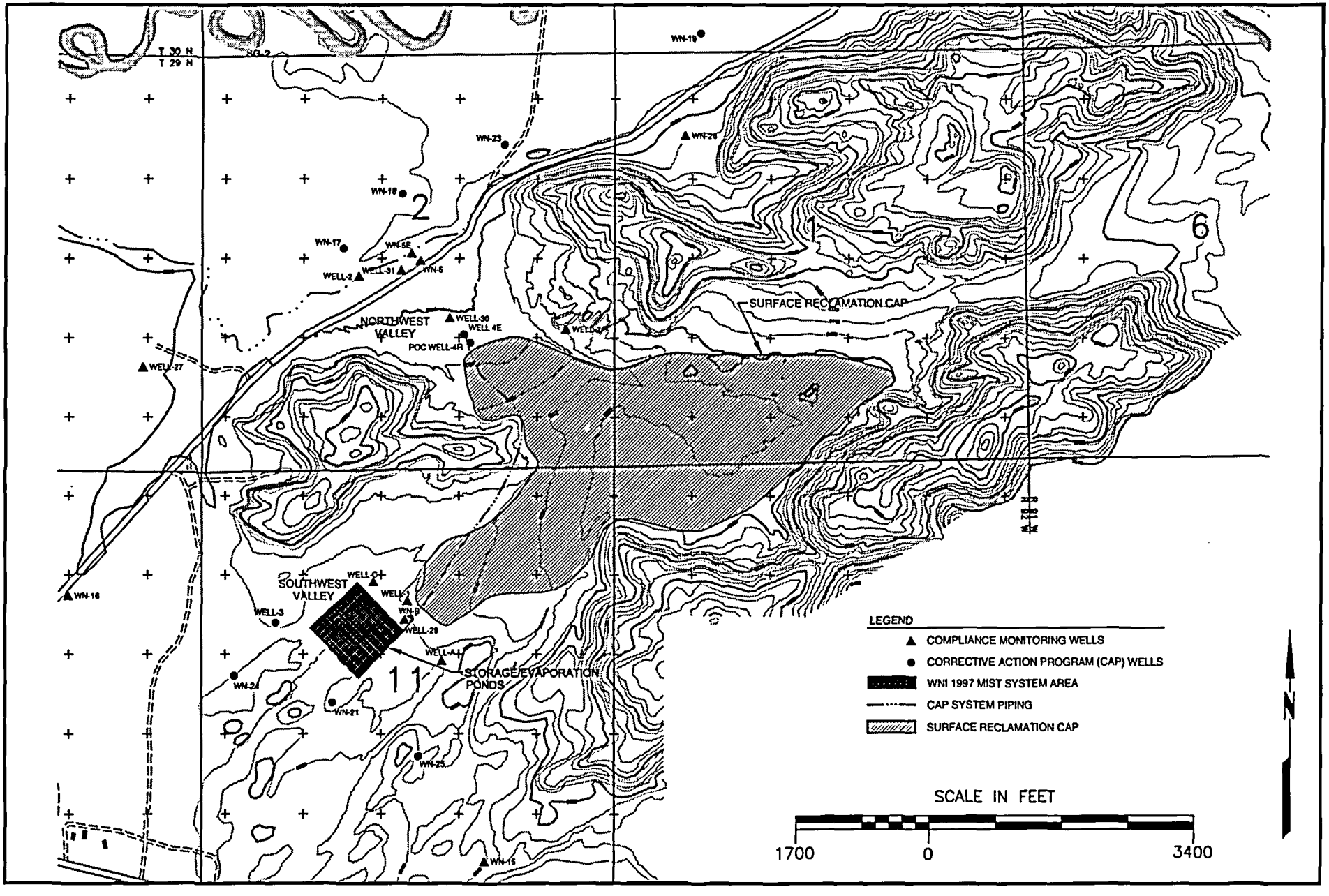
WELL #31
WN-A 175'
WN-B 185'
WN-BS 185'
WN-C 160'

FIELD BLANK
3RD AND 4TH QTR 2003 LAB QA



consulting scientists and engineers

FIGURE 1
MONITORING WELL LOCATIONS AND OPERATIONAL LAYOUT FOR 1999 CORRECTIVE ACTION PROGRAM

Date:	DECEMBER 2000
Project:	03-347\TASK1
File:	OPER-99-1.DWG

CROSS REFERENCE TABLE OF WELL DESIGNATIONS

WELL OR LOCATION	OLD DESIGNATION	STATUS
DRINKING WATER		
WELL #27 NEW MILL DRINKING WATER		
SURFACE WATER		
SWEETWATER RIVER BELOW MILL	S-5	
SWEETWATER RIVER ACROSS FROM MILL	S-6	
SWEETWATER RIVER ABOVE MILL	S-7	
GROUND WATER		
WELL #1	WN 7 HB 48'	
WELL #2 MILL PROCESS WATER		
WELL #3	WN-2 HD 25'	
WELL #4E		
WELL #4R	REPLACES WELL #4	
WELL #5	WN-3 HD 63'	
WELL #5E		
WELL #7	WN-5H 28'	PUMP LOWERED 20' 1/16/96
WELL #9E		ABANDONED 4/13/95
WELL #9R	REPLACES WELL #9	ABANDONED 4/13/95
WN-15 265' BACKGROUND WELL		
WN-16 60'		
WN-17 55'		
WN-18 85'		
WN-19 50'		
WN-21 55'		
WN-23 65'		
WN-24 65'		
WN-25 160'		
WN-26 95'		
WELL #28		
WELL #29		ABANDONED 4/13/95
WELL #30		
WELL #31		
WN-A 175'		STARTED SAMPLING AGAIN 8/28/96
WN-B 185'		
WN-C 160'		

Quarterly and Semi-Annual Groundwater and Surface Water Compliance Monitoring Results
Second Half of Year 2003

WNI Split Rock Mill
Groundwater And Surface Water Quality
Quarterly Report

3Qtr-2003	*Groundwater*						
Parameter	*WELL-1*	*WELL-2*	*WELL-4E*	*WELL-5*	*WELL-5E*	*WELL-7*	*WN-15*
Aluminum (D) (mg/L)	<0.1		<0.1	<0.1	<0.1		
Ammonia as N (mg/L)	20.7		35	0.3	0.29		
Arsenic (D) (mg/L)	<0.01		<0.01	<0.01	<0.01		
Barium (D) (mg/L)	<0.05		<0.05	<0.05	<0.05		
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bicarbonate (mg/L)	779		484	639	687		
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Calcium (mg/L)	656		606	893	749		
Carbonate (mg/L)	<1		<1	<1	<1		
Chloride (mg/L)	82.8	88	135	146	107	154	19.4
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	4250	4690	5770	5420	4730	5420	1078
Cond Lab (uS/cm)	3980		4630	4610	3910		
Iron (D) (mg/L)	<0.05		<0.05	<0.05	<0.05		
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)	133		165	119	117		
Manganese (D) (mg/L)	7.39		25.4	0.22	0.25		
Mercury (D) (mg/L)	<0.001		<0.001	<0.001	<0.001		
Molybdenum (D) (mg/L)	<0.1		0.1	<0.1	<0.1		
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrate + Nitrite as N (mg/L)	54.2	32.8	27	88	74	21.8	14.2
pH Field (std. units)	6.4	6.92	6.62	6.76	6.93	6.86	7.62
pH Lab (std. units)	7.42	7.08	7.54	7.38	7.42	6.71	7.67
Potassium (mg/L)	18.5		67.9	20.5	15.1		
Radium-226 (D) (pCi/L)	1.3		<1	<1	<1		
Radium-228 (D) (pCi/L)	<2		<2	<2	<2		
Selenium (D) (mg/L)	<0.005	0.039	0.006	0.015	0.006	0.024	<0.005
Silver (D) (mg/L)	<0.004		<0.004	<0.004	<0.004		
Sodium (mg/L)	124		233	134	68.9		
Sulfate (mg/L)	1490	1730	2440	2030	1360	2470	289
TDS (mg/L)	3470	3800	4030	4330	3660	4240	693
Temp Field (C)	11.8	11.5	11.2	11	11.9	11.7	12
Thorium-230 (D) (pCi/L)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4
Uranium (D) (mg/L)	3.53	0.849	1.06	2.42	2.58	0.273	0.156

WNI Split Rock Mill
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3Qtr-2003	*Groundwater*						
Parameter	*WN-16*	*WN-19*	*WN-26*	*WN-27*	*WELL-28*	*WELL-30*	*WELL-31*
Aluminum (D) (mg/L)					<0.1	<0.1	<0.1
Ammonia as N (mg/L)					97	27.7	0.27
Arsenic (D) (mg/L)					<0.01	0.02	<0.01
Barium (D) (mg/L)					<0.05	<0.05	<0.05
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bicarbonate (mg/L)					762	451	662
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Calcium (mg/L)					665	837	917
Carbonate (mg/L)					<1	<1	<1
Chloride (mg/L)	10.9	102	6.6	5.3	116	104	151
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	418	1954	423	358	4820	6340	4960
Cond Lab (uS/cm)					4710	5510	4270
Iron (D) (mg/L)					<0.05	<0.05	<0.05
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)					162	188	116
Manganese (D) (mg/L)					2.9	4.45	0.11
Mercury (D) (mg/L)					<0.001	<0.001	<0.001
Molybdenum (D) (mg/L)					<0.1	0.2	0.2
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrate + Nitrite as N (mg/L)	1.1	2.8	0.6	0.8	32.9	170	60
pH Field (std. units)	7.86	8.04	7.95	7.5	6.44	6.72	6.98
pH Lab (std. units)	7.78	7.35	8.14	7.51	7.28	7.31	7.7
Potassium (mg/L)					28.3	37.8	16.4
Radium-226 (D) (pCi/L)					1	<1	<1
Radium-228 (D) (pCi/L)					<2	<2	<2
Selenium (D) (mg/L)	<0.005	<0.006	<0.005	<0.005	<0.005	0.006	<0.005
Silver (D) (mg/L)					<0.004	<0.004	<0.004
Sodium (mg/L)					121	209	60.8
Sulfate (mg/L)	26.2	471	74.6	24.2	2180	2450	1943
TDS (mg/L)	220	1100	214	204	3820	5010	4120
Temp Field (C)	11.3	11.7	10.7	11.8	10.7	10.1	10.8
Thorium-230 (D) (pCi/L)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium (D) (mg/L)	0.013	0.543	0.002	0.011	1.16	1.59	5.97

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3Qtr-2003	*Groundwater*			*Surface Water*		
Parameter	*WN-A*	*WN-B*	*WN-C*	*S-7*	*S-6*	*S-5*
Aluminum (D) (mg/L)		<0.1				
Ammonia as N (mg/L)		27				
Arsenic (D) (mg/L)		<0.01				
Barium (D) (mg/L)		<0.05				
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bicarbonate (mg/L)		734				
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Calcium (mg/L)		676				
Carbonate (mg/L)		<1				
Chloride (mg/L)	104	101	81.1	17	31.1	40.8
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	3870	4680	4380	523	778	775
Cond Lab (uS/cm)		4240				
Iron (D) (mg/L)		0.34				
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)		146				
Manganese (D) (mg/L)		10.5				
Mercury (D) (mg/L)		<0.001				
Molybdenum (D) (mg/L)		<0.1				
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrate + Nitrite as N (mg/L)	2.5	30.3	44.9	<0.2	<0.2	<0.2
pH Field (std. units)	6.23	6.5	6.51	8.84	8.4	8.18
pH Lab (std. units)	6.65	7.34	6.84	8.4	8.29	8.3
Potassium (mg/L)		21.4				
Radium-226 (D) (pCi/L)		<1				
Radium-228 (D) (pCi/L)		<2				
Selenium (D) (mg/L)	0.005	<0.005	<0.005	<0.005	<0.005	<0.008
Silver (D) (mg/L)		<0.004				
Sodium (mg/L)		138				
Sulfate (mg/L)	1530	2050	1560	43.6	60.8	78.9
TDS (mg/L)	3400	3750	3530	224.69	289	351
Temp Field (C)	11.8	13.2	10.4	20.7	21.4	20
Thorium-230 (D) (pCi/L)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium (D) (mg/L)	2.12	3.17	5.39	0.003	0.014	0.024

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4Qtr-2003	*Groundwater*						
Parameter	*WELL-1*	*WELL-2*	*WELL-4E*	*WELL-5*	*WELL-5E*	*WELL-7*	*WN-15*
Aluminum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ammonia as N (mg/L)	16.7	0.67	21.3	0.32	0.29	1.86	<0.05
Arsenic (D) (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Barium (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.13
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bicarbonate (mg/L)	867	779	556	689	670	570	203
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Calcium (mg/L)	630	805	596	1020	709	695	162
Carbonate (mg/L)	<1	<1	<1	<1	<1	<1	<1
Chloride (mg/L)	83.6	88	131	152	119	143	14.2
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	4080	4290	4610	4990	4110	4700	1342
Cond Lab (uS/cm)	3900	3960	4470	4510	3900	4570	986
Iron (D) (mg/L)	<0.05	0.4	0.2	<0.05	<0.05	1.2	<0.05
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)	126	114	159	142	116	208	24.3
Manganese (D) (mg/L)	3.77	0.26	18.2	0.27	0.2	19.41	<0.05
Mercury (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum (D) (mg/L)	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrate + Nitrite as N (mg/L)	50.8	33.1	22.7	83.3	80	20.7	13
pH Field (std. units)	6.3	6.3	6.41	6.62	6.84	6.24	7.56
pH Lab (std. units)	7.35	7.67	7.31	7.29	7.61	7.54	7.82
Potassium (mg/L)	16.7	17.6	40.8	22.65	14.6	19.8	5.7
Radium-226 (D) (pCi/L)	<1	<1	<1	<1	<1	<1	<1
Radium-228 (D) (pCi/L)	<2	<2	<2	<2	<2	<2	5
Selenium (D) (mg/L)	0.009	0.009	0.017	0.024	0.015	0.027	<0.005
Silver (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Sodium (mg/L)	105	56.6	244	133	58.9	186	13.1
Sulfate (mg/L)	1520	1850	2060	2020	1470	2310	312
TDS (mg/L)	3350	3840	3960	4100	3450	4440	690
Temp Field (C)	9	8.9	8.2	9.9	7.8	9.3	8.3
Thorium-230 (D) (pCi/L)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium (D) (mg/L)	4.24	0.185	0.96	2.59	2.8	0.259	0.157

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Groundwater And Surface Water Quality
Quarterly Report

4Qtr-2003	*Groundwater*						
Parameter	*WN-16*	*WN-19*	*WN-26*	*WN-27*	*WELL-28*	*WELL-30*	*WELL-31*
Aluminum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ammonia as N (mg/L)	<0.05	<0.05	0.08	<0.05	90	26.4	0.26
Arsenic (D) (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01
Barium (D) (mg/L)	0.06	0.07	0.08	<0.05	<0.05	<0.05	<0.05
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bicarbonate (mg/L)	159	282	98	156	768	456.28	659
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Calcium (mg/L)	47.8	172	48.7	44.3	619	764	815
Carbonate (mg/L)	<1	<1	<1	<1	<1	<1	<1
Chloride (mg/L)	7.2	113	6.9	<5	146	122	167
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	354	1890	386	363	4680	5280	4540
Cond Lab (uS/cm)	322	1670	328	317	4680	5250	4230
Iron (D) (mg/L)	<0.05	<0.05	<0.05	0.17	<0.05	<0.05	<0.05
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)	5.3	36.1	5	5	156	171	122
Manganese (D) (mg/L)	<0.05	0.2	<0.05	<0.05	14.3	3.93	0.1
Mercury (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.2
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05
Nitrate + Nitrite as N (mg/L)	1.2	5.2	0.56	0.82	31.6	141	66
pH Field (std. units)	7.83	7.18	7.74	7.53	6.46	6.56	7.32
pH Lab (std. units)	8.07	7.68	8.02	8.01	7.49	7.68	7.69
Potassium (mg/L)	4.8	15.2	2.8	4.3	25.8	33.6	15.3
Radium-226 (D) (pCi/L)	<1	<1	<1	<1	<1	<1	<1
Radium-228 (D) (pCi/L)	<2	<2	<2	<2	<2	<2	4.4
Selenium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	0.026	0.031	0.012
Silver (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Sodium (mg/L)	13	128	7.8	15	106	223	59.1
Sulfate (mg/L)	22.7	530	79.2	25.1	1850	2100	1720
TDS (mg/L)	204	1150	183	182	3720	4680	3890
Temp Field (C)	8	8.3	7.9	8.2	7.6	7.7	9.3
Thorium-230 (D) (pCi/L)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium (D) (mg/L)	0.014	0.491	0.003	0.014	5.34	1.59	5.11

WNI Split Rock Mill
Groundwater And Surface Water Quality
Quarterly Report

4Qtr-2003	*Groundwater*			*Surface Water*		
Parameter	*WN-A*	*WN-B*	*WN-C*	*S-7*	*S-6*	*S-5*
Aluminum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ammonia as N (mg/L)	3.4	25.4	36	<0.05	<0.05	<0.05
Arsenic (D) (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Barium (D) (mg/L)	<0.05	<0.05	<0.05	0.06	0.06	0.06
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bicarbonate (mg/L)	792	795	873	160	176	197
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Calcium (mg/L)	743	647	691	39.2	44.4	46.6
Carbonate (mg/L)	<1	<1	<1	<1	<1	<1
Chloride (mg/L)	116	107.2	99.7	6.3	10.2	17.8
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	3700	4070	4370	226	265	301
Cond Lab (uS/cm)	3710	4120	4320	371	433	495
Iron (D) (mg/L)	17.4	0.12	0.05	<0.05	<0.05	<0.05
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)	105	145	136	7.4	8	9
Manganese (D) (mg/L)	0.68	6.34	6.3	<0.05	<0.05	<0.05
Mercury (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrate + Nitrite as N (mg/L)	1.8	19.7	38.3	<0.2	<0.2	<0.2
pH Field (std. units)	6.27	6.55	6.64	8.05	8.16	8.18
pH Lab (std. units)	7.4	7.39	7.46	8.23	8.22	8.28
Potassium (mg/L)	14.7	21.03	22	4	4.4	4.8
Radium-226 (D) (pCi/L)	<1	<1	<1	<1	<1	<1
Radium-228 (D) (pCi/L)	<2	<2	<2	<2	<2	<2
Selenium (D) (mg/L)	<0.005	0.009	<0.05	<0.005	<0.005	<0.008
Silver (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Sodium (mg/L)	36.7	118	95	20.3	26.7	34.5
Sulfate (mg/L)	1550	1730	1750	48.9	58.1	67.8
TDS (mg/L)	3390	3590	3700	233	250	301
Temp Field (C)	8.3	7.4	8.6	-0.4	-0.3	-0.2
Thorium-230 (D) (pCi/L)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium (D) (mg/L)	2.2	4.04	4.76	0.005	0.007	0.018

Groundwater Corrective Action Program Quarterly and Semi-Annual Monitoring Results Second Half of Year 2003

Groundwater Corrective Action Program Monitoring Results

3Qtr-2003

Parameter	*WN-21(POC)*	*WN-24*	*WN-25*	*WELL-3*	*WN-18*	*WN-23*	*WN-17*	*WELL-4R(POC)*
Aluminum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.53
Ammonia as N (mg/L)	2.8	0.08	6	<0.05	0.19	0.1	<0.05	263
Arsenic (D) (mg/L)	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01
Barium (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	0.06	<0.05
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bicarbonate (mg/L)	237	257	213	299	364	299	207	306
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.017
Calcium (mg/L)	93.7	225	156	270	278	317	53	474
Carbonate (mg/L)	<1	<1	<1	<1	<1	<1	<1	<1
Chloride (mg/L)	17.2	34.2	19.6	49.2	68.4	58.3	15.8	107
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	873	1885	1440	2300	2370	2220	574	7170
Cond Lab (uS/cm)	785	1530	1320	1860	2160	1900	484	5830
Iron (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)	16	31.8	30.2	36	47.8	36.6	10.5	232
Manganese (D) (mg/L)	0.56	<0.05	3.18	<0.05	<0.05	<0.05	0.08	77
Mercury (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.41
Nitrate + Nitrite as N (mg/L)	10.8	16.9	35.8	24.3	42.5	19.8	<0.2	21.2
pH Field (std. units)	7.64	7.57	7.01	7.25	7.25	7.03	7.72	6.05
pH Lab (std. units)	7.94	8	7.8	7.88	7.67	7.68	7.92	6.91
Potassium (mg/L)	7.2	9.7	8.9	10.4	13.7	14.8	7.8	68.2
Radium-226 (D) (pCi/L)	<1	<1	<1	<1	<1	1+/-0.2	<1	<1
Radium-228 (D) (pCi/L)	<2	<2	<2	<2	<2	<2	<2	<2
Selenium (D) (mg/L)	<0.005	<0.005	0.006	<0.005	0.007	<0.005	<0.005	0.01
Silver (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Sodium (mg/L)	30.9	46.6	35.6	65.8	97	53.4	22.5	223
Sulfate (mg/L)	148	513	327	612	664	697	56.8	3170
TDS (mg/L)	526	1190	969	1460	1780	1530	299	4650
Temp Field (C)	11.8	11.4	11.3	11.2	11.2	9.4	8.6	11.1
Thorium-230 (D) (pCi/L)	0.4+/-0.2	0.4+/-0.3	0.4+/-0.2	0.4+/-0.3	0.4+/-0.3	0.4+/-0.2	0.4+/-0.3	0.4+/-0.2
Uranium (D) (mg/L)	0.154	0.35	0.244	1.21	0.842	0.95	0.051	0.541

Note: POC = Point of compliance well

Note: Shaded numbers indicate that the value exceeds the maximum CAP water quality monitoring parameter values for 1/1/90 - 12/31/96

Groundwater Corrective Action Program Monitoring Results

4Qtr-2003

Parameter	*WN-21(POC)*	*WN-24*	*WN-25*	*WELL-3*	*WN-18*	*WN-23*	*WN-17*	*WELL-4R(POC)*
Aluminum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.73
Ammonia as N (mg/L)	2.05	0.09	5.1	0.13	0.13	0.15	<0.05	205
Arsenic (D) (mg/L)	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	0.02	<0.01
Barium (D) (mg/L)	<0.05	0.08	<0.05	<0.05	0.06	<0.05	0.06	<0.05
Beryllium (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.004
Bicarbonate (mg/L)	239	207	209	299	374	349	212	323
Cadmium (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.02
Calcium (mg/L)	94.3	252	171	271	285	436	59.5	455
Carbonate (mg/L)	<1	<1	<1	<1	<1	<1	<1	<1
Chloride (mg/L)	10.02	33.1	12	50.2	73.2	70.7	15.8	121
Chromium (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cond Field (uS/cm)	970	1801	1721	1370	2420	2590	571	5960
Cond Lab (uS/cm)	732	1580	1250	1840	2180	2330	496	5790
Iron (D) (mg/L)	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05
Lead (D) (mg/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Magnesium (mg/L)	15.2	43.21	32.2	37.3	52.2	70.7	11.5	226
Manganese (D) (mg/L)	0.4	<0.05	2.65	<0.05	<0.05	<0.05	0.11	72.1
Mercury (D) (mg/L)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum (D) (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel (D) (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.46
Nitrate + Nitrite as N (mg/L)	9.2	17.6	29.1	23.7	39.7	25.9	0.3	20.6
pH Field (std. units)	7.59	7.57	7.19	7.22	7.18	6.89	7.64	5.86
pH Lab (std. units)	7.96	7.91	7.68	7.85	7.75	7.76	8.01	6.87
Potassium (mg/L)	6.6	11.6	8.6	9.7	13.3	14.9	8.1	61.8
Radium-226 (D) (pCi/L)	<1	<1	<1	<1	<1	<1	<1	<1
Radium-228 (D) (pCi/L)	<2	<2	<2	<2	<2	<2	<2	<2
Selenium (D) (mg/L)	<0.005	<0.005	0.006	<0.005	0.006	<0.005	<0.005	0.028
Silver (D) (mg/L)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Sodium (mg/L)	29.7	48.8	37	63.2	92.4	53.3	24.2	223
Sulfate (mg/L)	150	610	379	608	658	957	65.8	2840
TDS (mg/L)	490	1210	875	1410	1710	1900	293.41	4550
Temp Field (C)	10.4	8.7	8.7	9.2	8.3	8.2	7.6	7.8
Thorium-230 (D) (pCi/L)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium (D) (mg/L)	0.138	0.396	0.245	1.21	0.874	1.37	0.049	0.624

Note: POC = Point of compliance well

Note: Shaded numbers indicate that the value exceeds the maximum CAP water quality monitoring parameter values for 1/1/90 - 12/31/96

WNI Split Rock Mill
Groundwater Corrective Action Plan (CAP)

Maximum CAP Water Quality Monitoring Parameter Values for 1/1/90 – 12/31/96

Groundwater Corrective Action Program Maximum CAP Water Quality Monitoring Parameter Values for 1/1/90-12/31/96

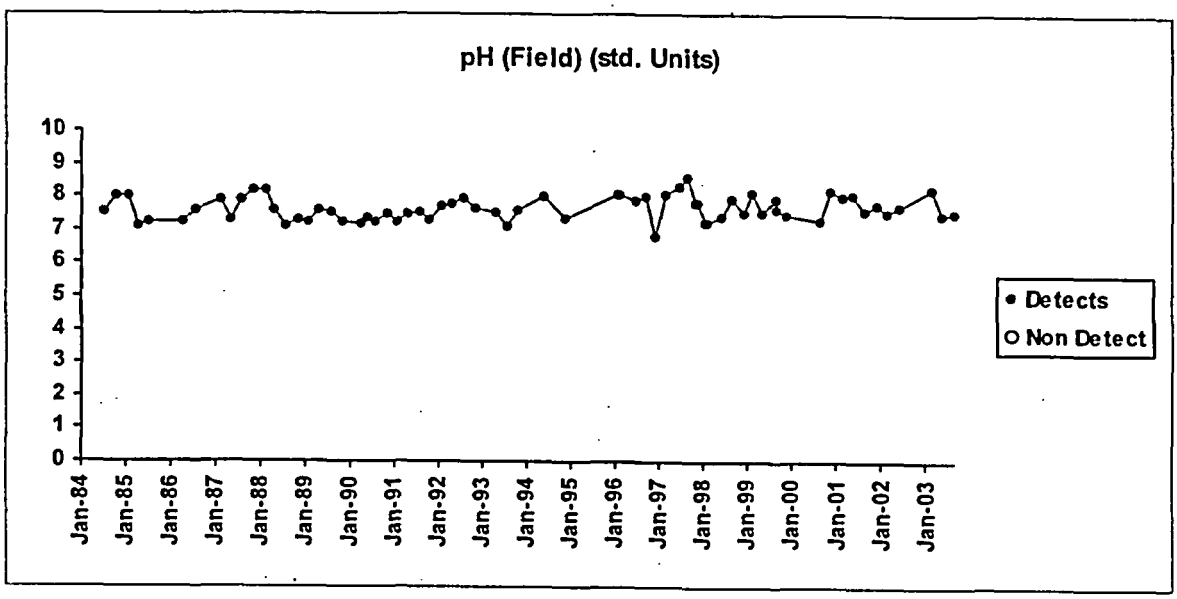
Parameter	*WN-21(POC)*	*WN-24*	*WN-25*	*WELL-3*	*WN-18*	*WN-23*	*WN-17*	*WELL-4R(POC)*
Beryllium (mg/L)		0.05	0.05	0.05	0.05	0.05	0.05	0.05
Cadmium (mg/L)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Chloride (mg/L)		31.50	51.60	50.10	55.00	76.60	11.10	292
Chromium (mg/L)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07
Lead (mg/L)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel (mg/L)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09
Nitrate + Nitrite as N (mg/L)		7.22	49.70	49.40	29	44	0.25	317
pH Field (std. Units)		7.14	6.49	6.95	6.36	6.65	6.87	5.37
Radium Comb. (pCi/L)		7.6	3.8	2.2	3.0	17.2	6.5	7.2
Selenium (mg/L)		0.01	0.01	0.01	0.01	0.01	0.01	0.34
Sulfate (mg/L)		244	1,072	705	451	1,139	69	4,000
TDS (mg/L)		641	2,079	1,570	1,226	2,509	336	7,661
Thorium-230 (pCi/L)		0.70	<0.04	5.00	<0.04	0.90	<0.6	1.30
Uranium (pCi/ml)		0.15	1.12	0.94	0.51	1.82	0.03	2.71

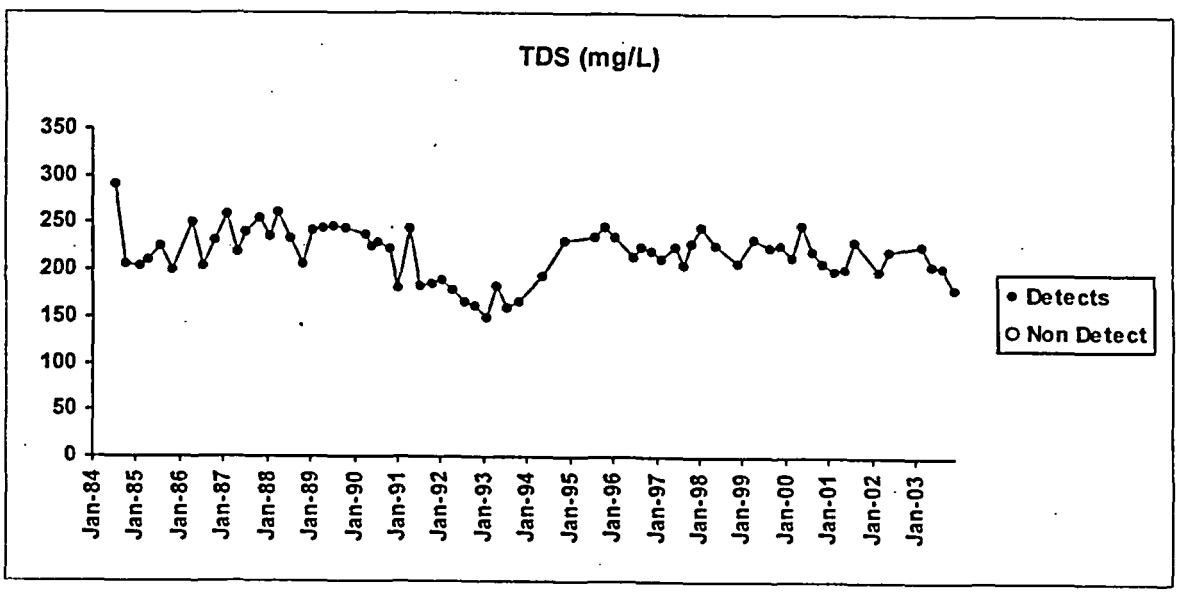
pH values represent minimum field value recorded from January 1, 1990 through December 31, 1996.
Be and Se values represent the standard listed in license SUA-56 condition 74(b) because all recent values are below the listed standard.
POC = Point of Compliance Well

DRINKING WATER

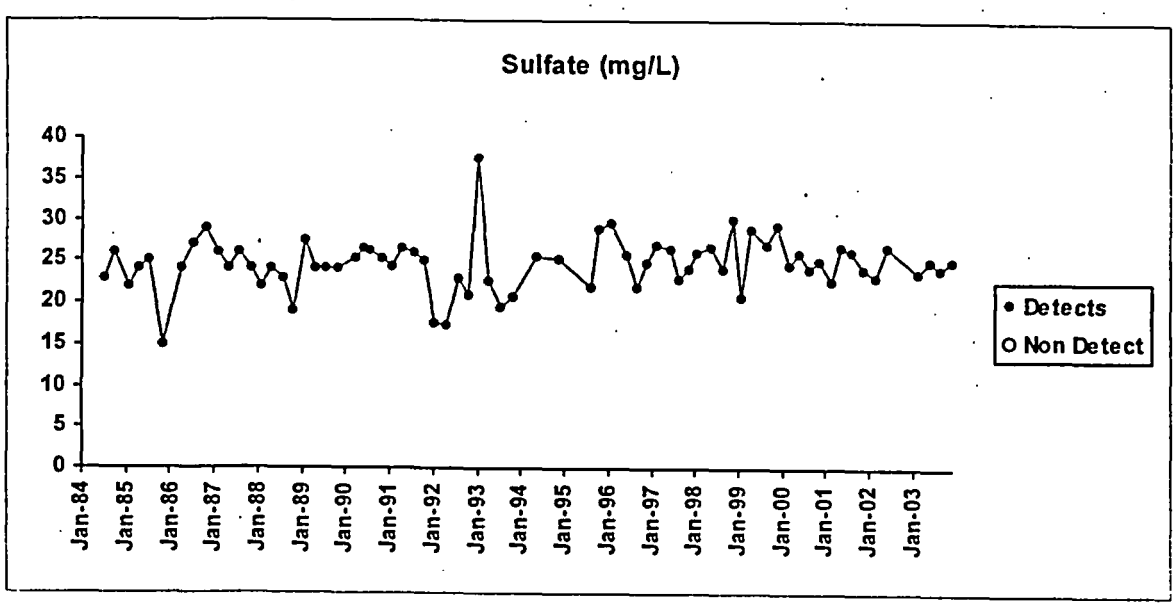
Note: Effective March 10, 1997, Well #27 is no longer used as a drinking water source. However, the report format has not been changed in an effort to maintain consistency with previous reports.

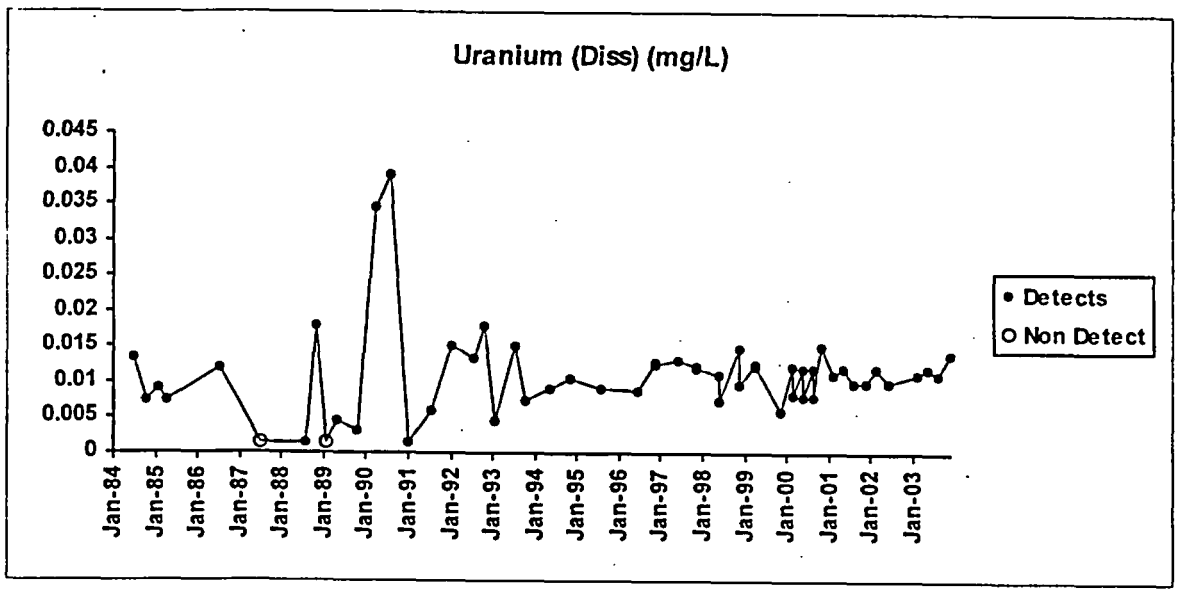
Jeffrey City WELL-27





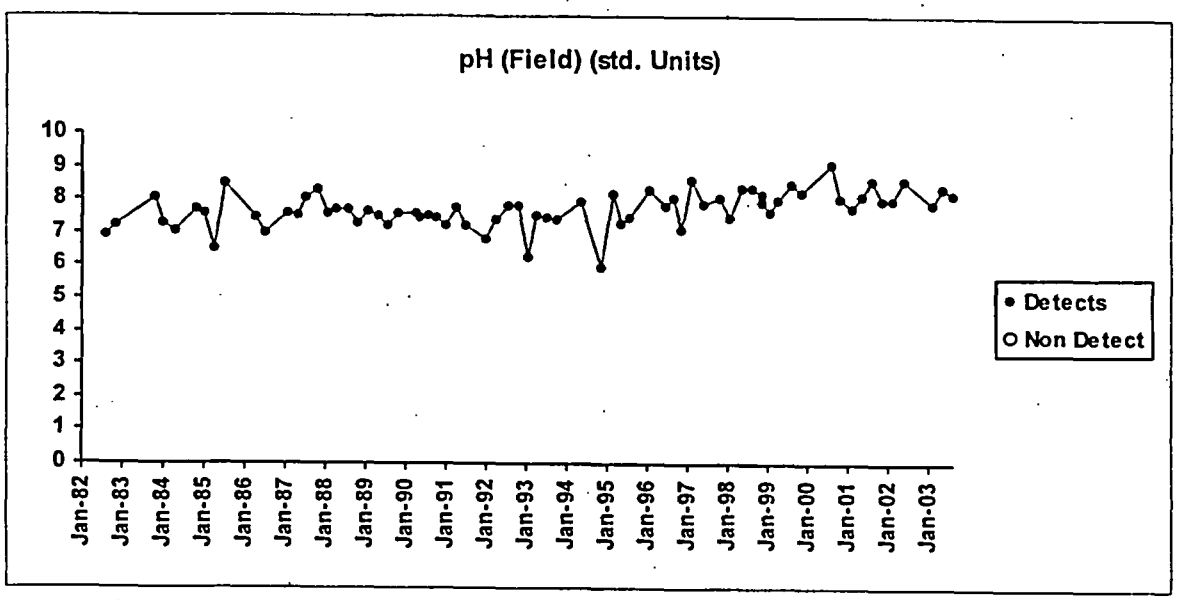
Jeffrey City WELL-27

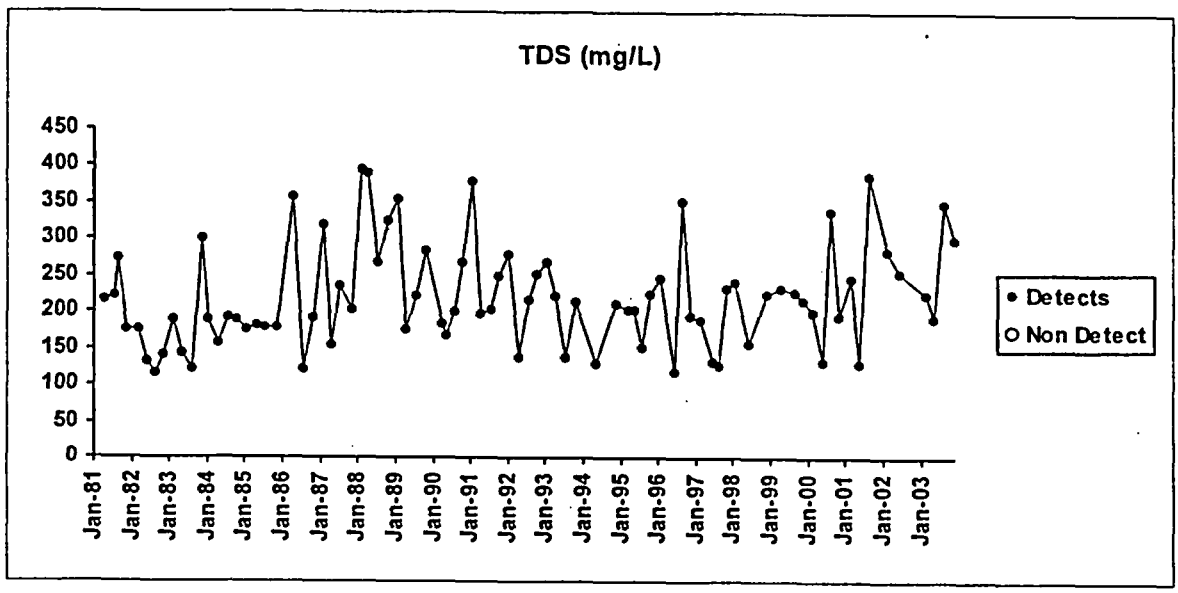




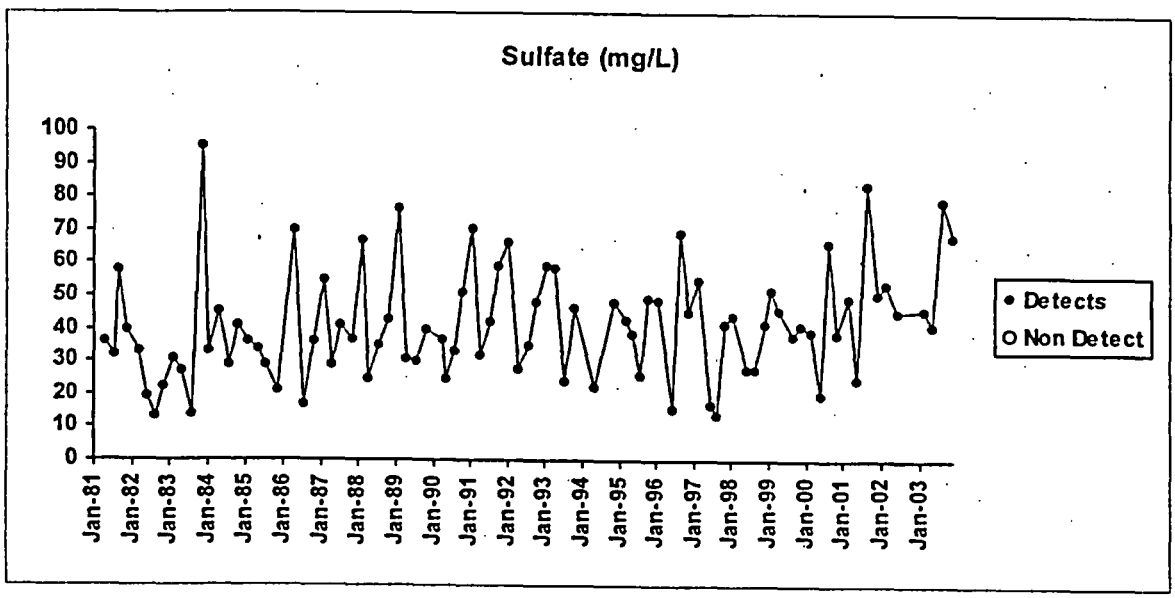
SURFACE WATER

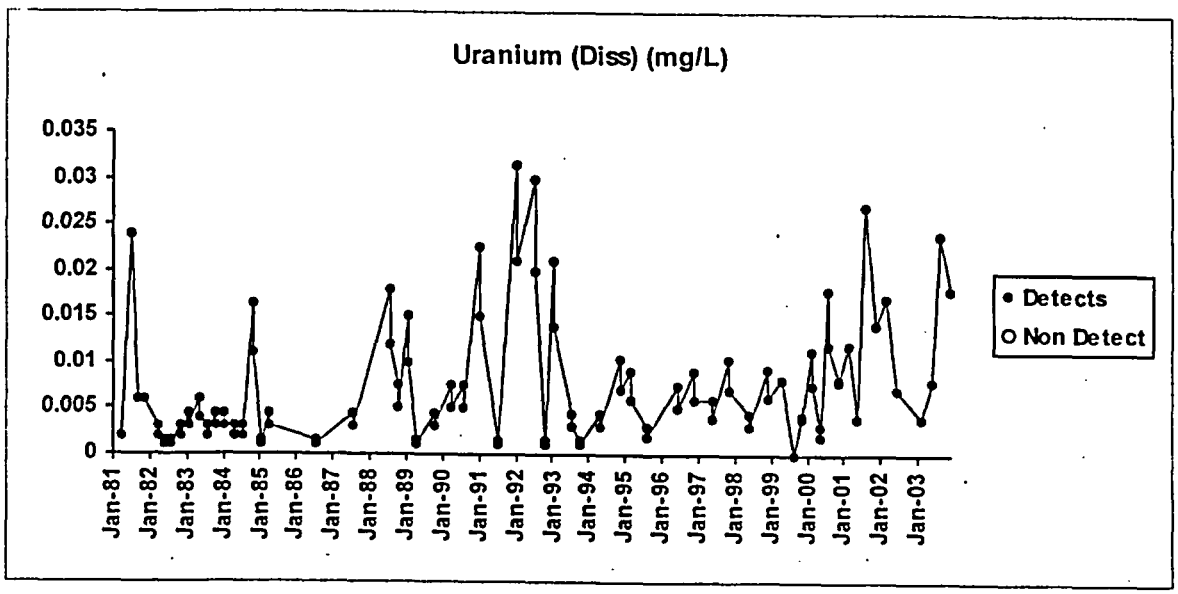
Jeffrey City S-5



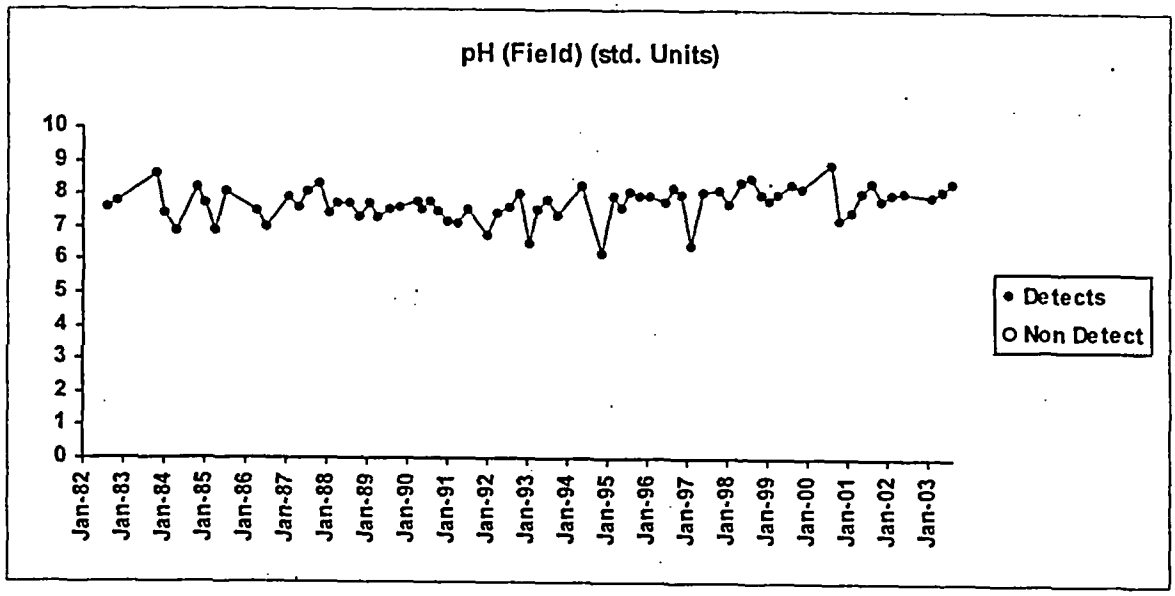


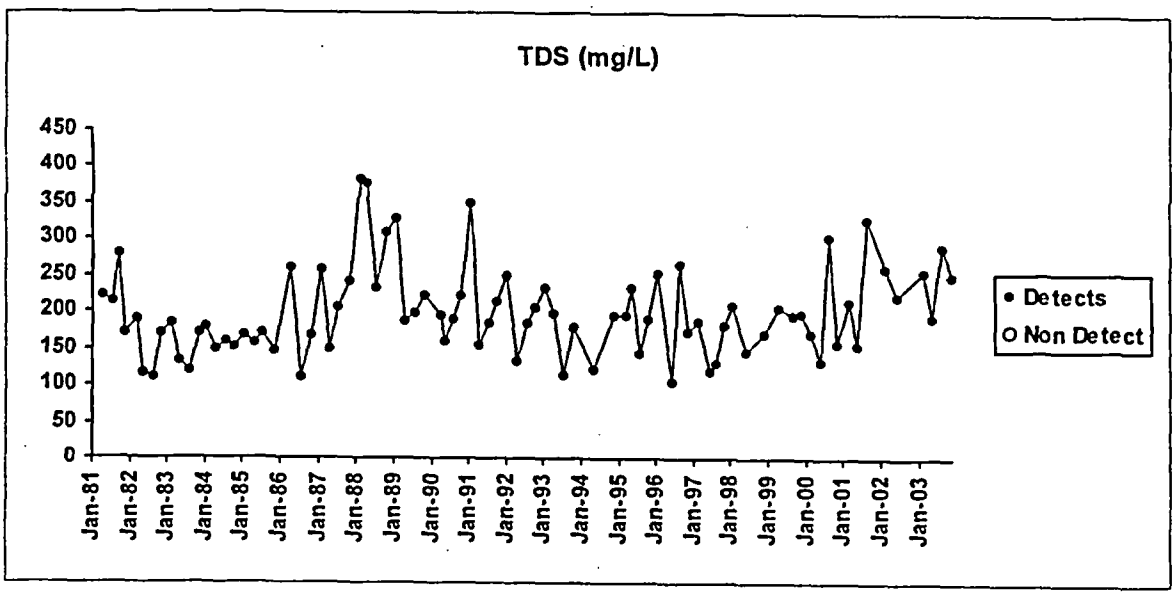
Jeffrey City S-5



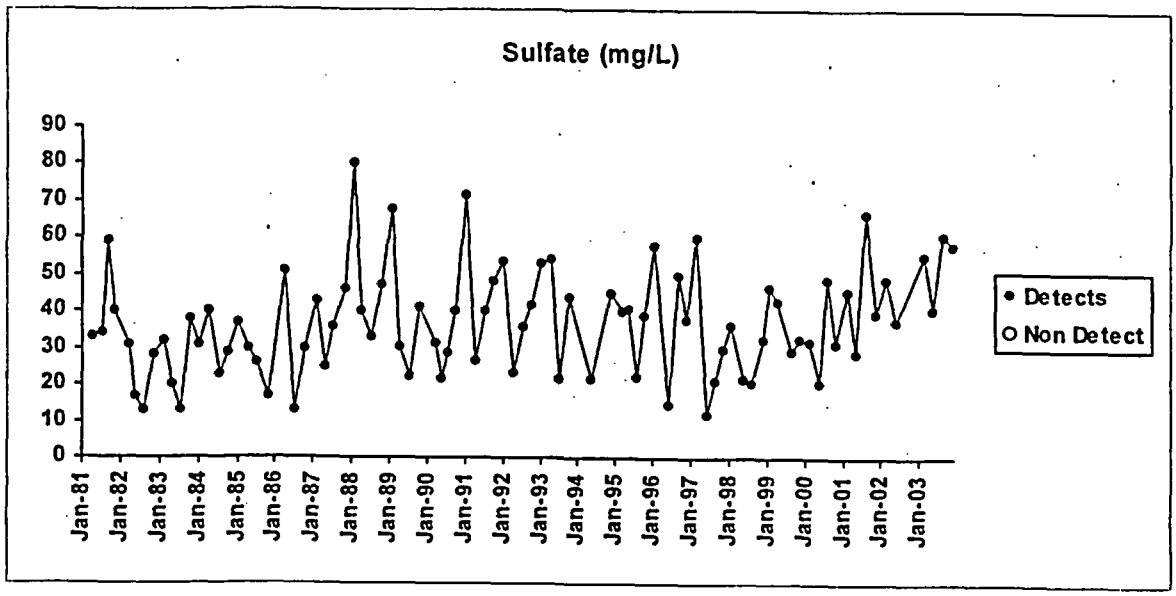


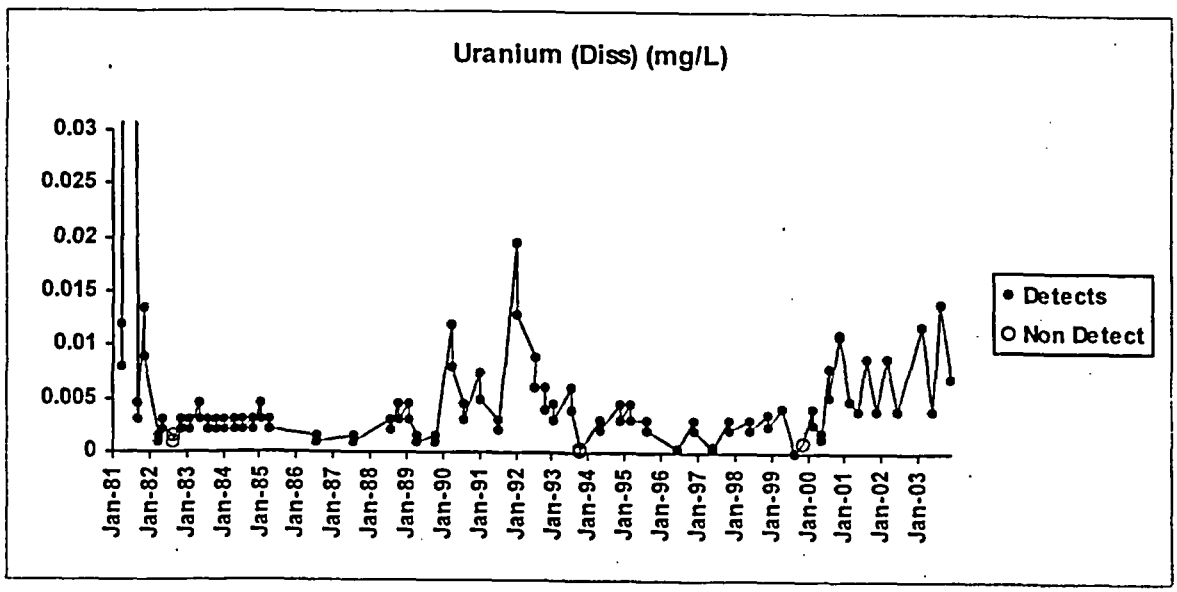
Jeffrey City S-6





Jeffrey City S-6





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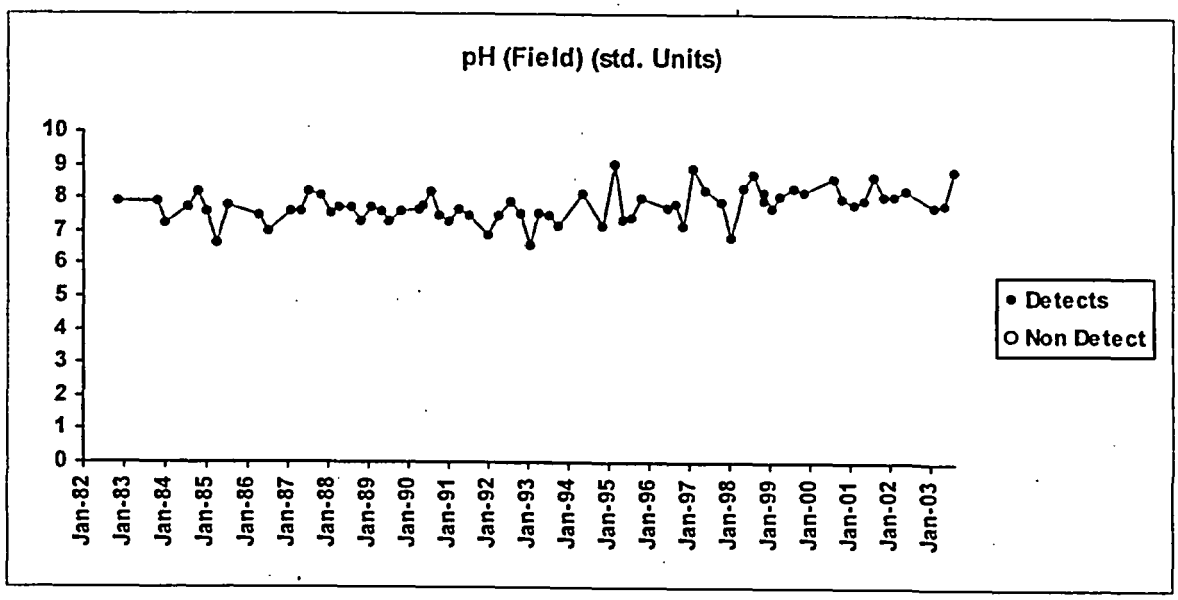
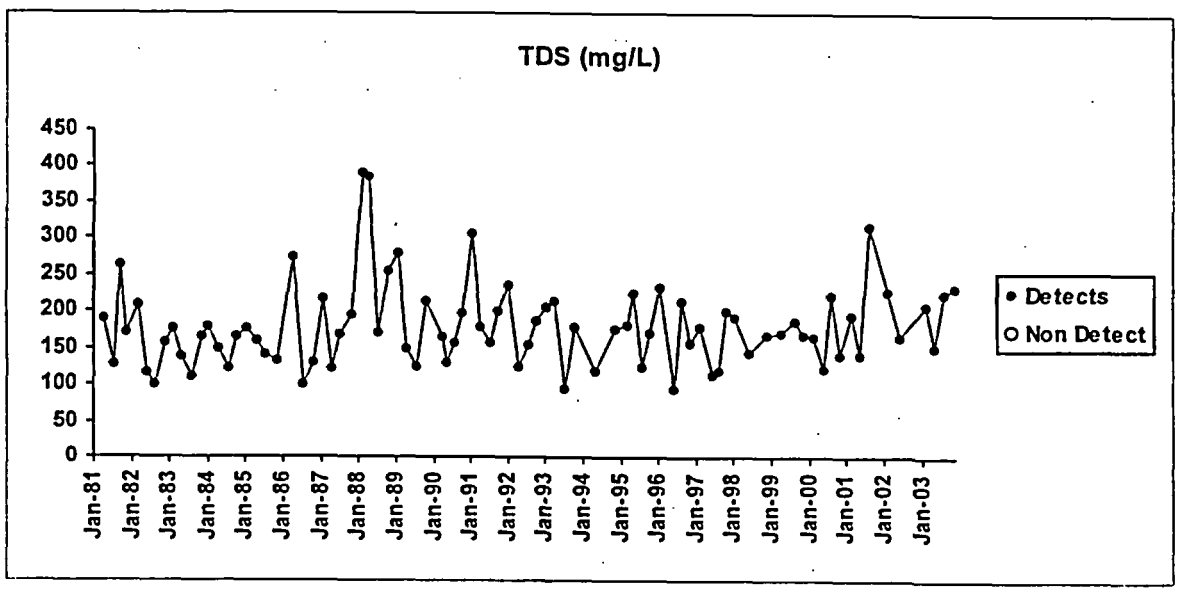
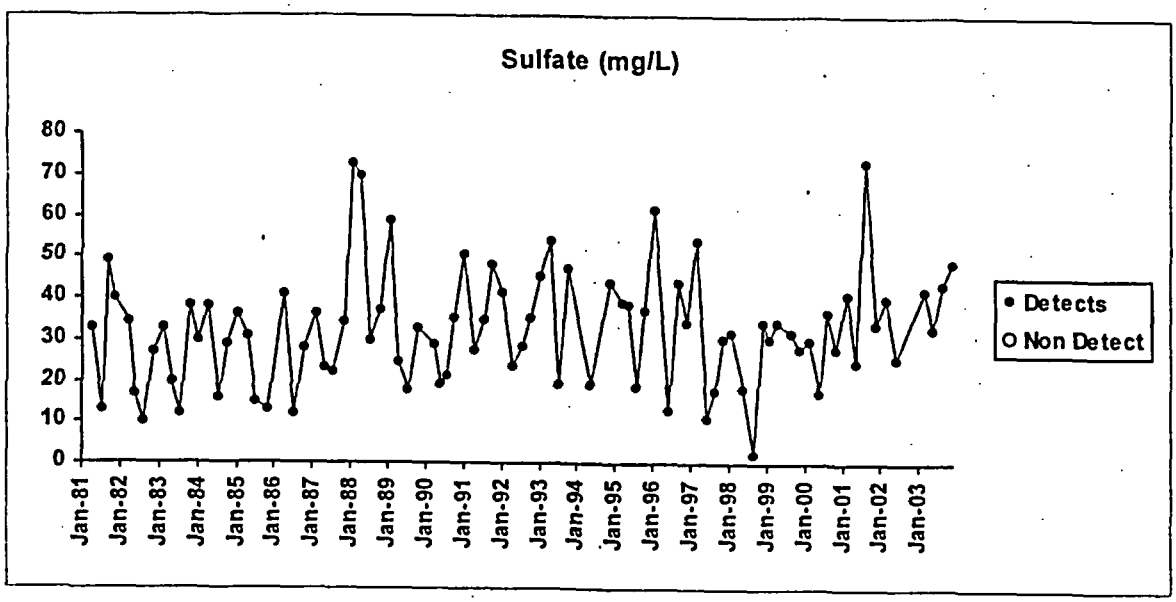
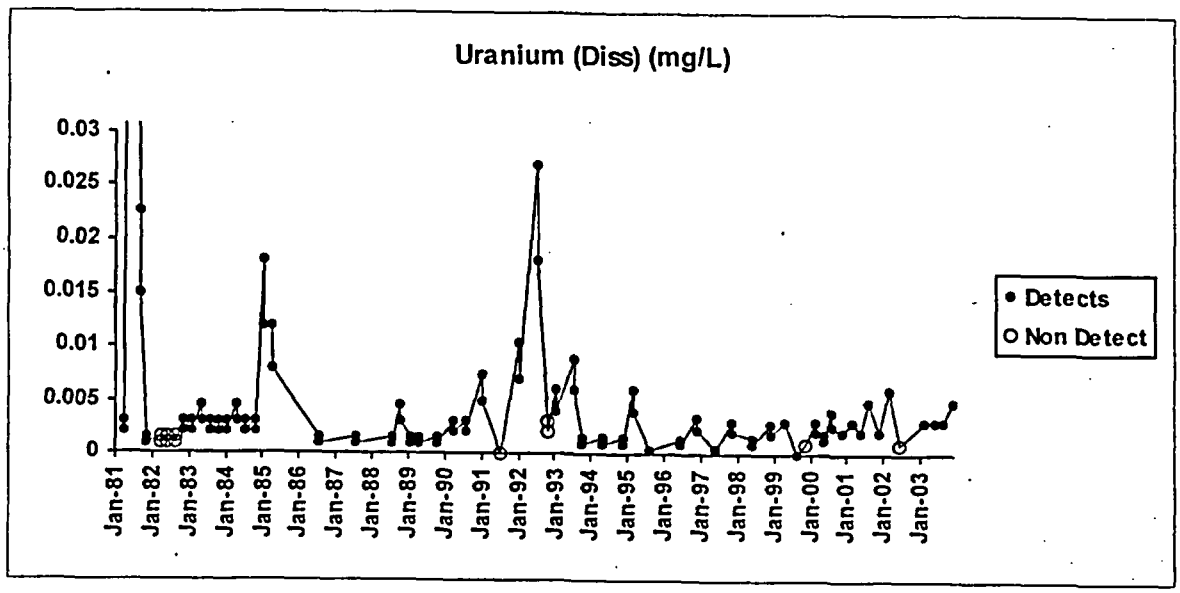




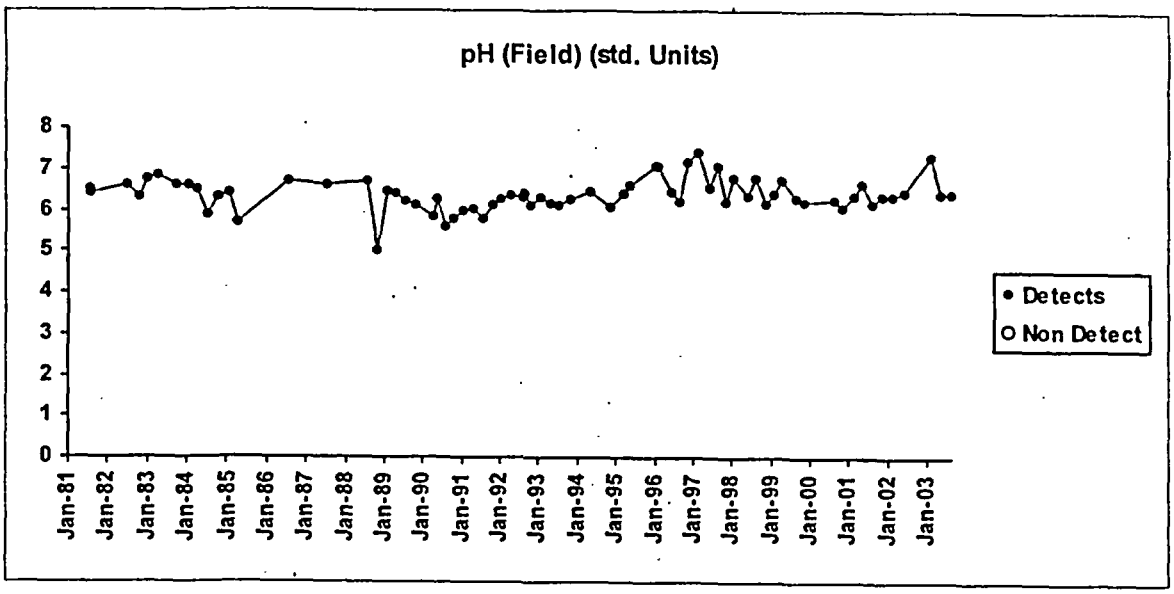
Jeffrey City S-7

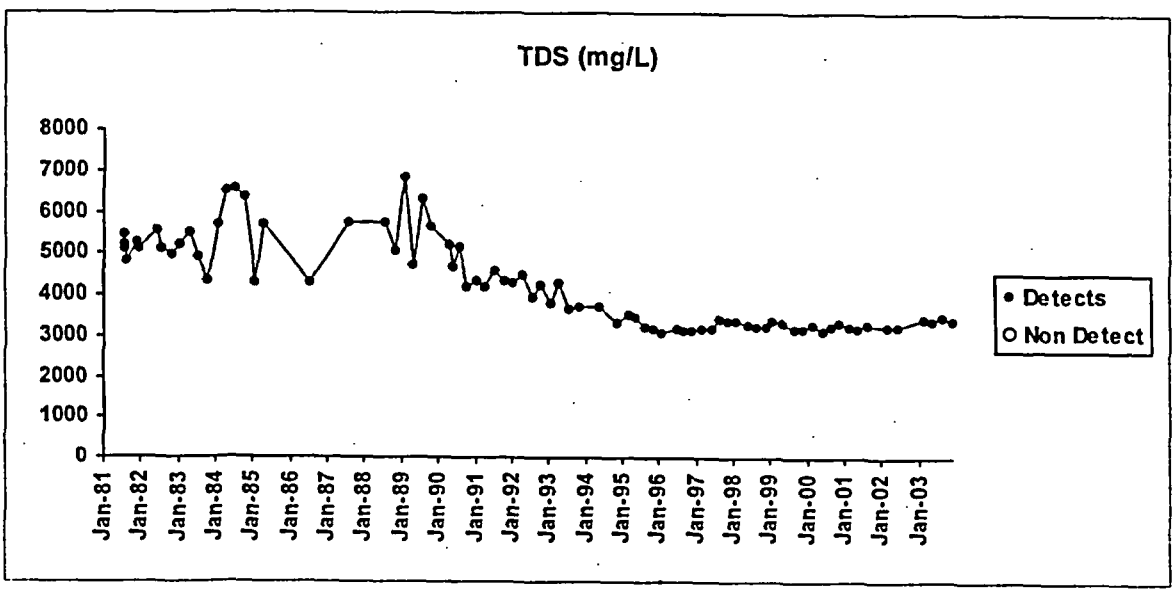




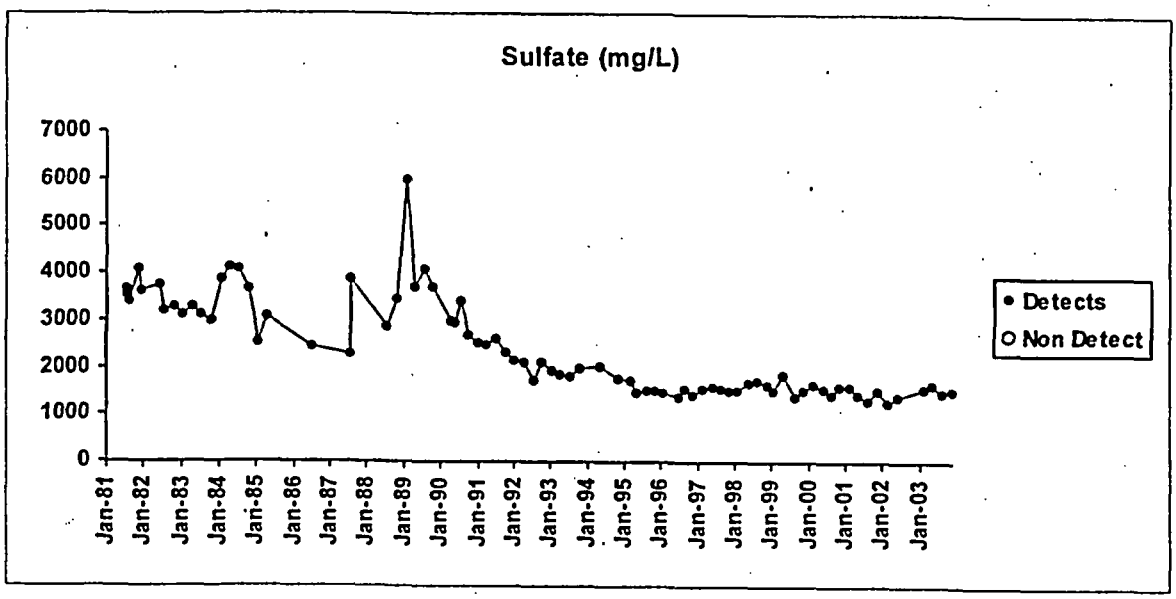
GROUNDWATER

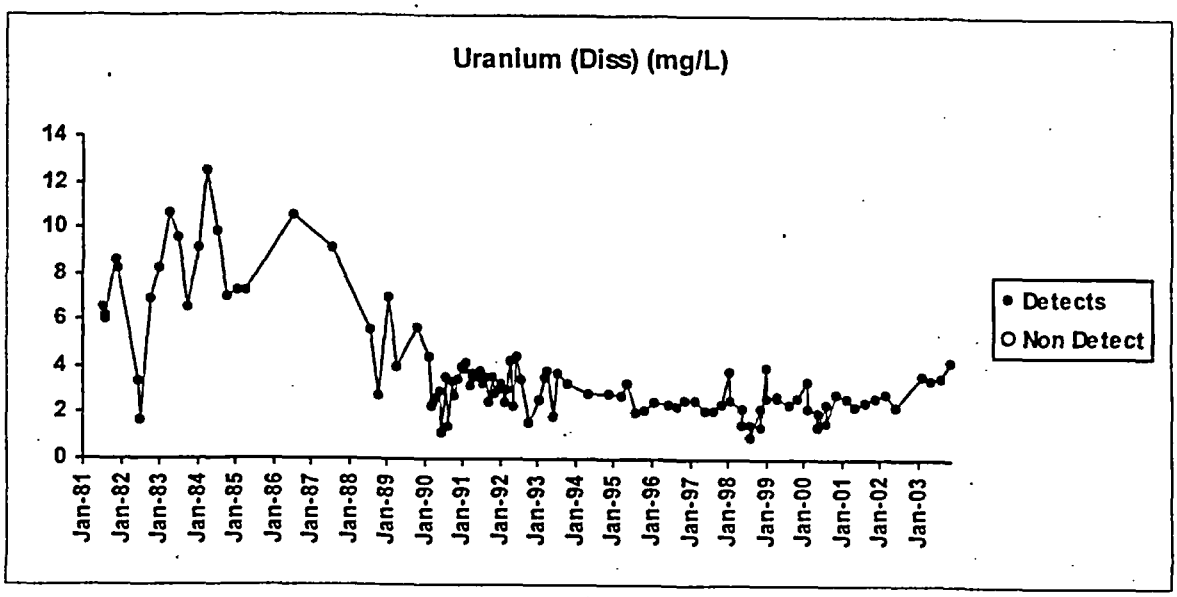
Jeffrey City WELL-1



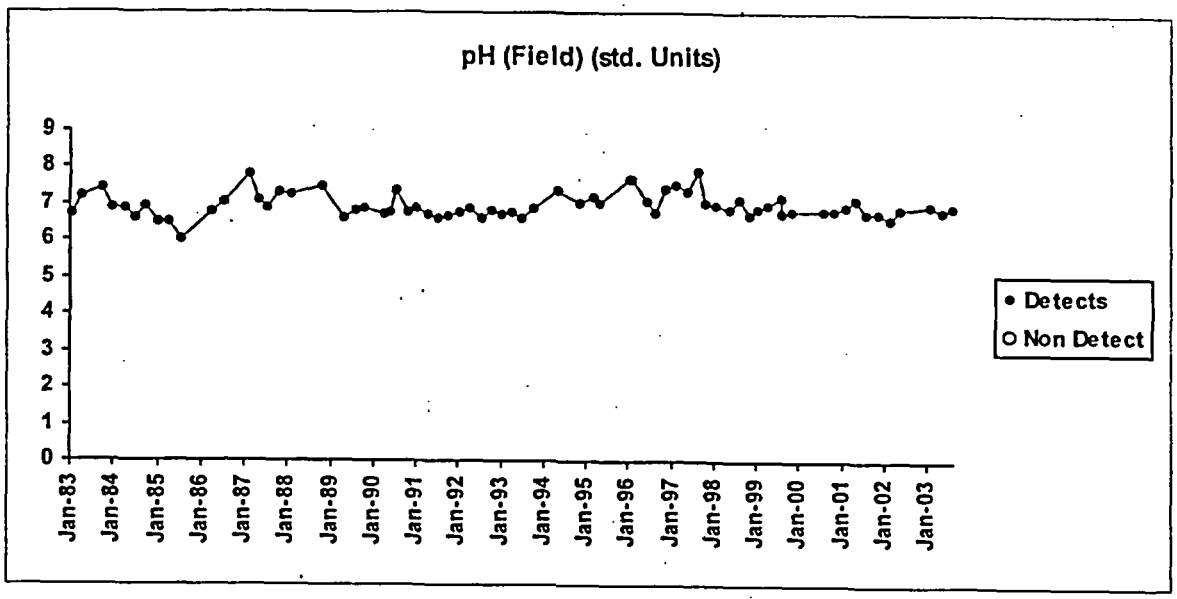


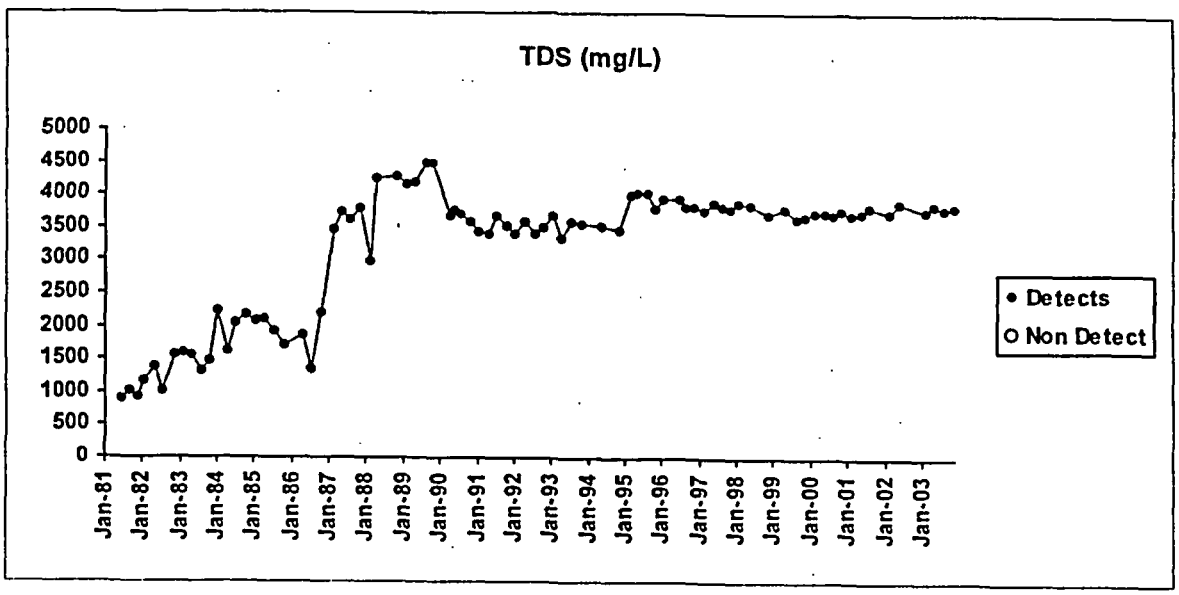
Jeffrey City WELL-1



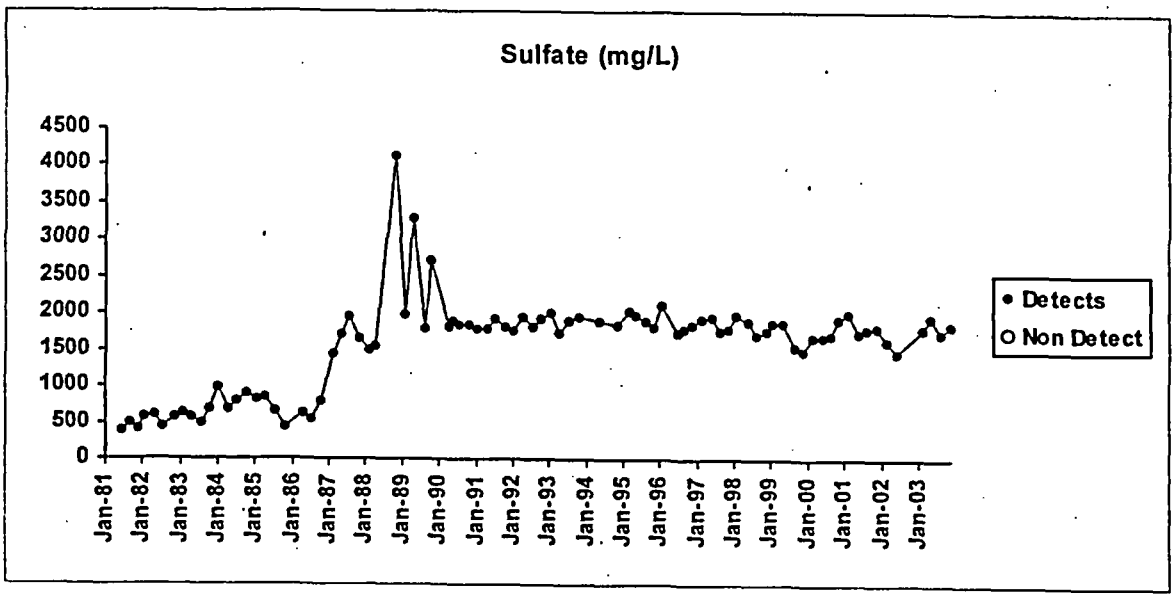


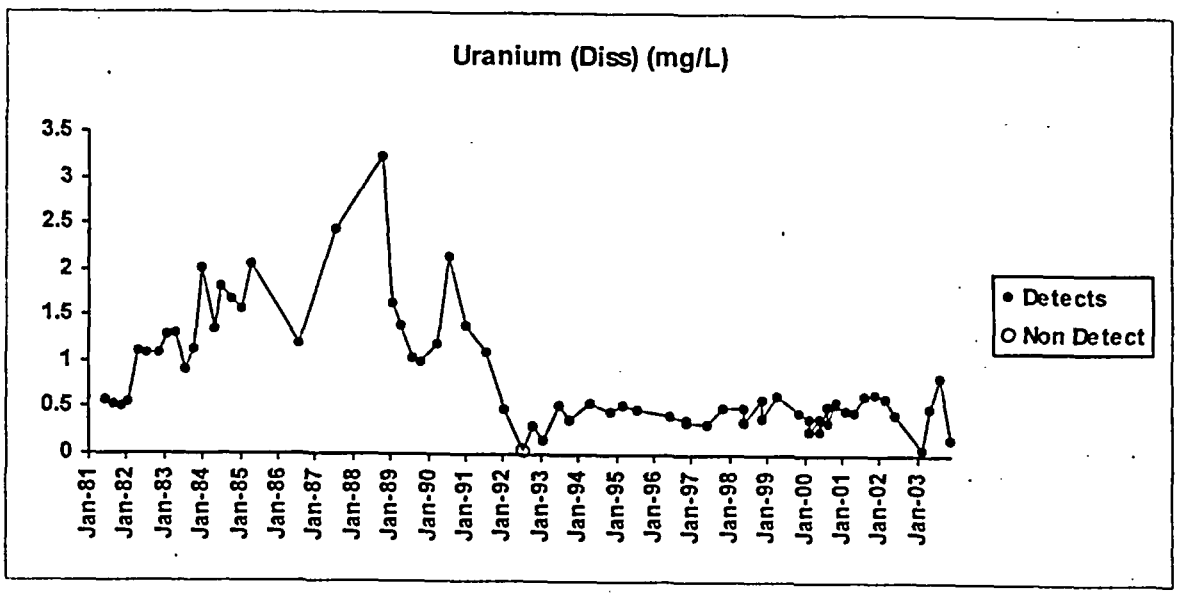
Jeffrey City WELL-2





Jeffrey City WELL-2





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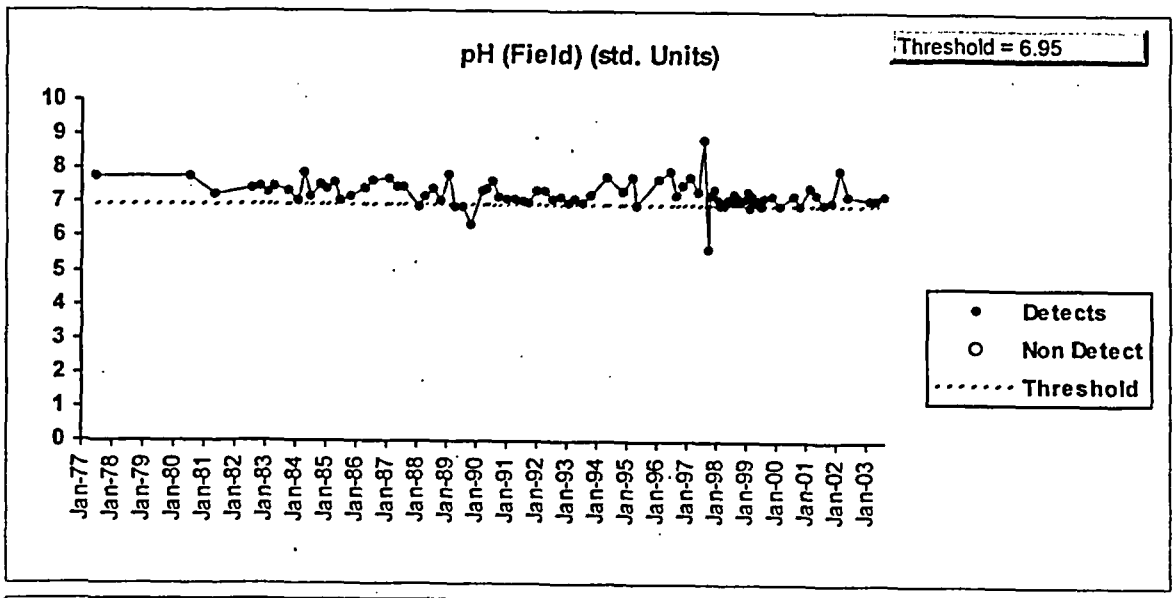
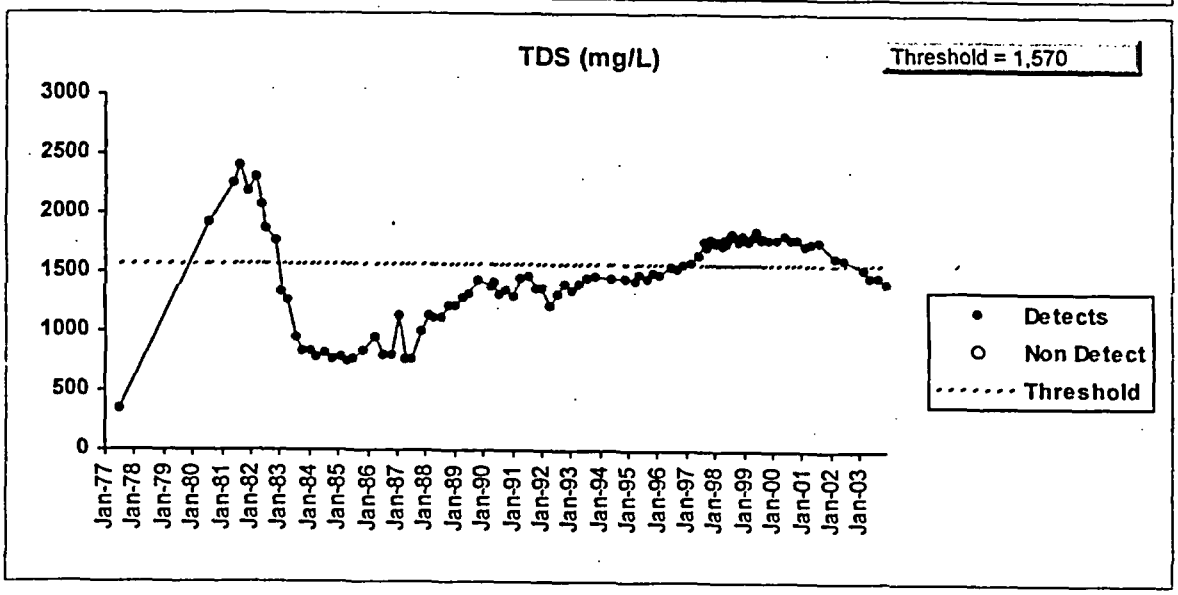
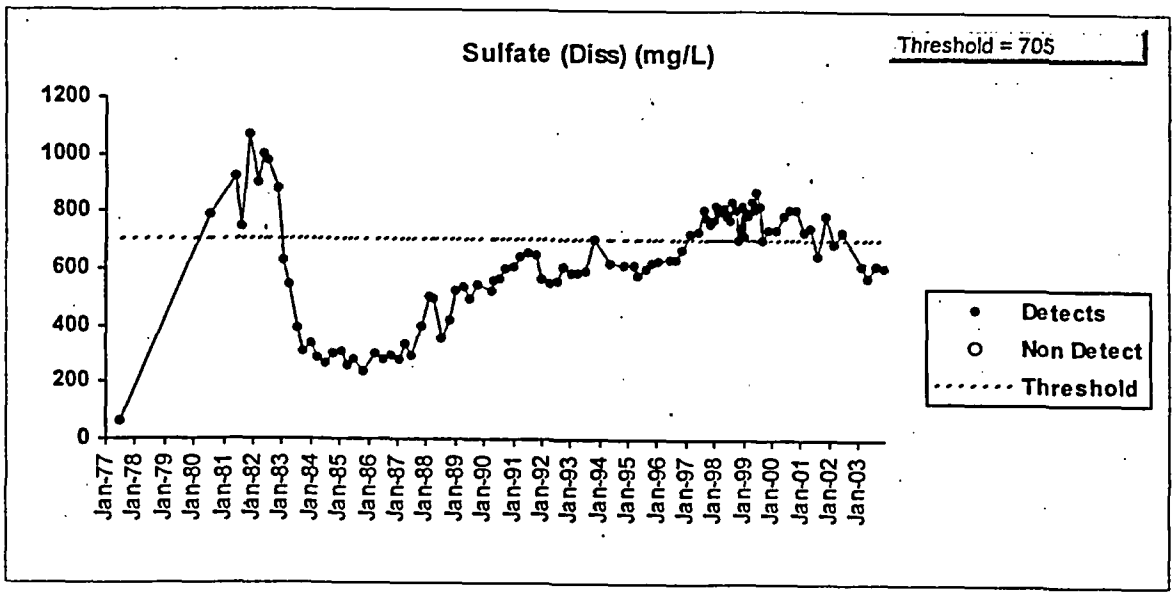
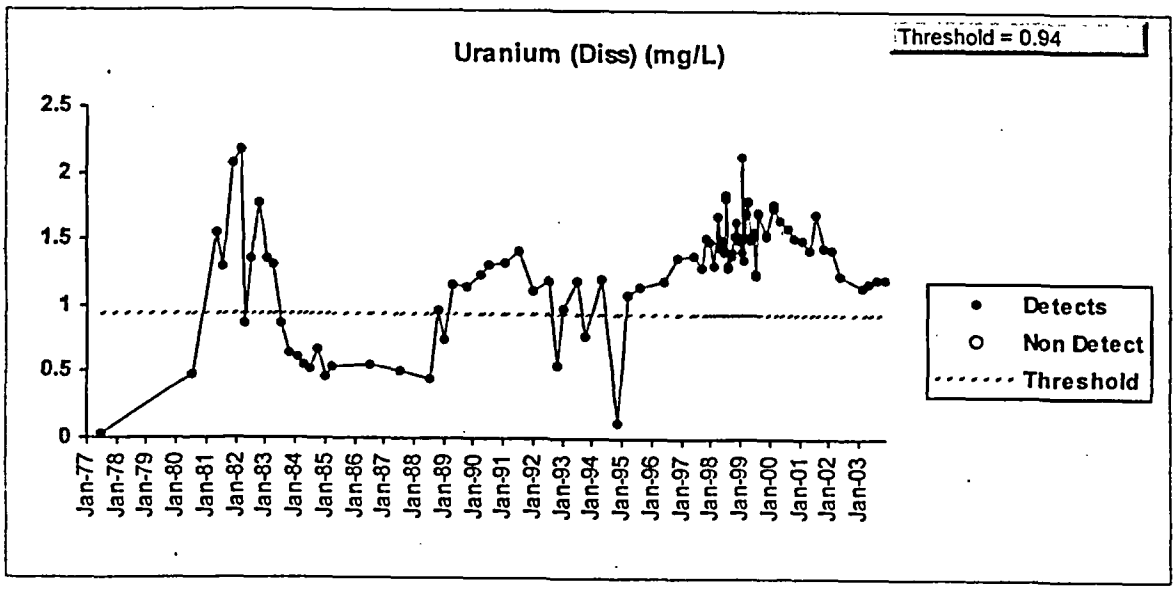




Jeffrey City WELL-3





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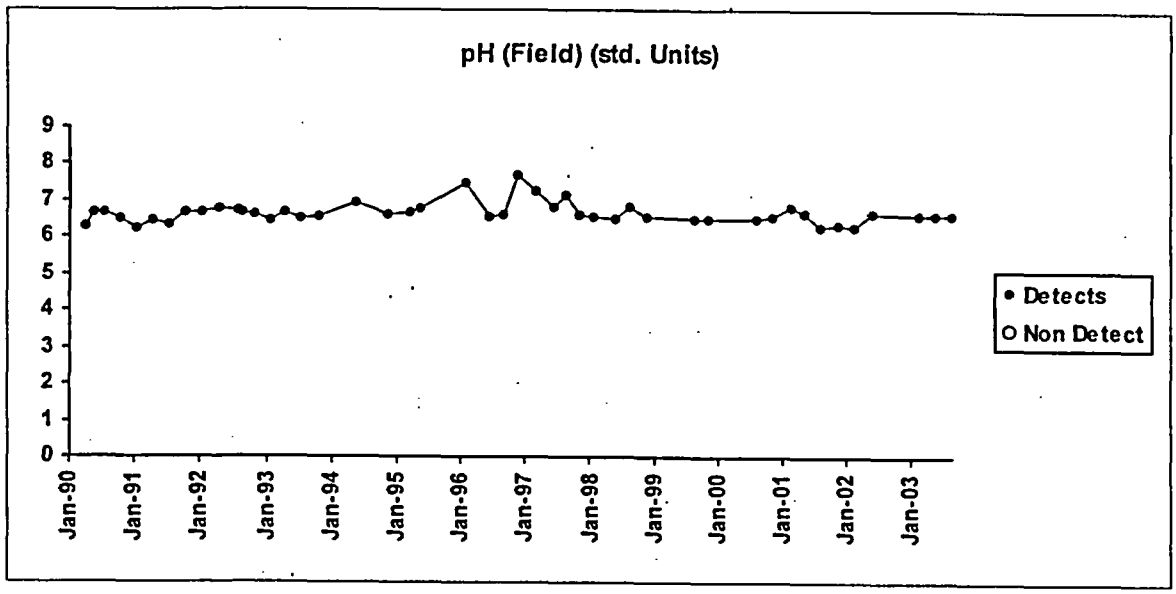

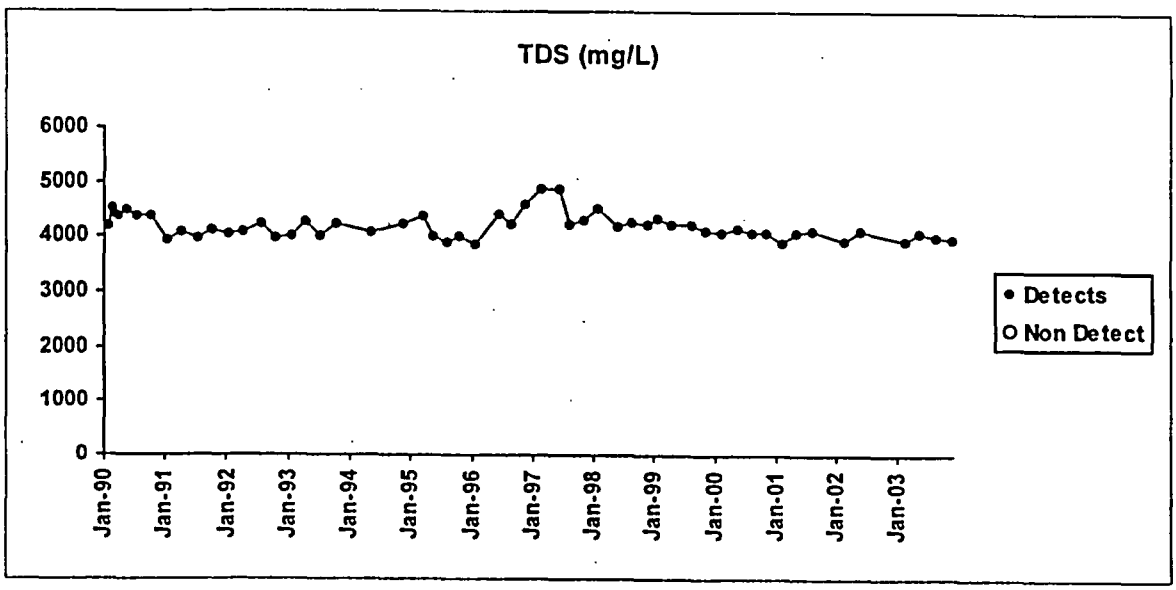

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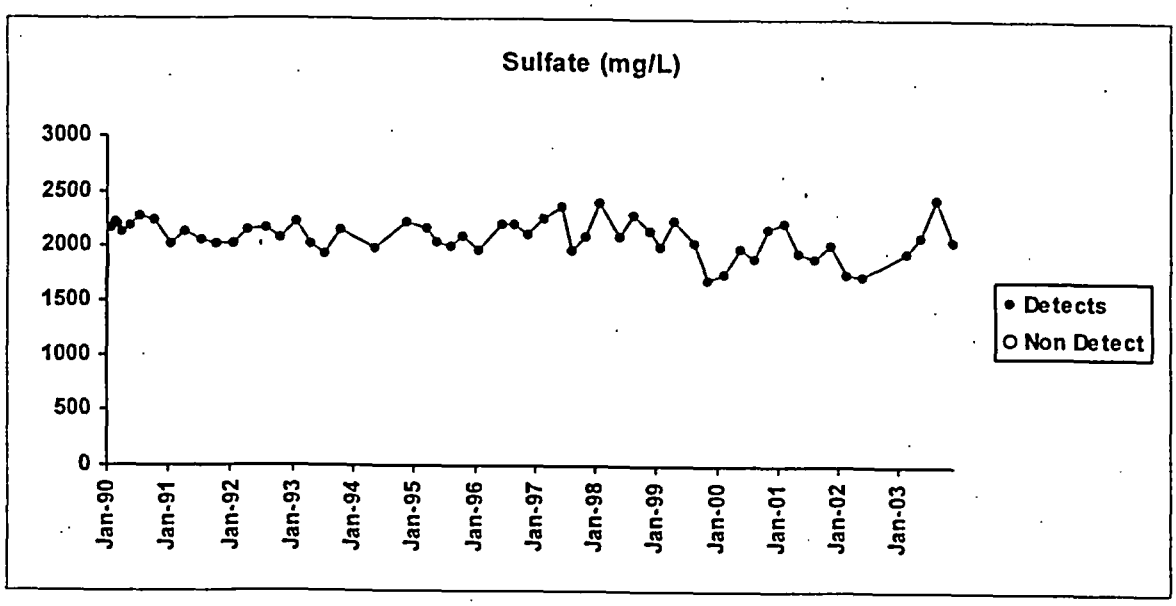

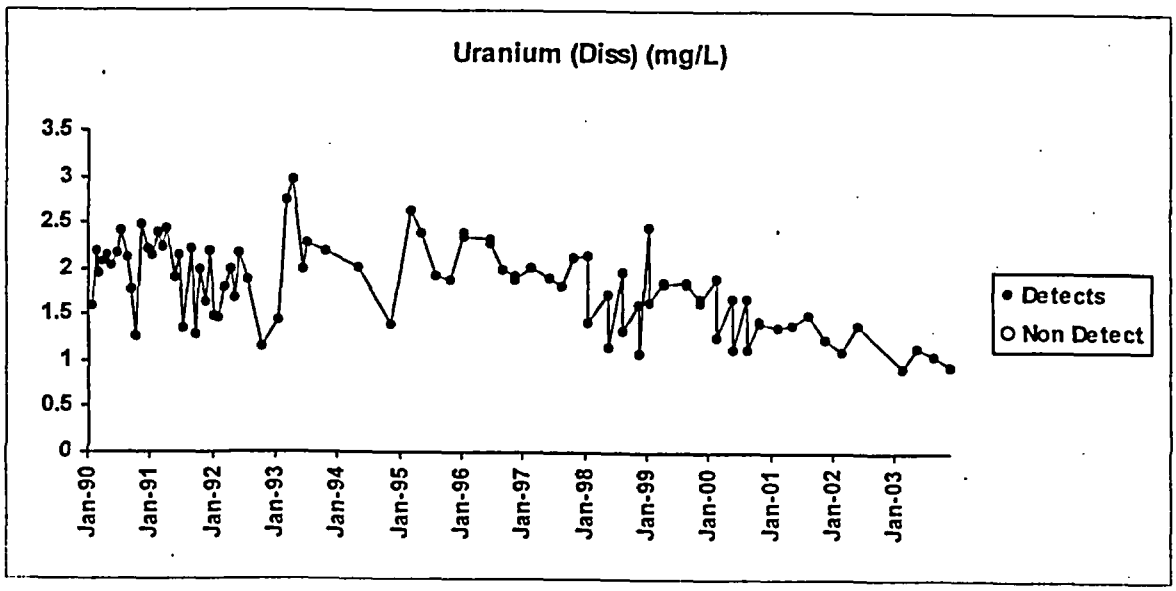

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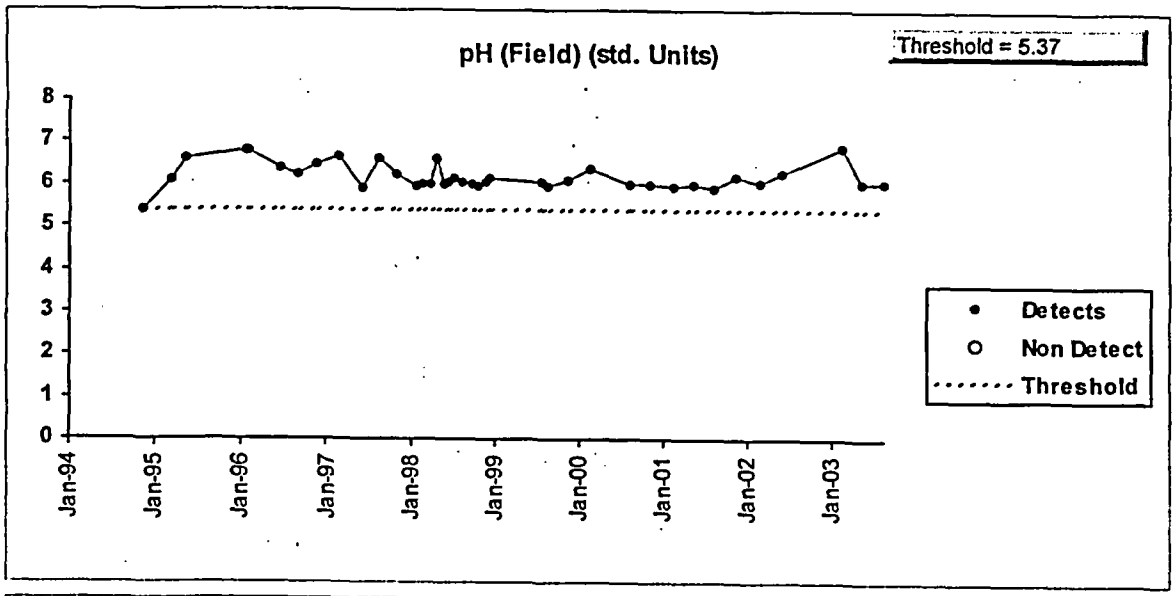

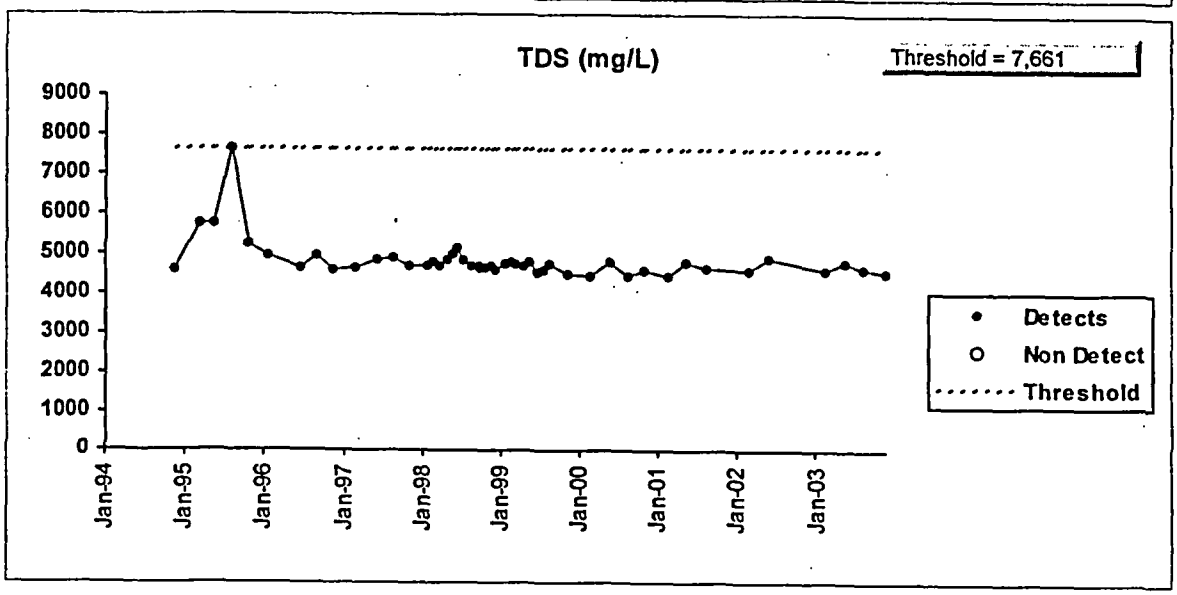

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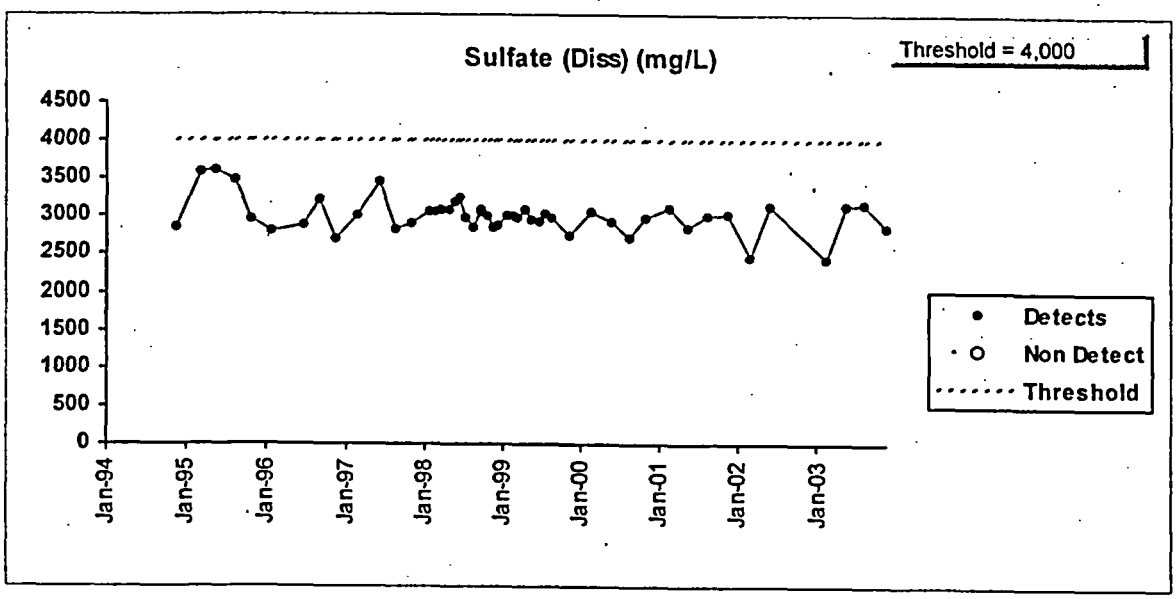

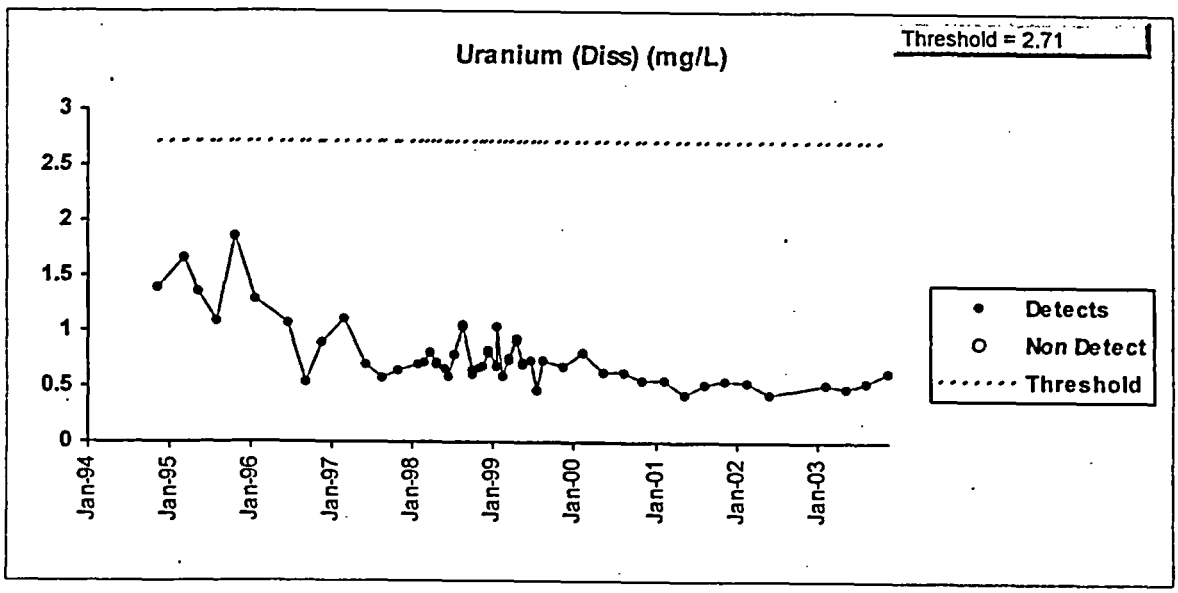

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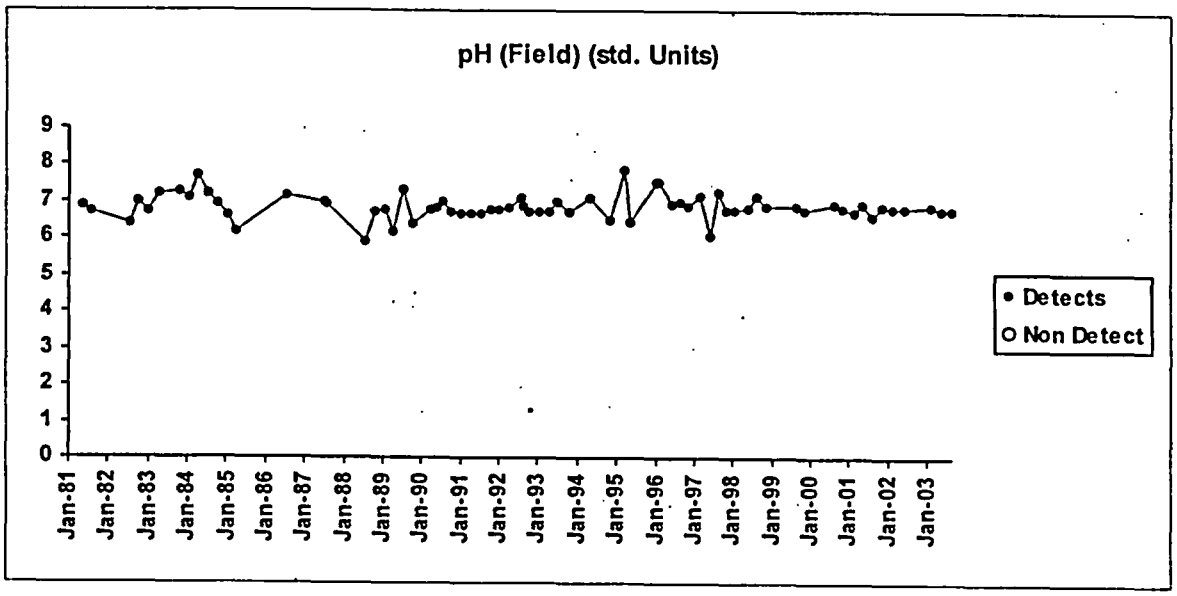

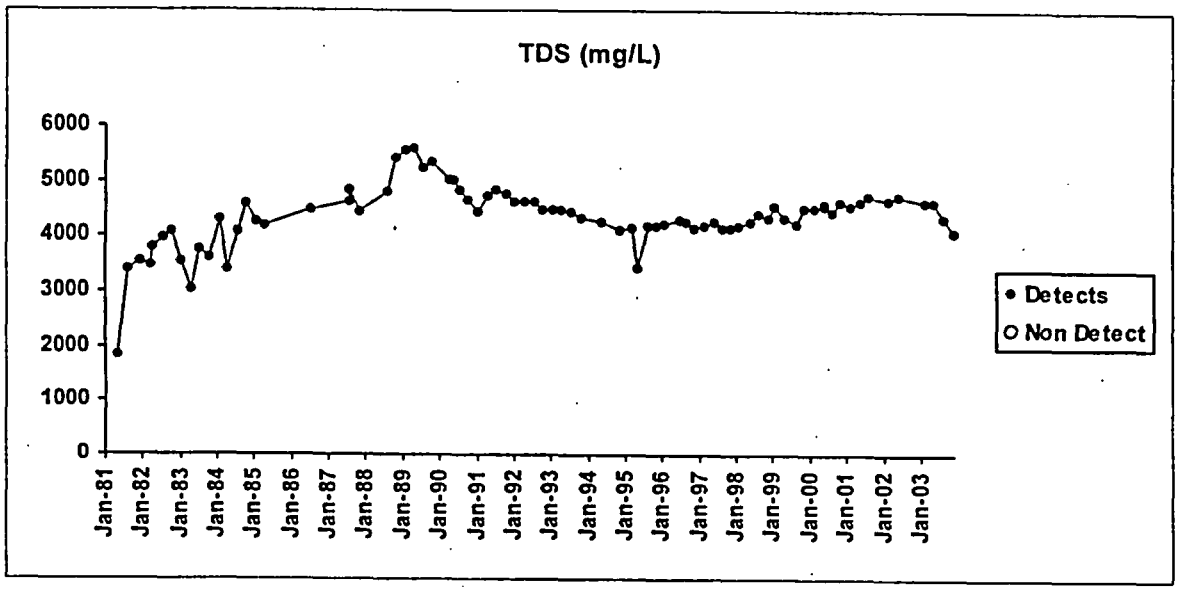

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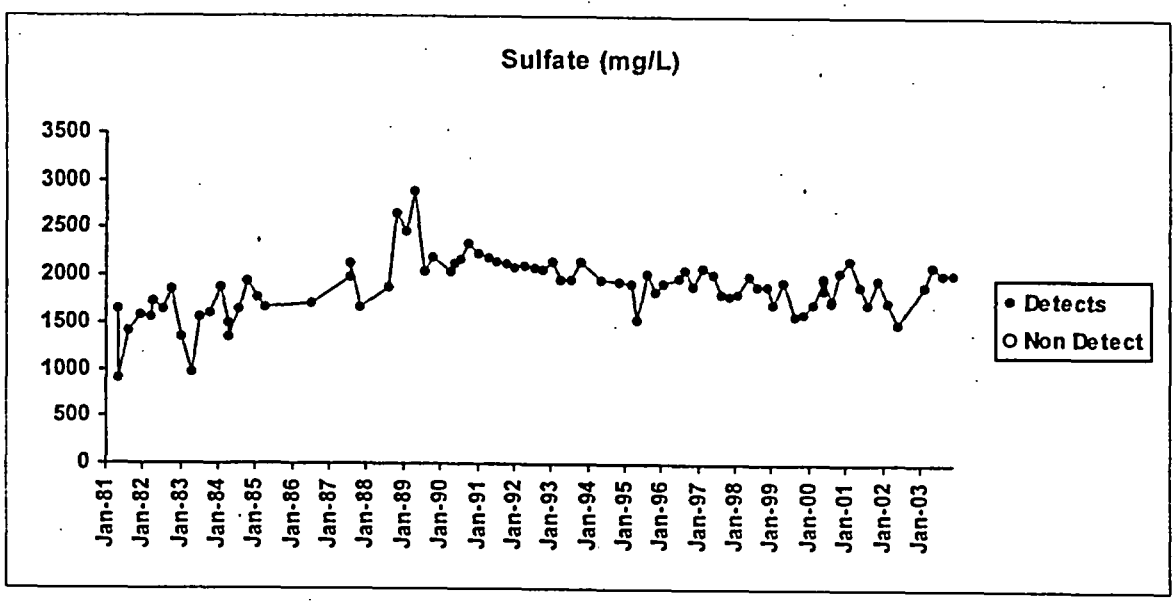

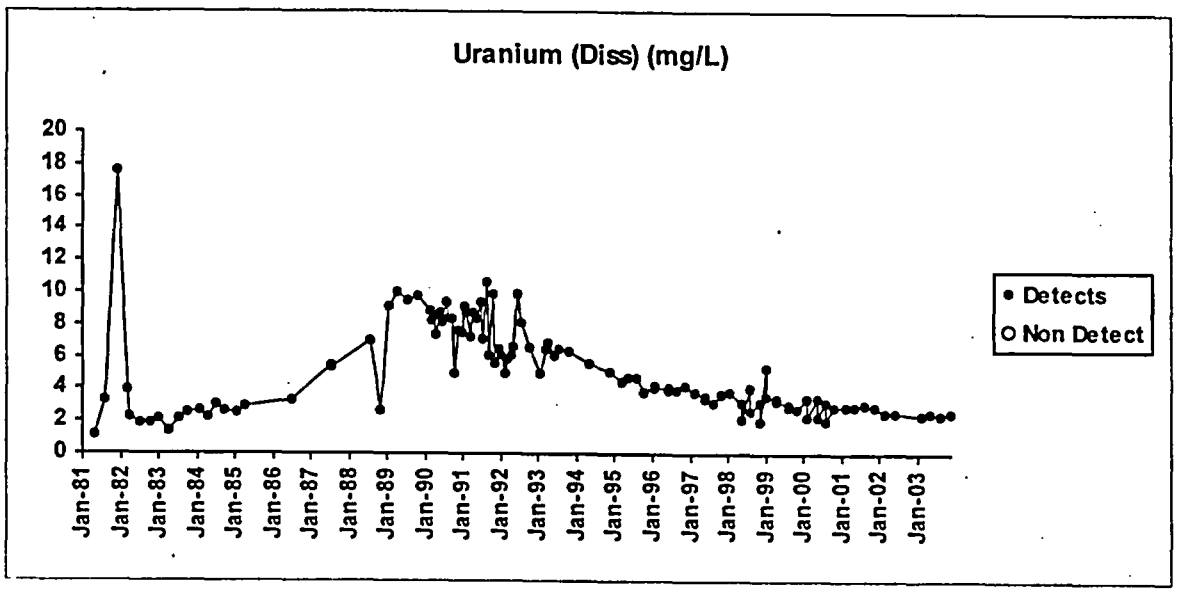

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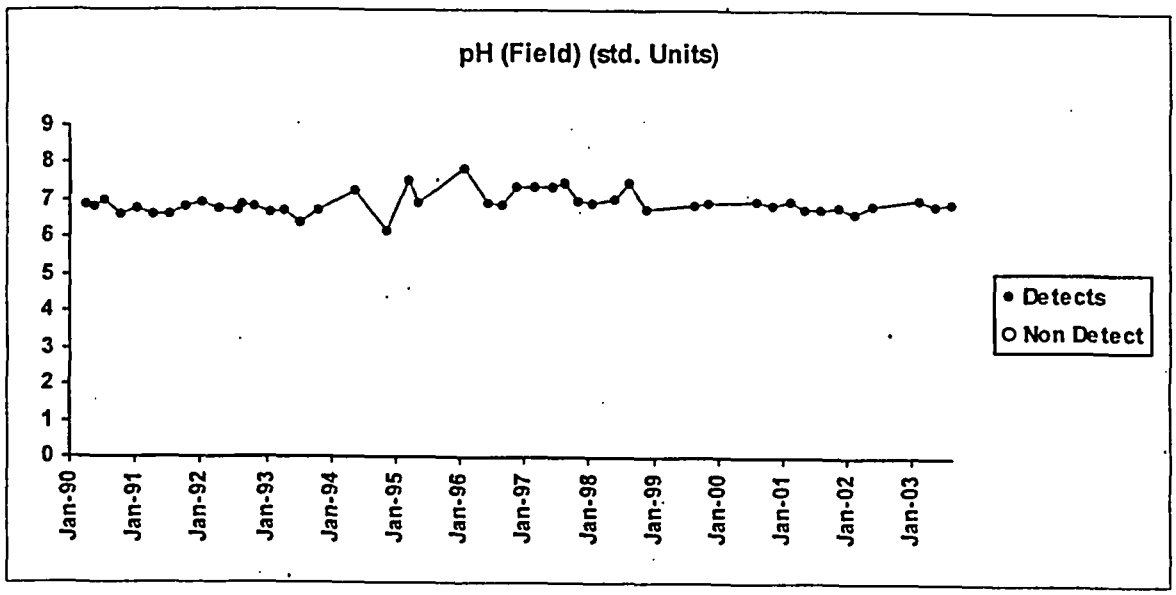

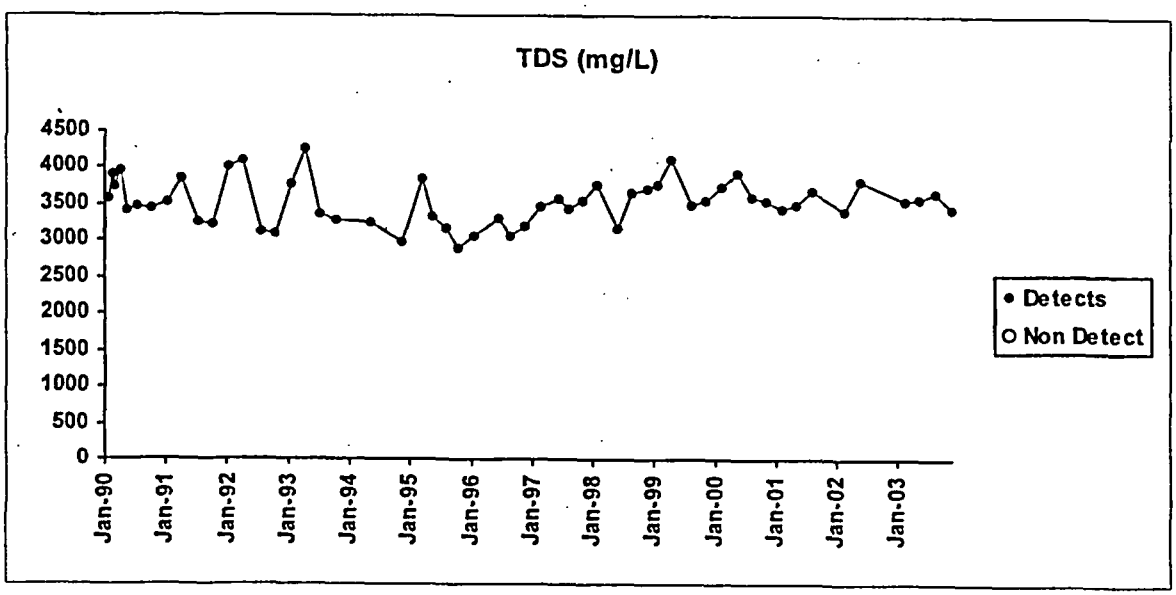

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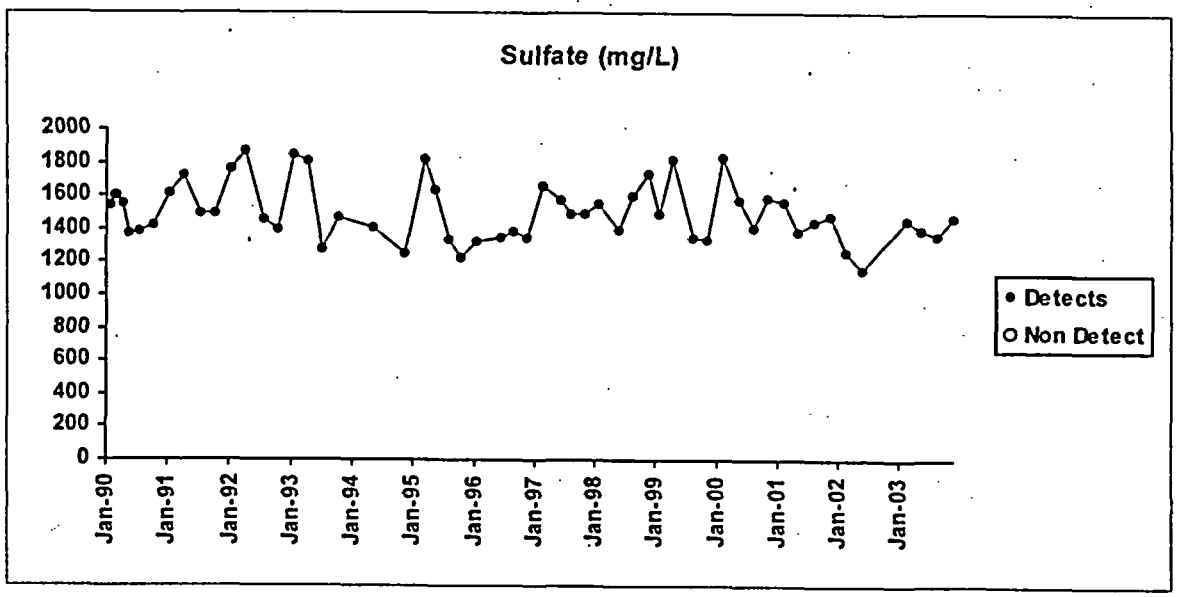

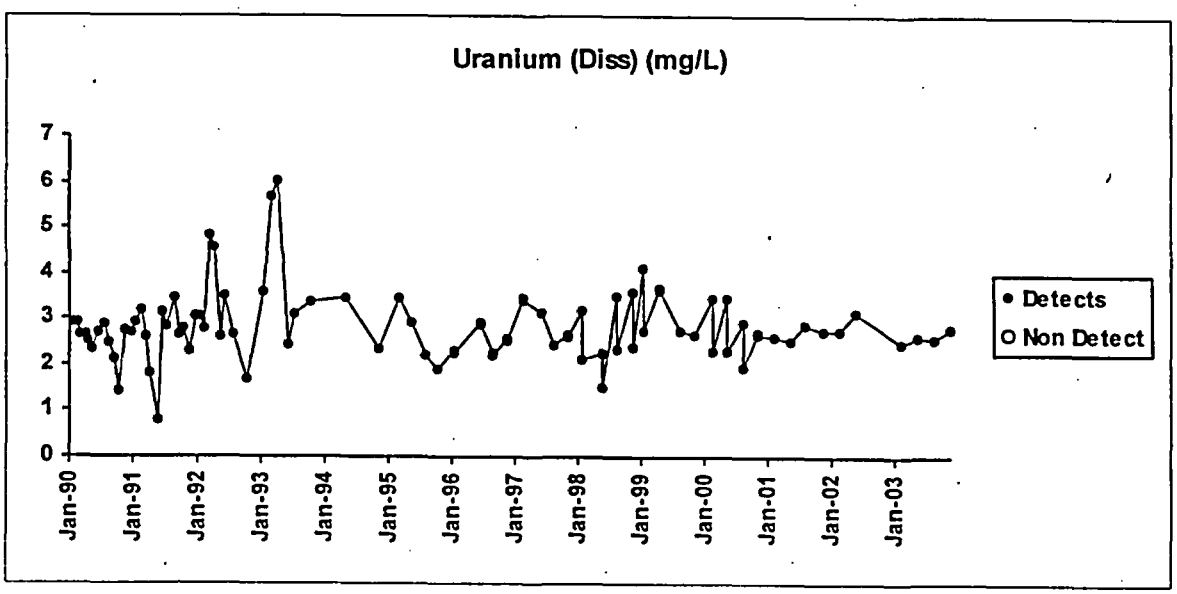

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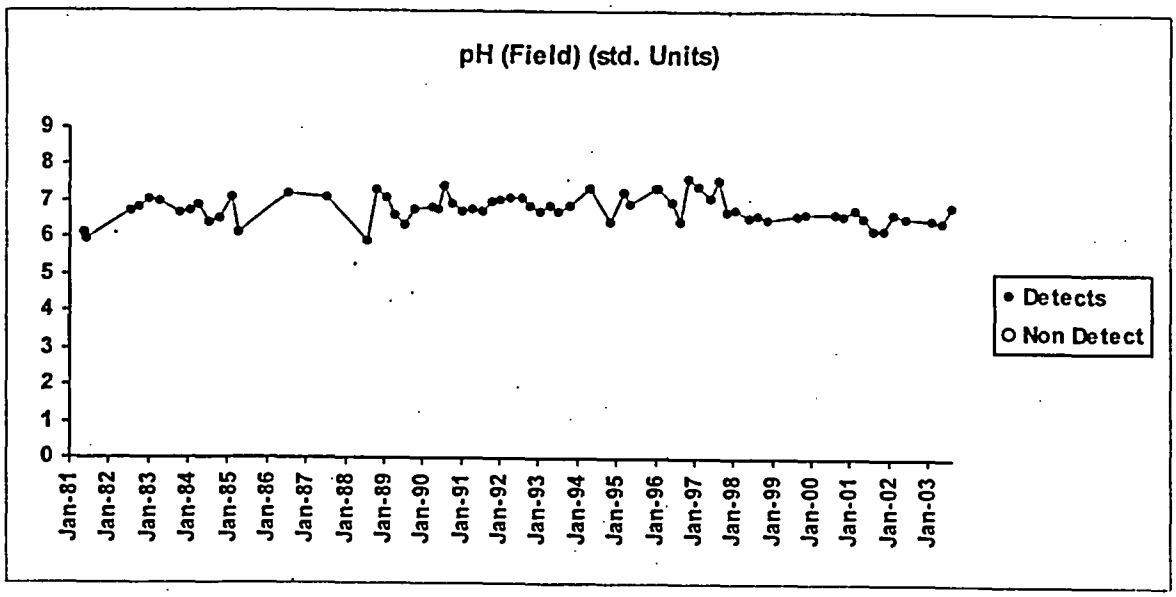

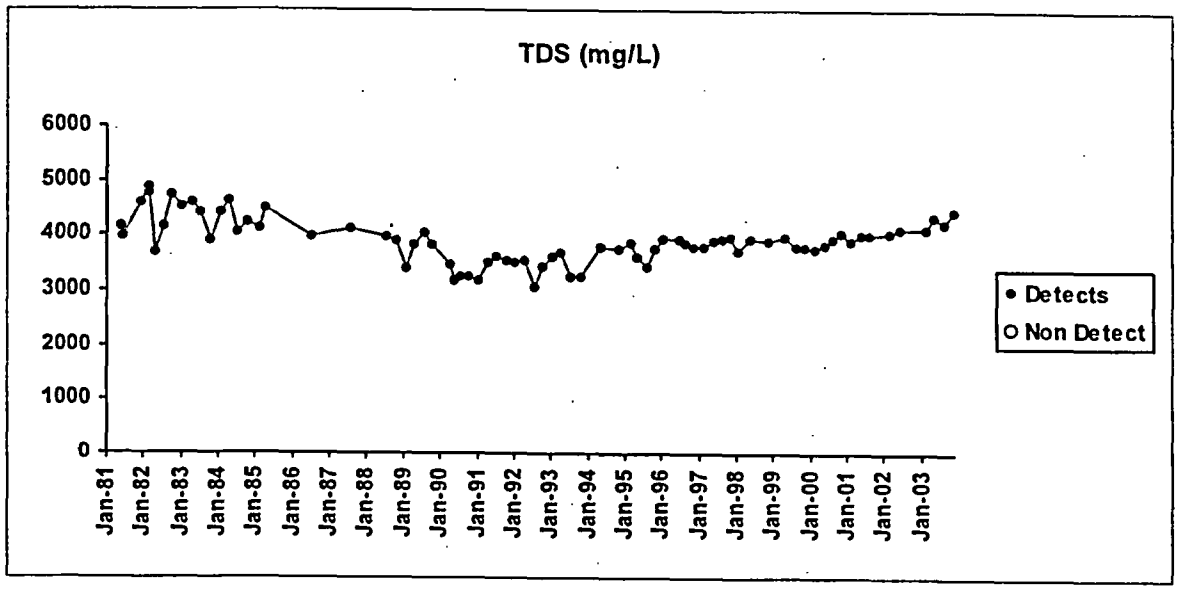

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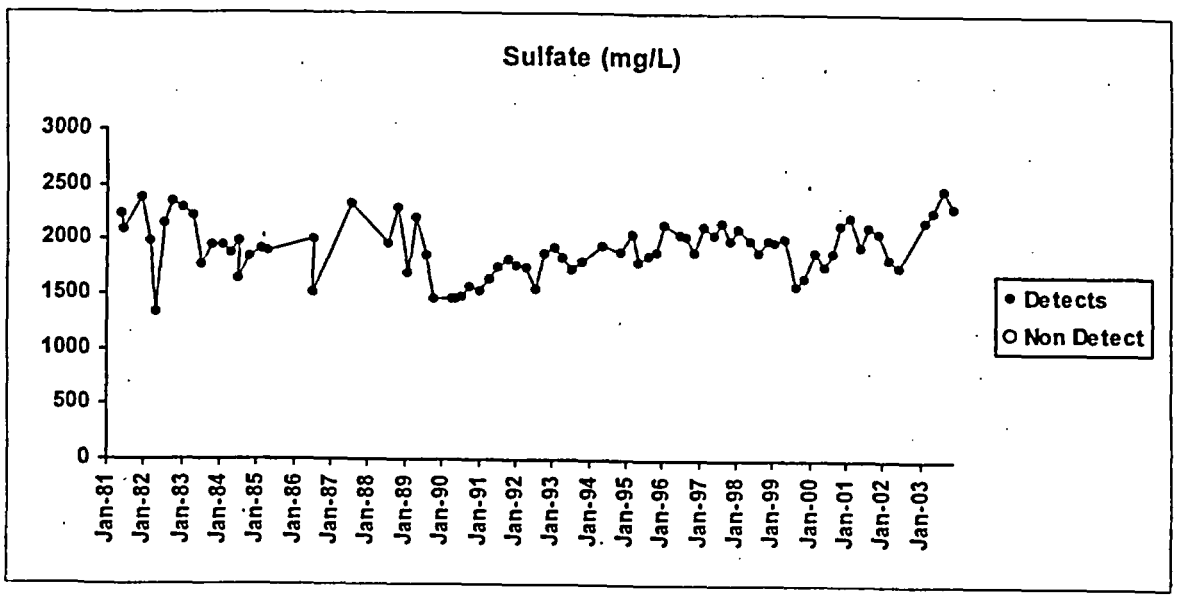
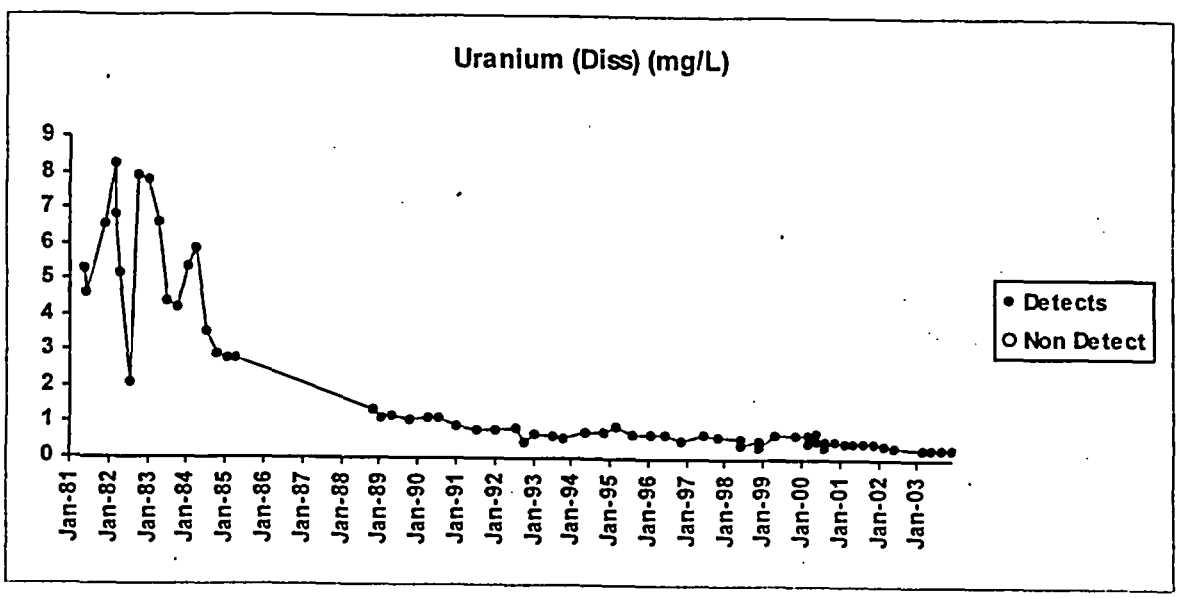
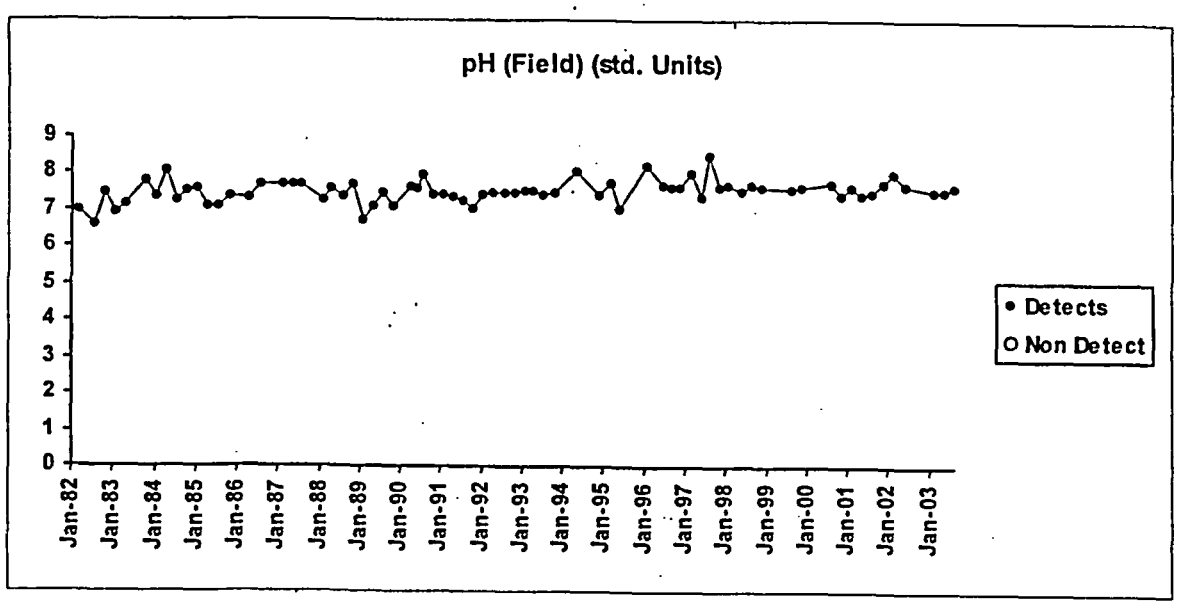
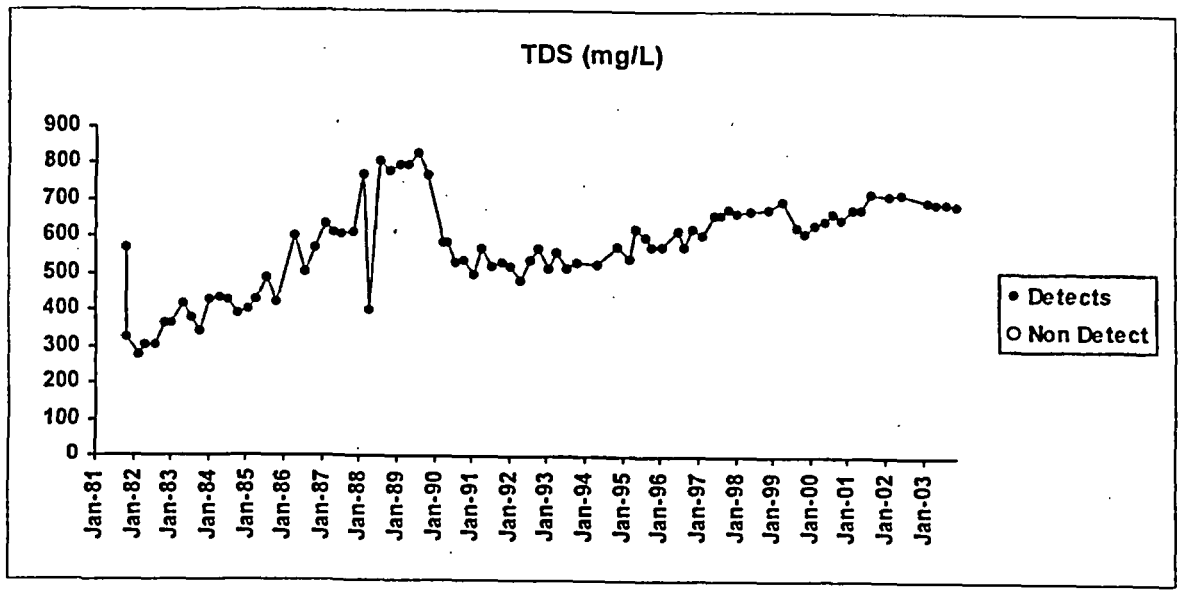




Jeffrey City WN-15





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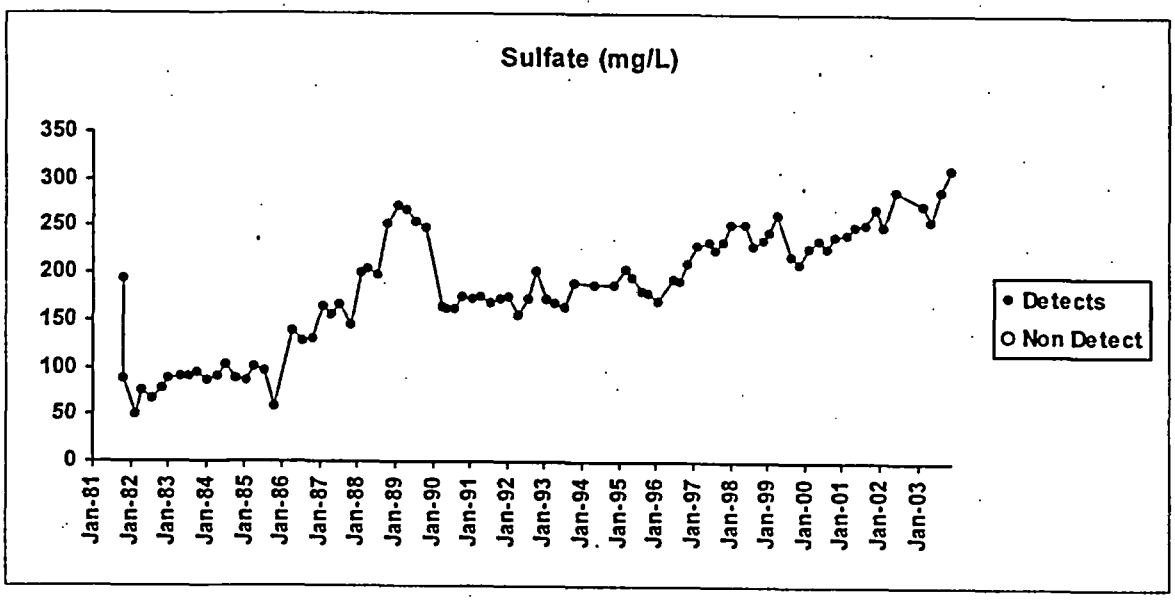

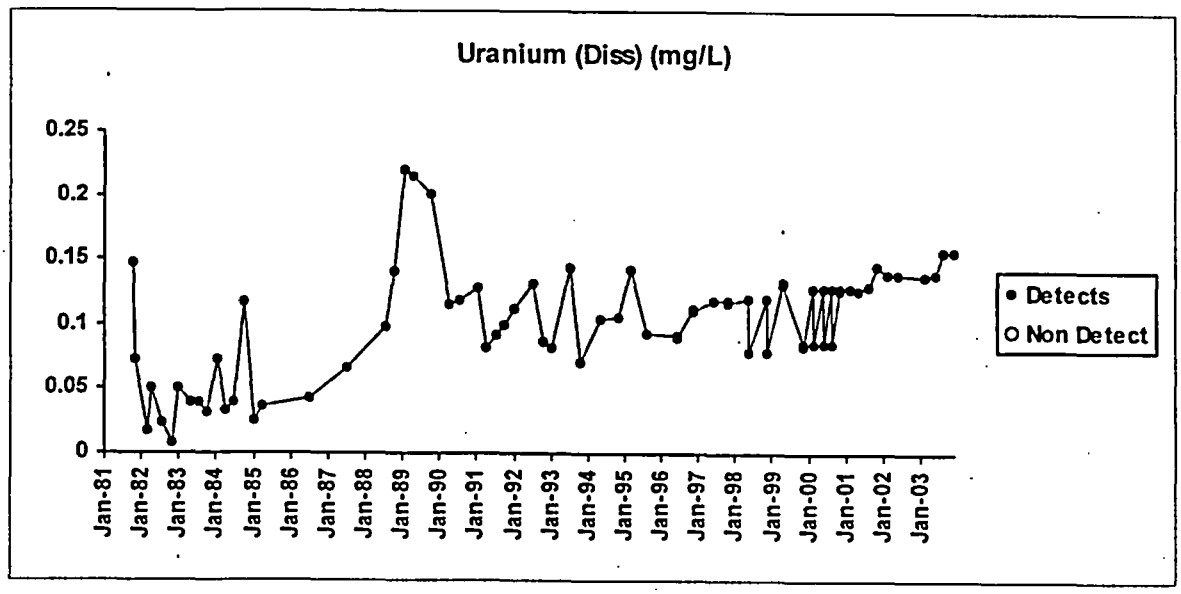

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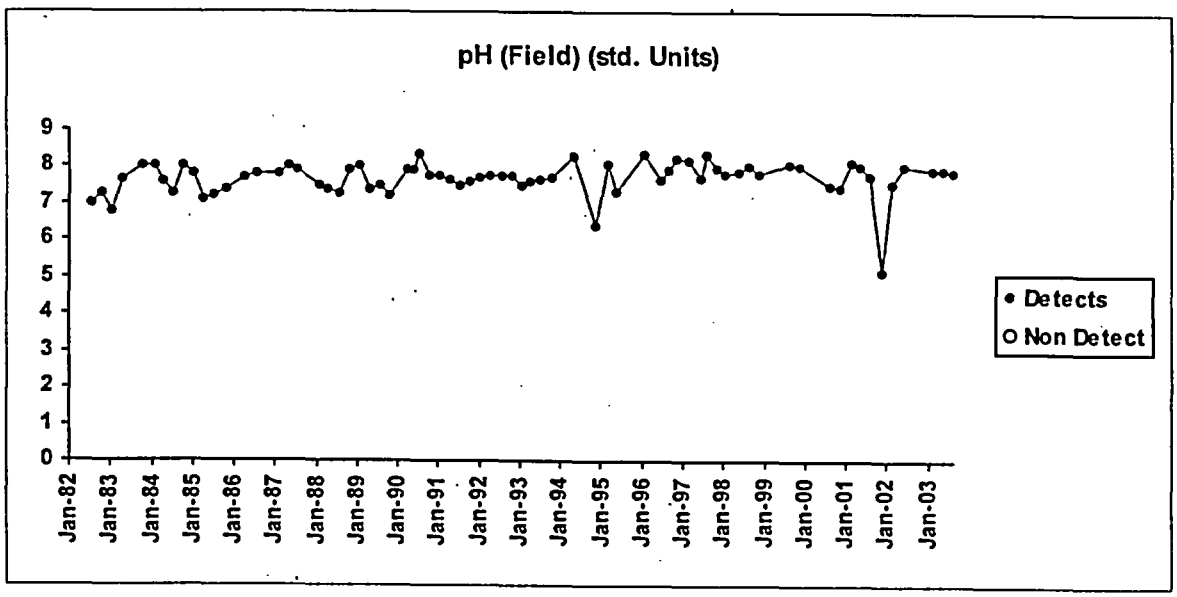

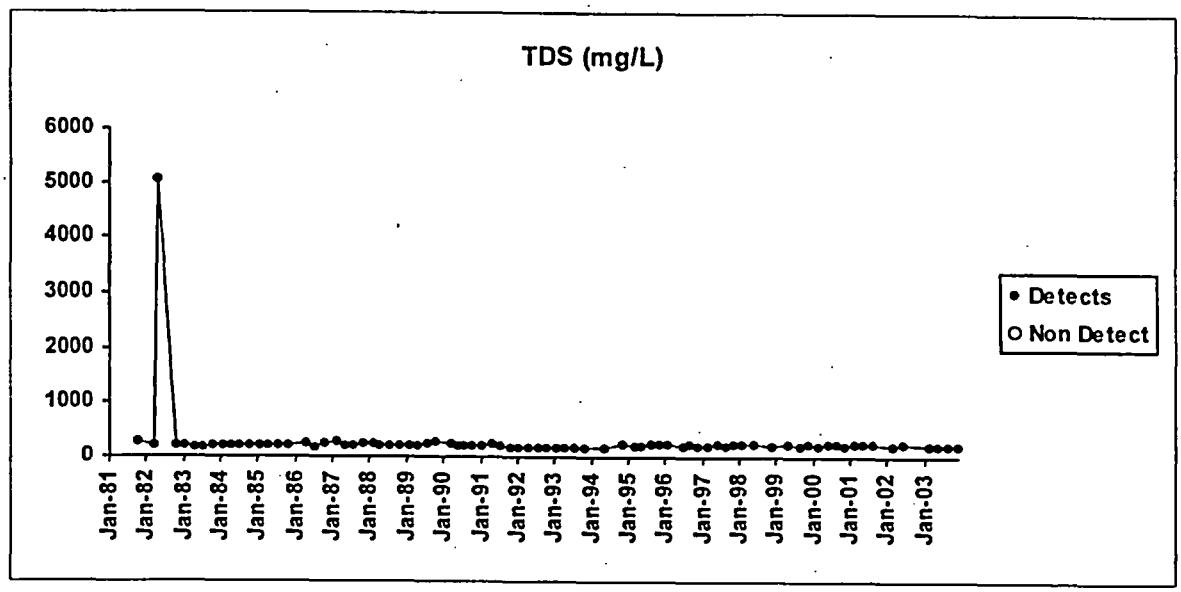

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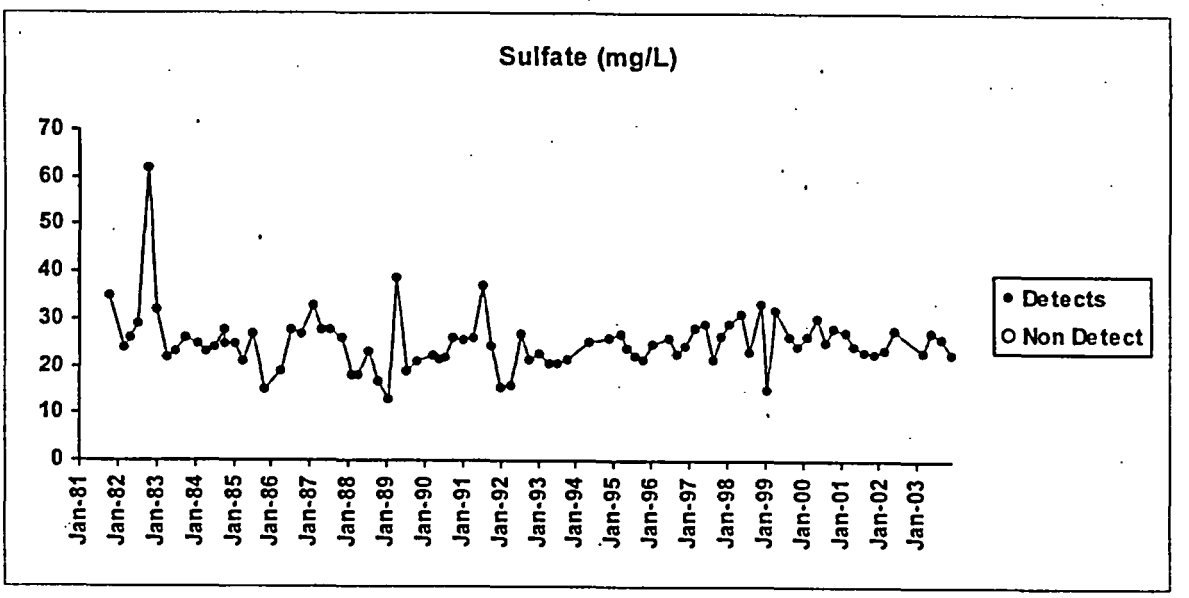

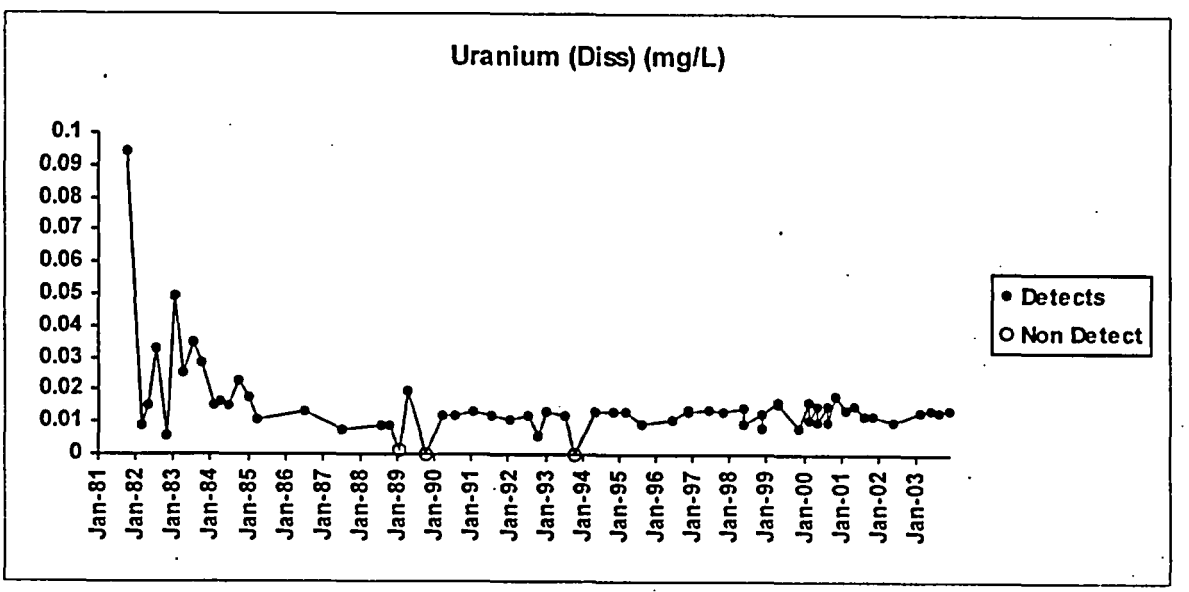

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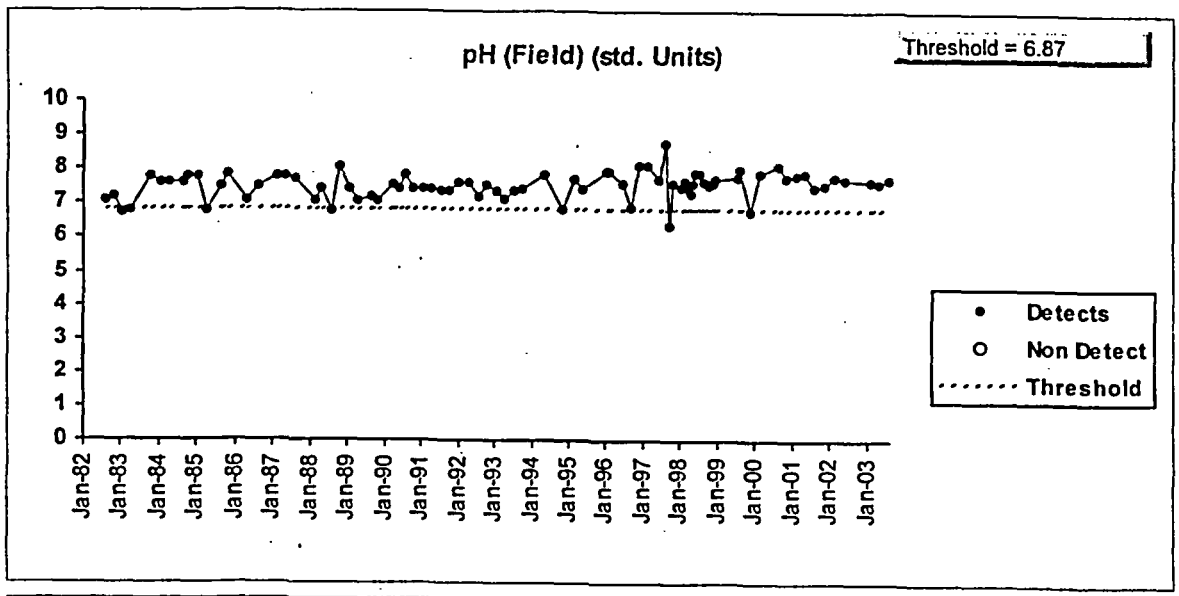

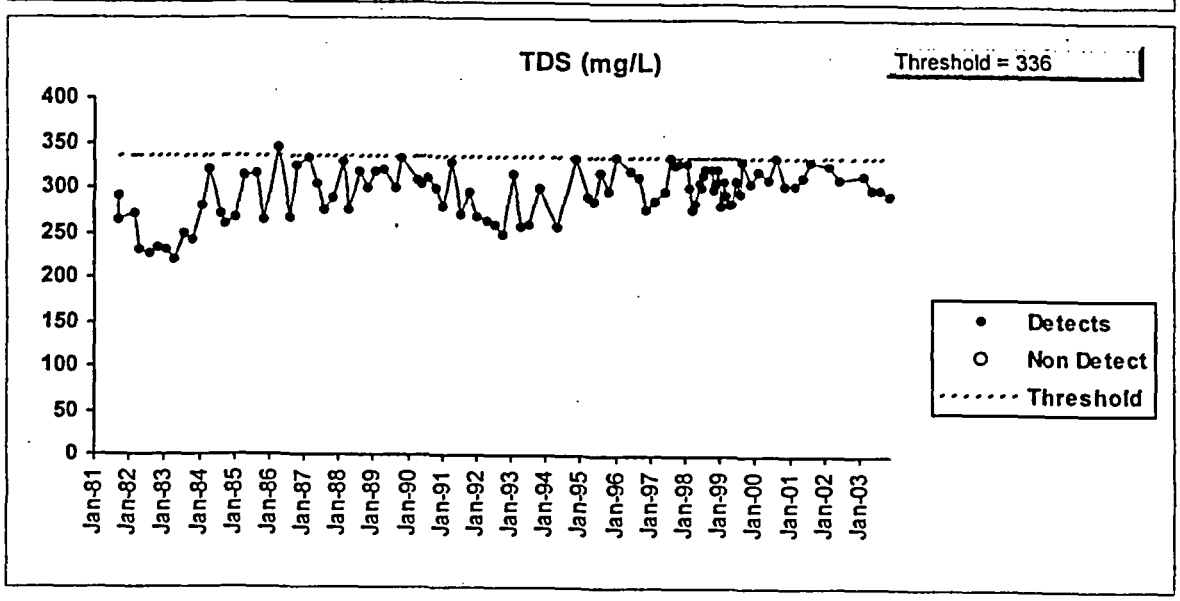

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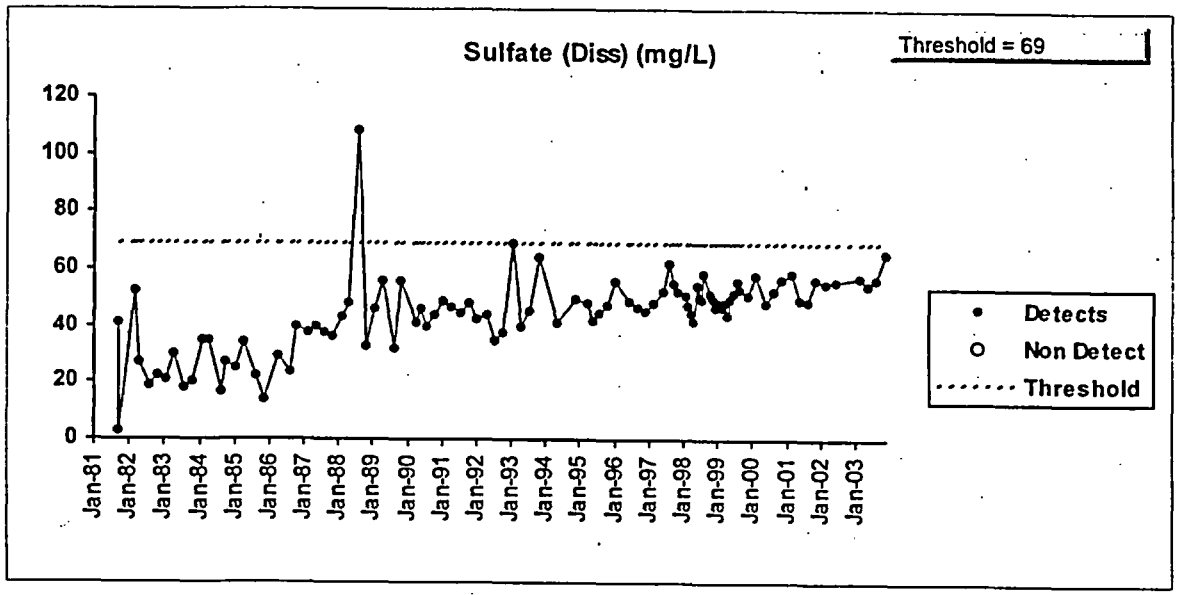
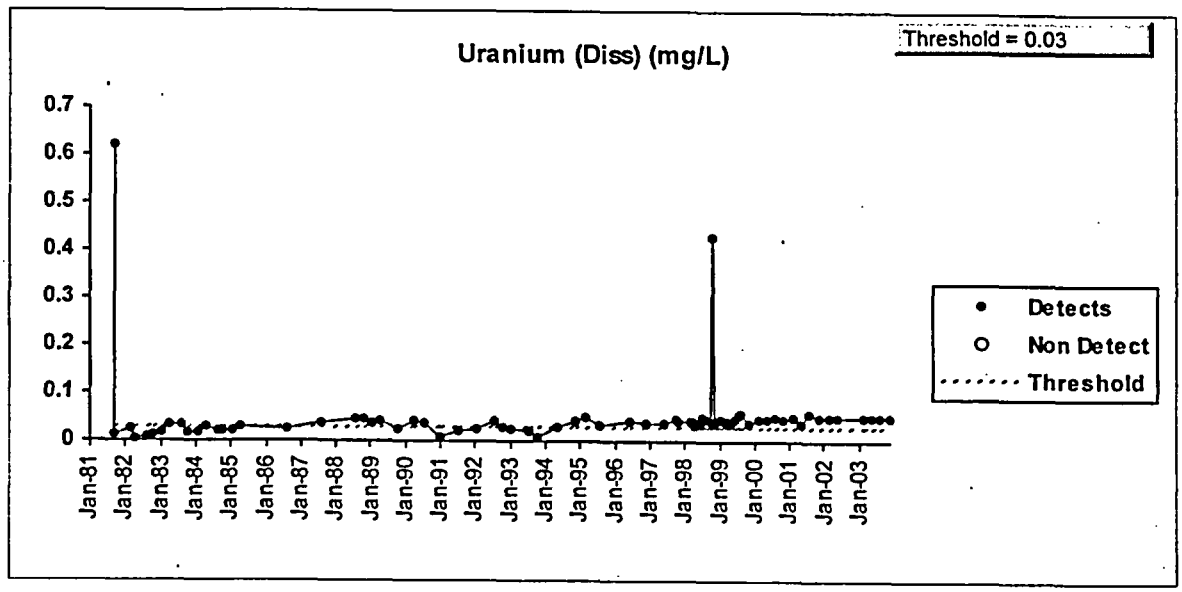
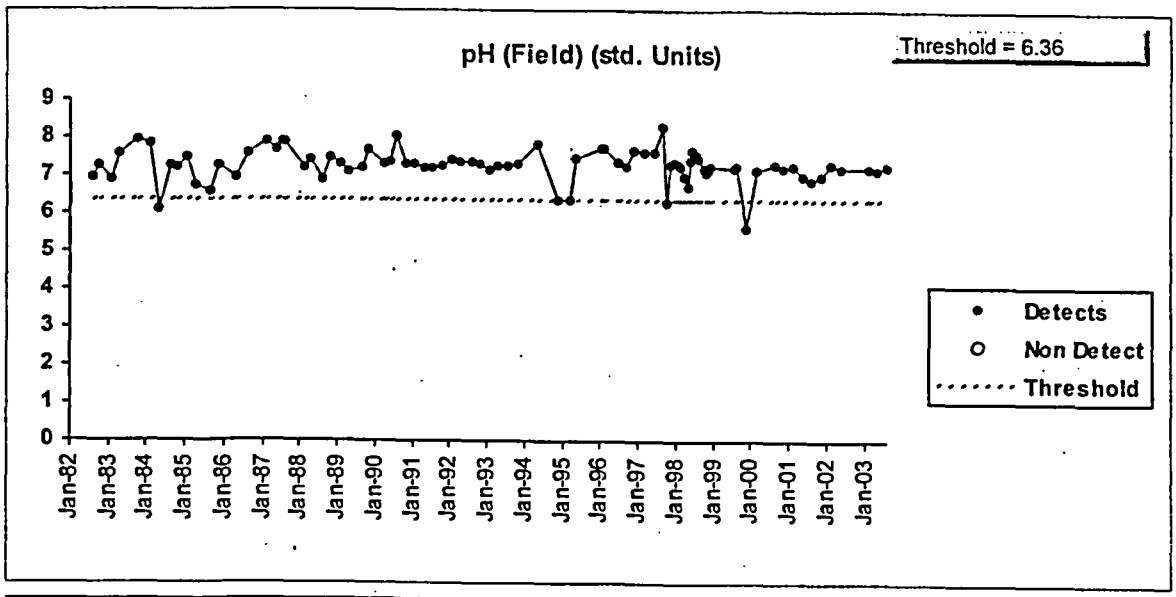
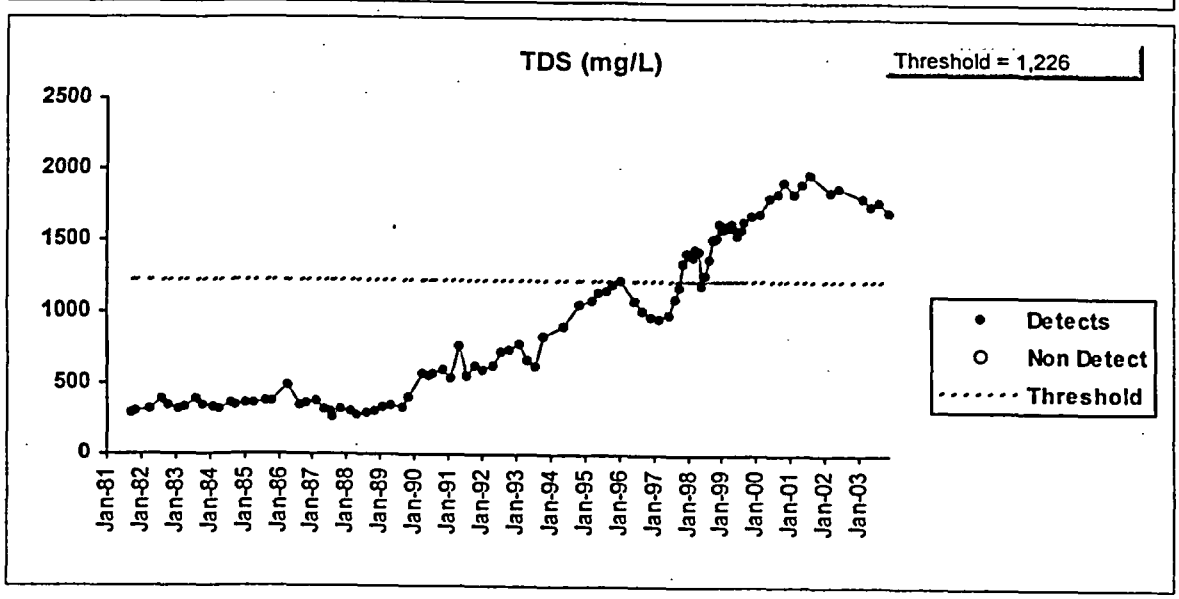


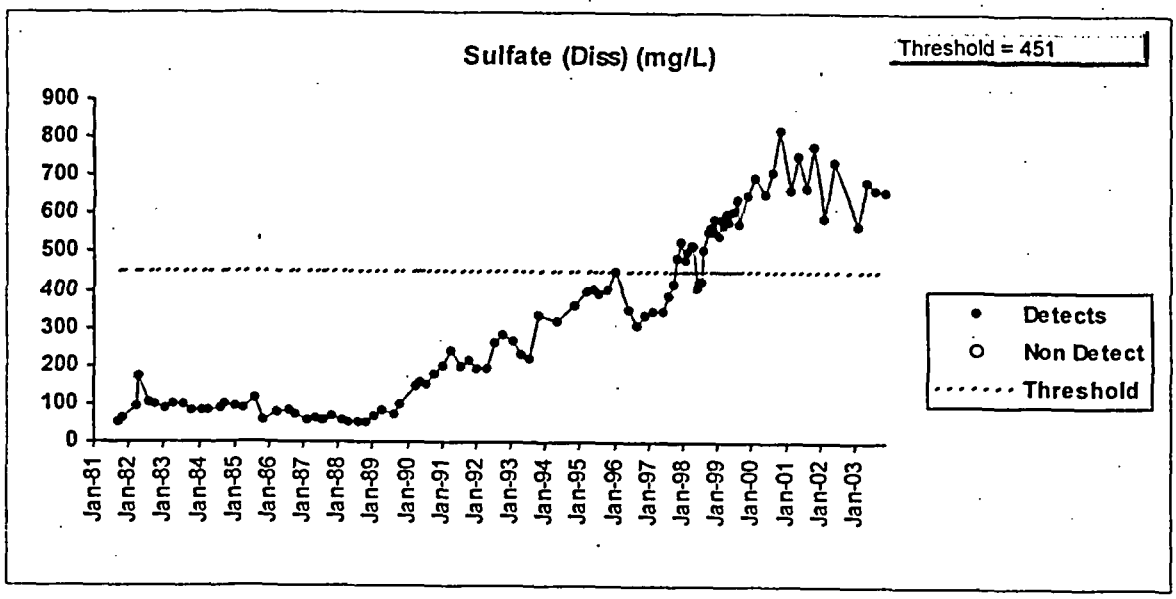


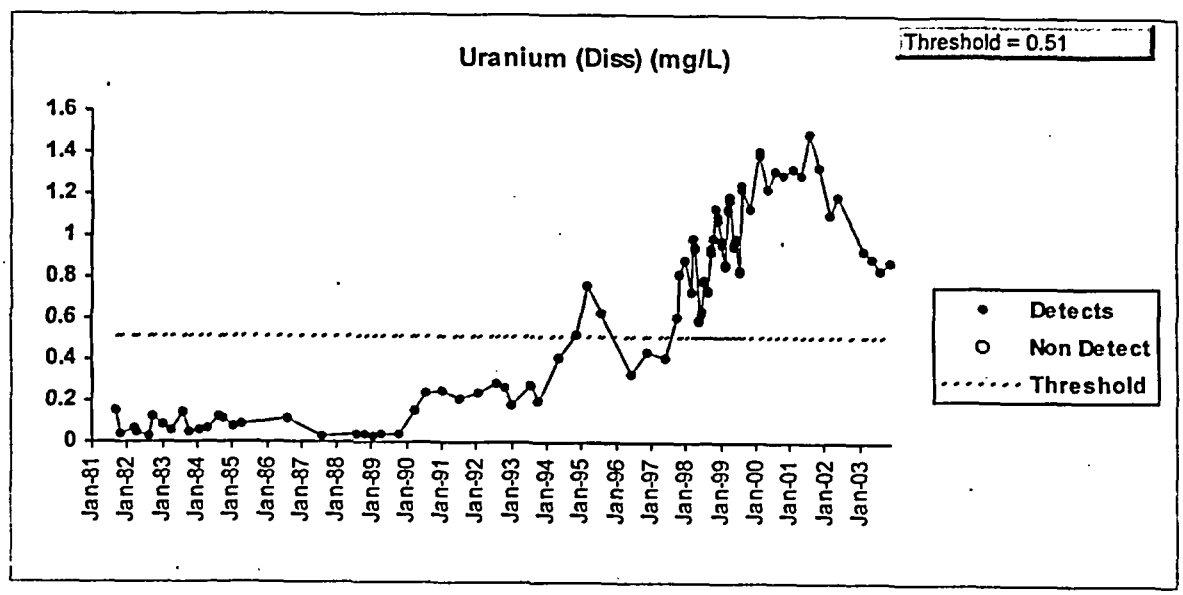
Jeffrey City WN-18



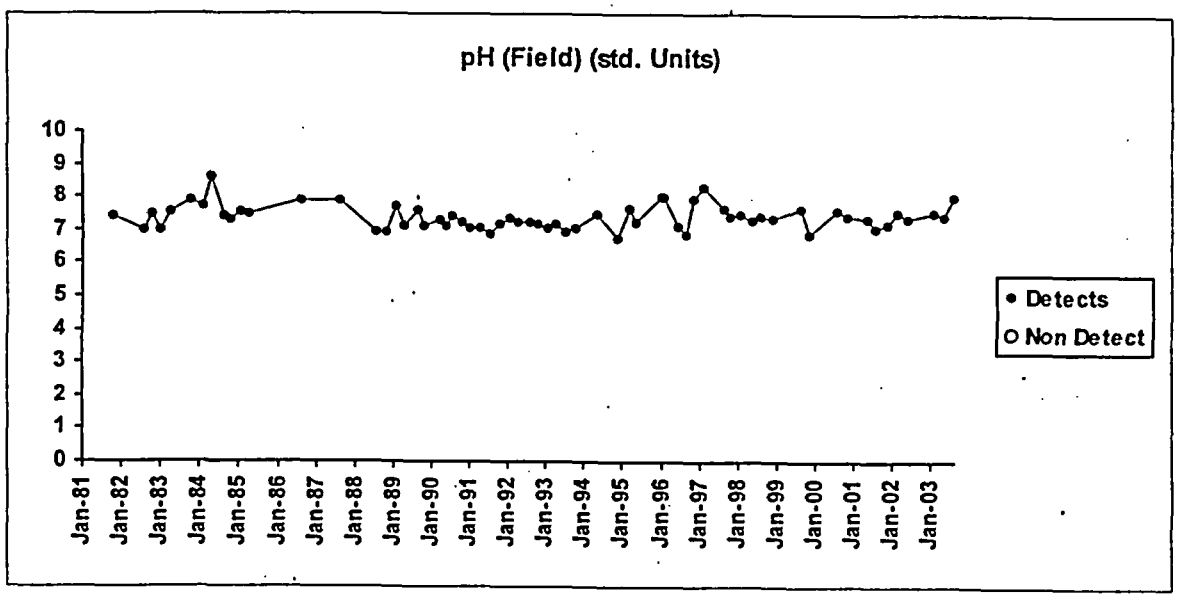


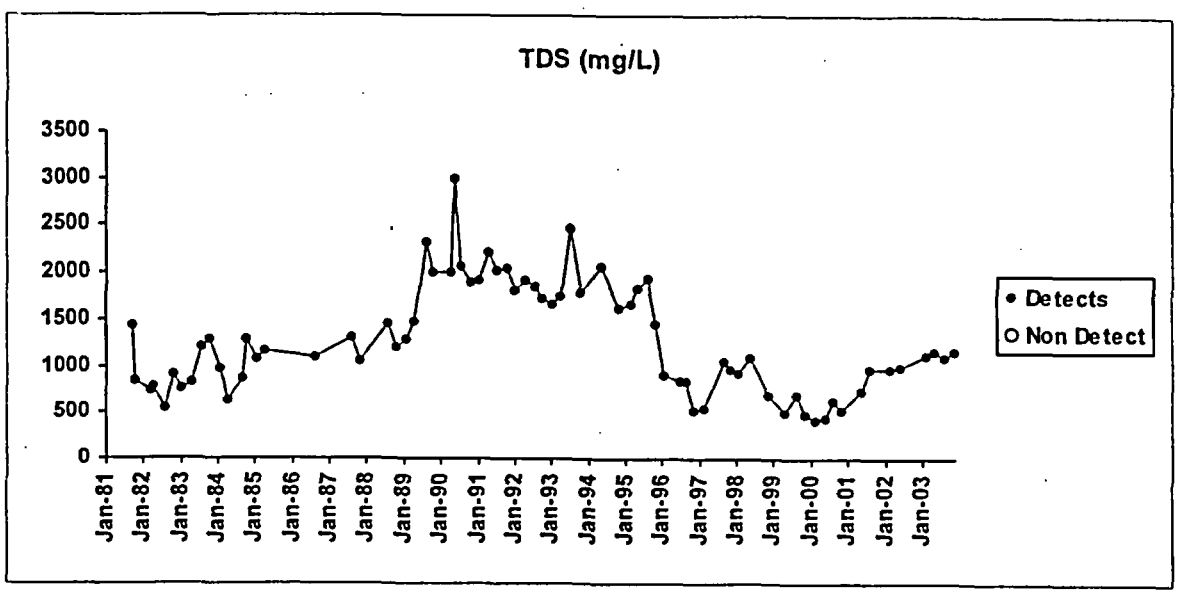
Jeffrey City WN-18



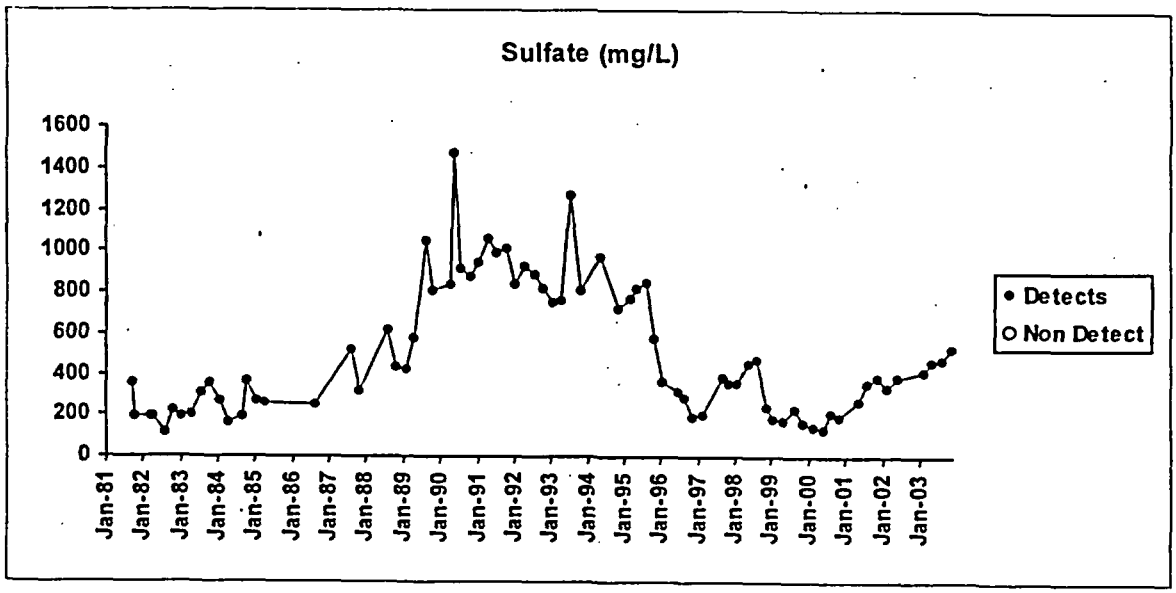


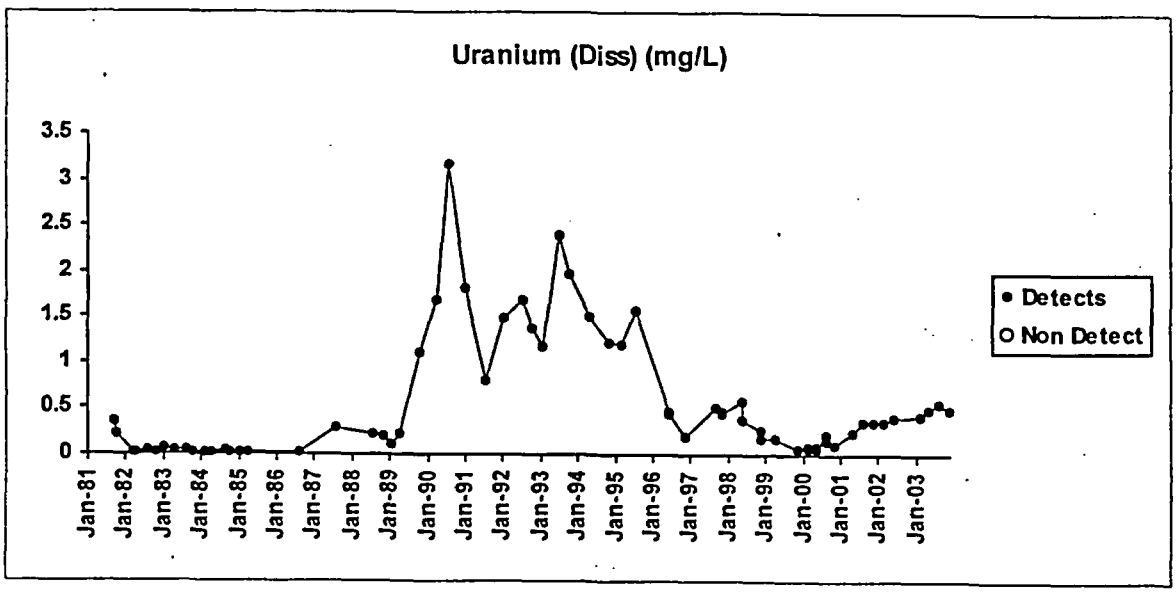
Jeffrey City WN-19



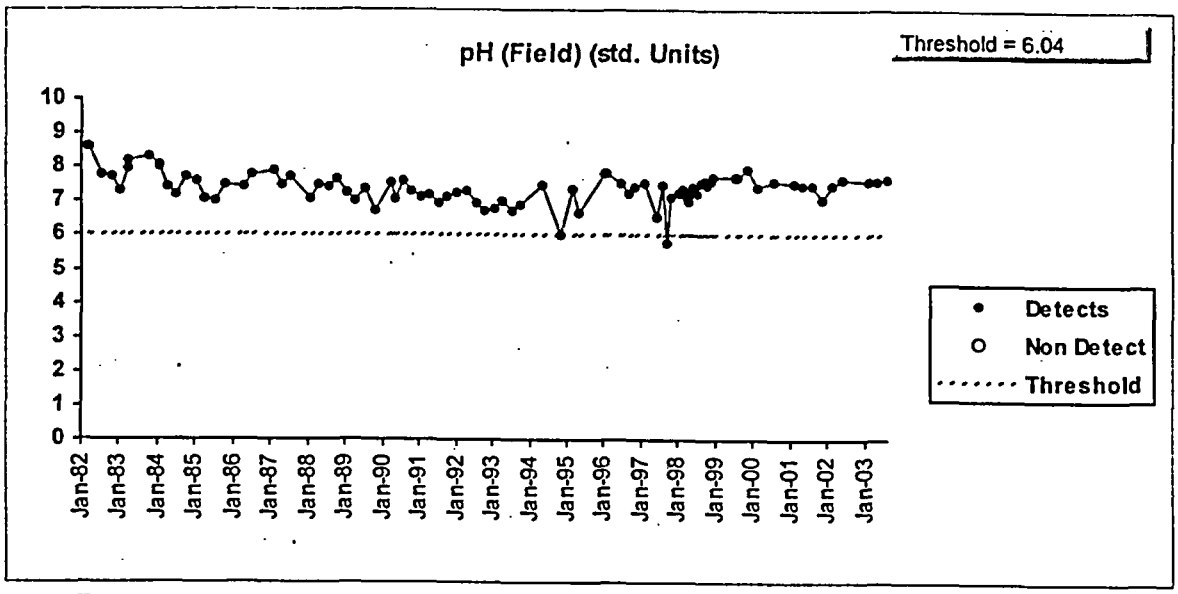


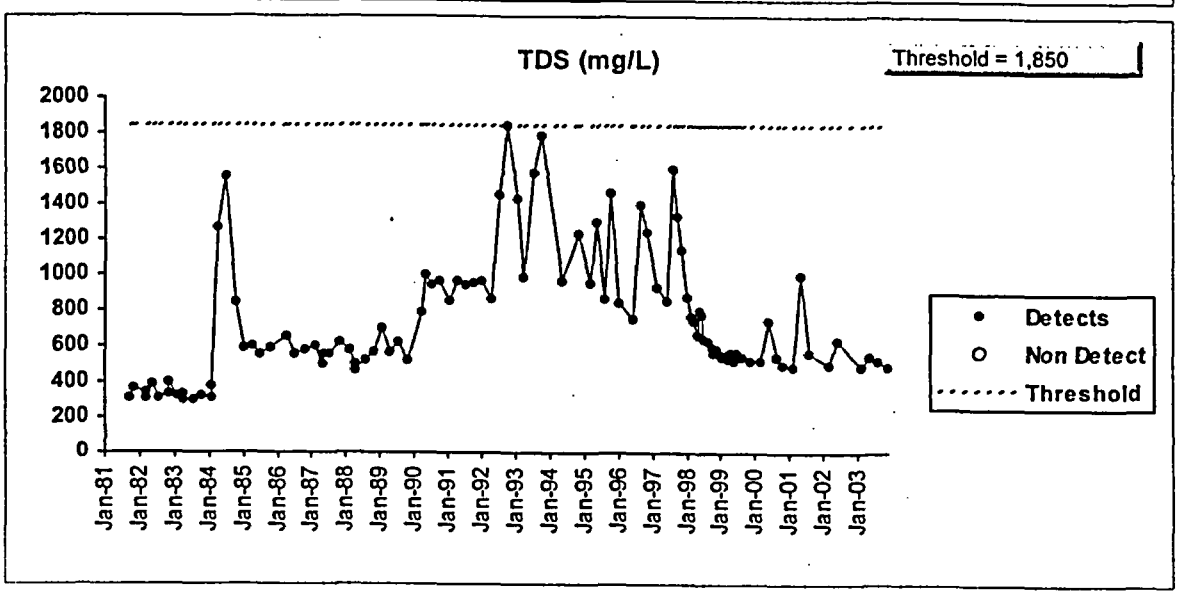
Jeffrey City WN-19



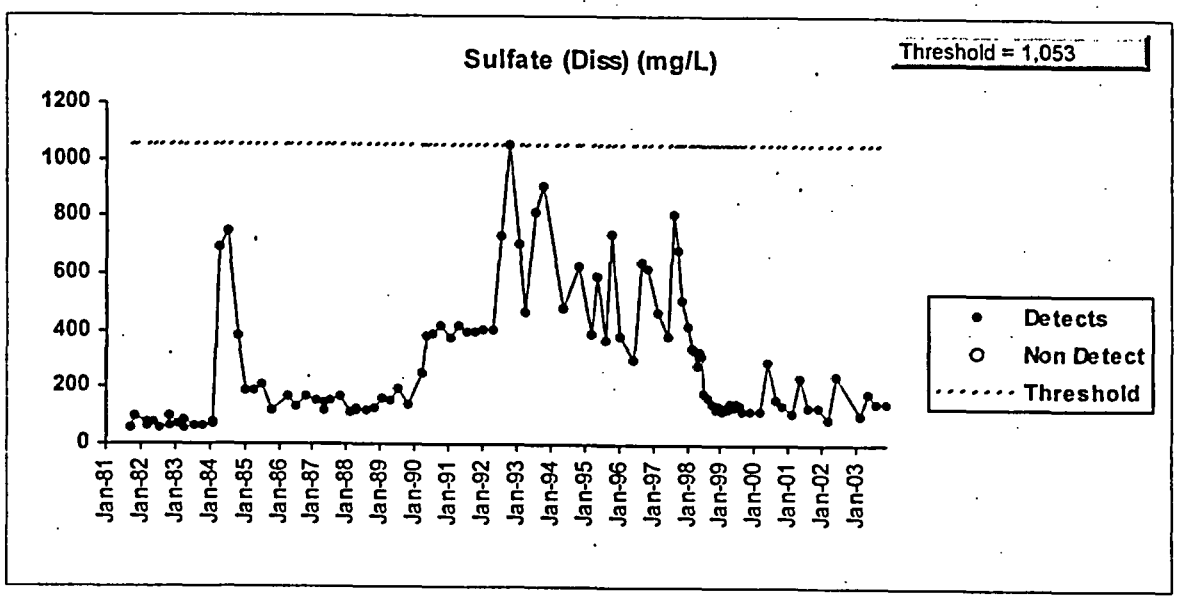


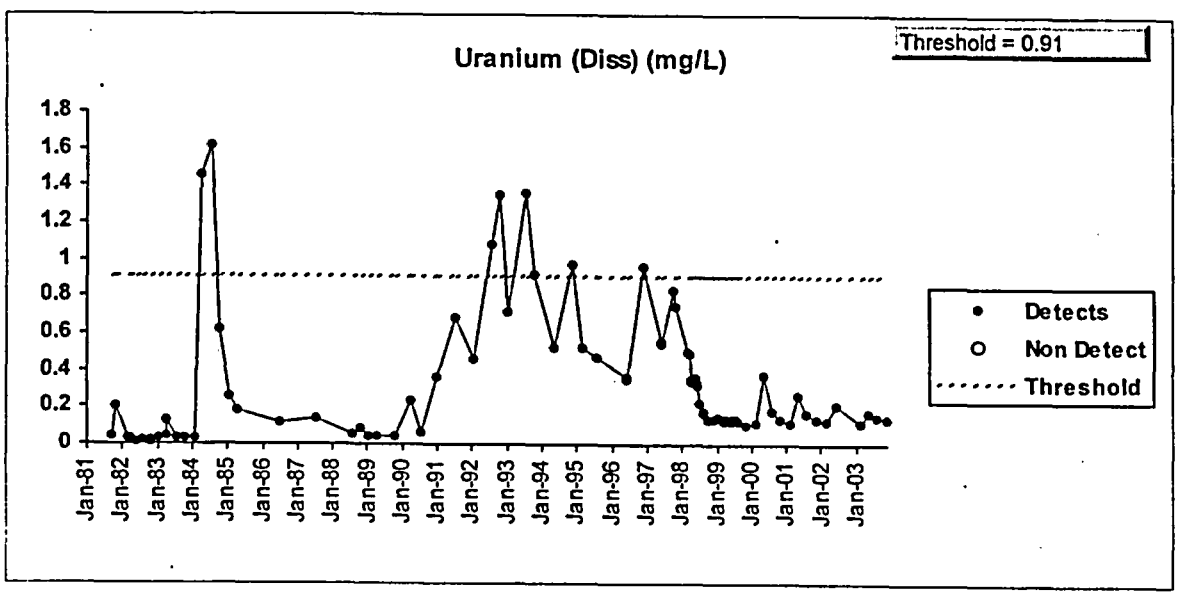
Jeffrey City WN-21 (POC)



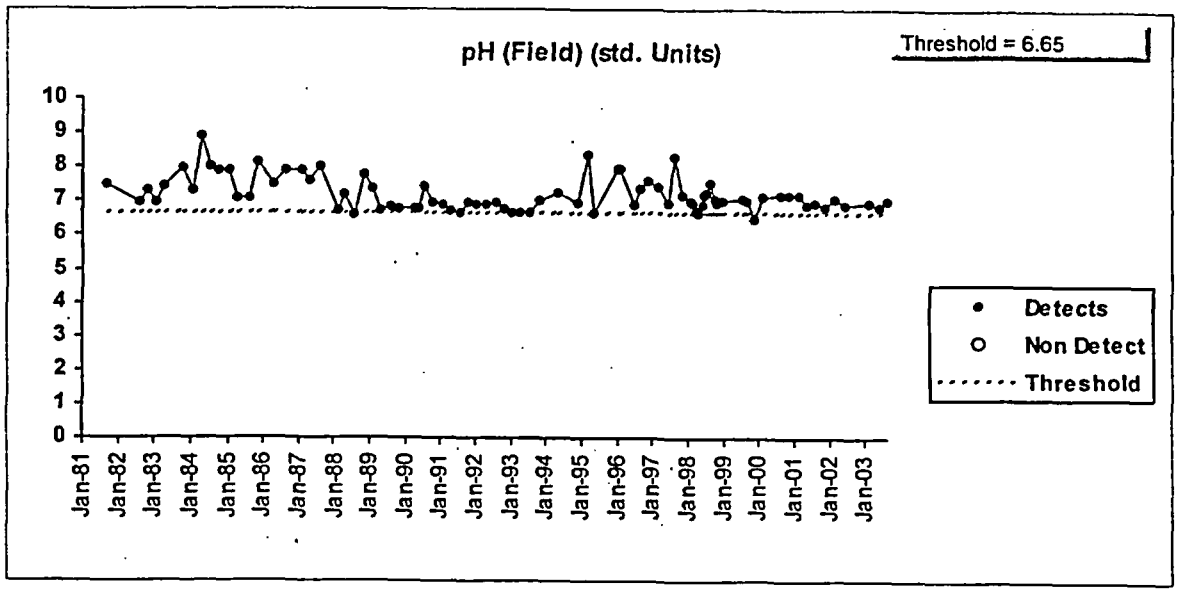


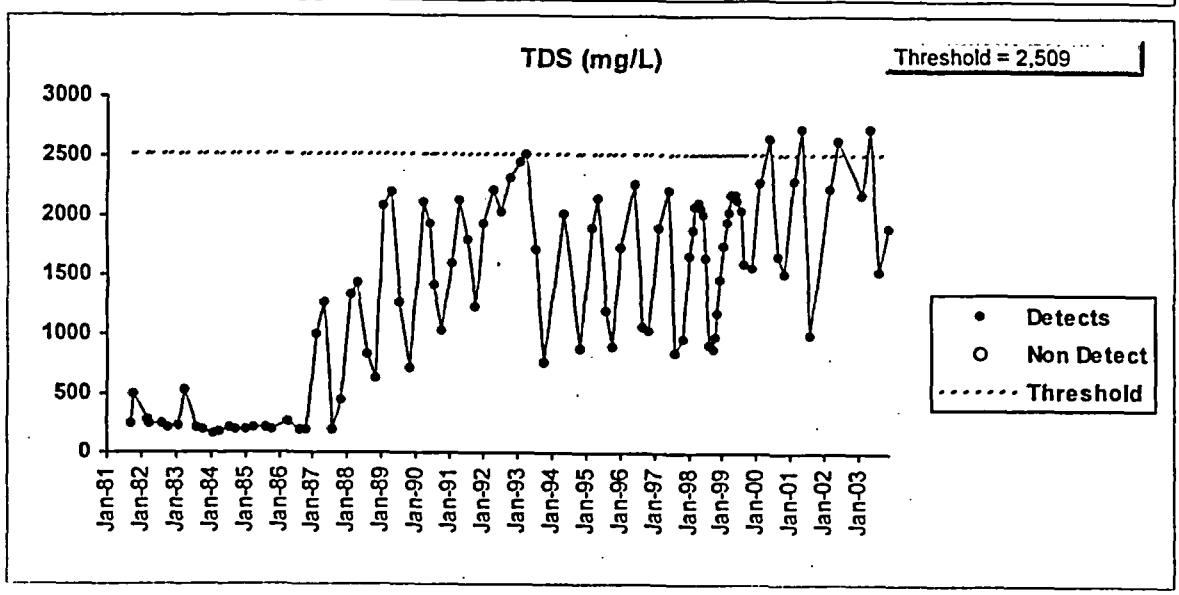
Jeffrey City WN-21 (POC)



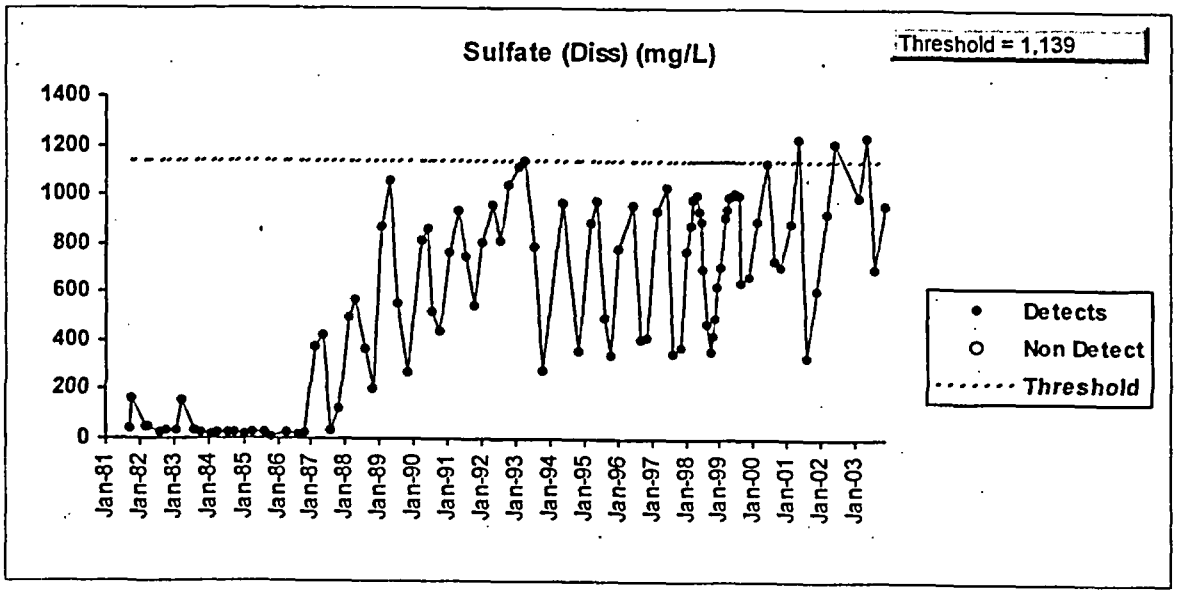


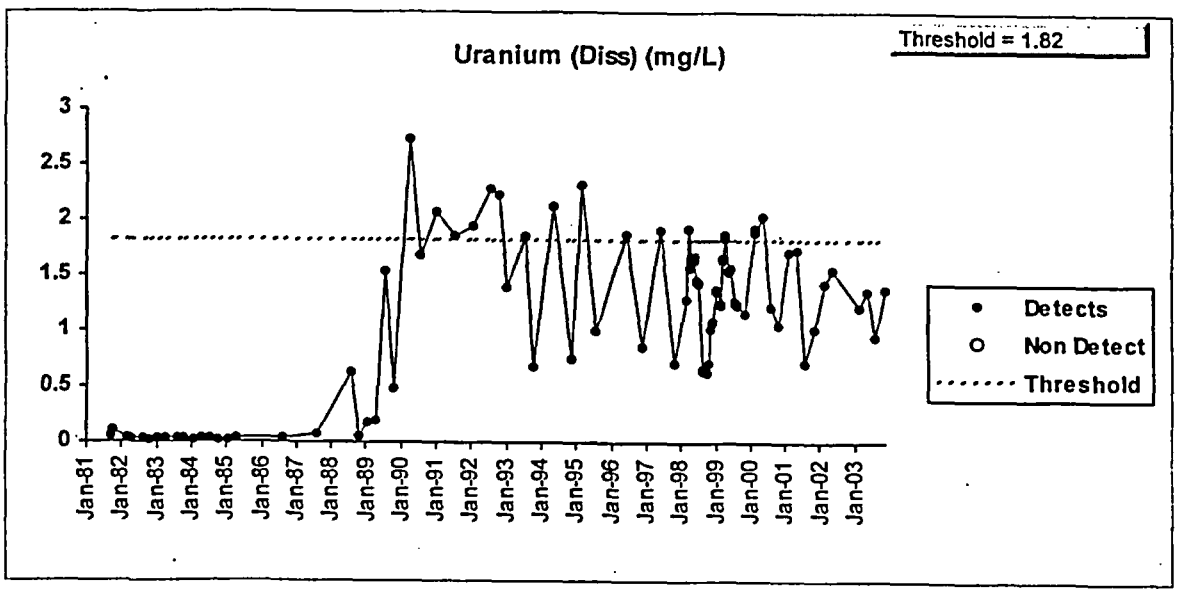
Jeffrey City WN-23



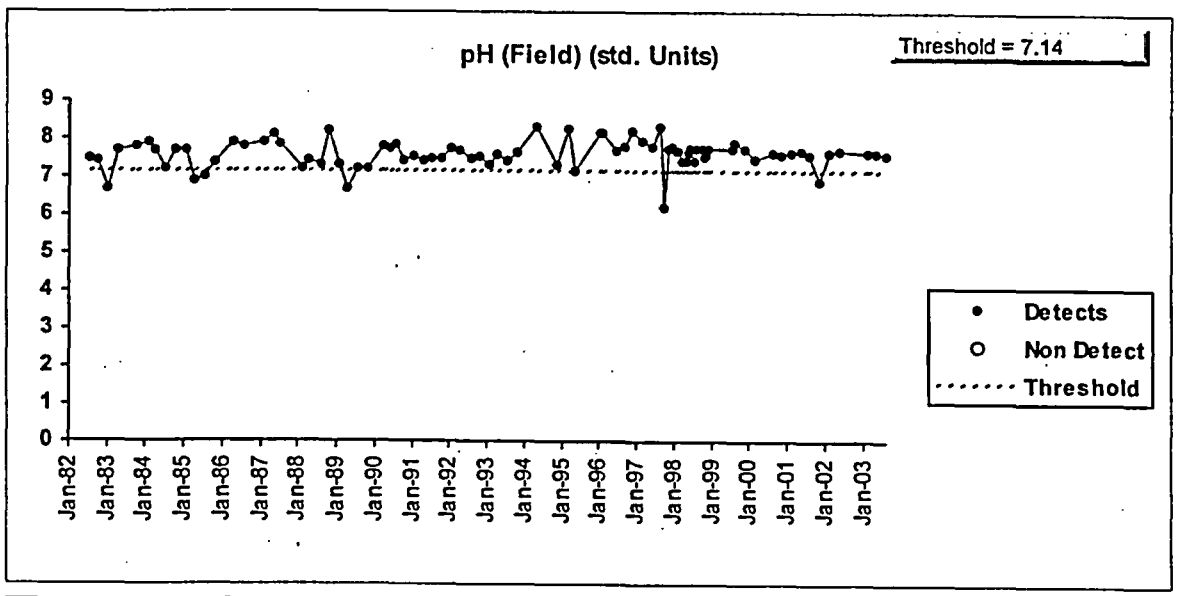


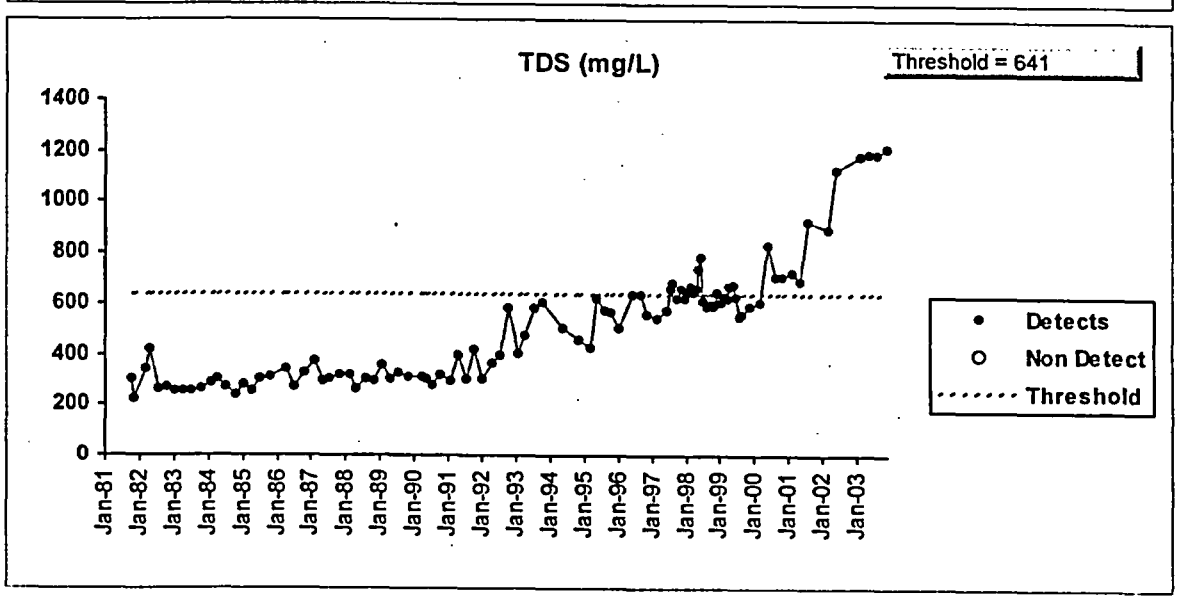
Jeffrey City WN-23



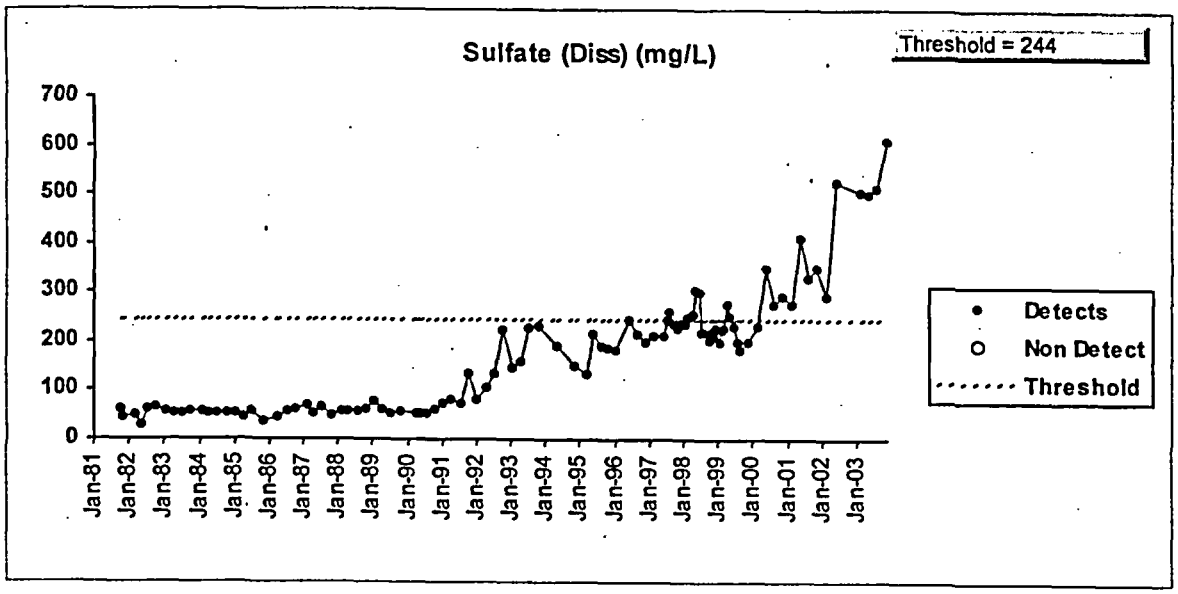


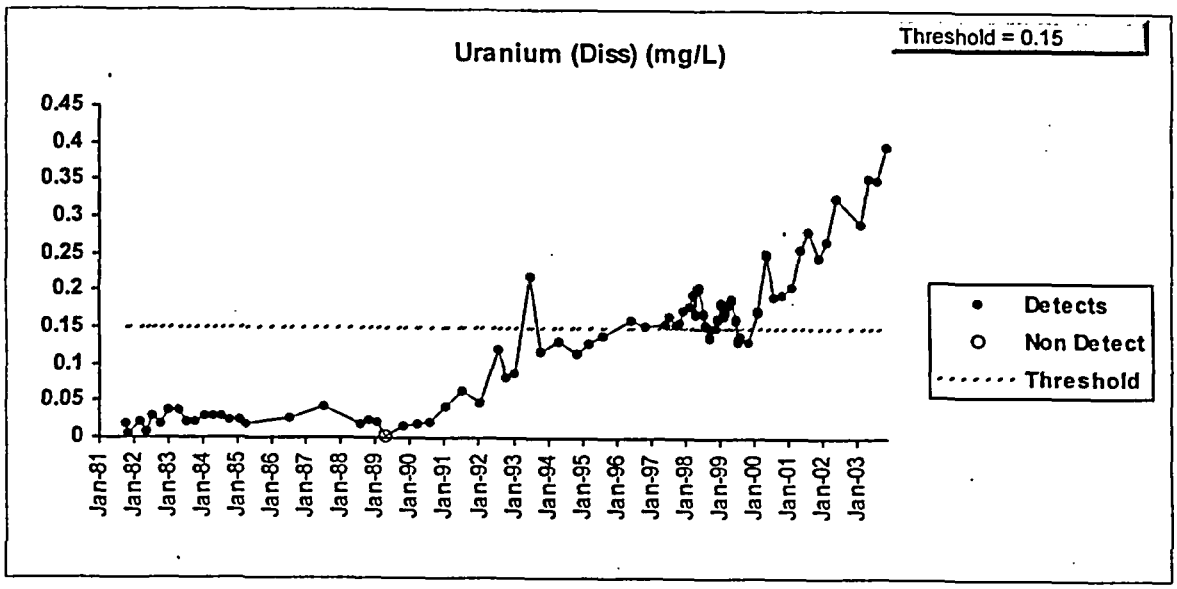
Jeffrey City WN-24



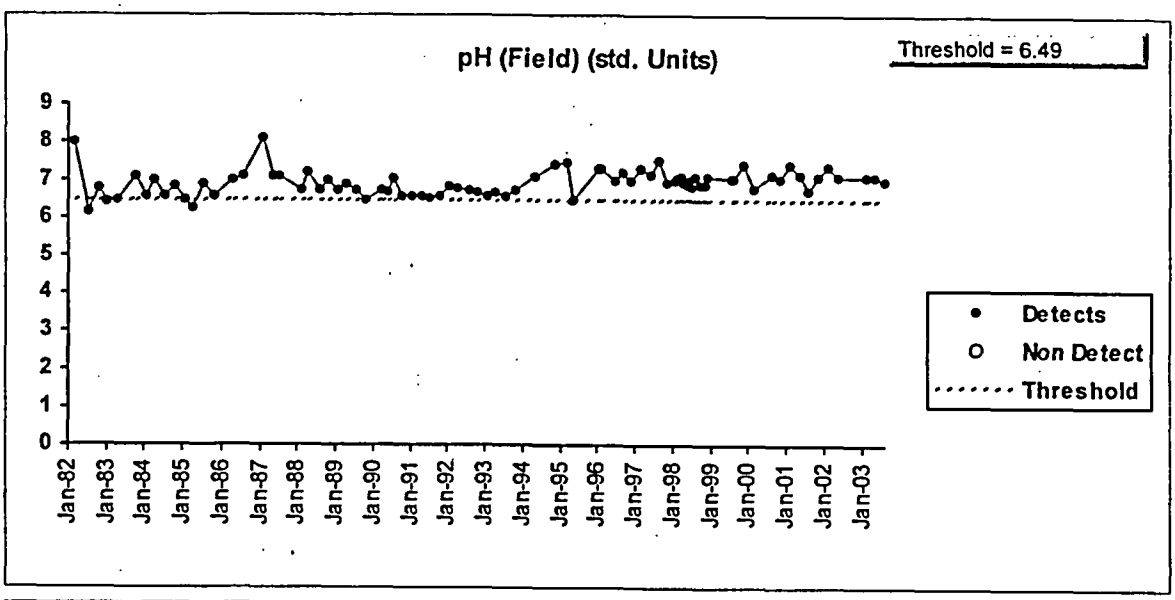


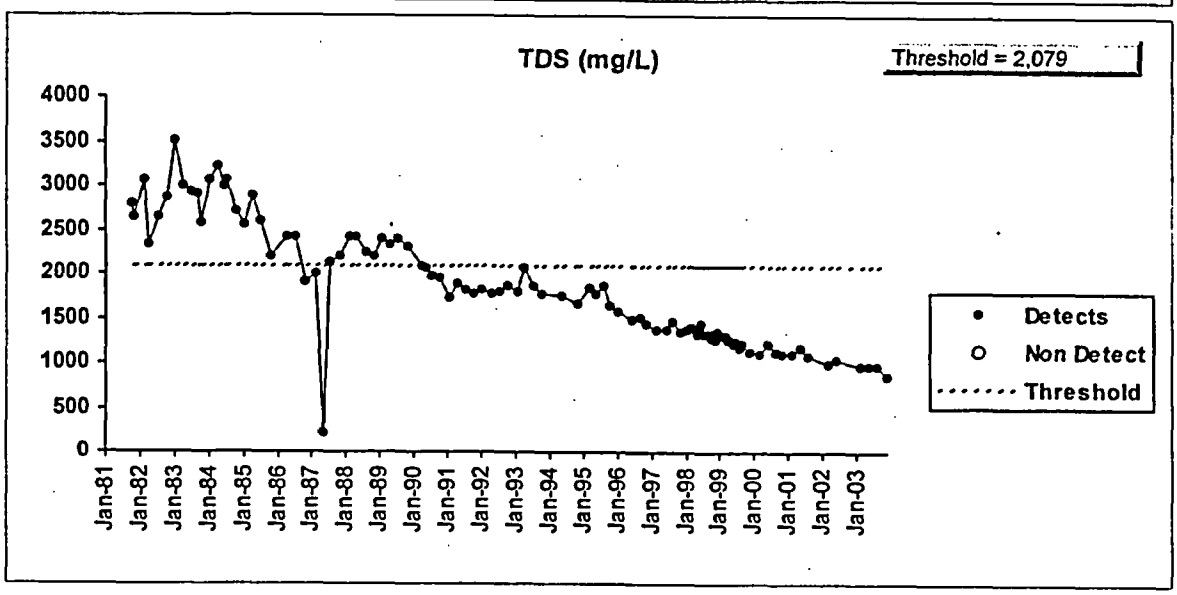
Jeffrey City WN-24



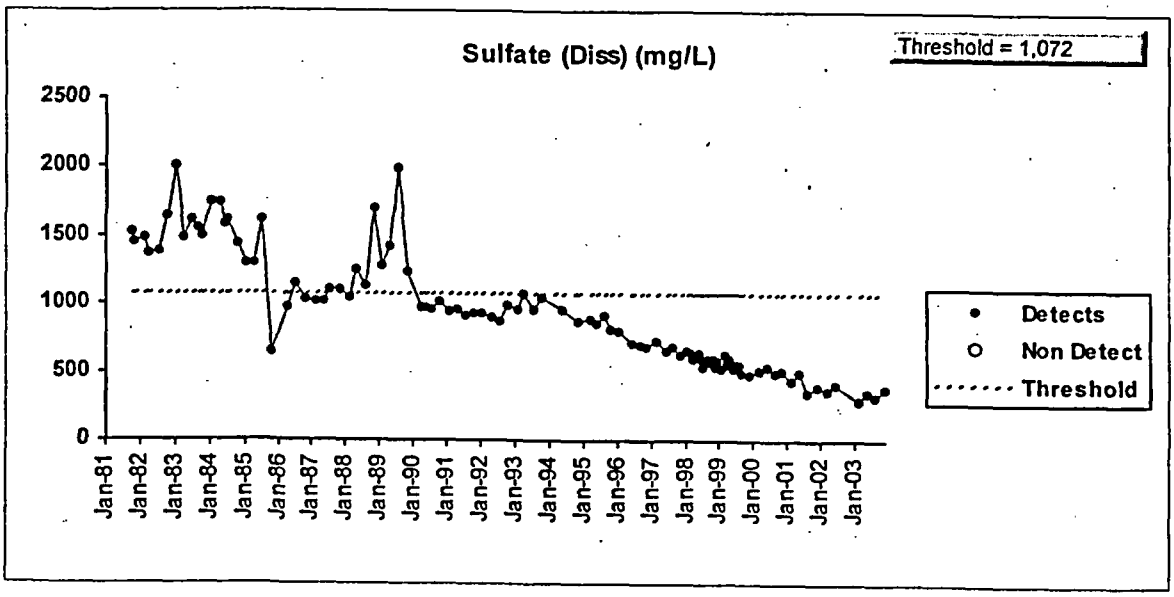


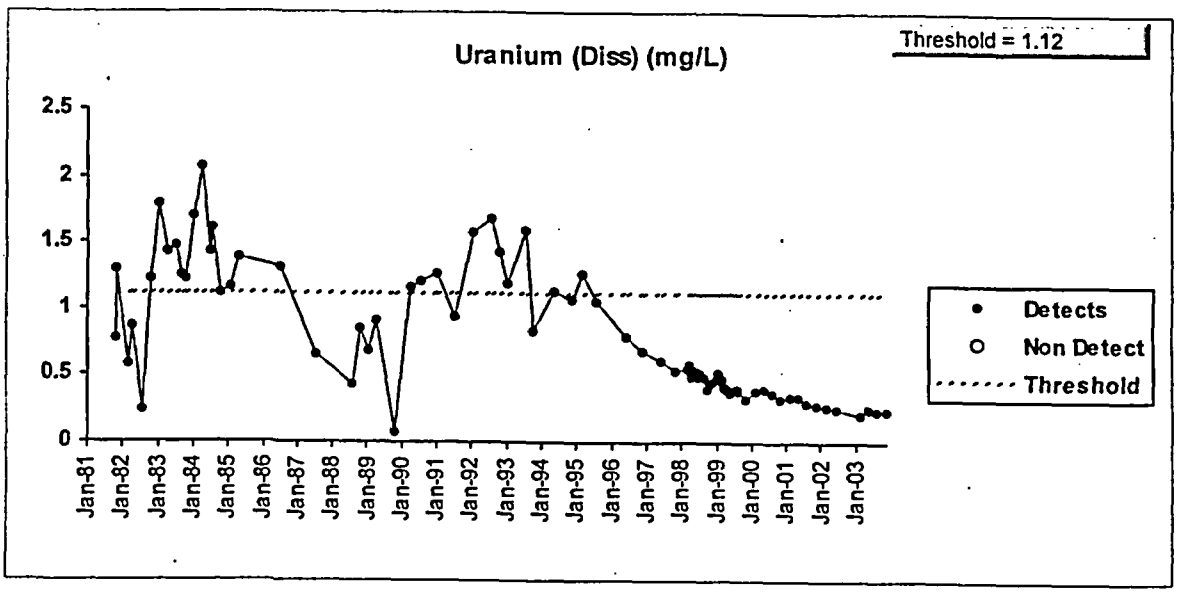
Jeffrey City WN-25



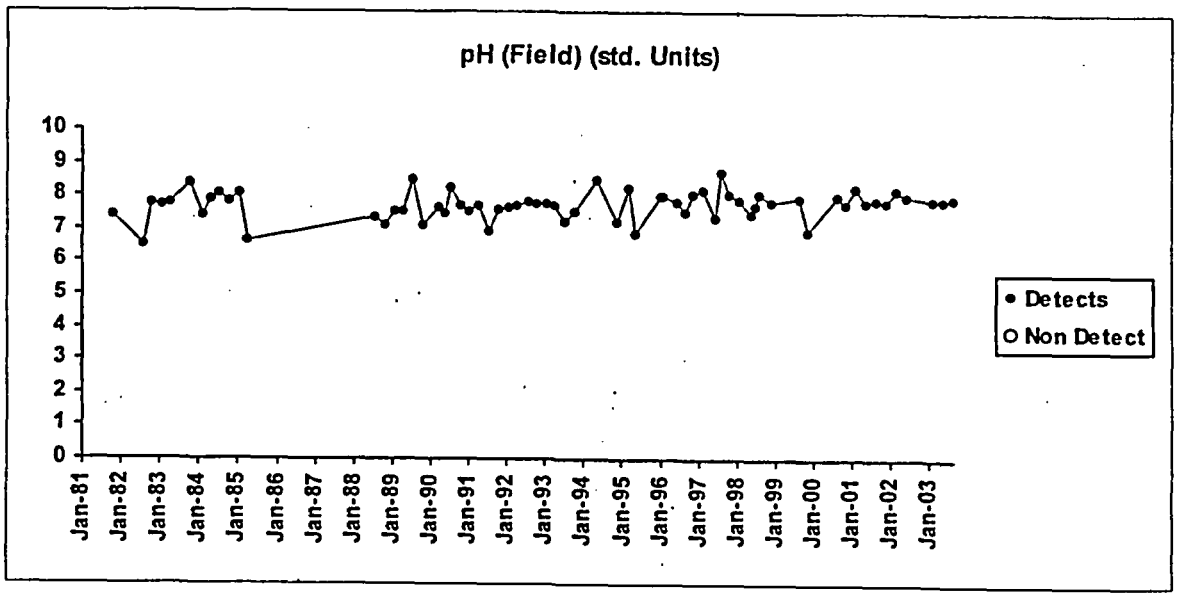


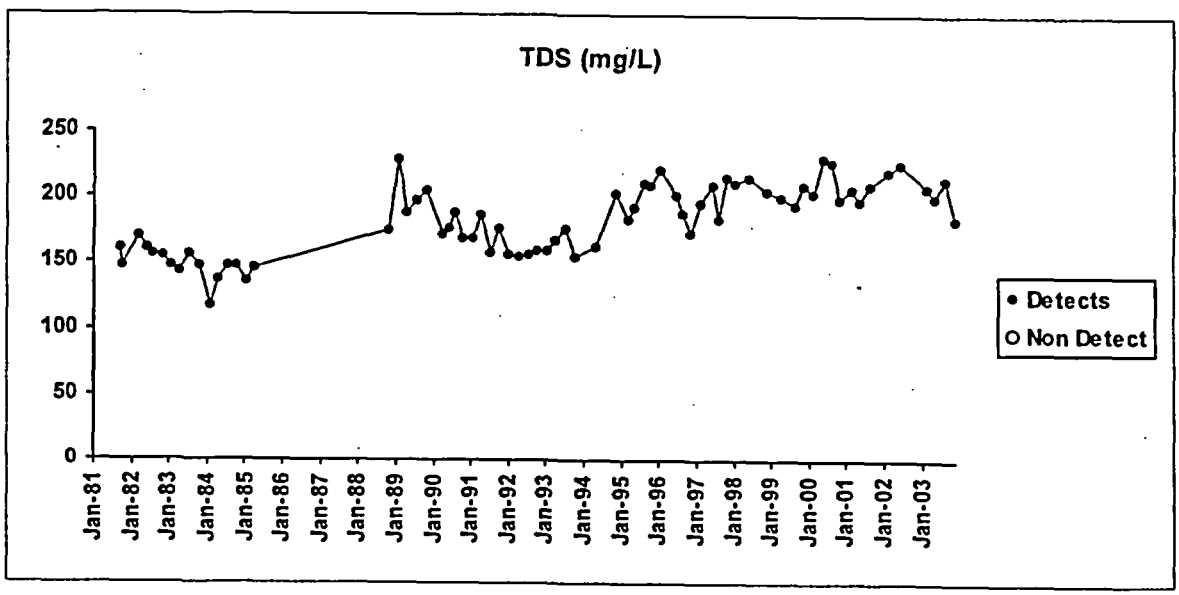
Jeffrey City WN-25



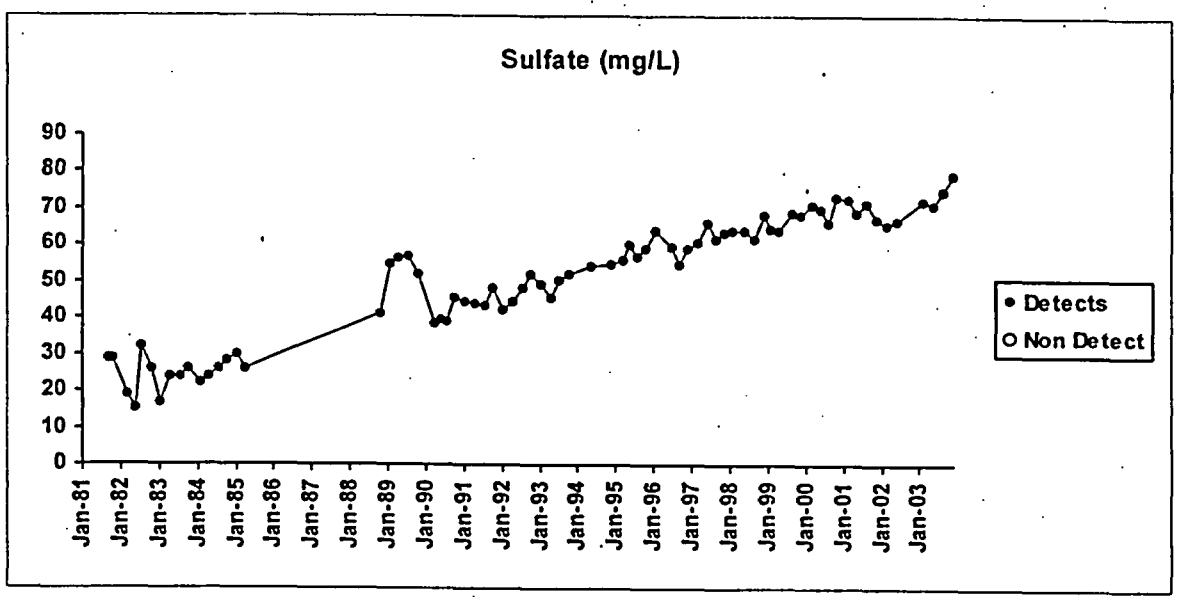


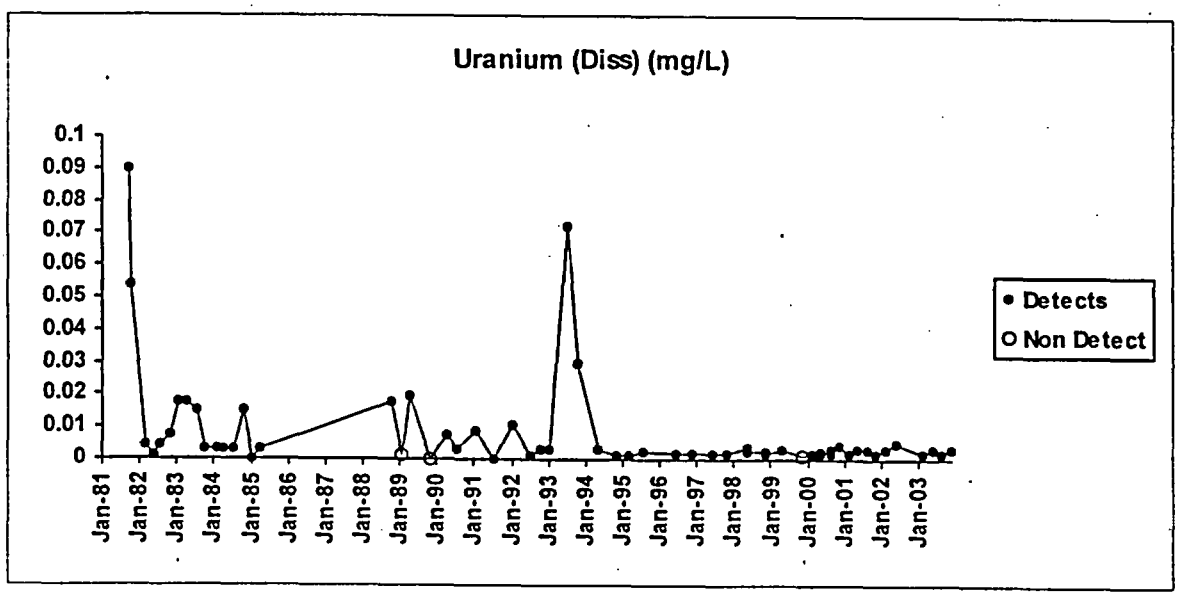
Jeffrey City WN-26



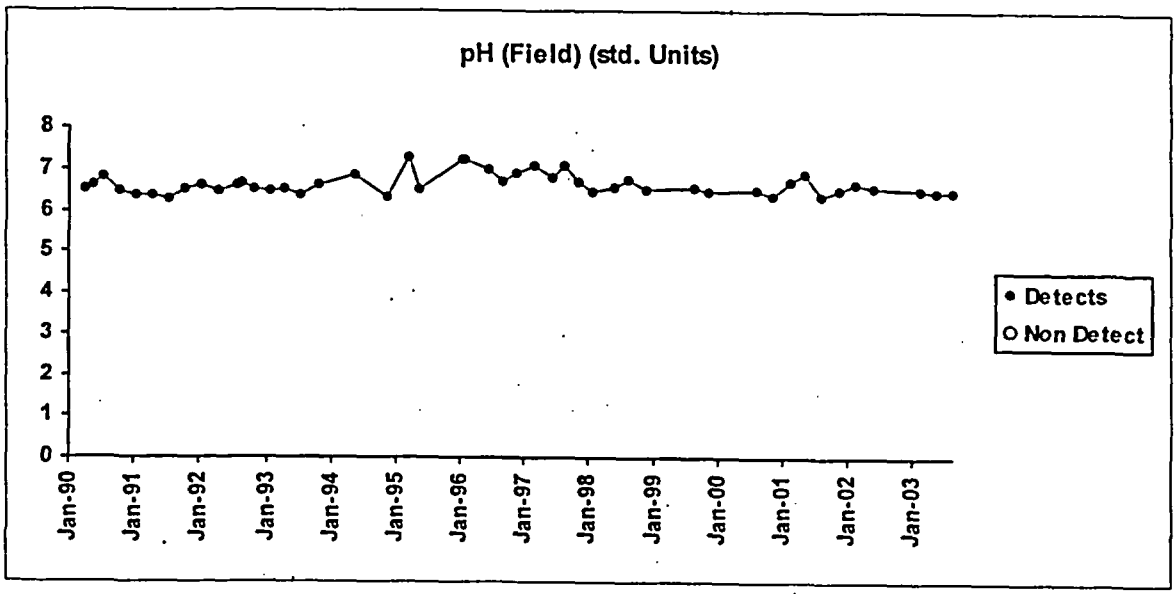


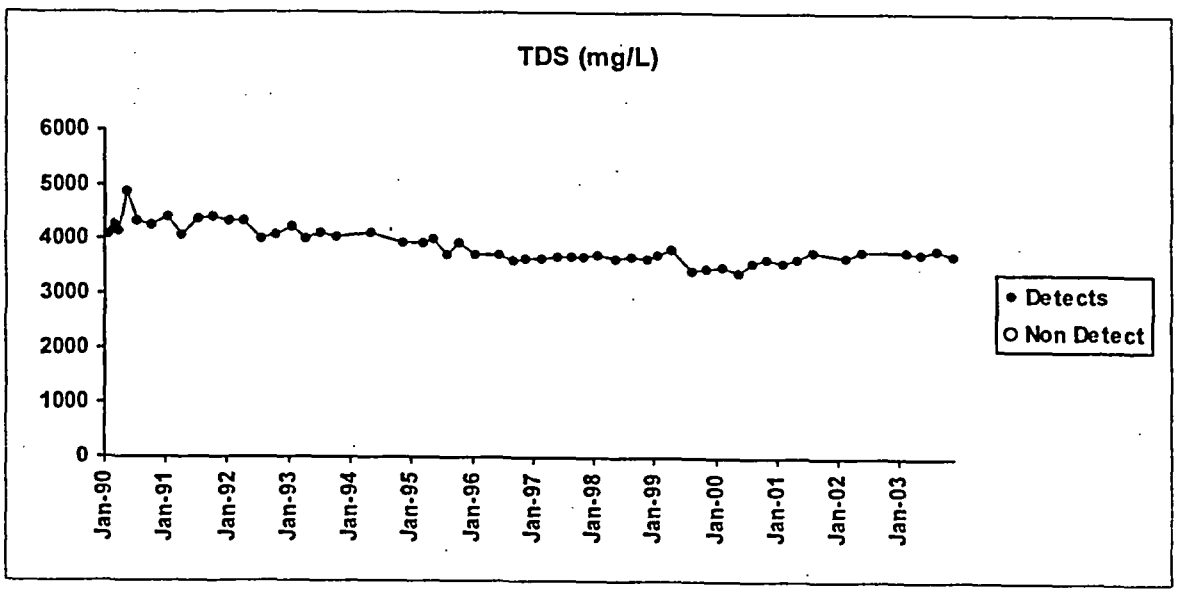
Jeffrey City WN-26



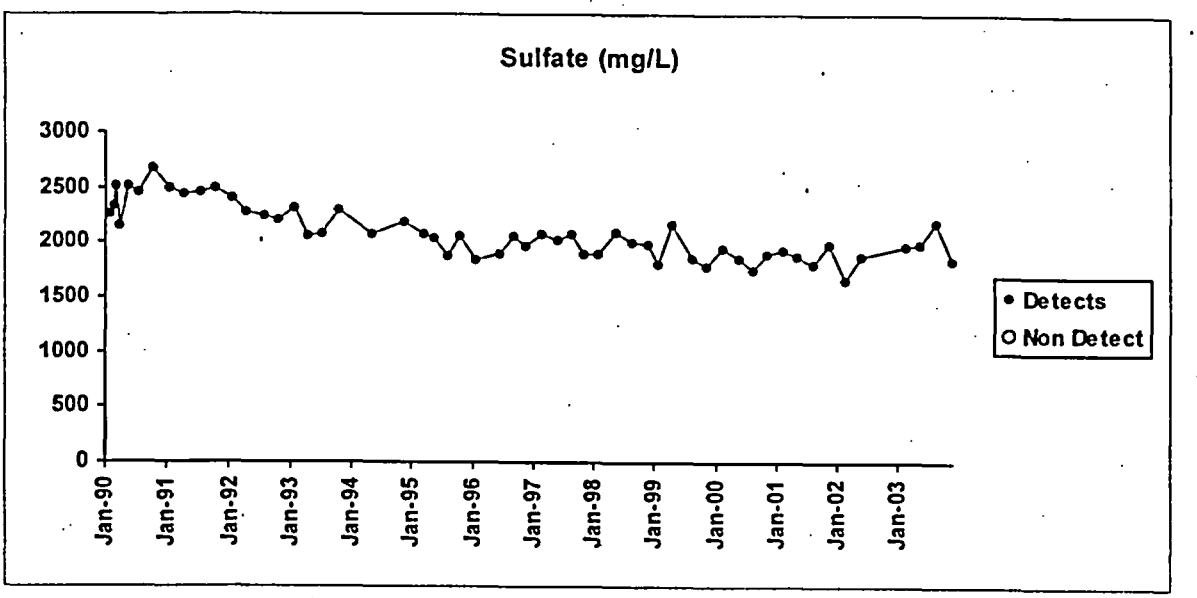


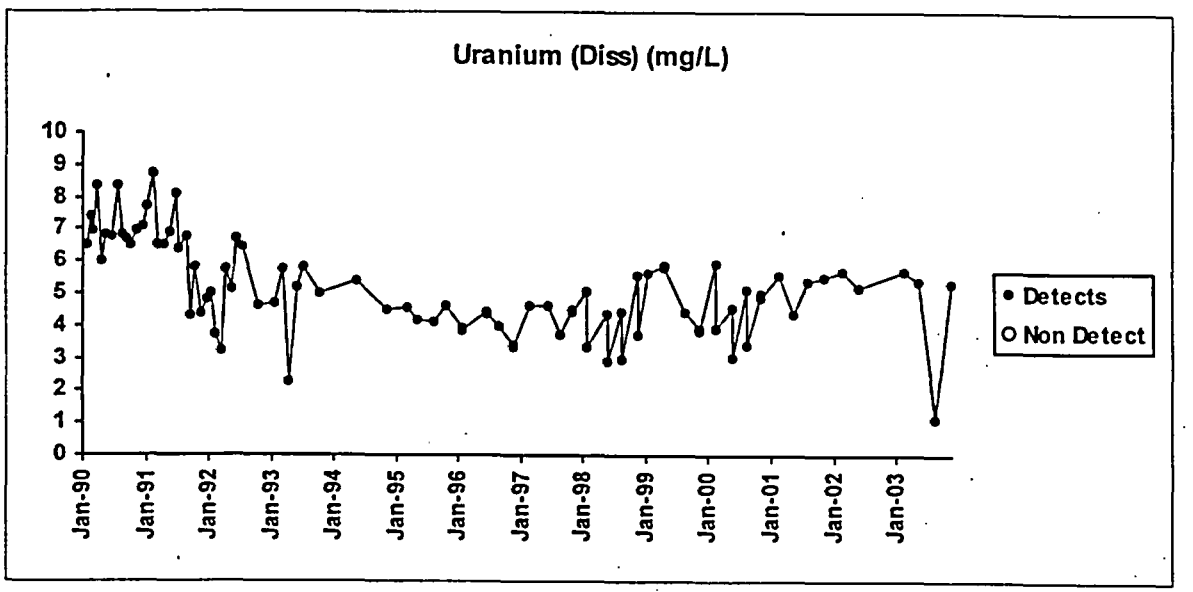
Jeffrey City WELL-28



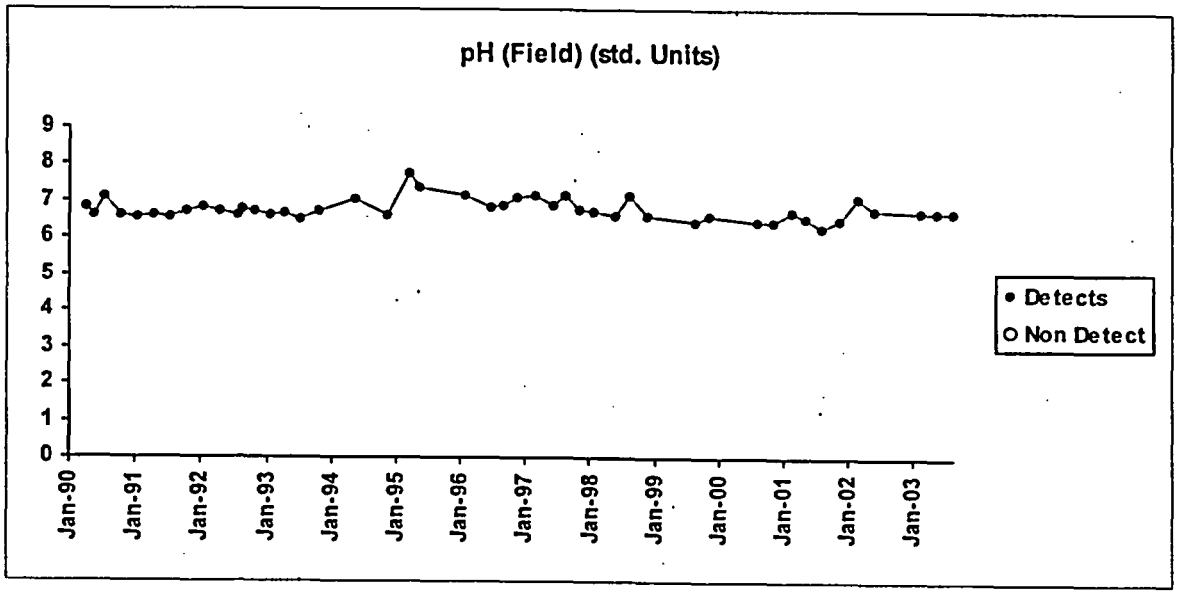


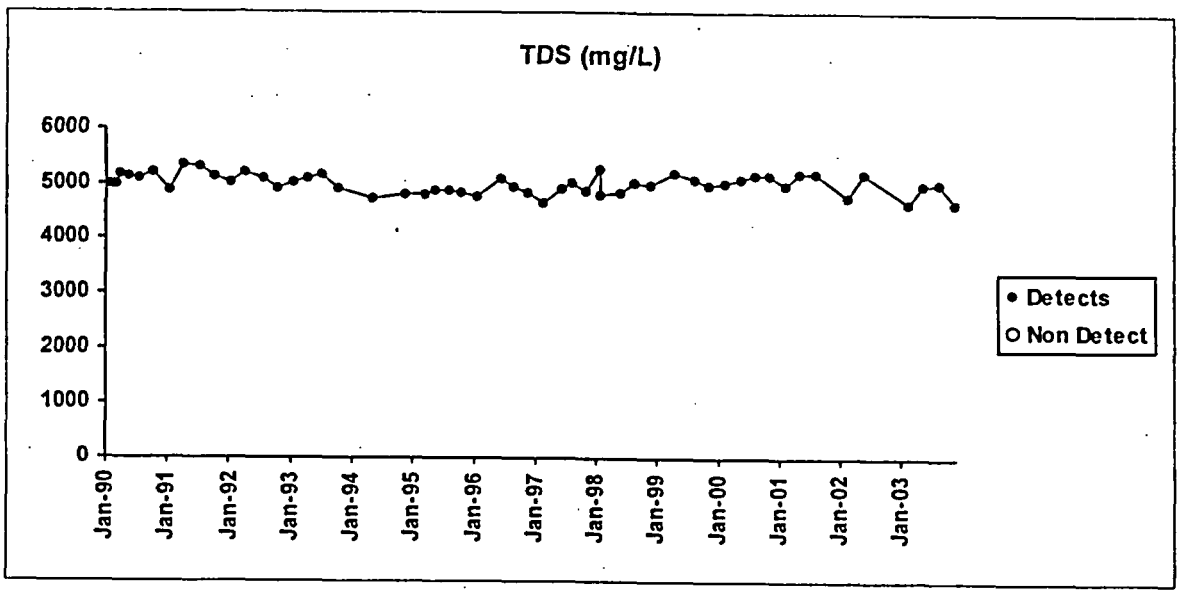
Jeffrey City WELL-28



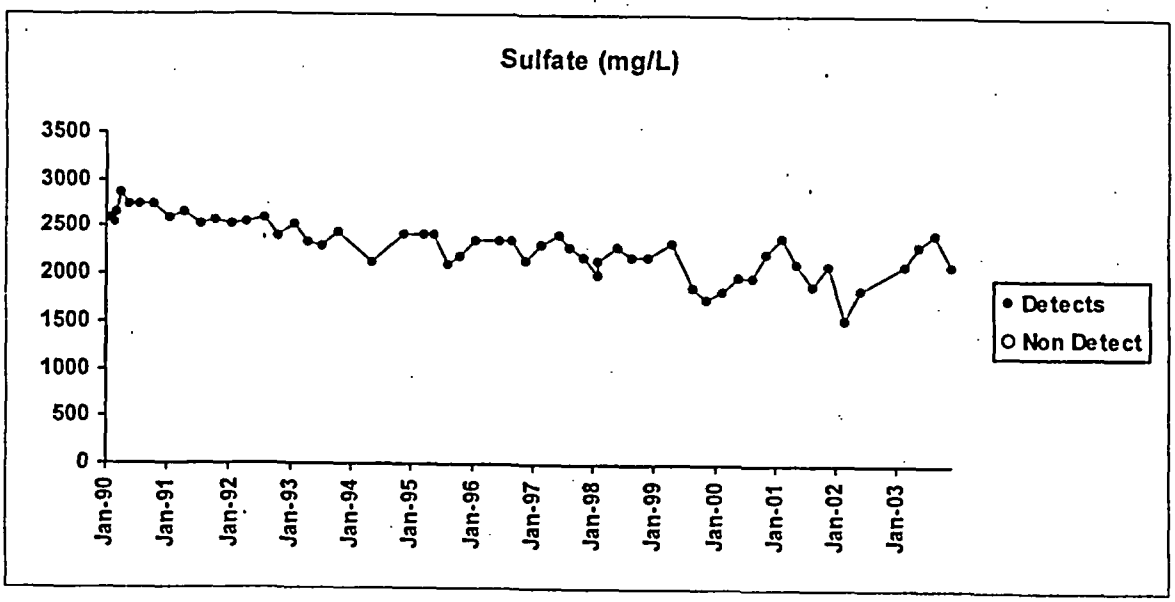


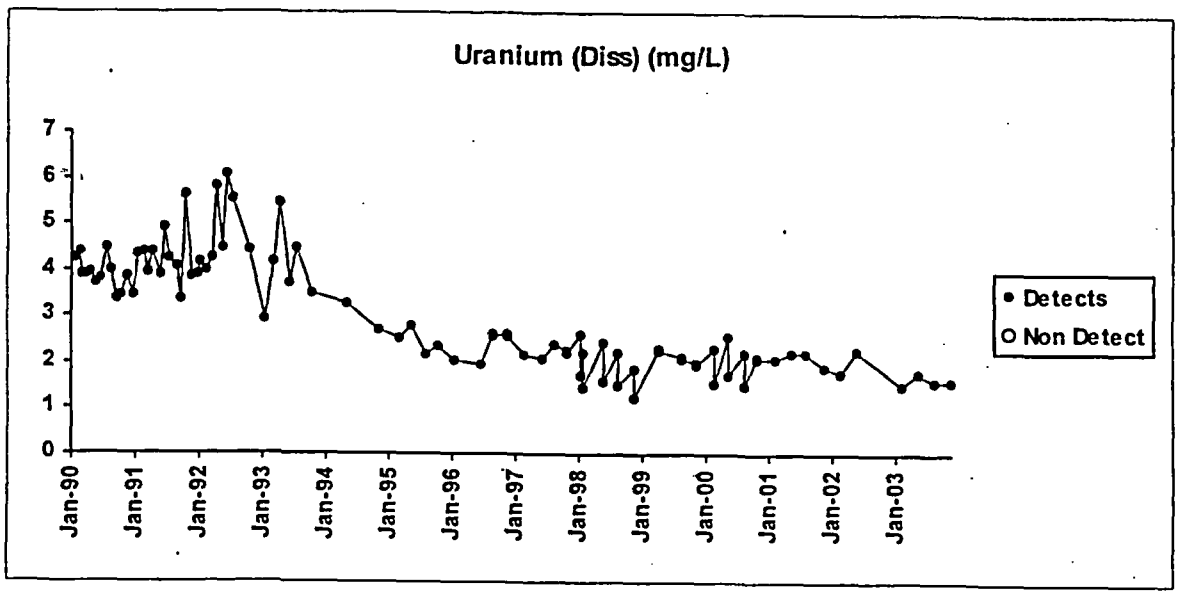
Jeffrey City WELL-30



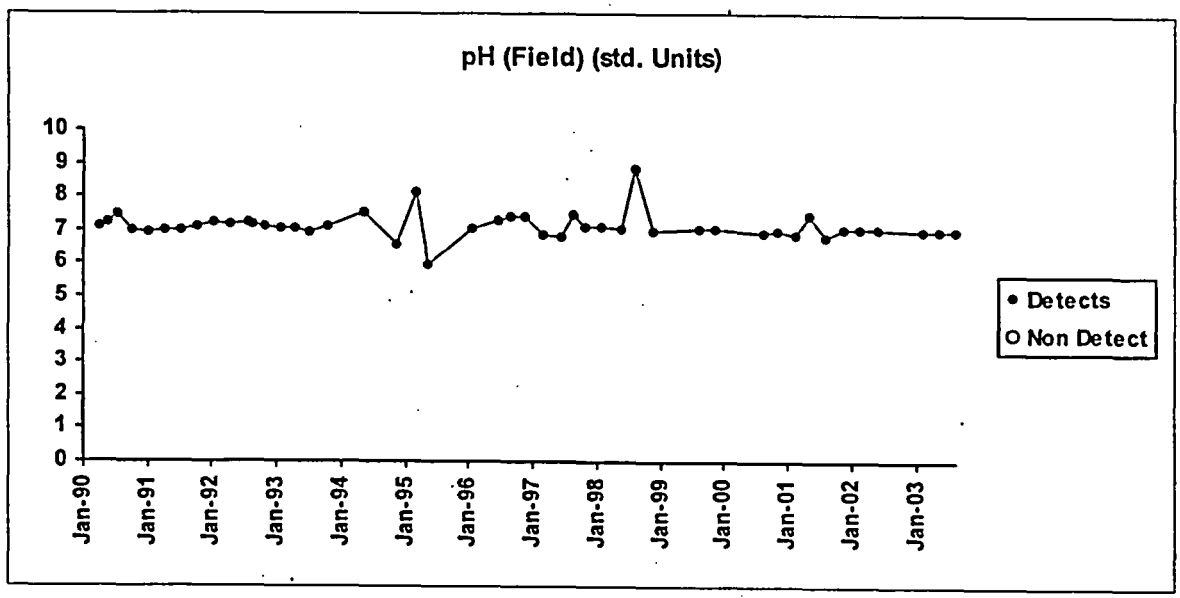


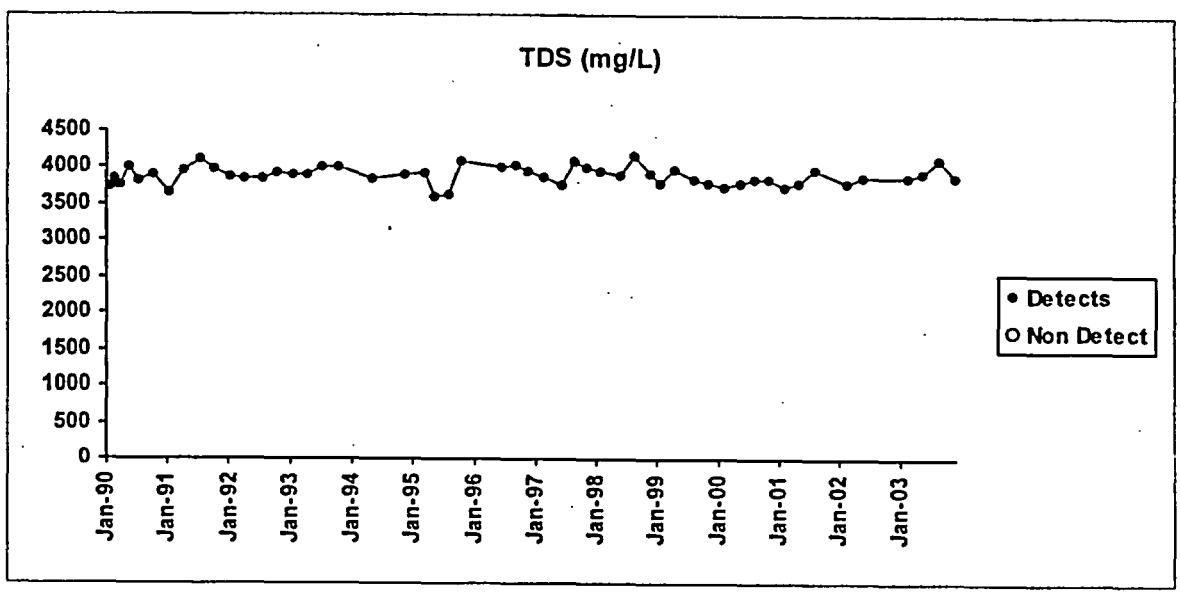
Jeffrey City WELL-30



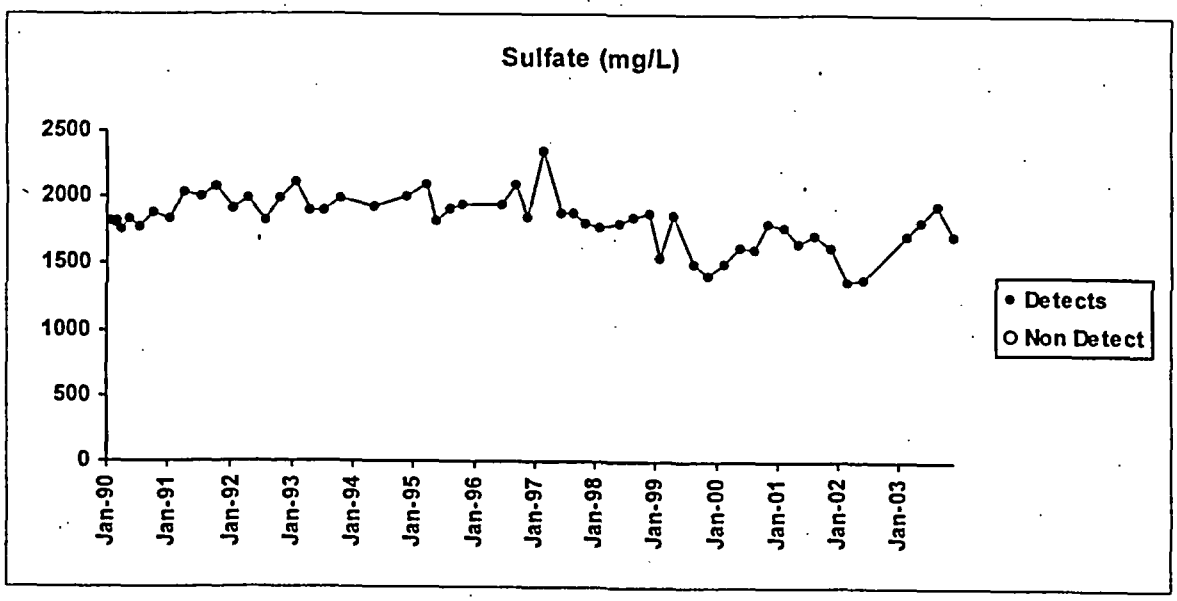


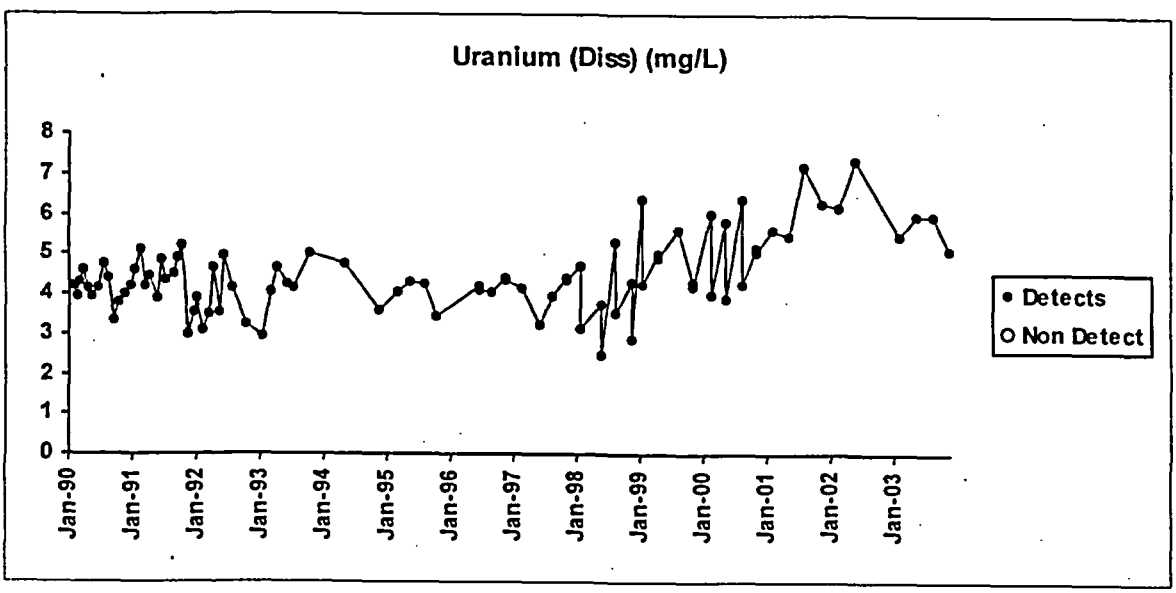
Jeffrey City WELL-31



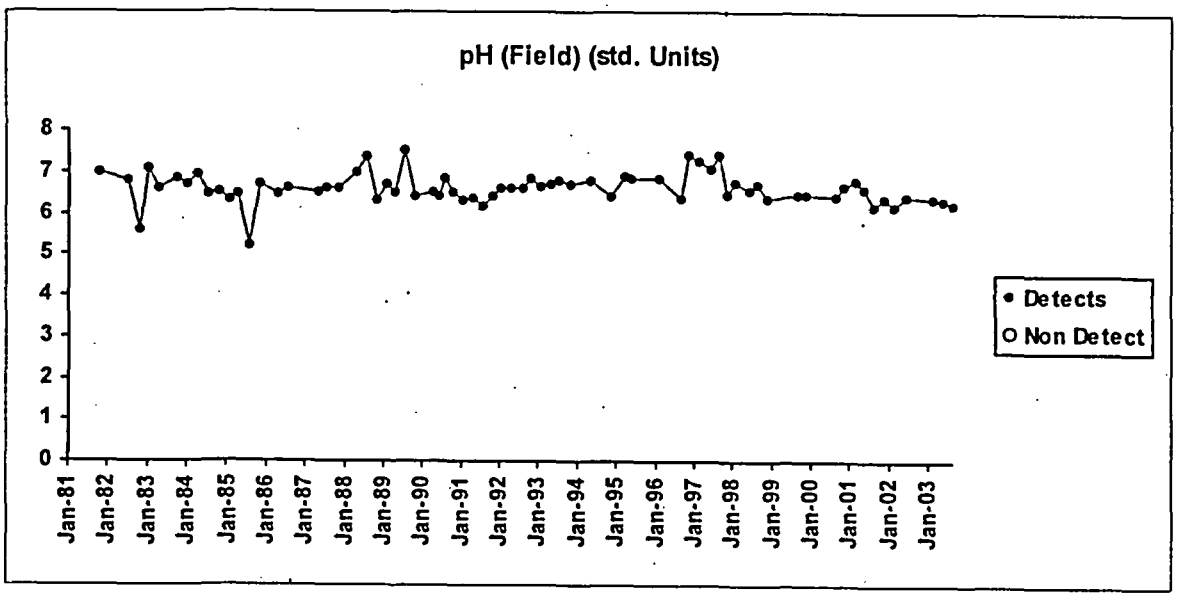


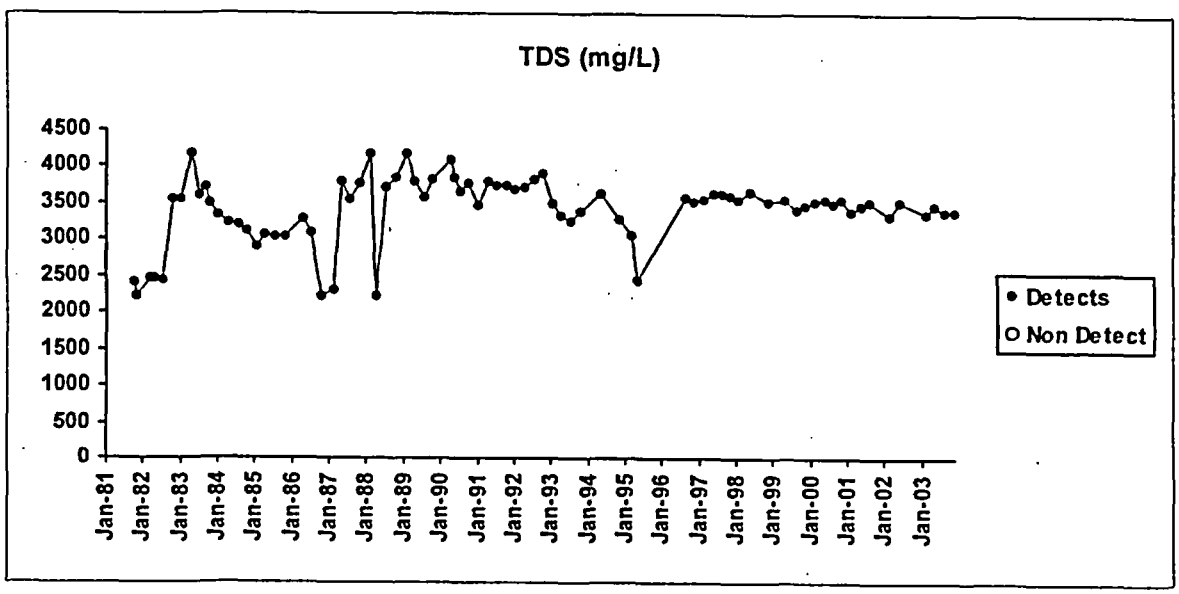
Jeffrey City WELL-31



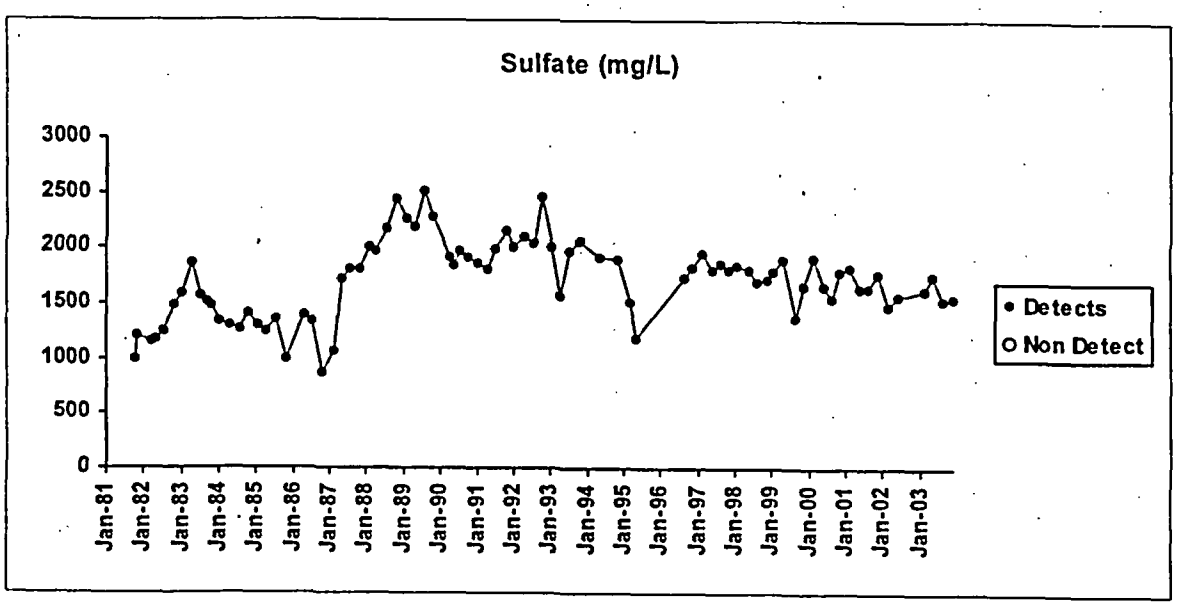


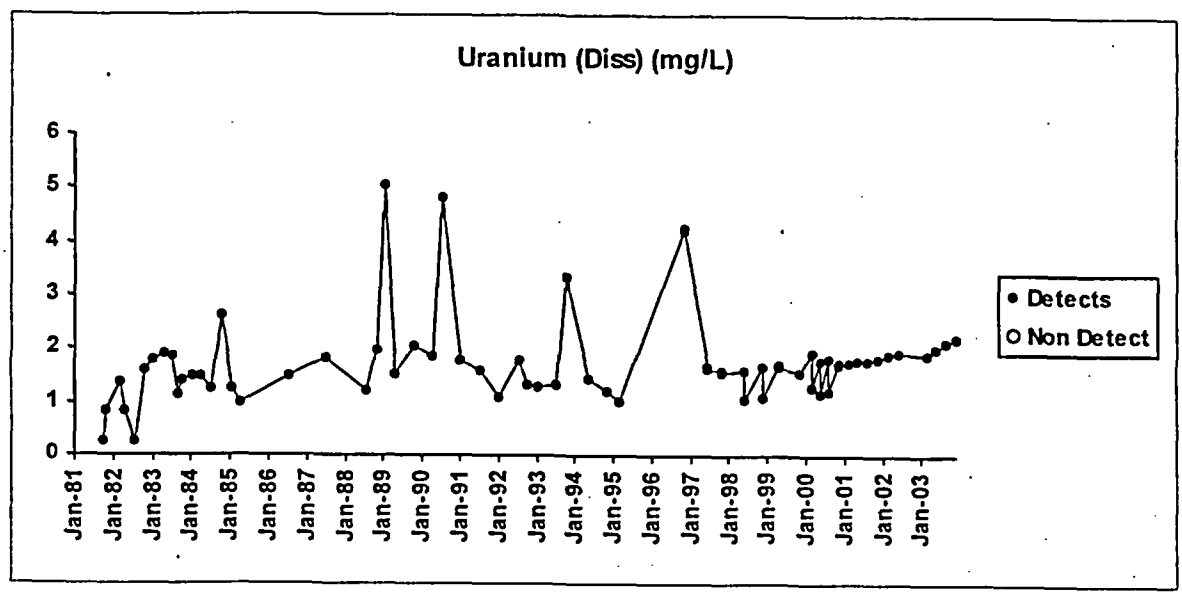
Jeffrey City WN-A



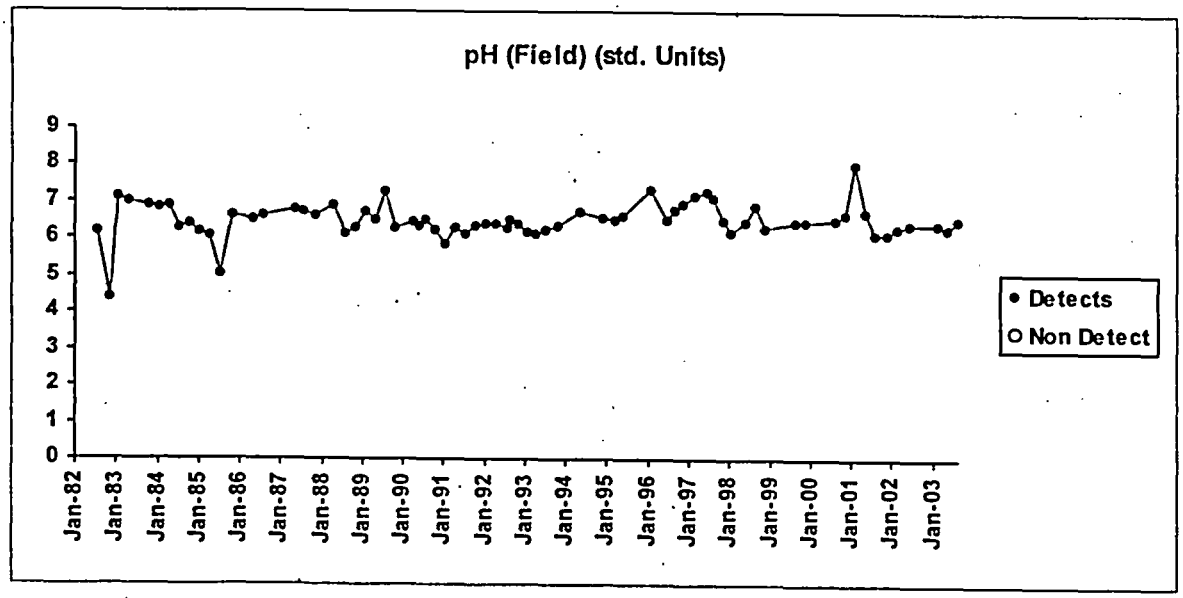


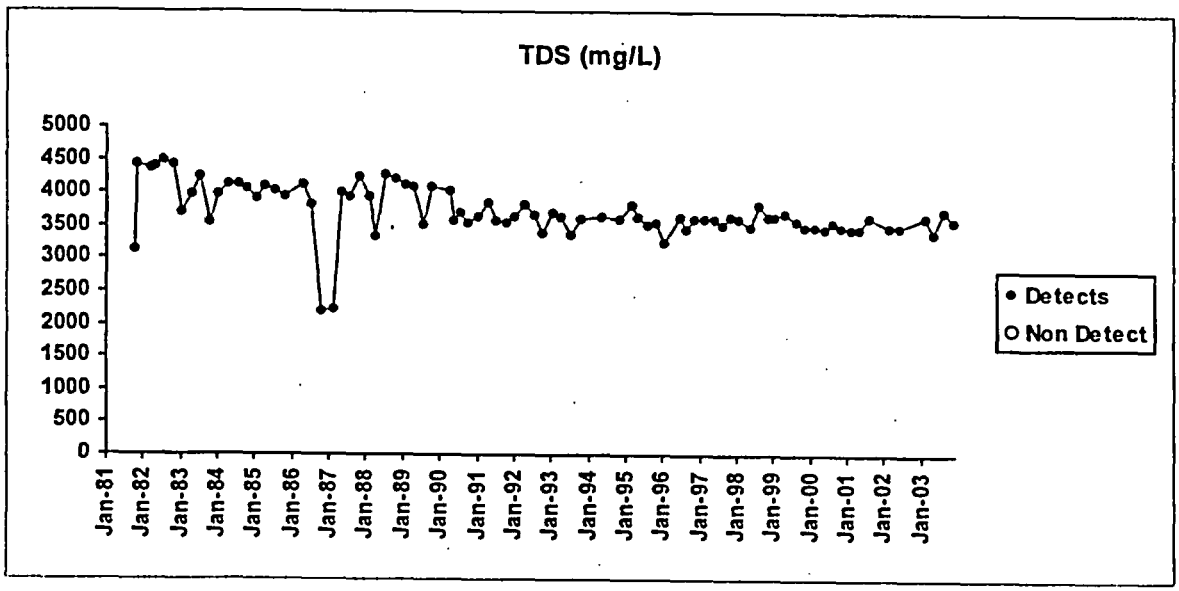
Jeffrey City WN-A



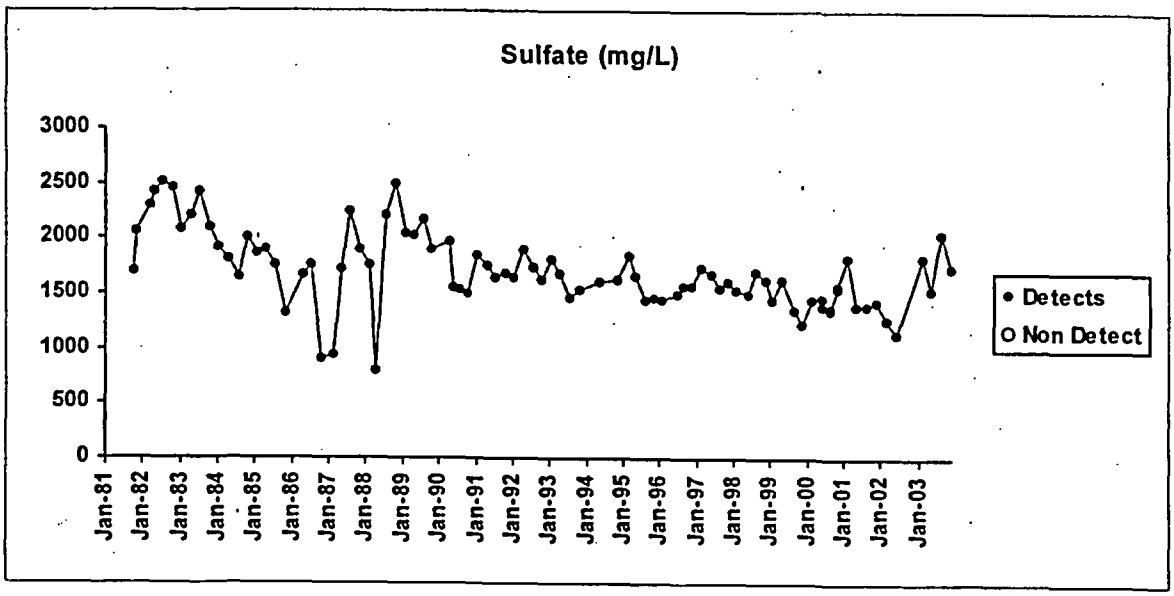


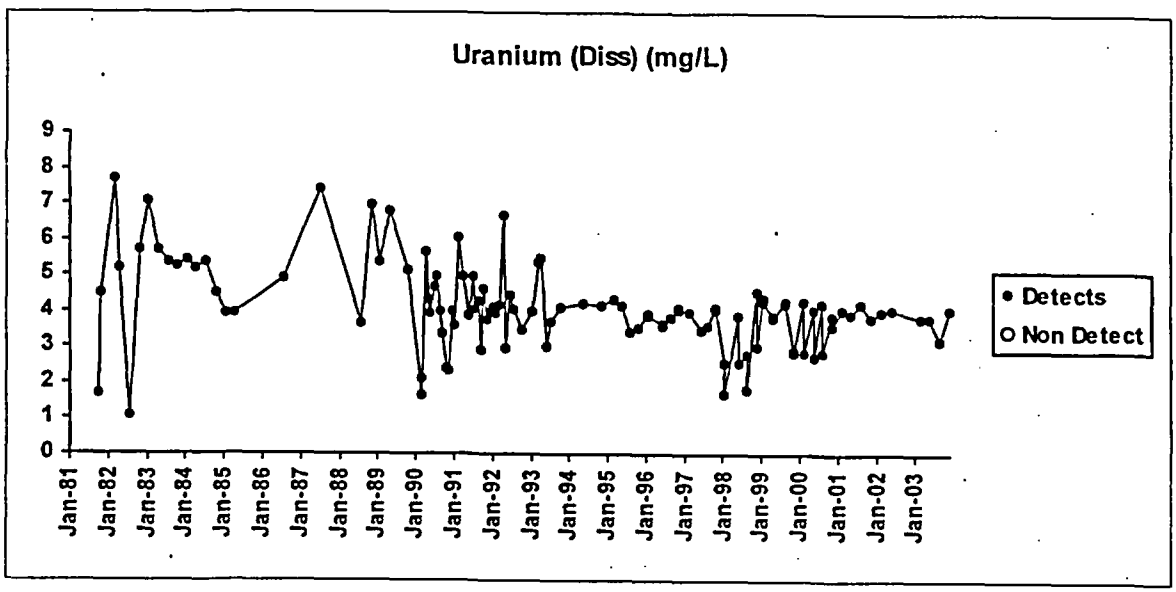
Jeffrey City WN-B



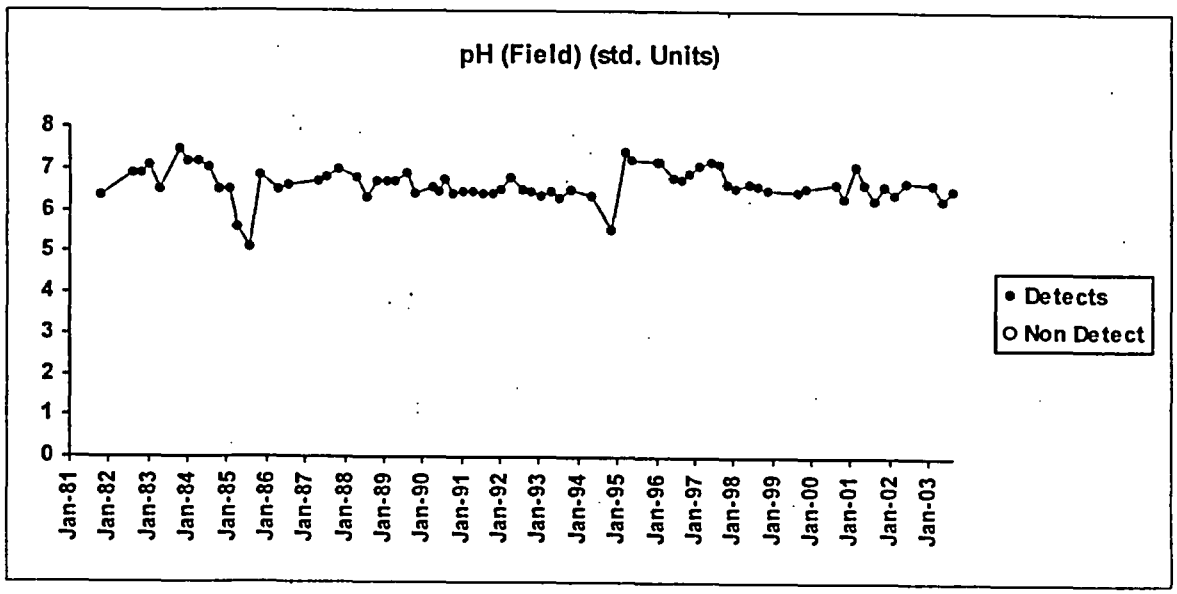


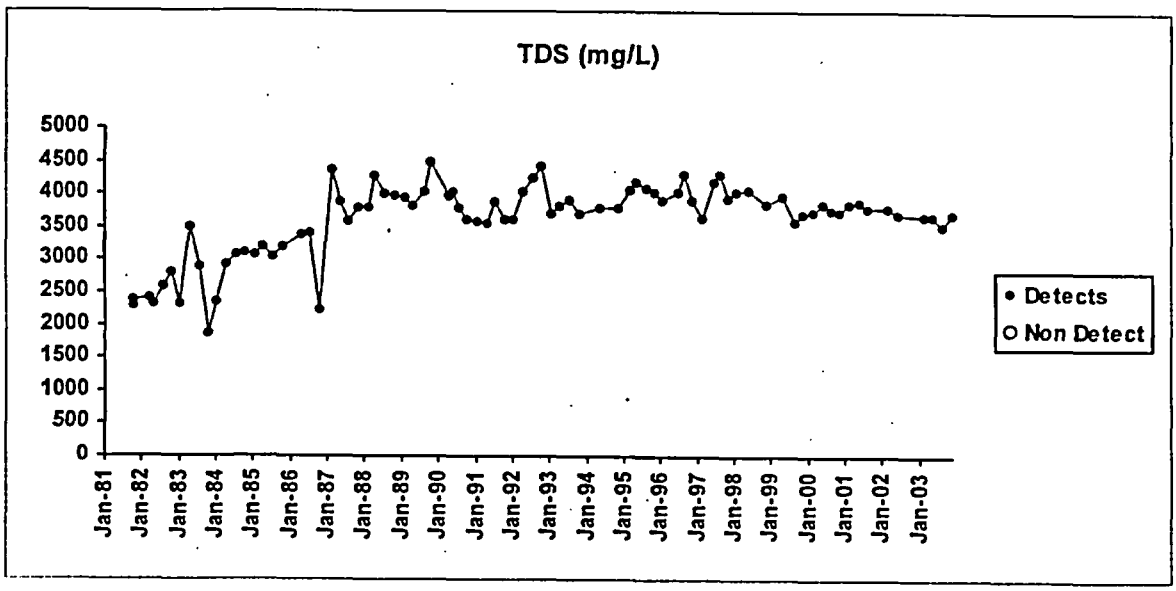
Jeffrey City WN-B



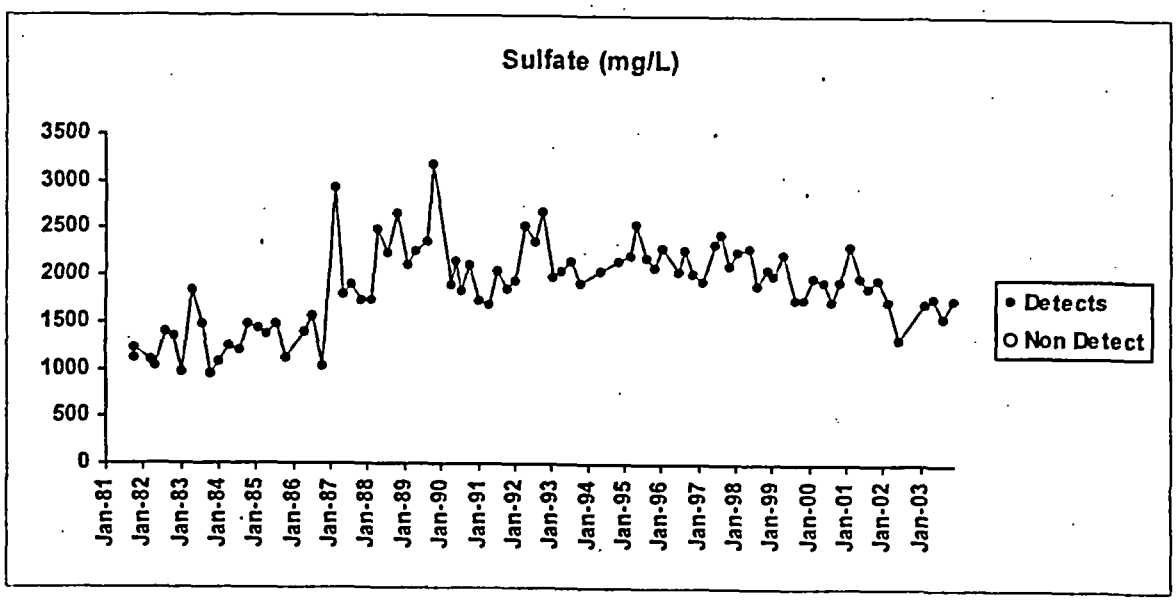


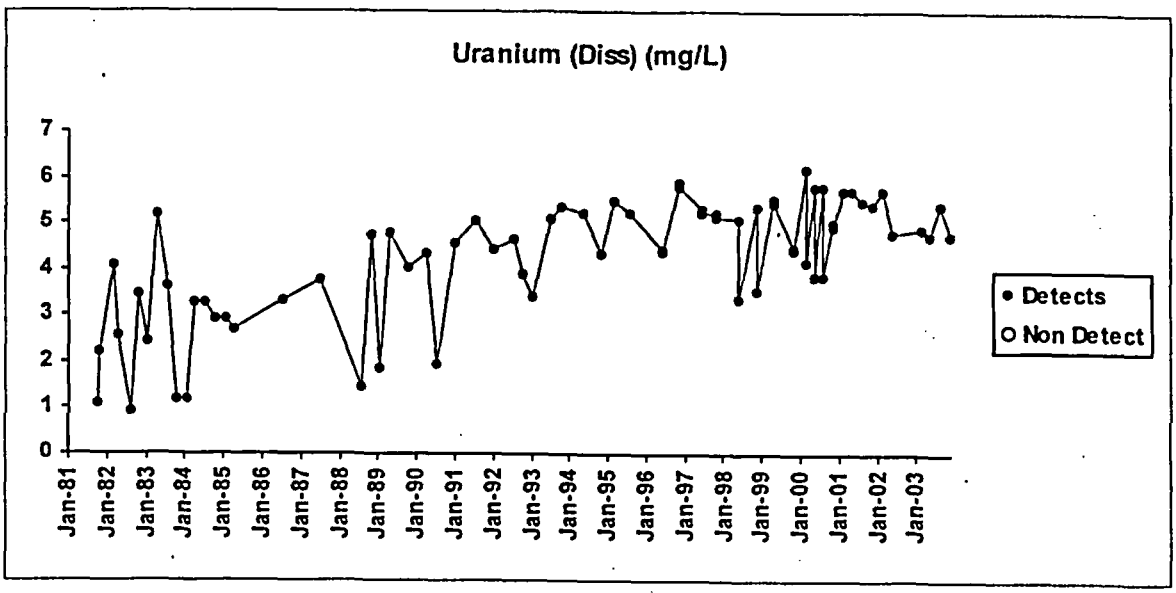
Jeffrey City WN-C





Jeffrey City WN-C





DRINKING WATER

Note: Effective March 10, 1997, Well #27 is no longer used as a drinking water source. However, the report format has not been changed in an effort to maintain consistency with previous reports.

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-27	WN-27	WN-27	WN-27
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-027	C03050562-017	C03080522-005	C03110757-016
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	40.6	-	44.2
Magnesium	EPA 200.7	mg/L	1.0	-	5.7	-	5.0
Sodium	EPA 200.7	mg/L	1.0	-	21.1	-	15.4
Potassium	EPA 200.7	mg/L	1.0	-	6.8	-	4.3
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	154	-	156
Sulfate	EPA 200.7	mg/L	5.0	23.7	25.1	24.2	25.1
Chloride	EPA 200.7	mg/L	5.0	< 5.0	7.9	5.3	< 5.0
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	< 0.05	-	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	0.90	0.90	0.80	0.80
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	127	-	128
Total Dissolved Solids	SM 2540-C	mg/L	10.0	228	206	204	182
Conductivity	SM 2510-B	µmho/cm	1.0	-	298	-	317
pH	SM 4500-H-B	std. units	0.01	7.37	7.59	7.51	8.01
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.35	-	0.17
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.011	0.012	0.011	0.014
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		-	3.35	-	3.28
Cation	meq		-	3.60	-	3.42
SM A/C Balance	%	-5 - +5	-	3.64	-	2.04
Calc TDS	mg/L		-	175	-	167
TDS A/C Balance	dec. %	0.80 - 1.20	-	1.18	-	1.09

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SURFACE WATER

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:

Sample ID:	SPLIT ROCK MILL SITE SWR-AB	SPLIT ROCK MILL SITE SWR-AB	SPLIT ROCK MILL SITE SWR-AB	SPLIT ROCK MILL SITE SWR-AB
Sample Date:	02/12/2003 NST	05/14/2003 NST	08/13/2003 NST	11/19/2003 NST
Date Received:	02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Sample Matrix:	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
Laboratory ID:	C03020470-032	C03050562-029	C03080522-011	C03110757-030
Report Date:	March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	34.0	-	39.2
Magnesium	EPA 200.7	mg/L	1.0	-	6.7	-	7.4
Sodium	EPA 200.7	mg/L	1.0	-	16.9	-	20.3
Potassium	EPA 200.7	mg/L	1.0	-	4.1	-	4.0
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	120	-	160
Sulfate	EPA 200.7	mg/L	5.0	41.8	32.8	43.6	48.9
Chloride	EPA 200.7	mg/L	5.0	5.6	5.8	17.0	6.3
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	< 0.05	-	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	< 0.20	< 0.20	< 0.20	< 0.20
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	99	-	131
Total Dissolved Solids	SM 2540-C	mg/L	10.0	210	151	225	233
Conductivity	SM 2510-B	µmho/cm	1.0	-	271	-	371
pH	SM 4500-H-B	std. units	0.01	7.32	7.76	8.40	8.23
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	0.05	-	0.06
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.16	-	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.003	0.003	0.003	0.005
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		-	2.83	-	3.83
Cation	meq		-	3.10	-	3.57
SM A/C Balance	%	-5 - +5	-	4.61	-	-3.62
Calc TDS	mg/L		-	176	-	222
TDS A/C Balance	dec. %	0.80 - 1.20	-	0.86	-	1.05

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
SWR-AC	SWR-AC	SWR-AC	SWR-AC
02/12/2003 NST	05/14/2003 NST	08/13/2003 NST	11/19/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-031	C03050562-030	C03080522-009	C03110757-029
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0		39.8		44.4
Magnesium	EPA 200.7	mg/L	1.0		7.6		8.2
Sodium	EPA 200.7	mg/L	1.0	-	22.2	-	26.7
Potassium	EPA 200.7	mg/L	1.0	-	4.7	-	4.4
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	134	-	176
Sulfate	EPA 200.7	mg/L	5.0	55.1	40.6	60.8	58.1
Chloride	EPA 200.7	mg/L	5.0	14.5	8.9	31.1	10.2
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	< 0.05	-	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	< 0.20	< 0.20	< 0.20	< 0.20
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	110	-	145
Total Dissolved Solids	SM 2540-C	mg/L	10.0	255	192	289	250
Conductivity	SM 2510-B	µmho/cm	1.0	-	321	-	433
pH	SM 4500-H-B	std. units	0.01	7.54	7.79	8.29	8.22
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	< 0.05	-	0.06
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.16	-	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.012	0.004	0.014	0.007
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		-	3.31	-	4.40
Cation		meq		-	3.71	-	4.18
SM A/C Balance		%	-5 - +5	-	5.77	-	-2.53
Calc TDS		mg/L		-	207	-	256
TDS A/C Balance		dec. %	0.80 - 1.20	-	0.93	-	0.98

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
SWR-BE	SWR-BE	SWR-BE	SWR-BE
02/12/2003 NST	05/14/2003 NST	08/13/2003 NST	11/19/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-030	C02050562-031	C03080522-010	C03110757-031
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	40.2	-	46.6
Magnesium	EPA 200.7	mg/L	1.0	-	7.8	-	9.0
Sodium	EPA 200.7	mg/L	1.0	-	25.1	-	34.5
Potassium	EPA 200.7	mg/L	1.0	-	4.7	-	4.8
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	143	-	197
Sulfate	EPA 200.7	mg/L	5.0	45.7	41.2	78.9	67.8
Chloride	EPA 200.7	mg/L	5.0	8.8	11.6	40.8	17.8
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	< 0.05	-	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	< 0.20	< 0.20	< 0.20	< 0.20

Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	117	-	162
Total Dissolved Solids	SM 2540-C	mg/L	10.0	224	193	351	301
nductivity	SM 2510-B	µmho/cm	1.0	-	339	-	495
H	SM 4500-H-B	std. units	0.01	7.58	7.88	8.30	8.28

Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	< 0.05	-	0.06
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.093	-	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.008	< 0.008	< 0.008	< 0.008
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004

Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.004	0.008	0.024	0.018
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		-	3.54	-	5.16
Cation	meq		-	3.88	-	4.71
M A/C Balance	%	-5 - +5	-	4.47	-	-4.57
Calc TDS	mg/L		-	218	-	295
TDS A/C Balance	dec. %	0.80 - 1.20	-	0.89	-	1.02

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-1	WN-1	WN-1	WN-1
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-12	C03050562-022	C03080522-031	C03110757-024
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	698	712	656	630
Magnesium	EPA 200.7	mg/L	1.0	137	143	133	126
Sodium	EPA 200.7	mg/L	1.0	83.0	124	124	105
Potassium	EPA 200.7	mg/L	1.0	18.3	20.7	18.5	16.7
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	806	746	779	867
Sulfate	EPA 200.7	mg/L	5.0	1540	1633	1490	1520
Chloride	EPA 200.7	mg/L	5.0	71.3	61.3	82.8	83.6
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	21.1	23.8	20.7	16.7
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	47.5	49.9	54.2	50.8
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	661	612	639	711
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3430	3370	3470	3350
Conductivity	SM 2510-B	µmho/cm	1.0	3900	4150	3980	3900
pH	SM 4500-H-B	std. units	0.01	7.48	6.84	7.42	7.35
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	5.94	7.62	7.39	3.77
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.012	0.008	< 0.005	0.009
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	3.64	3.48	3.53	4.24
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	2.0	1.3	< 1.0
Radium Error Estimate ±				-	0.3	0.4	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion	meq			50.7	51.5	50.0	51.9
Cation	meq			51.9	55.1	51.2	48.2
SM A/C Balance	%		-5 - +5	1.17	3.37	1.20	-3.68
Calc TDS	mg/L			3176	3303	3149	3155
TDS A/C Balance	dec. %		0.80 - 1.20	1.08	1.02	1.10	1.06

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR

Project	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
Sample ID:	WN-2	WN-2	WN-2	WN-2
Sample Date:	02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
Date Received:	02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Sample Matrix:	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
Laboratory ID:	C03020470-024	C03050562-015	C03080522-001	C03110757-006
Report Date:	March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	918	-	805
Magnesium	EPA 200.7	mg/L	1.0	-	82.8	-	114
Sodium	EPA 200.7	mg/L	1.0	-	61.9	-	56.6
Potassium	EPA 200.7	mg/L	1.0	-	18.6	-	17.6
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	752	-	779
Sulfate	EPA 200.7	mg/L	5.0	1790	1958	1730	1850
Chloride	EPA 200.7	mg/L	5.0	81.6	101	88	88
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	0.54	-	0.67
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	30.5	27.8	32.8	33.1
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	616	-	639
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3770	3860	3800	3840
Conductivity	SM 2510-B	µmho/cm	1.0	-	4180	-	3960
pH	SM 4500-H-B	std. units	0.01	7.11	7.33	7.08	7.67
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.23	-	0.40
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	1.16	-	0.26
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.057	0.051	0.039	0.009
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.644	0.501	0.849	0.185
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		-	58.0	-	56.1
Cation		meq		-	56.0	-	52.7
SM A/C Balance		%	-5 - +5	-	-1.71	-	-3.15
Calc TDS		mg/L		-	3654	-	3482
TDS A/C Balance		dec. %	0.80 - 1.20	-	1.06	-	1.10

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-3	WN-3	WN-3	WN-3
02/11/2003 NST	05/13/2003 NST	08/11/2003 NST	11/19/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-014	C03050562-024	C03080522-020	C03110757-028
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	276	277	270	271
Magnesium	EPA 200.7	mg/L	1.0	35.2	36.7	36.0	37.3
Sodium	EPA 200.7	mg/L	1.0	71.6	69.2	65.8	63.2
Potassium	EPA 200.7	mg/L	1.0	12.6	11.6	10.4	9.7
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	311	300	299	299
Sulfate	EPA 200.7	mg/L	5.0	612	571	612	608
Chloride	EPA 200.7	mg/L	5.0	48.9	41.2	49.2	50.2
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.12	< 0.05	< 0.05	0.13
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	26.3	25.4	24.3	23.7
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	255	246	245	245
Total Dissolved Solids	SM 2540-C	mg/L	10.0	1540	1460	1460	1410
Conductivity	SM 2510-B	µmho/cm	1.0	1890	1840	1860	1840
pH	SM 4500-H-B	std. units	0.01	7.67	7.05	7.88	7.85
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.006	0.009	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	1.14	1.17	1.21	1.21
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		21.1	19.8	20.8	20.7
Cation	meq		20.2	20.2	19.6	19.7
SM A/C Balance	%	-5 - +5	-2.24	1.07	-2.83	-2.51
Calc TDS	mg/L		1343	1284	1316	1309
TDS A/C Balance	dec. %	0.80 - 1.20	1.15	1.14	1.11	1.08

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
	WN-4E	WN-4E	WN-4E	WN-4E
	2/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/18/2003 NST
	02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
	C03020470-001	C03050562-012	C03080522-022	C03110757-023
	March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Result	Result	Result	Result
Calcium	EPA 200.7	mg/L	1.0	586	760	606	596
Magnesium	EPA 200.7	mg/L	1.0	144	168	165	159
Sodium	EPA 200.7	mg/L	1.0	200	187	233	244
Potassium	EPA 200.7	mg/L	1.0	45.0	22.1	67.9	40.8
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	592	597	484	556
Sulfate	EPA 200.7	mg/L	5.0	1960	2100	2440	2060
Chloride	EPA 200.7	mg/L	5.0	105	109	135	131
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	20.0	2.4	35.0	21.3
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	23.6	37.1	27.0	22.7
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	485	489	397	456
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3950	4090	4030	3960
Conductivity	SM 2510-B	µmho/cm	1.0	4420	4700	4630	4470
pH	SM 4500-H-B	std. units	0.01	7.25	7.08	7.54	7.31
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	0.09	< 0.05	< 0.05	0.20
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	17.9	12.0	25.4	18.2
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	0.10	0.10	0.20
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.023	0.015	0.006	0.017
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.922	1.15	1.06	0.96
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		55.2	59.3	64.5	57.3
Cation	meq		52.6	60.9	58.4	56.2
SM A/C Balance	%	-5 - +5	-2.42	1.34	-4.94	-0.98
Calc TDS	mg/L		3466	3812	4054	3637
TDS A/C Balance	dec. %	0.80 - 1.20	1.14	1.07	0.99	1.09

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-4R	WN-4R	WN-4R	WN-4R
02/11/2003 NST	05/12/2003 NST	08/11/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-004	C03050562-011	C03080522-028	C03110757-025
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	412	496	474	455
Magnesium	EPA 200.7	mg/L	1.0	192	252	232	226
Sodium	EPA 200.7	mg/L	1.0	194	217	223	223
Potassium	EPA 200.7	mg/L	1.0	65.6	77.2	68.2	61.8
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	321	309	306	323
Sulfate	EPA 200.7	mg/L	5.0	2430	3140	3170	2840
Chloride	EPA 200.7	mg/L	5.0	95.6	96.6	107	121
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	213	239	263	205
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	22.0	17.0	21.2	20.6
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	263	253	251	265
Total Dissolved Solids	SM 2540-C	mg/L	10.0	4580	4810	4650	4550
Conductivity	SM 2510-B	µmho/cm	1.0	5700	7060	5830	5790
pH	SM 4500-H-B	std. units	0.01	6.91	6.62	6.91	6.87
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	1.58	2.08	2.53	2.73
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	0.005	< 0.004	0.004
Cadmium	EPA 200.8	mg/L	0.001	0.018	0.018	0.017	0.020
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	79.5	71.5	77.0	72.1
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	0.41	0.45	0.41	0.46
Selenium	EPA 200.8	mg/L	0.005	0.025	0.020	0.010	0.028
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.516	0.484	0.541	0.624
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		60.2	74.4	75.6	69.3
Cation		meq		61.9	74.3	73.3	67.5
SM A/C Balance		%	-5 - +5	1.46	-0.09	-1.56	-1.34
Calc TDS		mg/L		3662	4524	4536	4195
TDS A/C Balance		dec. %	0.80 - 1.20	1.25	1.06	1.03	1.08

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:

	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
Sample ID:	WN-5	WN-5	WN-5	WN-5
Sample Date/Time:	02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
Date/Time Received:	2/13/2003 16:31	05/15/2003 NST	08/14/2003 15:30	11/20/ 2003 15:45
Sample Matrix:	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
Laboratory ID:	C03020470-007	C03050562-008	C03080522-015	C03110757-009
Report Date:	March 19, 2003	June 20, 2003	September 19, 2003	Decemeber 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	890	965	893	1020
Magnesium	EPA 200.7	mg/L	1.0	54.6	126	119	142
Sodium	EPA 200.7	mg/L	1.0	144	197	134	133
Potassium	EPA 200.7	mg/L	1.0	24.5	24.5	20.5	22.6
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	478	451	639	689
Sulfate	EPA 200.7	mg/L	5.0	1900	2110	2030	2020
Chloride	EPA 200.7	mg/L	5.0	175	204	146	152
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.31	0.29	0.30	0.32
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	122	145	87.9	83.3
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	392	370	504	565
Total Dissolved Solids	SM 2540-C	mg/L	10.0	4620	4630	4330	4100
Conductivity	SM 2510-B	µmho/cm	1.0	5080	5600	4610	4510
pH	SM 4500-H-B	std. units	0.01	7.54	7.08	7.38	7.29
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	0.09	0.09	0.22	0.27
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.026	0.017	0.015	0.024
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	2.44	2.47	2.42	2.59
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		61.1	67.5	63.2	63.6
Cation		meq		56.0	68.0	60.9	69.2
SM A/C Balance		%	-5 - +5	-4.36	0.38	-1.79	4.22
Calc TDS		mg/L		3968	4495	4052	4204
TDS A/C Balance		dec. %	0.80 - 1.20	1.16	1.03	1.07	0.98

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:

Sample ID:	SPLIT ROCK MILL SITE WN-5E	SPLIT ROCK MILL SITE WN-5E	SPLIT ROCK MILL SITE WN-5E	SPLIT ROCK MILL SITE WN-5E
Sample Date/Time:	02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
Date/Time Received:	02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Sample Matrix:	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
Laboratory ID:	C03020470-011	C03050562-007	C03080522-023	C03110757-013
Report Date:	March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Result	Result	Result	Result
Calcium	EPA 200.7	mg/L	1.0	754	818	749	709
Magnesium	EPA 200.7	mg/L	1.0	61.7	128	117	116
Sodium	EPA 200.7	mg/L	1.0	55.6	71.4	68.9	58.9
Potassium	EPA 200.7	mg/L	1.0	17.2	16.9	15.1	14.6
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	684	709	687	670
Sulfate	EPA 200.7	mg/L	5.0	1460	1400	1360	1470
Chloride	EPA 200.7	mg/L	5.0	91.6	106	107	119
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.34	0.29	0.29	0.29
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	82.0	90.0	74.0	80.0
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	561	581	564	550
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3560	3570	3660	3450
Conductivity	SM 2510-B	µmho/cm	1.0	3900	4250	3910	3900
pH	SM 4500-H-B	std. units	0.01	7.68	7.18	7.42	7.61
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	0.22	0.21	0.25	0.20
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.009	0.017	0.006	0.015
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	2.46	2.60	2.58	2.80
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		50.1	50.2	47.9	50.7
Cation	meq		45.7	55.1	50.6	48.1
SM A/C Balance	%	-5 - +5	-4.53	4.67	2.75	-2.64
Calc TDS	mg/L		3160	3309	3103	3192
TDS A/C Balance	dec. %	0.80 - 1.20	1.13	1.08	1.18	1.08

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-5R	WN-5R	WN-5R	WN-5R
2/10/2003 NST	05/12/2003 NST	08/11/2003 NST0	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-005	C03050562-010	C03080522-016	C03110757-010
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	840	982	870	1080
Magnesium	EPA 200.7	mg/L	1.0	69	128	116	150
Sodium	EPA 200.7	mg/L	1.0	167	194	133	134
Potassium	EPA 200.7	mg/L	1.0	24.8	25.0	20.4	23.6
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	485	455	650	675
Sulfate	EPA 200.7	mg/L	5.0	1860	2130	1990	2120
Chloride	EPA 200.7	mg/L	5.0	179	200	154	196
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.31	0.28	0.30	0.28
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	132	127	86.9	80.8
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	398	365	533	553
Total Dissolved Solids	SM 2540-C	mg/L	10.0	4620	4630	4330	4100
Conductivity	SM 2510-B	µmho/cm	1.0	5070	5620	4590	4500
pH	SM 4500-H-B	std. units	0.01	7.52	6.80	7.50	7.39
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	0.09	0.09	0.22	0.29
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.017	0.024	0.014	0.021
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	2.41	2.40	2.30	2.60
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		61.2	66.5	62.7	66.5
Cation		meq		55.6	68.9	59.5	73.0
SM A/C Balance		%	-5 - +5	-4.73	1.72	-2.59	4.61
Calc TDS		mg/L		3967	4449	3994	4399
TDS A/C Balance		dec. %	0.80 - 1.20	1.16	1.04	1.08	0.93

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-5S	WN-5S	WN-5S	WN-5S
02/102003 NST	05/12/2003 NST	08/11/2003 NST	11/17/203 NST
02/13/2003016:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-006	C03050562-009	C03080522-017	C03110757-011
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	857	975	852	1090
Magnesium	EPA 200.7	mg/L	1.0	66.2	127	114	151
Sodium	EPA 200.7	mg/L	1.0	161	196	132	132
Potassium	EPA 200.7	mg/L	1.0	24.3	24.9	20.0	23.3
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	479	450	639	675
Sulfate	EPA 200.7	mg/L	5.0	1890	2110	2020	2110
Chloride	EPA 200.7	mg/L	5.0	180	194	160	204
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.32	0.28	0.29	0.35
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	129	140	85.0	79.9
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	393	369	524	553
Total Dissolved Solids	SM 2540-C	mg/L	10.0	4620	4620	4330	4100
Conductivity	SM 2510-B	µmho/cm	1.0	5080	5600	4610	4500
pH	SM 4500-H-B	std. units	0.01	7.54	7.10	7.51	7.38
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	0.10	0.09	0.22	0.27
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.022	0.023	0.013	0.023
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	2.50	2.44	2.31	2.55
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±							
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		61.5	66.8	63.1	66.5
Cation		meq		56.0	68.5	58.4	73.4
SM A/C Balance		%	-5 - +5	-4.68	1.27	-3.92	4.98
Calc TDS		mg/L		3990	4472	3994	4402
TDS A/C Balance		dec. %	0.80 - 1.20	1.16	1.03	1.08	0.93

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR

Project	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
Sample ID:	WN-7	WN-7	WN-7	WN-7
Sample Date:	02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/18/2003 NST
Date Received:	02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Sample Matrix:	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
Laboratory ID:	C03020470-022	C03050562-013	C03080522-003	C03110757-022
Report Date:	March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0		785		695
Magnesium	EPA 200.7	mg/L	1.0		203		208
Sodium	EPA 200.7	mg/L	1.0	-	146	-	186
Potassium	EPA 200.7	mg/L	1.0	-	21.9	-	19.8
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	526	-	570
Sulfate	EPA 200.7	mg/L	5.0	2180	2270	2470	2310
Chloride	EPA 200.7	mg/L	5.0	129	138	154	143
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	2.16	-	1.86
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	24.9	25.7	21.8	20.7

Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	432	-	467
Total Dissolved Solids	SM 2540-C	mg/L	10.0	4120	4320	4240	4440
Conductivity	SM 2510-B	µmho/cm	1.0	-	4790	-	4570
pH	SM 4500-H-B	std. units	0.01	6.76	6.94	6.71	7.54

Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	0.011	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.70	-	1.20
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	12.8	-	19.4
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.032	0.026	0.024	0.027
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004

Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.288	0.272	0.273	0.259
Radium 226		pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	3.7	-	< 2.0
Radium Error Estimate ±				-	2.0	-	-
Thorium 230		pCi/L	0.4	0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				0.4	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		-	61.7	-	63.0
Cation	meq		-	63.9	-	61.9
SM A/C Balance	%	-5 - +5	-	1.81	-	-0.88
Calc TDS	mg/L		-	3909	-	3909
TDS A/C Balance	dec. %	0.80 - 1.20	-	1.11	-	1.14

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-15	WN-15	WN-15	WN-15
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-028	C03050562-025	C03080522-008	C03110757-001
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	158	-	162
Magnesium	EPA 200.7	mg/L	1.0	-	24.4	-	24.3
Sodium	EPA 200.7	mg/L	1.0	-	13.9	-	13.1
Potassium	EPA 200.7	mg/L	1.0	-	6.2	-	5.7
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	201	-	203
Sulfate	EPA 200.7	mg/L	5.0	274	257	289	312
Chloride	EPA 200.7	mg/L	5.0	14.2	11.8	19.4	14.2
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	< 0.05	-	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	13.5	14.6	14.2	13.0
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	165	-	166
Total Dissolved Solids	SM 2540-C	mg/L	10.0	701	692	693	690
Conductivity	SM 2510-B	µmho/cm	1.0	-	931	-	986
pH	SM 4500-H-B	std. units	0.01	7.49	7.41	7.67	7.82
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	0.01	-	0.01
Barium	EPA 200.8	mg/L	0.05	-	0.12	-	0.13
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	< 0.05	-	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.006	0.006	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.138	0.139	0.156	0.157
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	5.0
Radium Error Estimate ±				-	-	-	2.8
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		-	10.0	-	11.1
Cation		meq		-	10.7	-	10.9
SM A/C Balance		%	-5 - +5	-	3.30	-	-1.32
Calc TDS		mg/L		-	637	-	690
TDS A/C Balance		dec. %	0.80 - 1.20	-	1.09	-	1.00

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-16	WN-16	WN-16	WN-16
02/12/2003 NST	05/12/2003 NST	08/11/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-029	C03050562-016	C03080522-004	C03110757-020
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	44.6	-	47.8
Magnesium	EPA 200.7	mg/L	1.0	-	5.8	-	5.3
Sodium	EPA 200.7	mg/L	1.0	-	17.5	-	13.0
Potassium	EPA 200.7	mg/L	1.0	-	7.2	-	4.8
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	160	-	159
Sulfate	EPA 200.7	mg/L	5.0	23.0	27.2	26.2	22.7
Chloride	EPA 200.7	mg/L	5.0	5.3	9.8	10.9	7.2
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	< 0.05	-	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	1.20	1.20	1.10	1.20
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	131	-	130
Total Dissolved Solids	SM 2540-C	mg/L	10.0	227	216	220	204
Conductivity	SM 2510-B	µmho/cm	1.0	-	308	-	322
pH	SM 4500-H-B	std. units	0.01	7.55	7.66	7.78	8.07
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	0.06	-	0.06
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	0.024	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	< 0.05	-	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.013	0.014	0.013	0.014
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		-	3.55	-	3.36
Cation		meq		-	3.67	-	3.53
SM A/C Balance		%	-5 - +5	-	1.62	-	2.39
Calc TDS		mg/L		-	183	-	171
TDS A/C Balance		dec. %	0.80 - 1.20	-	1.18	-	1.19

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-17	WN-17	WN-17	WN-17
02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
02/132003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-002	C03050562-001	C03080522-013	C03110757-005
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	60.4	58.8	53.0	59.5
Magnesium	EPA 200.7	mg/L	1.0	11.0	11.7	10.5	11.5
Sodium	EPA 200.7	mg/L	1.0	30.4	28.0	22.5	24.2
Potassium	EPA 200.7	mg/L	1.0	10.0	9.0	7.8	8.1
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	225	213	207	212
Sulfate	EPA 200.7	mg/L	5.0	57.2	54.7	56.8	65.8
Chloride	EPA 200.7	mg/L	5.0	12.5	9.8	15.8	15.8
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	< 0.20	< 0.20	< 0.20	0.30

Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	185	175	170	174
Total Dissolved Solids	SM 2540-C	mg/L	10.0	316	301	299	293
Conductivity	SM 2510-B	µmho/cm	1.0	482	455	484	496
pH	SM 4500-H-B	std. units	0.01	7.65	7.35	7.92	8.01

Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	0.02	0.02	0.02	0.02
Barium	EPA 200.8	mg/L	0.05	0.06	0.06	0.06	0.06
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	0.08	0.11
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004

Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.048	0.048	0.051	0.049
Radium 226		pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230		pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		5.25	4.92	5.04	5.31
Cation	meq		5.52	5.37	4.71	5.20
SM A/C Balance	%	-5 - +5	2.52	4.33	-3.38	-1.10
Calc TDS	mg/L		310	294	286	307
TDS A/C Balance	dec. %	0.80 - 1.20	1.02	1.02	1.05	0.95

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-18	WN-18	WN-18	WN-18
02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-008	C03050562-002	C03080522-014	C03110757-012
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	364	333	278	285
Magnesium	EPA 200.7	mg/L	1.0	36.3	52.8	47.8	52.2
Sodium	EPA 200.7	mg/L	1.0	79.1	98.3	97.0	92.4
Potassium	EPA 200.7	mg/L	1.0	16.6	15.4	13.7	13.3
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	408	383	364	374
Sulfate	EPA 200.7	mg/L	5.0	572	685	664	658
Chloride	EPA 200.7	mg/L	5.0	63.1	65.3	68.4	73.2
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.13	0.13	0.19	0.13
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	42.1	42.3	42.5	39.7
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	335	314	299	307
Total Dissolved Solids	SM 2540-C	mg/L	10.0	1800	1750	1780	1710
Conductivity	SM 2510-B	µmho/cm	1.0	2190	2190	2160	2180
pH	SM 4500-H-B	std. units	0.01	7.74	7.40	7.67	7.75
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	0.06	0.06	0.07	0.06
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	0.010	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.011	< 0.005	0.007	0.006
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.926	0.900	0.842	0.874
Radium 226		pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	3.9	< 2.0	< 2.0
Radium Error Estimate ±				-	2.1	-	-
Thorium 230		pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		23.4	25.4	24.8	24.7
Cation		meq		25.1	25.7	22.5	23.0
SM A/C Balance		%	-5 - +5	3.53	0.62	-4.86	-3.71
Calc TDS		mg/L		1522	1629	1539	1537
TDS A/C Balance		dec. %	0.80 - 1.20	1.18	1.07	1.16	1.11

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-19	WN-19	WN-19	WN-19
02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-021	C06050562-004	C03080522-012	C03110757-008
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	162	-	172
Magnesium	EPA 200.7	mg/L	1.0	-	35.1	-	36.1
Sodium	EPA 200.7	mg/L	1.0	-	137	-	128
Potassium	EPA 200.7	mg/L	1.0	-	16.2	-	15.2
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	267	-	282
Sulfate	EPA 200.7	mg/L	5.0	419	458	471	530
Chloride	EPA 200.7	mg/L	5.0	101	103	102	113
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	0.06	-	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	5.00	5.60	2.80	5.20
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	219	-	232
Total Dissolved Solids	SM 2540-C	mg/L	10.0	1120	1170	1100	1150
Conductivity	SM 2510-B	µmho/cm	1.0	-	1650	-	1670
pH	SM 4500-H-B	std. units	0.01	7.50	7.53	7.35	7.68
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	0.07	-	0.07
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.075	-	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	0.18	-	0.20
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.007	0.006	0.006	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.420	0.479	0.543	0.491
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		-	17.2	-	19.2
Cation		meq		-	17.4	-	17.6
SM A/C Balance		%	-5 - +5	-	0.54	-	-4.50
Calc TDS		mg/L		-	1046	-	1134
TDS A/C Balance		dec. %	0.80 - 1.20	-	1.12	-	1.01

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-21	WN-21	WN-21	WN-21
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-013	C03050562-027	C03080522-030	C03110757-002
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	79.8	97.9	93.7	94.3
Magnesium	EPA 200.7	mg/L	1.0	12.0	19.4	16.0	15.2
Sodium	EPA 200.7	mg/L	1.0	31.8	34.2	30.9	29.7
Potassium	EPA 200.7	mg/L	1.0	9.4	8.3	7.2	6.6
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	240	223	237	239
Sulfate	EPA 200.7	mg/L	5.0	108	184	148	150
Chloride	EPA 200.7	mg/L	5.0	17.6	12.7	17.2	10.0
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	2.17	5.73	2.80	2.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	9.90	8.70	10.80	9.20
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	197	183	195	196
Total Dissolved Solids	SM 2540-C	mg/L	10.0	489	547	526	490
Conductivity	SM 2510-B	µmho/cm	1.0	716	807	785	732
pH	SM 4500-H-B	std. units	0.01	7.89	7.54	7.94	7.96
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	0.37	0.96	0.56	0.40
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.116	0.176	0.154	0.138
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		7.39	8.47	8.22	7.98
Cation		meq		6.77	8.62	7.75	7.59
SM A/C Balance		%	-5 - +5	-4.37	0.89	-2.99	-2.53
Calc TDS		mg/L		437	522	494	481
TDS A/C Balance		dec. %	0.80 - 1.20	1.12	1.05	1.06	1.02

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-23	WN-23	WN-23	WN-23
02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-009	C063050562-003	C03080522-018	C03110757-007
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	499	634	317	436
Magnesium	EPA 200.7	mg/L	1.0	36.0	62.4	36.6	70.7
Sodium	EPA 200.7	mg/L	1.0	52.8	76.8	53.4	53.3
Potassium	EPA 200.7	mg/L	1.0	17.8	18.8	14.8	14.9
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	371	372	299	349
Sulfate	EPA 200.7	mg/L	5.0	992	1240	697	957
Chloride	EPA 200.7	mg/L	5.0	70.1	97.6	58.3	70.7
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.22	0.17	0.10	0.15
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	32.9	43.2	19.8	25.9
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	304	305	245	286
Total Dissolved Solids	SM 2540-C	mg/L	10.0	2190	2740	1530	1900
Conductivity	SM 2510-B	µmho/cm	1.0	2560	3220	1900	2330
pH	SM 4500-H-B	std. units	0.01	7.69	7.19	7.68	7.76
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	0.06	0.06	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.008	0.010	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	1.21	1.35	0.95	1.37
Radium 226		pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230		pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		31.1	37.8	22.5	29.5
Cation	meq		30.7	40.7	21.6	30.4
SM A/C Balance	%	-5 - +5	-0.58	3.78	-1.97	1.50
Calc TDS	mg/L		2014	2522	1429	1907
TDS A/C Balance	dec. %	0.80 - 1.20	1.09	1.09	1.07	1.00

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-24	WN-24	WN-24	WN-24
02/11/2003 NST	05/13/2003 NST	08/11/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-15	C03050562-028	C03080522-021	C03110757-004
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	231	237	225	252
Magnesium	EPA 200.7	mg/L	1.0	31.5	33.6	31.8	43.2
Sodium	EPA 200.7	mg/L	1.0	51.3	48.9	46.6	48.8
Potassium	EPA 200.7	mg/L	1.0	11.2	10.2	9.7	11.6
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	260	253	257	207
Sulfate	EPA 200.7	mg/L	5.0	503	501	513	610
Chloride	EPA 200.7	mg/L	5.0	31.1	24.2	34.2	33.1
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.11	0.07	0.08	0.09
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	15.7	17.1	16.9	17.6
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	213	208	211	207
Total Dissolved Solids	SM 2540-C	mg/L	10.0	1180	1190	1190	1210
Conductivity	SM 2510-B	µmho/cm	1.0	1490	1510	1530	1580
pH	SM 4500-H-B	std. units	0.01	7.90	7.54	8.00	7.91
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	0.08
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	0.012	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.293	0.354	0.350	0.396
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	2.1	< 2.0	< 2.0
Radium Error Estimate ±				-	1.1	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		16.7	16.5	17.1	18.3
Cation	meq		16.7	17.0	16.2	18.6
SM A/C Balance	%	-5 - +5	-0.12	1.65	-2.68	0.91
Calc TDS	mg/L		1059	1057	1064	1180
TDS A/C Balance	dec. %	0.80 - 1.20	1.11	1.13	1.12	1.03

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-25	WN-25	WN-25	WN-25
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-010	C03050562-026	C03080522-029	C03110757-003
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	142	180	156	171
Magnesium	EPA 200.7	mg/L	1.0	25.8	35.4	30.2	32.2
Sodium	EPA 200.7	mg/L	1.0	38.8	41.7	35.6	37.0
Potassium	EPA 200.7	mg/L	1.0	11.9	10.1	8.9	8.6
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	214	217	213	209
Sulfate	EPA 200.7	mg/L	5.0	295	352	327	379
Chloride	EPA 200.7	mg/L	5.0	21.2	16.1	19.6	12.0
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	7.70	7.80	6.00	5.10
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	38.1	35.4	35.8	29.1
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	175	178	175	171
Total Dissolved Solids	SM 2540-C	mg/L	10.0	968	983	969	875
Conductivity	SM 2510-B	µmho/cm	1.0	1310	1350	1320	1250
pH	SM 4500-H-B	std. units	0.01	7.27	7.23	7.80	7.68
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	0.02	0.01	0.02	0.02
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	0.07
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	3.44	3.82	3.18	2.65
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.008	< 0.005	0.006	0.006
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.211	0.255	0.244	0.245
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		13.0	13.9	13.4	13.7
Cation		meq		11.8	14.6	12.5	13.4
SM A/C Balance		%	-5 - +5	-4.77	2.48	-3.44	-1.15
Calc TDS		mg/L		825	916	857	888
TDS A/C Balance		dec. %	0.80 - 1.20	1.17	1.07	1.13	0.99

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-26	WN-26	WN-26	WN-26
02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-023	C03050562-005	C03080522-002	C03110757-014
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	54.2	-	48.7
Magnesium	EPA 200.7	mg/L	1.0	-	4.4	-	5.0
Sodium	EPA 200.7	mg/L	1.0	-	8.3	-	7.8
Potassium	EPA 200.7	mg/L	1.0	-	3.1	-	2.8
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	101	-	98
Sulfate	EPA 200.7	mg/L	5.0	72.1	71.1	74.6	79.2
Chloride	EPA 200.7	mg/L	5.0	< 5.0	6.6	6 6	6.9
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	< 0.05	-	0.08
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	0.50	0.06	0.60	0.56
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	83.0	-	81.0
Total Dissolved Solids	SM 2540-C	mg/L	10.0	208	201	214	183
Conductivity	SM 2510-B	µmho/cm	1.0	-	305	-	328
pH	SM 4500-H-B	std. units	0.01	7.67	7.71	8.14	8.02
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	0.09	-	0.08
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0 001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	< 0.05	-	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	0.002	0.003	0.002	0.003
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	3.4	-	< 2.0
Radium Error Estimate ±				-	1.1	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		-	3.33	-	3.49
Cation		meq		-	3.52	-	3.27
SM A/C Balance		%	-5 - +5	-	2.82	-	-3.34
Calc TDS		mg/L		-	213	-	217
TDS A/C Balance		dec. %	0.80 - 1.20	-	0.94	-	0.84

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:

Sample ID:	SPLIT ROCK MILL SITE WN-28	SPLIT ROCK MILL SITE WN-28	SPLIT ROCK MILL SITE WN-28	SPLIT ROCK MILL SITE WN-28
Sample Date:	02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/18/2003 NST
Date Received:	02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Sample Matrix:	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
Laboratory ID:	C03020470-018	C03050562-023	C03080522-027	C03110757-019
Report Date:	March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	678	703	665	619
Magnesium	EPA 200.7	mg/L	1.0	167	174	162	156
Sodium	EPA 200.7	mg/L	1.0	85.8	131	121	106
Potassium	EPA 200.7	mg/L	1.0	26.0	30.9	28.3	25.8
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	751	692	762	768
Sulfate	EPA 200.7	mg/L	5.0	1970	1990	2180	1850
Chloride	EPA 200.7	mg/L	5.0	102	105	116	146
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	94.0	91.0	97.0	90.0
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	34.9	43.1	32.9	31.6
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	616	567	625	630
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3780	3750	3820	3720
Conductivity	SM 2510-B	µmho/cm	1.0	4650	5130	4710	4680
pH	SM 4500-H-B	std. units	0.01	7.21	6.91	7.28	7.49
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	14.8	13.9	2.9	14.3
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	0.08	0.07	< 0.05	0.06
Selenium	EPA 200.8	mg/L	0.005	0.028	0.030	< 0.005	0.026
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	5.67	5.41	1.16	5.34
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	1.1	< 1.0	< 1.0
Radium Error Estimate ±				-	0.2	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		58.7	58.8	63.5	57.5
Cation		meq		58.9	62.6	59.7	55.6
SM A/C Balance		%	-5 - +5	0.18	3.13	-3.13	-1.64
Calc TDS		mg/L		3574	3686	3814	3442
TDS A/C Balance		dec. %	0.80 - 1.20	1.06	1.02	1.00	1.08

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date/Time:
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Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-30	WN-30	WN-30	WN-30
02/10/2003 NST	05/12/2003 NST	08/11/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-003	C03050562-006	C03080522-024	C03110757-021
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	785	894	837	764
Magnesium	EPA 200.7	mg/L	1.0	169	205	188	171
Sodium	EPA 200.7	mg/L	1.0	158	215	209	223
Potassium	EPA 200.7	mg/L	1.0	34.7	41.3	37.8	33.6
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	493	439	451	456
Sulfate	EPA 200.7	mg/L	5.0	2100	2320	2450	2100
Chloride	EPA 200.7	mg/L	5.0	101	96.8	104	122
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	29.0	30.0	27.7	26.4
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	167	209	170	141
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	404	360	370	374
Total Dissolved Solids	SM 2540-C	mg/L	10.0	4670	4980	5010	4680
Conductivity	SM 2510-B	µmho/cm	1.0	5290	6390	5510	5250
pH	SM 4500-H-B	std. units	0.01	7.36	7.20	7.31	7.68
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	0.01	0.02	0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	4.12	3.97	4.45	3.93
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	0.20	0.30	0.20	0.30
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.024	0.031	0.006	0.031
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	1.51	1.77	1.59	1.59
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		66.6	73.2	73.5	64.7
Cation	meq		63.2	74.3	69.6	64.9
SM A/C Balance	%	-5 - +5	-2.65	0.78	-2.77	0.12
Calc TDS	mg/L		4371	4956	4840	4300
TDS A/C Balance	dec. %	0.80 - 1.20	1.07	1.00	1.04	1.09

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-31	WN-31	WN-31	WN-31
02/13/2003 NST	05/12/2003 NST	08/11/2003 NST	11/17/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-019	C03050562-014	C03080522-019	C03110757-015
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	884	940	917	815
Magnesium	EPA 200.7	mg/L	1.0	128	134	116	122
Sodium	EPA 200.7	mg/L	1.0	49.3	65.5	60.8	59.1
Potassium	EPA 200.7	mg/L	1.0	16.5	19.2	16.4	15.3
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	656	666	662	659
Sulfate	EPA 200.7	mg/L	5.0	1710	1817	1943	1720
Chloride	EPA 200.7	mg/L	5.0	125	147	151	167
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.30	0.21	0.27	0.26
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	67.0	70.0	60.0	66.0
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	538	645	543	541
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3890	3930	4120	3890
Conductivity	SM 2510-B	µmho/cm	1.0	4160	4590	4270	4230
pH	SM 4500-H-B	std. units	0.01	7.46	6.84	7.70	7.69
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	0.11	0.12	0.11	0.10
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	0.20	0.20	0.20	0.20
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.009	0.007	< 0.005	0.012
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	5.45	5.98	5.97	5.11
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	4.4
Radium Error Estimate ±				-	-	-	1.6
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		54.7	57.9	59.9	56.1
Cation		meq		57.5	61.5	58.6	53.9
SM A/C Balance		%	-5 - +5	2.47	3.02	-1.07	-1.96
Calc TDS		mg/L		3553	3781	3816	3535
TDS A/C Balance		dec. %	0.80 - 1.20	1.09	1.04	1.08	1.10

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-A	WN-A	WN-A	WN-A
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-025	C03050562-018	C03080522-007	C03110757-018
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	858	-	743
Magnesium	EPA 200.7	mg/L	1.0	-	118	-	105
Sodium	EPA 200.7	mg/L	1.0	-	48.0	-	36.7
Potassium	EPA 200.7	mg/L	1.0	-	18.6	-	14.7
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	787	-	792
Sulfate	EPA 200.7	mg/L	5 0	1620	1750	1530	1550
Chloride	EPA 200.7	mg/L	5.0	84.2	96.9	104	116
Ammonia as N	SM 4500-NH3-G	mg/L	0 05	-	4.90	-	3.40
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	2.80	2.30	2.50	1.80
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	645	-	650
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3360	3460	3400	3390
Conductivity	SM 2510-B	µmho/cm	1.0	-	3940	-	3710
pH	SM 4500-H-B	std. units	0.01	6.92	6.90	6.65	7.40
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	14.1	-	17.4
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	1.11	-	0.68
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.010	< 0.005	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	1.88	2.00	2.12	2.20
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	2.2	-	< 2.0
Radium Error Estimate ±				-	1.1	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion		meq		-	52.3	-	48.7
Cation		meq		-	55.7	-	48.2
SM A/C Balance		%	-5 - +5	-	3.20	-	-0.55
Calc TDS		mg/L		-	3230	-	2903
TDS A/C Balance		dec. %	0.80 - 1.20	-	1.07	-	1.17

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:
Sample ID:
Sample Date/Time:
Date/Time Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-B	WN-B	WN-B	WN-B
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-16	C03050562-020	C03080522-025	C03110757-026
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Result	Result	Result	Result
Calcium	EPA 200.7	mg/L	1.0	715	776	676	647
Magnesium	EPA 200.7	mg/L	1.0	166	147	146	145
Sodium	EPA 200.7	mg/L	1.0	86.0	90.0	138	118
Potassium	EPA 200.7	mg/L	1.0	31.8	23.9	21.4	21.0
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	904	888	734	795
Sulfate	EPA 200.7	mg/L	5.0	1820	1544	2050	1730
Chloride	EPA 200.7	mg/L	5.0	84.4	75.2	101	107
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	63.6	18.3	27.0	25.4
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	18.8	48.6	30.3	19.7
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	741	728	602	652
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3640	3410	3750	3590
Conductivity	SM 2510-B	µmho/cm	1.0	4320	4200	4240	4120
pH	SM 4500-H-B	std. units	0.01	7.06	7.11	7.34	7.39
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	0.10	< 0.05	0.34	0.12
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	7.46	1.96	10.50	6.34
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.015	0.020	< 0.005	0.009
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	3.83	3.79	3.17	4.04
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion	meq			56.5	52.3	59.8	53.5
Cation	meq			58.7	56.9	54.4	51.9
SM A/C Balance	%		-5 - +5	1.93	4.18	-4.65	-1.50
Calc TDS	mg/L			3521	3339	3668	3286
TDS A/C Balance	dec. %		0.80 - 1.20	1.03	1.02	1.02	1.09

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project:

Sample ID:	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
	WN-BS	WN-BS	WN-BS	WN-BS
Sample Date:	02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/19/2003 NST
Date Received:	02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Sample Matrix:	Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
Laboratory ID:	C03020470-017	C03050562-021	C03080522-026	C03110757-027
Report Date:	March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	717	784	685	641
Magnesium	EPA 200.7	mg/L	1.0	167	146	148	144
Sodium	EPA 200.7	mg/L	1.0	76.8	90.0	145	118
Potassium	EPA 200.7	mg/L	1.0	29.9	23.9	22.4	21.2
Carbonate	SM 2320-B	mg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	902	899	734	797
Sulfate	EPA 200.7	mg/L	5.0	1840	1534	2020	1800
Chloride	EPA 200.7	mg/L	5.0	88.5	72.2	107	118
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	62.8	17.4	26.3	25.9
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	19.0	47.8	31.2	19.7
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	739	737	602	653
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3650	3420	3750	3580
Conductivity	SM 2510-B	µmho/cm	1.0	4330	4190	4230	4120
pH	SM 4500-H-B	std. units	0.01	7.02	6.88	7.34	7.32
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	0.10	< 0.05	0.32	0.13
Lead	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	7.25	1.91	9.82	6.61
Mercury	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.009	0.020	< 0.005	0.010
Silver	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	3.95	3.67	3.15	4.05
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0	< 2.0	< 2.0	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-
Quality Assurance Data			**Target Range**				
Anion	meq			57.0	52.1	59.4	55.3
Cation	meq			58.4	57.1	55.3	51.6
SM A/C Balance	%		-5 - +5	1.20	4.57	-3.50	-3.48
Calc TDS	mg/L			3469	3326	3648	3343
TDS A/C Balance	dec. %		0.80 - 1.20	1.05	1.03	1.03	1.07

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LABORATORY ANALYSIS REPORT

Client: WESTERN NUCLEAR
Project
Sample ID:
Sample Date:
Date Received:
Sample Matrix:
Laboratory ID:
Report Date:

SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE	SPLIT ROCK MILL SITE
WN-C	WN-C	WN-C	WN-C
02/11/2003 NST	05/13/2003 NST	08/12/2003 NST	11/18/2003 NST
02/13/2003 16:31	05/15/2003 15:00	08/14/2003 15:30	11/20/2003 15:45
Liquid, Water	Liquid, Water	Liquid, Water	Liquid, Water
C03020470-026	C03050562-019	C03080522-006	C03110757-017
March 19, 2003	June 20, 2003	September 19, 2003	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	1.0	-	751	-	691
Magnesium	EPA 200.7	mg/L	1.0	-	108	-	136
Sodium	EPA 200.7	mg/L	1.0	-	108	-	95.0
Potassium	EPA 200.7	mg/L	1.0	-	26.4	-	22.0
Carbonate	SM 2320-B	mg/L	1.0	-	< 1.0	-	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	-	794	-	873
Sulfate	EPA 200.7	mg/L	5.0	1710	1764	1560	1750
Chloride	EPA 200.7	mg/L	5.0	64.3	84.6	81.1	99.7
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	-	48.0	-	36.0
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	46.0	49.3	44.9	38.3
Non-Metals							
Alkalinity	SM 2320-B	mg/L	10.0	-	651	-	716
Total Dissolved Solids	SM 2540-C	mg/L	10.0	3660	3670	3530	3700
Conductivity	SM 2510-B	µmho/cm	1.0	-	4640	-	4320
pH	SM 4500-H-B	std. units	0.01	6.99	7.25	6.84	7.46
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	-	< 0.01	-	< 0.01
Barium	EPA 200.8	mg/L	0.05	-	< 0.05	-	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004	< 0.004	< 0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	-	0.05	-	0.05
Lead	EPA 200.8	mg/L	0.005	0.006	< 0.005	< 0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	-	11.0	-	6.3
Mercury	EPA 200.8	mg/L	0.001	-	< 0.001	-	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	-	< 0.10	-	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	0.011	0.015	< 0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	-	< 0.004	-	< 0.004
Radiometrics							
Uranium	EPA 200.8	mg/L	0.001	4.86	4.76	5.39	4.76
Radium 226	EPA 903.0	pCi/L	1.0	-	< 1.0	-	< 1.0
Radium Error Estimate ±				-	-	-	-
Radium 228	EPA 904.0	pCi/L	2.0	-	< 2.0	-	< 2.0
Radium Error Estimate ±				-	-	-	-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4	< 0.4	< 0.4	< 0.4
Thorium Error Estimate ±				-	-	-	-

Quality Assurance Data		Target Range				
Anion	meq		-	55.7	-	56.3
Cation	meq		-	56.0	-	53.5
SM A/C Balance	%	-5 - +5	-	0.25	-	-2.57
Calc TDS	mg/L		-	3459	-	3374
TDS A/C Balance	dec. %	0.80 - 1.20	-	1.06	-	1.10

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LABORATORY ANALYSIS REPORT

Client:	WESTERN NUCLEAR
Project	SPLIT ROCK MILL SITE
Sample ID:	Field Blank
Sample Date/Time:	11/19/2003 NST
Date/Time Received:	11/20/2003 15:45
Sample Matrix:	Liquid, Water
Laboratory ID:	C03110757-032
Report Date:	December 30, 2003

Major Ions	Method	Units	Reporting Limit	Results
Calcium	EPA 200.7	mg/L	1.0	< 1.0
Magnesium	EPA 200.7	mg/L	1.0	< 1.0
Sodium	EPA 200.7	mg/L	1.0	< 1.0
Potassium	EPA 200.7	mg/L	1.0	< 1.0
Carbonate	SM 2320-B	mg/L	1.0	< 1.0
Bicarbonate	SM 2320-B	mg/L	1.0	3.0
Sulfate	EPA 200.7	mg/L	5.0	< 5.0
Chloride	EPA 200.7	mg/L	5.0	< 5.0
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	< 0.05
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.20	< 0.20
Non-Metals				
Alkalinity	SM 2320-B	mg/L	10.0	< 10.0
Total Dissolved Solids	SM 2540-C	mg/L	10.0	< 10.0
Conductivity	SM 2510-B	µmho/cm	1.0	1.8
pH	SM 4500-H-B	std. units	0.01	5.51
Trace Metals, dissolved				
Aluminum	EPA 200.8	mg/L	0.10	< 0.10
Arsenic	EPA 200.8	mg/L	0.01	< 0.01
Barium	EPA 200.8	mg/L	0.05	< 0.05
Beryllium	EPA 200.8	mg/L	0.004	< 0.004
Cadmium	EPA 200.8	mg/L	0.001	< 0.001
Chromium	EPA 200.8	mg/L	0.005	< 0.005
Iron	EPA 200.7	mg/L	0.05	< 0.05
Lead	EPA 200.8	mg/L	0.005	< 0.005
Manganese	EPA 200.8	mg/L	0.05	< 0.05
Mercury	EPA 200.8	mg/L	0.001	< 0.001
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05
Selenium	EPA 200.8	mg/L	0.005	< 0.005
Silver	EPA 200.8	mg/L	0.004	< 0.004
Radiometrics				
Uranium	EPA 200.8	mg/L	0.001	< 0.001
Radium 226	EPA 903.0	pCi/L	1.0	< 1.0
Radium Error Estimate ±				-
Radium 228	EPA 904.0	pCi/L	2.0	< 2.0
Radium Error Estimate ±				-
Thorium 230	EPA 907.0	pCi/L	0.4	< 0.4
Thorium Error Estimate ±				-

Quality Assurance Data		Target Range	
Anion	meq		0.31
Cation	meq		0.21
SM A/C Balance	%	-5 - +5	* -19.9
Calc TDS	mg/L		17.7
TDS A/C Balance	dec. %	0.80 - 1.20	* 0.57

* Balances inappropriate for near blank samples.

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