

40-9079

October 24, 2008

Attn: Document Control Desk  
Myron Fliegel, Senior Project Manager  
Uranium Recovery Licensing Branch  
Division of Waste Management  
And Environmental Protection  
Office of Federal and State Materials  
And Environmental Management Programs,  
US Nuclear Regulatory Commission  
Two White Flint North, MS T8F5  
11545 Rockville Pike  
Rockville, MD 20852

RE: ANTELOPE AND JAB URANIUM PROJECT TECHNICAL AND  
ENVIRONMENTAL REPORT REPLACEMENT PAGES

Dear Mr. Fliegel:

In response to your email sent on October 15, 2008, please find 3 copies of the enclosed replacement pages requested for the Antelope and JAB Uranium Project Environmental Report. The enclosed replacement pages include:

- Page 3.4-D3 Antelope Ground Water Quality Results by Well, Vol. II Environmental Report, Sections 3.4,
- Renumbered Addendum 3.5-E, Vol. III Environmental Report, Section 3.5
- Renumbered Appendix D-1 RASRAD Data Input Basis Parameters, Vol. IV Environmental Report, Appendix D.

It was determined that the pages in question for Addendum 3.5-E and Appendix D-1 were not missing from the document, but were incorrectly numbered.

Also enclosed are 6 copies of Page 2.7-D3, Antelope Ground Water Quality Results by Well, to be inserted into the Antelope and JAB Uranium Project Technical Report, Section 2.7,

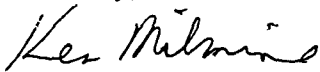
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Addendum 2.7-D, as it was determined that this page may be missing from the Technical Report also.

If you should have any further questions or need more information, please contact me at (307) 234-8235 ext. 330 or by email and [ken.milmine@uranium1.com](mailto:ken.milmine@uranium1.com).

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Sincerely,



Ken Milmine  
Manager of Environmental and  
Regulatory Affairs- Wyoming

Enclosures: Page 3.4-D3 Antelope Ground Water Quality Results by Well  
Renumbered Addendum 3.5-E  
Renumbered Appendix D-1 RASRAD Data Input Basis Parameters  
Page 2.7-D3, Antelope Ground Water Quality Results by Well

Antelope ground water quality results by well

Analyte	Test Type <sup>1</sup>	Units	M-10		M-11		M-12		M-13		MU-13	M-14		M-15	M-16		MP-16	MU-16
			4/8/2008	11/28/2007	4/8/2008	1/25/2008	4/8/2008	12/31/2007	4/3/2008	12/31/2007	4/8/2008	4/8/2008	12/31/2007	4/3/2008	4/3/2008	12/31/2007	3/29/2008	4/3/2008
A/C Balance (± 5)	DIS	%	10.5	1.84	9.9	3.96	9.68	4.9	2.27	2.21	10.6	10.9	0.926	2.59	3.01	1.97	1.15	0.157
Anions	DIS	mg/L	3.11	3.19	2.86	3.23	2.63	3.06	2.83	2.46	2.61	2.25	2.7	11.6	4.07	4.19	3.87	5.81
Bicarbonate as HCO <sub>3</sub>	DIS	mg/L	115	120	139	139	116	135	130	95	114	98	114	261	144	165	165	150
Carbonate as CO <sub>3</sub>	DIS	mg/L	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2	0.5	1	3	0.5	11	6	0.5	0.5
Cations	DIS	mg/L	3.84	3.09	3.49	2.98	3.19	3.37	2.96	2.57	3.23	2.79	2.76	11	4.32	4.36	3.96	5.83
Chloride	DIS	mg/L	0.5	0.5	3	3	4	5	5	5	1	1	3	9	2	4	5	3
Conductivity	DIS	umhos/cm	328	330	296	280	272	290	264	220	272	239	253	930	368	396	352	518
Fluoride	DIS	mg/L	0.1	0.1	0.2	0.1	0.3	0.4	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2
pH	DIS	s.u.	7.67	7.69	7.85	7.65	8.58	8.39	7.91	8.45	8.07	8.7	8.42	7.51	9	8.4	7.96	8.63
Solids, Total Dissolved Calculated	DIS	mg/L	208	197	187	189	173	192	172	160	176	153	170	708	252	256	233	372
Solids, Total Dissolved TDS @ 180 C	DIS	mg/L	202	208	156	161	161	187	141	156	152	142	164	600	225	257	208	329
Sulfate	DIS	mg/L	58	59	35	40	28	31	25	31	32	26	31	337	61	57	48	156
TDS Balance (0.80 - 1.20)	DIS	dec. %	0.97	1.06	0.83	0.85	0.93	0.97	0.82	0.98	0.86	0.93	0.96	0.85	0.89	1.01	0.89	0.88
Nitrogen, Ammonia as N	DIS	mg/L	0.1	0.11	0.05	0.08	0.05	0.09	0.025	0.06	0.05	0.05	0.05	0.025	0.09	0.05	0.05	0.025
Nitrogen, Nitrate+Nitrite as N	DIS	mg/L	0.05	0.05	0.33	0.2	0.025	0.05	0.5	0.6	0.15	0.025	0.05	0.05	0.05	0.05	0.05	0.2
Iron	TOT	mg/L	2.77	2.89	0.015	0.015	0.015	0.41	1.53	0.015	0.04	0.015	7.96	0.015	0.015	0.015	0.015	0.015
Manganese	TOT	mg/L	0.06	0.04	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.15	0.005	0.005	0.01	0.005	0.005
Aluminum	DIS	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	DIS	mg/L	0.0005	0.0005	0.005	0.005	0.007	0.009	0.011	0.005	0.004	0.007	0.0005	0.01	0.007	0.003	0.003	0.006
Barium	DIS	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Boron	DIS	mg/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Cadmium	DIS	mg/L	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Calcium	DIS	mg/L	56	44	47	41	39	45	41	30	41	32	37	166	65	64	57	89
Chromium	DIS	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Copper	DIS	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	DIS	mg/L	0.015	0.68	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.7	0.015	0.015	0.015	0.015
Lead	DIS	mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Magnesium	DIS	mg/L	5	3	3	3	2	2	4	3	4	3	2	18	4	5	5	7
Manganese	DIS	mg/L	0.06	0.04	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.15	0.005	0.005	0.005	0.005
Mercury	DIS	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	DIS	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	DIS	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium	DIS	mg/L	2	2	2	2	5	5	2	3	4	9	8	2	4	6	2	6
Selenium	DIS	mg/L	0.0005	0.0005	0.009	0.006	0.0005	0.008	0.012	0.012	0.008	0.0005	0.001	0.0005	0.002	0.001	0.0005	0.002
Silica	DIS	mg/L	16.3	16	16.4	16.1	14.6	17.2	17.1	19.4	19.1	15.5	17.8	20	19.1	19.4	19.4	21.5
Sodium	DIS	mg/L	14	11	19	15	23	19	14	16	18	16	12	26	15	13	14	14
Uranium	DIS	mg/L	0.0313	0.0305	0.12	0.145	0.108	0.129	0.0994	0.1	0.0734	0.0588	0.0734	0.0004	0.809	0.639	0.0072	0.0703
Vanadium	DIS	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc	DIS	mg/L	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.005	0.005	0.005	0.005
Gross Alpha	DIS	pCi/L	64.6	45.2	109	123	443	494	87.5	94.8	92.2	354	330	13.7	997	797	345	62.7
Gross Alpha MDC	DIS	pCi/L	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.1	1.1	2.6	1.4	2	2	1.6	1.6
Gross Beta	DIS	pCi/L	21	15.1	28.7	45.6	146	193	37.3	39	22.1	137	153	12.4	445	290	125	30.8
Gross Beta MDC	DIS	pCi/L	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.5	2.6	2.6	2.4
Lead 210	DIS	pCi/L	-3.6	0.5	-4.2		62.3		10.9		-3.3	32.1		2.8	78.1		45.7	11.2
Polonium 210	DIS	pCi/L	0.9	0.5	0.5		3		0.7		1.9	3.6		0.8	38		3.3	-0.1
Radium 226	DIS	pCi/L	13.2	14.1	3.8	1.3	194	204	4.8	1.8	6.3	143	142	3.3	231	223	129	4.1
Radium 226 MDC	DIS	pCi/L	0.17	0.17	0.56		0.56		0.21		0.18	0.44		0.21	0.22		0.1	0.22
Radium 228	DIS	pCi/L	3	0.5	2.5	8.1	3	2.5	1.5	2.5	1.6	3	0.5	5.9	2.5	0.5	3.7	4.2
Radium 228 MDC	DIS	pCi/L	1	1	1		1		1.1		1	1		1.1	1.1		1.1	1.1
Thorium 230	DIS	pCi/L	0	0.1	0		0		0		0	0.1		0	0.4		0.3	0
Lead 210	SUS	pCi/L	0	5.3	0		5		62.5		0	0		56.3	32.9		16.2	39.3
Polonium 210	SUS	pCi/L	2.1	7.1	0.4		1.2		0.9		0.6	2.3		0.7	4.8		2.7	0.2
Radium 226	SUS	pCi/L	2.2	2.8	-0.6		0.1		0.8		-0.6	0.6		1.5	0.2		1.3	-0.2
Radium 226 MDC	SUS	pCi/L	0.7	0.7	0.7		0.7		0.4		0.6	0.7		0.4	0.4		0.3	0.4
Thorium 230	SUS	pCi/L	0.4	0.1	0.1		0.2		0.8		0.5	0.8		0.1	0		0.3	0
Uranium	SUS	mg/L	0.0007	0.0057	0.00015		0.00015		0.004		0.00015	0.00015		0.00015	0.0007		0.0013	<0.0003

1. Test Type Codes: DIS = Dissolution, TOT = Total  
 Highlighted values represent values under detectable limit. For averaging purposes, value presented is 1/2 the limit value (e.g. 0.5 = <1)