CROW BUTTE RESOURCES, INC.

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August 14, 2007

United States Nuclear Regulatory Commission
Region IV
Material Radiation Protection Section
611 Ryan Plaza Drive
Suite 400
Arlington, Texas 76011-4005

Subject: Semiannual Radiological Effluent and Environmental Monitoring Report
Source Materials License No. SUA-1534, Docket No. 40-8943

Dear Sir or Madam:

Enclosed please find one copy of the Semiannual Radiological Effluent and Environmental Monitoring Report for the Crow Butte Uranium Project. The report is provided in accordance with License Condition 12.1 of Source Materials License SUA-1534 and 10 CFR Part 40. This report covers the first and second quarters of 2007.

If you have any questions concerning the report, please feel free to call me at (308) 665-2215.

Sincerely,
CROW BUTTE RESOURCES, INC.

Larry Teahon

Larry Teahon
Manager of Environmental, Health and Safety

cc: Mr. Keith I. McConnell, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
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Mr. Steve Fischbein
Environmental Quality Program Specialist
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PO Box 98922
Lincoln, Nebraska 68509-8922

CROW BUTTE RESOURCES, INC.

CROW BUTTE URANIUM PROJECT

RADIOLOGICAL EFFLUENT AND ENVIRONMENTAL MONITORING REPORT

for

FIRST AND SECOND QUARTERS, 2007

USNRC Source Materials License SUA 1534

Table of Contents

1 WATER QUALITY MONITORING DATA

1.1 Excursion Monitoring

Biweekly excursion monitoring in the shallow aquifer and perimeter monitor wells was continued in Mine Units 2 through 9 during the first and second quarters of 2007.

PR-8, PR-15, and IJ-13 remain on excursion status. These monitor wells are associated with Mine Units 2 and 3, which are currently undergoing groundwater restoration.

On September 26, 2006, Mine Unit 2 perimeter monitor well PR-15 was placed on excursion status. PR-15 is a baseline restoration well in Mine Unit 1 that was chosen to monitor the boundary of Mine Unit 2 following the approval of restoration. The current restoration activities in Mine Unit 2 adjacent to PR-15 include groundwater transfer and wellfield recirculation. IJ-13 and PR-8, two other baseline restoration wells from Mine Unit 1, have remained on excursion status since December 27, 2002 and December 23, 2003 respectively. Due to the geometry of Mine Units 2 and 3, CBR is of the opinion that PR-15 will continue to exhibit the same trend as IJ-13 and PR-8 until Mine Units 2 and 3 can be fully restored along the perimeter of Mine Unit 1.

Excursion reports have been submitted to NRC as required in License Condition 12.2. Complete excursion monitoring results are available on site for inspection. A summary table for monitor wells on excursion status during the first half of 2007 follows.

Monitor Well ID	Date On Excursion	Date Off Excursion	Biweekly Sampling Resumed	Causal Factor(s)
PR-8	23 Dec 03			Wellfield geometry
IJ-13	27 Dec 03			Wellfield geometry
PR-15	26 Sep 06			Wellfield geometry

1.2 Water Supply Wells and Surface Water

Summary sheets of quarterly radiological analytical data for the reporting period from all surface waters and water supply wells within one kilometer of the active wellfield boundary are included in Appendix A.

The reported radiological data are within the expected ranges for each well or stream. Samples were obtained from all sample locations with the exceptions noted in Appendix A.

2 OPERATIONAL

2.1 Production Data Summary

Mining operations continued through the first and second quarters of 2007. The average operating production flow rate was 4316 gpm for the first quarter and 4402 gpm for the second quarter. Injection and production totals from the totalizers and the calculated bleed totals for the reporting period are included in Appendix B.

The main injection trunkline is equipped with a continuous pressure sensor. The average and maximum injection pressures for each wellhouse are included in Appendix C in the Wellfield Injection Pressure table.

2.2 Wastewater Summary

The total volume of wastewater discharged to the ponds was 2,683,960 gallons during the first quarter and 2,576,560 gallons during the second quarter. Currently, all five evaporation ponds contain wastewater.

Wastewater that is not disposed of in the evaporation ponds is injected into the Deep Disposal Well (DDW). Currently, the well is operated on a nearly continuous basis and 29,631,017 gallons of wastewater was injected into the well during the first half of 2007. A summary of the total volume of wastewater injected and the average radionuclide content is contained in Appendix D.

2.3 Effluent Release

10 CFR §40.65 requires licensees to report quantities of radionuclides in liquid and gaseous effluent releases to the environment. In the Application for Renewal of Source Materials License SUA-1534, submitted December 1995, Table 7.3(A) presented calculations of the annual radon emissions for the Crow Butte Plant. These calculations assumed a 7.04×10^{-4} Curies/m^3 radon release from leaching operations and the radon release calculations for the first half of 2007 use this release rate estimate.

During the first quarter production occurred at an average flow rate of 4,316 gpm (16,338 lpm). Production was maintained nearly continuously for 90 days during the first quarter with an operating factor of 99.6%. The production flow for the first quarter results in a calculated radon release of 1,069 Curies. During the second quarter production occurred at an average flow rate of 4,402 gpm (16,663 lpm). Production was maintained nearly continuously for 91 days during the second quarter with an operating factor of 99.9%. The production flow for the second quarter results in a calculated radon release of 1,106 Curies. Calculations for radon release from production operations are shown in Appendix E.

Additional wells were brought on line during the first half of 2007. Calculations for the start-up of 8.8 acres of a new wellfield are shown in Appendix E. The calculated radon released from start-up of 8.8 acres is 11 Curies.

The total radon emission due to leaching operations from the Crow Butte plant for the first half of 2007 was 2,186 Curies. This calculated release rate is comparable with the releases estimated in CBR's License Renewal Application.

Radon gas is also released from restoration activities. For restoration water that is treated by ion exchange only, the radon concentration is 0.697 µCi/l. Of the total restoration production flow it is assumed that 25% of the radon is released through wellfield loss and 10% of the remaining radon is released during pressurized ion exchange treatment. For water that is treated by reverse osmosis, it is assumed that 100% of the remaining radon is released. For water treated by reverse osmosis the radon concentration is 0.470 µCi/l after adjusting for wellfield loss and ion exchange loss.

During the first half of 2007, a total of 98,143,118 gallons (371,510,959 l) of restoration water was produced from Mine Units 2, 3 and 4. Based upon an estimated radon concentration of 0.697 µCi/l, the total amount of radon in the restoration solution was calculated to be 259 Curies as shown in Appendix E. The estimated release of radon through wellfield loss at 25% of this total was 65 Curies. The plant loss for ion exchange treatment of the restoration water is estimated at 10% of the remaining radon, or 19 Curies.

Of the total amount of restoration water produced in the first half of 2007, 27,242,685 gallons (103,124,460 l) of the water was treated by reverse osmosis. The release of radon from reverse osmosis treatment is estimated to be 100% of the remaining radon, after correction for wellfield and ion exchange losses. These corrections result in an estimated radon concentration of 0.470 µCi/l. The total estimated radon release from reverse osmosis treatment was 133 Curies.

Based upon the calculations shown in Appendix E, the total estimated semiannual radon emission for the first half of 2007 from restoration activities was 133 Curies. This resulted in a total estimated radon release from the Crow Butte project during the first half of 2007 of 2,318 Curies.

2.4 Restoration

Restoration activities continued in Mine Units 2, 3, and 4 during the first half of 2007. Restoration injection and production totals are included in Appendix B. Restoration injection pressures are included in Appendix C.

3 ENVIRONMENTAL MONITORING

3.1 Air Monitor Stations

Seven air monitoring stations are used to monitor the Crow Butte Plant. Ambient radon-222 concentrations and radionuclide concentrations in air for each monitoring site are listed in Appendix F. It should be noted that the volume of air sampled during the 1st quarter for stations AM-1 and AM-4 was reduced due to two lost filters. All air monitoring results were within expected historical ranges.

3.2 TLD Monitors

Environmental TLD monitors are located at each air monitoring station. The results of the area TLD monitors fall within the expected ranges and are listed in Appendix G.

Appendix A

Private Well and Surface Water Radiological Monitoring Results

First and Second Quarter, 2007

CROW BUTTE RESOURCES, INC.

PRIVATE WELL AND SURFACE WATER RADIOLOGICAL MONITORING RESULTS

FIRST QUARTER, 2007

SAMPLE ID	DATE SAMPLED	URANIUM mg/l	URANIUM µCi/ml	RADIUM-226 pCi/l	RADIUM-226 precision ±
Well #8	3/7/2007	0.016	1.10E-08	0.6	0.2
Well #11	3/12/2007	0.009	6.00E-09	ND	-
Well #12	3/7/2007	0.004	2.30E-09	ND	-
Well #24	WELL INOPERABLE - NO SAMPLE COLLECTED				
Well #25	WELL INOPERABLE - NO SAMPLE COLLECTED				
Well #26	3/12/2007	0.007	4.60E-09	ND	-
Well #28	WELL INOPERABLE - NO SAMPLE COLLECTED				
Well #41	3/12/2007	0.007	4.60E-09	ND	-
Well #63	3/16/2007	0.017	1.20E-08	ND	-
Well #125	3/16/2007	0.006	4.30E-09	ND	-
Well #129	3/16/2007	0.008	5.10E-09	ND	-
Well #131	3/12/2007	0.005	3.40E-09	ND	-
Well #133	3/12/2007	0.009	6.20E-09	ND	-
Well #134	3/16/2007	0.010	6.50E-09	ND	-
Well #135	3/16/2007	0.018	1.20E-08	ND	-
Well #138	3/16/2007	0.021	1.40E-08	ND	-
Well #140					
Well #435	3/12/2007	0.008	5.10E-09	ND	-
Drinking Water Well	3/16/2007	0.008	5.30E-09	ND	-
Stream S-1	3/23/2007	0.005	3.10E-09	ND	-
Stream S-2	3/23/2007	0.005	3.10E-09	ND	-
Stream S-5	3/23/2007	0.006	3.80E-09	ND	-
Stream E-1 & E-2	3/23/2007	0.019	1.30E-08	ND	-
Stream E-5	3/23/2007	0.013	8.80E-09	ND	-
Impoundment I-3	3/23/2007	0.110	7.60E-08	ND	-
Impoundment I-4	3/23/2007	0.130	8.80E-08	ND	-
Impoundment I-5	3/23/2007	0.012	7.90E-09	ND	-
Reporting Limit		**0.0003**	**2.00E-10**	**0.2**	-

ND-Not detected at the reporting limit

CROW BUTTE RESOURCES, INC.

PRIVATE WELL AND SURFACE WATER RADIOLOGICAL MONITORING RESULTS

SECOND QUARTER, 2007

SAMPLE ID	DATE SAMPLED	URANIUM mg/l	URANIUM µCi/ml	RADIUM-226 pCi/l	RADIUM-226 precision ±
Well #8	6/13/2007	0.016	1.10E-08	ND	-
Well #11	6/15/2007	0.009	6.10E-09	ND	-
Well #12	6/13/2007	0.004	2.90E-09	ND	-
Well #24	WELL INOPERABLE - NO SAMPLE COLLECTED				
Well #25	WELL INOPERABLE - NO SAMPLE COLLECTED				
Well #26	6/15/2007	0.007	4.40E-09	ND	-
Well #28	6/15/2007	0.006	4.3E-09	ND	-
Well #41	6/15/2007	0.008	5.10E-09	ND	-
Well #63	6/8/2007	0.017	1.20E-08	ND	-
Well #125	6/15/2007	0.007	4.70E-09	ND	-
Well #129	6/13/2007	0.007	4.90E-09	ND	-
Well #131	6/15/2007	0.006	4.10E-09	ND	-
Well #133	6/8/2007	0.009	6.40E-09	ND	-
Well #134	6/8/2007	0.009	6.10E-09	ND	-
Well #135	6/8/2007	0.018	1.20E-08	ND	-
Well #138	6/15/2007	0.021	1.40E-08	0.8	0.4
Well #140	6/15/2007	0.012	8.00E-09	ND	-
Well #435	6/15/2007	0.008	5.60E-09	ND	-
Drinking Water Well	6/15/2007	0.008	5.20E-09	ND	-
Stream S-1	6/15/2007	0.004	2.90E-09	ND	-
Stream S-2	6/15/2007	0.004	2.80E-09	ND	-
Stream S-5	6/15/2007	0.005	3.10E-09	ND	-
Stream E-1 & E-2	6/15/2007	0.011	7.70E-09	0.5	0.3
Stream E-5	6/8/2007	0.003	2.10E-09	ND	-
Impoundment I-3	6/8/2007	0.020	1.40E-08	ND	-
Impoundment I-4	6/8/2007	0.037	2.50E-08	ND	-
Impoundment I-5	6/8/2007	0.005	3.20E-09	ND	-
Reporting Limit		**0.0003**	**2.00E-10**	**0.2**	-

ND-Not detected at the reporting limit

WASTE VOLUME
First Quarter 2007

TOTALIZER	PLANT TO PONDS	PLANT TO DDW	RESTORATION TO DDW	CLEAN WATER INTO PLANT	DDW TOTAL INJECTED	TRUCKS TO POND
January	991,000	2,076,824	3,396,474	N/A	5,473,298	38,400
February	711,930	2,039,296	2,670,230	N/A	4,709,526	134,400
March	702,630	1,369,694	3,731,278	N/A	5,100,972	105,600
TOTAL GAL. EOQ	2,405,560	5,485,814	9,797,982	0	15,283,796	278,400

TOTAL1st QTR VOLUME DISCHARGED TO WASTE PONDS =	2,683,960 GALLONS
TOTAL 1st QTR VOLUME DISCHARGED TO DEEP WELL=	15,283,796 GALLONS
TOTAL 1st QTR VOLUME DISCHARGED TO WASTE PONDS + DPWELL =	17,967,756 GALLONS
TOTAL 1st QTR VOLUME WF BLEED FROM WELLFIELDS=	17,689,356 GALLONS

WELLFIELD BLEED
First Quarter 2007

MONTH	January	February	March
BLEED	1.6%	1.6%	1.1%

PLANT FLOW
First Quarter 2007

AVERAGE OPERATING FLOW RATE=	4,316 GPM EOQ
TOTAL GALLONS PRODUCED=	559,345,149 GALLONS EOQ
TOTAL GALLONS INJECTED=	533,056,740 GALLONS EOQ

	TOTAL GALS. PRODUCED	TOTAL GALS. INJECTED	HOURS IN MONTH	HOURS IN PRODUCTION	AVERAGE PROD. GPM	AVERAGE COM INJ GPM	AVERAGE REST INJ GPM	HRS. DOWN TIME
Prev. YTD	0	0	0	0				0
January	192,469,738	183,437,281	744	743	4,312	4,109	293	1
February	170,162,755	161,792,713	672	667	4,220	4,013	286	5
March	196,712,656	187,826,746	744	742	4,407	4,208	287	2
EOQ TOTAL	559,345,149	533,056,740	2,160	2,152	4,316	4,113	289	8
YTD TOTAL	559,345,149	533,056,740	2,160	2,152	4,316	4,113	289	8

	TOTAL MUII GALS PRODUCED	TOTAL MUIII GALS PRODUCED	TOTAL MUIV GALS PRODUCED	TOTAL BRINE GALS PRODUCED	TOTAL PERM GALS PRODUCED	COMM BLEED TO RO FEED	MUIII BLEED TO DDW	MUIV BLEED TO DDW
Prev. YTD	0	0	0	0	0	0	0	0
January	1,095,258	8,254,727	8,322,073	1,022,681	6,772,174	0	1,022,681	2,373,793
February	965,329	7,339,629	6,894,629	1,287,772	5,269,842	0	1,287,772	1,382,458
March	1,021,911	8,106,379	8,617,310	1,121,383	5,758,213	0	1,121,383	2,609,895
EOQ TOTAL	3,082,498	23,700,735	23,834,012	3,431,836	17,800,229	0	3,431,836	6,366,146
YTD TOTAL	3,082,498	23,700,735	23,834,012	3,431,836	17,800,229	0	3,431,836	6,366,146

WASTE VOLUME
Second Quarter 2007

TOTALIZER	PLANT TO PONDS	PLANT TO DDW	RESTORATION TO DDW	CLEAN WATER INTO PLANT	DDW TOTAL INJECTED	TRUCKS TO POND
April	638,500	1,852,625	2,965,777	N/A	4,818,402	176,100
May	822,100	1,988,498	2,925,694	N/A	4,914,192	150,300
June	684,460	2,471,213	2,143,414	N/A	4,614,627	105,100
TOTAL GAL. EOQ	2,145,060	6,312,336	8,034,885	0	14,347,221	431,500

TOTAL 2nd QTR VOLUME DISCHARGED TO WASTE PONDS =	2,576,560 GALLONS
TOTAL 2nd QTR VOLUME DISCHARGED TO DEEP WELL=	14,347,221 GALLONS
TOTAL 2nd QTR VOLUME DISCHARGED TO WASTE PONDS + DPWELL =	16,923,781 GALLONS
TOTAL 2nd QTR VOLUME WF BLEED FROM WELLFIELDS=	16,492,281 GALLONS

WELLFIELD BLEED
Second Quarter 2007

MONTH	April	May	June
BLEED	1.3%	1.4%	1.7%

PLANT FLOW
Second Quarter 2007

AVERAGE OPERATING FLOW RATE=	4,402 GPM EOQ
TOTAL GALLONS PRODUCED=	576,846,163 GALLONS EOQ
TOTAL GALLONS INJECTED=	551,964,492 GALLONS EOQ

	TOTAL GALS. PRODUCED	TOTAL GALS. INJECTED	HOURS IN MONTH	HOURS IN PRODUCTION	AVERAGE PROD. GPM	AVERAGE COM INJ GPM	AVERAGE REST INJ GPM	HRS. DOWN TIME
Prev. YTD	559,345,149	533,056,740	2,160	2,152	4,316	4,113	289	8
April	192,529,256	184,758,391	720	720	4,457	4,277	280	0
May	198,995,382	190,823,366	744	743	4,458	4,275	276	1
June	185,321,545	176,382,735	720	720	4,290	4,083	269	0
EOQ TOTAL	576,846,163	551,964,492	2,184	2,183	4,402	4,212	275	1
YTD TOTAL	1,136,191,312	1,085,021,232	4,344	4,335	4,359	4,163	282	9

	TOTAL MUII GALS PRODUCED	TOTAL MUIII GALS PRODUCED	TOTAL MUIV GALS PRODUCED	TOTAL BRINE GALS PRODUCED	TOTAL PERM GALS PRODUCED	COMM BLEED TO RO FEED	MUIII BLEED TO DDW	MUIV BLEED TO DDW
Prev. YTD	3,082,498	23,700,735	23,834,012	3,431,838	17,800,229	0	3,431,836	6,366,146
April	976,078	7,611,149	7,908,112	722,742	5,431,578	0	722,742	2,243,035
May	1,001,104	7,729,071	8,019,850	745,495	5,523,113	0	745,495	2,180,199
June	1,131,504	6,538,768	6,610,237	808,093	5,202,527	0	808,093	1,335,321
EOQ TOTAL	3,108,686	21,878,988	22,538,199	2,276,330	16,157,218	0	2,276,330	5,758,555
YTD TOTAL	6,191,184	45,579,723	46,372,211	5,708,166	33,957,447	0	5,708,166	12,124,701

Appendix C

Wellfield Injection Pressures

First and Second Quarter, 2007

WELLFIELD INJECTION PRESSURE - PSI First Quarter 2007										
	WF HOUSE #3		WF HOUSE #4		WF HOUSE #5		WF HOUSE #6		WF HOUSE #7	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	0	0	41	46	32	38	25	29	13	15
February	0	0	43	47	34	50	24	34	11	15
March	0	0	46	47	35	38	24	29	12	15
AVERAGE	0	0	44	47	34	50	24	34	12	15
	WF HOUSE #8		WF HOUSE #9		WF HOUSE #10		WF HOUSE #11		WF HOUSE #12	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	17	35	76	98	0	3	0	0	78	85
February	16	35	78	87	0	0	0	0	80	90
March	14	23	74	95	0	0	0	0	74	80
AVERAGE	16	35	76	98	0	3	0	0	77	90
	WF HOUSE #13		WF HOUSE #14		WF HOUSE #15		WF HOUSE #16		WF HOUSE #17	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	71	79	95	97	0	0	0	0	41	81
February	74	93	92	98	28	89	2	50	0	0
March	69	77	93	97	8	87	3	51	0	0
AVERAGE	71	93	93	98	12	89	2	51	14	81
	WF HOUSE #18		WF HOUSE #19		WF HOUSE #20		WF HOUSE #21		WF HOUSE #22	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	48	95	94	96	89	94	48	98	96	98
February	0	0	95	98	85	95	58	99	96	99
March	0	0	93	96	90	91	39	90	96	99
AVERAGE	17	95	94	98	88	95	48	99	96	99
	WF HOUSE #23		WF HOUSE #24		WF HOUSE #25		WF HOUSE #26		WF HOUSE #27	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	2	62	0	0	0	0	95	99	0	0
February	2	59	1	25	0	0	93	98	0	0
March	0	0	0	0	0	0	97	98	0	0
AVERAGE	1	62	0	25	0	0	95	99	0	0
	WF HOUSE #28		WF HOUSE #29		WF HOUSE #30		WF HOUSE #31		WF HOUSE #32	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	0	0	68	70	60	68	34	48	46	48
February	0	0	64	70	57	66	29	36	40	48
March	0	0	66	72	59	65	30	43	40	46
AVERAGE	0	0	66	72	59	68	31	48	42	48
	WF HOUSE #33		WF HOUSE #34		WF HOUSE #35		WF HOUSE #36		WF HOUSE #37	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	47	50	96	99	96	98	97	99	97	99
February	41	50	94	98	92	97	96	99	96	99
March	40	46	97	99	95	99	91	99	97	99
AVERAGE	43	50	95	99	94	99	94	99	97	99
	WF HOUSE #38		WF HOUSE #39		WF HOUSE #40		WF HOUSE #41		WF HOUSE #42	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	96	99	88	97	92	95	95	99	98	99
February	98	99	93	97	97	99	94	99	95	99
March	96	99	92	95	97	99	96	99	96	99
AVERAGE	97	99	91	97	95	99	95	99	96	99
	WF HOUSE #43		WF HOUSE #44		WF HOUSE #45		WF HOUSE #46		WF HOUSE #46A	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
January	90	94	40	45	81	95	91	98	89	99
February	81	95	38	80	77	84	95	99	94	99
March	87	97	83	88	79	85	96	99	97	99
AVERAGE	86	97	54	88	79	95	94	99	93	99
	WF HOUSE #47									
	AVERAGE	MAXIMUM								
January	18	24								
February	16	25								
March	14	50								
AVERAGE	16	50								

WELLFIELD INJECTION PRESSURE - PSI Second Quarter 2007										
	WF HOUSE #3		WF HOUSE #4		WF HOUSE #5		WF HOUSE #6		WF HOUSE #7	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	0	0	46	48	35	38	21	30	13	31
May	0	12	48	50	38	45	22	24	13	16
June	2	12	27	48	16	38	27	45	11	15
AVERAGE	1	12	40	50	30	45	23	45	12	31
	WF HOUSE #8		WF HOUSE #9		WF HOUSE #10		WF HOUSE #11		WF HOUSE #12	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	11	32	74	78	0	0	0	0	75	80
May	12	15	70	76	0	0	0	0	72	78
June	19	38	59	84	0	0	0	6	60	81
AVERAGE	14	38	67	84	0	0	0	6	69	81
	WF HOUSE #13		WF HOUSE #14		WF HOUSE #15		WF HOUSE #16		WF HOUSE #17	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	69	75	96	98	23	94	13	99	8	28
May	64	71	96	99	0	7	0	0	0	4
June	54	76	83	98	0	0	3	95	0	0
AVERAGE	62	76	91	99	8	94	5	99	3	28
	WF HOUSE #18		WF HOUSE #19		WF HOUSE #20		WF HOUSE #21		WF HOUSE #22	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	0	0	93	97	89	95	48	93	97	98
May	41	86	89	95	89	90	22	91	96	99
June	65	85	73	99	84	98	24	84	90	96
AVERAGE	36	86	85	99	87	98	31	93	94	99
	WF HOUSE #23		WF HOUSE #24		WF HOUSE #25		WF HOUSE #26		WF HOUSE #27	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	3	95	0	0	0	0	98	99	0	0
May	0	0	0	0	0	0	97	99	0	0
June	65	99	0	0	2	12	79	98	2	52
AVERAGE	23	99	0	0	1	12	91	99	1	52
	WF HOUSE #28		WF HOUSE #29		WF HOUSE #30		WF HOUSE #31		WF HOUSE #32	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	0	0	65	69	56	65	28	33	39	46
May	0	0	67	72	58	65	32	40	44	46
June	0	0	63	70	55	60	31	37	44	52
AVERAGE	0	0	65	72	57	65	31	40	42	52
	WF HOUSE #33		WF HOUSE #34		WF HOUSE #35		WF HOUSE #36		WF HOUSE #37	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	41	97	98	99	97	99	95	99	97	99
May	45	48	97	99	96	99	97	99	97	99
June	45	94	90	99	93	99	89	99	91	99
AVERAGE	44	97	95	99	95	99	93	99	95	99
	WF HOUSE #38		WF HOUSE #39		WF HOUSE #40		WF HOUSE #41		WF HOUSE #42	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	96	99	90	96	95	98	96	99	97	99
May	96	99	85	90	93	98	96	99	97	99
June	90	99	80	92	88	96	90	99	87	96
AVERAGE	94	99	85	96	92	98	94	99	94	99
	WF HOUSE #43		WF HOUSE #44		WF HOUSE #45		WF HOUSE #46		WF HOUSE #46A	
	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM	AVERAGE	MAXIMUM
April	86	96	87	98	79	90	95	99	97	99
May	89	99	88	99	81	95	94	99	96	99
June	92	99	94	99	85	96	97	99	98	99
AVERAGE	89	99	90	99	82	96	96	99	97	99
	WF HOUSE #47									
	AVERAGE	MAXIMUM								
April	47	75								
May	69	80								
June	68	81								
AVERAGE	61	81								

Crow Butte Uranium Mine

Deep Disposal Well Injection Radiological Data

Month	Total Gallons Injected	Average Natural Uranium (mg/l)	Total Natural Uranium Injected (mg)	Total Natural Uranium Injected (uCi)	Average Radium-226 (pCi/l)	Total Radium-226 Injected (uCi)
January-07	5,473,298	4.9	1.02E+08	6.87E+04	1,060	2.20E+04
February-07	4,709,526	1.6	2.85E+07	1.93E+04	1,200	2.14E+04
March-07	5,100,972	2	3.86E+07	2.61E+04	1,030	1.99E+04
April-07	4,818,402	1	1.82E+07	1.23E+04	1,090	1.99E+04
May-07	4,914,192	3	5.58E+07	3.78E+04	918	1.71E+04
June-07	4,614,627	4.23	7.39E+07	5.00E+04	1,000	1.75E+04
Totals	29,631,017		3.17E+08	2.14E+05		1.18E+05

Appendix E

Radon Release Calculations

First and Second Quarter, 2007

Radon Effluent Release Calculation (Production and Startup)

First Quarter 2007 Radon Release from Leaching Operations:

Curies/M3	*Production Flow (liters)*	*Radon-222 Decay Constant*	*Operating Days*	*Operating Factor*	*M3/liter conversion*	*Hours/Day Conversion*	*Minutes/Hour Conversion*	*Total Radon Release from Leaching*
7.04E-04	16,338	0.72	90	99.6%	0.001	24	60	1,069

Second Quarter 2007 Radon Release from Leaching Operations:

Curies/M3	*Production Flow (liters)*	*Radon-222 Decay Constant*	*Operating Days*	*Operating Factor*	*M3/liter conversion*	*Hours/Day Conversion*	*Minutes/Hour Conversion*	*Total Radon Release from Leaching*
7.04E-04	16,663	0.72	91	99.9%	0.001	24	60	1,106

First Half 2007 Radon Release From Startup:

Curies/M3	*Total Acres of New Wellfield*	*Meter3/Acre Conversion*	*Orebody Thickness (meters)*	*Porosity*	*Total Radon Release from Startup*
7.04E-04	8.8	4,074	1.52	0.29	11

Total Estimated Radon Release from Production: **2,186**

Radon Effluent Release Calculation (Restoration)

First Half 2007 Radon Release From Restoration:

Total Restoration Flow (liters)	*Microcuries/liter*	*Curies/Microcurie*	*Production Potential*
371,510,959	0.697	1.00E-06	259

Wellfield Loss (25% of Production Potential):	65
Ion Exchange Loss (10% of Production Potential minus Wellfield Loss):	19
Reverse Osmosis Loss (100% of remaining activity at 0.470 microcuries/liter)	48

Total Reverse Osmosis Flow (liters)	*Microcuries/liter*	*Curies/Microcurie*
103,124,460	0.470	1.00E-06

First Half 2007 Radon Release From Startup of New Restoration:

Curies/M3	*Total Acres of New Wellfield*	*Meter3/Acre Conversion*	*Orebody Thickness (meters)*	*Porosity*	*Total Radon Release from Startup*
7.04E-04	0.0	4074	1.52	0.29	0

Total Estimated Radon Release from Restoration: **133**

Total Estimated Radon Release, First Half 2007: **2,318**

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HIGH VOLUME AIR SAMPLING REPORT

CLIENT: CROW BUTTE RESOURCES

REPORT DATE: August 04, 2007

SAMPLE ID: AM-1

Quarter/Date Sampled Air Volume	Radionuclide	Concentration µCi/mL	Error Estimate µCi/mL	L.L.D. µCi/mL	Effluent Conc.* µCi/mL	% Effluent Concentration
C07040233-001	^{nat}U	< 1.00E-16	N/A	1.00E-16	9.00E-14	< 1.11E-01
01/02/2007 - 04/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	1.83E-14	1.16E-15	2.00E-15	6.00E-13	3.04E+00
3.35E+09						
C07070204-001	^{nat}U	1.15E-16	N/A	1.00E-16	9.00E-14	1.28E-01
04/02/2007 - 07/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	1.35E-14	1.38E-15	2.00E-15	6.00E-13	2.25E+00
5.21E+09						

Final prep volume is 0.95 liter
LLD's are from Reg. Guide 4.14
*Effluent Concentration from the NEW 10 CFR Part 20 - Appendix B - Table 2
Year for Natural Uranium
Week for Radium-226
Day for Lead-210

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HIGH VOLUME AIR SAMPLING REPORT

CLIENT: CROW BUTTE RESOURCES

REPORT DATE: August 04, 2007

SAMPLE ID: AM-2

Quarter/Date Sampled Air Volume	Radionuclide	Concentration µCi/mL	Error Estimate µCi/mL	L.L.D. µCi/mL	Effluent Conc.* µCi/mL	% Effluent Concentration
C07040233-002	^{nat}U	< 1.00E-16	N/A	1.00E-16	9.00E-14	< 1.11E-01
01/02/2007 - 04/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	< 2.00E-15	8.25E-18	2.00E-15	6.00E-13	< 3.33E-01
4.97E+11						
C07070204-002	^{nat}U	4.66E-16	N/A	1.00E-16	9.00E-14	5.18E-01
04/02/2007 - 07/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	1.52E-14	1.46E-15	2.00E-15	6.00E-13	2.53E+00
5.15E+09						

Final prep volume is 0.95 liter
LLD's are from Reg. Guide 4.14
*Effluent Concentration from the NEW 10 CFR Part 20 - Appendix B - Table 2
Year for Natural Uranium
Week for Radium-226
Day for Lead-210

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HIGH VOLUME AIR SAMPLING REPORT

CLIENT: CROW BUTTE RESOURCES

REPORT DATE: August 04, 2007

SAMPLE ID: AM-3

Quarter/Date Sampled Air Volume	Radionuclide	Concentration µCi/mL	Error Estimate µCi/mL	L.L.D. µCi/mL	Effluent Conc.* µCi/mL	% Effluent Concentration
C07040233-003	^{nat}U	1.36E-16	N/A	1.00E-16	9.00E-14	1.52E-01
01/02/2007 - 04/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs 5.13E+09	^{210}Pb	1.57E-14	8.58E-16	2.00E-15	6.00E-13	2.61E+00
C07070204-003	^{nat}U	1.32E-16	N/A	1.00E-16	9.00E-14	1.47E-01
04/02/2007 - 07/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs 5.30E+09	^{210}Pb	1.16E-14	1.30E-15	2.00E-15	6.00E-13	1.93E+00

Final prep volume is 0.95 liter
LLD's are from Reg. Guide 4.14
*Effluent Concentration from the NEW 10 CFR Part 20 - Appendix B - Table 2
Year for Natural Uranium
Week for Radium-226
Day for Lead-210

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HIGH VOLUME AIR SAMPLING REPORT

CLIENT: CROW BUTTE RESOURCES

REPORT DATE: August 04, 2007

SAMPLE ID: AM-4

Quarter/Date Sampled Air Volume	Radionuclide	Concentration µCi/mL	Error Estimate µCi/mL	L.L.D. µCi/mL	Effluent Conc.* µCi/mL	% Effluent Concentration
C07040233-004	^{nat}U	1.41E-16	N/A	1.00E-16	9.00E-14	1.56E-01
01/02/2007 - 04/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	1.41E-14	9.86E-16	2.00E-15	6.00E-13	2.34E+00
3.55E+09						
C07070204-004	^{nat}U	4.43E-16	N/A	1.00E-16	9.00E-14	4.92E-01
04/02/2007 - 07/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	1.29E-14	1.26E-15	2.00E-15	6.00E-13	2.16E+00
5.87E+09						

Final prep volume is 0.95 liter
LLD's are from Reg. Guide 4.14
*Effluent Concentration from the NEW 10 CFR Part 20 - Appendix B - Table 2
Year for Natural Uranium
Week for Radium-226
Day for Lead-210

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HIGH VOLUME AIR SAMPLING REPORT

CLIENT: CROW BUTTE RESOURCES

REPORT DATE: August 04, 2007

SAMPLE ID: AM-5

Quarter/Date Sampled Air Volume	Radionuclide	Concentration µCi/mL	Error Estimate µCi/mL	L.L.D. µCi/mL	Effluent Conc.* µCi/mL	% Effluent Concentration
C07040233-005	^{nat}U	1.21E-16	N/A	1.00E-16	9.00E-14	1.34E-01
01/02/2007 - 04/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs 4.96E+09	^{210}Pb	1.22E-14	7.86E-16	2.00E-15	6.00E-13	2.03E+00
C07070204-005	^{nat}U	2.34E-16	N/A	1.00E-16	9.00E-14	2.60E-01
04/02/2007 - 07/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs 5.12E+09	^{210}Pb	9.53E-15	1.27E-15	2.00E-15	6.00E-13	1.59E+00

Final prep volume is 0.95 liter
LLD's are from Reg. Guide 4.14
*Effluent Concentration from the NEW 10 CFR Part 20 - Appendix B - Table 2
Year for Natural Uranium
Week for Radium-226
Day for Lead-210

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HIGH VOLUME AIR SAMPLING REPORT

CLIENT: CROW BUTTE RESOURCES

REPORT DATE: August 04, 2007

SAMPLE ID: AM-6

Quarter/Date Sampled Air Volume	Radionuclide	Concentration µCi/mL	Error Estimate µCi/mL	L.L.D. µCi/mL	Effluent Conc.* µCi/mL	% Effluent Concentration
C07040233-006	^{nat}U	< 1.00E-16	N/A	1.00E-16	9.00E-14	< 1.11E-01
01/02/2007 - 04/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	1.22E-14	7.60E-16	2.00E-15	6.00E-13	2.03E+00
5.13E+09						
C07070204-006	^{nat}U	< 1.00E-16	N/A	1.00E-16	9.00E-14	< 1.11E-01
04/02/2007 - 07/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs	^{210}Pb	8.29E-15	1.19E-15	2.00E-15	6.00E-13	1.38E+00
5.20E+09						

Final prep volume is 0.95 liter
LLD's are from Reg. Guide 4.14
*Effluent Concentration from the NEW 10 CFR Part 20 - Appendix B - Table 2
Year for Natural Uranium
Week for Radium-226
Day for Lead-210

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HIGH VOLUME AIR SAMPLING REPORT

CLIENT: CROW BUTTE RESOURCES

REPORT DATE: August 04, 2007

SAMPLE ID: AM-8

Quarter/Date Sampled Air Volume	Radionuclide	Concentration µCi/mL	Error Estimate µCi/mL	L.L.D. µCi/mL	Effluent Conc.* µCi/mL	% Effluent Concentration
C07040233-007	^{nat}U	4.06E-16	N/A	1.00E-16	9.00E-14	4.51E-01
01/02/2007 - 04/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs 4.68E+09	^{210}Pb	1.64E-14	9.19E-16	2.00E-15	6.00E-13	2.73E+00
C07070204-007	^{nat}U	3.81E-16	N/A	1.00E-16	9.00E-14	4.24E-01
04/02/2007 - 07/02/2007	^{226}Ra	< 1.00E-16	N/A	1.00E-16	9.00E-13	< 1.11E-02
Air Volume in mLs 4.46E+09	^{210}Pb	7.24E-15	1.30E-15	2.00E-15	6.00E-13	1.21E+00

Final prep volume is 0.95 liter
LLD's are from Reg. Guide 4.14
*Effluent Concentration from the NEW 10 CFR Part 20 - Appendix B - Table 2
Year for Natural Uranium
Week for Radium-226
Day for Lead-210

Crow Butte Resources
Attn: Rhonda Grantham
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LANDAUER

SPHERICAL X9 ENVIRONMENTAL REPORT

Account Number:	**306192**
Process Number:	X9SP ES009
Received Date:	5-Apr-07
Report Date:	11-Apr-07
Released by:	LCC

Participant No.	Name/Description	Reading 1 (mrem)	Reading 2 (mrem)	Reading 3 (mrem)	Reading 4 (mrem)	Reading 5 (mrem)	Mean Ambient Dose Equivalent (mrem)	**Net Values after control subtraction** Mean Ambient Dose Equivalent (mrem)	Standard Deviation (mrem)	95% Confidence Interval (mrem)
Quarterly Monitoring Period starting:				January 1, 2007						
Control		32	34	33	34	32	33		1.0	1.2
1001	AM-1	40	37	39	40	39	39	6	1.2	1.5
1002	AM-2	37	42	44	37	40	40	7	3.1	3.8
1003	AM-6	42	39	37	36	38	38	5	2.3	2.9
1008	AM-8	43	41	41	39	41	41	8	1.4	1.8
1009	AM-3	38	39	41	38	39	39	6	1.2	1.5
1010	AM-4	39	37	38	39	41	39	6	1.5	1.8
1011	AM-5	38	40	38	37	42	39	6	2.0	2.5

95% Confidence Interval is based on the standard error of the mean

Crow Butte Resources
Attn: Rhonda Grantham
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Crawford, NE 69339

LANDAUER

SPHERICAL X9 ENVIRONMENTAL REPORT

Account Number:	**306192**
Process Number:	X9SP ES017
Received Date:	6-Jul-07
Report Date:	16-Jul-07
Released by:	LCC

Participant No.	Name/Description	Reading 1 (mrem)	Reading 2 (mrem)	Reading 3 (mrem)	Reading 4 (mrem)	Reading 5 (mrem)	Mean Ambient Dose Equivalent (mrem)	**Net Values after control subtraction** Mean Ambient Dose Equivalent (mrem)	Standard Deviation (mrem)	95% Confidence Interval (mrem)
Quarterly Monitoring Period starting:				April 1, 2007						
Control		23	24	28	22	23	24		2.3	2.9
1001	AM-1	25	32	30	27	31	29	5	2.9	3.6
1002	AM-2	30	30	30	30	28	30	6	0.9	1.1
1003	AM-6	30	33	28	31	29	30	6	1.9	2.4
1008	AM-8	27	27	25	32	34	29	5	3.8	4.7
1009	AM-3	26	28	30	30	30	29	5	1.8	2.2
1010	AM-4	29	41	28	21	23	28	4	7.8	9.7
1011	AM-5	28	26	28	32	22	27	3	3.6	4.5

95% Confidence Interval is based on the standard error of the mean