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CROW BUTTE RESOURCES, INC.

86 Crow Butte Road
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40-8943

September 21, 2005

Mr. Michael Linder
Director
Nebraska Department of Environmental Quality
PO Box 98922
Lincoln, Nebraska 68509-8922

Subject: 2006 Surety Estimate
Class III Underground Injection Control Permit Number NE 0122611
Class I Underground Injection Control Permit Number NE 0210457

Dear Mr. Linder:

Attached is the annual update to the surety estimate for the Crow Butte Uranium Mine. This estimate meets the requirements of Chapter 13 of Title 122, *Rules and Regulations for Underground Injection and Mineral Production Wells* and the annual update requirements included in the referenced permits issued by the Nebraska Department of Environmental Quality (NDEQ).

The surety estimate for 2006 is $19,799,289, an increase of $3,765,583 over the 2005 surety estimate of $16,033,706. Significant changes reflected in the surety estimate for 2006 include the following items:

1) The estimate includes the initial operation of Mine Unit 10, with two wellhouses installed in this mine unit by the end of 2006. 460 wells are also projected for Mine Unit 10, which is an increase of 260 wells over the 2005 surety estimate. In addition, 60 wells are included for Mine Unit 11. In all, the 2006 surety includes the costs associated with 457 new wells installed in Mine Units 8 through 11. The areal extent of Mine Units 8 through 10 was increased by 1,878,000 square feet (43.1 acres) to reflect the projected expansion in these mine units. These additional mining wells and areas resulted in significant increases in the groundwater restoration, wellfield reclamation, and well plugging and abandonment costs; and

2) The 2006 escalation factor of 2.5% is based on the increase of the June 2005 Consumer Price Index (CPI) over the June 2004 CPI and was applied to labor and some materials. Many of the chemical and equipment cost items were rebaselined. For example, electricity costs were increased by $0.002 per kilowatt-hour and fuel costs were increased by $0.82 per gallon. The Master Cost Basis sheets (sheets 29 through 33) indicate the basis for the increase in these cost

elements.

The most significant factors contributing to the increased surety estimate include groundwater restoration (+$2,457,181), contract administration (+$301,247), and contingency (+$451,870). Sheet 2 of the attached estimate presents the changes for selected cost elements over the 2005 surety estimate.

Upon approval of the surety estimate update by the NDEQ, Crow Butte Resources, Inc. (CBR) will provide a secured letter of credit on the renewal date to the State of Nebraska in an amount equal to the updated surety estimate.

If you have any questions or require any further information, please do not hesitate to call me at (308) 665-2215.

Sincerely,
CROW BUTTE RESOURCES, INC.

Michael Griffin
Manager of Health, Safety, and Environmental Affairs

Enclosure

cc: Mr. Gary Janosko, Branch Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety and Safeguards
c/o Document Control Desk
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

U.S. Nuclear Regulatory Commission
Mr. Steve Cohen - ADDRESSEE ONLY
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Washington, DC 20555

Crow Butte Resources, Inc.
Crow Butte Uranium Project 2006 Surety Estimate
(Revised September 2005)

Total Restoration and Reclamation Cost Estimate

I.	Groundwater Restoration (Sheets 3 to 6)			$10,634,739
II.	Wellfield Reclamation (Sheets 7 to 10)			$3,930,561
III.	Commercial Plant Reclamation/Decommissioning (Sheets 11 to 14)			$381,745
IV.	R.O. Building Reclamation/Decommissioning (Sheets 11 to 14)			$56,139
V.	Evaporation Pond Reclamation (Sheets 15 to 18)			$618,330
VI.	Miscellaneous Site Reclamation (Sheets 19 to 21)			$127,522
VII.	Deep Disposal Well Reclamation (Sheet 22)			$63,787
VIII	I-196 Brule Aquifer Restoration (Sheets 23 to 24)			$26,608
	Subtotal Reclamation and Restoration Cost Estimate			$15,839,431
	Contract Administration	10%		$1,583,943
	Contingency	15%		$2,375,915
			TOTAL	$19,799,289

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Cost Element Summary

	2006	2005	Change
Groundwater Restoration			
Groundwater Sweep			
Total Gallons Processed (Kgal)	433,040	347,131	85,909
Total Cost	$253,901	$198,120	$55,781
RO Treatment			
Total Gallons Processed (Kgal)	2,598,243	2,082,789	515,454
Total Cost	$5,625,164	$4,292,579	$1,332,585
Recirculation			
Total Gallons Processed (Kgal)	433,040	347,131	85,909
Total Cost	$337,223	$256,910	$80,313
Sampling and Monitoring			
Total On Site Samples	27,732	22,041	5,691
Total On Site Analysis Costs	$1,345,002	$1,035,266	$309,736
Total Contract Samples	1,400	1,220	180
Total Contract Analysis Costs	$280,000	$183,000	$97,000
Wellfield Reclamation			
Pipeline Removal and Loading	$663,700	$569,022	$94,678
Well Abandonment			
Total Number of Wells	3,742	3,305	437
Total Abandonment Cost	$1,252,844	$1,113,785	$139,059
Site Reclamation			
Site Earthwork	$152,718	$137,599	$15,119
Plant and Equipment Decontamination			
Decontamination Costs	$75,429	$63,561	$11,868
Demolition Costs	$216,331	$210,788	$5,543
Piping Shredding Costs	$232,166	$189,861	$42,306
Transportation and Disposal			
Byproduct Material			
Soil-Type Materials, Total Volume (Yd3)	3,860	3,579	281
Soil-Type Materials, Total Cost	$519,189	$486,542	$32,647
Unpackaged Bulk Materials, Total Volume (Yd3)	1,846	1,590	256
Unpackaged Bulk Materials, Total Cost	$245,106	$211,136	$33,970
Contract Administration	$1,583,943	$1,282,696	$301,247
Contingency	$2,375,915	$1,924,045	$451,870
TOTAL SURETY	**$19,799,289**	**$16,033,706**	**$3,765,583**

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Ground Water Restoration

				Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Total
I.	Ground Water Sweep Costs													
	PV's Required			1	1	1	1	1	1	1	1	1	0	
	Total Kgals for Treatment			18018	15894	28918	43569	52372	52055	81345	81128	59740	0	433040
	Ground Water Sweep Unit Cost ($/Kgal)	(Sheet 23)		$0.586	$0.586	$0.586	$0.586	$0.586	$0.586	$0.586	$0.586	$0.586	$0.586	
	Subtotal Ground Water Sweep Costs per Wellfield			$10,565	$9,319	$16,956	$25,545	$30,707	$30,521	$47,694	$47,567	$35,027	$0	$253,901
Total Ground Water Sweep Costs				$253,901										
II.	Reverse Osmosis Costs													
	PV's Required			6	6	6	6	6	6	6	6	6	0	
	Total Kgals for Treatment			108110	95367	173511	261412	314234	312332	488070	486768	358439	0	2598243
	Reverse Osmosis Unit Cost ($/Kgal)	(Sheet 24)		$2.16	$2.16	$2.16	$2.16	$2.16	$2.16	$2.16	$2.16	$2.16	$2.16	
	Subtotal Reverse Osmosis Costs per Wellfield			$234,058	$206,468	$375,648	$565,954	$680,313	$676,194	$1,056,666	$1,053,848	$776,015	$0	$5,625,164
Total Reverse Osmosis Costs				$5,625,164										
III.	Recirculation Costs													
	PV's Required			1	1	1	1	1	1	1	1	1	0	
	Total Kgals for Treatment			18018	15894	28918	43569	52372	52055	81345	81128	59740	0	433040
	Recirculation Unit Cost ($/Kgal)	(Sheet 25)		$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	$0.78	
	Subtotal Recirculation Costs per Wellfield			$14,032	$12,378	$22,520	$33,928	$40,784	$40,537	$63,346	$63,177	$46,521	$0	$337,223
Total Recirculation Costs				$337,223										
IV.	Consumables													
	Spare parts, filters and consumables =	$ 18,330	year											
	Active restoration period (months)			6.9	6.1	11.1	16.7	20.0	19.9	31.1	31.0	22.8	0.0	165
	Cousumable usage (months restoration x annual rate estimate)			$10,518	$9,278	$16,881	$25,433	$30,573	$30,387	$47,485	$47,359	$34,873	$0	
	Subtotal Consumables per Mine Unit			$10,518	$9,278	$16,881	$25,433	$30,573	$30,387	$47,485	$47,359	$34,873	$0	$252,789
Total Consumables Costs				$252,789										

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Ground Water Restoration

				Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Total
V.	Monitoring and Sampling Costs													
	Guideline 8 analysis =	$200	analysis											
	6 parameter in-house analysis =	$50	analysis											
	Total restoration wells			12	18	43	33	33	46	23	13	30	0	251
	Total monitor wells			13	13	29	52	60	41	55	40	60	0	363
	Groundwater sweep duration (months)			0.36	0.32	0.57	0.86	1.04	1.03	1.61	1.61	1.19	0.00	8.6
	Reverse Osmosis duration (months)			6.17	5.44	9.90	14.92	17.94	17.83	27.86	27.78	20.46	0.00	148.3
	Recirculation duration (months)			0.36	0.32	0.57	0.86	1.04	1.03	1.61	1.61	1.19	0.00	8.6
	Stabilization duration (months)			6	6	6	6	6	6	6	6	6	0	
A.	Restoration Well Sampling													
1.	Well Sampling prior to restoration start													
	# of Wells			12	18	43	33	33	46	23	13	30	0	251
	$/sample			$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	
2.	Groundwater Sweep Sampling													
	# of Wells			12	18	43	33	33	46	23	13	30	0	
	Total # samples			12	18	43	33	66	92	46	26	60	0	396
	$/sample			$50	$50	$50	$50	$50	$50	$50	$50	$50	$50	
3.	RO Sampling													
	# of Wells			12	18	43	33	33	46	23	13	30	0	
	Total # samples			72	90	430	495	594	828	644	364	600	0	4117
	$/sample			$50	$50	$50	$50	$50	$50	$50	$50	$50	$50	

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Ground Water Restoration

	Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Total
4. Recirculation Sampling											
# of Wells	12	18	43	33	33	46	23	13	30	0	
Total # samples	12	18	43	33	66	92	46	26	60	0	396
$/sample	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	
5. Stabilization Sampling (Guideline 8)											
# of Wells	12	18	43	33	33	46	23	13	30	0	
Total # samples	36	54	129	99	99	138	69	39	90	0	753
$/sample	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	
6. Stabilization Sampling (6 parameter in-house)											
# of Wells	12	18	43	33	33	46	23	13	30	0	
Total # samples	72	108	258	198	198	276	138	78	180	0	1506
$/sample	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50	
7. Monitor Well Sampling											
# of Wells	13	13	29	52	60	41	55	40	60	0	
$/sample	$50	$50	$50	$50	$50	$50	$50	$50	$50	$50	
Total # samples (2.2/mo for entire period)	369	345	1088	2591	3434	2336	4488	3256	3806	0	21713
8. Other Laboratory Costs											
Radon, urinalysis, etc. = $871 month											
Total for Other Laboratory Costs:	$6,001	$5,293	$9,631	$14,510	$17,442	$17,336	$27,090	$27,018	$19,895	$0	$144,216
Subtotal Monitoring and Sampling Costs per Mine Unit	$44,107	$51,190	$143,084	$212,455	$270,471	$248,172	$319,040	$227,802	$286,928	$0	$1,803,250
Total Monitoring and Sampling Costs	$1,803,250										

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Ground Water Restoration															
				Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Total
VI.	Supervisory Labor Cost													
	Engineer Support =	$7,295	month											
	HP Technician support =	$6,014	month											
	Active restoration period (months)			6.9	6.1	11.1	16.7	20.0	19.9	31.1	31.0	22.8	0.0	
	Stabilization period (months)			6	6	6	6	6	6	6	6	6	0	
	1 Engineer support during active restoration			$50,237	$44,316	$80,628	$121,474	$146,020	$145,136	$226,799	$226,195	$166,561	$0	$1,207,367
	2 HP Technician support during active restoration			$41,415	$36,533	$66,468	$100,141	$120,376	$119,647	$186,968	$186,470	$137,310	$0	$995,328
	3 Engineer support during final stabilization										$43,773	$43,773	$0	$2,202,695
	4 HP Technician support during final stabilization										$36,085	$36,085	$0	$72,171
	Subtotal Supervisory Labor per Mine Unit			$91,652	$80,849	$147,096	$221,615	$266,396	$264,783	$413,768	$492,522	$383,729	$0	$2,362,411
Total Supervisory Labor Costs				$2,362,411										
TOTAL RESTORATION COST PER WELLFIELD				$404,933	$369,483	$722,185	$1,084,931	$1,319,244	$1,290,595	$1,948,000	$1,932,276	$1,563,093	$0	$10,634,739
TOTAL GROUND WATER RESTORATION COSTS				**$10,634,739**										

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Wellfield Reclamation	Mine Unit 1	Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Totals
Wellfield Piping												
Assumptions:												
Number of Wellhouses	2	3	3	5	7	7	6	8	5	2	0	48
Total Mine Unit surface area (acres)	9.27	11.70	13.46	23.72	31.80	35.99	43.72	57.39	50.51	0.00	0.00	277.6
Total length of small diameter production and injection lines (laterals) (ft)	30000	34000	39520	68900	106080	128700	136500	187000	148450	0	0	879150
Total length of 3/8-inch hose (ft)					66300							66300
Total length 1-1/4-inch stinger pipe (ft)	0	47400	57400	101400	0	91200	97500	90000	116000	0	0	600900
Total length of 2-inch downhole production pipe (ft)	900	20800	22800	38400	74800	74800	80000	58760	54000	0	0	425260
Total Length of Trunkline (6-inch) (ft)	1000	1600										2600
Total Length of Trunkline (8-inch) (ft)	4400	1300	1450	5400	3700	2000	1000	2100	1025			22375
Total Length of Trunkline (10-inch) (ft)												0
Total Length of Trunkline (12-inch) (ft)			1500	2000	14100	10000	5000	16900	11125	0	0	60625
Total Length of All Trunkline (ft)	5400	2900	2950	7400	17800	12000	6000	19000	12150	0	0	85600
Total number of production wells	3	52	57	96	189	194	179	248	192	0	0	1210
Total number of injection wells	0	79	96	169	219	293	300	412	325	40	0	1933
Total number of shallow monitor wells	0	3	3	11	25	28	25	30	20	20	0	165
Total number of perimeter monitor wells	11	10	10	18	27	32	16	25	20	0	0	169
I. Production and Injection Piping												
A. Removal and Loading												
Production and Injection Piping Removal Unit Cost ($/ft of pipe)	$0.58	$0.58	$0.58	$0.58	$0.58	$0.58	$0.58	$0.58	$0.58	$0.58	$0.58	
Subtotal Production and Injection Piping Removal and Loading Costs	*$17,430*	*$19,754*	*$22,961*	*$40,031*	*$61,633*	*$74,775*	*$79,307*	*$108,648*	*$86,250*	*$0*	*$0*	*$510,791*
B. Pipe Shredding												
Production and Injection Piping Shredding Unit Cost ($/ft of pipe)	$0.07	$0.07	$0.07	$0.07	$0.07	$0.07	$0.07	$0.07	$0.07	$0.07	$0.07	
Subtotal Production and Injection Piping Removal and Loading Costs	*$2,043*	*$2,315*	*$2,691*	*$4,691*	*$7,223*	*$8,763*	*$9,294*	*$12,732*	*$10,107*	*$0*	*$0*	*$59,858*
C. Equipment Costs												
Cat 924G Loader Unit Costs for removal	$26,567	$30,109	$34,997	$61,015	$93,940	$113,971	$120,878	$165,599	$131,461	$0	$0	
Shredder Unit Costs for shredding	$6,400	$7,253	$8,431	$14,699	$22,630	$27,456	$29,120	$39,893	$31,669	$0	$0	
Subtotal Equipment Costs	*$32,967*	*$37,362*	*$43,428*	*$75,713*	*$116,570*	*$141,427*	*$149,998*	*$205,492*	*$163,130*	*$0*	*$0*	*$966,088*
D. Transport and Disposal Costs (NRC-Licensed Facility)												
Chipped Volume Reduction (ft^3/ft)	0.0069	0.0069	0.0069	0.0069	0.0069	0.0069	0.0069	0.0069	0.0069	0.0069	0.0069	
Chipped Volume per Wellfield (yd^3)	7.7	8.7	10.1	17.6	27.1	32.9	34.9	47.8	37.9	0.0	0.0	
Volume for Disposal Assuming 25% Void Space (yd^3)	10	11	13	22	34	41	44	60	47	0	0	282
Transportation and Disposal Unit Cost ($/yd^3$) Unpackaged Bulk	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	
Subtotal Production and Injection Piping Transport and Disposal Costs	*$1,325*	*$1,458*	*$1,723*	*$2,915*	*$4,505*	*$5,433*	*$5,830*	*$7,950*	*$6,228*	*$0*	*$0*	*$37,367*
Total Production and Injection Piping Costs	$53,764	$60,889	$70,803	$123,351	$189,931	$230,398	$244,429	$334,822	$265,716	$0	$0	$1,574,104

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Wellfield Reclamation												
	Mine Unit 1	Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Totals
II. Trunklines												
A. Removal and Loading												
Trunkline Removal Unit Cost ($/ft of pipe)	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	
Subtotal Trunkline Removal and Loading Costs	*$7,059*	*$3,791*	*$3,856*	*$9,674*	*$23,269*	*$15,687*	*$7,844*	*$24,838*	*$15,883*	*$0*	*$0*	*$111,902*
B. Pipe Shredding												
Trunkline Shredding Unit Cost ($/ft of pipe)	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	$1.31	
Subtotal Trunkline Shredding Costs	*$7,059*	*$3,791*	*$3,856*	*$9,674*	*$23,269*	*$15,687*	*$7,844*	*$24,838*	*$15,883*	*$0*	*$0*	*$111,902*
C. Equipment Costs												
Cat 924G Loader Unit Costs for removal	$10,760	$5,778	$5,878	$14,745	$35,467	$23,910	$11,955	$37,858	$24,209	$0	$0	
Shredder Unit Costs for shredding	$2,592	$1,392	$1,416	$3,552	$8,544	$5,760	$2,880	$9,120	$5,832	$0	$0	
Subtotal Equipment Costs	*$13,352*	*$7,170*	*$7,294*	*$18,297*	*$44,011*	*$29,670*	*$14,835*	*$46,978*	*$30,041*	*$0*	*$0*	*$211,646*
D. Transport and Disposal Costs (NRC-Licensed Facility)												
Chipped Volume Reduction (6-inch) (ft^3/ft)	0.0651	0.0651	0.0651	0.0651	0.0651	0.0651	0.0651	0.0651	0.0651	0.0651	0.0651	
Chipped Volume Reduction (8-inch) (ft^3/ft)	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	
Chipped Volume Reduction (10-inch) (ft^3/ft)	0.1712	0.1712	0.1712	0.1712	0.1712	0.1712	0.1712	0.1712	0.1712	0.1712	0.1712	
Chipped Volume Reduction (12-inch) (ft^3/ft)	0.2408	0.2408	0.2408	0.2408	0.2408	0.2408	0.2408	0.2408	0.2408	0.2408	0.2408	
Chipped Volume per Wellfield (yd^3)	20.4	9.2	19.3	39.9	140.9	97.4	48.7	159.3	103.4	0.0	0.0	
Volume for Disposal Assuming 25% Void Space (ft^3)	25.0	11.0	24.0	$0.0	176.0	122.0	61.0	199.0	129.0	0.0	0.0	797.0
Transportation and Disposal Unit Cost ($/$ft^3$)	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	
Subtotal Transport and Disposal Costs	*$3,313*	*$1,458*	*$3,180*	*$6,625*	*$23,320*	*$16,165*	*$8,083*	*$26,368*	*$17,093*	*$0*	*$0*	*$105,603*
Total Trunkline Costs	**$30,782**	**$16,210**	**$18,187**	**$44,269**	**$113,869**	**$77,209**	**$38,605**	**$123,031**	**$78,900**	**$0**	**$0**	**$541,052**
III. Downhole Pipe												
A. Removal and Loading												
Downhole Piping Removal Unit Cost ($/ft of pipe)	$0.065	$0.065	$0.065	$0.065	$0.065	$0.065	$0.065	$0.065	$0.065	$0.065	$0.065	
Downhole Hosing Removal Unit Cost ($/ft of pipe)	$0.131	$0.131	$0.131	$0.131	$0.131	$0.131	$0.131	$0.131	$0.131	$0.131	$0.131	
Removal of 1-1/4-inch stinger pipe	$0	$3,098	$3,752	$6,628	$0	$5,961	$6,373	$5,883	$7,582	$0	$0	
Removal of downhole production pipe	$59	$1,360	$1,490	$2,510	$4,889	$4,889	$5,229	$3,841	$3,530	$0	$0	
Removal of downhole hose	$0	$0	$0	$0	$8,667	$0	$0	$0	$0	$0	$0	
Subtotal Downhole Piping Removal and Loading Costs	*$59*	*$4,458*	*$5,242*	*$9,138*	*$13,556*	*$10,850*	*$11,602*	*$9,724*	*$11,112*	*$0*	*$0*	*$75,742*
B. Pipe Shredding												
Downhole Piping Shredding Unit Cost ($/ft of pipe)	$0.058	$0.058	$0.058	$0.058	$0.058	$0.058	$0.058	$0.058	$0.058	$0.058	$0.058	
Subtotal Downhole Piping Shredding Costs	*$52*	*$3,962*	*$4,660*	*$8,122*	*$4,346*	*$9,645*	*$10,313*	*$8,643*	*$9,877*	*$0*	*$0*	*$59,620*
C. Equipment Costs												
Smeal Unit Costs for removal	$50	$3,819	$4,491	$7,829	$4,189	$9,296	$9,940	$8,331	$9,520	$0	$0	
Shredder Unit Costs for shredding	$19	$1,455	$1,711	$2,982	$1,596	$3,541	$3,787	$3,174	$3,627	$0	$0	
Subtotal Equipment Costs	*$70*	*$5,274*	*$6,202*	*$10,811*	*$5,785*	*$12,837*	*$13,727*	*$11,504*	*$13,147*	*$0*	*$0*	*$79,356*

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Wellfield Reclamation	Mine Unit 1	Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Totals
D. Transport and Disposal Costs (NRC-Licensed Facility)												
Chipped Volume Reduction - 1-1/4-inch stinger (ft^3/ft)	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	
Chipped Volume Reduction - 2-inch downhole production (ft^3/ft)	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074	
Volume Reduction - 3/8-inch hose (ft3/ft)	0.0313	0.0313	0.0313	0.0313	0.0313	0.0313	0.0313	0.0313	0.0313	0.0313	0.0313	
Chipped Volume - 1-1/4-inch stinger (ft^3)	0	209	253	446	0	401	429	396	510	0	0	
Chipped Volume - 2-inch downhole production (ft^3)	7	154	169	284	554	554	592	435	400	0	0	
Volume 3/8-inch hose (ft3)	0	0	0	0	2075	0	0	0	0	0	0	
Volume for Disposal Assuming 25% Void Space (yd^3)	0.3	16.8	19.5	33.8	121.7	44.2	47.3	38.5	42.1	0.0	0.0	364.2
Transportation and Disposal Unit Cost ($/$yd^3$) (Unpackaged Bulk)	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	$132.50	
Subtotal Downhole Piping Transport and Disposal Costs	*$41*	*$2,224*	*$2,584*	*$4,480*	*$16,125*	*$5,857*	*$6,263*	*$5,096*	*$5,582*	*$0*	*$0*	*$48,252*
Total Downhole Piping Costs	$222	$15,919	$18,688	$32,552	$39,812	$39,189	$41,965	$34,967	$39,718	$0	$0	$262,971
IV. Surface Reclamation												
A. Removal and disposal of contaminated soil around wells												
Volume of contaminated soil (0.37 yd3 per injection and production well)	1.11	48.47	56.61	98.05	150.96	180.19	177.23	244.2	191.29	14.8	0	1148
Disposal of contaminated soil $134.00 per yd3	$149	$6,495	$7,586	$13,139	$20,229	$24,145	$23,749	$32,723	$25,633	$1,983	$0	$155,830
Equipment (Cat 924G loader at 2 yd3/hr)	$28	$1,207	$1,410	$2,442	$3,760	$4,488	$4,414	$6,082	$4,764	$369	$0	
Labor (1 man-hour per 2 Yd3)	$9	$396	$463	$801	$1,233	$1,472	$1,448	$1,995	$1,563	$121	$0	
Subtotal removal and disposal of contaminated soil	*$185*	*$8,098*	*$9,458*	*$16,382*	*$25,222*	*$30,106*	*$29,611*	*$40,800*	*$31,960*	*$2,473*	*$0*	*$194,295*
B. Recontour and seeding												
Recontour and seeding (est. $300/acre)	$2,780	$3,510	$4,037	$7,117	$9,540	$10,797	$13,117	$17,218	$15,152	$0	$0	
Subtotal Recontour and Seeding	*$2,780*	*$3,510*	*$4,037*	*$7,117*	*$9,540*	*$10,797*	*$13,117*	*$17,218*	*$15,152*	*$0*	*$0*	*$83,268*
Total Surface Reclamation	$2,966	$11,608	$13,495	$23,499	$34,762	$40,903	$42,728	$58,018	$47,112	$2,473	$0	$277,563
IV. Well Houses												
Total Quantity	2	3	3	5	7	7	6	8	5	2	0	
Average Well House Weight (Lbs.)	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	
A. Removal												
Dismantlement at 2-man-days per wellhouse (man-days)	4	6	6	10	14	14	12	16	10	4	0	
Dismantlement Labor Costs	$523	$784	$784	$1,307	$1,830	$1,830	$1,569	$2,092	$1,307	$523	$0	$12,550
Equipment (Cat 924G at 2 hours per wellhouse) (hrs)	4	6	6	10	14	14	12	16	10	4	0	
Equipment Costs	$199	$299	$299	$498	$697	$697	$598	$797	$498	$199	$0	$4,782
Subtotal Well House Dismantlement Costs	*$722*	*$1,083*	*$1,083*	*$1,805*	*$2,528*	*$2,528*	*$2,166*	*$2,889*	*$1,805*	*$722*	*$0*	*$17,332*
B. Disposal												
Total Disposal Weight (6000 lbs per wellhouse) (Lbs)	12000	18000	18000	30000	42000	42000	36000	48000	30000	12000	0	
Subtotal Disposal Costs	*$111*	*$167*	*$167*	*$278*	*$389*	*$389*	*$333*	*$444*	*$278*	*$111*	*$0*	*$2,664*
Total Well House Removal and Disposal Costs	$833	$1,250	$1,250	$2,083	$2,916	$2,916	$2,499	$3,333	$2,083	$833	$0	$19,996
TOTAL REMOVAL AND DISPOSAL COSTS PER WELLFIELD	$88,568	$105,875	$122,423	$225,754	$381,289	$390,616	$370,166	$554,160	$433,528	$3,306	$0	$2,675,685
TOTAL WELLFIELD BUILDINGS AND EQUIPMENT REMOVAL AND DISPOSAL COSTS	$2,675,685											

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			Mine Unit 1	Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11	Total
	Well Abandonment													
I.	**Well Abandonment (Wellfields)**													
	# of Production Wells		3	52	57	96	189	194	179	248	192	150	0	
	# of Injection Wells		0	79	96	169	219	293	300	412	325	250	40	
	# of Perimeter Monitoring Wells		11	10	10	18	27	32	16	25	20	30	0	
	# of Shallow Monitoring Wells		0	3	3	11	25	28	25	30	20	30	20	
	Total Number of Deep Wells		14	141	163	283	435	519	495	685	537	430	40	3742
	Total Number of Shallow Wells		0	3	3	11	25	28	25	30	20	30	20	195
	Average Diameter of Casing (inches)		5	5	5	5	5	5	5	5	5	5	5	
	Production, Injection and Perimeter Well Average Depth (ft)		665	631	774	698	675	515	762	500	770	480	810	662
	Shallow Well Average Depth (ft)		200	200	200	200	200	200	200	200	200	150	350	209
	Total Mine Unit Well Depth (ft)		9310	89571	126762	199734	298625	272885	382190	348500	417490	210900	39400	2395367
	Well Abandonment Unit Cost ($/ft. of well)		$0.5230	$0.5230	$0.5230	$0.5230	$0.5230	$0.5230	$0.5230	$0.5230	$0.5230	$0.5230	$0.5230	
	Subtotal Abandonment Cost per Wellfield		**$4,869**	**$46,848**	**$66,300**	**$104,466**	**$156,189**	**$142,727**	**$199,896**	**$182,275**	**$218,359**	**$110,307**	**$20,607**	**$1,252,844**
II.	**Downhole Pump Disposal**													
	Number of Downhole Pumps	828												
	Pump Disposal Volume(ft3)	0.5												
	Total Pump Disposal Volume(yd3)	15.3												15.3
	Downhole Pump Disposal Rate ($/yd3)	$132.50												
	Subtotal Downhole Pump Disposal		**$2,032**											**$2,032**
Total Wellfield Abandonment Costs			**$1,254,876**											

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| Plant Equipment Decommissioning | | |

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| Plant Equipment Decommissioning | | |

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| Building Demolition | | |

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Building Demolition		
	Commercial Plant	**R.O. Building**
III. Disposal Costs		
A. Concrete Floor		
Area of Direct-Dispose Concrete Floor (ft^2)	5,450	
Average Thickness of Concrete Floor (ft)	0.5	
Volume of Concrete Floor (ft^3)	2,725	
Volume of Concrete Floor (Yd3)	101	
Transportation and Disposal Unit Cost ($/$Yd^3$) (Unpackaged Bulk)	$132.50	
Subtotal Concrete Floor Disposal Costs	*$13,373*	
Total Disposal Costs	**$13,373**	
IV Plant Site Reclamation		
A. Plant Site Earthwork		
Material to be Moved (Yd3)	20,000	
D8N Bulldozer Earthwork Rate (Yd3/hr)	700	
D8N Hourly Rate	$136	
Subtotal Plant Site Earthwork	*$3,898*	
B. Revegetation		
Area requiring Revegetation (Ac)	4	
Revegetation Unit Cost ($/Ac)	$300	
Subtotal Plant Site Revegetation	*$1,200*	
Total Plant Site Reclamation Costs	**$5,098**	
SUBTOTAL BUILDING DEMOLITION AND DISPOSAL COSTS	$273,777	
Building Area (Ft2)	34,000	5,000
Building Demolition Cost per Square Foot	$8.05	$8.05
TOTAL BUILDING DEMOLITION AND DISPOSAL COSTS	**$273,777**	**$40,261**

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Evaporation Pond Reclamation		
	Commercial Ponds	**R&D Ponds**
Assumptions/Data:		
Number of Ponds	3	2
Area of Ponds (ft2)	250,000	50,000
Thickness of Liner Material (ft)	0.00833	0.0030
Leak detection piping size (in)	4	3
Leak detection piping length (ft/pond)	2,100	600
Earthwork Requirements (Yd3/pond)	60,000	30,000
Surface Restoration/Revegetation (Acres)	20	10
Sludge Production Rate (Yd3 sludge/gal)		0.000000102
(1 Yd3 sludge/9,772,000 gal R&D Phase)		
Estimated 1991 to 2006 Total Production (gallons)	26,498,071,400	
Liner Removal Rate (ft2/man-day)	10,000	10,000
Sludge Removal Rate (Yd3/man-day)	8.33	8.33
I. Pond Liner and Piping Removal		
A. Pond Liner and Piping Removal Labor		
Area of Ponds	750,000	100,000
Liner Removal Rate (ft2/Man-Day)	10,000	10,000
Total Man-Days	75	10
Labor Rate ($/man-day)	$130.73	$130.73
Subtotal Liner and Piping Removal Labor Costs	*$9,804*	*$1,307*
B. Pond Liner and Piping Removal Equipment		
Total Man-Days Removal Effort	75	10
Size of Crew	4	4
Total Days Removal Effort	18.75	2.5
Cat 924G Loader Hourly Rate ($/hr)	$49.81	$49.81
Subtotal Liner and Piping Removal Equipment Costs	*$7,472*	*$996*
Total Pond Liner and Piping Removal Costs	**$17,276**	**$2,304**

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Evaporation Pond Reclamation						
					Commercial Ponds	R&D Ponds
II.	Pond Sludge Removal					
		Pond Sludge Estimate				
			Estimated Production Flow since 1991 (gal)		26,498,071,400	
			Historical Sludge Production Rate		0.000000102	
			Estimated Pond Sludge Volume (Yd3)		2,712	Cleaned following R&D
	A.	Pond Sludge Removal Labor				
			Pond Sludge Volume (Yd3)		2,712	
			Sludge Removal Rate (Yd3/man-day)		8.33	
			Total Man-Days		325	
			Labor Rate ($/man-day)		$131	
		Subtotal Pond Sludge Removal Labor Costs			*$42,538*	*$0*
	B.	Pond Sludge Removal Equipment				
			Total Man-Days Removal Effort		325	
			Size of Crew		3	
			Total Days Removal Effort		108	
			Cat 924G Loader Hourly Rate ($/hr)		$49.81	
		Subtotal Pond Sludge Removal Equipment Costs			*$43,223*	*$0*
	Total Pond Sludge Removal Costs				**$85,761**	**$0**
III.	Pond Byproduct Material Disposal					
	A.	Pond Liner Disposal				
			Area of Pond Liner (ft2)		750,000	100,000
			Thickness of Pond Liner (ft)		0.00833	0.00300
			Volume of Pond Liner (ft3)		6,248	300
			Void Space Factor		1.25	1.25
			Total Disposed Volume (yd3)		289	14
			Disposal Unit Costs ($/yd3) (Unpackaged Bulk)		$132.50	$132.50
		Subtotal Pond Liner Disposal Costs			*$38,324*	*$1,840*

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Evaporation Pond Reclamation		
	Commercial Ponds	R&D Ponds
V. Supervisory Labor Costs During Pond Reclamation		
Estimated Duration (months)	4	
Engineer Rate ($/month)	$7,295	
Total Engineer Labor	$29,182	
Radiation Technician Rate ($/month)	$6,014	
Total Radiation Tecnician Labor	$24,057	
Total Supervisory Labor Costs	**$53,239**	**$0**
TOTAL EVAPORATION POND RECLAMATION PER POND	**$599,441**	**$18,889**
TOTAL EVAPORATION POND RECLAMATION COSTS	**$618,330**	

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Miscellaneous Site Reclamation				
I.	**Access Road Reclamation**			
		Assumptions		
			Road Reclamation production rate (Yd3/hr)	200
			Length of Main Access Roads (ft)	10,900
			Average Main Access Road width (ft)	25
			Depth of Main Access Road Gravel Surface (ft)	1
			Surface Area of Main Access Road (Ac)	6.3
			Length of Wellfield Access Roads (ft)	58,000
			Average Wellfield Access Road width (ft)	12
			Depth of Wellfield Access Road Gravel Surface (ft)	0.5
			Surface Area of Wellfield Road (Ac)	16.0
	A.	Main Access Road Dirtwork		
			Main Access Road Gravel Volume (Yd3)	10,093
			Total reclamation time (hrs)	50
			D8N Unit Operating Cost ($/hr)	$136
		Subtotal Main Access Road Gravel Roadbase Removal Costs		*$6,885*
	B.	Wellfield Road Dirtwork		
			Wellfield Road Gravel Volume (Yd3)	12,889
			Total reclamation time (hrs)	64
			D8N Unit Operating Cost ($/hr)	$136
		Subtotal Wellfield Road Gravel Roadbase Removal Costs		*$8,793*
	E.	Discing/Seeding		
			Assumptions	
			Surface Area (acres)	22.2
			Discing/Seeding Unit Cost ($/acre)	$300
		Subtotal Discing/Seeding Costs		*$6,670*
	Total Access Road Reclamation Costs			**$22,348**

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Miscellaneous Site Reclamation						
II.	Wastewater Pipeline Reclamation					
		Assumptions				
			Pipeline Removal Rate (ft./man-day)			67
			Pipeline Shredding Rate (ft./man-day)			1,500
			Number of Pond Pipelines			2
			Length of Pond Pipelines (ft)			2,000
			Number of RO Building Pipelines			4
			Length of RO Building Pipelines (ft)			300
			Average Pipe Size (Sch 40)			4
	A.	Pipeline Removal Costs				
			Length of Pipelines (ft)			5,200
			Removal Rate (ft/man-day)			67
			Removal Labor Rate ($/man-day)			$128
			Cat 924G Loader Use (days)			78
			Cat 924G Loader Cost			$31,067
		Subtotal Pipeline Removal Costs				*$41,007*
	B.	Pipeline Shredding Costs				
			Length of Pipelines (ft)			5,200
			Shredding Rate (ft/man-day)			1,500
			Shredding Labor Rate ($/man-day)			$131
			Shredder Use (days)			3
			Shredder Cost			$333
		Subtotal Pipeline Shredding Costs				*$786*

Miscellaneous Site Reclamation				
	C.	Pipeline Transportation and Disposal (NRC-Licensed Facility)		
			Pipe Diameter (inches)	4
			Chipped Volume Reduction (ft^3/ft)	0.0103
			Subtotal Volume of Shredded PVC Pipe (yd^3)	2.0
			Disposal Void Factor	1.25
			Final Disposal Volume (yd3)	2.5
			Transportation and Disposal Unit Cost ($/$yd^3$) (Unpackaged Bulk)	$132.50
		Subtotal Pipeline Disposal Costs		*$329*
	Total Wastewater Pipeline Reclamation Costs			**$42,122**
III.	**Electrical Distribution System Removal**			
		Assumptions		
			Length of High Voltage Lines	37,200
			High Voltage Line Removal Rate ($/ft.)	$0.59
			High Voltage Line Removal Cost ($/ft.)	$21,948
			Substation Removal	$1,175
		Subtotal Electrical Distribution System Removal Costs		**$23,123**
IV.	**Supervisory Labor Costs During Miscellaneous Reclamation**			
		Estimated Duration (months)		3
		Engineer Rate ($/month)		$7,295
		Total Engineer Labor		$21,886
		Radiation Technician Rate ($/month)		$6,014
		Total Radiation Tecnician Labor		$18,043
	Total Supervisory Labor Costs			**$39,929**
TOTAL MISCELLANEOUS RECLAMATION COSTS				**$127,522**

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Deep Disposal Well Reclamation			
I.	**Cost Basis**		
	A.	Plugging and Abandonment	
		Cost Estimate from March 2004 Permit Re-application for plugging and abandonment	$59,026
		March 2004 CPI	187.4
		June 2005 CPI	194.5
		Subtotal Escalated 2003 Plugging and Abandonment Costs	*$61,262*
	B.	Site Reclamation	
		Cost Estimate from March 2004 Permit Re-application for site reclamation	$2,433
		March 2004 CPI	187.4
		June 2005 CPI	194.5
		Subtotal Escalated 2003 Reclamation Costs	*$2,525*
TOTAL DEEP DISPOSAL WELL RECLAMATION COSTS			**$63,787**

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I-196 Brule Aquifer Restoration						
I.	**Ground Water Sweep Costs**					
	Assumptions					
		PV's Required from I-196a, I-196j and I-196n				3
		Total Gallons per Pore Volume				337,758
		Total Gallons to Treat				1,013,274
		Flow Rate (gpm)				3
		Pump Power Requirements (kw)				3
		Power Cost ($/kw)				$0.06
		Pumping Labor (man-day per day)				0.13
		Sampling Labor (man-day per day)				0.07
		Labor Rate ($/man-day)				$131
		Days to complete				235
	A.	Electrical Costs				
		Cost to pump 3 Pore Volumes				*$979*
	B.	Labor Costs				
		Labor for pumping 3 Pore Volumes				*$3,986*
Total Ground Water Sweep Costs						**$4,966**
II.	**Monitoring and Sampling Costs**					
	A.	Labor Costs for Monitoring				$2,190
	B.	Monitoring for I-196i, I-196m, and I-196l				$2,190
Total Monitoring and Sampling Costs						**$4,380**

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I-196 Brule Aquifer Restoration					
III	**Additional Ground Water Sweep**				
		Pump from additional wells and monitor as above			$9,346
		Drill 4 additional wells, 50 ft deep at $26/ft.			$5,200
Total Additional Ground Water Sweep					**$14,546**
IV	**Well Abandonment**				
		Abandon 14 wells at $194/well			$2,716
Total Well Abandonment					**$2,716**
TOTAL I-196 BRULE AQUIFER RESTORATION COSTS					**$26,608**

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GROUNDWATER RESTORATION
GROUNDWATER SWEEP (GWS) Unit Costs

Assumptions:

1.	All pumps are 5 hp pumping at 32 gpm		
2.	Cost of electricity =	$0.058	Kw hr
3.	Horsepower to kilowatt conversion =	0.746	Kw/HP
4.	Operator labor costs =	$130.73	man-day
5	Labor costs are based on 36 pumps at 1,150 gpm		

Wellfield Pumping Electrical Costs per 1000 Gallons

1000	gal	X	5	hp	X	1	hr	X	0.746	kwh	X	$	0.06		= $	0.113
			32	gpm		60	min		hp				kwh			

Wellfield Pumping Labor Costs per 1000 Gallons

1000	gal	X	1	min	X	8	hr	X	$131		X		2	operators	= $	$0.474
			1150	gal		480	min		man-day							

Groundwater Sweep Production Rate

1150	gal	X	60	min	X	24	hr	X	365	day	X		1	year	=	*50,370,000*	*gallons*
	min		hr	gal			day			year			12	month			*month*

TOTAL GWS COSTS PER 1000 GALLONS = $ **0.586**

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Groundwater Reverse Osmosis (RO) Treatment Unit Costs

Assumptions:																	
1.	All pumps are 5 hp pumping at 32 gpm																
2.	Cost of electricity =															$0.058	Kw hr
3.	Horsepower to kilowatt conversion =															0.746	Kw/HP
4.	Operator labor costs =															$130.73	man-day
5.	RO System horsepower requirements for 400 gpm rated flow based upon:																
				RO Unit Pump				164	hp								
				Permeate/Injection pump				40	hp								
				Waste pump				8	hp								
				TOTAL:				212	hp								
6.	Chemical costs:																
				Reductant =												$0.310	lb
				Antiscalant =												$16.18	gal
Wellfield Pumping Electrical Costs per 1000 Gallons																	
	1000	gal	X	5	hp	X	1	hr	X	0.746	kwh	X	$ 0.06		= $	0.112677083	per Kgal
				32	gpm		60	min		hp			kwh				
Reverse Osmosis Electrical Costs per 1000 Gallons																	
	1000	gal	X	212	hp	X	1	hr	X	0.746	kwh	X	$ 0.06		= $	0.382200667	per Kgal
				400	gpm		60	min		hp			kwh				
Reverse Osmosis Labor Costs per 1000 Gallons																	
	1000	gal	X	1	min	X	1	man-day	X	$131		X	2	operators	= $	$1.3617	per Kgal
				400	gal		480	min		man-day							
Treatment chemical costs per 1000 Gallons																	
	Antiscalant:																
	1000	gal	X	8.33E-06	gal antiscalant	X	$16.18								= $	$0.13	per Kgal
				1	gal		gal antiscalant										
	Reductant:																
	1000	gal	X	5.60E-04	lbs reductant	X	$0.310								= $	$0.17	per Kgal
				1	gal		lb reductant										
Reverse Osmosis Production Rate																	
	400	gal	X	60	min	X	24	hr	X	365	day	X	1	year	=	*17,520,000*	*gallons*
		min		hr	gal			day			year		12	month			*month*
TOTAL RO COSTS PER 1000 GALLONS													= $	2.165			

Crow Butte Resources, Inc.
Crow Butte Uranium Project 2006 Surety Estimate
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Groundwater Recirculation Unit Costs

Assumptions:																	
1.	All pumps are 5 hp pumping at 32 gpm																
2.	Cost of electricity =															$0.058	Kw hr
3.	Horsepower to kilowatt conversion =															0.746	Kw/HP
4.	Operator labor costs =															$130.73	man-day
5.	System horsepower requirements for 1,150 gpm rated flow based upon:																
				injection pump				30	hp								
6.	Chemical costs:																
				Reductant =												$0.310	lb
Wellfield Pumping Electrical Costs per 1000 Gallons																	
	1000	gal	X	5	hp	X	1	hr	X	0.746	kwh	X	$ 0.06		= $	0.113	per Kgal
				32	gpm		60	min		hp			kwh				
Wellfield Injection Electrical Costs per 1000 Gallons																	
	1000	gal	X	30	hp	X	1	hr	X	0.746	kwh	X	$ 0.06		= $	0.019	per Kgal
				1150	gpm		60	min		hp			kwh				
Recirculation Labor Costs per 1000 Gallons																	
	1000	gal	X	1	min	X	1	man-day	X	$131		X	2	operators	= $	0.474	per Kgal
				1150	gal		480	min		man-day							
Treatment chemical costs per 1000 Gallons																	
	Reductant:																
	1000	gal	X	5.60E-04	lbs reductant	X	$0.310								= $	$0.174	per Kgal
				1	gal		lb reductant										
Recirculation Production Rate																	
	1150	gal	X	60	min	X	24	hr	X	365	day	X	1	year	=	*50,370,000*	*gallons*
		min		hr	gal			day			year		12	month			*month*
TOTAL RECIRCULATION COSTS PER 1000 GALLONS													= $	**0.779**			

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WELL ABANDONMENT Unit Costs															
Assumptions:															
1	Use backhoe for 0.25 hr/well to dig, cut off, and cap well.														
2	Drill rig used 2.5 hrs to plug well.														
3	Labor for installing chips, etc. will require 2 workers at 0.5 hrs per well														
Well Abandonment Costs												**Cost per ft (based on 700 ft wells)**			
	Cat 416 Backhoe														
		0.25	hours	X	$	38.19	per hour			=$	9.55	$0.0136			
	Drill rig														
		2.5	hours	X	$	110.00	per hour			=$	275.00	$0.3929			
	Well Cap	1	each	X	$	6.25	each			=$	6.25	$0.0089			
Materials per foot of well (Variable Cost)															
	Cement	0.0714	lbs/ft	X	$	0.16	per pound			=$		$0.01142			
	Bentonite Chips	0.007	tubes/ft	X	$	6	per tube			=$		$0.042			
	Plug Gel	0.0086	sacks/ft	X	$	6.30	per sack			=$		$0.0542			
Total Estimated Cost per Foot:												**$0.5230**			

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Master Cost Basis

Mine Unit Data

		Mine Unit 1	Mine Unit 2	Mine Unit 3	Mine Unit 4	Mine Unit 5	Mine Unit 6	Mine Unit 7	Mine Unit 8	Mine Unit 9	Mine Unit 10	Mine Unit 11
Total number of production wells		3	52	57	96	189	194	179	248	192	150	0
Total number of injection wells		0	79	96	169	219	293	300	412	325	250	40
Total number of shallow monitor wells		0	3	3	11	25	28	25	30	20	30	20
Total number of perimeter monitor wells		11	10	10	18	27	32	16	25	20	30	0
Total number of restoration wells		10	12	18	43	33	33	46	23	13	30	40
Wellfield Area (ft2)		403,712	509,600	586,188	1,033,440	1,385,181	1,567,768	1,904,560	2,500,000	2,200,000	1,620,000	0
Wellfield Area (acres)		9.27	11.70	13.46	23.72	31.80	35.99	43.72	57.39	50.51	37.19	0.00
Affected Ore Zone Area (ft2)		403,712	509,600	586,188	1,033,440	1,385,181	1,567,768	1,904,560	2,500,000	2,200,000	1,620,000	0
Avg. Completed Thickness		19.6	16.3	12.5	12.9	14.5	15.4	12.6	15	17	17	16
Porosity		0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Affected Volume (ft3)		7,912,755	8,306,480	7,327,350	13,331,376	20,085,125	24,143,627	23,997,456	37,500,000	37,400,000	27,540,000	0
Kgallons per Pore Volume		17,164	18,018	15,894	28,918	43,569	52,372	52,055	81,345	81,128	59,740	0
Number of Patterns in Unit(s)												
	Current	38	52	57	96	187	187	200	240	150	60	0
	Estimated next report	0	0	0	0	2	7	-21	8	42	90	0
	Total Estimated	38	52	57	96	189	194	179	248	192	150	0
Number of Wells in Unit(s)												
Production Wells												
	Current	3	52	57	96	187	187	200	240	150	60	0
	Estimated next report	0	0	0	0	2	7	-21	8	42	90	0
	Total Estimated	3	52	57	96	189	194	179	248	192	150	0
Injection Wells												
	Current	0	79	96	169	221	309	325	400	250	80	0
	Estimated next report	0	0	0	0	-2	-16	-25	12	75	170	40
	Total Estimated	0	79	96	169	219	293	300	412	325	250	40
Shallow Monitor Wells												
	Current	0	3	3	11	25	28	25	30	20	30	0
	Estimated next report	0	0	0	0	0	0	0	0	0	0	20
	Total Estimated	0	3	3	11	25	28	25	30	20	30	20
Perimeter Monitor Wells												
	Current	11	10	10	18	27	32	16	25	20	30	0
	Estimated next report	0	0	0	0	0	0	0	0	0	0	0
	Total Estimated	11	10	10	18	27	32	16	25	20	30	0
Number of Wells per Wellfield		14	144	166	294	460	547	520	715	557	460	60
Total Number of Wells		3937										
Average Well Depth (ft) - Deep Wells		665	631	774	698	675	515	762	500	770	480	810
Average Well Depth (ft) - Shallow Wells		200	200	200	200	200	200	200	200	200	150	350

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Master Cost Basis

Electrical Costs	2005 Rate	2006 Est Rate	
Power cost (adj for current actual cost)	$0.056	$0.058	kwHr
Kilowatt to Horsepower	0.746	0.746	Kw/HP
Horsepower per gallon per minute	0.167	0.167	HP/gpm
Labor Rates	**2005 Rate**	**2006 Est Rate (CPI)**	
Operator Labor Cost	$127.50	$130.73	day
Engineer Cost	$7,115.41	$7,295.45	month
Radiation Technician Costs	$5,865.79	$6,014.21	month
Chemical Costs	**2005 Rate**	**2006 Est Rate**	
Antiscalant for RO (adj for current actual cost)	$12.47	$16.18	gal
Reductant (adj for current actual cost)	$0.27	$0.31	lb
Cement (adj for current actual cost)	$0.16	$0.16	pound
Bentonite Tubes (adj for current actual cost)	$6.00	$6.00	tube
Salt (adj for current actual cost)	$61.00	$61.00	ton
Plug Gel (adj for current actual cost)	$6.30	$6.30	sack
Well Cap (adj for current actual cost)	$6.00	$6.25	each
Hydrochloric Acid (adj for current actual cost)	$0.61	$0.79	gallon
Analytical Costs			
Guideline 8 (contract lab adjusted for current contract cost)	$200.00	$200.00	analysis
6 parameter (in-house) Est Rate (CPI)	$48.50	$49.73	analysis
Other (radon, bio, etc.) Est Rate (CPI)	$849.91	$871.42	month
Spare Parts	**2005 Rate**	**2006 Est Rate (CPI)**	
Restoration spare parts estimate	$17,877.22	$18,329.57	year

CPI Escalators (CPI-U, U.S. City Average)	
1988 CPI (average)	118.3
March 2004 CPI (deep well estimate)	187.4
2004 CPI (June 2004 used in last update)	189.7
Current CPI (June 2005)	194.5
2006 Escalation Factor	1.025

Equipment Costs

Equipment	Base Rental Rate ($/hr)	Labor Costs ($/hr)	Repair Reserve Costs ($/hr)	Fuel Costs ($/hr)	Mob & Demob ($/hr)	Total ($/hr)
Cat 924G Loader	$23.00	$15.94	$3.00	$7.88	inc.	$49.81
Cat 416 Backhoe	$13.00	$15.94	$2.50	$6.75	inc.	$38.19
Shredder	$12.00			inc	inc	$12.00
Cat D8N Bulldozer	$86.00	$15.94	$12.00	$22.50	inc.	$136.44
Pulling Unit	$42.00	inc	inc	inc	inc	$42.00
Mixing Unit	$12.00			inc	inc	$12.00
Drill Rig	$110.00	inc	inc	inc	inc	$110.00

Basis:
Cat 924G, 416 and D8N rental rates from Nebraska Machinery (Aug '05); others estimated.
Repair Reserve costs based on from Nebraska Machinery (Aug '05).
Current diesel usage from from Nebraska Machinery (Aug '05), with current (Sep 1, '05) costs for off-road fuel: $2.250 gallon

Labor rate based on current operator labor rate

Pipe Volumes

Nominal Pipe Size	Wall Thickness (in.)	Pipe OD (in.)	Volume per foot (ft3/ft)
3/8-inch O2 hose		0.37500	0.03130
2-inch Sch. 40 downhole	0.15400	2.37500	0.00740
1-1/4-inch Sch. 40 stinger	0.14000	1.66000	0.00440
2-inch SDR 13.5 inj & prod.	0.14815	2.29630	0.00690
4-inch SDR 35	0.11430	4.22860	0.01030
6-inch Sch. 40 process pipe	0.28000	6.56000	0.03840
6-inch Trunkline	0.49100	6.56600	0.06510
8-inch Trunkline	0.63900	8.54800	0.11030
10-inch Trunkline	0.79600	10.65400	0.17120
12-inch Trunkline	0.94400	12.63700	0.24080

Pipe Removal and Shredding Costs

Activity	Removal Rate (ft/man-day)	Shredding Rate (ft/man-day)	Labor Rate (day)	Activity Cost per foot
2-inch SDR 13.5 inj & prod. Removal	225		$131	$0.581
2-inch SDR 13.5 inj & prod. Shredding		1920	$131	$0.068
Trunkline Removal	100		$131	$1.307
Trunkline Shredding		100	$131	$1.307
Downhole Pipe Removal	2000		$131	$0.065
Downhole Pipe Shredding		2250	$131	$0.058
Downhole Hose Removal	1000		$131	$0.131
Waste and RO Building Pipeline Removal	67		$131	$1.960
Waste and RO Building Pipeline Shredding		1500	$131	$0.087

Waste Disposal Costs

Waste Form	Fee		Density Correction Factor (Tons/Yd3)	Fee per Cubic Yard	Transport Cost		Total Transportation and Disposal	
Soil, Bulk Byproduct Material	$100.00	per Ton	0.54	$54.00	$80.00	per Yd3	$134.00	per Yd3
Unpackaged Bulk Byproduct Material (e.g., pipe, equipment)	$125.00	per Ton	0.42	$52.50	$80.00	per Yd3	$132.50	per Yd3
Solid Waste (landfill)	$0.00925	per Lb			Incl.	per Lb	$0.00925	per Lb
Solid Waste (landfill)	$370.00	per Load			Incl.	per Load	$370.00	per Load
Void Factor (for disposal)	1.25							

Plant Dismantling

Plant Components:	Number	Units	Estimated Disposal Volume	Units	Activity	Units	1988 Cost	
Contaminated Tanks	28	each	19.3	Ft3 each	Dismantle interior steel, tanks, piping and electrical:		$	$66,600
Uncontaminated Tanks	8	each	19.3	Ft3 each	Dismantle Plant Building		$	$43,800
Pumps	30	each	5	Ft3 each				
Downhole Pumps	608	each	0.5	Ft3 each	Concrete floor removal rate	$/ft2		$2.72
Contaminated Piping	4125	feet	See estimate by piping size and material					
Uncontaminated Piping	4125	feet						
Filters	4	each	100	Ft3 each				
Dryer	2	each	400	Ft3 each				
Average PVC Pipe Diameter (inches)	6							

Plant Decontamination

Direct Dispose Plant Floor Area	5450	ft2	Decon Solution (HCl) Floor Application Rate	2	gal/ft2
Uncontaminated Plant Floor Area	7000	ft2			
Decontaminated Plant Floor Area*	18146	ft2			
Average concrete thickness	0.5	ft			
Plant Wall Area*	25332	ft2	Decon Solution (HCl) Wall Application Rate	1	gal/ft2

* Increases to account for planned drum storage area to be built in 2004 - 2005