

ALTERNATIVE 1

No Action (Continued Groundwater Containment and Removal)

Site: HMC Grants Reclamation Project

Phase: ACL Application

Base Year:

Location: Grants, NM

Date: 04/04/2022

Duration: 1,003 years

Description: Alternative 1 assumes denial for amendment of existing groundwater corrective action plan and continued operation of the existing groundwater containment and removal systems essentially in perpetuity, due to the long-term sources of groundwater impact. Therefore, this alternative has been modeled for the compliance period of 1,000 years using existing capital equipment and infrastructure design. Groundwater pumping to mitigate the groundwater plume down gradient of the LTP/STP area would be performed for 150 years, after which is assumed (based on groundwater model simulations) that low concentration off-site waters have been mitigated and zeolite is no longer appropriate for treatment of higher concentration on-site groundwater and the groundwater plumes have been limited to the immediate area around the LTP/STP. It is also assumed that water treatment rates would decrease to a long-term steady state rate (600 gpm) for the remainder of the compliance period to contain the long-term groundwater sources to the immediate LTP/STP area. All capital equipment (e.g., wells, treatment systems, etc.) are assumed to have a 50 year life except for spray evaporators which have a 10 year capital life due to the high salinity environment on the evaporation ponds. Groundwater monitoring and routine Site facilities operation and staffing continue throughout the so-compliance period. All subsequent reclamation costs are assumed to be incurred in years 1,001 through 1,003. The groundwater wells, piping infrastructure, and other above-ground groundwater treatment systems (RO, evaporation ponds) would continue to operate for the full compliance period (1,000 years) and are all assumed to have 50 year capital lives, after which replacement of the capital equipment is necessary. Perpetual treatment under this alternative precludes license termination, Site transfer to DOE, and de-listing from the National Priorities List (NPL).

Capital Costs:

The zeolite water treatment system would be relocated from the top of the Large Tailings Pile to an area of approximately 4 acres just south of the existing reverse osmosis treatment plant in year 0. Re-lining of Evaporation Pond 1 (EP1) would be planned for year 0. Installation of the LTP engineered final cover (part of groundwater source control efforts) would occur in year 1 after the zeolite system is relocated. The LTP Construction Completion Report (CCR) would be provided to NRC in year 152. Covering of the STP, which is not considered a substantial long-term source of groundwater impacts, is not included as a groundwater CAP alternatives cost. After 150 years of pumping, it is assumed that groundwater recovery rates would be based on long-term containment pumping rates (from groundwater model alternatives analyses), and would continue to use only RO treatment (600 gpm), evaporation and spray evaporation (100%), and compliant water re-injection into the aquifer. Long-term management of water recovered from the LTP toe drain system and groundwater recovery system would be managed/treated in the RO system and existing evaporation ponds for the full 1,000 years.

Decommissioning of the RO, zeolite, and evaporation pond treatment systems, and site wide piping infrastructure would be completed in Year 1,001. Corrective Action wells and removal of site wide piping infrastructure would be abandoned per License and State requirements in years 1,001 and 1,002. The Corrective Action CCR would be submitted to NRC in year 1,003.

Operating and Maintenance Costs (O&M):

Ongoing O&M costs include operation of groundwater recovery and injection wells and above ground infrastructure (years 0-1,000), operation of the RO treatment and zeolite system at a nominal rate of approximately 600 gpm, operation of the zeolite treatment system at a nominal rate of 600 gpm (years 0-150), operation of the spray evaporation systems (100%) on the evaporation ponds (years 0-1000). After 150 years of pumping, treatment rates would be reduced to manage the reduced flow rates associated with groundwater containment. This includes operation of the RO treatment system at a nominal rate of approximately 600 gpm (years 151-1,000) and operation of the spray evaporation systems (100%). Groundwater monitoring costs for the existing groundwater monitoring program (years 0-1,000), and operation of the Site support facilities (years 0-1,000; admin, environmental, maintenance, sampling and staff, etc.) would be performed throughout the entire compliance period.

Periodic Costs:

The LTP Cover is placed in year 1 and the LTP Cover CCR is developed in year 2. Capital equipment for the groundwater monitoring and water treatment systems are replaced every 50 years after initial installation, including EP1 (initial re-lining in year 0, first periodic re-lining in year 50), Evaporation Pond 2 (EP2; first relining in year 5), Evaporation Pond 3 (EP3; first relining in year 20), while spray evaporators, which are subject to high salinity conditions, are replaced every 10 years starting in year 10. The monitoring well network is first replaced in year 20 and every 50 years thereafter, the RO plant is first replaced in year 45 and every 50 years thereafter. Capital replacement of the zeolite system would parallel that of the reverse osmosis treatment system in timing and frequency.

Present value is calculated based on a discounted cashflow factor using the equation $[(1+i)^n]/[(1+r)^n]$ where i is the annual inflation rate, r is the annual discount rate and n is the annual compounding period (See Sheet 13).

CAPITAL COSTS:

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
1.00	EP1 Re-lining (Year 0)		\$7,865,000		\$7,865,000
1.01	EP1 Re-lining	LS	\$6,500,000	1	\$6,500,000
1.02	Project Management	%	\$650,000	10	\$650,000
1.03	Contingency	%	\$715,000	10	\$715,000
2.00	Zeolite Relocation (Year 0)		\$4,326,310		\$4,324,210
2.01	Existing Zeolite Decommissioning	LS	\$191,000	1	\$191,000
2.02	Zeolite Relocation	LS	\$3,720,250	1	\$3,720,250
2.03	Project Management	%	\$39,120	10	\$37,210
2.04	Contingency	%	\$375,940	10	\$375,750
3.00	TOTAL CAPITAL COST				\$12,189,210

O&M COSTS:

4.00	Groundwater Containment and Removal System O&M (Years 0-1000)		\$421,580		\$421,996,580
4.01	Groundwater Extraction & Injection System O&M	year	\$365,000	1001	\$365,365,000
4.02	Project Management	%	\$18,250	5	\$18,268,250
4.03	Contingency	%	\$38,330	10	\$38,363,330
5.00	Groundwater Containment and Removal System O&M (Years 0-1000)		\$2,095,170		\$2,097,265,170
5.01	RO Treatment System O&M up to 600 GPM	year	\$1,814,000	1001	\$1,815,814,000
5.02	Project Management	%	\$90,700	5	\$90,790,700
5.03	Contingency	%	\$190,470	10	\$190,660,470
6.00	Zeolite Treatment System O&M (Years 0-150)		\$702,240		\$106,038,240
6.01	Zeolite Treatment System O&M up to 600 GPM	year	\$608,000	151	\$91,808,000
6.02	Project Management	%	\$30,400	5	\$4,590,400
6.03	Contingency	%	\$63,840	10	\$9,639,840

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7.00	Spray Evaporation Treatment System O&M (Years 0-1000)		\$994,460		\$995,449,460
7.01	Spray Evaporation Treatment System O&M (100%)	year	\$861,000	1001	\$861,861,000
7.02	Project Management	%	\$43,050	5	\$43,093,050
7.03	Contingency	%	\$90,410	10	\$90,495,410
8.00	Groundwater Monitoring (Years 0-1,000)		\$169,084	1,001	\$169,253,084
8.01	Sampling Monitoring Wells	EA	\$500	101	\$50,500
8.02	Groundwater Analytical	EA	\$414	101	\$41,814
8.03	Evaluation and Reporting	LS	\$50,000	1	\$50,000
8.03	Project Management	%	\$4,080	8	\$11,390
8.04	Contingency	%	\$5,500	10	\$15,380
9.00	Facility Annual Operation (Years 0-1,000)		\$3,550,000		\$3,553,550,000
9.01	Site Staffing and Management (GW System Active)	year	\$750,000	1,001	\$750,750,000
9.02	Hydrology & Geochemical Consultants	year	\$100,000	1,001	\$100,100,000
9.03	RO Consulting Support	year	\$100,000	1,001	\$100,100,000
9.04	Electrical Maintenance Support	year	\$500,000	1,001	\$500,500,000
9.05	General Equipment Operation and Maintenance	year	\$150,000	1,001	\$150,150,000
9.06	Radiation Safety	year	\$500,000	1,001	\$500,500,000
9.07	Radon/Air Particulate Monitoring	year	\$200,000	1,001	\$200,200,000
9.08	Impoundment Maintenance & Monitoring	year	\$250,000	1,001	\$250,250,000
9.09	Regulatory Reporting	year	\$500,000	1,001	\$500,500,000
9.10	NRC Fees	year	\$500,000	1,001	\$500,500,000
10.00	TOTAL O&M COSTS (through project closeout)				\$7,343,552,534
PERIODIC COSTS:					
11.00	EP2 Re-lining (Year 5, every 50 yrs thereafter)		\$7,865,000		\$157,300,000
11.01	EP2 Re-lining (Year 5, every 50 yrs thereafter)	LS	\$6,500,000	20	\$130,000,000
11.02	Project Management	%	\$650,000	10	\$13,000,000
11.03	Contingency	%	\$715,000	10	\$14,300,000
12.00	Spray Evaporator Capital Replacement (year 10, every 10 years thereafter)		\$242,000		\$23,958,000
12.01	Spray Evaporator Capital Replacement (year 10, every 10 years thereafter)	LS	\$200,000	99	\$19,800,000
12.02	Project Management	%	\$20,000	10	\$1,980,000
12.03	Contingency	%	\$22,000	10	\$2,178,000
13.00	EP3 Re-lining (Year 20, every 50 yrs thereafter)		\$7,865,000		\$157,300,000
13.01	EP3 Re-lining (Year 5, every 50 yrs thereafter)	LS	\$6,500,000	20	\$130,000,000
13.01	Project Management	%	\$650,000	10	\$13,000,000
13.02	Contingency	%	\$715,000	10	\$14,300,000
14.00	Monitoring Well Capital Replacement (year 20, every 50 years thereafter)			20	\$19,822,800
14.01	Install/Develop/Sample Monitoring Wells - Alluvial	EA	\$7,900	91	\$718,110
14.02	Install/Develop/Sample Monitoring Wells - U. Chinle	EA	\$9,100	5	\$45,955
14.03	Install/Develop/Sample Monitoring Wells - M. Chinle	EA	\$10,300	3	\$26,008
14.04	Install/Develop/Sample Monitoring Wells - L. Chinle	EA	\$11,500	3	\$29,038
14.05	Project Management	%		10	\$81,920
14.06	Contingency	%		10	\$90,110
15.00	RO Treatment System Capital Replacement (Year 45, every 50 yrs thereafter)		\$19,360,000		\$387,200,000
15.01	RO Treatment System Capital Replacement (Year 65, every 50 yrs thereafter)	LS	\$16,000,000	20	\$320,000,000
15.02	Project Management	%	\$1,600,000	10	\$32,000,000
15.03	Contingency	%	\$1,760,000	10	\$35,200,000
16.00	Zeolite Treatment System Capital Replacement		\$6,050,000		\$18,150,000
16.01	Zeolite Treatment System Capital Replacement	LS	\$5,000,000	3	\$15,000,000
16.02	Project Management	%	\$500,000	10	\$1,500,000
16.03	Contingency	%	\$550,000	10	\$1,650,000
17.00	EP1 Re-lining (Year 50, every 50 yrs thereafter)		\$7,865,000		\$149,435,000
17.01	EP1 Re-lining (Year 50, every 50 yrs thereafter)	LS	\$6,500,000	19	\$123,500,000
17.02	Project Management	%	\$650,000	10	\$12,350,000
17.03	Contingency	%	\$715,000	10	\$13,585,000
18.00	Treatment Systems Decommissioning (Year 151)				\$220,610

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COST ESTIMATE SUMMARY

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18.01	Decommissioning of zeolite treatment system	LS	\$191,000	1	\$191,000
18.02	Project Management	%		5	\$9,550
18.03	Contingency	%		10	\$20,060
19.00	LTP Cover (Year 1)				\$7,643,570
19.01	Installation of LTP Cover	LS	\$6,317,000	1	\$6,317,000
19.02	Project Management	%		10	\$631,700
19.03	Contingency	%		10	\$694,870
20.00	Treatment Systems Decommissioning (Year 1,001)				\$266,200
20.01	Decommissioning of RO treatment system	LS	\$220,000	1	\$220,000
20.02	Project Management	%	\$22,000	10	\$22,000
20.03	Contingency	%	\$24,200	10	\$24,200
21.00	Well Abandonment/Closure (Year 1,001-1,002)				\$3,376,390
21.01	Alluvial Well Abandonment	EA	\$2,090	903	\$1,887,270
21.02	U. Chinle Well Abandonment	EA	\$2,600	29	\$75,400
21.03	M. Chinle Well Abandonment	EA	\$2,600	54	\$140,400
21.04	L. Chinle Well Abandonment	EA	\$2,600	27	\$70,200
21.05	San Andres Well Abandonment	EA	\$100,000	7	\$700,000
21.06	Reporting	LS	\$50,000	1	\$50,000
21.06	Project Management	%		5	\$146,170
21.07	Contingency	%		10	\$306,950
22.00	Evaporation Pond Decommissioning (Year 1,001)				\$3,262,519
22.01	West Collection Pond	LS	\$210,370	1	\$210,370
22.02	East Collection Pond	LS	\$118,730	1	\$118,730
22.03	EP1 Decommissioning (most costs in STP reclamation)	LS	\$2,351	1	\$2,351
22.04	EP2 Decommissioning	LS	\$710,028	1	\$710,028
22.05	EP3 Decommissioning	LS	\$1,783,199	1	\$1,783,199
22.06	Project Management	%	\$141,240	5	\$141,240
22.07	Contingency	%	\$296,600	10	\$296,600
23.00	Corrective Action piping removal site wide (Year 1,001 - 1,002)				\$2,275,480
23.01	Corrective Action piping removal site wide	LS	\$1,970,100	1	\$1,970,100
23.02	Project Management	%	\$146,560	5	\$98,510
23.03	Contingency	%	\$504,780	10	\$206,870
24.00	Construction Completion Reports (CCR) (includes NRC review costs)				\$600,000
24.01	LTP Cover CCR	LS	\$300,000	1	\$300,000
24.02	Treatment Systems CCR	LS	\$300,000	1	\$300,000
25.00	Long-Term Surveillance Fund (Year 1003)	LS	\$2,500,000	1	\$2,500,000
26.00	TOTAL PERIODIC COSTS (through project closeout)				\$933,310,569

ALTERNATIVE 2

Groundwater Containment and Removal and In Situ Treatment

Site: HMC Grants Reclamation Project
Location: Grants, NM

Phase: ACL Application
Date: 04/04/2022

Base Year:
Duration: 1,003 Years

Description: Alternative 2 includes maintaining access and groundwater use restrictions in the form of ICs (environmental restrictive covenants, land use zoning or deed restrictions) and ECs (fencing) to limit Site access. Alternative 2 includes continued operation of the groundwater containment and removal systems onsite for 36 years (years 0 through 36) followed by design of a hydroxyapatite permeable reactive barrier (PRB) in year 35 and installation in year 36 to treat in situ and inhibit long-term impacted groundwater migration. The PRB would be constructed to treat the saturated extent of the Alluvial Aquifer southwest of the LTP (2,750 feet long PRB) and expected to have a functional capital life of 50 years and would be replaced every 50 years and operated for the full compliance period of 1,000 years. The offsite water treatment would continue through Year 150 to address lingering mass beyond the footprint of the PRB. This alternative maintains compliance via corrective action (PRB and monitoring) but precludes license termination, Site transfer to DOE, and de-listing from the National Priorities List (NPL).

Capital Costs:

The zeolite water treatment system would be relocated from the top of the Large Tailings Pile to an area of approximately 4 acres just south of the existing reverse osmosis treatment plant in year 0. Re-lining of Pond EP-1 would be performed in year 0. Relining of pond EP-2 would be performed in year 5. The PRB would be designed in year 35 and the initial installation in year 36. All other treatment facilities would be maintained through routine operation and maintenance (O&M) expenditures.

Decommissioning of existing RO treatment systems would occur in year 37. Zeolite and Evaporation pond systems would be decommissioned in Year 151. CAP well abandonment and piping infrastructure decommissioning would occur in years 151 through 152. The engineered final cover (part of groundwater source control efforts) would be installed on the LTP by Year 151. Covering of the STP, which is not considered a substantial long-term source of groundwater impacts, is not included as a groundwater CAP alternative cost. Construction Completion Reports (CCR) for the LTP Cover and decommissioning of the treatment systems would be provided to NRC in year 152.

Operating and Maintenance Costs (O&M):

Ongoing O&M costs include operation of groundwater recovery and injection wells and above ground infrastructure (years 0-150), operation of the RO treatment system at a nominal rate of approximately 600 gpm (years 0-36), operation of the zeolite treatment system at a nominal rate of 600 gpm (years 0-150), and operation of the spray evaporation systems (100%) on the evaporation ponds (years 0-150). After year 17, active exsitu groundwater corrective action would cease and related infrastructure decommissioned while the in situ PRB was installed. Groundwater monitoring costs for the existing groundwater monitoring program would continue throughout the entire compliance period (years 0-1,000). Operation of the and operation of the Site support facilities (admin, environmental, maintenance, sampling and staff, etc.) would decrease from the higher staffing and efforts levels of years with active groundwater extraction and treatment (years 0-150) to a long-term level of effort for the remainder of the compliance period (years 151-1,000). Long-term O&M costs includes operation of the PRB monitoring program system (years 36-1,000).

Periodic Capital Costs:

The LTP Cover is placed in year 1 and the LTP Cover CCR is developed in year 2. The initial PRB, to be constructed in year 36, is estimated to have a capital life of 50 years and replacement at the end of its capital life would require installation of all new infrastructure immediately down gradient of the previous installation every 50 years. The routine groundwater monitoring well network has a capital life of 50 years and is first replaced in year 20 and every 50 years thereafter. The zeolite treatment system is first replaced in year 50 and every 50 years for a total of two replacements.

Present value is calculated based on a discounted cashflow factor using the equation $[(1+i)^n]/[(1+r)^n]$ where i is the annual inflation rate, r is the annual discount rate and n is the annual compounding period (See Sheet 13).

CAPITAL COSTS:

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
1.00	EP1 Re-lining (Year 0)		\$7,865,000		\$7,865,000
1.01	EP1 Re-lining (Year 0)	EA	\$6,500,000	1	\$6,500,000
1.02	Project Management	%	\$650,000	10	\$650,000
1.03	Contingency	%	\$715,000	10	\$715,000
2.00	Zeolite Relocation (Year 0)		\$4,326,310		\$4,324,210
2.01	Existing Zeolite Decommissioning	LS	\$191,000	1	\$191,000
2.02	Zeolite Relocation	LS	\$3,720,250	1	\$3,720,250
2.03	Project Management	%	\$39,120	10	\$37,210
2.04	Contingency	%	\$375,940	10	\$375,750
3.00	TOTAL CAPITAL COST				\$12,189,210

O&M COSTS:

4.00	Groundwater Containment and Removal System O&M (Years 0-150)		\$421,580		\$63,657,830
4.01	Groundwater Extraction & Injection System O&M	year	\$365,000	151	\$55,115,000
4.02	Project Management	%	\$18,250	5	\$2,755,750
4.03	Contingency	%	\$38,330	10	\$5,787,080
5.00	RO Treatment System O&M (Years 0-36)		\$2,095,170		\$77,521,290
5.01	RO Treatment System O&M up to 600 GPM	year	\$1,814,000	37	\$67,118,000
5.02	Project Management	%	\$90,700	5	\$3,355,900
5.03	Contingency	%	\$190,470	10	\$7,047,390
6.00	Zeolite Treatment System O&M (Years 0-150)		\$702,240		\$106,038,240
6.01	Zeolite Treatment System O&M up to 600 GPM	year	\$608,000	151	\$91,808,000
6.02	Project Management	%	\$30,400	5	\$4,590,400
6.03	Contingency	%	\$63,840	10	\$9,639,840
7.00	Spray Evaporation Treatment System O&M (Years 0-150)		\$994,460		\$150,162,710
7.01	Spray Evaporation Treatment System O&M (100%)	year	\$861,000	151	\$130,011,000

ALTERNATIVE 2

Groundwater Containment and Removal and In Situ Treatment

7.02	Project Management	%	\$43,050	5	\$6,500,550
7.03	Contingency	%	\$90,410	10	\$13,651,160
8.00	Zeolite Treatment System Capital Replacement (yrs 50, 100)		\$6,050,000		\$12,100,000
8.01	Zeolite Treatment System Capital Replacement	LS	\$5,000,000	2	\$10,000,000
8.02	Project Management	%	\$500,000	10	\$1,000,000
8.03	Contingency	%	\$550,000	10	\$1,100,000
8.00	PRB Performance Monitoring (Years 37-,1,000)*		\$91,990	964	\$88,678,360 *
8.01	Sampling Monitoring Wells	EA	\$500	30	\$15,000
8.02	Groundwater Analytical	EA	\$414	30	\$12,420
8.03	Evaluation and Reporting	LS	\$50,000	1	\$50,000
8.03	Project Management	%	\$4,080	8	\$6,200
8.04	Contingency	%	\$5,500	10	\$8,370
9.00	Groundwater Monitoring (Years 0-1,000)*		\$169,084	1,001	\$169,253,084
9.01	Sampling Monitoring Wells	EA	\$500	101	\$50,500
9.02	Groundwater Analytical	EA	\$414	101	\$41,814
9.03	Evaluation and Reporting	LS	\$50,000	1	\$50,000
9.03	Project Management	%	\$4,000	8	\$11,390
9.04	Contingency	%	\$5,400	10	\$15,380

ALTERNATIVE 2

Groundwater Containment and Removal and In Situ Treatment

10.00	Facility Annual Operation (Years 0-150)				\$3,550,000		\$524,650,000
10.01	Site Staffing and Management (GW System Active)	year	\$750,000	151			\$113,250,000
10.02	Hydrology & Geochemical Consultants	year	\$100,000	151			\$15,100,000
10.03	RO Consulting Support	year	\$100,000	37			\$3,700,000
10.04	Electrical Maintenance Support	year	\$500,000	151			\$75,500,000
10.05	General Equipment Operation and Maintenance	year	\$150,000	151			\$22,650,000
10.06	Radiation Safety	year	\$500,000	151			\$75,500,000
10.07	Radon/Air Particulate Monitoring	year	\$200,000	151			\$30,200,000
10.08	Impoundment Maintenance & Monitoring	year	\$250,000	151			\$37,750,000
10.09	Regulatory Reporting	year	\$500,000	151			\$75,500,000
10.10	NRC Fees	year	\$500,000	151			\$75,500,000
11.00	Facility Annual Operation (Years 151-1000)				\$2,150,000		\$1,827,500,000
11.01	Site Staffing and Management (GW System Inactive)	year	\$200,000	850			\$170,000,000
11.02	Radiation Safety	year	\$500,000	850			\$425,000,000
11.03	Radon/Air Particulate Monitoring	year	\$200,000	850			\$170,000,000
11.04	Impoundment Maintenance & Monitoring	year	\$250,000	850			\$212,500,000
11.05	Regulatory Reporting	year	\$500,000	850			\$425,000,000
11.06	NRC Fees	year	\$500,000	850			\$425,000,000
12.00	TOTAL O&M COSTS (through project closeout)						\$3,019,561,514

PERIODIC COSTS:

ALTERNATIVE 2

Groundwater Containment and Removal and In Situ Treatment

13.00	PRB - Remedial Investigaion & Design (Year 35)				\$311,850
13.01	Work Plan & Implementation - Labor	LS	\$50,000	1	\$50,000
13.02	Drilling & Sample Collection (Soil and GW)	LS	\$45,000	1	\$45,000
13.03	Laboratory Analysis of Soil and GW	LS	\$10,000	1	\$10,000
13.04	Remedial Design Reports/Work Plans	LS	\$165,000	1	\$165,000
13.05	<i>Project Management</i>	%	\$13,500	5	\$13,500
13.06	<i>Contingency</i>	%	\$28,350	10	\$28,350
14.00	PRB - Installation (Year 36)				\$4,244,610
14.01	Install/Develop/Sample Injection Wells - Alluvial	EA	\$7,900	138	\$1,090,200
14.02	Install/Develop/Sample Monitoring Wells - Alluvial	EA	\$7,900	30	\$237,000
14.03	Laboratory Analysis of Soil and GW	LS	\$50,000	1	\$50,000
14.04	Apatite Chemicals	EA	\$5,000	138	\$690,000
14.05	Mob/Demob - Apatite Solution Injection Equipment	LS	\$40,000	1	\$40,000
14.06	Apatite Solution Injection	EA	\$3,500	138	\$483,000
14.07	Drilling & Injection Oversight	LS	\$200,000	1	\$200,000
14.08	Mob/Demob - Post Injection Confirmation Sampling	LS	\$25,000	1	\$25,000
14.09	Post Injection Confirmation Sampling	EA	\$5,000	40	\$200,000
14.10	Post Injection Confirmation - Laboratory Analysis	LS	\$75,000	1	\$75,000
14.11	Post Injection Confirmation Sampling Oversight	LS	\$40,000	1	\$40,000
14.12	Other Direct Costs (Per Diem, Equipment, Supplies, Travel)	LS	\$265,000	1	\$265,000
14.13	Techncial Support, Data Analysis & Validation, Design Report	LS	\$120,000	1	\$120,000
14.14	<i>Project Management</i>	%		5	\$175,760
14.15	<i>Contingency</i>	%		15	\$553,650
15.00	Treatment Systems Decommissioning (Year 37)		\$266,200		\$266,200
15.01	Decomissioning of RO treatment system	0	\$220,000	1	\$220,000
15.02	<i>Project Management</i>	%	\$22,000	10	\$22,000
15.03	<i>Contingency</i>	%	\$24,200	10	\$24,200
16.00	EP2 Re-lining (Year 5, every 50 yrs thereafter)		\$7,865,000		\$23,595,000
16.01	EP2 Re-lining (Year 5, every 50 yrs thereafter)	EA	\$6,500,000	3	\$19,500,000
16.02	<i>Project Management</i>	%	\$650,000	10	\$1,950,000
16.03	<i>Contingency</i>	%	\$715,000	10	\$2,145,000
17.00	Spray Evaporator Capital Replacement (year 10, every 10 years thereafter)		\$242,000		\$3,388,000
17.01	Spray Evaporator Capital Replacement (year 10, every 10 years thereafter)	year	\$200,000	14	\$2,800,000
17.02	<i>Project Management</i>	%	\$20,000	10	\$280,000
17.03	<i>Contingency</i>	%	\$22,000	10	\$308,000
18.00	EP3 Re-lining (Year 20, every 50 yrs thereafter)		\$7,865,000		\$23,595,000
18.01	EP3 Re-lining (Year 20, every 50 yrs thereafter)	EA	\$6,500,000	3	\$19,500,000
18.02	<i>Project Management</i>	%	\$650,000	10	\$1,950,000
18.03	<i>Contingency</i>	%	\$715,000	10	\$2,145,000
19.00	Monitoring Well Capital Replacement (year 20, every 50 years thereafter)	EA			\$19,822,800
19.01	Install/Develop/Sample Monitoring Wells - Alluvial	EA	\$7,900	91	\$718,110
19.02	Install/Develop/Sample Monitoring Wells - U. Chinle	EA	\$9,100	5	\$45,955
19.03	Install/Develop/Sample Monitoring Wells - M. Chinle	EA	\$10,300	3	\$26,008
19.04	Install/Develop/Sample Monitoring Wells - L. Chinle	EA	\$11,500	3	\$29,038
19.05	<i>Project Management</i>	%		10	\$81,920
19.06	<i>Contingency</i>	%		10	\$90,110
20.00	EP1 Re-lining (Year 50, every 50 yrs thereafter)		\$7,865,000		\$15,730,000
20.01	EP1 Re-lining (Year 50, every 50 yrs thereafter)	EA	\$6,500,000	2	\$13,000,000
20.02	<i>Project Management</i>	%	\$650,000	10	\$1,300,000
20.03	<i>Contingency</i>	%	\$715,000	10	\$1,430,000
21.00	PRB - Installation (Year 86 and every 50 years thereafter)	EA			\$80,647,590
21.01	Install/Develop/Sample Injection Wells - Alluvial	EA	\$7,900	138	\$1,090,200
21.02	Install/Develop/Sample Monitoring Wells - Alluvial	EA	\$7,900	30	\$237,000
21.03	Laboratory Analysis of Soil and GW	LS	\$50,000	1	\$50,000
21.04	Apatite Chemicals	EA	\$5,000	138	\$690,000
21.05	Mob/Demob - Apatite Solution Injection Equipment	LS	\$40,000	1	\$40,000
21.06	Apatite Solution Injection	EA	\$3,500	138	\$483,000

ALTERNATIVE 2

Groundwater Containment and Removal and In Situ Treatment

21.07	Drilling & Injection Oversight	LS	\$200,000	1	\$200,000
21.08	Mob/Demob - Post Injection Confirmation Sampling	LS	\$25,000	1	\$25,000
21.09	Post Injection Confirmation Sampling	EA	\$5,000	40	\$200,000
21.10	Post Injection Confirmation - Laboratory Analysis	LS	\$75,000	1	\$75,000
21.11	Post Injection Confirmation Sampling Oversight	LS	\$40,000	1	\$40,000
21.12	Other Direct Costs (Per Diem, Equipment, Supplies, Travel)	LS	\$265,000	1	\$265,000
21.13	Technical Support, Data Analysis & Validation, Design Report	LS	\$120,000	1	\$120,000
21.14	<i>Project Management</i>	%		5	\$175,760
21.15	<i>Contingency</i>	%		15	\$553,650
22.00	Treatment Systems Decommissioning (Year 151)				\$231,110
22.01	Decommissioning of zeolite treatment system	LS	\$191,000	1	\$191,000
22.02	<i>Project Management</i>	%	\$19,100	10	\$19,100
22.03	<i>Contingency</i>	%	\$21,010	10	\$21,010
23.00	LTP Cover (Year 1)		\$6,948,700		\$7,643,570
23.01	Installation of LTP Cover	LS	\$6,317,000	1	\$6,317,000
23.02	<i>Project Management</i>	%	\$631,700	10	\$631,700
23.03	<i>Contingency</i>	%	\$694,870	10	\$694,870
24.00	Well Abandonment/Closure (Year 151-152)				\$3,402,441
24.01	Alluvial Well Abandonment	EA	\$2,090	903	\$1,887,087
24.02	U. Chinle Well Abandonment	EA	\$2,600	29	\$75,122
24.03	M. Chinle Well Abandonment	EA	\$2,600	54	\$140,854
24.04	L. Chinle Well Abandonment	EA	\$2,600	27	\$70,427
24.05	San Andres Well Abandonment	EA	\$100,000	7	\$722,330
24.06	Reporting	LS	\$50,000	1	\$50,000
24.06	<i>Project Management</i>	%	\$8,000	5	\$147,300
24.07	<i>Contingency</i>	%	\$16,790	10	\$309,320
25.00	Evaporation Pond Decommissioning (Year 151)				\$3,262,519
25.01	West Collection Pond	LS	\$210,370	1	\$210,370
25.02	East Collection Pond	LS	\$118,730	1	\$118,730
25.03	EP1 Decommissioning (most costs in STP reclamation)	LS	\$2,351	1	\$2,351
25.04	EP2 Decommissioning	LS	\$710,028	1	\$710,028
25.05	EP3 Decommissioning	LS	\$1,783,199	1	\$1,783,199
25.06	<i>Project Management</i>	%	\$141,240	5	\$141,240
25.07	<i>Contingency</i>	%	\$296,600	10	\$296,600
26.00	Corrective Action piping removal site wide (Year 151-152)				\$2,275,480
26.01	Corrective Action piping removal site wide	LS	\$1,970,100	1	\$1,970,100
26.02	<i>Project Management</i>	%	\$98,510	5	\$98,510
26.03	<i>Contingency</i>	%	\$197,010	10	\$206,870
27.00	Construction Completion Reports (CCR) (includes NRC review costs) (153)				\$600,000
27.01	LTP Cover CCR	LS	\$300,000	1	\$300,000
27.02	Treatment Systems CCR	LS	\$300,000	1	\$300,000
28.00	Long-Term Surveillance Fund (Year 1003)	LS	\$2,500,000	1	\$2,500,000
29.00	TOTAL PERIODIC COSTS (through project closeout)				\$191,516,170

ALTERNATIVE 3

Alternative Concentration Limits and Institutional Controls

Site: HMC Grants Reclamation Project
Location: Grants, NM

Phase: Groundwater Corrective Action
Date: 04/04/2022

Base Year:
Duration: 5 years

Description: Alternative 3 includes approval of proposed alternate concentration limits (ACLs) and durable and enforceable institutional controls (IC's) to limit access to potential groundwater exposures within the proposed longterm control boundary (LTCB). Fee title and/or ICs to applicable lands and interests therein not already owned by the Federal Government within the Long Term Care Boundary (LTCB) would be transferred to the long-term custodian (US Department of Energy; DOE). A Long-term surveillance fund determined by NRC would be provided by the licensee. Under this alternative, corrective action extraction and treatment of groundwater would cease upon approval of the proposed ACLs and final decommissioning and reclamation of the Site would resume. This alternative allows for license termination, de-listing from the National Priorities List (NPL), and transfer to the Long-term custodian (DOE). Because Site transfer takes place, funding by the licensee for long-term surveillance plan (LTSP) monitoring and reporting is included.

Capital Costs:

Decommissioning of existing CAP treatment systems (RO, zeolites and evap ponds) would occur in year 0, CAP well abandonment and piping infrastructure decommissioning would occur in years 0-1. The engineered final cover (part of groundwater source control efforts) would be installed on the LTP in Year 1. Covering of the STP, which is not considered a substantial long-term source of groundwater impacts, is not included as a groundwater CAP alternatives cost. Construction Completion Reports (CCR) for the LTP Cover and decommissioning of the treatment systems would be provided to NRC in year 3.

Operating and Maintenance Costs (O&M):

Groundwater monitoring costs for the existing groundwater monitoring program would continue throughout the entire compliance period (years 0-4), Operation of the and operation of the Site support facilities (admin, environmental, maintenance, sampling and staff, etc.) would continue through transfer (years 0-4).

Periodic Capital Costs:

Long-term surveillance and monitoring costs are provided to the Federal Government in the LTSP funding.

Present value is calculated based on a discounted cashflow factor using the equation $[(1+i)^n]/[(1+r)^n]$ where i is the annual inflation rate, r is the annual discount rate and n is the annual compounding period (See Sheet 13).

CAPITAL COSTS:

Item No.	DESCRIPTION & NOTES	UNIT	UNIT COST	QUANTITY	TOTAL (ROUNDED)
1.00	Treatment Systems Decommissioning (Year 0)				\$497,310
1.01	Decommissioning of zeolite treatment system	LS	\$191,000	1	\$191,000
1.02	Decommissioning of RO treatment system	LS	\$220,000	1	\$220,000
1.03	Project Management	%		10	\$41,100
1.04	Contingency	%		10	\$45,210
2.00	LTP Cover (Year 1)				\$7,296,140
2.01	Install LTP Cover	LS	\$6,317,000	1	\$6,317,000
2.02	Project Management	%		5	\$315,850
2.03	Contingency	%		10	\$663,290
3.00	Well Abandonment/Closure (Year 0-1)				\$3,376,390
3.01	Alluvial Well Abandonment	EA	\$2,090	903	\$1,887,270

ALTERNATIVE 3

Alternative Concentration Limits and Institutional Controls

3.02	U. Chinle Well Abandonment	EA	\$2,600	29	\$75,400
3.03	M. Chinle Well Abandonment	EA	\$2,600	54	\$140,400
3.04	L. Chinle Well Abandonment	EA	\$2,600	27	\$70,200
3.05	San Andres Well Abandonment	EA	\$100,000	7	\$700,000
3.06	Reporting	LS	\$50,000	1	\$50,000
3.06	<i>Project Management</i>	%	\$8,000	5	\$146,170
3.07	<i>Contingency</i>	%	\$16,790	10	\$306,950
4.00	Evaporation Pond Decommissioning (Year 1)				\$3,262,519
4.01	West Collection Pond	LS	\$210,370	1	\$210,370
4.02	East Collection Pond	LS	\$118,730	1	\$118,730
4.03	EP1 Decommissioning (most costs in STP reclamation)	LS	\$2,351	1	\$2,351
4.04	EP2 Decommissioning	LS	\$710,028	1	\$710,028
4.05	EP3 Decommissioning	LS	\$1,783,199	1	\$1,783,199
4.06	<i>Project Management</i>	%	\$141,240	5	\$141,240
4.07	<i>Contingency</i>	%	\$296,600	10	\$296,600
5.00	Corrective Action piping removal site wide (Year 0-1)				\$2,275,480
5.01	Corrective Action piping removal site wide	LS	\$1,970,100	1	\$1,970,100
5.02	<i>Project Management</i>	%	\$98,510	5	\$98,510
5.03	<i>Contingency</i>	%	\$197,010	10	\$206,870
6.00	Construction Completion Reports (CCR) (Year 2)				\$600,000
6.01	LTP Cover CCR	LS	\$300,000	1	\$300,000
6.02	Treatment Systems CCR	LS	\$300,000	1	\$300,000
7.00	Long-Term Surveillance Fund (Year 5)	LS	\$2,500,000	1	\$2,500,000
8.00	TOTAL CAPITAL COST				\$19,807,839
O&M COSTS:					
9.00	Groundwater Monitoring (Years 0-4)			5	\$845,420
9.01	Sampling Monitoring Wells	EA	\$500	101	\$50,500
9.02	Groundwater Analytical	EA	\$414	101	\$41,814
9.03	Evaluation and Reporting	LS	\$50,000	1	\$50,000
9.04	<i>Project Management</i>	%		8	\$11,390
9.05	<i>Contingency</i>	%		10	\$15,380
10.00	Facility Annual Operation (Years 0-4)			5	\$10,750,000
10.01	Site Staffing and Management (GW System Inactive)	year	\$200,000	1	\$200,000
10.02	Radiation Safety	year	\$500,000	1	\$500,000
10.03	Impoundment Maintenance & Monitoring	year	\$250,000	1	\$250,000
10.04	Radon/Air Particulate Monitoring	year	\$200,000	1	\$200,000
10.05	Regulatory Reporting	year	\$500,000	1	\$500,000
10.06	NRC Fees	year	\$500,000	1	\$500,000
11.00	TOTAL O&M COSTS (through project closeout)				\$11,595,420

ALTERNATIVE 3

Alternative Concentration Limits and Institutional Controls

PERIODIC COSTS:

None

\$0

12.00 TOTAL PERIODIC COSTS *(through project closeout)*

\$0

ALTERNATIVE 3**Alternative Concentration Limits and Institutional Controls****PROJECT COST SCHEDULE & PRESENT VALUE ANALYSIS**

Item No.	DESCRIPTION	YEAR	PERIOD COST	CUMULATIVE COST	DISCOUNT FACTOR	PERIOD NET PRESENT VALUE
13.00	Annual Cost					
13.00	Treatment System Decomm; Well Aband.;GW Monitoring; Corr. Act. Piping Removal; Facility Ops	0	\$5,642,329	\$5,642,329	1.0000	\$5,642,329
13.01	LTP Cover, Well Aband.; Evap Pond Decom.; Corr. Act. Piping Removal; GW Monitoring; Facility Ops	1	\$15,703,678	\$21,346,007	0.9486	\$14,896,479
13.02	Cover & Treatment Systems CCRs, GW Monitoring; Facility Ops	2	\$2,919,084	\$24,265,091	0.8998	\$2,626,704
13.03	GW Monitoring; Facility Ops	3	\$2,319,084	\$26,584,175	0.8536	\$1,979,535
13.04	GW Monitoring; Facility Ops	4	\$2,319,084	\$28,903,259	0.8097	\$1,877,784
13.05	Long-Term Surveillance Fund	5	\$2,500,000	\$31,403,259	0.7681	\$1,920,222
TOTAL PROJECT COSTS			\$31,403,259			\$28,943,053

COST SUMMARIES**CURRENT DOLLAR****NPV**

Costs through Year 1	\$21,347,000	\$20,539,000
Costs through Year 2	\$24,266,000	\$23,166,000
Costs through Year 3	\$26,585,000	\$25,146,000
Costs through Year 4	\$28,904,000	\$27,023,000

Note: * Annual cost is shown and is multiplied by the number of years for inclusion in Total O&M Costs.

TOTAL COSTS BY ALTERNATIVE (\$)			
	Alt 1	Alt 2	Alt 3
Capital Costs	\$ 925,355,010	\$195,624,060	0
O&M Costs	\$ 7,343,552,534	\$ 3,007,461,514	\$11,595,420
Decommissioning Costs	\$ 20,144,769	\$ 20,181,320	\$19,807,839
Total Undiscounted Costs	\$ 8,289,052,313	\$ 3,223,266,894	\$ 31,403,259
Present Worth	\$ 318,548,475	\$ 251,753,065	\$ 28,943,053

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

PROJECT COST SCHEDULE & PRESENT VALUE ANALYSIS

YEAR	DISCOUNT FACTOR	ANNUAL NON-DISCOUNTED COSTS BY ALTERNATIVE			CUMULATIVE COSTS BY ALTERNATIVE		
		Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3
				TOTAL:	\$8,299,945,724	\$3,241,925,646	\$31,403,259
0	1.0000000	\$20,123,844	\$20,121,744	\$5,642,329	\$20,123,844	\$20,121,744	\$5,642,329
1	0.9485981	\$15,576,104	\$15,576,104	\$15,703,678	\$35,699,948	\$35,697,848	\$21,346,007
2	0.8998384	\$8,232,534	\$8,232,534	\$2,919,084	\$43,932,482	\$43,930,382	\$24,265,091
3	0.8535850	\$7,932,534	\$7,932,534	\$2,319,084	\$51,865,016	\$51,862,916	\$26,584,175
4	0.8097092	\$7,932,524	\$7,932,534	\$2,319,084	\$59,797,540	\$59,795,450	\$28,903,259
5	0.7680886	\$15,797,524	\$15,797,534	\$2,500,000	\$75,595,064	\$75,592,984	\$31,403,259
6	0.7286074	\$7,932,534	\$7,932,534		\$83,527,598	\$83,525,518	
7	0.6911556	\$7,932,534	\$7,932,534		\$91,460,132	\$91,458,052	
8	0.6556289	\$7,932,534	\$7,932,534		\$99,392,666	\$99,390,586	
9	0.6219284	\$7,932,534	\$7,932,534		\$107,325,200	\$107,323,120	
10	0.5899601	\$8,174,524	\$8,174,534		\$115,499,724	\$115,497,654	
11	0.5596351	\$7,932,534	\$7,932,534		\$123,432,258	\$123,430,188	
12	0.5308688	\$7,932,534	\$7,932,534		\$131,364,792	\$131,362,722	
13	0.5035811	\$7,932,534	\$7,932,534		\$139,297,326	\$139,295,256	
14	0.4776961	\$7,932,534	\$7,932,534		\$147,229,860	\$147,227,790	
15	0.4531416	\$7,932,534	\$7,932,534		\$155,162,394	\$155,160,324	
16	0.4298493	\$7,932,534	\$7,932,534		\$163,094,928	\$163,092,858	
17	0.4077543	\$7,932,534	\$7,932,534		\$171,027,462	\$171,025,392	
18	0.3867949	\$7,932,534	\$7,932,534		\$178,959,996	\$178,957,926	
19	0.3669129	\$7,932,534	\$7,932,534		\$186,892,530	\$186,890,460	
20	0.3480529	\$17,030,664	\$17,030,674		\$203,923,194	\$203,921,134	
21	0.3301624	\$7,932,534	\$7,932,534		\$211,855,728	\$211,853,668	
22	0.3131914	\$7,932,534	\$7,932,534		\$219,788,262	\$219,786,202	
23	0.2970928	\$7,932,534	\$7,932,534		\$227,720,796	\$227,718,736	
24	0.2818216	\$7,932,534	\$7,932,534		\$235,653,330	\$235,651,270	
25	0.2673355	\$7,932,534	\$7,932,534		\$243,585,864	\$243,583,804	
26	0.2535939	\$7,932,534	\$7,932,534		\$251,518,398	\$251,516,338	
27	0.2405587	\$7,932,534	\$7,932,534		\$259,450,932	\$259,448,872	
28	0.2281936	\$7,932,534	\$7,932,534		\$267,383,466	\$267,381,406	
29	0.2164640	\$7,932,534	\$7,932,534		\$275,316,000	\$275,313,940	
30	0.2053373	\$8,174,524	\$8,174,534		\$283,490,524	\$283,488,474	
31	0.1947826	\$7,932,524	\$7,932,534		\$291,423,048	\$291,421,008	
32	0.1847704	\$7,932,524	\$7,932,534		\$299,355,572	\$299,353,542	
33	0.1752729	\$7,932,524	\$7,932,534		\$307,288,096	\$307,286,076	
34	0.1662635	\$7,932,524	\$7,932,534		\$315,220,620	\$315,218,610	
35	0.1577173	\$7,932,524	\$8,244,384		\$323,153,144	\$323,462,994	
36	0.1496103	\$7,932,524	\$12,177,144		\$331,085,668	\$335,640,138	
37	0.1419201	\$7,932,524	\$6,195,554		\$339,018,192	\$341,835,692	
38	0.1346251	\$7,932,524	\$5,929,354		\$346,950,716	\$347,765,046	
39	0.1277051	\$7,932,524	\$5,929,354		\$354,883,240	\$353,694,400	
40	0.1211408	\$8,174,524	\$6,171,354		\$363,057,764	\$359,865,754	
41	0.1149140	\$7,932,524	\$5,929,354		\$370,990,288	\$365,795,108	
42	0.1090072	\$7,932,524	\$5,929,354		\$378,922,812	\$371,724,462	
43	0.1034040	\$7,932,524	\$5,929,354		\$386,855,336	\$377,653,816	
44	0.0980888	\$7,932,524	\$5,929,354		\$394,787,860	\$383,583,170	
45	0.0930469	\$33,342,524	\$5,929,354		\$428,130,384	\$389,512,524	
46	0.0882641	\$7,932,524	\$5,929,354		\$436,062,908	\$395,441,878	
47	0.0837272	\$7,932,524	\$5,929,354		\$443,995,432	\$401,371,232	
48	0.0794234	\$7,932,524	\$5,929,354		\$451,927,956	\$407,300,586	
49	0.0753409	\$7,932,524	\$5,929,354		\$459,860,480	\$413,229,940	
50	0.0714683	\$16,039,524	\$20,086,354		\$475,900,004	\$433,316,294	
51	0.0677947	\$7,932,524	\$5,929,354		\$483,832,528	\$439,245,648	

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

52	0.0643099	\$7,932,524	\$5,929,354	\$491,765,052	\$445,175,002
53	0.0610042	\$7,932,524	\$5,929,354	\$499,697,576	\$451,104,356
54	0.0578685	\$7,932,524	\$5,929,354	\$507,630,100	\$457,033,710
55	0.0548940	\$15,797,524	\$13,794,354	\$523,427,624	\$470,828,064
56	0.0520723	\$7,932,524	\$5,929,354	\$531,360,148	\$476,757,418
57	0.0493957	\$7,932,524	\$5,929,354	\$539,292,672	\$482,686,772
58	0.0468567	\$7,932,524	\$5,929,354	\$547,225,196	\$488,616,126
59	0.0444481	\$7,932,524	\$5,929,354	\$555,157,720	\$494,545,480
60	0.0421634	\$8,174,524	\$6,171,354	\$563,332,244	\$500,716,834
61	0.0399961	\$7,932,524	\$5,929,354	\$571,264,768	\$506,646,188
62	0.0379403	\$7,932,524	\$5,929,354	\$579,197,292	\$512,575,542
63	0.0359901	\$7,932,524	\$5,929,354	\$587,129,816	\$518,504,896
64	0.0341401	\$7,932,524	\$5,929,354	\$595,062,340	\$524,434,250
65	0.0323852	\$7,932,524	\$5,929,354	\$602,994,864	\$530,363,604
66	0.0307206	\$7,932,524	\$5,929,354	\$610,927,388	\$536,292,958
67	0.0291415	\$7,932,524	\$5,929,354	\$618,859,912	\$542,222,312
68	0.0276436	\$7,932,524	\$5,929,354	\$626,792,436	\$548,151,666
69	0.0262226	\$7,932,524	\$5,929,354	\$634,724,960	\$554,081,020
70	0.0248747	\$17,030,664	\$15,027,494	\$651,755,624	\$569,108,514
71	0.0235961	\$7,932,524	\$5,929,354	\$659,688,148	\$575,037,868
72	0.0223832	\$7,932,524	\$5,929,354	\$667,620,672	\$580,967,222
73	0.0212327	\$7,932,524	\$5,929,354	\$675,553,196	\$586,896,576
74	0.0201413	\$7,932,524	\$5,929,354	\$683,485,720	\$592,825,930
75	0.0191060	\$7,932,524	\$5,929,354	\$691,418,244	\$598,755,284
76	0.0181239	\$7,932,524	\$5,929,354	\$699,350,769	\$604,684,638
77	0.0171923	\$7,932,524	\$5,929,354	\$707,283,293	\$610,613,992
78	0.0163086	\$7,932,524	\$5,929,354	\$715,215,817	\$616,543,346
79	0.0154703	\$7,932,524	\$5,929,354	\$723,148,341	\$622,472,700
80	0.0146751	\$8,174,524	\$6,171,354	\$731,322,865	\$628,644,054
81	0.0139208	\$7,932,524	\$5,929,354	\$739,255,389	\$634,573,408
82	0.0132052	\$7,932,524	\$5,929,354	\$747,187,913	\$640,502,762
83	0.0125264	\$7,932,524	\$5,929,354	\$755,120,437	\$646,432,116
84	0.0118826	\$7,932,524	\$5,929,354	\$763,052,961	\$652,361,470
85	0.0112718	\$7,932,524	\$5,929,354	\$770,985,485	\$658,290,824
86	0.0106924	\$7,932,524	\$10,173,964	\$778,918,009	\$668,464,788
87	0.0101428	\$7,932,524	\$5,929,354	\$786,850,533	\$674,394,142
88	0.0096214	\$7,932,524	\$5,929,354	\$794,783,057	\$680,323,496
89	0.0091269	\$7,932,524	\$5,929,354	\$802,715,581	\$686,252,850
90	0.0086577	\$8,174,524	\$6,171,354	\$810,890,105	\$692,424,204
91	0.0082127	\$7,932,524	\$5,929,354	\$818,822,629	\$698,353,558
92	0.0077906	\$7,932,524	\$5,929,354	\$826,755,153	\$704,282,912
93	0.0073901	\$7,932,524	\$5,929,354	\$834,687,677	\$710,212,266
94	0.0070102	\$7,932,524	\$5,929,354	\$842,620,201	\$716,141,620
95	0.0066499	\$33,342,524	\$5,929,354	\$875,962,725	\$722,070,974
96	0.0063081	\$7,932,524	\$5,929,354	\$883,895,249	\$728,000,328
97	0.0059838	\$7,932,524	\$5,929,354	\$891,827,773	\$733,929,682
98	0.0056763	\$7,932,524	\$5,929,354	\$899,760,297	\$739,859,036
99	0.0053845	\$7,932,524	\$5,929,354	\$907,692,821	\$745,788,390
100	0.0051077	\$16,039,524	\$20,086,354	\$923,732,345	\$765,874,744
101	0.2272535	\$7,932,524	\$5,929,354	\$931,664,869	\$771,804,098
102	0.2239440	\$7,932,524	\$5,929,354	\$939,597,393	\$777,733,452
103	0.2206827	\$7,932,524	\$5,929,354	\$947,529,917	\$783,662,806
104	0.2174688	\$7,932,524	\$5,929,354	\$955,462,441	\$789,592,160
105	0.2143018	\$15,797,524	\$13,794,354	\$971,259,965	\$803,386,514
106	0.2111809	\$7,932,524	\$5,929,354	\$979,192,489	\$809,315,868
107	0.2081055	\$7,932,524	\$5,929,354	\$987,125,013	\$815,245,222
108	0.2050748	\$7,932,524	\$5,929,354	\$995,057,537	\$821,174,576
109	0.2020883	\$7,932,524	\$5,929,354	\$1,002,990,061	\$827,103,930

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

110	0.1991452	\$8,174,524	\$6,171,354	\$1,011,164,585	\$833,275,284
111	0.1962451	\$7,932,524	\$5,929,354	\$1,019,097,109	\$839,204,638
112	0.1933871	\$7,932,524	\$5,929,354	\$1,027,029,633	\$845,133,992
113	0.1905708	\$7,932,524	\$5,929,354	\$1,034,962,157	\$851,063,346
114	0.1877955	\$7,932,524	\$5,929,354	\$1,042,894,681	\$856,992,700
115	0.1850606	\$7,932,524	\$5,929,354	\$1,050,827,205	\$862,922,054
116	0.1823656	\$7,932,524	\$5,929,354	\$1,058,759,729	\$868,851,408
117	0.1797098	\$7,932,524	\$5,929,354	\$1,066,692,253	\$874,780,762
118	0.1770926	\$7,932,524	\$5,929,354	\$1,074,624,777	\$880,710,116
119	0.1745136	\$7,932,524	\$5,929,354	\$1,082,557,301	\$886,639,470
120	0.1719721	\$17,030,664	\$15,027,494	\$1,099,587,965	\$901,666,964
121	0.1694677	\$7,932,524	\$5,929,354	\$1,107,520,489	\$907,596,318
122	0.1669997	\$7,932,524	\$5,929,354	\$1,115,453,013	\$913,525,672
123	0.1645677	\$7,932,524	\$5,929,354	\$1,123,385,537	\$919,455,026
124	0.1621711	\$7,932,524	\$5,929,354	\$1,131,318,061	\$925,384,380
125	0.1598094	\$7,932,524	\$5,929,354	\$1,139,250,585	\$931,313,734
126	0.1574820	\$7,932,524	\$5,929,354	\$1,147,183,109	\$937,243,088
127	0.1551886	\$7,932,524	\$5,929,354	\$1,155,115,633	\$943,172,442
128	0.1529286	\$7,932,524	\$5,929,354	\$1,163,048,157	\$949,101,796
129	0.1507015	\$7,932,524	\$5,929,354	\$1,170,980,681	\$955,031,150
130	0.1485068	\$8,174,524	\$6,171,354	\$1,179,155,205	\$961,202,504
131	0.1463441	\$7,932,524	\$5,929,354	\$1,187,087,729	\$967,131,858
132	0.1442128	\$7,932,524	\$5,929,354	\$1,195,020,253	\$973,061,212
133	0.1421126	\$7,932,524	\$5,929,354	\$1,202,952,777	\$978,990,566
134	0.1400430	\$7,932,524	\$5,929,354	\$1,210,885,301	\$984,919,920
135	0.1380036	\$7,932,524	\$5,929,354	\$1,218,817,825	\$990,849,274
136	0.1359938	\$7,932,524	\$10,173,964	\$1,226,750,349	\$1,001,023,238
137	0.1340133	\$7,932,524	\$5,929,354	\$1,234,682,873	\$1,006,952,592
138	0.1320617	\$7,932,524	\$5,929,354	\$1,242,615,397	\$1,012,881,946
139	0.1301385	\$7,932,524	\$5,929,354	\$1,250,547,921	\$1,018,811,300
140	0.1282432	\$8,174,524	\$6,171,354	\$1,258,722,445	\$1,024,982,654
141	0.1263756	\$7,932,524	\$5,929,354	\$1,266,654,969	\$1,030,912,008
142	0.1245352	\$7,932,524	\$5,929,354	\$1,274,587,493	\$1,036,841,362
143	0.1227216	\$7,932,524	\$5,929,354	\$1,282,520,017	\$1,042,770,716
144	0.1209344	\$7,932,524	\$5,929,354	\$1,290,452,541	\$1,048,700,070
145	0.1191732	\$33,342,524	\$5,929,354	\$1,323,795,065	\$1,054,629,424
146	0.1174377	\$7,932,524	\$5,929,354	\$1,331,727,589	\$1,060,558,778
147	0.1157274	\$7,932,524	\$5,929,354	\$1,339,660,113	\$1,066,488,132
148	0.1140420	\$7,932,524	\$5,929,354	\$1,347,592,637	\$1,072,417,486
149	0.1123812	\$7,932,524	\$5,929,354	\$1,355,525,161	\$1,078,346,840
150	0.1107446	\$16,039,524	\$5,929,354	\$1,371,564,685	\$1,084,276,194
151	0.1091318	\$7,450,894	\$8,743,663	\$1,379,015,579	\$1,093,019,857
152	0.1075425	\$7,230,284	\$5,250,035	\$1,386,245,863	\$1,098,269,892
153	0.1059764	\$7,230,284	\$3,011,074	\$1,393,476,147	\$1,101,280,966
154	0.1044330	\$7,230,284	\$2,411,074	\$1,400,706,431	\$1,103,692,040
155	0.1029122	\$15,095,284	\$2,411,074	\$1,415,801,715	\$1,106,103,114
156	0.1014134	\$7,230,284	\$2,411,074	\$1,423,031,999	\$1,108,514,188
157	0.0999366	\$7,230,284	\$2,411,074	\$1,430,262,283	\$1,110,925,262
158	0.0984812	\$7,230,284	\$2,411,074	\$1,437,492,567	\$1,113,336,336
159	0.0970470	\$7,230,284	\$2,411,074	\$1,444,722,851	\$1,115,747,410
160	0.0956337	\$7,472,284	\$2,411,074	\$1,452,195,135	\$1,118,158,484
161	0.0942409	\$7,230,284	\$2,411,074	\$1,459,425,419	\$1,120,569,558
162	0.0928685	\$7,230,284	\$2,411,074	\$1,466,655,703	\$1,122,980,632
163	0.0915160	\$7,230,284	\$2,411,074	\$1,473,885,987	\$1,125,391,706
164	0.0901833	\$7,230,284	\$2,411,074	\$1,481,116,271	\$1,127,802,780
165	0.0888699	\$15,095,284	\$2,411,074	\$1,496,211,555	\$1,130,213,854
166	0.0875757	\$7,230,284	\$2,411,074	\$1,503,441,839	\$1,132,624,928
167	0.0863003	\$7,230,284	\$2,411,074	\$1,510,672,123	\$1,135,036,002

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

168	0.0850435	\$7,230,284	\$2,411,074	\$1,517,902,407	\$1,137,447,076
169	0.0838050	\$7,230,284	\$2,411,074	\$1,525,132,691	\$1,139,858,150
170	0.0825846	\$8,463,424	\$3,402,214	\$1,533,596,115	\$1,143,260,364
171	0.0813819	\$7,230,284	\$2,411,074	\$1,540,826,399	\$1,145,671,438
172	0.0801967	\$7,230,284	\$2,411,074	\$1,548,056,683	\$1,148,082,512
173	0.0790288	\$7,230,284	\$2,411,074	\$1,555,286,967	\$1,150,493,586
174	0.0778779	\$7,230,284	\$2,411,074	\$1,562,517,251	\$1,152,904,660
175	0.0767438	\$7,230,284	\$2,411,074	\$1,569,747,535	\$1,155,315,734
176	0.0756261	\$7,230,284	\$2,411,074	\$1,576,977,820	\$1,157,726,808
177	0.0745248	\$7,230,284	\$2,411,074	\$1,584,208,104	\$1,160,137,882
178	0.0734395	\$7,230,284	\$2,411,074	\$1,591,438,388	\$1,162,548,956
179	0.0723700	\$7,230,284	\$2,411,074	\$1,598,668,672	\$1,164,960,030
180	0.0713160	\$7,472,284	\$2,411,074	\$1,606,140,956	\$1,167,371,104
181	0.0702774	\$7,230,284	\$2,411,074	\$1,613,371,240	\$1,169,782,178
182	0.0692540	\$7,230,284	\$2,411,074	\$1,620,601,524	\$1,172,193,252
183	0.0682454	\$7,230,284	\$2,411,074	\$1,627,831,808	\$1,174,604,326
184	0.0672516	\$7,230,284	\$2,411,074	\$1,635,062,092	\$1,177,015,400
185	0.0662722	\$7,230,284	\$2,411,074	\$1,642,292,376	\$1,179,426,474
186	0.0653070	\$7,230,284	\$6,655,684	\$1,649,522,660	\$1,186,082,158
187	0.0643560	\$7,230,284	\$2,411,074	\$1,656,752,944	\$1,188,493,232
188	0.0634188	\$7,230,284	\$2,411,074	\$1,663,983,228	\$1,190,904,306
189	0.0624952	\$7,230,284	\$2,411,074	\$1,671,213,512	\$1,193,315,380
190	0.0615851	\$7,472,284	\$2,411,074	\$1,678,685,796	\$1,195,726,454
191	0.0606882	\$7,230,284	\$2,411,074	\$1,685,916,080	\$1,198,137,528
192	0.0598044	\$7,230,284	\$2,411,074	\$1,693,146,364	\$1,200,548,602
193	0.0589334	\$7,230,284	\$2,411,074	\$1,700,376,648	\$1,202,959,676
194	0.0580752	\$7,230,284	\$2,411,074	\$1,707,606,932	\$1,205,370,750
195	0.0572294	\$26,590,284	\$2,411,074	\$1,734,197,216	\$1,207,781,824
196	0.0563960	\$7,230,284	\$2,411,074	\$1,741,427,500	\$1,210,192,898
197	0.0555747	\$7,230,284	\$2,411,074	\$1,748,657,784	\$1,212,603,972
198	0.0547654	\$7,230,284	\$2,411,074	\$1,755,888,068	\$1,215,015,046
199	0.0539678	\$7,230,284	\$2,411,074	\$1,763,118,352	\$1,217,426,120
200	0.0531819	\$15,337,284	\$2,411,074	\$1,778,455,636	\$1,219,837,194
201	0.0524074	\$7,230,284	\$2,411,074	\$1,785,685,920	\$1,222,248,268
202	0.0516442	\$7,230,284	\$2,411,074	\$1,792,916,204	\$1,224,659,342
203	0.0508921	\$7,230,284	\$2,411,074	\$1,800,146,488	\$1,227,070,416
204	0.0501509	\$7,230,284	\$2,411,074	\$1,807,376,772	\$1,229,481,490
205	0.0494206	\$15,095,284	\$2,411,074	\$1,822,472,056	\$1,231,892,564
206	0.0487008	\$7,230,284	\$2,411,074	\$1,829,702,340	\$1,234,303,638
207	0.0479916	\$7,230,284	\$2,411,074	\$1,836,932,624	\$1,236,714,712
208	0.0472927	\$7,230,284	\$2,411,074	\$1,844,162,908	\$1,239,125,786
209	0.0466040	\$7,230,284	\$2,411,074	\$1,851,393,192	\$1,241,536,860
210	0.0459253	\$7,472,284	\$2,411,074	\$1,858,665,476	\$1,243,947,934
211	0.0452565	\$7,230,284	\$2,411,074	\$1,866,095,760	\$1,246,359,008
212	0.0445974	\$7,230,284	\$2,411,074	\$1,873,326,044	\$1,248,770,082
213	0.0439479	\$7,230,284	\$2,411,074	\$1,880,556,328	\$1,251,181,156
214	0.0433079	\$7,230,284	\$2,411,074	\$1,887,786,612	\$1,253,592,230
215	0.0426772	\$15,095,284	\$2,411,074	\$1,902,881,896	\$1,256,003,304
216	0.0420557	\$7,230,284	\$2,411,074	\$1,910,112,180	\$1,258,414,378
217	0.0414432	\$7,230,284	\$2,411,074	\$1,917,342,464	\$1,260,825,452
218	0.0408397	\$7,230,284	\$2,411,074	\$1,924,572,748	\$1,263,236,526
219	0.0402449	\$7,230,284	\$2,411,074	\$1,931,803,032	\$1,265,647,600
220	0.0396588	\$8,463,424	\$3,402,214	\$1,940,266,456	\$1,269,049,814
221	0.0390813	\$7,230,284	\$2,411,074	\$1,947,496,740	\$1,271,460,888
222	0.0385121	\$7,230,284	\$2,411,074	\$1,954,727,024	\$1,273,871,962
223	0.0379513	\$7,230,284	\$2,411,074	\$1,961,957,308	\$1,276,283,036
224	0.0373986	\$7,230,284	\$2,411,074	\$1,969,187,592	\$1,278,694,110
225	0.0368539	\$7,230,284	\$2,411,074	\$1,976,417,876	\$1,281,105,184

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
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226	0.0363172	\$7,230,284	\$2,411,074	\$1,983,648,160	\$1,283,516,258
227	0.0357883	\$7,230,284	\$2,411,074	\$1,990,878,444	\$1,285,927,332
228	0.0352672	\$7,230,284	\$2,411,074	\$1,998,108,728	\$1,288,338,406
229	0.0347536	\$7,230,284	\$2,411,074	\$2,005,339,012	\$1,290,749,480
230	0.0342474	\$7,472,284	\$2,411,074	\$2,012,811,296	\$1,293,160,554
231	0.0337487	\$7,230,284	\$2,411,074	\$2,020,041,580	\$1,295,571,628
232	0.0332572	\$7,230,284	\$2,411,074	\$2,027,271,864	\$1,297,982,702
233	0.0327729	\$7,230,284	\$2,411,074	\$2,034,502,148	\$1,300,393,776
234	0.0322956	\$7,230,284	\$2,411,074	\$2,041,732,432	\$1,302,804,850
235	0.0318253	\$7,230,284	\$2,411,074	\$2,048,962,716	\$1,305,215,924
236	0.0313618	\$7,230,284	\$6,655,684	\$2,056,193,000	\$1,311,871,608
237	0.0309051	\$7,230,284	\$2,411,074	\$2,063,423,284	\$1,314,282,682
238	0.0304550	\$7,230,284	\$2,411,074	\$2,070,653,568	\$1,316,693,756
239	0.0300115	\$7,230,284	\$2,411,074	\$2,077,883,852	\$1,319,104,830
240	0.0295744	\$7,472,284	\$2,411,074	\$2,085,356,136	\$1,321,515,904
241	0.0291437	\$7,230,284	\$2,411,074	\$2,092,586,420	\$1,323,926,978
242	0.0287193	\$7,230,284	\$2,411,074	\$2,099,816,704	\$1,326,338,052
243	0.0283011	\$7,230,284	\$2,411,074	\$2,107,046,988	\$1,328,749,126
244	0.0278889	\$7,230,284	\$2,411,074	\$2,114,277,272	\$1,331,160,200
245	0.0274828	\$26,590,284	\$2,411,074	\$2,140,867,556	\$1,333,571,274
246	0.0270825	\$7,230,284	\$2,411,074	\$2,148,097,840	\$1,335,982,348
247	0.0266881	\$7,230,284	\$2,411,074	\$2,155,328,124	\$1,338,393,422
248	0.0262995	\$7,230,284	\$2,411,074	\$2,162,558,408	\$1,340,804,496
249	0.0259165	\$7,230,284	\$2,411,074	\$2,169,788,692	\$1,343,215,570
250	0.0255390	\$15,337,284	\$2,411,074	\$2,185,125,976	\$1,345,626,644
251	0.0251671	\$7,230,284	\$2,411,074	\$2,192,356,260	\$1,348,037,718
252	0.0248006	\$7,230,284	\$2,411,074	\$2,199,586,544	\$1,350,448,792
253	0.0244394	\$7,230,284	\$2,411,074	\$2,206,816,828	\$1,352,859,866
254	0.0240835	\$7,230,284	\$2,411,074	\$2,214,047,112	\$1,355,270,940
255	0.0237328	\$15,095,284	\$2,411,074	\$2,229,142,396	\$1,357,682,014
256	0.0233871	\$7,230,284	\$2,411,074	\$2,236,372,680	\$1,360,093,088
257	0.0230466	\$7,230,284	\$2,411,074	\$2,243,602,964	\$1,362,504,162
258	0.0227109	\$7,230,284	\$2,411,074	\$2,250,833,248	\$1,364,915,236
259	0.0223802	\$7,230,284	\$2,411,074	\$2,258,063,532	\$1,367,326,310
260	0.0220543	\$7,472,284	\$2,411,074	\$2,265,293,816	\$1,369,737,384
261	0.0217331	\$7,230,284	\$2,411,074	\$2,272,524,100	\$1,372,148,458
262	0.0214166	\$7,230,284	\$2,411,074	\$2,279,754,384	\$1,374,559,532
263	0.0211047	\$7,230,284	\$2,411,074	\$2,287,226,668	\$1,376,970,606
264	0.0207973	\$7,230,284	\$2,411,074	\$2,294,456,952	\$1,379,381,680
265	0.0204945	\$15,095,284	\$2,411,074	\$2,309,552,236	\$1,381,792,754
266	0.0201960	\$7,230,284	\$2,411,074	\$2,316,782,520	\$1,384,203,828
267	0.0199019	\$7,230,284	\$2,411,074	\$2,324,012,804	\$1,386,614,902
268	0.0196121	\$7,230,284	\$2,411,074	\$2,331,243,088	\$1,389,025,976
269	0.0193264	\$7,230,284	\$2,411,074	\$2,338,473,372	\$1,391,437,050
270	0.0190450	\$8,463,424	\$3,402,214	\$2,346,936,796	\$1,394,839,264
271	0.0187676	\$7,230,284	\$2,411,074	\$2,354,167,080	\$1,397,250,338
272	0.0184943	\$7,230,284	\$2,411,074	\$2,361,397,364	\$1,399,661,412
273	0.0182250	\$7,230,284	\$2,411,074	\$2,368,627,648	\$1,402,072,486
274	0.0179596	\$7,230,284	\$2,411,074	\$2,375,857,932	\$1,404,483,560
275	0.0176980	\$7,230,284	\$2,411,074	\$2,383,088,216	\$1,406,894,634
276	0.0174403	\$7,230,284	\$2,411,074	\$2,390,318,500	\$1,409,305,708
277	0.0171863	\$7,230,284	\$2,411,074	\$2,397,548,784	\$1,411,716,782
278	0.0169360	\$7,230,284	\$2,411,074	\$2,404,779,068	\$1,414,127,856
279	0.0166894	\$7,230,284	\$2,411,074	\$2,412,009,352	\$1,416,538,930
280	0.0164463	\$7,472,284	\$2,411,074	\$2,419,481,636	\$1,418,950,004
281	0.0162068	\$7,230,284	\$2,411,074	\$2,426,711,920	\$1,421,361,078
282	0.0159708	\$7,230,284	\$2,411,074	\$2,433,942,204	\$1,423,772,152
283	0.0157382	\$7,230,284	\$2,411,074	\$2,441,172,488	\$1,426,183,226

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

284	0.0155090	\$7,230,284	\$2,411,074	\$2,448,402,773	\$1,428,594,300
285	0.0152832	\$7,230,284	\$2,411,074	\$2,455,633,057	\$1,431,005,374
286	0.0150606	\$7,230,284	\$6,655,684	\$2,462,863,341	\$1,437,661,058
287	0.0148413	\$7,230,284	\$2,411,074	\$2,470,093,625	\$1,440,072,132
288	0.0146251	\$7,230,284	\$2,411,074	\$2,477,323,909	\$1,442,483,206
289	0.0144121	\$7,230,284	\$2,411,074	\$2,484,554,193	\$1,444,894,280
290	0.0142022	\$7,472,284	\$2,411,074	\$2,492,026,477	\$1,447,305,354
291	0.0139954	\$7,230,284	\$2,411,074	\$2,499,256,761	\$1,449,716,428
292	0.0137916	\$7,230,284	\$2,411,074	\$2,506,487,045	\$1,452,127,502
293	0.0135908	\$7,230,284	\$2,411,074	\$2,513,717,329	\$1,454,538,576
294	0.0133928	\$7,230,284	\$2,411,074	\$2,520,947,613	\$1,456,949,650
295	0.0131978	\$26,590,284	\$2,411,074	\$2,527,537,897	\$1,459,360,724
296	0.0130056	\$7,230,284	\$2,411,074	\$2,554,768,181	\$1,461,771,798
297	0.0128162	\$7,230,284	\$2,411,074	\$2,561,998,465	\$1,464,182,872
298	0.0126295	\$7,230,284	\$2,411,074	\$2,569,228,749	\$1,466,593,946
299	0.0124456	\$7,230,284	\$2,411,074	\$2,576,459,033	\$1,469,005,020
300	0.0122644	\$15,337,284	\$2,411,074	\$2,591,796,317	\$1,471,416,094
301	0.0120858	\$7,230,284	\$2,411,074	\$2,599,026,601	\$1,473,827,168
302	0.0119098	\$7,230,284	\$2,411,074	\$2,606,256,885	\$1,476,238,242
303	0.0117363	\$7,230,284	\$2,411,074	\$2,613,487,169	\$1,478,649,316
304	0.0115654	\$7,230,284	\$2,411,074	\$2,620,717,453	\$1,481,060,390
305	0.0113970	\$15,095,284	\$2,411,074	\$2,635,812,737	\$1,483,471,464
306	0.0112310	\$7,230,284	\$2,411,074	\$2,643,043,021	\$1,485,882,538
307	0.0110674	\$7,230,284	\$2,411,074	\$2,650,273,305	\$1,488,293,612
308	0.0109063	\$7,230,284	\$2,411,074	\$2,657,503,589	\$1,490,704,686
309	0.0107474	\$7,230,284	\$2,411,074	\$2,664,733,873	\$1,493,115,760
310	0.0105909	\$7,472,284	\$2,411,074	\$2,672,206,157	\$1,495,526,834
311	0.0104367	\$7,230,284	\$2,411,074	\$2,679,436,441	\$1,497,937,908
312	0.0102847	\$7,230,284	\$2,411,074	\$2,686,666,725	\$1,500,348,982
313	0.0101349	\$7,230,284	\$2,411,074	\$2,693,897,009	\$1,502,760,056
314	0.0099873	\$7,230,284	\$2,411,074	\$2,701,127,293	\$1,505,171,130
315	0.0098419	\$15,095,284	\$2,411,074	\$2,716,222,577	\$1,507,582,204
316	0.0096985	\$7,230,284	\$2,411,074	\$2,723,452,861	\$1,509,993,278
317	0.0095573	\$7,230,284	\$2,411,074	\$2,730,683,145	\$1,512,404,352
318	0.0094181	\$7,230,284	\$2,411,074	\$2,737,913,429	\$1,514,815,426
319	0.0092810	\$7,230,284	\$2,411,074	\$2,745,143,713	\$1,517,226,500
320	0.0091458	\$8,463,424	\$3,402,214	\$2,753,607,137	\$1,520,628,714
321	0.0090126	\$7,230,284	\$2,411,074	\$2,760,837,421	\$1,523,039,788
322	0.0088814	\$7,230,284	\$2,411,074	\$2,768,067,705	\$1,525,450,862
323	0.0087520	\$7,230,284	\$2,411,074	\$2,775,297,989	\$1,527,861,936
324	0.0086246	\$7,230,284	\$2,411,074	\$2,782,528,273	\$1,530,273,010
325	0.0084990	\$7,230,284	\$2,411,074	\$2,789,758,557	\$1,532,684,084
326	0.0083752	\$7,230,284	\$2,411,074	\$2,796,988,841	\$1,535,095,158
327	0.0082532	\$7,230,284	\$2,411,074	\$2,804,219,125	\$1,537,506,232
328	0.0081330	\$7,230,284	\$2,411,074	\$2,811,449,409	\$1,539,917,306
329	0.0080146	\$7,230,284	\$2,411,074	\$2,818,679,693	\$1,542,328,380
330	0.0078979	\$7,472,284	\$2,411,074	\$2,826,151,977	\$1,544,739,454
331	0.0077828	\$7,230,284	\$2,411,074	\$2,833,382,261	\$1,547,150,528
332	0.0076695	\$7,230,284	\$2,411,074	\$2,840,612,545	\$1,549,561,602
333	0.0075578	\$7,230,284	\$2,411,074	\$2,847,842,829	\$1,551,972,676
334	0.0074477	\$7,230,284	\$2,411,074	\$2,855,073,113	\$1,554,383,750
335	0.0073393	\$7,230,284	\$2,411,074	\$2,862,303,397	\$1,556,794,824
336	0.0072324	\$7,230,284	\$6,655,684	\$2,869,533,681	\$1,563,450,508
337	0.0071271	\$7,230,284	\$2,411,074	\$2,876,763,965	\$1,565,861,582
338	0.0070233	\$7,230,284	\$2,411,074	\$2,883,994,249	\$1,568,272,656
339	0.0069210	\$7,230,284	\$2,411,074	\$2,891,224,533	\$1,570,683,730
340	0.0068202	\$7,472,284	\$2,411,074	\$2,898,696,817	\$1,573,094,804
341	0.0067209	\$7,230,284	\$2,411,074	\$2,905,927,101	\$1,575,505,878

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

342	0.0066230	\$7,230,284	\$2,411,074	\$2,913,157,385	\$1,577,916,952
343	0.0065266	\$7,230,284	\$2,411,074	\$2,920,387,669	\$1,580,328,026
344	0.0064315	\$7,230,284	\$2,411,074	\$2,927,617,953	\$1,582,739,100
345	0.0063379	\$26,590,284	\$2,411,074	\$2,954,208,237	\$1,585,150,174
346	0.0062456	\$7,230,284	\$2,411,074	\$2,961,438,521	\$1,587,561,248
347	0.0061546	\$7,230,284	\$2,411,074	\$2,968,668,805	\$1,589,972,322
348	0.0060650	\$7,230,284	\$2,411,074	\$2,975,899,089	\$1,592,383,396
349	0.0059766	\$7,230,284	\$2,411,074	\$2,983,129,373	\$1,594,794,470
350	0.0058896	\$15,337,284	\$2,411,074	\$2,998,466,657	\$1,597,205,544
351	0.0058038	\$7,230,284	\$2,411,074	\$3,005,696,941	\$1,599,616,618
352	0.0057193	\$7,230,284	\$2,411,074	\$3,012,927,225	\$1,602,027,692
353	0.0056360	\$7,230,284	\$2,411,074	\$3,020,157,509	\$1,604,438,766
354	0.0055539	\$7,230,284	\$2,411,074	\$3,027,387,793	\$1,606,849,840
355	0.0054731	\$15,095,284	\$2,411,074	\$3,042,483,077	\$1,609,260,914
356	0.0053934	\$7,230,284	\$2,411,074	\$3,049,713,361	\$1,611,671,988
357	0.0053148	\$7,230,284	\$2,411,074	\$3,056,943,645	\$1,614,083,062
358	0.0052374	\$7,230,284	\$2,411,074	\$3,064,173,929	\$1,616,494,136
359	0.0051611	\$7,230,284	\$2,411,074	\$3,071,404,213	\$1,618,905,210
360	0.0050860	\$7,472,284	\$2,411,074	\$3,078,876,497	\$1,621,316,284
361	0.0050119	\$7,230,284	\$2,411,074	\$3,086,106,781	\$1,623,727,358
362	0.0049389	\$7,230,284	\$2,411,074	\$3,093,337,065	\$1,626,138,432
363	0.0048670	\$7,230,284	\$2,411,074	\$3,100,567,349	\$1,628,549,506
364	0.0047961	\$7,230,284	\$2,411,074	\$3,107,797,633	\$1,630,960,580
365	0.0047263	\$15,095,284	\$2,411,074	\$3,122,892,917	\$1,633,371,654
366	0.0046574	\$7,230,284	\$2,411,074	\$3,130,123,201	\$1,635,782,728
367	0.0045896	\$7,230,284	\$2,411,074	\$3,137,353,485	\$1,638,193,802
368	0.0045228	\$7,230,284	\$2,411,074	\$3,144,583,769	\$1,640,604,876
369	0.0044569	\$7,230,284	\$2,411,074	\$3,151,814,053	\$1,643,015,950
370	0.0043920	\$8,463,424	\$3,402,214	\$3,160,277,477	\$1,646,418,164
371	0.0043280	\$7,230,284	\$2,411,074	\$3,167,507,761	\$1,648,829,238
372	0.0042650	\$7,230,284	\$2,411,074	\$3,174,738,045	\$1,651,240,312
373	0.0042029	\$7,230,284	\$2,411,074	\$3,181,968,329	\$1,653,651,386
374	0.0041417	\$7,230,284	\$2,411,074	\$3,189,198,613	\$1,656,062,460
375	0.0040814	\$7,230,284	\$2,411,074	\$3,196,428,897	\$1,658,473,534
376	0.0040219	\$7,230,284	\$2,411,074	\$3,203,659,182	\$1,660,884,608
377	0.0039634	\$7,230,284	\$2,411,074	\$3,210,889,466	\$1,663,295,682
378	0.0039056	\$7,230,284	\$2,411,074	\$3,218,119,750	\$1,665,706,756
379	0.0038488	\$7,230,284	\$2,411,074	\$3,225,350,034	\$1,668,117,830
380	0.0037927	\$7,472,284	\$2,411,074	\$3,232,822,318	\$1,670,528,904
381	0.0037375	\$7,230,284	\$2,411,074	\$3,240,052,602	\$1,672,939,978
382	0.0036831	\$7,230,284	\$2,411,074	\$3,247,282,886	\$1,675,351,052
383	0.0036294	\$7,230,284	\$2,411,074	\$3,254,513,170	\$1,677,762,126
384	0.0035766	\$7,230,284	\$2,411,074	\$3,261,743,454	\$1,680,173,200
385	0.0035245	\$7,230,284	\$2,411,074	\$3,268,973,738	\$1,682,584,274
386	0.0034732	\$7,230,284	\$6,655,684	\$3,276,204,022	\$1,689,239,958
387	0.0034226	\$7,230,284	\$2,411,074	\$3,283,434,306	\$1,691,651,032
388	0.0033727	\$7,230,284	\$2,411,074	\$3,290,664,590	\$1,694,062,106
389	0.0033236	\$7,230,284	\$2,411,074	\$3,297,894,874	\$1,696,473,180
390	0.0032752	\$7,472,284	\$2,411,074	\$3,305,367,158	\$1,698,884,254
391	0.0032275	\$7,230,284	\$2,411,074	\$3,312,597,442	\$1,701,295,328
392	0.0031805	\$7,230,284	\$2,411,074	\$3,319,827,726	\$1,703,706,402
393	0.0031342	\$7,230,284	\$2,411,074	\$3,327,058,010	\$1,706,117,476
394	0.0030885	\$7,230,284	\$2,411,074	\$3,334,288,294	\$1,708,528,550
395	0.0030436	\$26,590,284	\$2,411,074	\$3,360,878,578	\$1,710,939,624
396	0.0029992	\$7,230,284	\$2,411,074	\$3,368,108,862	\$1,713,350,698
397	0.0029556	\$7,230,284	\$2,411,074	\$3,375,339,146	\$1,715,761,772
398	0.0029125	\$7,230,284	\$2,411,074	\$3,382,569,430	\$1,718,172,846
399	0.0028701	\$7,230,284	\$2,411,074	\$3,389,799,714	\$1,720,583,920

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

400	0.0028283	\$15,337,284	\$2,411,074	\$3,405,136,998	\$1,722,994,994
401	0.0027871	\$7,230,284	\$2,411,074	\$3,412,367,282	\$1,725,406,068
402	0.0027465	\$7,230,284	\$2,411,074	\$3,419,597,566	\$1,727,817,142
403	0.0027065	\$7,230,284	\$2,411,074	\$3,426,827,850	\$1,730,228,216
404	0.0026671	\$7,230,284	\$2,411,074	\$3,434,058,134	\$1,732,639,290
405	0.0026283	\$15,095,284	\$2,411,074	\$3,449,153,418	\$1,735,050,364
406	0.0025900	\$7,230,284	\$2,411,074	\$3,456,383,702	\$1,737,461,438
407	0.0025523	\$7,230,284	\$2,411,074	\$3,463,613,986	\$1,739,872,512
408	0.0025151	\$7,230,284	\$2,411,074	\$3,470,844,270	\$1,742,283,586
409	0.0024785	\$7,230,284	\$2,411,074	\$3,478,074,554	\$1,744,694,660
410	0.0024424	\$7,472,284	\$2,411,074	\$3,485,546,838	\$1,747,105,734
411	0.0024068	\$7,230,284	\$2,411,074	\$3,492,777,122	\$1,749,516,808
412	0.0023718	\$7,230,284	\$2,411,074	\$3,500,007,406	\$1,751,927,882
413	0.0023372	\$7,230,284	\$2,411,074	\$3,507,237,690	\$1,754,338,956
414	0.0023032	\$7,230,284	\$2,411,074	\$3,514,467,974	\$1,756,750,030
415	0.0022697	\$15,095,284	\$2,411,074	\$3,529,563,258	\$1,759,161,104
416	0.0022366	\$7,230,284	\$2,411,074	\$3,536,793,542	\$1,761,572,178
417	0.0022040	\$7,230,284	\$2,411,074	\$3,544,023,826	\$1,763,983,252
418	0.0021719	\$7,230,284	\$2,411,074	\$3,551,254,110	\$1,766,394,326
419	0.0021403	\$7,230,284	\$2,411,074	\$3,558,484,394	\$1,768,805,400
420	0.0021091	\$8,463,424	\$3,402,214	\$3,566,947,818	\$1,772,207,614
421	0.0020784	\$7,230,284	\$2,411,074	\$3,574,178,102	\$1,774,618,688
422	0.0020481	\$7,230,284	\$2,411,074	\$3,581,408,386	\$1,777,029,762
423	0.0020183	\$7,230,284	\$2,411,074	\$3,588,638,670	\$1,779,440,836
424	0.0019889	\$7,230,284	\$2,411,074	\$3,595,868,954	\$1,781,851,910
425	0.0019600	\$7,230,284	\$2,411,074	\$3,603,099,238	\$1,784,262,984
426	0.0019314	\$7,230,284	\$2,411,074	\$3,610,329,522	\$1,786,674,058
427	0.0019033	\$7,230,284	\$2,411,074	\$3,617,559,806	\$1,789,085,132
428	0.0018756	\$7,230,284	\$2,411,074	\$3,624,790,090	\$1,791,496,206
429	0.0018483	\$7,230,284	\$2,411,074	\$3,632,020,374	\$1,793,907,280
430	0.0018213	\$7,472,284	\$2,411,074	\$3,639,492,658	\$1,796,318,354
431	0.0017948	\$7,230,284	\$2,411,074	\$3,646,722,942	\$1,798,729,428
432	0.0017687	\$7,230,284	\$2,411,074	\$3,653,953,226	\$1,801,140,502
433	0.0017429	\$7,230,284	\$2,411,074	\$3,661,183,510	\$1,803,551,576
434	0.0017175	\$7,230,284	\$2,411,074	\$3,668,413,794	\$1,805,962,650
435	0.0016925	\$7,230,284	\$2,411,074	\$3,675,644,078	\$1,808,373,724
436	0.0016679	\$7,230,284	\$6,655,684	\$3,682,874,362	\$1,815,029,408
437	0.0016436	\$7,230,284	\$2,411,074	\$3,690,104,646	\$1,817,440,482
438	0.0016197	\$7,230,284	\$2,411,074	\$3,697,334,930	\$1,819,851,556
439	0.0015961	\$7,230,284	\$2,411,074	\$3,704,565,214	\$1,822,262,630
440	0.0015728	\$7,472,284	\$2,411,074	\$3,712,037,498	\$1,824,673,704
441	0.0015499	\$7,230,284	\$2,411,074	\$3,719,267,782	\$1,827,084,778
442	0.0015273	\$7,230,284	\$2,411,074	\$3,726,498,066	\$1,829,495,852
443	0.0015051	\$7,230,284	\$2,411,074	\$3,733,728,350	\$1,831,906,926
444	0.0014832	\$7,230,284	\$2,411,074	\$3,740,958,634	\$1,834,318,000
445	0.0014616	\$26,590,284	\$2,411,074	\$3,767,548,918	\$1,836,729,074
446	0.0014403	\$7,230,284	\$2,411,074	\$3,774,779,202	\$1,839,140,148
447	0.0014193	\$7,230,284	\$2,411,074	\$3,782,009,486	\$1,841,551,222
448	0.0013987	\$7,230,284	\$2,411,074	\$3,789,239,770	\$1,843,962,296
449	0.0013783	\$7,230,284	\$2,411,074	\$3,796,470,054	\$1,846,373,370
450	0.0013582	\$15,337,284	\$2,411,074	\$3,811,807,338	\$1,848,784,444
451	0.0013384	\$7,230,284	\$2,411,074	\$3,819,037,622	\$1,851,195,518
452	0.0013189	\$7,230,284	\$2,411,074	\$3,826,267,906	\$1,853,606,592
453	0.0012997	\$7,230,284	\$2,411,074	\$3,833,498,190	\$1,856,017,666
454	0.0012808	\$7,230,284	\$2,411,074	\$3,840,728,474	\$1,858,428,740
455	0.0012622	\$15,095,284	\$2,411,074	\$3,855,823,758	\$1,860,839,814
456	0.0012438	\$7,230,284	\$2,411,074	\$3,863,054,042	\$1,863,250,888
457	0.0012257	\$7,230,284	\$2,411,074	\$3,870,284,326	\$1,865,661,962

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

458	0.0012078	\$7,230,284	\$2,411,074	\$3,877,514,610	\$1,868,073,036
459	0.0011902	\$7,230,284	\$2,411,074	\$3,884,744,894	\$1,870,484,110
460	0.0011729	\$7,472,284	\$2,411,074	\$3,892,217,178	\$1,872,895,184
461	0.0011558	\$7,230,284	\$2,411,074	\$3,899,447,462	\$1,875,306,258
462	0.0011390	\$7,230,284	\$2,411,074	\$3,906,677,746	\$1,877,717,332
463	0.0011224	\$7,230,284	\$2,411,074	\$3,913,908,030	\$1,880,128,406
464	0.0011060	\$7,230,284	\$2,411,074	\$3,921,138,314	\$1,882,539,480
465	0.0010899	\$15,095,284	\$2,411,074	\$3,936,233,598	\$1,884,950,554
466	0.0010741	\$7,230,284	\$2,411,074	\$3,943,463,882	\$1,887,361,628
467	0.0010584	\$7,230,284	\$2,411,074	\$3,950,694,166	\$1,889,772,702
468	0.0010430	\$7,230,284	\$2,411,074	\$3,957,924,450	\$1,892,183,776
469	0.0010278	\$7,230,284	\$2,411,074	\$3,965,154,734	\$1,894,594,850
470	0.0010128	\$8,463,424	\$3,402,214	\$3,973,618,158	\$1,897,997,064
471	0.0009981	\$7,230,284	\$2,411,074	\$3,980,848,442	\$1,900,408,138
472	0.0009836	\$7,230,284	\$2,411,074	\$3,988,078,726	\$1,902,819,212
473	0.0009692	\$7,230,284	\$2,411,074	\$3,995,309,010	\$1,905,230,286
474	0.0009551	\$7,230,284	\$2,411,074	\$4,002,539,294	\$1,907,641,360
475	0.0009412	\$7,230,284	\$2,411,074	\$4,009,769,578	\$1,910,052,434
476	0.0009275	\$7,230,284	\$2,411,074	\$4,016,999,863	\$1,912,463,508
477	0.0009140	\$7,230,284	\$2,411,074	\$4,024,230,147	\$1,914,874,582
478	0.0009007	\$7,230,284	\$2,411,074	\$4,031,460,431	\$1,917,285,656
479	0.0008876	\$7,230,284	\$2,411,074	\$4,038,690,715	\$1,919,696,730
480	0.0008746	\$7,472,284	\$2,411,074	\$4,046,162,999	\$1,922,107,804
481	0.0008619	\$7,230,284	\$2,411,074	\$4,053,393,283	\$1,924,518,878
482	0.0008494	\$7,230,284	\$2,411,074	\$4,060,623,567	\$1,926,929,952
483	0.0008370	\$7,230,284	\$2,411,074	\$4,067,853,851	\$1,929,341,026
484	0.0008248	\$7,230,284	\$2,411,074	\$4,075,084,135	\$1,931,752,100
485	0.0008128	\$7,230,284	\$2,411,074	\$4,082,314,419	\$1,934,163,174
486	0.0008009	\$7,230,284	\$6,655,684	\$4,089,544,703	\$1,940,818,858
487	0.0007893	\$7,230,284	\$2,411,074	\$4,096,774,987	\$1,943,229,932
488	0.0007778	\$7,230,284	\$2,411,074	\$4,104,005,271	\$1,945,641,006
489	0.0007665	\$7,230,284	\$2,411,074	\$4,111,235,555	\$1,948,052,080
490	0.0007553	\$7,472,284	\$2,411,074	\$4,118,707,839	\$1,950,463,154
491	0.0007443	\$7,230,284	\$2,411,074	\$4,125,938,123	\$1,952,874,228
492	0.0007335	\$7,230,284	\$2,411,074	\$4,133,168,407	\$1,955,285,302
493	0.0007228	\$7,230,284	\$2,411,074	\$4,140,398,691	\$1,957,696,376
494	0.0007123	\$7,230,284	\$2,411,074	\$4,147,628,975	\$1,960,107,450
495	0.0007019	\$26,590,284	\$2,411,074	\$4,174,219,259	\$1,962,518,524
496	0.0006917	\$7,230,284	\$2,411,074	\$4,181,449,543	\$1,964,929,598
497	0.0006816	\$7,230,284	\$2,411,074	\$4,188,679,827	\$1,967,340,672
498	0.0006717	\$7,230,284	\$2,411,074	\$4,195,910,111	\$1,969,751,746
499	0.0006619	\$7,230,284	\$2,411,074	\$4,203,140,395	\$1,972,162,820
500	0.0006522	\$15,337,284	\$2,411,074	\$4,218,477,679	\$1,974,573,894
501	0.0006427	\$7,230,284	\$2,411,074	\$4,225,707,963	\$1,976,984,968
502	0.0006334	\$7,230,284	\$2,411,074	\$4,232,938,247	\$1,979,396,042
503	0.0006242	\$7,230,284	\$2,411,074	\$4,240,168,531	\$1,981,807,116
504	0.0006151	\$7,230,284	\$2,411,074	\$4,247,398,815	\$1,984,218,190
505	0.0006061	\$15,095,284	\$2,411,074	\$4,262,494,099	\$1,986,629,264
506	0.0005973	\$7,230,284	\$2,411,074	\$4,269,724,383	\$1,989,040,338
507	0.0005886	\$7,230,284	\$2,411,074	\$4,276,954,667	\$1,991,451,412
508	0.0005800	\$7,230,284	\$2,411,074	\$4,284,184,951	\$1,993,862,486
509	0.0005716	\$7,230,284	\$2,411,074	\$4,291,415,235	\$1,996,273,560
510	0.0005632	\$7,472,284	\$2,411,074	\$4,298,887,519	\$1,998,684,634
511	0.0005550	\$7,230,284	\$2,411,074	\$4,306,117,803	\$2,001,095,708
512	0.0005470	\$7,230,284	\$2,411,074	\$4,313,348,087	\$2,003,506,782
513	0.0005390	\$7,230,284	\$2,411,074	\$4,320,578,371	\$2,005,917,856
514	0.0005311	\$7,230,284	\$2,411,074	\$4,327,808,655	\$2,008,328,930
515	0.0005234	\$15,095,284	\$2,411,074	\$4,342,903,939	\$2,010,740,004

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

516	0.0005158	\$7,230,284	\$2,411,074	\$4,350,134,223	\$2,013,151,078
517	0.0005083	\$7,230,284	\$2,411,074	\$4,357,364,507	\$2,015,562,152
518	0.0005009	\$7,230,284	\$2,411,074	\$4,364,594,791	\$2,017,973,226
519	0.0004936	\$7,230,284	\$2,411,074	\$4,371,825,075	\$2,020,384,300
520	0.0004864	\$8,463,424	\$3,402,214	\$4,380,288,499	\$2,023,786,514
521	0.0004793	\$7,230,284	\$2,411,074	\$4,387,518,783	\$2,026,197,588
522	0.0004723	\$7,230,284	\$2,411,074	\$4,394,749,067	\$2,028,608,662
523	0.0004654	\$7,230,284	\$2,411,074	\$4,401,979,351	\$2,031,019,736
524	0.0004587	\$7,230,284	\$2,411,074	\$4,409,209,635	\$2,033,430,810
525	0.0004520	\$7,230,284	\$2,411,074	\$4,416,439,919	\$2,035,841,884
526	0.0004454	\$7,230,284	\$2,411,074	\$4,423,670,203	\$2,038,252,958
527	0.0004389	\$7,230,284	\$2,411,074	\$4,430,900,487	\$2,040,664,032
528	0.0004325	\$7,230,284	\$2,411,074	\$4,438,130,771	\$2,043,075,106
529	0.0004262	\$7,230,284	\$2,411,074	\$4,445,361,055	\$2,045,486,180
530	0.0004200	\$7,472,284	\$2,411,074	\$4,452,833,339	\$2,047,897,254
531	0.0004139	\$7,230,284	\$2,411,074	\$4,460,063,623	\$2,050,308,328
532	0.0004079	\$7,230,284	\$2,411,074	\$4,467,293,907	\$2,052,719,402
533	0.0004019	\$7,230,284	\$2,411,074	\$4,474,524,191	\$2,055,130,476
534	0.0003961	\$7,230,284	\$2,411,074	\$4,481,754,475	\$2,057,541,550
535	0.0003903	\$7,230,284	\$2,411,074	\$4,488,984,759	\$2,059,952,624
536	0.0003846	\$7,230,284	\$6,655,684	\$4,496,215,043	\$2,066,608,308
537	0.0003790	\$7,230,284	\$2,411,074	\$4,503,445,327	\$2,069,019,382
538	0.0003735	\$7,230,284	\$2,411,074	\$4,510,675,611	\$2,071,430,456
539	0.0003681	\$7,230,284	\$2,411,074	\$4,517,905,895	\$2,073,841,530
540	0.0003627	\$7,472,284	\$2,411,074	\$4,525,378,179	\$2,076,252,604
541	0.0003574	\$7,230,284	\$2,411,074	\$4,532,608,463	\$2,078,663,678
542	0.0003522	\$7,230,284	\$2,411,074	\$4,539,838,747	\$2,081,074,752
543	0.0003471	\$7,230,284	\$2,411,074	\$4,547,069,031	\$2,083,485,826
544	0.0003420	\$7,230,284	\$2,411,074	\$4,554,299,315	\$2,085,896,900
545	0.0003371	\$26,590,284	\$2,411,074	\$4,580,889,599	\$2,088,307,974
546	0.0003322	\$7,230,284	\$2,411,074	\$4,588,119,883	\$2,090,719,048
547	0.0003273	\$7,230,284	\$2,411,074	\$4,595,350,167	\$2,093,130,122
548	0.0003225	\$7,230,284	\$2,411,074	\$4,602,580,451	\$2,095,541,196
549	0.0003178	\$7,230,284	\$2,411,074	\$4,609,810,735	\$2,097,952,270
550	0.0003132	\$15,337,284	\$2,411,074	\$4,625,148,019	\$2,100,363,344
551	0.0003087	\$7,230,284	\$2,411,074	\$4,632,378,303	\$2,102,774,418
552	0.0003042	\$7,230,284	\$2,411,074	\$4,639,608,587	\$2,105,185,492
553	0.0002997	\$7,230,284	\$2,411,074	\$4,646,838,871	\$2,107,596,566
554	0.0002954	\$7,230,284	\$2,411,074	\$4,654,069,155	\$2,110,007,640
555	0.0002911	\$15,095,284	\$2,411,074	\$4,669,164,439	\$2,112,418,714
556	0.0002868	\$7,230,284	\$2,411,074	\$4,676,394,723	\$2,114,829,788
557	0.0002827	\$7,230,284	\$2,411,074	\$4,683,625,007	\$2,117,240,862
558	0.0002785	\$7,230,284	\$2,411,074	\$4,690,855,291	\$2,119,651,936
559	0.0002745	\$7,230,284	\$2,411,074	\$4,698,085,575	\$2,122,063,010
560	0.0002705	\$7,472,284	\$2,411,074	\$4,705,557,859	\$2,124,474,084
561	0.0002665	\$7,230,284	\$2,411,074	\$4,712,788,143	\$2,126,885,158
562	0.0002627	\$7,230,284	\$2,411,074	\$4,720,018,427	\$2,129,296,232
563	0.0002588	\$7,230,284	\$2,411,074	\$4,727,248,711	\$2,131,707,306
564	0.0002551	\$7,230,284	\$2,411,074	\$4,734,478,995	\$2,134,118,380
565	0.0002514	\$15,095,284	\$2,411,074	\$4,749,574,279	\$2,136,529,454
566	0.0002477	\$7,230,284	\$2,411,074	\$4,756,804,563	\$2,138,940,528
567	0.0002441	\$7,230,284	\$2,411,074	\$4,764,034,847	\$2,141,351,602
568	0.0002405	\$7,230,284	\$2,411,074	\$4,771,265,131	\$2,143,762,676
569	0.0002370	\$7,230,284	\$2,411,074	\$4,778,495,415	\$2,146,173,750
570	0.0002336	\$8,463,424	\$3,402,214	\$4,786,958,839	\$2,149,575,964
571	0.0002302	\$7,230,284	\$2,411,074	\$4,794,189,123	\$2,151,987,038
572	0.0002268	\$7,230,284	\$2,411,074	\$4,801,419,407	\$2,154,398,112
573	0.0002235	\$7,230,284	\$2,411,074	\$4,808,649,691	\$2,156,809,186

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

574	0.0002203	\$7,230,284	\$2,411,074	\$4,815,879,975	\$2,159,220,260
575	0.0002171	\$7,230,284	\$2,411,074	\$4,823,110,259	\$2,161,631,334
576	0.0002139	\$7,230,284	\$2,411,074	\$4,830,340,544	\$2,164,042,408
577	0.0002108	\$7,230,284	\$2,411,074	\$4,837,570,828	\$2,166,453,482
578	0.0002077	\$7,230,284	\$2,411,074	\$4,844,801,112	\$2,168,864,556
579	0.0002047	\$7,230,284	\$2,411,074	\$4,852,031,396	\$2,171,275,630
580	0.0002017	\$7,472,284	\$2,411,074	\$4,859,503,680	\$2,173,686,704
581	0.0001988	\$7,230,284	\$2,411,074	\$4,866,733,964	\$2,176,097,778
582	0.0001959	\$7,230,284	\$2,411,074	\$4,873,964,248	\$2,178,508,852
583	0.0001930	\$7,230,284	\$2,411,074	\$4,881,194,532	\$2,180,919,926
584	0.0001902	\$7,230,284	\$2,411,074	\$4,888,424,816	\$2,183,331,000
585	0.0001874	\$7,230,284	\$2,411,074	\$4,895,655,100	\$2,185,742,074
586	0.0001847	\$7,230,284	\$6,655,684	\$4,902,885,384	\$2,192,397,758
587	0.0001820	\$7,230,284	\$2,411,074	\$4,910,115,668	\$2,194,808,832
588	0.0001794	\$7,230,284	\$2,411,074	\$4,917,345,952	\$2,197,219,906
589	0.0001768	\$7,230,284	\$2,411,074	\$4,924,576,236	\$2,199,630,980
590	0.0001742	\$7,472,284	\$2,411,074	\$4,932,048,520	\$2,202,042,054
591	0.0001716	\$7,230,284	\$2,411,074	\$4,939,278,804	\$2,204,453,128
592	0.0001691	\$7,230,284	\$2,411,074	\$4,946,509,088	\$2,206,864,202
593	0.0001667	\$7,230,284	\$2,411,074	\$4,953,739,372	\$2,209,275,276
594	0.0001643	\$7,230,284	\$2,411,074	\$4,960,969,656	\$2,211,686,350
595	0.0001619	\$26,590,284	\$2,411,074	\$4,987,559,940	\$2,214,097,424
596	0.0001595	\$7,230,284	\$2,411,074	\$4,994,790,224	\$2,216,508,498
597	0.0001572	\$7,230,284	\$2,411,074	\$5,002,020,508	\$2,218,919,572
598	0.0001549	\$7,230,284	\$2,411,074	\$5,009,250,792	\$2,221,330,646
599	0.0001526	\$7,230,284	\$2,411,074	\$5,016,481,076	\$2,223,741,720
600	0.0001504	\$15,337,284	\$2,411,074	\$5,031,818,360	\$2,226,152,794
601	0.0001482	\$7,230,284	\$2,411,074	\$5,039,048,644	\$2,228,563,868
602	0.0001461	\$7,230,284	\$2,411,074	\$5,046,278,928	\$2,230,974,942
603	0.0001439	\$7,230,284	\$2,411,074	\$5,053,509,212	\$2,233,386,016
604	0.0001418	\$7,230,284	\$2,411,074	\$5,060,739,496	\$2,235,797,090
605	0.0001398	\$15,095,284	\$2,411,074	\$5,075,834,780	\$2,238,208,164
606	0.0001377	\$7,230,284	\$2,411,074	\$5,083,065,064	\$2,240,619,238
607	0.0001357	\$7,230,284	\$2,411,074	\$5,090,295,348	\$2,243,030,312
608	0.0001338	\$7,230,284	\$2,411,074	\$5,097,525,632	\$2,245,441,386
609	0.0001318	\$7,230,284	\$2,411,074	\$5,104,755,916	\$2,247,852,460
610	0.0001299	\$7,472,284	\$2,411,074	\$5,112,228,200	\$2,250,263,534
611	0.0001280	\$7,230,284	\$2,411,074	\$5,119,458,484	\$2,252,674,608
612	0.0001261	\$7,230,284	\$2,411,074	\$5,126,688,768	\$2,255,085,682
613	0.0001243	\$7,230,284	\$2,411,074	\$5,133,919,052	\$2,257,496,756
614	0.0001225	\$7,230,284	\$2,411,074	\$5,141,149,336	\$2,259,907,830
615	0.0001207	\$15,095,284	\$2,411,074	\$5,156,244,620	\$2,262,318,904
616	0.0001189	\$7,230,284	\$2,411,074	\$5,163,474,904	\$2,264,729,978
617	0.0001172	\$7,230,284	\$2,411,074	\$5,170,705,188	\$2,267,141,052
618	0.0001155	\$7,230,284	\$2,411,074	\$5,177,935,472	\$2,269,552,126
619	0.0001138	\$7,230,284	\$2,411,074	\$5,185,165,756	\$2,271,963,200
620	0.0001122	\$8,463,424	\$3,402,214	\$5,193,629,180	\$2,275,365,414
621	0.0001105	\$7,230,284	\$2,411,074	\$5,200,859,464	\$2,277,776,488
622	0.0001089	\$7,230,284	\$2,411,074	\$5,208,089,748	\$2,280,187,562
623	0.0001073	\$7,230,284	\$2,411,074	\$5,215,320,032	\$2,282,598,636
624	0.0001058	\$7,230,284	\$2,411,074	\$5,222,550,316	\$2,285,009,710
625	0.0001042	\$7,230,284	\$2,411,074	\$5,229,780,600	\$2,287,420,784
626	0.0001027	\$7,230,284	\$2,411,074	\$5,237,010,884	\$2,289,831,858
627	0.0001012	\$7,230,284	\$2,411,074	\$5,244,241,168	\$2,292,242,932
628	0.0000997	\$7,230,284	\$2,411,074	\$5,251,471,452	\$2,294,654,006
629	0.0000983	\$7,230,284	\$2,411,074	\$5,258,701,736	\$2,297,065,080
630	0.0000969	\$7,472,284	\$2,411,074	\$5,266,174,020	\$2,299,476,154
631	0.0000955	\$7,230,284	\$2,411,074	\$5,273,404,304	\$2,301,887,228

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

632	0.0000941	\$7,230,284	\$2,411,074	\$5,280,634,588	\$2,304,298,302
633	0.0000927	\$7,230,284	\$2,411,074	\$5,287,864,872	\$2,306,709,376
634	0.0000913	\$7,230,284	\$2,411,074	\$5,295,095,156	\$2,309,120,450
635	0.0000900	\$7,230,284	\$2,411,074	\$5,302,325,440	\$2,311,531,524
636	0.0000887	\$7,230,284	\$6,655,684	\$5,309,555,724	\$2,318,187,208
637	0.0000874	\$7,230,284	\$2,411,074	\$5,316,786,008	\$2,320,598,282
638	0.0000861	\$7,230,284	\$2,411,074	\$5,324,016,292	\$2,323,009,356
639	0.0000849	\$7,230,284	\$2,411,074	\$5,331,246,576	\$2,325,420,430
640	0.0000836	\$7,472,284	\$2,411,074	\$5,338,718,860	\$2,327,831,504
641	0.0000824	\$7,230,284	\$2,411,074	\$5,345,949,144	\$2,330,242,578
642	0.0000812	\$7,230,284	\$2,411,074	\$5,353,179,428	\$2,332,653,652
643	0.0000800	\$7,230,284	\$2,411,074	\$5,360,409,712	\$2,335,064,726
644	0.0000789	\$7,230,284	\$2,411,074	\$5,367,639,996	\$2,337,475,800
645	0.0000777	\$26,590,284	\$2,411,074	\$5,394,230,280	\$2,339,886,874
646	0.0000766	\$7,230,284	\$2,411,074	\$5,401,460,564	\$2,342,297,948
647	0.0000755	\$7,230,284	\$2,411,074	\$5,408,690,848	\$2,344,709,022
648	0.0000744	\$7,230,284	\$2,411,074	\$5,415,921,132	\$2,347,120,096
649	0.0000733	\$7,230,284	\$2,411,074	\$5,423,151,416	\$2,349,531,170
650	0.0000722	\$15,337,284	\$2,411,074	\$5,438,488,700	\$2,351,942,244
651	0.0000712	\$7,230,284	\$2,411,074	\$5,445,718,984	\$2,354,353,318
652	0.0000701	\$7,230,284	\$2,411,074	\$5,452,949,268	\$2,356,764,392
653	0.0000691	\$7,230,284	\$2,411,074	\$5,460,179,552	\$2,359,175,466
654	0.0000681	\$7,230,284	\$2,411,074	\$5,467,409,836	\$2,361,586,540
655	0.0000671	\$15,095,284	\$2,411,074	\$5,482,505,120	\$2,363,997,614
656	0.0000661	\$7,230,284	\$2,411,074	\$5,489,735,404	\$2,366,408,688
657	0.0000652	\$7,230,284	\$2,411,074	\$5,496,965,688	\$2,368,819,762
658	0.0000642	\$7,230,284	\$2,411,074	\$5,504,195,972	\$2,371,230,836
659	0.0000633	\$7,230,284	\$2,411,074	\$5,511,426,256	\$2,373,641,910
660	0.0000624	\$7,472,284	\$2,411,074	\$5,518,898,540	\$2,376,052,984
661	0.0000615	\$7,230,284	\$2,411,074	\$5,526,128,824	\$2,378,464,058
662	0.0000606	\$7,230,284	\$2,411,074	\$5,533,359,108	\$2,380,875,132
663	0.0000597	\$7,230,284	\$2,411,074	\$5,540,589,392	\$2,383,286,206
664	0.0000588	\$7,230,284	\$2,411,074	\$5,547,819,676	\$2,385,697,280
665	0.0000580	\$15,095,284	\$2,411,074	\$5,562,914,960	\$2,388,108,354
666	0.0000571	\$7,230,284	\$2,411,074	\$5,570,145,244	\$2,390,519,428
667	0.0000563	\$7,230,284	\$2,411,074	\$5,577,375,528	\$2,392,930,502
668	0.0000555	\$7,230,284	\$2,411,074	\$5,584,605,812	\$2,395,341,576
669	0.0000547	\$7,230,284	\$2,411,074	\$5,591,836,096	\$2,397,752,650
670	0.0000539	\$8,463,424	\$3,402,214	\$5,600,299,520	\$2,401,154,864
671	0.0000531	\$7,230,284	\$2,411,074	\$5,607,529,804	\$2,403,565,938
672	0.0000523	\$7,230,284	\$2,411,074	\$5,614,760,088	\$2,405,977,012
673	0.0000515	\$7,230,284	\$2,411,074	\$5,621,990,372	\$2,408,388,086
674	0.0000508	\$7,230,284	\$2,411,074	\$5,629,220,656	\$2,410,799,160
675	0.0000501	\$7,230,284	\$2,411,074	\$5,636,450,940	\$2,413,210,234
676	0.0000493	\$7,230,284	\$2,411,074	\$5,643,681,225	\$2,415,621,308
677	0.0000486	\$7,230,284	\$2,411,074	\$5,650,911,509	\$2,418,032,382
678	0.0000479	\$7,230,284	\$2,411,074	\$5,658,141,793	\$2,420,443,456
679	0.0000472	\$7,230,284	\$2,411,074	\$5,665,372,077	\$2,422,854,530
680	0.0000465	\$7,472,284	\$2,411,074	\$5,672,844,361	\$2,425,265,604
681	0.0000458	\$7,230,284	\$2,411,074	\$5,680,074,645	\$2,427,676,678
682	0.0000452	\$7,230,284	\$2,411,074	\$5,687,304,929	\$2,430,087,752
683	0.0000445	\$7,230,284	\$2,411,074	\$5,694,535,213	\$2,432,498,826
684	0.0000439	\$7,230,284	\$2,411,074	\$5,701,765,497	\$2,434,909,900
685	0.0000432	\$7,230,284	\$2,411,074	\$5,708,995,781	\$2,437,320,974
686	0.0000426	\$7,230,284	\$6,655,684	\$5,716,226,065	\$2,443,976,658
687	0.0000420	\$7,230,284	\$2,411,074	\$5,723,456,349	\$2,446,387,732
688	0.0000414	\$7,230,284	\$2,411,074	\$5,730,686,633	\$2,448,798,806
689	0.0000408	\$7,230,284	\$2,411,074	\$5,737,916,917	\$2,451,209,880

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
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Base Year:
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690	0.0000402	\$7,472,284	\$2,411,074	\$5,745,389,201	\$2,453,620,954
691	0.0000396	\$7,230,284	\$2,411,074	\$5,752,619,485	\$2,456,032,028
692	0.0000390	\$7,230,284	\$2,411,074	\$5,759,849,769	\$2,458,443,102
693	0.0000384	\$7,230,284	\$2,411,074	\$5,767,080,053	\$2,460,854,176
694	0.0000379	\$7,230,284	\$2,411,074	\$5,774,310,337	\$2,463,265,250
695	0.0000373	\$26,590,284	\$2,411,074	\$5,800,900,621	\$2,465,676,324
696	0.0000368	\$7,230,284	\$2,411,074	\$5,808,130,905	\$2,468,087,398
697	0.0000362	\$7,230,284	\$2,411,074	\$5,815,361,189	\$2,470,498,472
698	0.0000357	\$7,230,284	\$2,411,074	\$5,822,591,473	\$2,472,909,546
699	0.0000352	\$7,230,284	\$2,411,074	\$5,829,821,757	\$2,475,320,620
700	0.0000347	\$15,337,284	\$2,411,074	\$5,845,159,041	\$2,477,731,694
701	0.0000342	\$7,230,284	\$2,411,074	\$5,852,389,325	\$2,480,142,768
702	0.0000337	\$7,230,284	\$2,411,074	\$5,859,619,609	\$2,482,553,842
703	0.0000332	\$7,230,284	\$2,411,074	\$5,866,849,893	\$2,484,964,916
704	0.0000327	\$7,230,284	\$2,411,074	\$5,874,080,177	\$2,487,375,990
705	0.0000322	\$15,095,284	\$2,411,074	\$5,889,175,461	\$2,489,787,064
706	0.0000318	\$7,230,284	\$2,411,074	\$5,896,405,745	\$2,492,198,138
707	0.0000313	\$7,230,284	\$2,411,074	\$5,903,636,029	\$2,494,609,212
708	0.0000308	\$7,230,284	\$2,411,074	\$5,910,866,313	\$2,497,020,286
709	0.0000304	\$7,230,284	\$2,411,074	\$5,918,096,597	\$2,499,431,360
710	0.0000300	\$7,472,284	\$2,411,074	\$5,925,568,881	\$2,501,842,434
711	0.0000295	\$7,230,284	\$2,411,074	\$5,932,799,165	\$2,504,253,508
712	0.0000291	\$7,230,284	\$2,411,074	\$5,940,029,449	\$2,506,664,582
713	0.0000287	\$7,230,284	\$2,411,074	\$5,947,259,733	\$2,509,075,656
714	0.0000282	\$7,230,284	\$2,411,074	\$5,954,490,017	\$2,511,486,730
715	0.0000278	\$15,095,284	\$2,411,074	\$5,969,585,301	\$2,513,897,804
716	0.0000274	\$7,230,284	\$2,411,074	\$5,976,815,585	\$2,516,308,878
717	0.0000270	\$7,230,284	\$2,411,074	\$5,984,045,869	\$2,518,719,952
718	0.0000266	\$7,230,284	\$2,411,074	\$5,991,276,153	\$2,521,131,026
719	0.0000262	\$7,230,284	\$2,411,074	\$5,998,506,437	\$2,523,542,100
720	0.0000259	\$8,463,424	\$3,402,214	\$6,006,969,861	\$2,526,944,314
721	0.0000255	\$7,230,284	\$2,411,074	\$6,014,200,145	\$2,529,355,388
722	0.0000251	\$7,230,284	\$2,411,074	\$6,021,430,429	\$2,531,766,462
723	0.0000248	\$7,230,284	\$2,411,074	\$6,028,660,713	\$2,534,177,536
724	0.0000244	\$7,230,284	\$2,411,074	\$6,035,890,997	\$2,536,588,610
725	0.0000240	\$7,230,284	\$2,411,074	\$6,043,121,281	\$2,538,999,684
726	0.0000237	\$7,230,284	\$2,411,074	\$6,050,351,565	\$2,541,410,758
727	0.0000233	\$7,230,284	\$2,411,074	\$6,057,581,849	\$2,543,821,832
728	0.0000230	\$7,230,284	\$2,411,074	\$6,064,812,133	\$2,546,232,906
729	0.0000227	\$7,230,284	\$2,411,074	\$6,072,042,417	\$2,548,643,980
730	0.0000223	\$7,472,284	\$2,411,074	\$6,079,514,701	\$2,551,055,054
731	0.0000220	\$7,230,284	\$2,411,074	\$6,086,744,985	\$2,553,466,128
732	0.0000217	\$7,230,284	\$2,411,074	\$6,093,975,269	\$2,555,877,202
733	0.0000214	\$7,230,284	\$2,411,074	\$6,101,205,553	\$2,558,288,276
734	0.0000211	\$7,230,284	\$2,411,074	\$6,108,435,837	\$2,560,699,350
735	0.0000208	\$7,230,284	\$2,411,074	\$6,115,666,121	\$2,563,110,424
736	0.0000205	\$7,230,284	\$6,655,684	\$6,122,896,405	\$2,569,766,108
737	0.0000202	\$7,230,284	\$2,411,074	\$6,130,126,689	\$2,572,177,182
738	0.0000199	\$7,230,284	\$2,411,074	\$6,137,356,973	\$2,574,588,256
739	0.0000196	\$7,230,284	\$2,411,074	\$6,144,587,257	\$2,576,999,330
740	0.0000193	\$7,472,284	\$2,411,074	\$6,152,059,541	\$2,579,410,404
741	0.0000190	\$7,230,284	\$2,411,074	\$6,159,289,825	\$2,581,821,478
742	0.0000187	\$7,230,284	\$2,411,074	\$6,166,520,109	\$2,584,232,552
743	0.0000185	\$7,230,284	\$2,411,074	\$6,173,750,393	\$2,586,643,626
744	0.0000182	\$7,230,284	\$2,411,074	\$6,180,980,677	\$2,589,054,700
745	0.0000179	\$26,590,284	\$2,411,074	\$6,207,570,961	\$2,591,465,774
746	0.0000177	\$7,230,284	\$2,411,074	\$6,214,801,245	\$2,593,876,848
747	0.0000174	\$7,230,284	\$2,411,074	\$6,222,031,529	\$2,596,287,922

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
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748	0.0000172	\$7,230,284	\$2,411,074	\$6,229,261,813	\$2,598,698,996
749	0.0000169	\$7,230,284	\$2,411,074	\$6,236,492,097	\$2,601,110,070
750	0.0000167	\$15,337,284	\$2,411,074	\$6,251,829,381	\$2,603,521,144
751	0.0000164	\$7,230,284	\$2,411,074	\$6,259,059,665	\$2,605,932,218
752	0.0000162	\$7,230,284	\$2,411,074	\$6,266,289,949	\$2,608,343,292
753	0.0000159	\$7,230,284	\$2,411,074	\$6,273,520,233	\$2,610,754,366
754	0.0000157	\$7,230,284	\$2,411,074	\$6,280,750,517	\$2,613,165,440
755	0.0000155	\$15,095,284	\$2,411,074	\$6,295,845,801	\$2,615,576,514
756	0.0000153	\$7,230,284	\$2,411,074	\$6,303,076,085	\$2,617,987,588
757	0.0000150	\$7,230,284	\$2,411,074	\$6,310,306,369	\$2,620,398,662
758	0.0000148	\$7,230,284	\$2,411,074	\$6,317,536,653	\$2,622,809,736
759	0.0000146	\$7,230,284	\$2,411,074	\$6,324,766,937	\$2,625,220,810
760	0.0000144	\$7,472,284	\$2,411,074	\$6,332,239,221	\$2,627,631,884
761	0.0000142	\$7,230,284	\$2,411,074	\$6,339,469,505	\$2,630,042,958
762	0.0000140	\$7,230,284	\$2,411,074	\$6,346,699,789	\$2,632,454,032
763	0.0000138	\$7,230,284	\$2,411,074	\$6,353,930,073	\$2,634,865,106
764	0.0000136	\$7,230,284	\$2,411,074	\$6,361,160,357	\$2,637,276,180
765	0.0000134	\$15,095,284	\$2,411,074	\$6,376,255,641	\$2,639,687,254
766	0.0000132	\$7,230,284	\$2,411,074	\$6,383,485,925	\$2,642,098,328
767	0.0000130	\$7,230,284	\$2,411,074	\$6,390,716,209	\$2,644,509,402
768	0.0000128	\$7,230,284	\$2,411,074	\$6,397,946,493	\$2,646,920,476
769	0.0000126	\$7,230,284	\$2,411,074	\$6,405,176,777	\$2,649,331,550
770	0.0000124	\$8,463,424	\$3,402,214	\$6,413,640,201	\$2,652,733,764
771	0.0000122	\$7,230,284	\$2,411,074	\$6,420,870,485	\$2,655,144,838
772	0.0000121	\$7,230,284	\$2,411,074	\$6,428,100,769	\$2,657,555,912
773	0.0000119	\$7,230,284	\$2,411,074	\$6,435,331,053	\$2,659,966,986
774	0.0000117	\$7,230,284	\$2,411,074	\$6,442,561,337	\$2,662,378,060
775	0.0000115	\$7,230,284	\$2,411,074	\$6,449,791,621	\$2,664,789,134
776	0.0000114	\$7,230,284	\$2,411,074	\$6,457,021,906	\$2,667,200,208
777	0.0000112	\$7,230,284	\$2,411,074	\$6,464,252,190	\$2,669,611,282
778	0.0000110	\$7,230,284	\$2,411,074	\$6,471,482,474	\$2,672,022,356
779	0.0000109	\$7,230,284	\$2,411,074	\$6,478,712,758	\$2,674,433,430
780	0.0000107	\$7,472,284	\$2,411,074	\$6,486,185,042	\$2,676,844,504
781	0.0000106	\$7,230,284	\$2,411,074	\$6,493,415,326	\$2,679,255,578
782	0.0000104	\$7,230,284	\$2,411,074	\$6,500,645,610	\$2,681,666,652
783	0.0000103	\$7,230,284	\$2,411,074	\$6,507,875,894	\$2,684,077,726
784	0.0000101	\$7,230,284	\$2,411,074	\$6,515,106,178	\$2,686,488,800
785	0.0000100	\$7,230,284	\$2,411,074	\$6,522,336,462	\$2,688,899,874
786	0.0000098	\$7,230,284	\$6,655,684	\$6,529,566,746	\$2,695,555,558
787	0.0000097	\$7,230,284	\$2,411,074	\$6,536,797,030	\$2,697,966,632
788	0.0000095	\$7,230,284	\$2,411,074	\$6,544,027,314	\$2,700,377,706
789	0.0000094	\$7,230,284	\$2,411,074	\$6,551,257,598	\$2,702,788,780
790	0.0000093	\$7,472,284	\$2,411,074	\$6,558,729,882	\$2,705,199,854
791	0.0000091	\$7,230,284	\$2,411,074	\$6,565,960,166	\$2,707,610,928
792	0.0000090	\$7,230,284	\$2,411,074	\$6,573,190,450	\$2,710,022,002
793	0.0000089	\$7,230,284	\$2,411,074	\$6,580,420,734	\$2,712,433,076
794	0.0000087	\$7,230,284	\$2,411,074	\$6,587,651,018	\$2,714,844,150
795	0.0000086	\$26,590,284	\$2,411,074	\$6,614,241,302	\$2,717,255,224
796	0.0000085	\$7,230,284	\$2,411,074	\$6,621,471,586	\$2,719,666,298
797	0.0000084	\$7,230,284	\$2,411,074	\$6,628,701,870	\$2,722,077,372
798	0.0000082	\$7,230,284	\$2,411,074	\$6,635,932,154	\$2,724,488,446
799	0.0000081	\$7,230,284	\$2,411,074	\$6,643,162,438	\$2,726,899,520
800	0.0000080	\$15,337,284	\$2,411,074	\$6,658,499,722	\$2,729,310,594
801	0.0000079	\$7,230,284	\$2,411,074	\$6,665,730,006	\$2,731,721,668
802	0.0000078	\$7,230,284	\$2,411,074	\$6,672,960,290	\$2,734,132,742
803	0.0000077	\$7,230,284	\$2,411,074	\$6,680,190,574	\$2,736,543,816
804	0.0000075	\$7,230,284	\$2,411,074	\$6,687,420,858	\$2,738,954,890
805	0.0000074	\$15,095,284	\$2,411,074	\$6,702,516,142	\$2,741,365,964

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
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806	0.0000073	\$7,230,284	\$2,411,074	\$6,709,746,426	\$2,743,777,038
807	0.0000072	\$7,230,284	\$2,411,074	\$6,716,976,710	\$2,746,188,112
808	0.0000071	\$7,230,284	\$2,411,074	\$6,724,206,994	\$2,748,599,186
809	0.0000070	\$7,230,284	\$2,411,074	\$6,731,437,278	\$2,751,010,260
810	0.0000069	\$7,472,284	\$2,411,074	\$6,738,909,562	\$2,753,421,334
811	0.0000068	\$7,230,284	\$2,411,074	\$6,746,139,846	\$2,755,832,408
812	0.0000067	\$7,230,284	\$2,411,074	\$6,753,370,130	\$2,758,243,482
813	0.0000066	\$7,230,284	\$2,411,074	\$6,760,600,414	\$2,760,654,556
814	0.0000065	\$7,230,284	\$2,411,074	\$6,767,830,698	\$2,763,065,630
815	0.0000064	\$15,095,284	\$2,411,074	\$6,782,925,982	\$2,765,476,704
816	0.0000063	\$7,230,284	\$2,411,074	\$6,790,156,266	\$2,767,887,778
817	0.0000062	\$7,230,284	\$2,411,074	\$6,797,386,550	\$2,770,298,852
818	0.0000061	\$7,230,284	\$2,411,074	\$6,804,616,834	\$2,772,709,926
819	0.0000061	\$7,230,284	\$2,411,074	\$6,811,847,118	\$2,775,121,000
820	0.0000060	\$8,463,424	\$3,402,214	\$6,820,310,542	\$2,778,523,214
821	0.0000059	\$7,230,284	\$2,411,074	\$6,827,540,826	\$2,780,934,288
822	0.0000058	\$7,230,284	\$2,411,074	\$6,834,771,110	\$2,783,345,362
823	0.0000057	\$7,230,284	\$2,411,074	\$6,842,001,394	\$2,785,756,436
824	0.0000056	\$7,230,284	\$2,411,074	\$6,849,231,678	\$2,788,167,510
825	0.0000055	\$7,230,284	\$2,411,074	\$6,856,461,962	\$2,790,578,584
826	0.0000055	\$7,230,284	\$2,411,074	\$6,863,692,246	\$2,792,989,658
827	0.0000054	\$7,230,284	\$2,411,074	\$6,870,922,530	\$2,795,400,732
828	0.0000053	\$7,230,284	\$2,411,074	\$6,878,152,814	\$2,797,811,806
829	0.0000052	\$7,230,284	\$2,411,074	\$6,885,383,098	\$2,800,222,880
830	0.0000052	\$7,472,284	\$2,411,074	\$6,892,855,382	\$2,802,633,954
831	0.0000051	\$7,230,284	\$2,411,074	\$6,900,085,666	\$2,805,045,028
832	0.0000050	\$7,230,284	\$2,411,074	\$6,907,315,950	\$2,807,456,102
833	0.0000049	\$7,230,284	\$2,411,074	\$6,914,546,234	\$2,809,867,176
834	0.0000049	\$7,230,284	\$2,411,074	\$6,921,776,518	\$2,812,278,250
835	0.0000048	\$7,230,284	\$2,411,074	\$6,929,006,802	\$2,814,689,324
836	0.0000047	\$7,230,284	\$6,655,684	\$6,936,237,086	\$2,821,345,008
837	0.0000046	\$7,230,284	\$2,411,074	\$6,943,467,370	\$2,823,756,082
838	0.0000046	\$7,230,284	\$2,411,074	\$6,950,697,654	\$2,826,167,156
839	0.0000045	\$7,230,284	\$2,411,074	\$6,957,927,938	\$2,828,578,230
840	0.0000044	\$7,472,284	\$2,411,074	\$6,965,400,222	\$2,830,989,304
841	0.0000044	\$7,230,284	\$2,411,074	\$6,972,630,506	\$2,833,400,378
842	0.0000043	\$7,230,284	\$2,411,074	\$6,979,860,790	\$2,835,811,452
843	0.0000043	\$7,230,284	\$2,411,074	\$6,987,091,074	\$2,838,222,526
844	0.0000042	\$7,230,284	\$2,411,074	\$6,994,321,358	\$2,840,633,600
845	0.0000041	\$26,590,284	\$2,411,074	\$7,020,911,642	\$2,843,044,674
846	0.0000041	\$7,230,284	\$2,411,074	\$7,028,141,926	\$2,845,455,748
847	0.0000040	\$7,230,284	\$2,411,074	\$7,035,372,210	\$2,847,866,822
848	0.0000040	\$7,230,284	\$2,411,074	\$7,042,602,494	\$2,850,277,896
849	0.0000039	\$7,230,284	\$2,411,074	\$7,049,832,778	\$2,852,688,970
850	0.0000038	\$15,337,284	\$2,411,074	\$7,065,170,062	\$2,855,100,044
851	0.0000038	\$7,230,284	\$2,411,074	\$7,072,400,346	\$2,857,511,118
852	0.0000037	\$7,230,284	\$2,411,074	\$7,079,630,630	\$2,859,922,192
853	0.0000037	\$7,230,284	\$2,411,074	\$7,086,860,914	\$2,862,333,266
854	0.0000036	\$7,230,284	\$2,411,074	\$7,094,091,198	\$2,864,744,340
855	0.0000036	\$15,095,284	\$2,411,074	\$7,109,186,482	\$2,867,155,414
856	0.0000035	\$7,230,284	\$2,411,074	\$7,116,416,766	\$2,869,566,488
857	0.0000035	\$7,230,284	\$2,411,074	\$7,123,647,050	\$2,871,977,562
858	0.0000034	\$7,230,284	\$2,411,074	\$7,130,877,334	\$2,874,388,636
859	0.0000034	\$7,230,284	\$2,411,074	\$7,138,107,618	\$2,876,799,710
860	0.0000033	\$7,472,284	\$2,411,074	\$7,145,579,902	\$2,879,210,784
861	0.0000033	\$7,230,284	\$2,411,074	\$7,152,810,186	\$2,881,621,858
862	0.0000032	\$7,230,284	\$2,411,074	\$7,160,040,470	\$2,884,032,932
863	0.0000032	\$7,230,284	\$2,411,074	\$7,167,270,754	\$2,886,444,006

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

864	0.0000031	\$7,230,284	\$2,411,074	\$7,174,501,038	\$2,888,855,080
865	0.0000031	\$15,095,284	\$2,411,074	\$7,189,596,322	\$2,891,266,154
866	0.0000030	\$7,230,284	\$2,411,074	\$7,196,826,606	\$2,893,677,228
867	0.0000030	\$7,230,284	\$2,411,074	\$7,204,056,890	\$2,896,088,302
868	0.0000029	\$7,230,284	\$2,411,074	\$7,211,287,174	\$2,898,499,376
869	0.0000029	\$7,230,284	\$2,411,074	\$7,218,517,458	\$2,900,910,450
870	0.0000029	\$8,463,424	\$3,402,214	\$7,226,980,882	\$2,904,312,664
871	0.0000028	\$7,230,284	\$2,411,074	\$7,234,211,166	\$2,906,723,738
872	0.0000028	\$7,230,284	\$2,411,074	\$7,241,441,450	\$2,909,134,812
873	0.0000027	\$7,230,284	\$2,411,074	\$7,248,671,734	\$2,911,545,886
874	0.0000027	\$7,230,284	\$2,411,074	\$7,255,902,018	\$2,913,956,960
875	0.0000027	\$7,230,284	\$2,411,074	\$7,263,132,302	\$2,916,368,034
876	0.0000026	\$7,230,284	\$2,411,074	\$7,270,362,587	\$2,918,779,108
877	0.0000026	\$7,230,284	\$2,411,074	\$7,277,592,871	\$2,921,190,182
878	0.0000025	\$7,230,284	\$2,411,074	\$7,284,823,155	\$2,923,601,256
879	0.0000025	\$7,230,284	\$2,411,074	\$7,292,053,439	\$2,926,012,330
880	0.0000025	\$7,472,284	\$2,411,074	\$7,299,525,723	\$2,928,423,404
881	0.0000024	\$7,230,284	\$2,411,074	\$7,306,756,007	\$2,930,834,478
882	0.0000024	\$7,230,284	\$2,411,074	\$7,313,986,291	\$2,933,245,552
883	0.0000024	\$7,230,284	\$2,411,074	\$7,321,216,575	\$2,935,656,626
884	0.0000023	\$7,230,284	\$2,411,074	\$7,328,446,859	\$2,938,067,700
885	0.0000023	\$7,230,284	\$2,411,074	\$7,335,677,143	\$2,940,478,774
886	0.0000023	\$7,230,284	\$6,655,684	\$7,342,907,427	\$2,947,134,458
887	0.0000022	\$7,230,284	\$2,411,074	\$7,350,137,711	\$2,949,545,532
888	0.0000022	\$7,230,284	\$2,411,074	\$7,357,367,995	\$2,951,956,606
889	0.0000022	\$7,230,284	\$2,411,074	\$7,364,598,279	\$2,954,367,680
890	0.0000021	\$7,472,284	\$2,411,074	\$7,372,070,563	\$2,956,778,754
891	0.0000021	\$7,230,284	\$2,411,074	\$7,379,300,847	\$2,959,189,828
892	0.0000021	\$7,230,284	\$2,411,074	\$7,386,531,131	\$2,961,600,902
893	0.0000020	\$7,230,284	\$2,411,074	\$7,393,761,415	\$2,964,011,976
894	0.0000020	\$7,230,284	\$2,411,074	\$7,400,991,699	\$2,966,423,050
895	0.0000020	\$26,590,284	\$2,411,074	\$7,427,581,983	\$2,968,834,124
896	0.0000020	\$7,230,284	\$2,411,074	\$7,434,812,267	\$2,971,245,198
897	0.0000019	\$7,230,284	\$2,411,074	\$7,442,042,551	\$2,973,656,272
898	0.0000019	\$7,230,284	\$2,411,074	\$7,449,272,835	\$2,976,067,346
899	0.0000019	\$7,230,284	\$2,411,074	\$7,456,503,119	\$2,978,478,420
900	0.0000018	\$15,337,284	\$2,411,074	\$7,471,840,403	\$2,980,889,494
901	0.0000018	\$7,230,284	\$2,411,074	\$7,479,070,687	\$2,983,300,568
902	0.0000018	\$7,230,284	\$2,411,074	\$7,486,300,971	\$2,985,711,642
903	0.0000018	\$7,230,284	\$2,411,074	\$7,493,531,255	\$2,988,122,716
904	0.0000017	\$7,230,284	\$2,411,074	\$7,500,761,539	\$2,990,533,790
905	0.0000017	\$15,095,284	\$2,411,074	\$7,515,856,823	\$2,992,944,864
906	0.0000017	\$7,230,284	\$2,411,074	\$7,523,087,107	\$2,995,355,938
907	0.0000017	\$7,230,284	\$2,411,074	\$7,530,317,391	\$2,997,767,012
908	0.0000016	\$7,230,284	\$2,411,074	\$7,537,547,675	\$3,000,178,086
909	0.0000016	\$7,230,284	\$2,411,074	\$7,544,777,959	\$3,002,589,160
910	0.0000016	\$7,472,284	\$2,411,074	\$7,552,250,243	\$3,005,000,234
911	0.0000016	\$7,230,284	\$2,411,074	\$7,559,480,527	\$3,007,411,308
912	0.0000015	\$7,230,284	\$2,411,074	\$7,566,710,811	\$3,009,822,382
913	0.0000015	\$7,230,284	\$2,411,074	\$7,573,941,095	\$3,012,233,456
914	0.0000015	\$7,230,284	\$2,411,074	\$7,581,171,379	\$3,014,644,530
915	0.0000015	\$15,095,284	\$2,411,074	\$7,596,266,663	\$3,017,055,604
916	0.0000015	\$7,230,284	\$2,411,074	\$7,603,496,947	\$3,019,466,678
917	0.0000014	\$7,230,284	\$2,411,074	\$7,610,727,231	\$3,021,877,752
918	0.0000014	\$7,230,284	\$2,411,074	\$7,617,957,515	\$3,024,288,826
919	0.0000014	\$7,230,284	\$2,411,074	\$7,625,187,799	\$3,026,699,900
920	0.0000014	\$8,463,424	\$3,402,214	\$7,633,651,223	\$3,030,102,114
921	0.0000014	\$7,230,284	\$2,411,074	\$7,640,881,507	\$3,032,513,188

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

922	0.0000013	\$7,230,284	\$2,411,074	\$7,648,111,791	\$3,034,924,262
923	0.0000013	\$7,230,284	\$2,411,074	\$7,655,342,075	\$3,037,335,336
924	0.0000013	\$7,230,284	\$2,411,074	\$7,662,572,359	\$3,039,746,410
925	0.0000013	\$7,230,284	\$2,411,074	\$7,669,802,643	\$3,042,157,484
926	0.0000013	\$7,230,284	\$2,411,074	\$7,677,032,927	\$3,044,568,558
927	0.0000012	\$7,230,284	\$2,411,074	\$7,684,263,211	\$3,046,979,632
928	0.0000012	\$7,230,284	\$2,411,074	\$7,691,493,495	\$3,049,390,706
929	0.0000012	\$7,230,284	\$2,411,074	\$7,698,723,779	\$3,051,801,780
930	0.0000012	\$7,472,284	\$2,411,074	\$7,706,196,063	\$3,054,212,854
931	0.0000012	\$7,230,284	\$2,411,074	\$7,713,426,347	\$3,056,623,928
932	0.0000012	\$7,230,284	\$2,411,074	\$7,720,656,631	\$3,059,035,002
933	0.0000011	\$7,230,284	\$2,411,074	\$7,727,886,915	\$3,061,446,076
934	0.0000011	\$7,230,284	\$2,411,074	\$7,735,117,199	\$3,063,857,150
935	0.0000011	\$7,230,284	\$2,411,074	\$7,742,347,483	\$3,066,268,224
936	0.0000011	\$7,230,284	\$6,655,684	\$7,749,577,767	\$3,072,923,908
937	0.0000011	\$7,230,284	\$2,411,074	\$7,756,808,051	\$3,075,334,982
938	0.0000011	\$7,230,284	\$2,411,074	\$7,764,038,335	\$3,077,746,056
939	0.0000010	\$7,230,284	\$2,411,074	\$7,771,268,619	\$3,080,157,130
940	0.0000010	\$7,472,284	\$2,411,074	\$7,778,740,903	\$3,082,568,204
941	0.0000010	\$7,230,284	\$2,411,074	\$7,785,971,187	\$3,084,979,278
942	0.0000010	\$7,230,284	\$2,411,074	\$7,793,201,471	\$3,087,390,352
943	0.0000010	\$7,230,284	\$2,411,074	\$7,800,431,755	\$3,089,801,426
944	0.0000010	\$7,230,284	\$2,411,074	\$7,807,662,039	\$3,092,212,500
945	0.0000010	\$26,590,284	\$2,411,074	\$7,834,252,323	\$3,094,623,574
946	0.0000009	\$7,230,284	\$2,411,074	\$7,841,482,607	\$3,097,034,648
947	0.0000009	\$7,230,284	\$2,411,074	\$7,848,712,891	\$3,099,445,722
948	0.0000009	\$7,230,284	\$2,411,074	\$7,855,943,175	\$3,101,856,796
949	0.0000009	\$7,230,284	\$2,411,074	\$7,863,173,459	\$3,104,267,870
950	0.0000009	\$15,337,284	\$2,411,074	\$7,878,510,743	\$3,106,678,944
951	0.0000009	\$7,230,284	\$2,411,074	\$7,885,741,027	\$3,109,090,018
952	0.0000009	\$7,230,284	\$2,411,074	\$7,892,971,311	\$3,111,501,092
953	0.0000008	\$7,230,284	\$2,411,074	\$7,900,201,595	\$3,113,912,166
954	0.0000008	\$7,230,284	\$2,411,074	\$7,907,431,879	\$3,116,323,240
955	0.0000008	\$15,095,284	\$2,411,074	\$7,922,527,163	\$3,118,734,314
956	0.0000008	\$7,230,284	\$2,411,074	\$7,929,757,447	\$3,121,145,388
957	0.0000008	\$7,230,284	\$2,411,074	\$7,936,987,731	\$3,123,556,462
958	0.0000008	\$7,230,284	\$2,411,074	\$7,944,218,015	\$3,125,967,536
959	0.0000008	\$7,230,284	\$2,411,074	\$7,951,448,299	\$3,128,378,610
960	0.0000008	\$7,472,284	\$2,411,074	\$7,958,920,583	\$3,130,789,684
961	0.0000008	\$7,230,284	\$2,411,074	\$7,966,150,867	\$3,133,200,758
962	0.0000007	\$7,230,284	\$2,411,074	\$7,973,381,151	\$3,135,611,832
963	0.0000007	\$7,230,284	\$2,411,074	\$7,980,611,435	\$3,138,022,906
964	0.0000007	\$7,230,284	\$2,411,074	\$7,987,841,719	\$3,140,433,980
965	0.0000007	\$15,095,284	\$2,411,074	\$8,002,937,003	\$3,142,845,054
966	0.0000007	\$7,230,284	\$2,411,074	\$8,010,167,287	\$3,145,256,128
967	0.0000007	\$7,230,284	\$2,411,074	\$8,017,397,571	\$3,147,667,202
968	0.0000007	\$7,230,284	\$2,411,074	\$8,024,627,855	\$3,150,078,276
969	0.0000007	\$7,230,284	\$2,411,074	\$8,031,858,139	\$3,152,489,350
970	0.0000007	\$8,463,424	\$3,402,214	\$8,040,321,563	\$3,155,891,564
971	0.0000007	\$7,230,284	\$2,411,074	\$8,047,551,847	\$3,158,302,638
972	0.0000006	\$7,230,284	\$2,411,074	\$8,054,782,131	\$3,160,713,712
973	0.0000006	\$7,230,284	\$2,411,074	\$8,062,012,415	\$3,163,124,786
974	0.0000006	\$7,230,284	\$2,411,074	\$8,069,242,699	\$3,165,535,860
975	0.0000006	\$7,230,284	\$2,411,074	\$8,076,472,983	\$3,167,946,934
976	0.0000006	\$7,230,284	\$2,411,074	\$8,083,703,268	\$3,170,358,008
977	0.0000006	\$7,230,284	\$2,411,074	\$8,090,933,552	\$3,172,769,082
978	0.0000006	\$7,230,284	\$2,411,074	\$8,098,163,836	\$3,175,180,156
979	0.0000006	\$7,230,284	\$2,411,074	\$8,105,394,120	\$3,177,591,230

SUMMARY OF ESTIMATED COSTS

Comparison by Remedial Alternative

Site: HMC Grants Reclamation Project
Location: Grants, NM
Phase: ACL Application
Base Year:
For: 1,000 years
Date:

Alternative Descriptions:

- 1) No Action (Continued Groundwater Containment and Re
- 2) Groundwater Containment and Removal and In Situ Tre
- 3) Alternative Concentration Limits and Institutional Control

980	0.0000006	\$7,472,284	\$2,411,074	\$8,112,866,404	\$3,180,002,304
981	0.0000006	\$7,230,284	\$2,411,074	\$8,120,096,688	\$3,182,413,378
982	0.0000006	\$7,230,284	\$2,411,074	\$8,127,326,972	\$3,184,824,452
983	0.0000005	\$7,230,284	\$2,411,074	\$8,134,557,256	\$3,187,235,526
984	0.0000005	\$7,230,284	\$2,411,074	\$8,141,787,540	\$3,189,646,600
985	0.0000005	\$7,230,284	\$2,411,074	\$8,149,017,824	\$3,192,057,674
986	0.0000005	\$7,230,284	\$6,655,684	\$8,156,248,108	\$3,198,713,358
987	0.0000005	\$7,230,284	\$2,411,074	\$8,163,478,392	\$3,201,124,432
988	0.0000005	\$7,230,284	\$2,411,074	\$8,170,708,676	\$3,203,535,506
989	0.0000005	\$7,230,284	\$2,411,074	\$8,177,938,960	\$3,205,946,580
990	0.0000005	\$7,472,284	\$2,411,074	\$8,185,411,244	\$3,208,357,654
991	0.0000005	\$7,230,284	\$2,411,074	\$8,192,641,528	\$3,210,768,728
992	0.0000005	\$7,230,284	\$2,411,074	\$8,199,871,812	\$3,213,179,802
993	0.0000005	\$7,230,284	\$2,411,074	\$8,207,102,096	\$3,215,590,876
994	0.0000005	\$7,230,284	\$2,411,074	\$8,214,332,380	\$3,218,001,950
995	0.0000005	\$26,590,284	\$2,411,074	\$8,240,922,664	\$3,220,413,024
996	0.0000005	\$7,230,284	\$2,411,074	\$8,248,152,948	\$3,222,824,098
997	0.0000004	\$7,230,284	\$2,411,074	\$8,255,383,232	\$3,225,235,172
998	0.0000004	\$7,230,284	\$2,411,074	\$8,262,613,516	\$3,227,646,246
999	0.0000004	\$7,230,284	\$2,411,074	\$8,269,843,800	\$3,230,057,320
1,000	0.0000004	\$7,230,284	\$2,411,074	\$8,277,074,084	\$3,232,468,394
1,001	0.0000004	\$9,807,538	\$2,319,084	\$8,286,881,621	\$3,234,787,478
1,002	0.0000004	\$6,545,019	\$2,319,084	\$8,293,426,640	\$3,237,106,562
1,003	0.0000004	\$6,519,084	\$4,819,084	\$8,299,945,724	\$3,241,925,646

COST ESTIMATE SUMMARY

Sheet 7

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CUMULATIVE DISCOUNTED COSTS BY ALTERNATIVE

Alt 1	Alt 2	Alt 3
\$318,548,475	\$251,753,065	\$28,943,053
\$20,123,844	\$20,121,744	\$5,642,329
\$34,899,307	\$34,897,207	\$20,538,808
\$42,307,257	\$42,305,157	\$23,165,512
\$49,078,350	\$49,076,250	\$25,145,048
\$55,501,387	\$55,499,295	\$27,022,831
\$67,635,285	\$67,633,201	\$28,943,053
\$73,414,989	\$73,412,904	
\$78,897,604	\$78,895,520	
\$84,098,403	\$84,096,319	
\$89,031,871	\$89,029,787	
\$93,854,514	\$93,852,436	
\$98,293,838	\$98,291,760	
\$102,504,973	\$102,502,894	
\$106,499,647	\$106,497,569	
\$110,288,988	\$110,286,909	
\$113,883,549	\$113,881,471	
\$117,293,343	\$117,291,265	
\$120,527,868	\$120,525,790	
\$123,596,132	\$123,594,053	
\$126,506,681	\$126,504,603	
\$132,434,254	\$132,432,179	
\$135,053,278	\$135,051,203	
\$137,537,679	\$137,535,604	
\$139,894,378	\$139,892,303	
\$142,129,937	\$142,127,863	
\$144,250,585	\$144,248,510	
\$146,262,228	\$146,260,153	
\$148,170,468	\$148,168,393	
\$149,980,622	\$149,978,547	
\$151,697,730	\$151,695,655	
\$153,376,265	\$153,374,192	
\$154,921,382	\$154,919,311	
\$156,387,078	\$156,385,009	
\$157,777,435	\$157,775,367	
\$159,096,324	\$159,094,258	
\$160,347,420	\$160,394,540	
\$161,534,207	\$162,216,366	
\$162,659,992	\$163,095,640	
\$163,727,909	\$163,893,880	
\$164,740,933	\$164,651,089	
\$165,731,201	\$165,398,692	
\$166,642,759	\$166,080,057	
\$167,507,461	\$166,726,399	
\$168,327,716	\$167,339,518	
\$169,105,808	\$167,921,122	
\$172,208,227	\$168,472,830	
\$172,908,384	\$168,996,179	
\$173,572,552	\$169,492,627	
\$174,202,580	\$169,963,557	
\$174,800,224	\$170,410,280	
\$175,946,541	\$171,845,817	
\$176,484,323	\$172,247,795	

COST ESTIMATE SUMMARY

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\$176,994,463	\$172,629,111
\$177,478,381	\$172,990,827
\$177,937,424	\$173,333,950
\$178,804,613	\$174,091,177
\$179,217,678	\$174,399,932
\$179,609,510	\$174,692,816
\$179,981,202	\$174,970,646
\$180,333,788	\$175,234,195
\$180,678,454	\$175,494,400
\$180,995,724	\$175,731,552
\$181,296,686	\$175,956,513
\$181,582,178	\$176,169,911
\$181,852,995	\$176,372,340
\$182,109,892	\$176,564,363
\$182,353,584	\$176,746,516
\$182,584,749	\$176,919,307
\$182,804,033	\$177,083,215
\$183,012,044	\$177,238,698
\$183,435,678	\$177,612,503
\$183,622,854	\$177,752,413
\$183,800,410	\$177,885,131
\$183,968,839	\$178,011,027
\$184,128,610	\$178,130,452
\$184,280,169	\$178,243,739
\$184,423,938	\$178,351,202
\$184,560,316	\$178,453,141
\$184,689,684	\$178,549,841
\$184,812,403	\$178,641,569
\$184,932,365	\$178,732,135
\$185,042,792	\$178,814,676
\$185,147,543	\$178,892,974
\$185,246,909	\$178,967,248
\$185,341,168	\$179,037,704
\$185,430,581	\$179,104,538
\$185,515,399	\$179,213,322
\$185,595,857	\$179,273,463
\$185,672,179	\$179,330,511
\$185,744,578	\$179,384,628
\$185,815,351	\$179,438,058
\$185,880,498	\$179,486,754
\$185,942,297	\$179,532,947
\$186,000,919	\$179,576,765
\$186,056,528	\$179,618,331
\$186,278,253	\$179,657,761
\$186,328,292	\$179,695,164
\$186,375,759	\$179,730,644
\$186,420,786	\$179,764,301
\$186,463,498	\$179,796,227
\$186,545,423	\$179,898,822
\$188,348,117	\$181,246,289
\$190,124,558	\$182,574,132
\$191,875,129	\$183,882,638
\$193,600,205	\$185,172,087
\$196,985,643	\$188,128,242
\$198,660,841	\$189,380,409
\$200,311,643	\$190,614,340
\$201,938,403	\$191,830,301
\$203,541,474	\$193,028,554

COST ESTIMATE SUMMARY

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\$205,169,391	\$194,257,549
\$206,726,110	\$195,421,156
\$208,260,158	\$196,567,817
\$209,771,865	\$197,697,778
\$211,261,558	\$198,811,285
\$212,729,556	\$199,908,574
\$214,176,175	\$200,989,884
\$215,601,727	\$202,055,447
\$217,006,518	\$203,105,492
\$218,390,852	\$204,140,245
\$221,319,651	\$206,724,555
\$222,663,958	\$207,729,389
\$223,988,687	\$208,719,590
\$225,294,124	\$209,695,370
\$226,580,550	\$210,656,939
\$227,848,242	\$211,604,506
\$229,097,472	\$212,538,272
\$230,328,509	\$213,458,441
\$231,541,619	\$214,365,208
\$232,737,062	\$215,258,771
\$233,951,034	\$216,175,258
\$235,111,912	\$217,042,984
\$236,255,883	\$217,898,073
\$237,383,195	\$218,740,709
\$238,494,090	\$219,571,074
\$239,588,807	\$220,389,346
\$240,667,581	\$221,772,943
\$241,730,645	\$222,567,555
\$242,778,228	\$223,350,596
\$243,810,554	\$224,122,232
\$244,858,881	\$224,913,667
\$245,861,359	\$225,662,993
\$246,849,237	\$226,401,406
\$247,822,729	\$227,129,065
\$248,782,044	\$227,846,128
\$252,755,579	\$228,552,748
\$253,687,156	\$229,249,078
\$254,605,166	\$229,935,266
\$255,509,807	\$230,611,462
\$256,401,274	\$231,277,810
\$258,177,565	\$231,934,454
\$258,990,695	\$232,888,666
\$259,768,258	\$233,453,268
\$260,534,497	\$233,772,371
\$261,289,578	\$234,024,167
\$262,843,066	\$234,272,295
\$263,576,314	\$234,516,811
\$264,298,884	\$234,757,765
\$265,010,931	\$234,995,211
\$265,712,608	\$235,229,198
\$266,427,210	\$235,459,778
\$267,108,599	\$235,687,000
\$267,780,064	\$235,910,913
\$268,441,751	\$236,131,565
\$269,093,802	\$236,349,003
\$270,435,319	\$236,563,275
\$271,068,516	\$236,774,427
\$271,692,492	\$236,982,503

COST ESTIMATE SUMMARY

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\$272,307,381	\$237,187,549
\$272,913,316	\$237,389,610
\$273,612,264	\$237,670,580
\$274,200,678	\$237,866,798
\$274,780,523	\$238,060,158
\$275,351,924	\$238,250,702
\$275,915,003	\$238,438,472
\$276,469,882	\$238,623,507
\$277,016,681	\$238,805,847
\$277,555,516	\$238,985,532
\$278,086,504	\$239,162,600
\$278,609,760	\$239,337,089
\$279,142,653	\$239,509,037
\$279,650,779	\$239,678,481
\$280,151,505	\$239,845,458
\$280,644,939	\$240,010,003
\$281,131,187	\$240,172,151
\$281,610,354	\$240,331,938
\$282,082,542	\$240,496,601
\$282,547,854	\$240,664,768
\$283,006,390	\$240,834,676
\$283,458,248	\$241,006,356
\$283,918,429	\$241,180,842
\$284,357,222	\$241,358,166
\$284,789,624	\$241,538,359
\$285,215,730	\$241,720,452
\$285,635,630	\$241,904,475
\$287,157,377	\$242,091,460
\$287,565,136	\$242,281,434
\$287,966,957	\$242,474,429
\$288,362,926	\$242,670,472
\$288,753,128	\$242,869,593
\$289,142,793	\$243,071,818
\$289,529,713	\$243,277,176
\$290,000,115	\$243,484,694
\$290,379,079	\$243,694,399
\$290,752,685	\$243,906,316
\$291,120,702	\$244,120,473
\$291,488,823	\$244,336,894
\$291,851,816	\$244,555,605
\$292,210,755	\$244,776,632
\$292,565,715	\$245,000,997
\$292,916,882	\$245,228,726
\$293,274,099	\$245,459,843
\$293,637,551	\$245,693,371
\$294,006,306	\$245,929,332
\$294,381,435	\$246,167,751
\$294,762,659	\$246,408,649
\$295,149,733	\$246,651,048
\$295,542,380	\$246,895,971
\$295,940,662	\$247,143,438
\$296,344,644	\$247,393,472
\$296,754,294	\$247,645,399
\$297,169,862	\$247,899,627
\$297,590,316	\$248,156,483
\$298,016,714	\$248,415,986
\$298,449,117	\$248,678,157
\$298,887,581	\$248,943,014

COST ESTIMATE SUMMARY

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\$298,604,165	\$245,535,578
\$298,862,925	\$245,621,866
\$299,117,916	\$245,706,898
\$299,369,195	\$245,790,691
\$299,625,101	\$245,873,265
\$299,869,114	\$245,954,635
\$300,109,573	\$246,034,821
\$300,346,530	\$246,113,839
\$300,580,036	\$246,191,706
\$300,810,142	\$246,268,439
\$301,036,897	\$246,477,173
\$301,260,349	\$246,551,687
\$301,480,547	\$246,625,117
\$301,697,539	\$246,697,476
\$301,918,527	\$246,768,783
\$302,129,245	\$246,839,050
\$302,336,893	\$246,908,295
\$302,541,518	\$246,976,531
\$302,743,163	\$247,043,773
\$303,473,937	\$247,110,036
\$303,669,751	\$247,175,334
\$303,862,714	\$247,239,681
\$304,052,867	\$247,303,091
\$304,240,250	\$247,365,577
\$304,631,949	\$247,427,154
\$304,813,915	\$247,487,833
\$304,993,230	\$247,547,629
\$305,169,934	\$247,606,555
\$305,344,064	\$247,664,622
\$305,702,317	\$247,721,843
\$305,871,413	\$247,778,231
\$306,038,046	\$247,833,798
\$306,202,253	\$247,888,556
\$306,364,068	\$247,942,516
\$306,528,864	\$247,995,691
\$306,686,000	\$248,048,091
\$306,840,848	\$248,099,728
\$306,993,441	\$248,150,613
\$307,143,812	\$248,200,757
\$307,453,181	\$248,250,170
\$307,599,204	\$248,298,865
\$307,743,101	\$248,346,849
\$307,884,901	\$248,394,136
\$308,024,637	\$248,440,733
\$308,185,823	\$248,505,528
\$308,321,518	\$248,550,778
\$308,455,237	\$248,595,370
\$308,587,009	\$248,639,311
\$308,716,862	\$248,682,613
\$308,844,824	\$248,725,284
\$308,970,922	\$248,767,334
\$309,095,184	\$248,808,772
\$309,217,636	\$248,849,606
\$309,338,305	\$248,889,845
\$309,461,196	\$248,929,498
\$309,578,376	\$248,968,574
\$309,693,850	\$249,007,081
\$309,807,641	\$249,045,027

COST ESTIMATE SUMMARY

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\$309,919,776	\$249,082,420
\$310,030,278	\$249,119,269
\$310,139,170	\$249,219,508
\$310,246,476	\$249,255,291
\$310,352,220	\$249,290,553
\$310,456,424	\$249,325,302
\$310,562,547	\$249,359,545
\$310,663,738	\$249,393,289
\$310,763,455	\$249,426,541
\$310,861,720	\$249,459,309
\$310,958,554	\$249,491,601
\$311,309,487	\$249,523,421
\$311,403,521	\$249,554,779
\$311,496,186	\$249,585,680
\$311,587,501	\$249,616,130
\$311,677,487	\$249,646,138
\$311,865,589	\$249,675,708
\$311,952,972	\$249,704,848
\$312,039,083	\$249,733,563
\$312,123,940	\$249,761,860
\$312,207,561	\$249,789,745
\$312,379,602	\$249,817,224
\$312,460,805	\$249,844,303
\$312,540,825	\$249,870,987
\$312,619,681	\$249,897,283
\$312,697,388	\$249,923,196
\$312,776,526	\$249,948,731
\$312,851,986	\$249,973,895
\$312,926,347	\$249,998,692
\$312,999,626	\$250,023,128
\$313,071,837	\$250,047,208
\$313,220,403	\$250,070,938
\$313,290,526	\$250,094,322
\$313,359,628	\$250,117,365
\$313,427,723	\$250,140,073
\$313,494,827	\$250,162,450
\$313,572,232	\$250,193,566
\$313,637,396	\$250,215,296
\$313,701,611	\$250,236,709
\$313,764,890	\$250,257,811
\$313,827,248	\$250,278,606
\$313,888,698	\$250,299,097
\$313,949,253	\$250,319,290
\$314,008,926	\$250,339,190
\$314,067,730	\$250,358,799
\$314,125,678	\$250,378,123
\$314,184,693	\$250,397,165
\$314,240,965	\$250,415,930
\$314,296,418	\$250,434,422
\$314,351,063	\$250,452,644
\$314,404,913	\$250,470,601
\$314,457,978	\$250,488,297
\$314,510,270	\$250,536,433
\$314,561,801	\$250,553,617
\$314,612,581	\$250,570,551
\$314,662,622	\$250,587,238
\$314,713,585	\$250,603,682
\$314,762,178	\$250,619,887

COST ESTIMATE SUMMARY

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\$314,810,065	\$250,635,855
\$314,857,254	\$250,651,591
\$314,903,755	\$250,667,098
\$315,072,281	\$250,682,379
\$315,117,438	\$250,697,438
\$315,161,937	\$250,712,277
\$315,205,789	\$250,726,900
\$315,249,001	\$250,741,310
\$315,339,332	\$250,755,510
\$315,381,295	\$250,769,504
\$315,422,648	\$250,783,294
\$315,463,398	\$250,796,882
\$315,503,554	\$250,810,273
\$315,586,172	\$250,823,469
\$315,625,167	\$250,836,473
\$315,663,595	\$250,849,287
\$315,701,463	\$250,861,915
\$315,738,779	\$250,874,359
\$315,776,783	\$250,886,622
\$315,813,021	\$250,898,706
\$315,848,730	\$250,910,614
\$315,883,920	\$250,922,349
\$315,918,597	\$250,933,912
\$315,989,942	\$250,945,308
\$316,023,616	\$250,956,537
\$316,056,801	\$250,967,603
\$316,089,501	\$250,978,508
\$316,121,726	\$250,989,254
\$316,158,898	\$251,004,196
\$316,190,191	\$251,014,632
\$316,221,028	\$251,024,915
\$316,251,416	\$251,035,048
\$316,281,362	\$251,045,034
\$316,310,871	\$251,054,875
\$316,339,951	\$251,064,572
\$316,368,607	\$251,074,128
\$316,396,846	\$251,083,545
\$316,424,674	\$251,092,824
\$316,453,014	\$251,101,969
\$316,480,037	\$251,110,980
\$316,506,667	\$251,119,860
\$316,532,908	\$251,128,611
\$316,558,768	\$251,137,235
\$316,584,251	\$251,145,732
\$316,609,363	\$251,168,849
\$316,634,109	\$251,177,101
\$316,658,495	\$251,185,233
\$316,682,525	\$251,193,246
\$316,706,999	\$251,201,143
\$316,730,334	\$251,208,925
\$316,753,330	\$251,216,593
\$316,775,991	\$251,224,150
\$316,798,323	\$251,231,596
\$316,879,252	\$251,238,935
\$316,900,937	\$251,246,166
\$316,922,307	\$251,253,292
\$316,943,365	\$251,260,314
\$316,964,117	\$251,267,235

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\$317,007,495	\$251,274,054
\$317,027,647	\$251,280,774
\$317,047,505	\$251,287,396
\$317,067,074	\$251,293,921
\$317,086,358	\$251,300,352
\$317,126,033	\$251,306,689
\$317,144,759	\$251,312,934
\$317,163,213	\$251,319,088
\$317,181,398	\$251,325,152
\$317,199,318	\$251,331,127
\$317,217,568	\$251,337,016
\$317,234,971	\$251,342,819
\$317,252,119	\$251,348,538
\$317,269,018	\$251,354,173
\$317,285,671	\$251,359,726
\$317,319,932	\$251,365,198
\$317,336,103	\$251,370,591
\$317,352,039	\$251,375,905
\$317,367,742	\$251,381,142
\$317,383,217	\$251,386,302
\$317,401,068	\$251,393,478
\$317,416,095	\$251,398,489
\$317,430,904	\$251,403,427
\$317,445,497	\$251,408,294
\$317,459,878	\$251,413,089
\$317,474,049	\$251,417,815
\$317,488,013	\$251,422,472
\$317,501,775	\$251,427,061
\$317,515,336	\$251,431,583
\$317,528,699	\$251,436,039
\$317,542,309	\$251,440,430
\$317,555,286	\$251,444,758
\$317,568,074	\$251,449,022
\$317,580,676	\$251,453,225
\$317,593,094	\$251,457,366
\$317,605,331	\$251,461,446
\$317,617,390	\$251,472,547
\$317,629,274	\$251,476,510
\$317,640,985	\$251,480,415
\$317,652,525	\$251,484,264
\$317,664,277	\$251,488,056
\$317,675,484	\$251,491,793
\$317,686,527	\$251,495,475
\$317,697,409	\$251,499,104
\$317,708,133	\$251,502,680
\$317,746,997	\$251,506,204
\$317,757,411	\$251,509,677
\$317,767,673	\$251,513,099
\$317,777,785	\$251,516,471
\$317,787,751	\$251,519,794
\$317,808,582	\$251,523,069
\$317,818,259	\$251,526,296
\$317,827,796	\$251,529,476
\$317,837,193	\$251,532,610
\$317,846,454	\$251,535,698
\$317,865,506	\$251,538,741
\$317,874,499	\$251,541,740
\$317,883,361	\$251,544,695

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\$317,892,094	\$251,547,607
\$317,900,699	\$251,550,477
\$317,909,464	\$251,553,305
\$317,917,820	\$251,556,092
\$317,926,055	\$251,558,838
\$317,934,171	\$251,561,544
\$317,942,168	\$251,564,211
\$317,958,620	\$251,566,839
\$317,966,386	\$251,569,428
\$317,974,039	\$251,571,980
\$317,981,580	\$251,574,495
\$317,989,012	\$251,576,973
\$317,997,584	\$251,580,419
\$318,004,800	\$251,582,826
\$318,011,912	\$251,585,197
\$318,018,920	\$251,587,534
\$318,025,825	\$251,589,837
\$318,032,631	\$251,592,106
\$318,039,337	\$251,594,342
\$318,045,945	\$251,596,546
\$318,052,457	\$251,598,718
\$318,058,875	\$251,600,858
\$318,065,410	\$251,602,967
\$318,071,642	\$251,605,045
\$318,077,783	\$251,607,093
\$318,083,835	\$251,609,111
\$318,089,799	\$251,611,099
\$318,095,675	\$251,613,059
\$318,101,466	\$251,618,390
\$318,107,173	\$251,620,293
\$318,112,797	\$251,622,168
\$318,118,338	\$251,624,016
\$318,123,982	\$251,625,837
\$318,129,364	\$251,627,632
\$318,134,667	\$251,629,400
\$318,139,893	\$251,631,143
\$318,145,043	\$251,632,860
\$318,163,706	\$251,634,553
\$318,168,707	\$251,636,220
\$318,173,635	\$251,637,864
\$318,178,491	\$251,639,483
\$318,183,277	\$251,641,079
\$318,193,280	\$251,642,651
\$318,197,928	\$251,644,201
\$318,202,507	\$251,645,728
\$318,207,020	\$251,647,233
\$318,211,467	\$251,648,716
\$318,220,617	\$251,650,177
\$318,224,935	\$251,651,618
\$318,229,191	\$251,653,037
\$318,233,384	\$251,654,435
\$318,237,517	\$251,655,813
\$318,241,726	\$251,657,171
\$318,245,739	\$251,658,510
\$318,249,694	\$251,659,828
\$318,253,591	\$251,661,128
\$318,257,431	\$251,662,408
\$318,265,332	\$251,663,670

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\$318,269,061	\$251,664,914
\$318,272,736	\$251,666,140
\$318,276,358	\$251,667,347
\$318,279,926	\$251,668,537
\$318,284,043	\$251,670,192
\$318,287,508	\$251,671,348
\$318,290,924	\$251,672,486
\$318,294,289	\$251,673,609
\$318,297,605	\$251,674,715
\$318,300,873	\$251,675,804
\$318,304,094	\$251,676,878
\$318,307,267	\$251,677,937
\$318,310,394	\$251,678,979
\$318,313,476	\$251,680,007
\$318,316,615	\$251,681,020
\$318,319,607	\$251,682,018
\$318,322,556	\$251,683,001
\$318,325,463	\$251,683,970
\$318,328,326	\$251,684,925
\$318,331,149	\$251,685,866
\$318,333,930	\$251,688,426
\$318,336,670	\$251,689,340
\$318,339,371	\$251,690,241
\$318,342,032	\$251,691,128
\$318,344,742	\$251,692,003
\$318,347,326	\$251,692,865
\$318,349,873	\$251,693,714
\$318,352,383	\$251,694,551
\$318,354,856	\$251,695,375
\$318,363,818	\$251,696,188
\$318,366,220	\$251,696,989
\$318,368,586	\$251,697,778
\$318,370,918	\$251,698,556
\$318,373,217	\$251,699,322
\$318,378,021	\$251,700,077
\$318,380,252	\$251,700,821
\$318,382,451	\$251,701,555
\$318,384,619	\$251,702,278
\$318,386,754	\$251,702,990
\$318,391,148	\$251,703,691
\$318,393,222	\$251,704,383
\$318,395,265	\$251,705,065
\$318,397,279	\$251,705,736
\$318,399,264	\$251,706,398
\$318,401,285	\$251,707,050
\$318,403,212	\$251,707,693
\$318,405,111	\$251,708,326
\$318,406,983	\$251,708,950
\$318,408,827	\$251,709,565
\$318,412,621	\$251,710,171
\$318,414,412	\$251,710,768
\$318,416,177	\$251,711,357
\$318,417,916	\$251,711,937
\$318,419,630	\$251,712,508
\$318,421,607	\$251,713,303
\$318,423,271	\$251,713,858
\$318,424,911	\$251,714,405
\$318,426,527	\$251,714,944

COST ESTIMATE SUMMARY

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\$318,428,119	\$251,715,475
\$318,429,689	\$251,715,998
\$318,431,235	\$251,716,514
\$318,432,759	\$251,717,022
\$318,434,261	\$251,717,523
\$318,435,741	\$251,718,016
\$318,437,248	\$251,718,503
\$318,438,685	\$251,718,982
\$318,440,102	\$251,719,454
\$318,441,497	\$251,719,919
\$318,442,872	\$251,720,378
\$318,444,228	\$251,720,830
\$318,445,563	\$251,722,059
\$318,446,879	\$251,722,498
\$318,448,176	\$251,722,931
\$318,449,454	\$251,723,357
\$318,450,756	\$251,723,777
\$318,451,997	\$251,724,191
\$318,453,220	\$251,724,599
\$318,454,425	\$251,725,000
\$318,455,612	\$251,725,396
\$318,459,916	\$251,725,787
\$318,461,070	\$251,726,171
\$318,462,206	\$251,726,550
\$318,463,326	\$251,726,924
\$318,464,430	\$251,727,292
\$318,466,737	\$251,727,654
\$318,467,808	\$251,728,012
\$318,468,864	\$251,728,364
\$318,469,905	\$251,728,711
\$318,470,931	\$251,729,053
\$318,473,041	\$251,729,390
\$318,474,037	\$251,729,722
\$318,475,018	\$251,730,049
\$318,475,985	\$251,730,372
\$318,476,938	\$251,730,690
\$318,477,909	\$251,731,003
\$318,478,834	\$251,731,311
\$318,479,746	\$251,731,616
\$318,480,645	\$251,731,915
\$318,481,530	\$251,732,211
\$318,483,353	\$251,732,502
\$318,484,213	\$251,732,788
\$318,485,060	\$251,733,071
\$318,485,895	\$251,733,350
\$318,486,718	\$251,733,624
\$318,487,668	\$251,734,006
\$318,488,467	\$251,734,272
\$318,489,254	\$251,734,535
\$318,490,030	\$251,734,794
\$318,490,795	\$251,735,049
\$318,491,549	\$251,735,300
\$318,492,291	\$251,735,548
\$318,493,023	\$251,735,792
\$318,493,744	\$251,736,032
\$318,494,455	\$251,736,269
\$318,495,179	\$251,736,503
\$318,495,869	\$251,736,733

COST ESTIMATE SUMMARY

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\$318,496,549	\$251,736,960
\$318,497,219	\$251,737,183
\$318,497,880	\$251,737,403
\$318,498,531	\$251,737,620
\$318,499,172	\$251,738,211
\$318,499,804	\$251,738,421
\$318,500,427	\$251,738,629
\$318,501,040	\$251,738,834
\$318,501,665	\$251,739,035
\$318,502,261	\$251,739,234
\$318,502,849	\$251,739,430
\$318,503,428	\$251,739,623
\$318,503,998	\$251,739,813
\$318,506,065	\$251,740,001
\$318,506,618	\$251,740,185
\$318,507,164	\$251,740,367
\$318,507,702	\$251,740,547
\$318,508,232	\$251,740,723
\$318,509,340	\$251,740,897
\$318,509,855	\$251,741,069
\$318,510,362	\$251,741,238
\$318,510,861	\$251,741,405
\$318,511,354	\$251,741,569
\$318,512,367	\$251,741,731
\$318,512,845	\$251,741,890
\$318,513,317	\$251,742,048
\$318,513,781	\$251,742,202
\$318,514,239	\$251,742,355
\$318,514,705	\$251,742,505
\$318,515,149	\$251,742,654
\$318,515,587	\$251,742,800
\$318,516,019	\$251,742,944
\$318,516,444	\$251,743,085
\$318,517,319	\$251,743,225
\$318,517,732	\$251,743,363
\$318,518,139	\$251,743,499
\$318,518,540	\$251,743,632
\$318,518,935	\$251,743,764
\$318,519,391	\$251,743,947
\$318,519,775	\$251,744,075
\$318,520,153	\$251,744,202
\$318,520,526	\$251,744,326
\$318,520,893	\$251,744,448
\$318,521,255	\$251,744,569
\$318,521,612	\$251,744,688
\$318,521,963	\$251,744,805
\$318,522,310	\$251,744,921
\$318,522,651	\$251,745,034
\$318,522,999	\$251,745,147
\$318,523,330	\$251,745,257
\$318,523,657	\$251,745,366
\$318,523,978	\$251,745,473
\$318,524,296	\$251,745,579
\$318,524,608	\$251,745,683
\$318,524,916	\$251,745,967
\$318,525,220	\$251,746,068
\$318,525,519	\$251,746,168
\$318,525,813	\$251,746,266

COST ESTIMATE SUMMARY

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\$318,526,113	\$251,746,363
\$318,526,400	\$251,746,458
\$318,526,682	\$251,746,552
\$318,526,960	\$251,746,645
\$318,527,233	\$251,746,736
\$318,528,226	\$251,746,826
\$318,528,492	\$251,746,915
\$318,528,754	\$251,747,002
\$318,529,012	\$251,747,089
\$318,529,267	\$251,747,173
\$318,529,799	\$251,747,257
\$318,530,046	\$251,747,340
\$318,530,290	\$251,747,421
\$318,530,530	\$251,747,501
\$318,530,766	\$251,747,580
\$318,531,253	\$251,747,657
\$318,531,482	\$251,747,734
\$318,531,709	\$251,747,809
\$318,531,932	\$251,747,884
\$318,532,151	\$251,747,957
\$318,532,375	\$251,748,029
\$318,532,589	\$251,748,100
\$318,532,799	\$251,748,171
\$318,533,006	\$251,748,240
\$318,533,211	\$251,748,308
\$318,533,631	\$251,748,375
\$318,533,829	\$251,748,441
\$318,534,024	\$251,748,506
\$318,534,217	\$251,748,570
\$318,534,407	\$251,748,634
\$318,534,626	\$251,748,722
\$318,534,810	\$251,748,783
\$318,534,992	\$251,748,844
\$318,535,171	\$251,748,903
\$318,535,347	\$251,748,962
\$318,535,521	\$251,749,020
\$318,535,692	\$251,749,077
\$318,535,861	\$251,749,134
\$318,536,027	\$251,749,189
\$318,536,191	\$251,749,244
\$318,536,358	\$251,749,298
\$318,536,517	\$251,749,351
\$318,536,674	\$251,749,403
\$318,536,829	\$251,749,455
\$318,536,981	\$251,749,505
\$318,537,131	\$251,749,555
\$318,537,279	\$251,749,691
\$318,537,425	\$251,749,740
\$318,537,568	\$251,749,788
\$318,537,710	\$251,749,835
\$318,537,854	\$251,749,882
\$318,537,991	\$251,749,928
\$318,538,127	\$251,749,973
\$318,538,260	\$251,750,017
\$318,538,392	\$251,750,061
\$318,538,868	\$251,750,104
\$318,538,996	\$251,750,147
\$318,539,122	\$251,750,189

COST ESTIMATE SUMMARY

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\$318,539,246	\$251,750,230
\$318,539,368	\$251,750,271
\$318,539,624	\$251,750,311
\$318,539,742	\$251,750,351
\$318,539,859	\$251,750,390
\$318,539,975	\$251,750,428
\$318,540,088	\$251,750,466
\$318,540,322	\$251,750,503
\$318,540,432	\$251,750,540
\$318,540,541	\$251,750,576
\$318,540,648	\$251,750,612
\$318,540,753	\$251,750,647
\$318,540,861	\$251,750,682
\$318,540,963	\$251,750,716
\$318,541,064	\$251,750,750
\$318,541,164	\$251,750,783
\$318,541,262	\$251,750,816
\$318,541,464	\$251,750,848
\$318,541,559	\$251,750,880
\$318,541,653	\$251,750,911
\$318,541,745	\$251,750,942
\$318,541,837	\$251,750,972
\$318,541,942	\$251,751,014
\$318,542,030	\$251,751,044
\$318,542,117	\$251,751,073
\$318,542,203	\$251,751,102
\$318,542,288	\$251,751,130
\$318,542,372	\$251,751,158
\$318,542,454	\$251,751,185
\$318,542,535	\$251,751,212
\$318,542,615	\$251,751,239
\$318,542,693	\$251,751,265
\$318,542,774	\$251,751,291
\$318,542,850	\$251,751,316
\$318,542,925	\$251,751,342
\$318,542,999	\$251,751,366
\$318,543,073	\$251,751,391
\$318,543,145	\$251,751,415
\$318,543,216	\$251,751,480
\$318,543,286	\$251,751,503
\$318,543,355	\$251,751,526
\$318,543,423	\$251,751,549
\$318,543,492	\$251,751,571
\$318,543,558	\$251,751,594
\$318,543,623	\$251,751,615
\$318,543,687	\$251,751,637
\$318,543,750	\$251,751,658
\$318,543,979	\$251,751,678
\$318,544,040	\$251,751,699
\$318,544,101	\$251,751,719
\$318,544,160	\$251,751,739
\$318,544,219	\$251,751,758
\$318,544,342	\$251,751,778
\$318,544,399	\$251,751,797
\$318,544,455	\$251,751,815
\$318,544,510	\$251,751,834
\$318,544,565	\$251,751,852
\$318,544,677	\$251,751,870

COST ESTIMATE SUMMARY

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\$318,544,730	\$251,751,888
\$318,544,782	\$251,751,905
\$318,544,834	\$251,751,922
\$318,544,884	\$251,751,939
\$318,544,936	\$251,751,956
\$318,544,985	\$251,751,972
\$318,545,034	\$251,751,988
\$318,545,081	\$251,752,004
\$318,545,129	\$251,752,020
\$318,545,225	\$251,752,035
\$318,545,271	\$251,752,051
\$318,545,316	\$251,752,066
\$318,545,361	\$251,752,081
\$318,545,404	\$251,752,095
\$318,545,455	\$251,752,115
\$318,545,497	\$251,752,130
\$318,545,539	\$251,752,144
\$318,545,581	\$251,752,157
\$318,545,621	\$251,752,171
\$318,545,661	\$251,752,184
\$318,545,701	\$251,752,197
\$318,545,740	\$251,752,210
\$318,545,778	\$251,752,223
\$318,545,816	\$251,752,236
\$318,545,854	\$251,752,248
\$318,545,891	\$251,752,261
\$318,545,927	\$251,752,273
\$318,545,963	\$251,752,284
\$318,545,998	\$251,752,296
\$318,546,033	\$251,752,308
\$318,546,067	\$251,752,339
\$318,546,100	\$251,752,350
\$318,546,133	\$251,752,361
\$318,546,166	\$251,752,372
\$318,546,199	\$251,752,383
\$318,546,231	\$251,752,394
\$318,546,262	\$251,752,404
\$318,546,293	\$251,752,414
\$318,546,323	\$251,752,424
\$318,546,433	\$251,752,434
\$318,546,463	\$251,752,444
\$318,546,492	\$251,752,454
\$318,546,520	\$251,752,463
\$318,546,549	\$251,752,473
\$318,546,607	\$251,752,482
\$318,546,635	\$251,752,491
\$318,546,662	\$251,752,500
\$318,546,688	\$251,752,509
\$318,546,715	\$251,752,518
\$318,546,768	\$251,752,526
\$318,546,794	\$251,752,535
\$318,546,819	\$251,752,543
\$318,546,844	\$251,752,551
\$318,546,868	\$251,752,560
\$318,546,893	\$251,752,568
\$318,546,916	\$251,752,575
\$318,546,940	\$251,752,583
\$318,546,963	\$251,752,591

COST ESTIMATE SUMMARY

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\$318,546,985	\$251,752,598
\$318,547,032	\$251,752,606
\$318,547,054	\$251,752,613
\$318,547,075	\$251,752,620
\$318,547,097	\$251,752,627
\$318,547,118	\$251,752,634
\$318,547,142	\$251,752,644
\$318,547,162	\$251,752,651
\$318,547,183	\$251,752,658
\$318,547,202	\$251,752,664
\$318,547,222	\$251,752,671
\$318,547,241	\$251,752,677
\$318,547,260	\$251,752,684
\$318,547,279	\$251,752,690
\$318,547,297	\$251,752,696
\$318,547,315	\$251,752,702
\$318,547,334	\$251,752,708
\$318,547,352	\$251,752,714
\$318,547,369	\$251,752,720
\$318,547,386	\$251,752,725
\$318,547,403	\$251,752,731
\$318,547,419	\$251,752,737
\$318,547,436	\$251,752,752
\$318,547,452	\$251,752,757
\$318,547,468	\$251,752,762
\$318,547,484	\$251,752,768
\$318,547,500	\$251,752,773
\$318,547,515	\$251,752,778
\$318,547,530	\$251,752,783
\$318,547,545	\$251,752,788
\$318,547,559	\$251,752,793
\$318,547,612	\$251,752,797
\$318,547,626	\$251,752,802
\$318,547,640	\$251,752,807
\$318,547,654	\$251,752,811
\$318,547,667	\$251,752,816
\$318,547,696	\$251,752,820
\$318,547,709	\$251,752,825
\$318,547,722	\$251,752,829
\$318,547,734	\$251,752,833
\$318,547,747	\$251,752,837
\$318,547,773	\$251,752,842
\$318,547,785	\$251,752,846
\$318,547,797	\$251,752,850
\$318,547,809	\$251,752,854
\$318,547,821	\$251,752,857
\$318,547,833	\$251,752,861
\$318,547,844	\$251,752,865
\$318,547,855	\$251,752,869
\$318,547,866	\$251,752,872
\$318,547,877	\$251,752,876
\$318,547,899	\$251,752,880
\$318,547,910	\$251,752,883
\$318,547,920	\$251,752,887
\$318,547,931	\$251,752,890
\$318,547,941	\$251,752,893
\$318,547,952	\$251,752,898
\$318,547,962	\$251,752,901

COST ESTIMATE SUMMARY

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\$318,547,972	\$251,752,905
\$318,547,981	\$251,752,908
\$318,547,991	\$251,752,911
\$318,548,000	\$251,752,914
\$318,548,009	\$251,752,917
\$318,548,018	\$251,752,920
\$318,548,027	\$251,752,923
\$318,548,035	\$251,752,926
\$318,548,044	\$251,752,929
\$318,548,053	\$251,752,932
\$318,548,061	\$251,752,934
\$318,548,069	\$251,752,937
\$318,548,077	\$251,752,940
\$318,548,085	\$251,752,942
\$318,548,093	\$251,752,950
\$318,548,101	\$251,752,952
\$318,548,109	\$251,752,955
\$318,548,116	\$251,752,957
\$318,548,124	\$251,752,960
\$318,548,131	\$251,752,962
\$318,548,138	\$251,752,965
\$318,548,146	\$251,752,967
\$318,548,153	\$251,752,969
\$318,548,178	\$251,752,972
\$318,548,185	\$251,752,974
\$318,548,191	\$251,752,976
\$318,548,198	\$251,752,978
\$318,548,204	\$251,752,981
\$318,548,218	\$251,752,983
\$318,548,224	\$251,752,985
\$318,548,231	\$251,752,987
\$318,548,237	\$251,752,989
\$318,548,243	\$251,752,991
\$318,548,255	\$251,752,993
\$318,548,261	\$251,752,995
\$318,548,267	\$251,752,997
\$318,548,273	\$251,752,999
\$318,548,278	\$251,753,001
\$318,548,284	\$251,753,002
\$318,548,289	\$251,753,004
\$318,548,295	\$251,753,006
\$318,548,300	\$251,753,008
\$318,548,305	\$251,753,009
\$318,548,316	\$251,753,011
\$318,548,321	\$251,753,013
\$318,548,326	\$251,753,015
\$318,548,331	\$251,753,016
\$318,548,336	\$251,753,018
\$318,548,341	\$251,753,020
\$318,548,346	\$251,753,022
\$318,548,351	\$251,753,023
\$318,548,355	\$251,753,025
\$318,548,360	\$251,753,026
\$318,548,364	\$251,753,028
\$318,548,369	\$251,753,029
\$318,548,373	\$251,753,031
\$318,548,377	\$251,753,032
\$318,548,381	\$251,753,033

COST ESTIMATE SUMMARY

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\$318,548,386	\$251,753,035
\$318,548,390	\$251,753,036
\$318,548,394	\$251,753,037
\$318,548,398	\$251,753,039
\$318,548,401	\$251,753,040
\$318,548,405	\$251,753,041
\$318,548,409	\$251,753,045
\$318,548,413	\$251,753,046
\$318,548,416	\$251,753,047
\$318,548,420	\$251,753,048
\$318,548,424	\$251,753,050
\$318,548,427	\$251,753,051
\$318,548,431	\$251,753,052
\$318,548,434	\$251,753,053
\$318,548,437	\$251,753,054
\$318,548,450	\$251,753,055
\$318,548,453	\$251,753,056
\$318,548,456	\$251,753,058
\$318,548,459	\$251,753,059
\$318,548,462	\$251,753,060
\$318,548,466	\$251,753,061
\$318,548,470	\$251,753,062
\$318,548,472	\$251,753,063
\$318,548,475	\$251,753,065

Cost Estimate Summary Sheet 8

Unit Rate Descriptions and References			
Ref. No.	Activity	Unit	Unit Cost
1.00	Periodic Treatment System Capital		
1.01	EP1 Re-lining (Year 50, every 50 yrs thereafter)	LS	\$6,500,000
1.02	EP2 Re-lining (Year 5, every 50 yrs thereafter)	LS	\$6,500,000
1.03	EP3 Re-lining (Year 20, every 50 yrs thereafter)	LS	\$6,500,000
1.04	RO Treatment System Capital Replacement (Year 45, every 50 yrs thereafter)	LS	\$16,000,000
1.05	Zeolite Treatment System Capital Replacement	LS	\$5,000,000
1.06	Spray Evaporator Capital Replacement (year 10, every 10 years thereafter)		\$200,000
2.00	Facility Annual Operation		
2.01	Site Staffing and Management (GW System Active)	year	\$750,000
2.02	Site Staffing and Management (GW System Inactive)	year	\$200,000
2.03	Hydrology & Geochemical Consultants	year	\$100,000
2.04	RO Consulting Support	year	\$100,000
2.05	Regulatory Reporting	year	\$500,000
2.06	Radiation Safety	year	\$500,000
2.07	Radiation Safety (Post cap)	year	\$100,000
2.08	Radon/Air Particulate Monitoring	year	\$200,000
2.09	Impoundment Maintenance & Monitoring	year	\$250,000
2.10	Electrical Maintenance Support	year	\$500,000
2.11	General Equipment Operation and Maintenance	year	\$150,000
2.12	NRC Fees	year	\$500,000
3.00	Spray Evaporation Treatment System O&M		
3.01	Spray Evaporation Treatment System O&M (100%)	year	\$861,000
3.02	Spray Evaporation Treatment System O&M (75%)	year	\$724,000
3.03	Spray Evaporation Treatment System O&M (50%)	year	\$587,000
3.04	Spray Evaporation Treatment System O&M (25%)	year	\$450,000
	Costs include O&M supplies, electricity, lab analytical, labor, and building/equipment maintenance		

Reference/Source and Description of Unit Cost
Already at end of capital life, Implement in year 0 for alternatives with long-term active remediation
Almost at end of initial capital life, Implement in year 5 for alternatives with long term active remediation already 30 tears old, Implement in year 20 for alternatives with long-term active remediation
Implement in year 45 for alternatives with active remediation in year 50
Implement in year 0 for alternatives with active remediation in year 1
Until Remediation system is off
After stopping remediation
Until Remediation system is off
Until Remediation system is off
All years
Until CAP is in place
After CAP is in place
All years
Until CAP is in place
Until Remediation system is off
Until Remediation system is off
All years

Cost Estimate Summary Sheet 9		
<i>Activity</i>	<i>Unit</i>	<i>Unit Cost</i>
<i>Institutional and Engineering Controls</i>		
ICs/ECs Plan	LS	\$15,000
Implement ICs	LS	\$50,000
Implement ECs (fencing)		
<i>Groundwater Monitoring</i>		
Sampling Monitoring Wells	EA	\$500
Groundwater Analytical	EA	\$414
Evaluation and Reporting	LS	\$50,000
<i>Remedy Complete</i>		
Monitoring Well Abandonment		
Reporting	LS	\$50,000
Oversight, Documentation, & Per Diem	LS	\$50,000
<i>Recurring Five Year Expenditures</i>		
Five Year Review Report	EA	\$50,000
Update Institutional Controls Plan	EA	\$5,000

Reference/Source and Description of Unit Cost
Assume 150 hours at \$100/hr average rate
Draft environmental restrictive covenants, land use zoning or deed restrictions existing and not needed?
includes labor, equipment and supplies
includes B & F analyte lists
See well abandonment costs in "UnitRate5" worksheet

Cost Estimate Summary Sheet 10

<i>Activity</i>	<i>Unit</i>	<i>Unit Cost</i>	<i>Reference/Source and Description of Unit Cost</i>
Groundwater Containment and Removal System O&M			
Groundwater Extraction & Injection System O&M	year	\$365,000	Provided by HMC/George not dependent on flow, electrical cost for injection only, electrical for extraction included in treatm
RO Treatment System O&M			
RO Treatment System O&M up to 300 GPM	year	\$1,033,000	\$344,000 per 100 GPM
RO Treatment System O&M up to 600 GPM	year	\$1,814,000	\$302,000 per 100 GPM
RO Treatment System O&M up to 900 GPM	year	\$2,695,000	\$299,000 per 100 GPM
RO Treatment System O&M up to 1200 GPM	year	\$3,376,000	\$281,000 per 100 GPM
Zeolite Treatment System O&M			
Zeolite Treatment System O&M up to 300 GPM	year	\$380,000	\$127,000 per 100 GPM
Zeolite Treatment System O&M up to 600 GPM	year	\$608,000	\$101,000 per 100 GPM
Zeolite Treatment System O&M up to 900 GPM	year	\$837,000	\$93,000 per 100 GPM
Zeolite Treatment System O&M up to 1200 GPM	year	\$1,066,000	\$89,000 per 100 GPM
Zeolite Treatment System O&M up to 1500 GPM	year	\$1,295,000	\$86,000 per 100 GPM
Spray Evaporation Treatment System O&M			
Spray Evaporation Treatment System O&M (100%)	year	\$861,000	
Spray Evaporation Treatment System O&M (75%)	year	\$724,000	
Spray Evaporation Treatment System O&M (50%)	year	\$587,000	
Spray Evaporation Treatment System O&M (25%)	year	\$450,000	
Costs include O&M supplies, electricity, lab analytical, labor, and building/equipment maintenance			

Cost Estimate Summary Sheet 12		
<i>Activity</i>	<i>Unit</i>	<i>Unit Cost</i>
LTP Reclamation & Treatment System Decommissioning		
Installation of LTP Cover	LS	\$6,317,000
Relocation of Zeolite Treatment system	LS	\$3,720,250
Decommissioning of zeolite treatment system	LS	\$191,000
Decommissioning of RO treatment system	LS	\$220,000
Well Abandonment/Closure		
5" Tailings Well Abandonment	EA	\$1,890
2" Tailings Well Abandonment	EA	\$1,260
Perched Alluvial Well Abandonment	EA	\$2,090
Alluvial Well Abandonment	EA	\$2,090
U. Chinle Well Abandonment	EA	\$2,600
M. Chinle Well Abandonment	EA	\$2,600
L. Chinle Well Abandonment	EA	\$2,600
San Andres Well Abandonment	EA	\$100,000
Evaporation Pond Decommissioning		\$2,822,328
West Collection Pond	LS	\$210,370
Backfill/Cover 1 Placement/Revegetation		\$19,881
West Collection Pond Sludge Removal		\$190,489
East Collection Pond	LS	\$118,730
Backfill/Cover 1 Placement/Revegetation		\$19,881
East Collection Pond Sludge Removal		\$98,849
EP1 Decommissioning (most costs in STP reclamation)	LS	\$2,351
EP1 Structure 1		\$2,351
EP2 Decommissioning	LS	\$710,028
Liner Cutting and Folding/Backfill/Cover 1 Placement/Revegetation		\$179,913
Evaporation Pond #2 Sludge Removal		\$174,014
Overexcavate one-foot EP2		\$76,839
Import Fill to EP2		\$189,798
EP2 Structures		\$2,207
Remove Piping & Pumps from EP2 and Collection Ponds (6 days)		\$42,988
Analytical lab samples/shipping CPs and EP2		\$30,719
Pond Reclamation Office/Toilet Rental		\$13,550
EP3 Decommissioning	LS	\$1,783,199
Liner Cutting and Folding/Backfill/Cover 1 Placement/Revegetation		\$992,641
Evaporation Pond #3 Sludge Removal		\$317,318
Overexcavate 1.5 feet EP3		\$106,721
Import Fill to EP3		\$268,402
Remove Piping & Pumps from EP3 (6 days)		\$42,988
Analytical lab samples/shipping EP3		\$46,096
EP3 Pond Recl Office/Toilet Rental		\$9,033
Corrective Action piping removal site wide	LS	\$1,970,100
Construction Completion Reports (CCR) (includes NRC review costs)		
LTP Cover CCR	LS	\$300,000
Treatment Systems CCR	LS	\$300,000
Long-Term Surveillance Funding	LS	\$2,500,000

Reference/Source and Description of Unit Cost
Includes closure plan studies, engineering, permitting, reporting and installation of final cover
Includes engineering, construction oversight and construction
Includes disposal of debris in Evaporation Pond 1
Includes disposal of debris in Evaporation Pond 1

LTP well to be abandoned during reclamation, 210 wells per email from George
LTP well to be abandoned during reclamation, 130 wells per email from George
LTP well to be abandoned during reclamation, 56 wells per email from George
Plume GWM & Remediation wells, 1000 wells per email from George
Plume GWM & Remediation wells, 32 wells per email from George
Plume GWM & Remediation wells, 60 wells per email from George
Plume GWM & Remediation wells, 30 wells per email from George
San Andreas supply well, 8 wells per email from George

from 2020 Surety Est.
from 2020 Surety Est.

from 2020 Surety Est.
from 2020 Surety Est.

from 2020 Surety Est.

from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.

from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.
from 2020 Surety Est.

Cost Estimate Summary Sheet 13

Nominal Interest Rate - Return on investment

0.07

0.03

Year	Discount Factor
1	0.9485981
2	0.8998384
3	0.8535850
4	0.8097092
5	0.7680886
6	0.7286074
7	0.6911556
8	0.6556289
9	0.6219284
10	0.5899601
11	0.5596351
12	0.5308688
13	0.5035811
14	0.4776961
15	0.4531416
16	0.4298493
17	0.4077543
18	0.3867949
19	0.3669129
20	0.3480529
21	0.3301624
22	0.3131914
23	0.2970928
24	0.2818216
25	0.2673355
26	0.2535939
27	0.2405587
28	0.2281936
29	0.2164640
30	0.2053373
31	0.1947826
32	0.1847704
33	0.1752729
34	0.1662635
35	0.1577173
36	0.1496103
37	0.1419201
38	0.1346251
39	0.1277051
40	0.1211408
41	0.1149140
42	0.1090072
43	0.1034040
44	0.0980888
45	0.0930469
46	0.0882641
47	0.0837272
48	0.0794234
49	0.0753409
50	0.0714683
51	0.0677947
52	0.0643099
53	0.0610042
54	0.0578685
55	0.0548940
56	0.0520723
57	0.0493957
58	0.0468567
59	0.0444481
60	0.0421634
61	0.0399961
62	0.0379403
63	0.0359901

Inflation

0.0150 <http://www.usinflationcalculator.com/inflation/current-inflation-rates/>

Inflation rate is average from Jan 2016 through July 2018

0.11 The average commercial electricity rate of 9.1

Year	Jan	Feb	Mar	Apr	May
2018	2.1	2.2	2.4	2.5	2.8
2017	2.5	2.7	2.4	2.2	1.9
2016	1.4	1	0.9	1.1	1

64	0.0341401	
65	0.0323852	
66	0.0307206	
67	0.0291415	
68	0.0276436	
69	0.0262226	
70	0.0248747	
71	0.0235961	
72	0.0223832	
73	0.0212327	
74	0.0201413	
75	0.0191060	
76	0.0181239	
77	0.0171923	
78	0.0163086	
79	0.0154703	
80	0.0146751	
81	0.0139208	
82	0.0132052	
83	0.0125264	
84	0.0118826	
85	0.0112718	
86	0.0106924	
87	0.0101428	
88	0.0096214	
89	0.0091269	
90	0.0086577	$=((1+\$D\$3)^{\$B95})/((1+\$C\$3)^{\$B95})$
91	0.0082127	$(1+ri^n)/(1+r)^n$
92	0.0077906	
93	0.0073901	
94	0.0070102	
95	0.0066499	
96	0.0063081	
97	0.0059838	
98	0.0056763	
99	0.0053845	
100	0.0051077	
101	0.2272535	
102	0.2239440	
103	0.2206827	
104	0.2174688	
105	0.2143018	
106	0.2111809	
107	0.2081055	
108	0.2050748	
109	0.2020883	
110	0.1991452	
111	0.1962451	
112	0.1933871	
113	0.1905708	
114	0.1877955	
115	0.1850606	
116	0.1823656	
117	0.1797098	
118	0.1770926	
119	0.1745136	
120	0.1719721	
121	0.1694677	
122	0.1669997	
123	0.1645677	
124	0.1621711	
125	0.1598094	
126	0.1574820	
127	0.1551886	
128	0.1529286	
129	0.1507015	
130	0.1485068	
131	0.1463441	

132	0.1442128
133	0.1421126
134	0.1400430
135	0.1380036
136	0.1359938
137	0.1340133
138	0.1320617
139	0.1301385
140	0.1282432
141	0.1263756
142	0.1245352
143	0.1227216
144	0.1209344
145	0.1191732
146	0.1174377
147	0.1157274
148	0.1140420
149	0.1123812
150	0.1107446
151	0.1091318
152	0.1075425
153	0.1059764
154	0.1044330
155	0.1029122
156	0.1014134
157	0.0999366
158	0.0984812
159	0.0970470
160	0.0956337
161	0.0942409
162	0.0928685
163	0.0915160
164	0.0901833
165	0.0888699
166	0.0875757
167	0.0863003
168	0.0850435
169	0.0838050
170	0.0825846
171	0.0813819
172	0.0801967
173	0.0790288
174	0.0778779
175	0.0767438
176	0.0756261
177	0.0745248
178	0.0734395
179	0.0723700
180	0.0713160
181	0.0702774
182	0.0692540
183	0.0682454
184	0.0672516
185	0.0662722
186	0.0653070
187	0.0643560
188	0.0634188
189	0.0624952
190	0.0615851
191	0.0606882
192	0.0598044
193	0.0589334
194	0.0580752
195	0.0572294
196	0.0563960
197	0.0555747
198	0.0547654
199	0.0539678

200	0.0531819
201	0.0524074
202	0.0516442
203	0.0508921
204	0.0501509
205	0.0494206
206	0.0487008
207	0.0479916
208	0.0472927
209	0.0466040
210	0.0459253
211	0.0452565
212	0.0445974
213	0.0439479
214	0.0433079
215	0.0426772
216	0.0420557
217	0.0414432
218	0.0408397
219	0.0402449
220	0.0396588
221	0.0390813
222	0.0385121
223	0.0379513
224	0.0373986
225	0.0368539
226	0.0363172
227	0.0357883
228	0.0352672
229	0.0347536
230	0.0342474
231	0.0337487
232	0.0332572
233	0.0327729
234	0.0322956
235	0.0318253
236	0.0313618
237	0.0309051
238	0.0304550
239	0.0300115
240	0.0295744
241	0.0291437
242	0.0287193
243	0.0283011
244	0.0278889
245	0.0274828
246	0.0270825
247	0.0266881
248	0.0262995
249	0.0259165
250	0.0255390
251	0.0251671
252	0.0248006
253	0.0244394
254	0.0240835
255	0.0237328
256	0.0233871
257	0.0230466
258	0.0227109
259	0.0223802
260	0.0220543
261	0.0217331
262	0.0214166
263	0.0211047
264	0.0207973
265	0.0204945
266	0.0201960
267	0.0199019

268	0.0196121
269	0.0193264
270	0.0190450
271	0.0187676
272	0.0184943
273	0.0182250
274	0.0179596
275	0.0176980
276	0.0174403
277	0.0171863
278	0.0169360
279	0.0166894
280	0.0164463
281	0.0162068
282	0.0159708
283	0.0157382
284	0.0155090
285	0.0152832
286	0.0150606
287	0.0148413
288	0.0146251
289	0.0144121
290	0.0142022
291	0.0139954
292	0.0137916
293	0.0135908
294	0.0133928
295	0.0131978
296	0.0130056
297	0.0128162
298	0.0126295
299	0.0124456
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302	0.0119098
303	0.0117363
304	0.0115654
305	0.0113970
306	0.0112310
307	0.0110674
308	0.0109063
309	0.0107474
310	0.0105909
311	0.0104367
312	0.0102847
313	0.0101349
314	0.0099873
315	0.0098419
316	0.0096985
317	0.0095573
318	0.0094181
319	0.0092810
320	0.0091458
321	0.0090126
322	0.0088814
323	0.0087520
324	0.0086246
325	0.0084990
326	0.0083752
327	0.0082532
328	0.0081330
329	0.0080146
330	0.0078979
331	0.0077828
332	0.0076695
333	0.0075578
334	0.0074477
335	0.0073393

336	0.0072324
337	0.0071271
338	0.0070233
339	0.0069210
340	0.0068202
341	0.0067209
342	0.0066230
343	0.0065266
344	0.0064315
345	0.0063379
346	0.0062456
347	0.0061546
348	0.0060650
349	0.0059766
350	0.0058896
351	0.0058038
352	0.0057193
353	0.0056360
354	0.0055539
355	0.0054731
356	0.0053934
357	0.0053148
358	0.0052374
359	0.0051611
360	0.0050860
361	0.0050119
362	0.0049389
363	0.0048670
364	0.0047961
365	0.0047263
366	0.0046574
367	0.0045896
368	0.0045228
369	0.0044569
370	0.0043920
371	0.0043280
372	0.0042650
373	0.0042029
374	0.0041417
375	0.0040814
376	0.0040219
377	0.0039634
378	0.0039056
379	0.0038488
380	0.0037927
381	0.0037375
382	0.0036831
383	0.0036294
384	0.0035766
385	0.0035245
386	0.0034732
387	0.0034226
388	0.0033727
389	0.0033236
390	0.0032752
391	0.0032275
392	0.0031805
393	0.0031342
394	0.0030885
395	0.0030436
396	0.0029992
397	0.0029556
398	0.0029125
399	0.0028701
400	0.0028283
401	0.0027871
402	0.0027465
403	0.0027065

404	0.0026671
405	0.0026283
406	0.0025900
407	0.0025523
408	0.0025151
409	0.0024785
410	0.0024424
411	0.0024068
412	0.0023718
413	0.0023372
414	0.0023032
415	0.0022697
416	0.0022366
417	0.0022040
418	0.0021719
419	0.0021403
420	0.0021091
421	0.0020784
422	0.0020481
423	0.0020183
424	0.0019889
425	0.0019600
426	0.0019314
427	0.0019033
428	0.0018756
429	0.0018483
430	0.0018213
431	0.0017948
432	0.0017687
433	0.0017429
434	0.0017175
435	0.0016925
436	0.0016679
437	0.0016436
438	0.0016197
439	0.0015961
440	0.0015728
441	0.0015499
442	0.0015273
443	0.0015051
444	0.0014832
445	0.0014616
446	0.0014403
447	0.0014193
448	0.0013987
449	0.0013783
450	0.0013582
451	0.0013384
452	0.0013189
453	0.0012997
454	0.0012808
455	0.0012622
456	0.0012438
457	0.0012257
458	0.0012078
459	0.0011902
460	0.0011729
461	0.0011558
462	0.0011390
463	0.0011224
464	0.0011060
465	0.0010899
466	0.0010741
467	0.0010584
468	0.0010430
469	0.0010278
470	0.0010128
471	0.0009981

472	0.0009836
473	0.0009692
474	0.0009551
475	0.0009412
476	0.0009275
477	0.0009140
478	0.0009007
479	0.0008876
480	0.0008746
481	0.0008619
482	0.0008494
483	0.0008370
484	0.0008248
485	0.0008128
486	0.0008009
487	0.0007893
488	0.0007778
489	0.0007665
490	0.0007553
491	0.0007443
492	0.0007335
493	0.0007228
494	0.0007123
495	0.0007019
496	0.0006917
497	0.0006816
498	0.0006717
499	0.0006619
500	0.0006522
501	0.0006427
502	0.0006334
503	0.0006242
504	0.0006151
505	0.0006061
506	0.0005973
507	0.0005886
508	0.0005800
509	0.0005716
510	0.0005632
511	0.0005550
512	0.0005470
513	0.0005390
514	0.0005311
515	0.0005234
516	0.0005158
517	0.0005083
518	0.0005009
519	0.0004936
520	0.0004864
521	0.0004793
522	0.0004723
523	0.0004654
524	0.0004587
525	0.0004520
526	0.0004454
527	0.0004389
528	0.0004325
529	0.0004262
530	0.0004200
531	0.0004139
532	0.0004079
533	0.0004019
534	0.0003961
535	0.0003903
536	0.0003846
537	0.0003790
538	0.0003735
539	0.0003681

540	0.0003627
541	0.0003574
542	0.0003522
543	0.0003471
544	0.0003420
545	0.0003371
546	0.0003322
547	0.0003273
548	0.0003225
549	0.0003178
550	0.0003132
551	0.0003087
552	0.0003042
553	0.0002997
554	0.0002954
555	0.0002911
556	0.0002868
557	0.0002827
558	0.0002785
559	0.0002745
560	0.0002705
561	0.0002665
562	0.0002627
563	0.0002588
564	0.0002551
565	0.0002514
566	0.0002477
567	0.0002441
568	0.0002405
569	0.0002370
570	0.0002336
571	0.0002302
572	0.0002268
573	0.0002235
574	0.0002203
575	0.0002171
576	0.0002139
577	0.0002108
578	0.0002077
579	0.0002047
580	0.0002017
581	0.0001988
582	0.0001959
583	0.0001930
584	0.0001902
585	0.0001874
586	0.0001847
587	0.0001820
588	0.0001794
589	0.0001768
590	0.0001742
591	0.0001716
592	0.0001691
593	0.0001667
594	0.0001643
595	0.0001619
596	0.0001595
597	0.0001572
598	0.0001549
599	0.0001526
600	0.0001504
601	0.0001482
602	0.0001461
603	0.0001439
604	0.0001418
605	0.0001398
606	0.0001377
607	0.0001357

608	0.0001338
609	0.0001318
610	0.0001299
611	0.0001280
612	0.0001261
613	0.0001243
614	0.0001225
615	0.0001207
616	0.0001189
617	0.0001172
618	0.0001155
619	0.0001138
620	0.0001122
621	0.0001105
622	0.0001089
623	0.0001073
624	0.0001058
625	0.0001042
626	0.0001027
627	0.0001012
628	0.0000997
629	0.0000983
630	0.0000969
631	0.0000955
632	0.0000941
633	0.0000927
634	0.0000913
635	0.0000900
636	0.0000887
637	0.0000874
638	0.0000861
639	0.0000849
640	0.0000836
641	0.0000824
642	0.0000812
643	0.0000800
644	0.0000789
645	0.0000777
646	0.0000766
647	0.0000755
648	0.0000744
649	0.0000733
650	0.0000722
651	0.0000712
652	0.0000701
653	0.0000691
654	0.0000681
655	0.0000671
656	0.0000661
657	0.0000652
658	0.0000642
659	0.0000633
660	0.0000624
661	0.0000615
662	0.0000606
663	0.0000597
664	0.0000588
665	0.0000580
666	0.0000571
667	0.0000563
668	0.0000555
669	0.0000547
670	0.0000539
671	0.0000531
672	0.0000523
673	0.0000515
674	0.0000508
675	0.0000501

676	0.0000493
677	0.0000486
678	0.0000479
679	0.0000472
680	0.0000465
681	0.0000458
682	0.0000452
683	0.0000445
684	0.0000439
685	0.0000432
686	0.0000426
687	0.0000420
688	0.0000414
689	0.0000408
690	0.0000402
691	0.0000396
692	0.0000390
693	0.0000384
694	0.0000379
695	0.0000373
696	0.0000368
697	0.0000362
698	0.0000357
699	0.0000352
700	0.0000347
701	0.0000342
702	0.0000337
703	0.0000332
704	0.0000327
705	0.0000322
706	0.0000318
707	0.0000313
708	0.0000308
709	0.0000304
710	0.0000300
711	0.0000295
712	0.0000291
713	0.0000287
714	0.0000282
715	0.0000278
716	0.0000274
717	0.0000270
718	0.0000266
719	0.0000262
720	0.0000259
721	0.0000255
722	0.0000251
723	0.0000248
724	0.0000244
725	0.0000240
726	0.0000237
727	0.0000233
728	0.0000230
729	0.0000227
730	0.0000223
731	0.0000220
732	0.0000217
733	0.0000214
734	0.0000211
735	0.0000208
736	0.0000205
737	0.0000202
738	0.0000199
739	0.0000196
740	0.0000193
741	0.0000190
742	0.0000187
743	0.0000185

744	0.0000182
745	0.0000179
746	0.0000177
747	0.0000174
748	0.0000172
749	0.0000169
750	0.0000167
751	0.0000164
752	0.0000162
753	0.0000159
754	0.0000157
755	0.0000155
756	0.0000153
757	0.0000150
758	0.0000148
759	0.0000146
760	0.0000144
761	0.0000142
762	0.0000140
763	0.0000138
764	0.0000136
765	0.0000134
766	0.0000132
767	0.0000130
768	0.0000128
769	0.0000126
770	0.0000124
771	0.0000122
772	0.0000121
773	0.0000119
774	0.0000117
775	0.0000115
776	0.0000114
777	0.0000112
778	0.0000110
779	0.0000109
780	0.0000107
781	0.0000106
782	0.0000104
783	0.0000103
784	0.0000101
785	0.0000100
786	0.0000098
787	0.0000097
788	0.0000095
789	0.0000094
790	0.0000093
791	0.0000091
792	0.0000090
793	0.0000089
794	0.0000087
795	0.0000086
796	0.0000085
797	0.0000084
798	0.0000082
799	0.0000081
800	0.0000080
801	0.0000079
802	0.0000078
803	0.0000077
804	0.0000075
805	0.0000074
806	0.0000073
807	0.0000072
808	0.0000071
809	0.0000070
810	0.0000069
811	0.0000068

812	0.0000067
813	0.0000066
814	0.0000065
815	0.0000064
816	0.0000063
817	0.0000062
818	0.0000061
819	0.0000061
820	0.0000060
821	0.0000059
822	0.0000058
823	0.0000057
824	0.0000056
825	0.0000055
826	0.0000055
827	0.0000054
828	0.0000053
829	0.0000052
830	0.0000052
831	0.0000051
832	0.0000050
833	0.0000049
834	0.0000049
835	0.0000048
836	0.0000047
837	0.0000046
838	0.0000046
839	0.0000045
840	0.0000044
841	0.0000044
842	0.0000043
843	0.0000043
844	0.0000042
845	0.0000041
846	0.0000041
847	0.0000040
848	0.0000040
849	0.0000039
850	0.0000038
851	0.0000038
852	0.0000037
853	0.0000037
854	0.0000036
855	0.0000036
856	0.0000035
857	0.0000035
858	0.0000034
859	0.0000034
860	0.0000033
861	0.0000033
862	0.0000032
863	0.0000032
864	0.0000031
865	0.0000031
866	0.0000030
867	0.0000030
868	0.0000029
869	0.0000029
870	0.0000029
871	0.0000028
872	0.0000028
873	0.0000027
874	0.0000027
875	0.0000027
876	0.0000026
877	0.0000026
878	0.0000025
879	0.0000025

880	0.0000025
881	0.0000024
882	0.0000024
883	0.0000024
884	0.0000023
885	0.0000023
886	0.0000023
887	0.0000022
888	0.0000022
889	0.0000022
890	0.0000021
891	0.0000021
892	0.0000021
893	0.0000020
894	0.0000020
895	0.0000020
896	0.0000020
897	0.0000019
898	0.0000019
899	0.0000019
900	0.0000018
901	0.0000018
902	0.0000018
903	0.0000018
904	0.0000017
905	0.0000017
906	0.0000017
907	0.0000017
908	0.0000016
909	0.0000016
910	0.0000016
911	0.0000016
912	0.0000015
913	0.0000015
914	0.0000015
915	0.0000015
916	0.0000015
917	0.0000014
918	0.0000014
919	0.0000014
920	0.0000014
921	0.0000014
922	0.0000013
923	0.0000013
924	0.0000013
925	0.0000013
926	0.0000013
927	0.0000012
928	0.0000012
929	0.0000012
930	0.0000012
931	0.0000012
932	0.0000012
933	0.0000011
934	0.0000011
935	0.0000011
936	0.0000011
937	0.0000011
938	0.0000011
939	0.0000010
940	0.0000010
941	0.0000010
942	0.0000010
943	0.0000010
944	0.0000010
945	0.0000010
946	0.0000009
947	0.0000009

948	0.0000009
949	0.0000009
950	0.0000009
951	0.0000009
952	0.0000009
953	0.0000008
954	0.0000008
955	0.0000008
956	0.0000008
957	0.0000008
958	0.0000008
959	0.0000008
960	0.0000008
961	0.0000008
962	0.0000007
963	0.0000007
964	0.0000007
965	0.0000007
966	0.0000007
967	0.0000007
968	0.0000007
969	0.0000007
970	0.0000007
971	0.0000007
972	0.0000006
973	0.0000006
974	0.0000006
975	0.0000006
976	0.0000006
977	0.0000006
978	0.0000006
979	0.0000006
980	0.0000006
981	0.0000006
982	0.0000006
983	0.0000005
984	0.0000005
985	0.0000005
986	0.0000005
987	0.0000005
988	0.0000005
989	0.0000005
990	0.0000005
991	0.0000005
992	0.0000005
993	0.0000005
994	0.0000005
995	0.0000005
996	0.0000005
997	0.0000004
998	0.0000004
999	0.0000004
1000	0.0000004
1001	0.0000004
1002	0.0000004
1003	0.0000004

3¢/kWh in MT is 9.51% less than the national average commercial rate of 10.09¢/kWh; using \$0.11/kwh to include fees

Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave
	2.9	2.9					
1.6	1.7	1.9	2.2	2	2.2	2.1	2.1
1	0.8	1.1	1.5	1.6	1.7	2.1	1.3

Zeolite Treatment System Relocation Cost Estimate

Item	Unit	Amount	Cost/unit	Total cost
Engineering	LS	1	200,000	200,000
Construction oversight, QA/QC, & As-Builts	LS	1	150,000	150,000
Dirtwork, haul and placement of material	CY	95,000	14	1,330,000
HDPE 60 mil Liner	SF	194,000	1.30	252,200
Geonet	SF	97,000	0.65	63,050
Moving salvagable infrastructure (buildings, tanks, pumps, etc)	EA	1	100,000	100,000
New Zeolite Material	Tons	5,000	120	600,000
New HDPE Piping	LF	35,000	15	525,000
New Pipe Fittings	LS	1	500,000	500,000
Total Cost				3,720,250

Assumptions for labor hours
3 month project timeline

Truckloads for Dirt

Total Yardage	95000 CY
Volume per load	29 CY
Total truckloads needed	3275.862

Truckloads for zeolite

Total Yardage	4444 CY
Volume per truckload	29 CY
Total truckloads needed	153.2414

Truckloads for liner

Total square footage of liner	194000 SF
Square Footage per roll of liner(23'x600')	13800 EA
Total Rolls of Liner	14.05797 EA
Total square footage of geotextile	97000 SF
Square Footage per roll of geotextile (14.5'x300')	4350
Total Rolls of Geotextile	22.29885

Total # of rolls/truck

	6
Total truckloads needed	6.05947

From Table 6-1 in Modeling Report

Alt #2

Year	Onsite Area (RO)			Offsite Area (Zeolite)			Total Extraction	Total Injection
	Extract	Inject	Delta	Extract	Inject	Delta		
0	-600	687	87	-600	556	-44	-1200	1243
1	-600	687	87	-600	556	-44	-1200	1243
2	-600	687	87	-600	556	-44	-1200	1243
3	-600	687	87	-600	556	-44	-1200	1243
4	-600	687	87	-600	520	-80	-1200	1207
5	-600	687	87	-600	520	-80	-1200	1207
6	-600	687	87	-600	520	-80	-1200	1207
7	-600	687	87	-600	520	-80	-1200	1207
8	-600	687	87	-600	560	-40	-1200	1247
9	-600	687	87	-600	560	-40	-1200	1247
10	-600	687	87	-600	560	-40	-1200	1247
11	-600	687	87	-600	560	-40	-1200	1247
12	-600	690	90	-600	560	-40	-1200	1250
13	-600	690	90	-600	560	-40	-1200	1250
14	-600	690	90	-600	560	-40	-1200	1250
15	-600	690	90	-600	560	-40	-1200	1250
16	-600	690	90	-600	513	-87	-1200	1203
17	-600	690	90	-600	513	-87	-1200	1203
18	-600	690	90	-600	513	-87	-1200	1203
19	-600	690	90	-600	513	-87	-1200	1203
20	-600	690	90	-600	560	-40	-1200	1250
21	-600	690	90	-600	560	-40	-1200	1250
22	-600	690	90	-600	560	-40	-1200	1250
23	-600	690	90	-600	560	-40	-1200	1250
24	-600	700	100				-600	700
25	-600	700	100				-600	700
26	-600	700	100				-600	700
27	-600	700	100				-600	700
28	-600	700	100				-600	700
29	-600	700	100				-600	700
30	-600	700	100				-600	700
31	-600	700	100				-600	700
32	-600	700	100				-600	700
33	-600	700	100				-600	700
34	-600	700	100				-600	700
35	-600	700	100				-600	700

Delta	Total Extraction	Total Injection	Estimated Evaporati on System Operation
-44	-1200	1243	100%
-44	-1200	1243	100%
-44	-1200	1243	100%
-80	-1200	1207	100%
-80	-1200	1207	100%
-80	-1200	1207	100%
-40	-1200	1250	100%
-40	-1200	1250	100%
-40	-1200	1250	100%
-40	-1200	1250	100%
-40	-1200	1250	100%
-40	-1200	1250	100%
-40	-1200	1250	100%
-87	-1200	1213	100%
-87	-1200	1213	100%
-87	-1200	1213	100%
-40	-1200	1260	100%
-40	-1200	1260	100%
-40	-1200	1260	100%