From:

Jon Winter (USA - Casper) [Jon.Winter@uranium1.com]

Sent:

Monday, November 08, 2010 3:23 PM

To:

Linton, Ron

Cc:

Donna Wichers (USA - Casper); Mike Griffin (USA - Casper); Larry Arbogast (USA -

Christensen Ranch); Mooney, Glenn

Subject: Attachments:

Surety modifications - Willow Creek Project 2010 Bond Estimate Update 11-8-10.pdf

Importance:

High

Ron, attached is a pdf of the Willow Creek surety estimate and description of changes made. The overall change from the August 18, 2010 submittal was minor. Most of the refurbishment activities were accounted for in the August 18, submittal. All cells highlighted in yellow represent changes made since the August submittal. All cells highlighted in gray represent changes made in the August 18, 2010 surety estimate. The attached description is presented in the format (worksheet by worksheet) that accompanied the surety revision submitted in August. This revised estimate depicts an increase to the proposed surety estimate submitted in August by approximately \$11,000.

Jon F. Winter Manager Environmental & Regulatory Affairs, Wyoming

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X-Ironport-ID: mail2

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13:23:26 -0700

From: "Jon Winter (USA - Casper)" < Jon.Winter@uranium1.com>

To: "Linton, Ron" < Ron.Linton@nrc.gov>

CC: "Donna Wichers (USA - Casper)" <Donna.Wichers@uranium1.com>, "Mike Griffin (USA - Casper)" <Mike.Griffin@uranium1.com>, "Larry Arbogast (USA - Christensen Ranch)" <Larry Arbogast@uranium1.com>, "Mooney, Glenn"

<gmoone@wyo.gov>

Date: Mon, 8 Nov 2010 13:23:24 -0700

Subject: Surety modifications - Willow Creek Project Thread-Topic: Surety modifications - Willow Creek Project

Thread-Index: Act/gss21ScrZdkITOuljT758pdAkQ==

Message-ID: <EF2FF00E3AB2A947B8EE03551C596EF00A340A8091@srv-cas-

mx-01.cas.u1.internal>

Accept-Language: en-US
Content-Language: en-US
X-MS-Has-Attach: yes
X-MS-TNEF-Correlator:
acceptlanguage: en-US

Content-Type: multipart/mixed;

boundary=" 006 EF2FF00E3AB2A947B8EE03551C596E

F00A340A8091srvcasmx01cas "

MIME-Version: 1.0

Return-Path: Jon.Winter@uranium1.com

RECLAMATION PERFORMANCE BOND ESTIMATE:

An updated reclamation/restoration bond estimate for the period of August 2010 through July 2011 was provided in Appendix 3 of the 2010 WDEQ Annual Report for Permit to Mine No. 478. Following is a further explanation of several changes made to the August 18, 2010 "Worksheet 1" and recent changes/corrections reflected in "Worksheet 4" that have occurred since the August update.

Worksheet 2:

During the reporting period several tanks were added to the Irigaray Expansion Building; these include the addition of a pup tank circuit to the Irigaray South Elution Circuit, and a sulfuric acid bulk storage tank. These additions were accounted for in the August 18, 2010 update by the conservative addition of 3 cubic yards of materials to the Expansion Building, raising the total from 180 to 183 Yds³. See calculations below:

Irigaray New Tanks - Disp Expansion Building	osal Calculation	S		
South Elution Pup Tanks	Qty: 4		Sulfuric Acid Tank	Qty: 1
diameter	6 ft	•	diameter	10 ft
sidewall	12 ft		sidewall	17.5 ft
thickness	0.0313 ft		thickness	0.021 ft
cylinder	226.195 ft²		cylinder	549.779 ft ²
top & bottom	65.031 ft ²		top & bottom	180.642 ft ²
Individual Total	0.337 yds ³		Individual Total	1.014 yds³
Quantity Total	1.348 yds³			
		Grand Total:	2.4 yds³	

Worksheet 4:

During the reporting period Irigaray Ponds D and RA were relined (a 30 mil PVC liner overlaid with 60 mil High-Density Polyethylene (HDPE) and a 90 mil geotextile fabric in between). This revision was accounted for in the August 18, 2010 surety update. However, an incorrect thickness of 10 mil was applied for the geotextile fabric, resulting in a total liner thickness of 100 mil (60 HDPE+30 PVC+10 geotextile fabric). The updated worksheet reflects the accurate geotextile fabric thickness of 90 mil, resulting in a total liner thickness of 180 mil for Irigarary Ponds D and RA. Also, since the August 18, 2010 update, it has been decided to overlay the existing 30 mil Hypalon liner in Christensen Ranch Pond-1 with a 60 mil HDPE liner and an 8 ounce (90 mil) geotextile fabric placed between the existing and new liner. This will increase the liner thickness for Pond-1 from 30 mil to 180 mil. Additionally, a mistake was identified in the formula that calculated the liner thickness from "mil" to inches. This has been corrected and is reflected in the thickness in inches for all pond liners.

These changes increase the bond estimate presented in "Worksheet 4" from \$73,336 to \$81,880; for an overall difference of \$8,544.

Summary of Changes

These changes increase the estimate presented in the August 18, 2010 submittal from \$12,530,009 to \$12,541,082 for a difference of \$11,073 for the WDEQ value; and the NRC bond estimate from \$12,917,349 to \$12,928,432 for a difference of \$11,083. All modifications to the estimate are specific to Worksheet 4.

Uranium One USA, Inc.
SUMMARY OF RECLAMATION/RESTORATION BOND ESTIMATE, August 2009 - November 2010
WDEQ PERMIT NO. 478/USNRC LICENSE SUA-1341
TABLE 1

			(•	
I GROU	NDWATER RESTORATION - Works	heet 1:		\$4,461,911	\$4,751,711
<u> </u>	MMISSIONING AND SURFACE REC				
A.	Process Plant(s) Equipment Remov	al and Disposal		\$185,429	\$185,429
р	Worksheet 2			A750 470	6750 470
B.	Plant Building(s) Demolition and Dis Worksheet 3	sposai		\$750,473	\$750,473
C.	Process Pond Sludge and Liner Hai	adling		\$1,323,848	\$1,323,848
Q.	Worksheet 4	aming		Ψ1,020,040	Ψ1,525,640
D.	Well Abandonment			\$632,357	\$632,357
D .	Worksheet 5			Ψ002,001	Ψ002,007
E.	Wellfield Equipment Removal and D	Disposal		\$1,086,537	\$1,086,537
- '	Worksheet 6			4.1000,001	4. 1000,00.
F.	Topsoil Replacement and Revegeta	tion		\$1,112,245	\$1,112,245
	Worksheet 7			, ,, , , , , , , , , , , , , , , , , , ,	,
G.	Miscellaneous Reclamation Activitie	S		\$124,161	\$124,161
	Worksheet 8				
Sub To	tal - Decommissioning and Surface R	eclamation		\$5,215,049	\$5,215,049
TOTAL	RESTORATION AND RECLAMATIC	DN		\$9,676,961	\$9,966,760
	nent for Inflation = 7.49			\$718,499	\$740,016
(Sep. 2	006 CPI All Urban Consumers, 202.9		(65)		
		SUBTOTAL		\$10,395,459	\$10,706,776
\	Coots Associated with Third F) - ut . O - ut t			
Miscena	aneous Costs Associated with Third F	WDEQ	NRC		
	Project Design	0.5%	0%		•
	Project Design Contractor Profit & Mobilization	0.5% 8%	0% 3%		
	Pre-construction Investigation	1%	3%		•
	Project Management	3%	2%		
	On-site monitoring	0.5%	2 /0		•
	Site Security & Liability Assurance	1%	0.0%		
	Longterm Administration	2%	0.070		
Subtota	al miscellaneous additions to bond	16.0%	5.0%	\$1,663,274	\$535,338.79
2 3.3.0.0			0.070	+ 1,000,= 1	
		SUBTOTAL		\$12,058,733	\$11,242,115
v*					
		WDEQ	NRC		
Conting	gency	4%	15%	\$482,349	\$1,686,317
GRAND TO	OTAL RESTORATION AND RECLAM	ATION		\$12,541,082	\$12,928,432

WDEQ Estimate NRC Estimate

VORKSHEET 1									,
	Ingaray	Irigaray	Christensen	Christensen		Christensen	Christensen	Christensen	Christense
	Mine Unit(s)		Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit
SROUNDWATER RESTORATION	#1 Thru #5	#6 Thru #9	#2	#3	#4	#5	#6	#7	#8
echnical Assumptions:	7								
Wellfield Area (Ft²)	522720	784080	890000	798944	510088	1210968	2021243	(2/11391963	25941
Welffield Area (Acres)	12.00	18,00	20,43	18.34	11,71	27.80	46,40	3196	
	522720	784080	890000	798944	550193	1346004	2058344	1391963	25941
Affected Ore Zone Area (Ft²)	15.0	18.0		10.0	12.7	19.9	2030344		
Avg Completed Thickness (Ft)	15,0	18.0	11.0	10.0	12.7	19.9	21.8	18.0	1247275
Affected Volume:					2004				
Factor For Vertical Flare	20%	20%	20%	20%	20%	20%	20%	20%	20
Factor For Horizontal Flare	20%	20%	20%	20%	20%	20%	20%	20%	20
Total Volume (Ft ³)	11290752		14097600	11504793.6	10061929,6	38593685.7	64615534.8		747100
Porosity	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0
Gallons Per Cubic Foot	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.
Gallons Per Pore Volume	21958254.5	39524858.1	27417012.5	22374522.6	19568440.7	75057000	125664292	70167763.53	14529616
Number of Wells in Unit(s)	1					i		1	1
Production Wells	150	274	91	176	81	134	178	\$1635 au 377	100000000000000000000000000000000000000
Injection Wells	310			267	1130	188	202		
Monitor Wells	150		50	47	THE PART OF THE PARTY OF	72	64	66	
Baseline Water Quality wells (prod or inj)	19		24	19	15	25	47	38	
Average Well Spacing (Ft)	35		85	70	85	85	100		ACT THAT THE STATE OF
Average Well Depth (Ft)	250	250	345	300	430	450	520	主政中代 法550	1000
	_								
A. PLANT & OFFICE									
		1						1	
Operating Assumptions:		1						l	l .
Flowrate (gpm)	1		200	200	200	200	200		:
PV's Required		1	1	1	1	1	1	STREET, STATE	1
Total Gallons For Treatment	Į		27417012.5	22374522.6		75057000	125664292		
Total KGals for Treatment	1	1	27417	22375	19568	75057	125664	70168]
Cost Assumptions:	ļ	1		[
Power	1	1							
Avg Connected Hp	j	ł	40,00	40.00	40,00	40.00	40.00	40.00	40.
Kwh's/Hp	į	}	0.83	0.83	0.83	0.83	0.83	0.83	0,
S/Kwh	1	1	\$0.0365	\$0,0365	\$0.0365	\$0.0365	\$0.0365	\$0.0365	\$0.03
	1								
Gallons Per Minute	1	1	200	200	200	200	100		
Gallons Per Hour	1	1	12000	12000	12000	12000	6000		
Cost Per Hour	l	i	1.21	1.21	1.21	1.21	1.21	1.21	1.
Cost Per Gallon	Į.		0.00010	0.00010	0.00010	0.00010	0.00020	0.00020	0.000
Cost Per KGal (\$)	i	1	\$0,101	\$0,101	\$0,101	\$0.101	\$0.202	\$0.202	\$0.2
Chemicals	1	ł							i
Antiscalent (\$/Kgals)	į.	į	\$0,0947	\$0.0947	\$0.0947	\$0.0947	\$0,0947	\$0.0947	\$0,09
Elution (\$/KGals)	1	1	\$0.099	\$0.099	\$0,099	\$0,099	\$0,099	\$0.099	\$0.0
Repair & Maintenance (\$/KGals)	1	1	\$0.0379	\$0.0379	\$0.0379	\$0.0379	\$0.0379	\$0.0379	\$0.03
	1	1 .	\$0.0379	\$0.0379	\$0.0375	\$0.0379	\$0.0379	\$0.000	\$0.0
Analysis (\$/KGals)	1	1	\$0.131		\$0.113 \$0.448	\$0.050	\$0,036	\$0.000	
Total Cost Per KGal	1	i		\$0.460					\$0.4
Total Treatment Cost	1	l	\$12,718	\$10,291	\$8,758	\$28,713	\$61,534	\$30,422	I
Utilities	1	1		l .	1			1	1 .
Power (\$/Month)	1	1	\$65	\$65	\$65	\$65	\$65	\$65	1
Telephone (\$/Month	1	1	\$500	\$500	\$500	\$500	\$500	\$500	\$5
Time For Treatment	1	1	1	1	1	ļ.	1	1	1
Minutes For Treatment		I	137085	111873	97842	375285	628321	0	1
Hours For Treatment	1	1	2285	1865	1631	6255	10472	ا آه	l
Days For Treatment	1	1	95	78	68	261	436	ا ة	1
	1	1	30.4	30.4	30.4	30.4	30.4	30.4	3
Average Days Per Month		1							
Months For Treatment	1	1	3.1	2.6	2.2	8.6	14.3	0.0	
Utilities Cost (\$)			\$1,768	\$1,443	\$1,262	\$4,841	\$8,105	\$0	
TOTAL PLANT & OFFICE COST	\$0	\$0	\$14,487	\$11,734	\$10,020	\$33,554	\$69,639	\$30,422	<u> </u>
GROUNDWATER SWEEP (Continued)								,	,
B. WELLFIELD		}	1	1	1			1	
Cost Assumptions:	1	1	1	1	1	l	ŀ	1	I
Power	1	1	I	i	1		i	1	I
Avg Flow/Pump (gpm)		i	20	20	20	20	20	20	d
	1	1	3.00	3.00	3,00	3.00	3,00		3
				1 5.00					1 1
Avg Hp/Pump		i	100	100	1 100				
Avg Hp/Pump Avg # of Pumps Required			10.0	10.0	10.0	10.0	10.0	10.0	
Avg Hp/Pump Avg # of Pumps Required Avg Connected Hp			25	25	25	25	25	25	
Avg Hp/Pump Avg # of Pumps Required								0.830	

•	frigaray Mine Unit(s)	Irigaray Mine Unit(s)	Christensen Mine Unit	Christensen	Christensen Mine Unit	Christensen Mine Unit	Christensen Mine Unit	Christensen Mine Unit	Christense Mine Uni
OUNDWATER RESTORATION	#1 Thru #5	#6 Thru #9	mme Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit #7	Mine Un
Gallons Per Minute	#1 1110 #5	#0 11110 #5	200	200	200	200	200	200	#*0
Gallons Per Hour			12000	12000	12000	12000	12000	12000	12
Cost Per Hour (\$)	1	\	\$0.76	\$0.76	\$0.76	\$0.76	\$0.76	\$0.76	50
Cost Per Gallon (\$)		ľ	\$0,0001	\$0.0001	\$0.0001	\$0.0001	\$0.0001	\$0.0001	\$0,00
Cost Per KGal (\$)			0.063	0.063	0.063	0.063	0.063	0.063	0.0
Repair & Maintenance (\$/KGals)	1		\$0.289	\$0.289	\$0.289	\$0.289	\$0.289	\$0.289	\$0.2
Total Cost Per KGal	1	l	\$0.353	\$0.353	\$0.353	\$0.353	\$0.353	\$0.353	\$0.3
TOTAL WELLFIELD COST	\$0	\$0	\$9,665	\$7,887	\$6,898	\$26,459	\$44,298	\$24,735	
TOTAL GROUND WATER SWEEP COST	\$0	\$0	\$24,152	\$19,622	\$16,918	\$60,012	\$113,937	\$55,158	
REVERSE OSMOSIS	٦								
A. PLANT & OFFICE	 							T	
Operating Assumptions:	1								
Flowrate (gpm)			500	500	500	500	500	500	
PV's Required]		5.0	5.0	· 5.0	5.0	5.0	30.0	
Total Gallons For Treatment	1		137085062	111872613	97842203.3	375285000	628321461	701677635.3	1452961
Total KGals for Treatment			137085	111873	97842	375285	628321	701678	14529
Feed to RO (gpm)		1	500	500	500	500	500	500	
Permeate Flow (gpm)		1	375	375	375	375	375	· 375	
Brine Flow (gpm)	1	}	125	125	125	125	125	125	
Average RO Recovery		ļ	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75
Cost Assumptions:									
Power		1							
Avg Connected Hp	1	1	560.00	560.00	560.00	560.00	560.00	560.00	560
Kwh's/Hp	1		0.830	0.830	0.830	0.830	0.830	0.830	0.3
\$/Kwh	1		\$0.0365	\$0.0365	\$0.0365	\$0.0365	\$0.0365	\$0.0365	\$0.0
Gallons Per Minute			500	500	500	500	500	500	
Gallons Per Hour	(Į.	30000	30000	30000	30000	30000	30000	30
Cost Per Hour (\$)	ı	1	\$16.97	\$16.97	\$16.97	\$16.97	\$16.97	\$16,97	\$16
Cost Per Gallon (\$)	1	1	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00057	\$0.00
Cost Per KGal (\$)	1	1	\$0.566	\$0.566	\$0.566	\$0.566	\$0.566	\$0,566	\$0.
Chemicals (2010)		i			****			****	
Caustic Soda (\$/KGals)			\$0.018 \$0,0947	\$0.018 \$0.0947	\$0.018 \$0.0947	\$0.018 \$0.0947	\$0.018 \$0.0947	\$0.018 \$0.0947	\$0. \$0.0
Antiscalent (\$/Kgals)			\$0.0947	\$0.0947	\$0.0947	\$0.0947	\$0.0947	\$0.0947	\$0.0 \$0.
Etution (\$/Kgals) Repair & Maintenance (\$/KGals)			\$0.039	\$0.038	\$0.038	\$0.038	\$0.038	\$0.038	\$0.
Sampling & Analysis (\$/KGals)			\$0.030	\$0.030	\$0.038	\$0.038	\$0.038	\$0.036	\$0.0
Total Cost Per KGal (\$)	}	1	\$0,905	\$0.122	\$0.032	\$0.854	\$0.847	\$0.860	\$0.
Total Pumping Cost (\$)	\$0	so	\$124,089	\$104,788	\$88,752	\$320,397	\$531,949	\$603,142	\$1,217,
Utilities Cost (9)		1	\$124,003	\$104,700	400,732	\$020,001	4001,545	3005,142	41,217,
Power (\$/Month)	1 .	1	\$65	\$65	\$65	\$65	\$65	\$65	1 :
Propane (\$/Month	1	1	\$500	\$500	\$500	\$500	\$500	\$500	l s
Time For Treatment	1	1	\$5500	****	\$300	3.00	\$500	*****	*
Minutes For Treatment	1	1	274170	223745	195684	750570	1256643	1403355	2905
Hours For Treatment	1	t	4570	3729	3261	12510	20944	23389	48
Days For Treatment	ţ.	· .	190	155	136	521	873	975	2
Average Days Per Month			30.4	30.4	30,4	30.4	30,4	30.4	3
Months For Treatment		1	6.3	5.1	4.5	17.1	28.7	30.4	7
Utilities Cost (\$)	\$0	so	\$3,560	\$2,882	\$2,543	\$9,662	\$16,216	\$18,080	\$37
TOTAL PLANT & OFFICE COST	\$0	\$0	\$127,648	\$107,670	\$91,294	\$330,059		\$621,222	
REVERSE OSMOSIS (Continued)			17.7						
B. WELLFIELD	1								
Cost Assumptions;								1	1
Power	1	i	1	i	l		1	1	
Avg Flow/Pump (gpm)	1.	1	20.00	20.00	20.00	20.00	20.00	20.00	20
Avg Hp/Pump	1	1	3.00	3.00	3.00	3.00	3.00	3.00] 3
Avg # of Pumps Required	1	i	25.0	25.0	25.0	25.0	25.0	25.0	3
Avg Connected Hp	1	1	75.0	75.0	75.0	75.0	75.0	75.0	7
Kwh's/Hp	1	1	0.830	0.830	0.830	0.830	0.830	0.830	0.
\$/Kwh	1	1	\$0.0365	\$0.0365	\$0.0365	\$0,0365	\$0.0365	\$0.0365	\$0.0
Gallons Per Minute	1.	1 -	500	500	500	500	500		
Gallons Per Hour	1	Į.	30000		30000				30
Cost Per Hour (\$)	1	1	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2.27	\$2
Cost Per Gallon (\$)	1	1	\$0.0001	\$0.0001	\$0.0001	\$0,0001	\$0.0001	\$0.0001	\$0.0
C+ D+(C-1 (E)	1	1	\$0.076	\$0,076	\$0,076	\$0.076	\$0.076	\$0,076	\$0.5
Cost Per KGal (\$)	1		\$0.289	\$0,289	\$0.289	\$0.289	\$0.289	\$0.289	\$0.

ORKSHEET 1									
(Irigaray	Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Christensen	Christense
	Mine Unit(s)	Mine Unit(s)	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit
ROUNDWATER RESTORATION	#1 Thru #5	#6 Thru #9	#2	#3	#4	#5	#6	#7	#8
Total Cost Per KGal		17-12-1	\$0.365	\$0.365	\$0.365	\$0.365	\$0.365	\$0.365	\$0,36
TOTAL WELLFIELD COST	\$0	\$0	\$50,000	\$40,804	\$35,687	\$136,881	\$229,172	\$255,928	\$
	30								
Circulate 1 PV of Hydrogen Sulfide gas reductant		!	\$23,661	\$19,309	\$16,888	\$64,774	\$108,448	\$60,555	\$
\$0.863 per Kgal									
TOTAL REVERSE OSMOSIS COST	\$0	\$0	\$201,309	\$167,783	\$143,869	\$531,714	\$885,785	455 \$937,705	5名別性に対抗技術
II WASTE DISPOSAL WELL									
Operating Assumptions:									
	ł		1,917,612	1,917,612	1,917,612	4 047 040	1,917,612	1,917,612	1,917,6
Annual Evaporation Capacity (Gals)	i .	Į I				1,917,612			
Avg. Monthly Evap. Capacity (Gals)			159,801	159,801	159,801	159,801	159,801	159,801	159,8
Total Disposal Requirement	l	1	1	1					
RO Brine Total Gallons	ĺ	1	34,271,266	27,968,153	24,460,551	93,821,250	157,080,365	175,419,409	363,240,4
	ĺ	1		27,968	24,461		157,080		363,2
RO Brine Total KGallons	ĺ	į.	34,271			93,821		175,419	
Brine Concentration Factor	ĺ		60%	60%	60%	60%	60%	60%	60
Total Concentrated Brine (Gals)	l		20,562,759	16,780,892	14,676,330	56,292,750	94,248,219	105,251,645	217,944,2
Months of RO Operation	ĺ	1	6.3	5.1	4,5	17.1	28.7	32.0	66
Average Monthly Regm't (Gallons)	ĺ	1	3,263,930	3,290,371	3,261,407	3,291,974	3,283,910		3,287,2
	ĺ	1							
Monthly Balance for DDW (Gals)	i	1	3,104,129	3,130,570	3,101,606	3,132,173	3,124,109		3,127,4
Total WDW Disposal (Gallons)	1	1	19,556,013	15,965,907	13,957,226	53,560,153	89,661,930	100,138,013	207,349,4
Total WDW Disposal (KGals)	ĺ	1	19,556	15,966	13,957	53,560	89,662	100,138	207,3
Cost Assumptions:	ĺ	1	,	,		,		,	- ,
	ĺ	1	1		1			i	1
Power	i	1		· '	_ '			1	
Avg Connected Hp	i	1	100.00	100.00	100.00	100.00	100.00	100.00	100.0
WDW Avg Connected Hp	i		180.00	180.00	180,00	180.00	180.00	180.00	180.0
Kwh's/Hp	İ	1	0.830	0.830	0.830	0.830	0.830	0.830	0.8
\$/Kwh	i		\$0.0365	\$0.0365	\$0.0365	\$0.0365	\$0,0365	\$0,0365	\$0.036
	i	}							
Gallons Per Minute		1	150	150	150	150	150		. 1
Gallons Per Hour		1	9000	9000	9000	9000	9000	9000	90
Cost Per Hour (\$)		1	\$8.48	\$8,48	\$8.48	\$8.48	\$8,48	\$8.48	\$8.4
Cost Per Gallon (\$)		1	\$0,0009	\$0,0009	\$0.0009	\$0.0009	\$0.0009	\$0.0009	\$0.00
		1							
Cost Per KGal (\$)		ì	\$0.943	\$0.943	\$0.943	\$0.943	\$0.943	\$0.943	\$0.94
Chemicals (\$/Kgals)		1		ļ	1	l	l		1
RO Antiscalent (\$/Kgals)		1	\$0,190	\$0.190	\$0.190	\$0.190	\$0.190	\$0.190	\$0.19
WDW Antiscalent (\$/Kgals)	1	1	\$0.237	\$0.237	\$0,237	\$0.237	\$0.237	\$0,237	\$0.23
Sulfuric Acid (\$/Kgals)	i	i	\$0,534	\$0,534	\$0.534	\$0.534	\$0.534	\$0.534	\$0,5
	l								
Corresion Inhibitor	į		\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.0
Algacide			\$0.111	\$0.111	\$0.111	\$0.111	\$0.111	\$0.111	\$0.1
Repair & Maint (\$/Kgals)		1	\$0.077	\$0.077	\$0.077	\$0,077	\$0.077	\$0.077	\$0.0
Total Cost Per KGal	1	i	\$2,092	\$2.092	\$2,092	\$2,092	\$2.092	\$2.092	\$2.09
TOTAL WASTE DISPOSAL WELL COST		-	\$40,902	\$33,393	\$29,192	\$112,022		\$23209,440	
TOTAL WASTE BIST BOAL WELL COST	ļ	<u> </u>	0.00,002	000,000	423,132	W112,022	4101,020	18.0.242.05,170.	Leasure of the French
	-								
V STABILIZATION MONITORING									
Operating Assumptions:					I				
Time of Stabilization (mos)			9	1 9	9	9		9	
		1	3			3		3	
Frequency of Analysis (mos)	1	1			AND ADDRESS OF THE PARTY OF THE		Samuel States		POTENTIAL TOTAL PROPERTY.
Total Sets of Analysis	I	1	12222	retrict4	25.55.4011024	ESECTION 1 1 1 1 1 1 1 1 1	V 100 100 100 100 100 100 100 100 100 10	2011 14	27.2
Cost Assumptions:	1	1	1	I .	I	3	i	1	I
Generator Rental per sample set	l	1	\$280	\$280	\$280	\$280	\$280	\$280	\$2
	ł		\$3,600	\$2,850	\$2,250	\$3,750	\$7,050	\$5,700	\$7,5
Analytical costs per set	1	1							
Total Sampling & Analysis Cost (\$)	i	1	\$15,520	\$12,520	\$10,120	\$16,120	\$29,320	\$23,920	\$31,1
Utilities (Power + Telephone per month)	i	1	\$565	\$ 565	\$565	\$565	\$565	\$565	\$5
Total Utilities Cost (\$)	l		\$5,085	\$5,085	\$5.085	\$5,085	\$5,085	\$5,085	\$5,0
TOTAL STABILIZATION COST	\$0	SO.	cts:\$20,605.	923S17:6055	1934\$15(205)	\$21.205	ENSES34'405	\$29,005	CHINGS TOO
10.7.2 017.0.000 17.0.1 0001	, 4 0		1 70,000	10.5. 7 . 1,10001	The state of the s	1	1-1-20-4-1-100		12-2-1-1-13-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-
	1								
V LABOR (Irigaray and Christensen Combined)				,					
Cost Assumptions	Cost/Hour	Hours/Year	Cost]					
Crew:				-					
1 Supervisor	\$25,00	2080	\$52,000	3					
				1					
4 Operators	\$20.00		\$166,400	1					
	\$20.00		\$83,200						
2 Maintenance		1 0000	\$49,920	1					
2 Maintenance		2080							
2 Maintenance 2 Vehicles	\$12.00	2080		1					
2 Maintenance		2080	\$351,520]					
2 Maintenance 2 Vehicles Cost per Year	\$12.00	_		j					
2 Maintenance 2 Vehicles		_		1					
2 Maintenance 2 Vehicles Cost per Year	\$12.00]		1					

	Irigaray	Irigaray	Christensen						
	Mine Unit(s)	Mine Unit(s)	Mine Unit						
GROUNDWATER RESTORATION	#1 Thru #5	#6 Thru #9	#2	#3	#4	#5	#6	#7	#8
	Irigaray	Christensen	Total						
	Mine Unit(s)	Mine Unit	Christensen						
	_#1 Thru #9	#2 Thru #4	& Irigaray						

VI RESTORATION CAPITAL REQUIREMENTS		
Deep Disposal Well(s) - new		\$0
II Plug and Abandon CR DW-1		\$73,950
III Plug and Abandon CR 18-3	- 1	\$66,250
IV 500 GPM Reverse Osmosis Unit		\$0
Total	\$0	\$140,200

	lrigaray	Ingaray	Christensen			Christensen		Christensen	Christensen	
		Mine Unit(s)		Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Mine Unit	TOTAL
	#1 Thru #5	#6 Thru #9	#2	#3	#4	#5	#6	#7	#8	
SUMMARY:										
I GROUNDWATER SWEEP	\$0	\$0	\$24,152	\$19,622	\$16,918	\$60,012	\$113,937	\$55,158	\$0	
II REVERSE OSMOSIS	\$0	\$0	\$201,309	\$167,783	\$143,869	\$531,714	\$885,785	\$937,705	\$0	
III WASTE DISPOSAL WELL	\$0	\$0	\$40,902	\$33,393	\$29,192	\$112,022	\$187,529	\$209,440	\$0	ľ
IV STABILIZATION	\$0	\$0	\$20,605	\$17,605	\$15,205	\$21,205	\$34,405	\$29,005	\$0	ļ
SUB TOTAL	\$0	\$0	\$286,968	\$238,403	\$205 184	\$724,953	\$1,221,657	X2\$1(231:307)	\$0,	\$3,908,471
V LABOR										\$703,040
VI CAPITAL										\$140,200
TOTAL GROUNDWATER RESTORATION COST										\$4,751,711
Credit for Completion of Groundwater Sweep (WDEC	2)		\$24,152	\$19,622	\$16,918	\$60,012	\$113,937	\$55,158		\$289,799
Credit for Completion of Reverse Osmosis (WDEQ)										\$0
Credit Completion of Stabilization Monitoring (WDEC	2)									\$0
Credit Subtotal			\$24,152	\$19,622	\$16,918	\$60,012	\$113,937	\$55,158	\$0	\$289,799
GRAND TOTAL WIDEQ	\$0	\$0	\$262,816	\$218,781	\$188,265	\$664,940	\$1,107,719	\$1,176,150	\$0	\$4(461,911)
GRAND TOTAL NRC (no credi	\$0	\$0	\$286,968	\$238,403	\$205,184	\$724,953	\$1,221,657	\$1,231,307	\$0	254,751,711

				Irigaray						Christensen		
	Maint Area &	Main Process	Expansion	Resin +Sand	Dry Pack	Restoration		Satellite	Resin + Sand	Restoration	Wellfield	
PLANT EQUIPMENT REMOVAL AND DISPOSAL	Laboratory	Building	Building	Filter Media	Area	Building	Sub Total	Plant	Filter Media	Extension	Modules	Sub Total
Volume (Yds³)	40		¥4.25 183	110	40	0		91	197	42	55	
Quantity Per Truck Load (Yds³)	20	20	20	20	20	20		20			20	
Number of Truck Loads	2.0	0.0	9.2	5.5	2.0	0.0	۱ ۱	4.55	9.9	2.1	2.8	
Decontamination Cost		0,0	3.4	5.5		0.0		4.00	3.5		2.0	
Decontamination Cost (\$/Load)	\$435	\$435	\$435	\$435	\$435	\$435		\$435	\$435	\$435	- \$435	
Percent Requiring Decontamination	20.0%	100.0%	100.0%	0.0%	100.0%	100.0%		100.0%			100.0%	
Total Cost	\$174	\$0	\$3,980	\$0	\$870	\$0.00	\$5,024	\$1,979	\$0	\$914	\$1,196	\$4,089
II Dismantle and Loading Cost	Ψ11.7	40	Ψ5,500		Ψ070		\$5,024	\$1,575	- 40	4314	\$1,150	37, 003
Cost Per Truck Load (\$)	\$650	\$650	\$650	\$650	\$650	\$650	i	\$650	\$650	\$650	\$650	
Total Cost	\$1,300	\$0	\$5,948	\$3,575	\$1,300	\$0	\$12,123	\$2,958	\$6,403	\$1,365	\$1,788	\$12,513
III Oversize Charges	47,000	- 40	40,010	Ψ0,0,0	\$1,000		U12,120	\$2,500	40,700	\$1,000	\$1,700	412,010
Percent Requiring Permits	40.0%	40.0%	40.0%	0.0%	60.0%	40.0%	1	40.0%	0.0%	40.0%	0.0%	
Cost Per Truck Load (\$)	\$326	\$326	\$326	\$326	\$326	\$326		\$326	\$326	\$326	\$326	
Total Cost	\$261	\$0	\$1,193	\$0	\$391	\$0	\$1.845	\$593	\$0	\$274	\$0	\$867
IV Transportation & Disposal			4.,,,,,		4001	<u> </u>	01,010	4500		- 	- 00	400.
A. Landfill				1		l .]		1		' I	
Percent To Be Shipped	80.0%	80.0%	80.0%	0.0%	50.0%	80.0%]	80.0%	0.0%	80.0%	80.0%	
Transportation Cost Per Truck Load	\$160	\$160	\$160	\$160	\$160	\$160	1	\$160	\$160	\$160	\$160	
Transportation Cost	\$256	\$0	\$1,171	\$0	\$160	\$0		\$582	\$0	\$269	\$352	
Disposal Fee Per Cubic Yard	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00		\$12.00	\$12.00	\$12.00	\$12,00	
Disposal Cost (\$)	\$384	\$0	\$1,757	\$0	\$240	\$0		\$874	\$0	\$403	\$528	
Total Cost	\$640	so.	\$2,928	so.	\$400	\$0	1	\$1,456	\$0	\$672	\$880	
B. Licensed Site				1					1			
Percent To Be Shipped	20.0%	20.0%	20.0%	100.0%	50.0%	20.0%		20.0%	100.0%	20.0%	20.0%	
Transportation Cost Per Truck Load	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000		\$1,000	\$1,000	\$1,000	\$1,000	
Transportation Cost	\$400	\$0	\$1,830	\$5,500	\$1,000	\$0		\$910	\$9,850	\$420	\$550	
Disposal Cost Per Cubic Foot (\$)	\$11.00	\$11.00	\$11.00	\$11.00	\$11,00	\$11.00		\$11.00	\$11.00	\$11.00	\$11,00	
Quantity Per Truck Load (Yds³)	20.0	20.0	20.0	20.0	20.0	20.0	l i	20.0	20.0	20.0	20.0	
Quantity Per Truck Load (Ft²)	540	540			540		!	540			540	
Disposal Cost	\$2,376	\$0	\$10,870	\$32,670	\$5,940	\$0		\$5,405	\$58,509	\$2,495	\$3,267	
Total Cost Licensed Site	\$2,776	\$0	\$12,700	\$38,170	\$6,940	\$0	1 .	\$6,315	\$68,359	\$2,915	\$3,817	
Total Cost Transportation & Disposal	\$3,416	\$0	\$15,628	\$38,170	\$7,340	\$0	\$64,554	\$7,771	\$68,359	\$3,587	\$4,697	\$84,414
TOTAL COST	\$5,151	50	\$26,749	\$41,745	\$9,901	\$0	\$83,546	\$13,301	\$74,762	\$6,139	\$7,681	\$101,883
TOTAL COST - IRIGARAY AND CHRISTENSEN	\$0,101	Ψ0	1001-00-01-10-0	1 441,740	45,501		400,040	w 10,001	<u> ψ, Ψ, 102</u>	40,100	Ψ,,001	\$185,429
TOTAL GOOT MAGNETI FAIR GUILLOUIT	1										,	₩,50,125

	Maint Area &	Warehouse	Main Process	Irigaray	Day Boot	16-4-6-		0-1-151	14/ 85 14	Christensen				
	Laboratory	& Offices	Main Process Building	Expansion Building	Dry Pack Area	Restoration Building	Sub Total	Satellite Plant	Wellfield Modules	Booster Pump Bldgs.	Restoration Extension	Office Building	Warehouse	Sub Total
				Daniering	7,100	Demoning	Oub roas	r tant	Modules	r unip bags.	Lenson	Building	AAGIGIOUSE	SUD TOTAL
BUILDING DEMOLITION AND DISPOSAL]										-			
Structural Character	1 Story	1 Story	1 Story	1 Story	3 Story	1 Story		2 Story	1 Story	1 Story	2 Story	1 Story	1 Story	
	Steel Frame	Steel Frame	Steel Frame	Steel Frame	Steel/Masonry			Steel Frame	Pre Fab (22)	Pre Fab (4)	Steel Frame	Pre-Fab	Steel Frame	
Demolition Volume (Ft)	179400	108720	430400	386400	126000	69640		192000	95040	46720	72000	64800	11000	
Cost of Demolition Per Ft* Demolition Cost (\$)	\$0.1650 \$29,601	\$0.1650	\$0.1650	\$0.1650	\$0.1650	\$0.1650		\$0.1650	\$0.1650	\$0.1650	\$0.1650	\$0.1650	\$0,1650	
	15.0%	\$17,939 10,0%	\$71,016	\$63,756	\$20,790	\$11,491	\$214,592	\$31,680	\$15,682	\$7,709	\$11,880	\$10,692	\$1,815	\$79,457
Factor For Gutting Cost For Gutting (\$)	\$4,440	\$1,794	30.0% \$21,305	10.0% \$6,376	20.0%	10.0%	****	20.0%	0.0%	0.0%	20.0%	10.0%	10.0%	
Weight (pounds)	158761	96212	380885	341947	\$4,158	\$1,149	\$39,221	\$6,336	\$0	\$0	\$2,376	\$1,069	\$182	\$9,963
Weight per Truckload	40000	40000	40000	40000	111504 40000	61628 40000		169912 40000	66660 40000	28032	63717	38802	9735	
Number of Truckloads	4.0	2.4	9.5	8.5	2.8	1.5			1.7	40000 0.7	40000	40000	40000	
Transportation Cost per Truckload	\$160	\$160	\$160	\$160	\$160	\$160		4.2 \$160	\$160	\$160	1,6 \$160	1.0 \$160	0.2 \$160	
Transportation Cost (\$)	\$635	\$385	\$1,524	\$1,368	\$446	\$247	\$4,604	\$680	\$267	\$100	\$255	\$160 \$155	\$39	84.507
Disposal Cost per Trucktoad (25 CY)	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$4,004	\$300,00	\$300.00	\$300,00	\$300.00	\$300,00	\$300.00	\$1,507
Disposal Cost (\$)	\$1,191	\$722	\$2,857	\$2,565	\$836	\$462	\$8,632	\$1,274	\$500.00 \$500	\$300.00	\$478	\$300.00		6 0 000
TOTAL COST	\$35.867	\$20,839	\$96,701	\$74,064	\$26,230	\$13,348	\$267,050	\$39,970	\$16,448	\$8,031	\$14,989	\$12,207	\$73 \$2,108	\$2,826 \$93,754
TOTAL COST IRIGARAY AND CHRISTENSEN	\$00,007	1 420,000	\$30,701	\$14,004	920,230	¥10,540	\$207,030	\$35,510	\$10,440	\$0,031	\$14,909	\$12,207	\$2,100	\$360,804
	_													\$300,004
		,												
CONCRETE DECONTAMINATION, DEMOLITION	S DISPUSAL	j												
Area (Ft')	8020	7100	17600	18400		3600		9600	0	1440	3600	0	1000	
Average Thickness (Ft)	0.5	0.5	0.5	0.5	1	0.5		0.5	0.0	0,5	0.5	0.0	0.5	}
Volume (Ft)	4010	3550	8800	9200	5600	1800		4800	0	720	1800	0	500	l
Percent Requiring Decontamination	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%		100,0%	0.0%	100.0%	100.0%	0.0%	0.0%	
Percent Decontaminated	0.0%	0.0%	75.0%	75.0%	40.0%	75.0%		75.0%	0.0%	100.0%	100.0%	0.0%	0.0%	ļ .
Decontamination (\$/Ft²)	\$0.134	\$0.134	\$0.134	\$0.134	\$0.134	\$0.134		\$0.134	\$0.134	\$0.134	\$0.134	\$0.134	\$0.134	
Decontamination Cost	\$0	\$0	\$1,769	\$1,849	\$300	\$362	\$4,280	\$965	\$0	\$193	\$482	\$0	\$0	\$1,640
Demolition (\$/Ft²)	\$3.05	\$3.05	\$3,05	\$3.05	\$3.05	\$3.05		\$3.05	\$3.05	\$3.05	\$3.05	\$3.05	\$3.05	
Demolition Cost	\$24,461	\$21,655	\$53,680	\$56,120	\$17,080	\$10,980	\$183,976	\$29,280	\$0	\$4,392	\$10,980	\$0	\$3,050	\$47,702
Transportation & Disposal	1				i									
A. Onsite Disposal	1													
Percent to be Disposed Onsite	100%	100%	90%	90%	40%	90%		90%	0%	100%	100%	0%	100%	
Transportation Cost	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0	
Disposal Cost per Cubic Foot	\$0.230	\$0.230	\$0.230	\$0.230	\$0.230	\$0.230		\$0.230	\$0,230	\$0.230	\$0.230	\$0.230	\$0.230	
Disposal Cost (\$) B. Licensed Site	\$922	\$817	\$1,822	\$1,904	\$515	\$373	\$6,353	\$994	\$0	\$166	\$414	\$0	\$115	\$1,688
Percent to be Shipped	0%	0%	10%	10%	60%	4000		4004	4004					
Transportation Cost per Truckload	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	10% \$1,000		10%	100%	0%	0%	100%	0%	
Transportation Cost per Truckload Transportation Cost (\$)	\$1,000	\$1,000	\$1,630	\$1,000 \$1,704	\$6,222	\$333	\$9,889	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
Disposal Cost per Cubic Foot	\$3.70	\$3.70	\$3,70		\$3.70		\$9,869	\$889	\$0	\$0	\$0	\$0	\$0	\$889
Quantity Per Truck Load (Yds*)	20		\$3.70 20	\$3.70 20		\$3.70 20		\$3.70	\$3.70	\$3.70	\$3.70	\$3.70	\$3.70	
Quantity Per Truck Load (Ft*)	540		540	540		540		20 540	20	20	20	20	20	
Disposal Cost (\$)	\$0	\$0	\$3,256	\$3,404	\$12,432	\$666	\$19,758	\$1,776	540 \$0	540 \$0	540 \$0	540 \$0	540	4.5-
TOTAL COST	\$25,383	\$22,472	\$62,156	\$64,981	\$36,550	\$12,714			\$0				\$0	\$1,776
TOTAL COST IRIGARAY AND CHRISTENSEN	\$23,363	1 \$22,412	302,130	\$04,961	\$30,330	\$12,714	\$ 224,235	\$33,903	30	\$4,751	\$11,876	\$0	\$3,165	\$53,695
TOTAL COST INIGARAT AND CHRISTENSEN														\$277,951
SOIL REMOVAL & DISPOSAL]													
Assume removal of 3" of Contaminated Soil under	1													
Primary Areas, Disposal at a Licensed facility.	1													
Removal with Loader (\$75/hr) \$75	\$0-	\$0	\$1,222	\$1,278	\$389	\$250	\$3,139	\$667	\$0	\$0	\$0	\$0	\$0	\$667
Quantity to be Shipped (Ft*)	0	0	4400	4600	1400	900		2400	ő	ő	ő	0	0	100,
Transportation Cost per Truckload	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
Transportation Cost (\$)	\$0	\$0	\$8,148	\$8,519	\$2,593	\$1,667	\$20,926	\$4,444	\$0	\$0	\$0	\$0	\$0	\$4,444
Disposal fee Per Cubic Foot(\$)	\$3.70	\$3.70	\$3.70	\$3,70	\$3.70	\$3.70		\$3.70	\$3.70	\$3.70	\$3.70	\$3,70	\$3,70	.,
Quantity per Truckload (Ft*)	540	540	540	540	540	540		540	540	540	540	540	540	l
Disposal Cost (\$)	\$0	\$0	\$16,280	\$17,020	\$5,180	\$3,330	\$41,810	\$8,880	\$0	\$0	\$0	\$0	\$0	\$8,880
	1				ľ	.					.		, ,	'
Removal, NPDES Pts.	i	l]	[
Quantity to be Shipped (Ft*)	1		559					5,030						l
Transportation Cost per Truckload	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
											-	·		•

				Irigaray_			Christensen							
	Maint Area &	Warehouse	Main Process	Expansion	Dry Pack	Restoration		Satellite	Wellfield	Booster	Restoration	Office		
	Laboratory	& Offices	Building	Building	Area	Building	Sub Total	Pfant	Modules	Pump Bldgs.	Extension	Building	Warehouse	Sub Total
Transportation Cost (\$)	\$0	\$0	\$1,035	\$0	\$0	\$0	\$1,035	\$9,315	\$0	\$0	\$0	\$0	\$0	\$9,315
Disposal fee Per Cubic Foot(\$)	\$3.70	\$3.70	\$3.70	\$3.70	\$3.70	\$3.70		\$3.70	\$3.70	\$3.70	\$3.70	\$3.70	\$3.70	i '
Quantity per Truckload (Ft*)	540	540	540	540	540	540		540	540	540	540	540	540	
Disposal Cost (\$)	\$0	\$0	\$2,068	\$0	\$0	\$0	\$2,068	\$18,611	\$0	\$0	so	\$0	\$0	\$18,611
Total Cost	\$0	\$0	\$28,753	\$26,816	\$8,161	\$5,247	\$68,978	\$41,917	\$0	\$0	\$0	\$0	\$0	\$41,917
TOTAL COST	\$0	\$0	\$28,753	\$26,816	\$8,161	\$5,247	\$68,978	\$41,917	\$0	\$0	\$0	\$0	\$0	\$41,917
TOTAL COST IRIGARAY AND CHRISTENSEN														\$110,895

RADIATION SURVEY												1		
Area required (acres)	0.18	0,16	0.40	0.42	0.13	0.08		0.22	0.00	0.03	80.0	0.00	0.02	
Survey Cost (\$/acre)	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00		\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	
TOTAL SURVEY COST (\$)	\$96		\$210	\$220	\$67	\$43	\$636	\$115	\$0	\$17	\$43	\$0	\$12	\$187

TOTAL COST	\$61,346	\$43,311	\$187,820	\$166,082	\$71,008	\$31,352 \$5	560,919	\$115,906	\$16,448	\$12,799	\$26,908	\$12,207	\$5,285	\$189,554
TOTAL COST IRIGARAY AND CHRISTENSEN														\$750,473

WORKSHEET 4										Christensen	1		
·				lingaray 1	-			≧ Brine :	Brine	Brine	Brine	Permeate	
POND RECLAMATION COST	Pond A	Pond B	Pond C	#⊈Pond Diz	Pond E	Pond RA	Pond RB	Pond 1	Pond 2	Pond 3	Pond 4	Pond	
POND SLUDGE:		· -											
Average Sludge Depth (Ft)		0.156		0.156		0.156	0.156	0.166	0.222	0.143	0.068	0.000	
Average Area of Sludge (Ft²)		50,604		50,604		64,299	64,299	20,909	20,909	20,909	20,909		
Volume of Sludge (Ft ^a)		7,907		7,907		10,047	10,047	3,466	4,651	2,983	1,414	- 1	
Volume of Sludge (Yds ³)		293		293		372	372	128	172	110	52	0	
Volume of Sludge Per Truck Load (Yds3)		20.0		. 20.0		20.0	20.0	20.0	20.0	20.0	20.0	20.0	
# of Truck Loads of Sludge		14.7	•	14.7		18.6	18.6	6.4	8.6	5.5	2.6	0.0	
Sludge Handling Cost Per Load (\$)		\$240.00		\$240.00		\$240.00	\$240.00	\$240.00	\$240.00	\$240.00	\$240,00	\$240.00	
Total Sludge Handling Cost (\$)	\$0	\$3,528	S0	\$3,528	so	S4,464	\$4,464.	\$1,536	\$2,064	\$1,320	\$624	\$0	
Transportation & Disposal													
Percent To Be Shipped to Licensed Site		100.0%		100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Transportation Cost per Truckload		-\$1,000		\$1,000		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
Transportation Cost (\$)		\$14,700		\$14,700		\$18,600	\$18,600	\$6,400	\$8,600	\$5,500	\$2,600	\$0	
Disposal Cost Per Cubic Foot (\$)		\$11.00		\$11.00		\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	\$11,00	\$11.00	
Quantity Per Truck Load (Yds³)		20.0		20.0		20.0	20.0	20.0	20.0	20.0	20.0	20.0	
Quantity Per Truck Load (Ft ³)		540		540		540			540	540			
Disposal Cost (\$)		\$87,318		\$87,318		\$110,484		\$38,016	\$51,084	\$32,670	\$15,444	\$0	
Total Transportation & Disposal (\$)	\$0	\$102,018	so	\$102,018	\$0	\$129,084		\$44,416		\$38,170	\$18,044	\$0	
									\$59,684				6644.046
TOTAL SLUDGE COST (S)	\$0	\$105,546	\$0	\$105,546	\$0	\$133 ;548.	14. \$133,548	\$45,952	\$61,748	\$39,490	\$18,668	\$0	\$644,046
POND LINER:								т					
Total Pond Area (Acres)		1.72		1.72		2.17	2,17	4.40	1.10	1.10	1,10	0.00	
		74923.2	1					1.10					
Total Pond Area (FI²)				74923.2		94525.2	94525.2		47916	47916	47916		
Factor For Sloping Sides		20.0%		20.0%		20.0%	20.0%	20.0%	20.0%	20.0%	20.0%		
Total Liner Area (Ft²)		89908		89908		113430			57499	57499	57499		
Liner Thickness (Mil)		30		180		180	30		30	. 30	30		
Liner Thickness (Inches)		0.0300		0.1800	-	0.1800	0.0300	0.1800	0.0300	0.0300	0.0300	0	
Liner Thickness (FI)		0.0025	Į.	0.0150	2-15X 22 -4-2E	0.0150	0.0025	0.0150	0.0025	0.0025	0.0025	0	
"Swell" Factor		25.0%		25.0%		25.0%	25.0%		25.0%	25.0%	25.0%		
Liner Volume (Ft³)		281		1686		2127	354		180	180			
Truck Loads of Liner		0.5		3.1		3.9	0.7	2.4	0.3	0.3	0.3	0.0	
Liner Handling Cost (\$)								i l			l	1	
Labor Crew Cost per Hour (\$)		\$90	1	\$90		\$90	\$90	\$90	\$90	\$90	\$90	\$0	
Hours per Load		2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0	0.0	
Liner Handling Cost Per Load (\$)		\$180.00	İ	\$180.00		\$180.00	\$180.00	\$180.00	\$180.00	\$180.00	\$180,00	\$0,00	
Total Liner Handling Cost (\$)	\$0	\$90	\$0	\$558	\$0	\$702	\$126	\$432	\$54	\$54	\$54	\$0	
Transportation & Disposal			i										
Percent To Be Shipped to Licensed Site		100.0%		100.0%		100.0%			100.0%	100.0%	100.0%		
Transportation Cost per Truckload		\$1,000		\$1,000		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
Transportation Cost (\$)		\$500		\$3,100		\$3,900	\$700	\$2,400	\$300	\$300	\$300	\$0	
Disposal Cost Per Cubic Foot (\$)		\$11.00	\	\$11.00		\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	
Quantity Per Truck Load (Ft³)		540		540		540	540	540	540	540	540	540	
Disposal Cost (\$)		\$2,970		\$18,414		\$23,166	\$4,158	\$14,256	\$1,782	\$1,782	\$1,782	50	
Total Transportation & Disposal (\$)	\$0	\$3,470	\$0	\$21,514	\$0	\$27,066	\$4,858	\$16,656	\$2,082	\$2,082	\$2,082	\$0	
TOTAL LINER COST (\$)	\$0	\$3,560	\$0	\$22,072	\$0	\$27,768	\$4,984	\$17,088	\$2,136	\$2,136	\$2,136	\$0	\$81,880
POND BACKFILL;	,			[[
Backfill required (Yds³)	8740	8580	8740	8580	25 1 7	14617	16319	9048	9048	9048	9048	18070	
Backfill Cost (\$/Yd³)	\$2.00	\$2.00	\$2,00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	
TOTAL BACKFILL COST (\$)	\$17,480	\$17,160	\$17,480	\$3\$17,160:	\$5,034	\$29,234	\$32,638	\$18,096	\$18,096	\$18,096	\$18,096	\$36,140	\$244,710
RADIATION SURVEY				F									
Areal required (acres)		1.72		1.72		2.90	2.17	1.10	1,10	1.10	1,10	l o	
Survey Cost (\$/acre)	\$520.00	\$520.00	\$520.00	\$520.00	\$520,00	\$520.00	\$520.00	\$520.00	\$520,00	\$520.00	\$520,00	\$520.00	
TOTAL SURVEY COST (\$)	\$0	5894	\$0	\$894	\$0	\$1,508	\$1,128	\$572	\$572	\$572	\$572	\$0	\$6,712
		-					·	.,				-	
LEAK DETECTION SYSTEM REMOVAL													
Volume of Gravel and Piping (Ft ³) (Assume 3")			,	Τ			Τ	26,250				T T	
Quantity per Truckload (Ft³)				ł			i	540					
Quantity to be Shipped to Licensed Site (Loads)	l		ļ	1		1	ļ	49		l	1	\	I
Transportation Cost per Truckload	l	l	l	1	l		1	\$1,000	1	1			
Transportation Cost (\$)	l	l	l	1		i		\$49,000	1	1	I	1	
Handling Cost per load		l	l			1		\$8,750		1			
Disposal Fee per Cubic Foot (\$)	l .		I	1	I	!	1	\$11		1	l		
Disposal Cost (\$)	l '		I	1	l			\$288,750	ł	1		1	
Inshosa mar (4)	ı	ı	٠.	1	1	1	1	12,4200,730	ı	ı		ŧ	

										Christenser	1		}
				lrigaray 🗀				Brine	Brine	Brine	Brine	Permeate	
POND RECLAMATION COST	Pond A	Pond B	Pond C	Pond D*	Pond E	-Pond RAY	Pond RB	₹ Pond 1	Pond 2	Pond 3	Pond 4	Pond	
TOTAL LEAK DETECTION SYSTEM REMOVAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$\$346,500	\$0	\$0	\$0	\$0	\$346,500
TOTAL POND RECLAMATION COST	\$17,480	\$127,160	\$17,480	\$145,672	\$5,034	\$192,058	\$172,298	\$428,208	\$82.552	\$60.294	\$39,472	\$36,140	\$1.323.848

\$478,188 \$58,384 \$136,186 \$4,424 \$0 \$677,182

SUMMARY - İRIGARAY:

TOTAL SLUDGE COST (\$)
TOTAL LINER COST (\$)
TOTAL BACKFILL COST (\$)
TOTAL BACKFILL COST (\$)
TOTAL RADIATION SURVEY COST (\$)
LEAK OETECTION SYSTEM REMOVAL
TOTAL POND RECLAMATION COST

SUMMARY - CHRISTENSEN:

TOTAL SLUDGE COST (\$) \$165,858
TOTAL LINER COST (\$) \$23,496
TOTAL BACKFILL COST (\$) \$106,524
TOTAL RADIATION SURVEY COST (\$) \$2,288
LEAK DETECTION SYSTEM REMOVAL
TOTAL POND RECLAMATION COST \$546,666

TOTAL PROJECT COST - CR and IR (\$)

\$1,323,848

WORKSHELTS		Irigaray			Christensen							
	Mine Units	5I7 USMT	Monitor/			· · · · · · · · · · · · · · · · · · ·		Mine Units	CHOCH			
WELL PLUGGING AND ABANDONMENT	#1 Thru #9	Test Sites	Trend	Sub Total	*#2	.#3	`#4	`#5	`#6	`#7	`#8	Sub Total
	<u> </u>		.,,,,,,,			·	·············		,,,,			Out Total
Number of Wells	0	11:		11				Γ		l	Γ	
Production / Injection Wells	i !				286	2443	-mai 211	322	380	15 537	25375	255
Monitor Wells		٠.			7 50	119 547	33	372	64	66	375 100 100 100	43
Misc. Baseline / Regional Wells					24		15	25	47	38	50	221
Тс	otal				360	509	259	23, 27,419	*********491	641	525	320
Average Depth	250	250	250		345	300			520	550	525 380	
Average Diameter	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5			
						٠.		-				
Materials												
Bentonite Chips Required (Ft*/Well)	11.4	11.4	11.4		11.4	11.4	11.4	11.4	11.4	11.4	11.4	1
Bags of Chips Required/Well	15.0	, 15.0	15.0		15.0	15.0	15.0	15.0	15.0	15.0	350	1
Cost Per Bag (\$)	\$4.50	\$4.50	\$4.50		\$4.50	\$4.50	\$4.50	\$4.50	\$4.50	\$4,50	\$4.50	1
Cost/Well Bentonite Chips (\$)	\$67.50	\$67.50	\$67.50		\$67.50	\$67.50	\$67.50	\$67.50	\$67.50	\$67.50	\$67.50	1
Gravel Fill Required (Ft*/Well)	15.7	15.7	15.7	i	26.5	7 215	35.9	38.1	45.8	351, 49.1	30.4	1
Gravet Fill Required (Yd³/Well)	0.58	0.58	0.58		0.98	0.80	1.33	1.41	1,70	1.82	1.13	1
Cost of Gravel/Yd² (\$)	\$20.00	\$20.00	\$20.00		\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	1
Cost/Well Gravel Fill (\$)	\$11.63	\$11.63	\$11.63		\$19.63	\$15.93	\$26.59	\$28.22	\$33.93	\$36 37	\$22.52	1
Cement Cone/Markers Req'd/Well	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1
Cost of Cement Cones/Markers (\$)	\$4.00	\$4.00	\$4.00		\$4.00	\$4.00	\$4.00	\$4.00	\$4,00	\$4.00	\$4.00	l
Total Materials Cost per Well	\$83.13	\$83.13	\$83.13		\$91.13	\$87.43	\$98.09	\$99.72	\$105.43	\$107.87	\$94.02	
Labor												
Hours Required per Well	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1
Labor Cost per Hour	\$60,00	\$60.00	\$60.00		\$60.00	\$60.00	\$60.00	.\$60,00	\$60.00	\$60.00	\$60.00	1
Total Labor Cost per Well (\$)	\$60.00	\$60.00	\$60.00		\$60,00	\$60.00	\$60.00	\$60,00	\$60.00	\$60.00	\$60.00	1
Equipment Rental												
Hours Required per Well	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1
Backhoe w/Operator Cost/Hr (\$)	\$38.50	\$38.50	\$38.50		\$38.50	\$38.50	\$38.50	\$38,50	\$38.50	\$38.50	\$38,50	1
Total Equipment Cost per Well (\$)	\$38,50	\$38,50	\$38.50		\$38.50	\$38.50	\$38.50	\$38.50	\$38.50	\$38.50	\$38.50	1
Total Cost per Well (\$)	\$181.63	\$181.63	\$181.63		\$189:63	\$185.93	123196.597	16 \$198.22	\$203.93	\$206!37	m \$192/52	
										\$72,485		
TOTAL WELL ABANDONMENT COST (\$)	\$0	\$1,998	\$0	\$1,998	\$1\$68,267	\$94,636	\$50,9176	##\$83;055#	\$100,128 ⁸	¥\$132,283	3\$101,0723	\$630,359

GRAND TOTAL IRIGARAY AND CHRISTENSEN

\$632,357₈

OKKONEL I V	Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
.	Mine Unit(s)	Mine Units	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Christense
ELLFIELD EQUIPMENT REMOVAL & DISPOSAL	#1 Thru #9	#2 Thru #4	#5	#6	#7	#8	& Irigaray
		<u> </u>				·	
Wellfield Piping			,				
A. Removal		·	l	1		SPERIOR INC.	
Length/Well (Ft)	100		300	300	71.500	230	
Total Number of Wells	602		322	380	加州 30,537	0	
Total Quantity (Ft)	60200		96600	114000	268500	\$0.202	
Cost of Removal (\$/Ft)	\$0.202 \$12,160	\$0.202 \$56,964	\$0.202 \$19,513	\$0.202 \$23,028	\$0.202 \$54,237	\$0.202	\$165,90
Cost of Removal (\$) Average OD (Inches)	3.0	3.0	3.0	3.0	3.0	3.0	\$100,50
Chipped Volume Reduction (Ft ² /Ft)	0.016	0.016	0.016	0.016	0.016	0.016	
Chipped Volume (Ft)	963	4,512	1,546	1,824	4,296	0.0.0	
Quantity Per Truck Load (FP)	540						
Total Number of Truck Loads	1.8	8.4	2.9	3.4	8.0	0.0	
B. Survey & Decontamination	- 	0.4		3.4	0.0	0.0	
S. Garrey & Decommunation				1		l	
Percent Requiring Decontamination	0%	. 0%	0%	0%	0%	0%	
Loads for Decontamination	0.0	0.0	0.0	0.0	0.0	0.0	1
Cost for Decontamination (\$/Load)	\$435,00	\$435.00	\$435.00	\$435.00	\$435,00	\$435.00	l
Cost for Decontamination (\$)	\$0	\$0	\$0	\$0	\$0	\$0	s
C. Transport & Disposal				1	—— <u> </u>		<u>'</u>
1.) Landfill	ı			1	1		
a. Transportation	l	1		ł	1	l	ĺ
Percent To Be Shipped	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
Loads To Be Shipped	0.0	0.0	0.0	0.0	0.0	0.0	l
Transportation Cost per Load	\$160	\$160	\$160	\$160	\$160	\$160	}
Transportation Cost (\$)	\$0	\$0	\$0	\$0	\$0	\$0	
b. Disposal	1	1		1	1		1
Disposal Fee Per Yd²	\$12.00	\$12.00	\$12,00	\$12.00	\$12.00	\$12.00	
Yds³ Per Load	20						
Disposal Cost (\$)	\$0	\$0	\$0	\$0	\$0	\$0	l
Total Cost - Landfill	so	\$0	so.	\$0	\$0	\$0	s
2.) Licensed Site	1						1
a. Transportation		1				l	
Percent To Be Shipped	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	
Loads To Be Shipped	1.8	8.4	2.9	3.4	8.0	0.0	ì
Transportation Cost per Load	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
Transportation Cost (\$)	\$1,800	\$8,400	\$2,900	\$3,400	\$8,000	\$0	\$24,50
b. Disposal					1	i	
Disposal Cost Per Ft ^a	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	
Disposal Fee Per YdP	\$297.00	\$297.00	\$297.00	\$297.00	\$297.00	\$297.00	
Quantity Per Truck Load (Yds3)	20) 20	20	20	20	20	
Disposal Cost (\$)	\$10,692		\$17,226	\$20,196	\$47,520	\$0	\$145,53
Total Cost - Licensed Site	\$12,492	\$58,296	\$20,126	\$23,596	\$55,520	\$0	\$170,03
Total Cost - Transport & Disposal	\$12,492		\$20,126	\$23,596	\$55,520	\$0	\$170,03
Total Cost - WF Piping Removal & Disposal	\$24,652	\$115,260	\$39,639	\$46,624	3::\$109:757	\$0	\$335,93
I Production Well Pumps			,			· · · · · · · · · · · · · · · · · · ·	
A. Pump and Tubing Removal		Į.	1				
Number of Production Wells	424						
Cost of Removal (\$/well)	\$22.50	\$22.50	\$22.50	\$22.50	\$22.50	\$22.50	
Cost of Removal (\$)	\$0	\$7,830	\$3,015	\$4,005	\$8,483	\$0	\$23,33
Number of Pumps Per Truck Load	180						Į.
Number of Truck Loads (Pumps)	0.0	1.9	0.7	1.0	2.1	0.0	
B. Survey & Decontamination (Pumps)	1		1		Į.	1	
0 40 11 0 1 1 1							1
Percent Requiring Decontamination	50.0%						i
Loads for Decontamination	0.0				1.1	0.0	1
Cost for Decontamination (\$/Load)	\$435.00		\$435.00		\$435.00	\$435.00	
Cost for Decontamination (\$)	\$0	\$435	\$174	\$218	\$479	\$0	\$1,3
C. Tubing Volume Reduction & Loading							1
Length per Well (Ft)	100		300	450			1
Total Quantity (Ft)	42,400		40,200		188,500	0	
Cost of Removal (\$/Ft)	\$0.025		\$0.025		\$0.025	\$0.025	
Cost of Removal (\$)	\$0		\$1,005				\$10,3
	3.0	3.0	3.0			3.0	1
Average OD (Inches)							
Chipped Volume Reduction (Ft*/Ft) Chipped Volume (Ft*)	0.016 678	0.016	0.016 643			0.016	i

		Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
		Mine Unit(s)	Mine Units	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Christensen
WEĻ	LFIELD EQUIPMENT REMOVAL & DISPOSAL	#1 Thru #9	#2 Thru #4	#5	#6	#7	#8	& Irigaray
I	Quantity per Truckload (Ft³)	540	540	540	540	540	540	
}	Number of Truck Loads	1.3	3,1	1.2	2.4	5.6	0.0	
	D. Transport & Disposal 1.) Landfill	1						
- 1	a. Transportation	1				ŧ	1	
1	Percent To Be Shipped (Pumps)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	
	Loads To Be Shipped	0.0	1.0	0.4	0.5	1.1	0.0%	
1	Transportation Cost per Load	\$160	\$160	\$160	\$160	\$160	\$160	
- 1	Transportation Cost (\$)	\$0	\$160	\$64	\$80	\$176	\$100	\$480
i	b. Disposal	\	\$100	304	•	3,,,	1	
- 1	Disposal Fee Per Yd³	\$12.00	\$12,00	\$12,00	\$12.00	\$12.00	\$12.00	1
- 1	Yds ³ Per Load	20	20	20	20	20	20	1
	Disposal Cost (\$)	so.	\$240	\$96	\$120	\$264	\$0	\$720
	Total Cost - Landfill	\$0	\$400	\$160	\$200	\$440	\$0	\$1,200
ı	2.) Licensed Site			4.00		1	1	71,222
1	a. Transportation					i	i	1
1	Percent To Be Shipped (Pumps)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	
1	Percent To Be Shipped (Tubing)	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	1
	Loads To Be Shipped	1.3	4.0	1.5	2.9	6.6	0.0	l i
	Transportation Cost per Load	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	
i	Transportation Cost (\$)	\$1,256	\$4,043	\$1,541	\$2,873	\$6,635	\$0	\$16,349
- 1	b. Disposal	41,230	44,040	41,541	\$2,075	\$0,000	**	410,545
	Disposal Cost Per Ft	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	
٠	Disposal Fee Per Yd ^a	\$297.00	\$297,00	\$297.00	\$297.00	\$297.00	\$297.00	
- 1	Quantity Per Truck Load (Yds³)	20	20	20	20	20	20	1
J	Disposal Cost (\$)	\$7,462	\$24,017	\$9,154	\$17,068	\$39,413	\$0	\$97,115
	Total Cost - Licensed Site	\$8,719	\$28,061	\$10,695	\$17,000	\$46,048	\$0	\$113,464
1	Total Cost - Denseu Site Total Cost - Transport & Disposal	\$8,719	\$28,461	\$10,855	\$20,141	\$46,488	\$0	\$114,664
	Total Cost - Pump Removal & Disposal	\$8,719	\$39,336	\$15,049	\$26,366			\$149,631
	Surface Trunkline Piping	40,713	000,000	\$10,043		400,102		<u> </u>
	A. Removal				I	r	T	
i	Total Quantity (Ft)	44700	0	6	1 0	l o		
i	Cost of Removal (\$/Ft)	\$0,146	\$0.146	\$0.146	\$0,146	\$0,146	\$0,146	1
	Cost of Removal (\$)	\$0	\$0	\$0	\$0	so	\$0	\$0
	Average OD (Inches)	8.750	8.750	0.000	0.000	0,000	0.000	1 1
	Chipped Volume Reduction (Ft*/Ft)	0.088	0.088	0.088	0.088	0.088	0.088	
	Chipped Volume (FF)	3934	0	0	0		0	! !
	Quantity Per Truck Load (Ft*)	540	540	540	540	540	540	
	Total Number of Truck Loads	7,3	0.0	0.0	0.0	0.0	0.0	
	Survey & Decontamination	1	i					
	•		ŀ				i	
	Percent Requiring Decontamination	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1
	Loads for Decontamination	0.0	0.0	0.0	0.0	0.0	0.0	
	Cost for Decontamination (\$/Load)	\$435.00	\$435,00	\$435.00	\$435.00	\$435.00	\$435.00	
	Cost for Decontamination (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	C. Transport & Disposal							
	1.) Landfill	1				J		1 1
	a. Transportation	1	I	1	1	1	1	1
	Percent To Be Shipped	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%) 1
	Loads To Be Shipped	0.0	0.0	0.0	0.0	0,0	0.0	
	Transportation Cost per Load	\$160	\$160	\$160	\$160	\$160	\$160	1 1
	Transportation Cost (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Disposal	1	-		ł			1 1
	Disposal Fee Per Yd3	\$12.00	\$12.00	\$12.00	\$12.00	\$12,00	\$12.00	
	Yds3 Per Load	20	20	20	20	20	20	
	Disposal Cost (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Total Cost - Landfill	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2.) Licensed Site	1 ' '	1	1	1	1	1	j i
	a. Transportation	İ	1	1		1	I	; I
	Percent To Be Shipped	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	1 1
	Loads To Be Shipped	7.3	0.0	0.0	0.0	0.0	0.0	1
	Transportation Cost per Load	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	j
	Transportation Cost (\$)	\$7,284	\$0	\$0	\$0	\$0	\$0	\$7,284
	b. Disposal	1	1	1	1	1	1	1 1
	Disposal Cost Per Ft	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	1
	Disposal Fee Per Yd	\$297.00	\$297,00	\$297.00	\$297.00	\$297.00	\$297.00	1 1
	•							•

Vertical Policy Mine Unit Mine Unit Mine Unit Circiterizes #1 Thrus #9 27 thrus #4 #2 thrus #9 #2 thrus #4 #3 #3 #3 #3 #3 #3 #3		Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
Cuantity Per Truck Load (Yeb*) 20 20 20 20 20 20 20 2		Mine Unit(s)						
Disposal Cost (8)								& Irigaray
Total Cost - Learned Sile								640.070
Tot Receircutation Phase \$0.963 per fogat \$59,654 \$ 90 \$ 30 \$ 50 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50,554 \$ 50 \$ 50 \$ 50 \$ 50 \$ 50 \$ 50 \$ 50 \$								
Total Cost - Surface Trunkline Removal & Disposal \$50,554 \$50 \$50 \$50 \$50 \$30 \$30,5554 \$								
V Bured Trunsline	Total Cost - Surface Trunkline Removal & Disposal							
A. Removal Total Cuantity (FI) Total C		450,554						450,551
Cost of Removal (SFI)				l				
Cost of Removal (SF)	Total Quantity (Ft)	7300	11565	24500	47000	28500	0	i i
Average OD (inches) Chipped Volume Reduction (FPFF) OBS 8 0.088 0.088 0.130 0.130 0.130 0.130 Chipped Volume Reduction (FPFF) 642 1018 2156 6110 3705 0 Quantify Per Truck Load (FP) 540 540 540 540 540 540 540 540 540 540	Cost of Removal (\$/Ft)	\$3.12	\$3.12	\$3.12			\$3.12	
Chipped Volume (Reduction (FWF)) Chipped Volume (RPF) Chipped Volume (RP								\$370,859
Chipped Volume (FF)								1
Number of Truck Loads 1-2 1-9 4.0 11.3 540								
Number of Truck Loads							_	
B. Survey & Decontamination								
Percent Requiring Decontamination		1.2	1.9	4.0	11.3	6.9	0.0	
Loads for Decontamination (S435.00 S	B. Survey & Decontamination				ŀ			
Loads for Decontamination (S435.00 S	Percent Requiring Decentraringtion	0.00	0.0%	0.00/	0.0%	0.0%	0.00	
Cost for Decontamination. (\$I.Oad) \$435.00 \$435.00 \$435.00 \$435.00 \$50								
Cost for Decontamination, (5) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$								
C. Transport & Disposal 1, Landfill a. Transportation Percent To Be Shipped 0.0								\$0
1.) Landfil a. Transportation Percent To Be Shipped 0.0% 0.0% 0.0% 0.0% 0.00 0.0 0		1	ļ					
Percent To Be Shipped							l	[
Loads To Be Shipped			İ				1	
Transportation Cost per Load \$160								
Transportation Cost (\$) \$0 \$0 \$0 \$0 \$0 \$0 \$0								
b. Disposal Fee Per Yd*								
Disposal Fee Per Yds		\$0	[\$0	\$0	Į 5 0	\$0	\$0	\$0
Yids* Per Load 20 20 20 20 20 20 20 2		***	***			242.00	640.00	}
Disposal Cost (\$) \$0 \$0 \$0 \$0 \$0 \$0 \$0								
Total Cost - Landfill \$0								50
2.) Licensed Sife a. Transportation Percent To Be Shipped 100,0% 110,00 111,00								
A. Transportation		1	**	•	**	, ,	. ~	1
Percent To Be Shipped		1		1		İ	İ	
Transportation Cost per Load \$1,000 \$1,000 \$1,000 \$1,000 \$1,000 \$2,000	Percent To Be Shipped	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	
Transportation Cost (\$) \$1,200 \$1,900 \$4,000 \$11,300 \$6,900 \$0 \$25,300				4.0				
Disposal Cost Per Ft)
Disposal Cost Per Ft		\$1,200	\$1,900	\$4,000	\$11,300	\$6,900	\$0	\$25,300
Disposal Fee Per Yd* \$297.00 \$297.00 \$297.00 \$297.00 \$297.00 \$297.00 \$297.00 \$297.00 \$297.00 \$297.00 \$207.00 \$297.00 \$207.00 \$								l
Quantity Per Truck Load (Yds*) 20 20 20 20 20 20 20 2								
Disposal Cost (\$)								
Total Cost - Licensed Site								e450 282
Total Cost - Transport & Disposal \$8,328 \$13,186 \$27,760 \$78,422 \$47,886 \$0 \$175,582 Total Cost - Buried Trunklime Removal & Disposal \$31,104 \$49,269 \$104,200 \$225,052 \$136,806 \$0 \$549,441 \$V Manholes								
Total Cost - Buried Trunkline Removal & Disposal \$31,104 \$49,269 \$104,200 \$225,062 \$136,806 \$50 \$546,441 V Manholes								
V Manholes								
Total Quantity		1	1	1	1			
Cost of Removal (\$ Each)		1	1	T	Τ		T	
Cost of Removal (\$)								1 . [
Quartity Per Truck Load 10 10 10 10 10 10 Number of Truck Loads 0.5 0.8 0.5 1.1 0.5 0.0 0.0]
Number of Truck Loads 0.5 0.8 0.5 1.1 0.5 0.0								
B. Survey & Decontamination]
Percent Requiring Decontamination		0.5	0.8	0.5	1.1	0.5	0.0	├ ──
Loads for Decontamination 0.0	b. Survey & Decontamination	1	i		1			į l
Loads for Decontamination 0.0	Percent Requiring Decontamination	0.0%	0.0%	0.0%	0.0%	0.0%	.l n.ne∠	; l
Cost for Decontamination (\$/Load) \$435.00								1
Cost for Decontamination (\$) \$0 \$0 \$0 \$0 \$0 \$0 \$0								1 1
C. Transport & Disposal 1.) Landfill a. Transportation Percent To Be Shipped 0.0% 0.0% 0.0% 0.0% 0.0% 0.0 0.0 0.0 0.								\$0
1.) Landfill a. Transportation Percent To Be Shipped 0.0% 0.0% 0.0% 0.0% 0.0 0.0 0.0 0.0 0.0		T			1			
Percent To Be Shipped 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0		1		1	1	1	1	1 1
Loads To Be Shipped 0.0 0.0 0.0 0.0 0.0 0.0 0.0		i	Į.	l	t	l	1	[
								1
Iransportation Cost per Load \$160 \$160 \$160 \$160 \$160 \$160								
	ransportation Cost per Load	į \$160	Į \$160	j \$160	į \$1 60	\$160	\$160	ı I

Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
Mine Unit(s)	Mine Units	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Christense
#1 Thru #9	#2 Thru #4	#5	#6	#7	#8	& Irigaray
\$0	\$0	\$0	\$0	\$0	\$0	\$
				ł		
\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12,00	
20	20	20	20	20	20	
\$0	\$0	\$0	\$0	so	\$0	\$
so	\$0	\$0	\$0	SO.	\$0	
1						
1				l		
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
0.0	0.0	0.0	0.0		0.0	
\$1,000	\$1,000	\$1,000	\$1,000		\$1,000	
\$0	SO	\$0	. \$0	so	\$0	
	,			1	· ·	
\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	\$11.00	
\$297.00	\$297.00	\$297.00	\$297.00	\$297.00	\$297.00	
20	20	20	20	. 20	20	
\$0	\$0	\$0	\$0	\$0	so s	:
\$0	SO.	\$0	\$0	\$0	so i	:
\$0	\$0	\$0	\$0	. \$0	\$0	
\$585	\$936	\$585	\$1,287	\$585	\$0	\$3,9
	Mine Unit(s) #1 Thru #9 \$0 \$12.00 20 \$0 0.0% 0.0% 0.0 \$11.00 \$297.00 20 \$0 \$0	Mine Units #1 Thru #9 #2 Thru #4 \$0 \$0 \$0 \$12.00 \$12.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1.000 \$1.000 \$1.000 \$297.00 \$0 \$0 \$0	Mine Units #1 Thru #9 #5 \$0 \$0 \$0 \$0 \$0 \$12.00 \$12.00 \$12.00 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Mine Unit(s)	Mine Units Mine Units Mine Unit #6 Mine Unit #7	Mine Unit Mine Unit Mine Unit #5 Mine Unit #6 Mine Unit #7 Mine Unit #8 Mine Unit Mine Unit #8 Mi

WOF	RKSHEET 7						·	
		Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
		Mine Unit(s)	Mine Units	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Christensen
TOP	SOIL REPLACEMENT & REVEGETATION	#1 Thru #9	#2 Thru #4	#5	#6	#7	#8	& Ingaray
	Process Plant and Office Building	Ī						
	A. Topsoil Handling & Grading			1				·
- 1	Affected Area (Acres)	5.0	2.5	0.0	0.0	0.0	0.0	
- 1	Average Affected Thickness (Ins)	12.0	12.0	0.0	0.0	0.0	0.0	
- 1								
- 1	Topsoil Volume (Yds ³)	8067	4033	0	0	0	0	
- 1	Unit Cost - Haul/Place (\$/Yd²)	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	
- 1	Topsoil Handling Cost (\$)	\$16,133	\$8,067	\$0	\$0	\$0	\$0	
1	Unit Cost - Grading (\$/Ac)	\$38,45	\$38,45	\$38.45	\$38,45	\$38,45	\$38.45	
- 1	Grading Cost (\$)	\$192	\$96	so	\$0	\$0	\$0	
j	Sub Total - Topsoil	\$16,326	\$8,163	\$0	\$0	\$0	\$0	\$24,488
1	B. Radiation Survey & Soil Analysis	₩10,520	40,100	- 40	Ψυ			421,100
- 1			****		4500.00	0500.00	2500.00	
į	Unit Cost (\$/Ac)	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	
٠ ا	Sub Total - Survey & Analysis	\$2,600	\$1,300	\$0_	\$0	\$0	\$0	\$3,900
	C. Revegetation							
i	Fertilizer (\$/Ac)	\$46.49	\$46.49	\$46.49	\$46.49	\$46,49	\$46,49	
	Seeding Prep & Seeding (\$/Ac)	\$168,68	\$168.68	\$168.68	\$168,68	\$168,68	\$168,68	
	Mulching & Crimping (\$/Ac)	\$276.54	\$276.54	\$276,54	\$276.54	\$276.54	\$276.54	
1								
	Sub Total Cost/Acre	\$491.71	\$491.71	\$491,71	\$491.71	\$491.71	\$491.71	
I	Sub Total - Revegation	\$2,459	\$1,229	\$0	\$0	\$0	\$0	\$3,688
	Sub Total - Process Plant and Office Bldg.	\$21,384	\$10,692	\$0	\$0	\$0	\$0	\$32,076
II	Ponds							
	A. Topsoil Handling & Grading					I		
- 1	Affected Area (Acres)	20.0	12.0	0.0	0.0	0.0	0.0	
		12	12	0.0	0.0	0.0	0.0	
	Average Affected Thickness (Ins)			}			1	
	Topsoil Volume (Yds³)	32267	19360	0	0	0	0	
	Unit Cost - Haul/Place (\$/Yd³)	\$2,00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	
ĺ	Topsoil Handling Cost (\$)	\$64,533	\$38,720	\$0	\$0	\$0	\$0	
	Unit Cost - Grading (\$/Ac)	\$38.45	\$38.45	\$38,45	\$38.45	\$38.45	\$38.45	
	Grading Cost (\$)	\$769	\$461	\$0	\$0	\$0	\$0	
	Sub Total - Topsoil	\$65,302	\$39,181	\$0	\$0	\$0	\$0	\$104,484
ļ		305,502	\$39,101	30	\$0	40	30	3104,404
	B. Radiation Survey & Soil Analysis							
	Unit Cost (\$/Ac)	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	
	Sub Total - Survey & Analysis	\$10,400	\$6,240	\$0_	\$0	\$0	\$0	\$16,640
	C. Revegation							
	Fertilizer (\$/Ac)	\$46,49	\$46,49	\$46,49	\$46.49	\$46,49	\$46.49	
	Seeding Prep & Seeding (\$/Ac)	\$168.68	\$168.68	\$168.68	\$168,68	\$168.68	\$168.68	
		\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	
	Mulching & Crimping (\$/Ac)							
1	Sub Total Cost/Acre	\$491.71	\$491.71	\$491.71	\$491.71	\$491.71	\$491.71	
	Sub Total - Revegation	\$9,834	\$5,901	\$0	\$0	\$0	\$0	\$15,735
	Sub Total - Ponds	\$85,537	\$51,322	\$0		\$0	\$0	\$136,858
	Wellfields							
	A. Topsoil Handling & Grading					T		
	Affected Area (Acres)	40.0	55.0	30.0	50.0	35.0	40.0	
1		3.5	0.0			0.0	0.0	
	Average Affected Thickness (Ins)			0.0	0.0			
- 1	Topsoil Volume (Yds ³)	18822	0	0	0		. 0	ļ
	Unit Cost - Haul/Place (\$/Yd³)	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	
	Topsoil Handling Cost (\$)	\$37,644	\$0	\$0	\$0	\$0	\$0	
	Unit Cost - Grading (\$/Ac)	\$38.45	\$38.45	\$38.45	\$38.45	\$38.45	\$0.00	}
	Grading Cost (\$)	\$1,538	\$2,115	\$1,154	\$1,923	\$1,346	\$0	Ì
	Sub Total - Topsoil	\$39,182	\$2,115	\$1,154	\$1,923	\$1,346	\$0	\$45,719
		400,102	Ψ2,113	\$1,134	₩1,32.3	4.,540	1 40	Q-10,7 15
	B. Radiation Survey & Soil Analysis							
	Unit Cost (\$/Ac)	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	1
	Sub Total - Survey & Analysis	\$20,800	\$28,600	\$15,600	\$26,000	\$18,200	\$0	\$109,200
	C: Spill Cleanup	1	1		1		1	
	Affected Area (Acres)	ŀ	0.036	1 0	0	0	0	l
	1 '- '	1	1,568	1	0	0	0	l
	Affected Area (ft²)			0				l
İ	Average Affected Thickness (fl)	1	0.25	0	0	0	0	l
	Affected Volume (ff ³)		392	1 0	0	0	_ 0	l
	Quantity per Truckload (ft³)		540	540	540	540	540	l
		1			0.0	0.0		1
	Quantity to be Shipped (Loads)	1	0.7	0.0			0.0	1
	Transportation Cost per Load	1	\$1,000					l
	Transportation Cost (\$)	i	\$726	\$0	\$0	\$0	\$0	l
	Handling Cost (\$240/load)	1	\$174	\$0	\$0	\$0	\$0	l
	Disposal Fee per Cubic Foot (\$)	1	\$3,70	\$3.70	\$3,70	\$3.70	\$3.70	l
	Disposal Cost (\$)	1	\$1,450		\$0			1
	Dispositi Gost (4)	1	U \$1,450	, 40	, 40	, 40	, 40	1

RKSHEE! /	Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
	Mine Unit(s)	Mine Units	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Christensen
SOIL REPLACEMENT & REVEGETATION	#1 Thru #9	#2 Thru #4	#5	#6	#7	#8	& Irigaray
Sub Total - Spill Cleanup	\$0	\$2,351	\$0	\$0	\$0	\$0	\$2,351
D. Revegation							
Fertilizer (\$/Ac)	\$46.49	\$46.49	\$46.49	\$46.49	\$46.49	\$46.49	
Seeding Prep & Seeding (\$/Ac)	\$168.68	\$168.68	\$168.68	\$168.68	\$168.68	\$168.68	
Mulching & Crimping (\$/Ac)	\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	
Sub Total Cost/Acre	\$491.71	\$491.71	\$491.71	\$491,71	\$491.71	\$491.71	6450.00
Sub Total - Revegation	\$19,668	\$27,044	\$14,751	\$24,586	\$17,210	\$19,668	\$122,928
Sub Total - Welffields (\$) Roads	\$79,651	\$60,109	\$31,505	\$52,508	\$36,756	\$19,668	\$280,197
A. Topsoil Handling & Grading	 						
Affected Area (Acres)	25.0	20.0	15.0	21.0	120	388415.0	
Average Affected Thickness (Ins)	12	12	12	12	12	12	
Topsoil Volume (Yds*)	40333	32267	24200	33880	19360	24200	
Unit Cost - Haul/Place (\$/Yd²)	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	
Topsoil Handling Cost (\$)	\$80,667	\$64,533	\$48,400	\$67,760	\$38,720	\$48,400	
Unit Cost - Grading (\$/Ac)	\$38.45	\$38.45	\$38.45	\$38.45	\$38,45	\$38.45	
Grading Cost (\$)	\$961	\$769	\$577	\$807	\$461	\$577	
Sub Total - Topsoil	\$81,628	\$65,302	\$48,977	\$68,567	\$39,181	\$48,977	\$352,63
B. Radiation Survey & Soil Analysis	401,020	000,00Z	<u> </u>	400,507	\$00,101	410,511	4002,00
Unit Cost (\$/Ac)	\$520.00	\$520.00	\$520.00	\$520,00	\$520.00	\$520.00	
Sub Total - Survey & Analysis	\$13,000	\$10,400	\$7,800		\$6,240		\$56,16
C. Revegation	0,0,000	\$10,400	47,000	<u> </u>	STATISTICS.	13411114111001	400,10
Fertilizer (\$/Ac)	\$46.49	\$46.49	\$46.49	\$46.49	\$46.49	\$46.49	
Seeding Prep & Seeding (\$/Ac)	\$168.68	\$168.68	\$168,68	\$168.68	\$168,68	\$168.68	
Mulching & Crimping (\$/Ac)	\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	
Sub Total Cost/Acre	\$491.71	\$491.71	\$491.71	\$491.71	\$491,71	\$491.71	
Sub Total - Revegation	\$12,293	\$9,834	\$7,376	\$10,326	\$5,901	\$7,376	\$53,10
Sub Total - Roads (\$)	\$106,921	\$85,537	\$64,152		\$51,322		\$461,89
Other	0,00,==1	, , , , , , , , , , , , , , , , , , ,	,			19:12	
A. Topsoil Handling & Grading	1	ļ			T		
Affected Area (Acres)	41.0	19.0	5.0	5.0	# 5.0	FIFT & 15.0	
Average Affected Thickness (Ins)	0.0	0.0	0	0	0	Ö	
Topsoil Volume (Yds²)	0	0	Ō	l o	ا آ	ا ا	
Unit Cost - Haul/Place (\$/Yd³)	\$2.00	\$2.00	\$2.00	\$2,00	\$2.00	\$2.00	
Topsoil Handling Cost (\$)	\$0	\$0	\$0	\$0	\$0	\$0	
Unit Cost - Grading (\$/Ac)	\$38.45	\$38,45	\$38.45	\$38,45	\$38.45	\$0.00	
Grading Cost (\$)	\$1,576	\$731	\$192	\$192	\$192	\$0	
Sub Total - Topsoil	\$1,576	\$731	\$192	\$192	\$192	\$0	\$2,88
B. Radiation Survey & Soil Analysis							
Unit Cost (\$/Ac)	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	\$520.00	
Sub Total - Survey & Analysis	\$21,320	\$9,880	\$2,600	\$2,600	\$2,600	\$2,600	\$41,60
C. Revegation							
Fertilizer (\$/Ac)	\$46.49	\$46.49	\$46.49	\$46.49	\$46,49	\$46.49	
Seeding Prep & Seeding (\$/Ac)	\$168.68	\$168.68	\$168.68	\$168.68	\$168.68	\$168.68	
Mulching & Crimping (\$/Ac)	\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	\$276.54	
Sub Total Cost/Acre	\$491.71	\$491.71	\$491.71	\$491.71	\$491,71	\$491.71	
Sub Total - Revegation	\$20,160	\$9,342	\$2,459	\$2,459	\$2,459	\$2,459	\$39,33
Sub Total - Other	\$43,057	\$19,953	\$5,251	\$5,251	海流 \$5,251	M35:\$5,059\$	\$83,82
Remedial Action							
A. Topsoil Handling & Grading			T				
Affected Area (Acres)	65.5	54.3	25.0	38.0	26.0	-,4,2,30.0	
Average Affected Thickness (Ins)	0.0	0.0	0.0	0.0	0.0	0.0	
Topsoil Volume (Yds³)		l o	l o	1 0		о	
Unit Cost - Haul/Place (\$/YdP)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Topsoil Handling Cost (\$)	\$0	\$0	\$0	\$0	\$0	\$0	
Unit Cost - Grading (\$/Ac)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Grading Cost (\$)	\$0	\$0	\$0	\$0	\$0	\$0	
Sub Total - Topsoil	\$0	\$0	\$0	\$0	\$0	\$0	
B. Radiation Survey & Soil Analysis	1		1	1	1	1	`
Unit Cost (\$/Ac)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Sub Total - Survey & Analysis	\$0.00	\$0.50	\$0.00	\$0.00	\$0.00	\$0.50	
C. Revegation		30	30	30	- 30	1	— '
	\$46.49	\$46.49	\$46,49	\$46,49	\$46,49	\$46.49	
	1 340.43			\$168.68	\$168.68	\$168.68	
Fertilizer (\$/Ac)	\$168.69	\$168 CD					
Seeding Prep & Seeding (\$/Ac)	\$168.68 \$276.54	\$168.68 \$276.54	\$168.68 \$276.54				
	\$168.68 \$276.54 \$491.71	\$168.68 \$276.54 \$491.71	\$168.68 \$276.54 \$491.71	\$276.54	\$276.54	\$276.54	

	Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
	Mine Unit(s)	Mine Units	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Christensen
TOPSOIL REPLACEMENT & REVEGETATION	#1 Thru #9	#2 Thru #4	#5	#6	#7	#8	& Irigaray
Sub Total - Revegation	\$32,207	\$26,675	\$12,293	\$18,685	\$12,784	\$14,751	\$117,396
Sub Total - Remedial Action	\$32,207	\$26,675	\$12,293	\$18,685	\$12,784	\$14,751	\$117,396
TOTAL COST - TOPSOIL & REVEGETATION	\$368,756	\$254,288	\$113,201	\$166,257	18\$106,113	\$4\$103,631	\$1,112,245

WORKSHEET 8							
	Irigaray	Christensen	Christensen	Christensen	Christensen	Christensen	Total
	Mine Unit(s)	Mine Units	Mine Unit	Mine Unit	Mine Unit	Mine Unit	Christensen
MISCELLANEOUS RECLAMATION	#1 Thru #9	#2 Thru #4	#5	#6	#7	#8	& Irigaray
I Fence Removal & Disposal	l					_	
Quantity (Feet)	15240	35260	20000	9000	运输约12000	0	
Cost of Removal/Disposal (\$/Ft)	\$0.68	\$0.68	\$0.68	\$0,68	\$0.68	\$0.68	
Cost of Removal/Disposal (\$)	\$10,363	\$23,977	\$13,600	\$6,120	\$8,160		\$62,220
II Powerline Removal & Disposal				·			
Quantity (Feet)	9450	10565	18000	18000	5000	10000	
Cost of Removal/Disposal (\$/Ft)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Cost of Removal/Disposal (\$)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III Powerpole Removal & Disposal	* ©					- 40	
Quantity	25	30	. 60	60	25	50	
Cost of Removal/Disposal (\$/Each)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Cost of Removal/Disposal (\$)	\$0.00	\$0.00	\$0.50	\$0.00	\$0.50	\$0.80	\$0
IV Transformer Removal & Disposal	30	J 3∪	20	\$0	30	\$0	
Quantity Quantity	1 0			A	Latitude Company of the	0	
		20 707				0	
Cost of Removal/Disposal (\$/Each)	\$2,525	\$2,525	\$2,525	\$619	\$619	\$619	KUSEKE TERRET
Cost of Removal/Disposal (\$)	\$0_	\$2,525	\$0	\$0	\$11,142	\$0	313,667
V Booster Pump Assembly Removal &		,					
Quantity	0	6	5	5	0	0	
Cost of Removal/Disposal (\$/Each)	\$248	\$248	\$248	\$248	\$248	\$248	
Cost of Removal/Disposal (\$)	\$0	\$1,488	\$1,240	\$1,240	\$0	\$0	\$3,968
VI Culvert Removal & Disposal							
Quantity (Feet)	150		1000		2-13-07x500	0	
Cost of Removal/Disposal (\$/Ft)	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48	
Cost of Removal/Disposal (\$)	\$522	\$4,176	\$3,480	\$3,480	\$1,740	\$0	\$13,398
VII Guardrail Removat	1						
Quantity (Feet)	200	3000	0	0	0	0	
Cost of Removal/Disposal (\$/Ft)	\$6.44	\$6.44	\$6.44	\$6.44	\$6.44	\$6.44	
Cost of Removal/Disposal (\$)	\$1,288	\$19,320	\$0	\$0	so	\$0	\$20,608
VIII Low Water Stream Crossing							
Quantity	0	1	1	0	0	0	
Cost of Removal/Disposal (\$/Each)	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	i
Cost of Removal/Disposal (\$)	\$0	\$4,500	\$4,500	\$0	\$0	\$0	\$9,000
IX Utilities Cost		4.,000	4.1000		1	-	40,000
Quantity (Mos)	0	8	4	4	4	0	
Cost Per Month (\$/Month)	\$65	\$65	\$65	\$65	\$65	\$65	\
Total Cost (\$)	\$0	\$520	\$260	\$260	\$260	\$00	\$1,300
Total Cost (a)	1 20	\$320	Φ20 0	1 9200	J\$26U	1 20	31,300
TOTAL MISCELLANEOUS COST	\$12,173	\$56,506	\$23,080	\$11,100	\$218302	\$0	\$124,161
TOTAL MISCELLANEOUS COST	\$12,1/3	\$55,506	\$23,080	UUT, FF¢ j	192073/0Z1730Z	\$0	⊅1∠4,161