







I:

Lockheed Martin Idaho Technologies Co.

DETAILED COST ESTIMATE (CONT.SHEET)

Rev 10-96

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Project WAG 5 FS COST ESTIMATES  
WASTE SITES ARA-02  
ALTERNATIVE 4 - IN SITU STABILIZATION  
AND ENCALSULATION

Type of Est. Planning

File No. 4951-3

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>FFACO Management and Oversight</b>										
	<b>Program Management</b>										
	Coordination/Oversight of Technical Support		1 fte		640	640	75	48,000			48,000
	Coordination with Agency Participants		1 fte		320	320	75	24,000			24,000
	Cost and Schedule Control		1 fte		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation		1 fte		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews		1 fte		160	160	65	10,400			10,400
	Audit Preparation and Coordination		1 fte		160	160	65	10,400			10,400
	<b>Total Cost (Per Year)</b>										124,800
	<b>Total Cost (Per Year Rounded)</b>										125,000
	<b>Program Management - 3 Year Duration</b>		3 yr	125,000					375,000		375,000
	<b>RA Document Preparation</b>										
	<b>RD/RA SOW</b>										
	PreDesign Studies/Preliminary Scoping		3 fte		80	240	75	18,000			18,000
	Design Criteria		1 fte		40	40	75	3,000			3,000
	RD/RA Document Preparation		1 fte		80	80	75	6,000			6,000
	Reviews and Comment Resolution		1 fte		360	360	75	27,000			27,000
	<b>RD/RA SOW Cost</b>										54,000
	<b>RA Workplan</b>										
	Preliminary Scoping		1 fte		160	160	75	12,000			12,000
	RD/RA Document Preparation		1 fte		260	260	75	19,500			19,500
	Reviews and Comment Resolution		1 fte		420	420	75	31,500			31,500
	<b>RA Workplan Cost</b>										63,000

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Project WAG 5 FS COST ESTIMATES  
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AND ENCALCULATION

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ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>RA Document Preparation (cont)</b>										
	<b>Packaging, Shipping, Transportation Documentation</b>										
	Sampling and Analysis		NA								NA
	Hazard Classification		NA								NA
	Selection and Procurement of Packaging		NA								NA
	<b>Packaging, Shipping, Transportation Documentation Cost</b>										NA
	<b>Remedial Action Report</b>										
	RA Report Preparation		1 fte		320	320	75	24,000			24,000
	Reviews and Comment Resolution		1 fte		320	320	75	24,000			24,000
	<b>RA Report Cost</b>										48,000
	<b>WAG-Wide RA 5 Yr. Review - (Cost Includes (1) FTE For (1) yr for the Initial Review</b>										
	RA Report Preparation		1 yr		1,440	1,440	75	108,000			108,000
	Reviews and Comment Resolution		1 yr		440	440	75	33,000			33,000
	<b>WAG-Wide RA 5 Yr. Reviews For 100 Years</b>										141,000
	<b>RD Document Preparation</b>										
	<b>Safety Analysis Documentation (ASA &amp; HSP)</b>										
	Auditable Safety Analysis/Hazards Classification		2 fte		160	320	75	24,000			24,000
	Unresolved Safety Questions		2 fte		160	320	75	24,000			24,000
	Quality Assurance		1 fte		30	30	75	2,250			2,250
	Reviews and Comment Resolution		2 fte		335	670	75	50,250			50,250
	<b>Safety Analysis Documentation Cost</b>										100,500
	<b>Sampling and Analysis Plan</b>										
	Preliminary Scoping		1 fte		320	320	75	24,000			24,000
	Field Sampling Plan Preparation		1 fte		400	400	75	30,000			30,000
	Reviews and Comment Resolution		1 fte		720	720	75	54,000			54,000
	<b>Sampling and Analysis Plan Cost</b>										108,000

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Project WAG 5 FS COST ESTIMATES  
WASTE SITES ARA-02  
ALTERNATIVE 4 - IN SITU STABILIZATION  
AND ENCALSULATION

Type of Est. Planning

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Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>RD Document Preparation (continued)</b>										
	<b>Pre-Final Inspection Report</b>										
	Checklist Preparation		1 fte		40	40	75	3,000			3,000
	Reviews and Comment Resolution		1 fte		60	60	75	4,500			4,500
	<b>Pre-Final Inspection Report Cost</b>										<b>7,500</b>
	<b>Remedial Design</b>										
	<b>Initial Review of Deed Restrictions with Governing Bodies and Public Comment</b>										
	Legal Attorney and Env. Affairs at \$32K ea.		1 ea	32,000					32,000		32,000
	<b>Deed Restrictions Cost</b>										<b>32,000</b>
	<b>Title Design Construction Document Package - For Construction Subcontract</b>										
	Remedial Design Workplan		1 fte		320	320	75	24,000			24,000
	Archeological Survey, Coordination, & RA Oversight		1 fte	8,400	640	640	65	41,600	8,400		50,000
	Siting and Surveying		1 site		20	20	40	800			800
	Procurement Document Package For ARA-02		6 dwgs	3,500					21,000		21,000
	<b>Total Title Design Package</b>										<b>95,800</b>
	<b>Site Characterization - Including: Sample Collection Materials/Labor, Shipping, SMO TOS Preparation &amp; Analysis Reporting, ERIS Quality Reporting</b>									(Materials)	
	Assume 5 Samples for ARA-02 Tank Contents/Soils		5 smpls	3,500	6	30	75	2,250	17,500	500	20,250

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Project WAG 5 FS COST ESTIMATES  
WASTE SITES ARA-02  
ALTERNATIVE 4 - IN SITU STABILIZATION  
AND ENCALSULATION

Type of Est. Planning

File No. 4951-3

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>Remedial Action - ARA-02 - Construction Subcontract; Stabilization and Encapsulation</b>										
	Mobilization to Site		1 crew		10	10	350	3,500			3,500
	At Pits:										
	Machine and Hand Excavation and Backfill		4 each		5.0	20	350	7,000			7,000
	Plug Upstream 8" Concrete Piping		1 each	25	4	4	65	260	25		285
	Construction of Covered Tenting		4 places	250	8	32	150	4,800	1,000		5,800
	Drill Bleed Holes		4 pits		2	8	65	520			520
	Pressure Grouting of Pits @ 97 cuft/day		929 cuft	8	0.1	93	150	13,935	7,432		21,367
	At Pipe:		6 boxes		0.6	4	350	1,260			1,260
	Machine and Hand Excavation and Backfill		10 each		3.0	30	350	10,500			10,500
	Construction of Covered Tenting		10 places	250	8	80	150	12,000	2,500		14,500
	Drill Bleed Holes		10 places		2	20	65	1,300			1,300
	Pressure Grouting of Pipe @ 30 cuft/day		157 cuft	8	0.3	47	150	7,065	1,256		8,321
	Install Fencing, Signage and Gating		1,000 Inft	25					25,000		25,000
	D&D Temporary Tenting Covers		14 each		8	112	33	3,696			3,696
	Project Supervision		170 hours		1.0	170	40	6,800			6,800
	Install Long Term Monitoring Bore Holes Allowance		10 ea	10,000					100,000		100,000
	Revegetate		1 ls	750					750		750
	Site Cleanup and Demob.		1 ls		10	10	350	3,500			3,500
	<b>Total Subcontractor Directs</b>										<b>214,099</b>
	<b>Subcontractor Overhead and Profit @ 30%</b>										<b>64,230</b>
	<b>Total Subcontractor Directs and Indirects</b>										<b>278,329</b>
	<b>Procurement Fees and G&amp;A at Current Business Practices</b>										<b>23,123</b>
	<b>Total Subcontractor Costs</b>										<b>365,681</b>
	<b>Project/Construction Management; Stabilization and Encapsulation</b>										<b>83,499</b>







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Project WAG 5 FS COST ESTIMATES  
WASTE SITES ARA-02  
ALTERNATIVE 4 - IN SITU STABILIZATION  
AND ENCALSULATION

Type of Est. Planning

File No. 4951-3

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>Continued ICPP Caretaker/Maintenance</b>										
	Caretaker		0.1 fte		1,880	188	75	14,100			14,100
	Monitoring Bore Holes Maintenance		10 ea	100					1,000		1,000
	Fence Maintenance		1,000 lf	0.5					500		500
	Area/Access Materials and Repair		12 mos.	500					6,000		6,000
	<b>Caretaker/Maintenance Cost Per Year</b>										<b>21,600</b>
	Caretaker Cost - 100 Year Duration		100 yrs	21,600					2,160,000		<b>2,160,000</b>
	<b>Operations, Maintenance, Materials and Disposal</b>										<b>N/A</b>
	<b>D&amp;D of Facilities</b>										<b>N/A</b>
	<b>Surveillance and Monitoring (annual sampling &amp; monitoring activities) - Assumes all groundwater monitoring is conducted by Others</b>										
	Air Sampling/Monitoring, Maint. Insp./Report		100 yrs	NA							NA
	Yearly Sampling/Characterization Allowance		100 yrs	10,000					1,000,000		1,000,000
	5-Year Review Report		20 times	6,000					120,000		120,000
	<b>Surveillance and Monitoring Costs - 100 Year Duration</b>										<b>1,120,000</b>

SUMMARY COST ESTIMATE SHEET

Rev 10-98

Pag 1 of 1

Project WAG 5 FS COST ESTIMATES  
WASTE SITE ARA-16  
 Location ARA - INEEL  
 Requester F. L. WEBBER

Type of Est. Planning

File No. 4951-3

Date 01/06/99

Prep'd By TES/KLS

Checked By *[Signature]*

ACCT. NO.	DESCRIPTION	ALTERNATIVE #1	ALTERNATIVE #2	ALTERNATIVE #3A	ALTERNATIVE #3B1	ALTERNATIVE #3B2	ALTERNATIVE #4	ALTERNATIVE #5
		NO ACTION	LIMITED ACTION	ISV OF THE ARA-16 TANK WASTE AT ARA-16	REMOVAL AND ISV OF THE ARA-16 TANK AT TEST AREA NORTH	ISV OF THE ARA-16 TANK WASTE AT TEST AREA NORTH	REMOVAL EX SITU THERMAL TREATMENT DISPOSAL	REMOVAL EX SITU STABILIZATION OFFSITE DISPOSAL
	CAPITAL COST SUBTOTAL	1,286,500	1,442,105	3,013,899	3,180,582	3,793,614	3,661,985	3,987,502
	Contingency @ 30%	385,950	432,831	904,170	954,175	1,138,084	1,098,595	1,196,250
	TOTAL CAPITAL COST IN FY98 DOLLARS	1,672,450	1,874,736	3,918,068	4,134,756	4,931,698	4,760,580	5,183,752
	TOTAL CAPITAL COST IN ESCALATED DOLLARS	1,788,648	2,026,643	4,256,027	4,494,206	5,363,703	5,176,535	5,639,977
	TOTAL CAPITAL COST IN NET PRESENT VALUE	1,588,084	1,750,181	3,642,518	3,841,956	4,580,006	4,421,868	4,812,543
	O&M COST SUBTOTAL	14,401,620	14,472,434	9,464,400	N/A	N/A	N/A	N/A
	Contingency @ 30%	4,320,486	4,341,730	2,821,320	N/A	N/A	N/A	N/A
	TOTAL O&M COST IN FY98 DOLLARS	18,722,106	18,814,165	12,285,720	N/A	N/A	N/A	N/A
	TOTAL O&M COST IN ESCALATED DOLLARS	113,296,847	120,526,010	77,887,824	N/A	N/A	N/A	N/A
	TOTAL O&M COST IN NET PRESENT VALUE	7,758,368	7,486,341	4,931,020	N/A	N/A	N/A	N/A
	TOTAL PROJECT COST IN FY 98 DOLLARS	20,394,556	20,886,901	16,143,788	4,134,756	4,931,698	4,760,580	5,183,752
	TOTAL PROJECT COST IN ESCALATED DOLLARS	115,035,495	122,582,653	82,153,851	4,494,206	5,363,703	5,176,535	5,639,977
	TOTAL PROJECT COST IN NET PRESENT VALUE	9,346,452	9,236,522	8,573,538	3,841,956	4,580,006	4,421,868	4,812,543



Project WAG 5 FS COST ESTIMATES  
WASTE SITE ARA-16  
 Location ARA - INEEL  
 Requester F. L. WEBBER

Type of Est. Planning  
 Source (E) Eng. Est.  
 (V) Vendor  
 (P) Pur. Order

File No. 4951-3

Date 01/06/99  
 Prep'd By TES/KLS

ACCT. NO.	DESCRIPTION	ALTERNATIVE #1	ALTERNATIVE #2	ALTERNATIVE #3A	ALTERNATIVE #3B1	ALTERNATIVE #3B2	ALTERNATIVE 4	ALTERNATIVE 5
		NO ACTION	LIMITED ACTION	ISV OF THE ARA-16 TANK WASTE AT ARA-16	REMOVAL AND ISV OF THE ARA-16 TANK AT TEST AREA NORTH	ISV OF THE ARA-16 TANK WASTE AT TEST AREA NORTH	REMOVAL EX SITU THERMAL TREATMENT DISPOSAL	REMOVAL, EX SITU STABILIZATION OFFSITE DISPOSAL
ER1220	<b>FFA/CO Management and Oversight</b>							
	Program Management	250,000	375,000	375,000	375,000	375,000	375,000	375,000
	RA Document Preparation							
	RD/RA SOW	54,000	54,000	54,000	54,000	54,000	54,000	54,000
	RA Workplan	63,000	63,000	63,000	63,000	63,000	63,000	63,000
	Packaging, Shipping, Trans. Documentation	NA	NA	N/A	48,000	48,000	48,000	48,000
	Remedial Action Report	48,000	48,000	48,000	48,000	48,000	48,000	48,000
	WAG-Wide RA - 5 Yr. Reviews	141,000	141,000	141,000	141,000	141,000	141,000	141,000
	RD Documentation Preparation							
	Safety Analysis Documentation (ASA & HSP)	100,500	100,500	100,500	100,500	100,500	100,500	100,500
	Sampling and Analysis Plan	108,000	108,000	108,000	108,000	108,000	108,000	108,000
	Pre-Final Inspection Report	7,500	7,500	7,500	7,500	7,500	7,500	7,500
ER1210	<b>Remedial Design</b>							
	Added Institutional Controls - 5 Yr. Reviews	32,000	32,000	32,000	32,000	32,000	32,000	32,000
	Title Design Construction Document Package	67,960	74,960	283,180	229,200	287,200	287,200	287,200
ER1230	<b>Remedial Action - Construction Subcontract</b>							
	Site Characterization	80,000	80,000	20,250	32,600	32,600	20,250	20,250
	Construction Subcontract	274,040	312,229	1,617,099	1,822,055	2,074,973	1,977,339	2,270,681
	Project/Construction Management	80,500	45,916	164,390	319,727	421,841	400,196	432,371
	<b>TOTAL CAPITAL COST</b>	<b>1,288,500</b>	<b>1,442,105</b>	<b>3,013,899</b>	<b>3,180,582</b>	<b>3,793,614</b>	<b>3,661,985</b>	<b>3,967,602</b>
ER1230	<b>Remedial Action - Operations (100 Year Duration)</b>							
	Program Management	3,385,000	3,385,000	3,385,000	NA	NA	N/A	NA
	WAG-Wide RA - 5 Yr. Review For 100 Years	3,243,000	3,243,000	3,243,000	NA	NA	N/A	NA
	Added Institutional Controls - 5 Yr. Review For 100 Years	640,000	640,000	640,000	NA	NA	N/A	NA
	Continued/New Construction Caretaker/Maintenance	3,013,620	3,084,434	2,016,400	NA	NA	N/A	NA
	Operations, Maintenance, Materials, and Disposal	NA	NA	NA	NA	NA	N/A	NA
ER2000	<b>D&amp;D of Facilities</b>	NA	NA	NA	NA	NA	N/A	NA
ER1310	<b>Surveillance and Monitoring</b>	4,120,000	4,120,000	120,000	NA	NA	N/A	NA
	<b>TOTAL OPERATIONS COST (100 YEARS)</b>	<b>14,401,620</b>	<b>14,472,434</b>	<b>9,404,400</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

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DETAILED COST ESTIMATE (CONT.SHEET)

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Project WAG-5 FS COST ESTIMATES  
WASTE SITE ARA-16  
ALTERNATIVE 1 - NO ACTION  
EXIST INST. CONTROLS/MONITORING

Type of Est. Planning

File No. 4951-3

Date 01/06/99

ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>FFA/CO Management and Oversight</b>										
	<b>Program Management</b>										
	Coordination/Oversight of Technical Support		1 fte		640	640	75	48,000			48,000
	Coordination with Agency Participants		1 fte		320	320	75	24,000			24,000
	Cost and Schedule Control		1 fte		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation		1 fte		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews		1 fte		160	160	65	10,400			10,400
	Audit Preparation and Coordination		1 fte		160	160	65	10,400			10,400
	<b>Total Cost (Per Year)</b>										<b>124,800</b>
	<b>Total Cost (Per Year Rounded)</b>										<b>125,000</b>
	<b>Program Management - 2 Year Duration</b>		2 yr	125,000					250,000		<b>250,000</b>
	<b>RA Document Preparation</b>										
	<b>RD/RA SOW</b>										
	PreDesign Studies/Preliminary Scoping		3 fte		80	240	75	18,000			18,000
	Design Criteria		1 fte		40	40	75	3,000			3,000
	RD/RA Document Preparation		1 fte		80	80	75	6,000			6,000
	Reviews and Comment Resolution		1 fte		360	360	75	27,000			27,000
	<b>RD/RA SOW Cost</b>										<b>54,000</b>
	<b>RA Workplan</b>										
	Preliminary Scoping		1 fte		160	160	75	12,000			12,000
	RD/RA Document Preparation		1 fte		260	260	75	19,500			19,500
	Reviews and Comment Resolution		1 fte		420	420	75	31,500			31,500
	<b>RA Workplan Cost</b>										<b>63,000</b>

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Project WAG-5 FS COST ESTIMATES  
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ALTERNATIVE 1 - NO ACTION  
EXIST INST. CONTROLS/MONITORING

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	<b>RA Document Preparation (cont.)</b>										
	<b>Packaging, Shipping, Transportation Documentation</b>										
	Sampling and Analysis		NA								NA
	Hazard Classification		NA								NA
	Selection and Procurement of Packaging		NA								NA
	<b>Packaging, Shipping, Transportation Documentation Cost</b>										<b>NA</b>
	<b>Remedial Action Report</b>										
	RA Report Preparation		1 fte		320	320	75	24,000			24,000
	Reviews and Comment Resolution		1 fte		320	320	75	24,000			24,000
	<b>Remedial Action Report Cost</b>										<b>48,000</b>
	<b>WAG-Wide RA 5 Yr. Review - (Cost Includes (1) FTE For (1) yr for the Initial Review</b>										
	RA Report Preparation		1 yr		1,440	1,440	75	108,000			108,000
	Reviews and Comment Resolution		1 yr		440	440	75	33,000			33,000
	<b>WAG-Wide RA 5 Yr. Reviews For 100 Years</b>										<b>141,000</b>
	<b>RD Document Preparation</b>										
	<b>Safety Analysis Documentation (ASA &amp; HSP)</b>										
	Auditable Safety Analysis/Hazards Classification		2 fte		160	320	75	24,000			24,000
	Unresolved Safety Questions		2 fte		160	320	75	24,000			24,000
	Quality Assurance		1 fte		30	30	75	2,250			2,250
	Review & Comment Resolution		2 fte		335	670	75	50,250			50,250
	<b>Safety Analysis Documentation Cost</b>										<b>100,500</b>
	<b>Sampling and Analysis Plan</b>										
	Preliminary Scoping		1 fte		320	320	75	24,000			24,000
	Field Sampling Plan Preparation		1 fte		400	400	75	30,000			30,000
	Reviews and Comment Resolution		1 fte		720	720	75	54,000			54,000
	<b>Sampling and Analysis Plan Cost</b>										<b>108,000</b>



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DETAILED COST ESTIMATE (CONT.SHEET)

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Project WAG-5 FS COST ESTIMATES  
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ALTERNATIVE 1 - NO ACTION  
EXIST INST. CONTROLS/MONITORING

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	<b>RD Document Preparation (cont.)</b>										
	<b>Pre-Final Inspection Report</b>										
	Checklist Preparation		1 fte		40	40	75	3,000			3,000
	Reviews and Comment Resolution		1 fte		60	60	75	4,500			4,500
	<b>Pre-Final Inspection Report Cost</b>										<b>7,500</b>
	<b>Remedial Design</b>										
	<b>Initial Review of Deed Restrictions with Governing Bodies and Public Comment</b>										
	Legal Attorney and Env. Affairs at \$32K ea.		1 ea	32,000					32,000		32,000
	<b>Deed Restrictions Cost</b>										<b>32,000</b>
	<b>Title Design Construction Document Package</b>										
	Remedial Design Workplan		1 fte		40	40	75	3,000			3,000
	Archeological Survey, Coordination, & RA Oversight		1 fte	8,400	640	640	65	41,600	8,400		50,000
	Siting and Surveying		3 fte		8	24	40	960			960
	Procurement Document Package		4 dwgs	3,500					14,000		14,000
	<b>Total Cost Title Design Construction Document Package</b>										<b>67,960</b>
	<b>Site Characterization - Including: Sample Collection Materials/Labor, Shipping, SMO TOS Preparation &amp; Analysis Reporting, ERIS Quality Reporting</b>									(Materials)	
	Assume an Average of 5 per Site x 2 Sites		10 smpls	3,500	6	60	75	4,500	35,000	500	40,000
	Drilling Core Samples		8 ea	5,000					40,000		40,000
	<b>Construction Subcontract - (4) Monitoring Wells at Each Site)</b>										
	Mob and Demob of Drilling Equipment		1 ls	10,000	Included				10,000		10,000
	Monitoring Wells (Angle Drilling 4" Dia. x 20' Deep)		8 ea	13,000	Included				104,000		104,000
	Monitoring Equipment		1 ls	41,000	Included				41,000		41,000
	<b>Total Subcontractor Direct Costs</b>										<b>155,000</b>
	Subcontractor Overhead and Profit @ 30%										46,500
	<b>Total Subcontractor Directs and Indirects</b>										<b>201,500</b>
	<b>Procurement Fee and G&amp;A at Current Business Practices</b>										<b>72,540</b>
	<b>Total Subcontractor Costs</b>										<b>274,040</b>
	<b>Project/Construction Management</b>										<b>60,500</b>

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Lockheed Martin Idaho Technologies Co.

DETAILED COST ESTIMATE (CONT.SHEET)

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Project WAG-5 FS COST ESTIMATES  
WASTE SITE ARA-16  
ALTERNATIVE 1 - NO ACTION  
EXIST INST. CONTROLS/MONITORING

Type of Est. Planning

File No. 4951-3

Date 01/06/99

ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>Remedial Action - Operations (100 Year Duration)</b>										
	<b>Program Management</b>										
	Coordination/Oversight of Technical Support		1 fte		200	200	75	15,000			15,000
	Coordination with Agency Participants		1 fte		80	80	75	6,000			6,000
	Cost and Schedule Control		1 fte		59	59	65	3,848			3,848
	Ensure Compliance of Gov't Regulation		1 fte		32	32	70	2,240			2,240
	Reviews		1 fte		32	32	65	2,080			2,080
	Audit Preparation and Coordination		1 fte		32	32	65	2,080			2,080
	Annual Operations and Maintenance Reports		1 fte		40	40	65	2,600			2,600
	<b>Total Cost (Per Year)</b>										<b>33,850</b>
	<b>Program Management Costs - 100 Year Duration</b>		100 yrs	33,850					3,385,000		<b>3,385,000</b>
	<b>WAG-Wide RA 5 Yr. Review - (Cost Per Each, Required (1) FTE For Years 2 thru 5; (1) FTE in (5) Yr. Increments for 6 thru 95)</b>										
	RA Report Preparation		23 yrs		1,440	33,120	75	2,484,000			2,484,000
	Reviews and Comment Resolution		23 yrs		440	10,120	75	759,000			759,000
	<b>WAG-Wide RA 5 Yr. Reviews For 100 Years</b>										<b>3,243,000</b>
	<b>Remedial Design</b>										
	<b>Added Institutional Controls - 5 Yr. Review of Deed Restrictions with Governing Bodies and Public Comment Over a 100 Year Period; Total of 20 Reviews.</b>										
	Legal Attorney and Env. Affairs at \$32K ea.		20 ea	32,000					640,000		640,000
	<b>Total Added Institutional Controls - 100 Year Duration</b>										<b>640,000</b>
	<b>Caretaker/Maintenance</b>										
	Caretaker		0.1 fte		1,880	188	75	14,100			14,100
	Area/Access Materials and Repair		12 mos.	500					6,000		6,000
	<b>Caretaker/Maintenance Cost Per Year</b>										<b>20,100</b>
	Monitoring Well Replacement (8 wells every 25 yrs)		3 times	334,540					1,003,620		1,003,620
	<b>Caretaker Cost - 100 Year Duration</b>		100 yrs	20,100					2,010,000		<b>2,010,000</b>
											<b>3,013,620</b>



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DETAILED COST ESTIMATE (CONT.SHEET)

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Project WAG 5 FS COST ESTIMATES  
WASTE SITE ARA-16  
ALTERNATIVE 2 - LIMITED ACTION  
EXIST AND ADDED INST. CONTROLS/MONITORING

Type of Est. Planning

File No. 4951-3

Date 01/06/99

ACCT. NO.	DESCRIPTION	E,V P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	<b>FFA/CO Management and Oversight</b>										
	<b>Program Management</b>										
	Coordination/Oversight of Technical Support		1 fte		640	640	75	48,000			48,000
	Coordination with Agency Participants		1 fte		320	320	75	24,000			24,000
	Cost and Schedule Control		1 fte		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation		1 fte		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews		1 fte		160	160	65	10,400			10,400
	Audit Preparation and Coordination		1 fte		160	160	65	10,400			10,400
	<b>Total Cost (Per Year)</b>										124,800
	<b>Total Cost (Per Year Rounded)</b>										125,000
	<b>Program Management - 2 Year Duration</b>		3 yr	125,000					375,000		375,000
	<b>RA Document Preparation</b>										
	<b>RD/RA SOW</b>										
	PreDesign Studies/Preliminary Scoping		3 fte		80	240	75	18,000			18,000
	Design Criteria		1 fte		40	40	75	3,000			3,000
	RD/RA Document Preparation		1 fte		80	80	75	6,000			6,000
	Reviews and Comment Resolution		1 fte		360	360	75	27,000			27,000
	<b>RD/RA SOW Cost</b>										54,000
	<b>RA Workplan</b>										
	Preliminary Scoping		1 fte		160	160	75	12,000			12,000
	RD/RA Document Preparation		1 fte		260	260	75	19,500			19,500
	Reviews and Comment Resolution		1 fte		420	420	75	31,500			31,500
	<b>RA Workplan Cost</b>										63,000