

		AB-118 Locomotive L-CCRT Project Costs						Cost Distribution		
#	Task	Labor Cost	Labor (Hours)	Materials Cost	Travel Expenses	Subcontractor (SwRI)	Total Cost	JM	CARB	TAP
1.0	PHASE 1	\$57,896	764	\$165,577	\$25,054	\$256,550	\$505,077	\$102,538.6	\$252,538.63	\$150,000
1.1	Identify locomotive and send it to test facility	\$0	0	\$0	\$0	\$0	\$0			
1.2	Inspect and measure locomotive for design of custom DPF	\$3,637	48	\$0	\$2,598	\$0	\$6,236	\$6,236		
1.3	Design DPF System AND Fabricate	\$22,734	300	\$165,577	\$9,228	\$0	\$197,539	\$49,500	\$148,039	
1.4	Install DPF system on locomotive***	\$18,187	240	\$0	\$9,228	\$172,050	\$199,465		\$77,371	\$122,094
1.5	Test locomotive emissions per Part 92 (Zero hour emissions)	\$3,031	40	\$0	\$2,000	\$22,875	\$27,906			\$27,906
1.6	Analyze data and generate report	\$1,819	24	\$0	\$0	\$9,000	\$10,819	\$10,819		
1.7	Deliverable: Initial test report after installing DPF (Zero hour emissions)	\$1,819	24	\$0	\$0	\$0	\$1,819	\$1,819		
1.8	Conduct 1500 hour field trial (100 days estimated)	\$0	0	\$0	\$0	\$0	\$0			
1.9	Test locomotive emissions per Part 92 and inspect DPF system	\$3,031	40	\$0	\$2,000	\$45,625	\$50,656	\$22,875	\$27,781	
1.10	Analyze test data and generate report	\$1,819	24	\$0	\$0	\$7,000	\$8,819	\$8,819		
1.11	Deliverable: Phase 1 Summary Report	\$1,819	24	\$0	\$0	\$0	\$1,819	\$1,819		
TOTAL for PHASE 1		\$57,896	764	\$165,577	\$25,054	\$256,550	\$505,077	\$101,886	\$253,192	\$150,000
PHASE 2	Task	Labor Cost	Labor (Hours)	Materials Cost	Travel Expenses	Subcontractor (SwRI)	Total Cost	JM	CARB	TAP
2.1	Conduct Additional 1500 hour field trial (100 days estimated)	\$0	0	\$0	\$0	\$0	\$0			
2.2	Test locomotive emissions per Part 92 and inspect DPF systems	\$3,031	40	\$0	\$2,000	\$45,625	\$50,656	\$22,875	\$27,781	
2.3	Analyze test data and generate report	\$1,819	24	\$0	\$0	\$9,000	\$10,819	\$10,819		
2.4	Deliverable: Phase 2 Summary Report	\$1,819	24	\$0	\$0	\$0	\$1,819	\$1,819		
2.5	Return locomotive to original condition	\$3,031	40	\$0	\$2,000	\$60,000	\$65,031	\$19,892	\$45,139	
TOTAL for PHASE 2		\$9,700	128	\$0	\$4,000	\$114,625	\$128,325	\$55,405	\$72,920	\$0
MISC.	Task	Labor Cost	Labor (Hours)	Materials Cost	Travel Expenses	Subcontractor (SwRI)	Total Cost	JM	CARB	TAP
	Project Management	\$5,759	76	\$0	\$0	\$0	\$5,759	\$5,759		
	Field Support	\$3,031	40	\$0	\$0	\$5,000	\$8,031	\$8,031		
	Customer Training	\$3,031	40	\$0	\$2,000	\$0	\$5,031	\$5,031		
TOTAL for MISCELLANEOUS		\$11,822	156	\$0	\$2,000	\$5,000	\$18,822	\$18,822	\$0	\$0
GRAND TOTAL		\$79,417	1048	\$165,577	\$31,054	\$376,175	\$652,224	\$176,112	\$326,112	\$150,000
PERCENT BREAKDOWN OF COSTS								27.00%	50.00%	23.00%
*** Costs Associated with the Engine#3 Failure were \$28k, to include modification costs, additional hardware/filters/catalyst and added degreening costs.										