APPENDIX F

COST ESTIMATES FOR IMPLEMENTATION OF REMEDIAL ALTERNATIVES Track 2 Munitions Response Remedial Investigation/Feasibility Study (RI/FS) Del Rey Oaks Munitions Response Area, Former Ft Ord MACTEC Project 4088064345 August 24, 2007 Draft Final MB62160-F_DRO App F Tables.xls

Table F-1. Summary of Remedial Alternative Costs Feasibility Study, Del Rey Oaks MRA RI/FS, Former Fort Ord, California

	CAPITAL COSTS	ANNUAL COSTS (Net Present Value Over 30 Years)	TOTAL COSTS	Cost Breakdown
LONG TERM MANAGEMENT MEASURES	\$33,000	\$64,000	\$97,000	Table F-2
REMEDIAL ALTERNATIVE				
ALTERNATIVE 1 No Further Action	No costs	No costs	No costs	-
<u>ALTERNATIVE 2</u> Conditions on Soil Disturbance Activities to Minimize MEC Exposure	\$67,000	-	\$67,000	Table F-3
<u>ALTERNATIVE 3</u> Conditions on Soil Disturbance Activities to Minimize MEC Exposure and Residential Use Restriction Including Contingency to Address Proposed Change in Site Reuse	\$67,000		\$67,000	Table F-3

The following costs are assumed by the property owner/developer: (1) annual letter reporting; (2) construction support within the entire Del Rey Oaks MRA (except for depths greater than 4 ft bgs in the approximate 2.5-acre 11 grid area, which are included as Army costs on Table F-3); and (3) application of DTSC's draft residential protocol in applicable areas.

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Table F-2. Cost for Long Term Management Measures Feasibility Study, Del Rey Oaks MRA RI/FS, Former Fort Ord, California

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
CAPITAL COSTS				
Modify or Remove Deed Restrictions	6	parcel	\$5,000	\$30,000
Subtotal Capital Costs				\$30,000
Capital Cost Contingency	10%	of Capital Costs		\$3,000
TOTAL CAPITAL COSTS				\$33,000
ANNUAL LTM COSTS				
5-Year Review Reporting	1	Entire MRA	\$3,000	\$3,000
Subtotal Annual Costs		98 - con		\$3,000
Annual Cost Contingency	10%	of Annual Costs		\$300
TOTAL ANNUAL COSTS				\$3,300
30 YEAR ANNUAL LTM COSTS				
NPV LTM (3.1% Real Interest Rate, OMB Circular A-94, Appendix C, January, 2007)				
TOTAL 30 YEAR NPV COST	(rounded to nearest thousand)		\$97,000	

DEFINITIONS

LTM = Long Term Management NPV = Net Present Value OMB = President's Office of Management and Budget

ASSUMPTIONS

These costs are for comparison purposes only, and have an accuracy of +50/-30%. Many design variables and necessary prefield activities have not been established. Cost estimates will be refined after the field preparation/design is completed.

The 5-year Review Reporting costs are provided as an annual cost; however the review will be produced at 5 year intervals.

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Table F-3. Remedial Alternatives 2 and 3 – Cost Estimates for Conditions on Soil Disturbance Activities to Minimize MEC Exposure

Feasibility Study, Del Rey Oaks MRA RI/FS,

Former Fort Ord, California

Fort Ord, California	QUANTITY	UNIT	UNIT PRICE	TOTAL
LAND USE CONTROLS [a,b]				
Construction Support in 11-Grid Area (>4ft bgs)	20	day	\$2,600	\$52,000
Subtotal				\$52,000
Capital Cost Contingency	10%	of Capital Costs		\$5,200
TOTAL CAPITAL COSTS				\$57,200
ANNUAL LTM COSTS (Years 1-7 During Develop	oment)			
MEC Recognition Training	2	week	\$300	\$600
Annual Cost Contingency	10%	of Annual Costs		\$60
TOTAL ANNUAL COSTS (YEARS 1-7)				\$660
ANNUAL LTM COSTS (Years 8-30 During Reuse	e)			
MEC Recognition Training	1	week	\$300	\$300
Annual Cost Contingency	10%	of Annual Costs		\$30
TOTAL ANNUAL COSTS (YEARS 8-30)				\$330
30 YEAR ANNUAL LTM COSTS				
YEARS 1-7 NPV LTM (2.3% Real Interest Rate, OMB Circular A-94, Appendix C, January, 2005)				
YEARS 8-30 NPV LTM (2.8% Real Interest Rate, OMB Circular A-94, Appendix C, January, 2005)				
TOTAL 30 YEAR LTM COSTS				\$9,764
TOTAL NPV COST (rounded to nearest thousand)				\$67,000

DEFINITIONS

NPV = Net Present Value OMB = President's Office of Management and Budget

ASSUMPTIONS

These costs are for comparison purposes only, and have an accuracy of +50/-30%. Many design variables and necessary prefield activities have not been established. Cost estimates will be refined after the field preparation/design is completed.

[a] Assumes two-person UXO-Qualified personnel team visually observing construction activities with MEC detection equipment in the approximate 2.5-acre 11-Grid Area below depths of 4 feet below ground surface during development.

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