APPENDIX E

OUTFALL 003 (RMHF)
13267 RESULTS

SECOND QUARTER 2005 REPORTING SUMMARY
THE BOEING COMPANY-ROCKETDYNE
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

April 1 through April 30, 2005

			4/28/2005	
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**RESULT**	**VALIDATION QUALIFIER**
RADIOACTIVITY				
Gross Alpha (filtered)	pCi/L	15/-	2.79 /±3.7	UJ (R)
Gross Alpha (unfiltered)	pCi/L	15/-	8.85 /±5.0	J (R,H)
Gross Beta (filtered)	pCi/L	50/-	43.2 /±5.9	--
Gross Beta (unfiltered)	pCi/L	50/-	43.8 /±6.9	J (H)
Strontium-90 (filtered)	pCi/L	8.0/-	10.8 /±0.85	--
Strontium-90 (unfiltered)	pCi/L	8.0/-	11.4 /±0.82	J (H)
Total Combined Radium-226 & Radium 228 (filtered)	pCi/L	5.0/-	ND < 0.630 /± 0.895	U
Total Combined Radium-226 & Radium 228 (unfiltered)	pCi/L	5.0/-	ND < 0.707 /± 0.723	UJ
Tritium (filtered)	pCi/L	20000/-	56.8 /±110	U
Tritium (unfiltered)	pCi/L	20000/-	65.7 /±110	U
Cesium 137	pCi/g	-/-	ND <13.9	U

See attached notes for abbreviations, definitions, and other explanations for the data presented.

2nd QUARTER 2005 REPORTING SUMMARY NOTES
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Notes:

1. For Dioxins and Furans, laboratory results may have been reported in picograms/liter (pg/L). However, the permit limit is stated in micrograms/liter (µg/L). To evaluate permit compliance, the laboratory results have been converted to µg/L, as necessary, to calculate the TCDD TEQ.

2. TCDD TEQs for the purpose of determining permit compliance are the sum of the products of the detected dioxin congener concentration multiplied by that congener's TEF. The resulting compliance TCDD TEQ does not include those congener concentrations that are reported as DNQ, as specified on Page 40 of the NPDES permit.

3. For some sample dates, pH was determined with a field instrument and was noted as such. These results were not validated. Since pH does not have an RL, the possible pH range is shown in the RL column.

4. The NPDES permit limits for mercury of 0.10 µg/L (Outfalls 1-2) and 0.13 µg/L (Outfalls 3-7) are not achievable by the laboratory; therefore, the laboratory reporting limit of 0.20 µg/L was used to determine compliance.

5. The volume discharged at the Alfa Test Stand (Outfall 012) is estimated based on the run time of the test.

6. All of the following abbreviations and/or notes may not occur on every table.

-92.9 +/-200	A negative radiochemical analytical result indicates the count rate of the sample was less than the background condition
$	reported result or other information was incorrectly reported by the laboratory; result was corrected by the data validator
--	based on validation of the data, a qualifier was not required
-/-	no permit limit established for daily maximum or monthly average
<(value)	analyte not detected at a concentration greater than or equal to the DL, MDL, or RL (see laboratory report for specific detail)
*	result not validated
*1	improper preservation of sample
*2	the ICP/MS ppb check standard was recovered above the control limit; therefore, the constituent detected was qualified as estimated (J)
*3	initial and or continuing calibration recoveries were outside acceptable control limits

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*5	blank spike/blank spike duplicate relative percent difference was outside the control limit
*10	value was estimated detect or estimated non detect (J,UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as Estimated Maximum Possible Concentration (EMPC) values
*11	no calibration was performed for this compound; result is reported as a tentatively identified compound (TIC)
ANR	analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed (annual, semi-annual, etc.)
B	laboratory method blank contamination
C	calibration %RSD or %D were noncompliant
C5	Calibration verification %R was outside method control limits
%D	percent difference between the initial and continuing calibration relative response factors
deg F	degrees Fahrenheit
DL	detection limit
DNQ	detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less then the laboratory reporting limit)
E	duplicates show poor agreement
H	holding time was exceeded
I	ICP interference check solution results were unsatisfactory
J	estimated value
K	The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 mg/l. Therefore, the reported result is an estimated value only.
L2	the laboratory control sample %R was below the method control limits
L	laboratory control sample %R was outside control limits
LOD	limit of detection
M1	matrix spike (MS) and/or MS duplicate were above the acceptance limits due to sample matrix interference
M2	the MS and/or MS duplicate were below the acceptance limits due to sample matrix interference
MDL	method detection limit
MGD	million gallons per day
mg/L	milligrams per liter
ml/L/hr	milliliters per liter per hour
NA	not applicable; no permit limit established for the constituent and/or outfall
ND	analyte value less than the LOD or MDL
NM	not measured or determined
NTU	nephelometric turbidity unit
pCi/L	picocurries per liter
pg/L	picograms per liter
Q	matrix spike recovery outside of control limits
R	as a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified

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R	(reason code in parentheses) %R for calibration not within control limits
RL	laboratory reporting limit
RL-1	reporting limit raised due to sample matrix effects
%RSD	percent relative standard deviation
S	surrogate recovery was outside control limits
TEQ	toxic equivalent
T	presumed contamination, as indicated by a detect in the trip blank
TU_c	toxicity units (chronic)
U	result not detected
µg/L	micrograms per liter
UJ	result not detected at the estimated reporting limit
umhos/cm	micromhos per centimeter
WHO TEF	World Health Organization toxic equivalency factor
^	analysis not completed due to hold time exceedence or insufficient sample volume