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DRAFT FINAL INSTALLATION RESTORATION REMEDIAL INVESTIGATION FEASIBILITY STUDY STAGE 2 VOLUME 4 OF 9 NAS FORT WORTH TX
4/1/1989
RADIAN CORPORATION

File: 17G
A.F.

NAVAL AIR STATION
FORT WORTH JRB
CARSWELL FIELD
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 34

File: 17A-10
D.B.

34

INSTALLATION RESTORATION PROGRAM
RI/FS STAGE 2

CARSWELL AFB, TEXAS

RADIAN CORPORATION
8501 MO-PAC BOULEVARD
P. O. BOX 201088
AUSTIN, TEXAS 78720-1088

APRIL 1989

FINAL DRAFT (9/87 - 9/88)
VOLUME 4: APPENDIX F-2
ANALYTICAL DATA, WORK ORDERS, 02111-03035

PREPARED FOR:

HEADQUARTERS STRATEGIC AIR COMMAND
(HQ SAC/DE)
OFFUTT AIR FORCE BASE, NEBRASKA 68113-5001

UNITED STATES AIR FORCE
OCCUPATIONAL & ENVIRONMENTAL HEALTH LABORATORY
TECHNICAL SERVICES DIVISION (USAFOEHL/TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

20th Anniversary
RADIAN CORPORATION
8501 Mo-Pac Blvd.
P.O. Box 201088
Austin, TX 78720-1088
(512)454-4797

INSTALLATION RESTORATION PROGRAM

RI/FS STAGE 2

DRAFT FINAL
VOLUME 4: APPENDIX F2 - ANALYTICAL DATA
WORK ORDERS 02111-03035

FOR

CARSWELL AFB, TEXAS

HEADQUARTERS STRATEGIC AIR COMMAND
(HQ SAC/DE)
OFFUTT AIR FORCE BASE, NEBRASKA 68113-5001

APRIL 1989

PREPARED BY

RADIAN CORPORATION
8501 MO-PAC BOULEVARD
P. O. BOX 201088
AUSTIN, TEXAS 78720-1088

USAF CONTRACT NO. F33615-87-D-4023, DELIVERY ORDER NO. 0004
RADIAN CONTRACT NO. 227-005-04

USAFOEHL TECHNICAL PROGRAM MANAGER

KARL W. RATZLAFF

USAF OCCUPATIONAL & ENVIRONMENTAL HEALTH LABORATORY (USAFOEHL)
TECHNICAL SERVICES DIVISION (TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

APPENDIX F-2

Analytical Data,
Work Orders 02111-03035

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
10A	03-22	N	S803014-02A	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10A	03-22	N	S803014-02C	604	Phenols	E604
10A	03-22	N	S803014-02B	608	Organochlorine Pesticides	E608
10A	03-22	N	8803031-07C	AS_G	Metals	E206.2
10A	03-22	N	8803031-07A	CL_T	Chloride	E325.3
10A	03-22	N	8803029-09A	EPA601	Purgeable Halocarbons	E601
10A	03-22	N	8803029-09C	EPA602	Purgeable Aromatics	E602
10A	03-22	N	8803031-07A	F_SIE	Fluoride	E340.2
10A	03-22	N	8803031-07D	HC_IR	Petroleum Hydrocarbons	E418.1
10A	03-22	N	8803031-07C	HG_C	Metals	E245.1
10A	03-22	N	8803031-07C	ICP200	Metal Screen (ICP)	E200.7
10A	03-22	N	8803031-07E	NO2NO3	Nitrate	E353.1
10A	03-22	N	8803031-07D	ONG_IR	Oil & Grease	E413.2
10A	03-22	N	8803031-07A	OPO4	Orthophosphate	E365.4
10A	03-22	N	8803031-07C	PB_G	Metals	E239.2
10A	03-22	N	8803031-07C	SE_G	Metals	E270.2
10A	03-22	N	8803031-07A	SO4_N	Sulfate	E375.4
10A	03-22	N	8803031-07A	TDS	Total Dissolved Solids	E160.1
10A	03-22	N	8803029-09C	XYLENE	Purgeable Aromatics	E602
10A	04-50	N	S804076-01G	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10A	04-50	N	S804076-01A	604	Phenols	E604
10A	04-50	N	S804076-01E	608	Organochlorine Pesticides	E608
10A	04-50	N	8804064-03E	AS_G	Metals	E206.2
10A	04-50	N	8804064-03A	CL_T	Chloride	E325.3
10A	04-50	N	8804062-03A	EPA601	Purgeable Halocarbons	E601
10A	04-50	N	8804148-03A	EPA601	Purgeable Halocarbons	E601
10A	04-50	N	8804062-03C	EPA602	Purgeable Aromatics	E602
10A	04-50	N	8804064-03A	F_SIE	Fluoride	E340.2
10A	04-50	N	8804064-03E	HG_C	Metals	E245.1
10A	04-50	N	8804064-03E	ICP200	Metal Screen (ICP)	E200.7
10A	04-50	N	8804064-03B	NO2NO3	Nitrate	E353.1
10A	04-50	N	8804064-03D	ONG_IR	Oil & Grease	E413.2
10A	04-50	N	8804064-03A	OPO4	Orthophosphate	E365.4
10A	04-50	N	8804064-03E	PB_G	Metals	E239.2
10A	04-50	N	8804064-03E	SE_G	Metals	E270.2
10A	04-50	N	8804064-03A	SO4_N	Sulfate	E375.4
10A	04-50	N	8804064-03A	TDS	Total Dissolved Solids	E160.1
10A	04-50	N	8804062-03C	XYLENE	Purgeable Aromatics	E602
10A	04-51	TB	8804062-04A	EPA601	Purgeable Halocarbons	E601
10A	04-51	TB	8804062-04C	EPA602	Purgeable Aromatics	E602
10A	04-51	TB	8804148-04A	EPA602	Purgeable Aromatics	E602
10A	04-51	TB	8804148-04A	XYLENE	Purgeable Aromatics	E602
10A	04-51	TB	8804062-04C	XYLENE	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
10A	04-52	FB	8804062-05A	EPA601	Purgeable Halocarbons	E601
10A	04-52	FB	8804062-05C	EPA602	Purgeable Aromatics	E602
10A	04-52	FB	8804148-05A	EPA602	Purgeable Aromatics	E602
10A	04-52	FB	8804062-05C	XYLENE	Purgeable Aromatics	E602
10A	04-52	FB	8804148-05A	XYLENE	Purgeable Aromatics	E602
10B	03-28	N	S803019-01C	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10B	03-28	N	S803019-01A	604	Phenols	E604
10B	03-28	N	S803019-01B	608	Organochlorine Pesticides	E608
10B	03-28	N	8803035-06C	AS_G	Metals	E206.2
10B	03-28	N	8803035-06A	CL_T	Chloride	E325.3
10B	03-28	N	8803036-15A	EPA601	Purgeable Halocarbons	E601
10B	03-28	N	8803036-06A	EPA601	Purgeable Halocarbons	E601
10B	03-28	N	8803036-06C	EPA602	Purgeable Aromatics	E602
10B	03-28	N	8803035-06A	F_SIE	Fluoride	E340.2
10B	03-28	N	8803035-06D	HC_IR	Petroleum Hydrocarbons	E418.1
10B	03-28	N	8803035-06C	HG_C	Metals	E245.1
10B	03-28	N	8803035-06C	ICP200	Metal Screen (ICP)	E200.7
10B	03-28	N	8803035-06B	NO2NO3	Nitrate	E353.1
10B	03-28	N	8803035-06E	ONG_IR	Oil & Grease	E413.2
10B	03-28	N	8803035-06A	OPO4	Orthophosphate	E365.4
10B	03-28	N	8803035-06C	PB_G	Metals	E239.2
10B	03-28	N	8803035-06C	SE_G	Metals	E270.2
10B	03-28	N	8803035-06A	SO4_N	Sulfate	E375.4
10B	03-28	N	8803035-06A	TDS	Total Dissolved Solids	E160.1
10B	03-28	N	8803036-06C	XYLENE	Purgeable Aromatics	E602
10B	04-60	N	S804131-01C	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10B	04-60	N	S804083-01A	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10B	04-60	N	S804131-01A	604	Phenols	E604
10B	04-60	N	S804083-01B	604	Phenols	E604
10B	04-60	N	S804131-01E	608	Organochlorine Pesticides	E608
10B	04-60	N	8804074-01D	AS_G	Metals	E206.2
10B	04-60	N	8804074-01A	CL_T	Chloride	E325.3
10B	04-60	N	8804075-02A	EPA601	Purgeable Halocarbons	E601
10B	04-60	N	8804145-02A	EPA601	Purgeable Halocarbons	E601
10B	04-60	N	8804075-02C	EPA602	Purgeable Aromatics	E602
10B	04-60	N	8804074-01A	F_SIE	Fluoride	E340.2
10B	04-60	N	8804077-05A	HC_IR	Petroleum Hydrocarbons	E418.1
10B	04-60	N	8804074-01D	HG_C	Metals	E245.1
10B	04-60	N	8804074-01D	ICP200	Metal Screen (ICP)	E200.7
10B	04-60	N	8804074-01B	NO2NO3	Nitrate	E353.1
10B	04-60	N	8804074-01C	ONG_IR	Oil & Grease	E413.2
10B	04-60	N	8804074-01A	OPO4	Orthophosphate	E365.4
10B	04-60	N	8804074-01D	PB_G	Metals	E239.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
10B	04-60	N	8804074-01D	SE_G	Metals	E270.2
10B	04-60	N	8804074-01A	SO4_N	Sulfate	E375.4
10B	04-60	N	8804074-01A	TDS	Total Dissolved Solids	E160.1
10B	04-60	N	8804075-02C	XYLENE	Purgeable Aromatics	E602
10B	04-61	ER	S804083-02A	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10B	04-61	ER	S804131-02A	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10B	04-61	ER	S804083-02D	604	Phenols	E604
10B	04-61	ER	S804083-02B	608	Organochlorine Pesticides	E608
10B	04-61	ER	8804074-02D	AS_G	Metals	E206.2
10B	04-61	ER	8804074-02A	CL_T	Chloride	E325.3
10B	04-61	ER	8804145-03A	EPA601	Purgeable Halocarbons	E601
10B	04-61	ER	8804075-03A	EPA601	Purgeable Halocarbons	E601
10B	04-61	ER	8804075-03C	EPA602	Purgeable Aromatics	E602
10B	04-61	ER	8804145-03A	EPA602	Purgeable Aromatics	E602
10B	04-61	ER	8804074-02A	F_SIE	Fluoride	E340.2
10B	04-61	ER	8804077-02A	HC_IR	Petroleum Hydrocarbons	E418.1
10B	04-61	ER	8804074-02D	HG_C	Metals	E245.1
10B	04-61	ER	8804074-02D	ICP200	Metal Screen (ICP)	E200.7
10B	04-61	ER	8804074-02B	NO2NO3	Nitrate	E353.1
10B	04-61	ER	8804074-02C	ONG_IR	Oil & Grease	E413.2
10B	04-61	ER	8804074-02A	OPO4	Orthophosphate	E365.4
10B	04-61	ER	8804074-02D	PB_G	Metals	E239.2
10B	04-61	ER	8804074-02D	SE_G	Metals	E270.2
10B	04-61	ER	8804074-02A	SO4_N	Sulfate	E375.4
10B	04-61	ER	8804074-02A	TDS	Total Dissolved Solids	E160.1
10B	04-61	ER	8804145-03A	XYLENE	Purgeable Aromatics	E602
10B	04-61	ER	8804075-03C	XYLENE	Purgeable Aromatics	E602
10C	03-29	N	S803019-02C	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10C	03-29	N	S803019-02A	604	Phenols	E604
10C	03-29	N	S803019-02B	608	Organochlorine Pesticides	E608
10C	03-29	N	8803035-07C	AS_G	Metals	E206.2
10C	03-29	N	8803035-07A	CL_T	Chloride	E325.3
10C	03-29	N	8803036-07A	EPA601	Purgeable Halocarbons	E601
10C	03-29	N	8803036-07C	EPA602	Purgeable Aromatics	E602
10C	03-29	N	8803035-07A	F_SIE	Fluoride	E340.2
10C	03-29	N	8803035-07D	HC_IR	Petroleum Hydrocarbons	E418.1
10C	03-29	N	8803035-07C	HG_C	Metals	E245.1
10C	03-29	N	8803035-07C	ICP200	Metal Screen (ICP)	E200.7
10C	03-29	N	8803035-07B	NO2NO3	Nitrate	E353.1
10C	03-29	N	8803035-07E	ONG_IR	Oil & Grease	E413.2
10C	03-29	N	8803035-07A	OPO4	Orthophosphate	E365.4
10C	03-29	N	8803035-07C	PB_G	Metals	E239.2
10C	03-29	N	8803035-07C	SE_G	Metals	E270.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
10C	03-29	N	8803035-07A	SO4_N	Sulfate	E375.4
10C	03-29	N	8803035-07A	TDS	Total Dissolved Solids	E160.1
10C	03-29	N	8803036-07C	XYLENE	Purgeable Aromatics	E602
10C	04-62	N	S804083-03A	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10C	04-62	N	S804083-03E	604	Phenols	E604
10C	04-62	N	S804083-03C	608	Organochlorine Pesticides	E608
10C	04-62	N	8804074-03D	AS_G	Metals	E206.2
10C	04-62	N	8804074-03A	CL_T	Chloride	E325.3
10C	04-62	N	8804075-04A	EPA601	Purgeable Halocarbons	E601
10C	04-62	N	8804145-04A	EPA601	Purgeable Halocarbons	E601
10C	04-62	N	8804075-04C	EPA602	Purgeable Aromatics	E602
10C	04-62	N	8804074-03A	F_SIE	Fluoride	E340.2
10C	04-62	N	8804077-03A	HC_IR	Petroleum Hydrocarbons	E418.1
10C	04-62	N	8804074-03D	HG_C	Metals	E245.1
10C	04-62	N	8804074-03D	ICP200	Metal Screen (ICP)	E200.7
10C	04-62	N	8804074-03B	NO2NO3	Nitrate	E353.1
10C	04-62	N	8804074-03C	ONG_IR	Oil & Grease	E413.2
10C	04-62	N	8804074-03A	OPO4	Orthophosphate	E365.4
10C	04-62	N	8804074-03D	PB_G	Metals	E239.2
10C	04-62	N	8804074-03D	SE_G	Metals	E270.2
10C	04-62	N	8804074-03A	SO4_N	Sulfate	E375.4
10C	04-62	N	8804074-03A	TDS	Total Dissolved Solids	E160.1
10C	04-62	N	8804075-04C	XYLENE	Purgeable Aromatics	E602
10C	04-63	D	S804083-04A	509B	Chlorinated Phenoxy Acid Herbicides	A509B
10C	04-63	D	S804083-04E	604	Phenols	E604
10C	04-63	D	S804083-04C	608	Organochlorine Pesticides	E608
10C	04-63	D	8804074-04C	AS_G	Metals	E206.2
10C	04-63	D	8804074-04A	CL_T	Chloride	E325.3
10C	04-63	D	8804075-05A	EPA601	Purgeable Halocarbons	E601
10C	04-63	D	8804145-05A	EPA601	Purgeable Halocarbons	E601
10C	04-63	D	8804075-05C	EPA602	Purgeable Aromatics	E602
10C	04-63	D	8804074-04A	F_SIE	Fluoride	E340.2
10C	04-63	D	8804077-04A	HC_IR	Petroleum Hydrocarbons	E418.1
10C	04-63	D	8804074-04C	HG_C	Metals	E245.1
10C	04-63	D	8804074-04C	ICP200	Metal Screen (ICP)	E200.7
10C	04-63	D	8804074-04B	NO2NO3	Nitrate	E353.1
10C	04-63	D	8804077-04B	ONG_IR	Oil & Grease	E413.2
10C	04-63	D	8804074-04A	OPO4	Orthophosphate	E365.4
10C	04-63	D	8804074-04C	PB_G	Metals	E239.2
10C	04-63	D	8804074-04C	SE_G	Metals	E270.2
10C	04-63	D	8804074-04A	SO4_N	Sulfate	E375.4
10C	04-63	D	8804074-04A	TDS	Total Dissolved Solids	E160.1
10C	04-63	D	8804075-05C	XYLENE	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
10D	Car8-01-016	SN	S802002-01A	CL8240	Volatile Organic Compounds	SW8240
10D	Car8-01-017	SN	S802002-02A	CL8270	Semivolatile Organic Compounds	SW8270
10D	Car8-01-018	SN	8802004-01A	AS_G	Metals	E206.2
10D	Car8-01-018	SN	8802004-01A	HG_C	Metals	E245.1
10D	Car8-01-018	SN	8802004-01A	ICP200	Metal Screen (ICP)	E200.7
10D	Car8-01-018	SN	8802004-01A	ONG_IR	Oil & Grease	E413.2
10D	Car8-01-018	SN	8802004-01A	PB_G	Metals	E239.2
10D	Car8-01-018	SN	8802004-01A	SE_G	Metals	E270.2
10D	Car8-02-068	SN	8802115-01A	HC_IR	Petroleum Hydrocarbons	E418.1
10D	Car8-02-069	SN	S802069-01A	8080	Organochlorine Pesticides and PCBs	SW8080
10E	Car8-01-019	SN	S802002-03A	CL8240	Volatile Organic Compounds	SW8240
10E	Car8-01-020	SN	8802004-02A	AS_G	Metals	E206.2
10E	Car8-01-020	SN	8802004-02A	HG_C	Metals	E245.1
10E	Car8-01-020	SN	8802004-02A	ICP200	Metal Screen (ICP)	E200.7
10E	Car8-01-020	SN	8802004-02A	ONG_IR	Oil & Grease	E413.2
10E	Car8-01-020	SN	8802004-02A	PB_G	Metals	E239.2
10E	Car8-01-020	SN	8802004-02A	SE_G	Metals	E270.2
10E	Car8-01-021	SN	S802002-04A	CL8270	Semivolatile Organic Compounds	SW8270
10E	Car8-01-022	SN	S802002-05A	CL8240	Volatile Organic Compounds	SW8240
10E	Car8-01-023	SN	8802004-03A	AS_G	Metals	E206.2
10E	Car8-01-023	SN	8802004-03A	HG_C	Metals	E245.1
10E	Car8-01-023	SN	8802004-03A	ICP200	Metal Screen (ICP)	E200.7
10E	Car8-01-023	SN	8802004-03A	ONG_IR	Oil & Grease	E413.2
10E	Car8-01-023	SN	8802004-03A	PB_G	Metals	E239.2
10E	Car8-01-023	SN	8802004-03A	SE_G	Metals	E270.2
10E	Car8-01-024	SN	S802002-06A	CL8270	Semivolatile Organic Compounds	SW8270
10E	Car8-01-025	FB	S802002-07A	CL8240	Volatile Organic Compounds	SW8240
10E	Car8-02-070	SN	8802115-02A	HC_IR	Petroleum Hydrocarbons	E418.1
10E	Car8-02-071	SN	S802069-02A	8080	Organochlorine Pesticides and PCBs	SW8080
10E	Car8-02-072	SN	8802115-03A	HC_IR	Petroleum Hydrocarbons	E418.1
10E	Car8-02-073	SN	S802069-03A	8080	Organochlorine Pesticides and PCBs	SW8080
10F	Car8-01-026	SD	S802002-08A	CL8240	Volatile Organic Compounds	SW8240
10F	Car8-01-027	SD	S802002-09A	CL8240	Volatile Organic Compounds	SW8240
10F	Car8-01-028	SD	S802002-10A	CL8270	Semivolatile Organic Compounds	SW8270
10F	Car8-01-029	SD	S802002-11A	CL8270	Semivolatile Organic Compounds	SW8270
10F	Car8-01-030	SD	8802004-04A	AS_G	Metals	E206.2
10F	Car8-01-030	SD	8802004-04A	HG_C	Metals	E245.1
10F	Car8-01-030	SD	8802004-04A	ICP200	Metal Screen (ICP)	E200.7
10F	Car8-01-030	SD	8802004-04A	ONG_IR	Oil & Grease	E413.2
10F	Car8-01-030	SD	8802004-04A	PB_G	Metals	E239.2
10F	Car8-01-030	SD	8802004-04A	SE_G	Metals	E270.2
10F	Car8-01-031	SD	8802004-05A	AS_G	Metals	E206.2
10F	Car8-01-031	SD	8802004-05A	HG_C	Metals	E245.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
10F	Car8-01-031	SD	8802004-05A	ICP200	Metal Screen (ICP)	E200.7
10F	Car8-01-031	SD	8802004-05A	ONG_IR	Oil & Grease	E413.2
10F	Car8-01-031	SD	8802004-05A	PB_G	Metals	E239.2
10F	Car8-01-031	SD	8802004-05A	SE_G	Metals	E270.2
10F	Car8-02-074	SD	8802115-04A	HC_IR	Petroleum Hydrocarbons	E418.1
10F	Car8-02-075	SD	8802115-05A	HC_IR	Petroleum Hydrocarbons	E418.1
10F	Car8-02-076	SD	S802069-04A	8080	Organochlorine Pesticides and PCBs	SW8080
10F	Car8-02-077	SD	S802069-05A	8080	Organochlorine Pesticides and PCBs	SW8080
11A	02-151	N	8802136-02G	AS_G	Metals	E206.2
11A	02-151	N	S802090-02A	CL_625	Extractable Priority Pollutants	E625
11A	02-151	N	8802136-02I	CL_T	Chloride	E325.3
11A	02-151	N	8802136-02A	EPA601	Purgeable Halocarbons	E601
11A	02-151	N	8802136-02C	EPA602	Purgeable Aromatics	E602
11A	02-151	N	8802136-07A	EPA602	Purgeable Aromatics	E602
11A	02-151	N	8802136-02I	F_SIE	Fluoride	E340.2
11A	02-151	N	8802136-02H	HC_IR	Petroleum Hydrocarbons	E418.1
11A	02-151	N	8802136-02G	HG_C	Metals	E245.1
11A	02-151	N	8802136-02G	ICP200	Metal Screen (ICP)	E200.7
11A	02-151	N	8802136-02F	NO3	Nitrate	E353.2
11A	02-151	N	8802136-02I	OPO4	Orthophosphate	E365.4
11A	02-151	N	8802136-02G	PB_G	Metals	E239.2
11A	02-151	N	8802136-02G	SE_G	Metals	E270.2
11A	02-151	N	8802136-02I	SO4_N	Sulfate	E375.4
11A	02-151	N	8802136-02I	TDS	Total Dissolved Solids	E160.1
11A	02-151	N	8802136-07A	XYLENE	Purgeable Aromatics	E602
11A	02-151	N	8802136-02C	XYLENE	Purgeable Aromatics	E602
11A	04-02	N	8804014-02G	AS_G	Metals	E206.2
11A	04-02	N	S804017-02A	CL_625	Extractable Priority Pollutants	E625
11A	04-02	N	8804014-02F	CL_T	Chloride	E325.3
11A	04-02	N	8804014-02A	EPA601	Purgeable Halocarbons	E601
11A	04-02	N	8804014-02C	EPA602	Purgeable Aromatics	E602
11A	04-02	N	8804014-06A	EPA602	Purgeable Aromatics	E602
11A	04-02	N	8804014-02F	F_SIE	Fluoride	E340.2
11A	04-02	N	8804014-02H	HC_IR	Petroleum Hydrocarbons	E418.1
11A	04-02	N	8804014-02G	HG_C	Metals	E245.1
11A	04-02	N	8804014-02G	ICP200	Metal Screen (ICP)	E200.7
11A	04-02	N	8804014-02E	NO3	Nitrate	E353.2
11A	04-02	N	8804014-02F	OPO4	Orthophosphate	E365.4
11A	04-02	N	8804014-02G	SE_G	Metals	E270.2
11A	04-02	N	8804014-02F	SO4_N	Sulfate	E375.4
11A	04-02	N	8804014-02F	TDS	Total Dissolved Solids	E160.1
11A	04-02	N	8804014-06A	XYLENE	Purgeable Aromatics	E602
11A	04-02	N	8804014-02C	XYLENE	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
11B	02-152	N	8802136-03G	AS_G	Metals	E206.2
11B	02-152	N	8802136-03I	CL_T	Chloride	E325.3
11B	02-152	N	8802136-03A	EPA601	Purgeable Halocarbons	E601
11B	02-152	N	8802136-03C	EPA602	Purgeable Aromatics	E602
11B	02-152	N	8802136-03I	F_SIE	Fluoride	E340.2
11B	02-152	N	8802136-03H	HC_IR	Petroleum Hydrocarbons	E418.1
11B	02-152	N	8802136-03G	HG_C	Metals	E245.1
11B	02-152	N	8802136-03G	ICP200	Metal Screen (ICP)	E200.7
11B	02-152	N	8802136-03F	NO3	Nitrate	E353.2
11B	02-152	N	8802136-03I	OPO4	Orthophosphate	E365.4
11B	02-152	N	8802136-03G	PB_G	Metals	E239.2
11B	02-152	N	8802136-03G	SE_G	Metals	E270.2
11B	02-152	N	8802136-03I	SO4_N	Sulfate	E375.4
11B	02-152	N	8802136-03I	TDS	Total Dissolved Solids	E160.1
11B	02-152	N	8802136-03C	XYLENE	Purgeable Aromatics	E602
11B	04-03	N	8804014-03G	AS_G	Metals	E206.2
11B	04-03	N	8804014-03F	CL_T	Chloride	E325.3
11B	04-03	N	8804014-03A	EPA601	Purgeable Halocarbons	E601
11B	04-03	N	8804014-07A	EPA602	Purgeable Aromatics	E602
11B	04-03	N	8804014-03C	EPA602	Purgeable Aromatics	E602
11B	04-03	N	8804014-03F	F_SIE	Fluoride	E340.2
11B	04-03	N	8804014-03H	HC_IR	Petroleum Hydrocarbons	E418.1
11B	04-03	N	8804014-03G	HG_C	Metals	E245.1
11B	04-03	N	8804014-03G	ICP200	Metal Screen (ICP)	E200.7
11B	04-03	N	8804014-03E	NO3	Nitrate	E353.2
11B	04-03	N	8804014-03F	OPO4	Orthophosphate	E365.4
11B	04-03	N	8804014-03G	SE_G	Metals	E270.2
11B	04-03	N	8804014-03F	SO4_N	Sulfate	E375.4
11B	04-03	N	8804014-03F	TDS	Total Dissolved Solids	E160.1
11B	04-03	N	8804014-03C	XYLENE	Purgeable Aromatics	E602
11B	04-03	N	8804014-07A	XYLENE	Purgeable Aromatics	E602
12A	02-154	N	8802191-01D	AS_G	Metals	E206.2
12A	02-154	N	S802099-01A	CL_625	Extractable Priority Pollutants	E625
12A	02-154	N	8802191-01E	CL_T	Chloride	E325.3
12A	02-154	N	8802190-01A	EPA601	Purgeable Halocarbons	E601
12A	02-154	N	8802190-01C	EPA602	Purgeable Aromatics	E602
12A	02-154	N	8802191-01E	F_SIE	Fluoride	E340.2
12A	02-154	N	8802191-01C	HC_IR	Petroleum Hydrocarbons	E418.1
12A	02-154	N	8802191-01D	HG_C	Metals	E245.1
12A	02-154	N	8802191-01D	ICP200	Metal Screen (ICP)	E200.7
12A	02-154	N	8802191-01B	NO2NO3	Nitrate	E353.1
12A	02-154	N	8802191-01E	OPO4	Orthophosphate	E365.4
12A	02-154	N	8802191-01D	PB_G	Metals	E239.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
12A	02-154	N	8802191-01D	SE_G	Metals	E270.2
12A	02-154	N	8802191-01E	SO4_N	Sulfate	E375.4
12A	02-154	N	8802191-01E	TDS	Total Dissolved Solids	E160.1
12A	02-154	N	8802190-01C	XYLENE	Purgeable Aromatics	E602
12A	04-04	N	8804016-02D	AS_G	Metals	E206.2
12A	04-04	N	8804016-02B	CL_T	Chloride	E325.3
12A	04-04	N	8804017-10A	EPA601	Purgeable Halocarbons	E601
12A	04-04	N	8804017-01A	EPA601	Purgeable Halocarbons	E601
12A	04-04	N	8804017-01C	EPA602	Purgeable Aromatics	E602
12A	04-04	N	8804017-10A	EPA602	Purgeable Aromatics	E602
12A	04-04	N	8804016-02B	F_SIE	Fluoride	E340.2
12A	04-04	N	8804016-02A	HC_IR	Petroleum Hydrocarbons	E418.1
12A	04-04	N	8804016-02D	HG_C	Metals	E245.1
12A	04-04	N	8804016-02D	ICP200	Metal Screen (ICP)	E200.7
12A	04-04	N	8804016-02C	NO3	Nitrate	E353.2
12A	04-04	N	8804016-02B	OPO4	Orthophosphate	E365.4
12A	04-04	N	8804016-02D	SE_G	Metals	E270.2
12A	04-04	N	8804016-02B	SO4_N	Sulfate	E375.4
12A	04-04	N	8804016-02B	TDS	Total Dissolved Solids	E160.1
12A	04-04	N	8804017-01C	XYLENE	Purgeable Aromatics	E602
12A	04-04	N	8804017-10A	XYLENE	Purgeable Aromatics	E602
12B	03-24	N	8803035-02C	AS_G	Metals	E206.2
12B	03-24	N	8803035-02A	CL_T	Chloride	E325.3
12B	03-24	N	8803036-02A	EPA601	Purgeable Halocarbons	E601
12B	03-24	N	8803036-11A	EPA601	Purgeable Halocarbons	E601
12B	03-24	N	8803036-02C	EPA602	Purgeable Aromatics	E602
12B	03-24	N	8803035-02A	F_SIE	Fluoride	E340.2
12B	03-24	N	8803035-02D	HC_IR	Petroleum Hydrocarbons	E418.1
12B	03-24	N	8803035-02C	HG_C	Metals	E245.1
12B	03-24	N	8803035-02C	ICP200	Metal Screen (ICP)	E200.7
12B	03-24	N	8803035-02B	NO2NO3	Nitrate	E353.1
12B	03-24	N	8803035-02A	OPO4	Orthophosphate	E365.4
12B	03-24	N	8803035-02C	PB_G	Metals	E239.2
12B	03-24	N	8803035-02C	SE_G	Metals	E270.2
12B	03-24	N	8803035-02A	SO4_N	Sulfate	E375.4
12B	03-24	N	8803035-02A	TDS	Total Dissolved Solids	E160.1
12B	03-24	N	8803036-02C	XYLENE	Purgeable Aromatics	E602
12B	03-25	D	8803035-03C	AS_G	Metals	E206.2
12B	03-25	D	8803035-03A	CL_T	Chloride	E325.3
12B	03-25	D	8803036-03A	EPA601	Purgeable Halocarbons	E601
12B	03-25	D	8803036-12A	EPA601	Purgeable Halocarbons	E601
12B	03-25	D	8803036-03C	EPA602	Purgeable Aromatics	E602
12B	03-25	D	8803035-03A	F_SIE	Fluoride	E340.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
12C	04-59	N	S804076-02A	CL_625	Extractable Priority Pollutants	E625
12C	04-59	N	8804064-08A	CL_T	Chloride	E325.3
12C	04-59	N	8804063-02A	EPA601	Purgeable Halocarbons	E601
12C	04-59	N	8804063-05A	EPA601	Purgeable Halocarbons	E601
12C	04-59	N	8804063-02C	EPA602	Purgeable Aromatics	E602
12C	04-59	N	8804063-05A	EPA602	Purgeable Aromatics	E602
12C	04-59	N	8804064-08A	F_SIE	Fluoride	E340.2
12C	04-59	N	8804064-08C	HC_IR	Petroleum Hydrocarbons	E418.1
12C	04-59	N	8804064-08D	HG_C	Metals	E245.1
12C	04-59	N	8804064-08D	ICP200	Metal Screen (ICP)	E200.7
12C	04-59	N	8804064-08B	NO2NO3	Nitrate	E353.1
12C	04-59	N	8804064-08A	OP04	Orthophosphate	E365.4
12C	04-59	N	8804064-08D	SE_G	Metals	E270.2
12C	04-59	N	8804064-08A	SO4_N	Sulfate	E375.4
12C	04-59	N	8804064-08A	TDS	Total Dissolved Solids	E160.1
12C	04-59	N	8804063-05A	XYLENE	Purgeable Aromatics	E602
12C	04-59	N	8804063-02C	XYLENE	Purgeable Aromatics	E602
12D	03-23	N	8803035-01C	AS_G	Metals	E206.2
12D	03-23	N	8803035-01A	CL_T	Chloride	E325.3
12D	03-23	N	8803036-01A	EPA601	Purgeable Halocarbons	E601
12D	03-23	N	8803036-10A	EPA602	Purgeable Aromatics	E602
12D	03-23	N	8803036-01C	EPA602	Purgeable Aromatics	E602
12D	03-23	N	8803035-01A	F_SIE	Fluoride	E340.2
12D	03-23	N	8803035-01D	HC_IR	Petroleum Hydrocarbons	E418.1
12D	03-23	N	8803035-01C	HG_C	Metals	E245.1
12D	03-23	N	8803035-01C	ICP200	Metal Screen (ICP)	E200.7
12D	03-23	N	8803035-01B	NO2NO3	Nitrate	E353.1
12D	03-23	N	8803035-01A	OP04	Orthophosphate	E365.4
12D	03-23	N	8803035-01C	PB_G	Metals	E239.2
12D	03-23	N	8803035-01C	SE_G	Metals	E270.2
12D	03-23	N	8803035-01A	SO4_N	Sulfate	E375.4
12D	03-23	N	8803035-01A	TDS	Total Dissolved Solids	E160.1
12D	03-23	N	8803036-01C	XYLENE	Purgeable Aromatics	E602
12D	03-23	N	8803036-10A	XYLENE	Purgeable Aromatics	E602
12D	04-53	N	8804064-04D	AS_G	Metals	E206.2
12D	04-53	N	8804064-04A	CL_T	Chloride	E325.3
12D	04-53	N	8804148-06A	EPA601	Purgeable Halocarbons	E601
12D	04-53	N	8804062-06A	EPA601	Purgeable Halocarbons	E601
12D	04-53	N	8804062-06C	EPA602	Purgeable Aromatics	E602
12D	04-53	N	8804148-06A	EPA602	Purgeable Aromatics	E602
12D	04-53	N	8804064-04A	F_SIE	Fluoride	E340.2
12D	04-53	N	8804064-04C	HC_IR	Petroleum Hydrocarbons	E418.1
12D	04-53	N	8804064-04D	HG_C	Metals	E245.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
12D	04-53	N	8804064-04D	ICP200	Metal Screen (ICP)	E200.7
12D	04-53	N	8804064-04B	NO2NO3	Nitrate	E353.1
12D	04-53	N	8804064-04A	OPO4	Orthophosphate	E365.4
12D	04-53	N	8804064-04D	SE_G	Metals	E270.2
12D	04-53	N	8804064-04A	SO4_N	Sulfate	E375.4
12D	04-53	N	8804064-04A	TDS	Total Dissolved Solids	E160.1
12D	04-53	N	8804062-06C	XYLENE	Purgeable Aromatics	E602
12D	04-53	N	8804148-06A	XYLENE	Purgeable Aromatics	E602
12D	04-54	TB	8804062-07A	EPA601	Purgeable Halocarbons	E601
12D	04-54	TB	8804062-07C	EPA602	Purgeable Aromatics	E602
12D	04-54	TB	8804062-07C	XYLENE	Purgeable Aromatics	E602
12D	04-55	FB	8804062-08A	EPA601	Purgeable Halocarbons	E601
12D	04-55	FB	8804062-08C	EPA602	Purgeable Aromatics	E602
12D	04-55	FB	8804148-07A	EPA602	Purgeable Aromatics	E602
12D	04-55	FB	8804148-07A	XYLENE	Purgeable Aromatics	E602
12D	04-55	FB	8804062-08C	XYLENE	Purgeable Aromatics	E602
12D	Car8-02-080	SN	S802070-03A	CL8240	Volatile Organic Compounds	SW8240
12D	Car8-02-081	SN	S802070-04A	CL8270	Semivolatile Organic Compounds	SW8270
12D	Car8-02-081	SN	S802070-04A	DRY_WT	Soil Moisture	UNK
12D	Car8-02-082	SN	8802115-06A	HC_IR	Petroleum Hydrocarbons	E418.1
12D	Car8-02-082	SN	8802115-06A	ICP200	Metal Screen (ICP)	E200.7
12D	Car8-02-083	SN	S802070-01A	CL8240	Volatile Organic Compounds	SW8240
12D	Car8-02-084	SN	S802070-02A	CL8270	Semivolatile Organic Compounds	SW8270
12D	Car8-02-084	SN	S802070-02A	DRY_WT	Soil Moisture	UNK
12D	Car8-02-085	SN	8802115-07A	HC_IR	Petroleum Hydrocarbons	E418.1
12D	Car8-02-085	SN	8802115-07A	ICP200	Metal Screen (ICP)	E200.7
12E	03-27	N	8803035-05C	AS_G	Metals	E206.2
12E	03-27	N	8803035-05A	CL_T	Chloride	E325.3
12E	03-27	N	8803036-05A	EPA601	Purgeable Halocarbons	E601
12E	03-27	N	8803036-14A	EPA602	Purgeable Aromatics	E602
12E	03-27	N	8803036-05C	EPA602	Purgeable Aromatics	E602
12E	03-27	N	8803035-05A	F_SIE	Fluoride	E340.2
12E	03-27	N	8803035-05D	HC_IR	Petroleum Hydrocarbons	E418.1
12E	03-27	N	8803035-05C	HG_C	Metals	E245.1
12E	03-27	N	8803035-05C	ICP200	Metal Screen (ICP)	E200.7
12E	03-27	N	8803035-05B	NO2NO3	Nitrate	E353.1
12E	03-27	N	8803035-05A	OPO4	Orthophosphate	E365.4
12E	03-27	N	8803035-05C	PB_G	Metals	E239.2
12E	03-27	N	8803035-05C	SE_G	Metals	E270.2
12E	03-27	N	8803035-05A	SO4_N	Sulfate	E375.4
12E	03-27	N	8803035-05A	TDS	Total Dissolved Solids	E160.1
12E	03-27	N	8803036-14A	XYLENE	Purgeable Aromatics	E602
12E	03-27	N	8803036-05C	XYLENE	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
12E	04-56	N	8804064-05D	AS_G	Metals	E206.2
12E	04-56	N	8804064-05A	CL_T	Chloride	E325.3
12E	04-56	N	8804148-08A	EPA601	Purgeable Halocarbons	E601
12E	04-56	N	8804062-09A	EPA601	Purgeable Halocarbons	E601
12E	04-56	N	8804148-08A	EPA602	Purgeable Aromatics	E602
12E	04-56	N	8804062-09C	EPA602	Purgeable Aromatics	E602
12E	04-56	N	8804064-05A	F_SIE	Fluoride	E340.2
12E	04-56	N	8804064-05C	HC_IR	Petroleum Hydrocarbons	E418.1
12E	04-56	N	8804064-05D	HG_C	Metals	E245.1
12E	04-56	N	8804064-05D	ICP200	Metal Screen (ICP)	E200.7
12E	04-56	N	8804064-05B	NO2NO3	Nitrate	E353.1
12E	04-56	N	8804064-05A	OPO4	Orthophosphate	E365.4
12E	04-56	N	8804064-05D	SE_G	Metals	E270.2
12E	04-56	N	8804064-05A	SO4_N	Sulfate	E375.4
12E	04-56	N	8804064-05A	TDS	Total Dissolved Solids	E160.1
12E	04-56	N	8804062-09C	XYLENE	Purgeable Aromatics	E602
12E	04-56	N	8804148-08A	XYLENE	Purgeable Aromatics	E602
12E	04-58	ER	8804064-07D	AS_G	Metals	E206.2
12E	04-58	ER	8804064-07A	CL_T	Chloride	E325.3
12E	04-58	ER	8804063-04A	EPA601	Purgeable Halocarbons	E601
12E	04-58	ER	8804063-01A	EPA601	Purgeable Halocarbons	E601
12E	04-58	ER	8804063-01C	EPA602	Purgeable Aromatics	E602
12E	04-58	ER	8804063-04A	EPA602	Purgeable Aromatics	E602
12E	04-58	ER	8804064-07A	F_SIE	Fluoride	E340.2
12E	04-58	ER	8804064-07C	HC_IR	Petroleum Hydrocarbons	E418.1
12E	04-58	ER	8804064-07D	HG_C	Metals	E245.1
12E	04-58	ER	8804064-07D	ICP200	Metal Screen (ICP)	E200.7
12E	04-58	ER	8804064-07B	NO2NO3	Nitrate	E353.1
12E	04-58	ER	8804064-07A	OPO4	Orthophosphate	E365.4
12E	04-58	ER	8804064-07D	SE_G	Metals	E270.2
12E	04-58	ER	8804064-07A	SO4_N	Sulfate	E375.4
12E	04-58	ER	8804064-07A	TDS	Total Dissolved Solids	E160.1
12E	04-58	ER	8804063-01C	XYLENE	Purgeable Aromatics	E602
12E	04-58	ER	8804063-04A	XYLENE	Purgeable Aromatics	E602
12E	Car8-02-092	SN	S802084-05A	CL8240	Volatile Organic Compounds	SW8240
12E	Car8-02-093	SN	8802130-03A	HC_IR	Petroleum Hydrocarbons	E418.1
12E	Car8-02-093	SN	8802130-03A	ICP200	Metal Screen (ICP)	E200.7
12E	Car8-02-094	SN	S802084-06A	CL8270	Semivolatile Organic Compounds	SW8270
12E	Car8-02-094	SN	S802084-06A	DRY_WT	Soil Moisture	UNK
12E	Car8-02-095	SN	S802084-07A	CL8240	Volatile Organic Compounds	SW8240
12E	Car8-02-096	SN	8802130-04A	HC_IR	Petroleum Hydrocarbons	E418.1
12E	Car8-02-096	SN	8802130-04A	ICP200	Metal Screen (ICP)	E200.7
12E	Car8-02-097	SN	S802084-08A	CL8270	Semivolatile Organic Compounds	SW8270

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
12E	Car8-02-097	SN	S802084-08A	DRY_WT	Soil Moisture	UNK
12E	Car8-02-098	SN	S802084-09A	CL8240	Volatile Organic Compounds	SW8240
12E	Car8-02-099	SN	8802130-05A	HC_IR	Petroleum Hydrocarbons	E418.1
12E	Car8-02-099	SN	8802130-05A	ICP200	Metal Screen (ICP)	E200.7
12E	Car8-02-100	SN	S802084-10A	CL8270	Semivolatile Organic Compounds	SW8270
12E	Car8-02-100	SN	S802084-10A	DRY_WT	Soil Moisture	UNK
12E	Car8-02-101	FB	S802084-11A	CL8240	Volatile Organic Compounds	SW8240
12G	Car8-02-086	SN	S802084-01A	CL8240	Volatile Organic Compounds	SW8240
12G	Car8-02-087	SN	S802084-02A	CL8270	Semivolatile Organic Compounds	SW8270
12G	Car8-02-087	SN	S802084-02A	DRY_WT	Soil Moisture	UNK
12G	Car8-02-088	SN	8802130-01A	HC_IR	Petroleum Hydrocarbons	E418.1
12G	Car8-02-088	SN	8802130-01A	ICP200	Metal Screen (ICP)	E200.7
12H	Car8-02-102	SN	S802084-12A	CL8240	Volatile Organic Compounds	SW8240
12H	Car8-02-103	SN	S802084-13A	CL8270	Semivolatile Organic Compounds	SW8270
12H	Car8-02-103	SN	S802084-13A	DRY_WT	Soil Moisture	UNK
12H	Car8-02-104	SN	8802130-06A	HC_IR	Petroleum Hydrocarbons	E418.1
12H	Car8-02-104	SN	8802130-06A	ICP200	Metal Screen (ICP)	E200.7
12H	Car8-02-105	SD	S802084-14A	CL8240	Volatile Organic Compounds	SW8240
12H	Car8-02-106	SD	S802084-15A	CL8270	Semivolatile Organic Compounds	SW8270
12H	Car8-02-106	SD	S802084-15A	DRY_WT	Soil Moisture	UNK
12H	Car8-02-107	SD	8802130-07A	HC_IR	Petroleum Hydrocarbons	E418.1
12H	Car8-02-107	SD	8802130-07A	ICP200	Metal Screen (ICP)	E200.7
12H	Car8-02-108	SD	S802084-16A	CL8240	Volatile Organic Compounds	SW8240
12H	Car8-02-109	SD	S802084-17A	CL8270	Semivolatile Organic Compounds	SW8270
12H	Car8-02-109	SD	S802084-17A	DRY_WT	Soil Moisture	UNK
12H	Car8-02-110	SD	8802130-08A	HC_IR	Petroleum Hydrocarbons	E418.1
12H	Car8-02-110	SD	8802130-08A	ICP200	Metal Screen (ICP)	E200.7
12H	Car8-02-111	SN	S802084-18A	CL8240	Volatile Organic Compounds	SW8240
12H	Car8-02-112	SN	S802085-01A	CL8270	Semivolatile Organic Compounds	SW8270
12H	Car8-02-112	SN	S802085-01A	DRY_WT	Soil Moisture	UNK
12H	Car8-02-113	SN	8802130-09A	HC_IR	Petroleum Hydrocarbons	E418.1
12H	Car8-02-113	SN	8802130-09A	ICP200	Metal Screen (ICP)	E200.7
12H	Car8-02-114	SN	S802085-02A	CL8240	Volatile Organic Compounds	SW8240
12H	Car8-02-115	SN	S802085-03A	CL8270	Semivolatile Organic Compounds	SW8270
12H	Car8-02-115	SN	S802085-03A	DRY_WT	Soil Moisture	UNK
12H	Car8-02-116	SN	8802130-10A	HC_IR	Petroleum Hydrocarbons	E418.1
12H	Car8-02-116	SN	8802130-10A	ICP200	Metal Screen (ICP)	E200.7
12H	Car8-02-117	SN	S802085-04A	CL8240	Volatile Organic Compounds	SW8240
12H	Car8-02-118	SN	S802085-05A	CL8270	Semivolatile Organic Compounds	SW8270
12H	Car8-02-118	SN	S802085-05A	DRY_WT	Soil Moisture	UNK
12H	Car8-02-119	SN	8802130-11A	HC_IR	Petroleum Hydrocarbons	E418.1
12H	Car8-02-119	SN	8802130-11A	ICP200	Metal Screen (ICP)	E200.7
12I	Car8-02-120	SN	S802088-01A	CL8240	Volatile Organic Compounds	SW8240

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
12I	Car8-02-121	SN	S802088-02A	CL8270	Semivolatile Organic Compounds	SW8270
12I	Car8-02-121	SN	S802088-02A	DRY_WT	Soil Moisture	UNK
12I	Car8-02-122	SN	8802135-01A	HC_IR	Petroleum Hydrocarbons	E418.1
12I	Car8-02-122	SN	8802135-01A	ICP200	Metal Screen (ICP)	E200.7
12I	Car8-02-123	SN	S802088-03A	CL8240	Volatile Organic Compounds	SW8240
12I	Car8-02-124	SN	S802088-04A	CL8270	Semivolatile Organic Compounds	SW8270
12I	Car8-02-124	SN	S802088-04A	DRY_WT	Soil Moisture	UNK
12I	Car8-02-125	SN	8802135-02A	HC_IR	Petroleum Hydrocarbons	E418.1
12I	Car8-02-125	SN	8802135-02A	ICP200	Metal Screen (ICP)	E200.7
12I	Car8-02-126	SN	S802088-05A	CL8240	Volatile Organic Compounds	SW8240
12I	Car8-02-127	SN	S802088-06A	CL8270	Semivolatile Organic Compounds	SW8270
12I	Car8-02-127	SN	S802088-06A	DRY_WT	Soil Moisture	UNK
12I	Car8-02-128	SN	8802135-03A	HC_IR	Petroleum Hydrocarbons	E418.1
12I	Car8-02-128	SN	8802135-03A	ICP200	Metal Screen (ICP)	E200.7
12J	Car8-02-129	SD	S802088-07A	CL8240	Volatile Organic Compounds	SW8240
12J	Car8-02-130	SD	S802088-08A	CL8270	Semivolatile Organic Compounds	SW8270
12J	Car8-02-130	SD	S802088-08A	DRY_WT	Soil Moisture	UNK
12J	Car8-02-131	SD	8802135-04A	HC_IR	Petroleum Hydrocarbons	E418.1
12J	Car8-02-131	SD	8802135-04A	ICP200	Metal Screen (ICP)	E200.7
12J	Car8-02-132	SD	S802088-09A	CL8240	Volatile Organic Compounds	SW8240
12J	Car8-02-133	SD	S802088-10A	CL8270	Semivolatile Organic Compounds	SW8270
12J	Car8-02-133	SD	S802088-10A	DRY_WT	Soil Moisture	UNK
12J	Car8-02-134	SD	8802135-05A	HC_IR	Petroleum Hydrocarbons	E418.1
12J	Car8-02-134	SD	8802135-05A	ICP200	Metal Screen (ICP)	E200.7
12J	Car8-02-135	SN	S802088-11A	CL8240	Volatile Organic Compounds	SW8240
12J	Car8-02-136	SN	S802088-12A	CL8270	Semivolatile Organic Compounds	SW8270
12J	Car8-02-136	SN	S802088-12A	DRY_WT	Soil Moisture	UNK
12J	Car8-02-137	SN	8802135-06A	HC_IR	Petroleum Hydrocarbons	E418.1
12J	Car8-02-137	SN	8802135-06A	ICP200	Metal Screen (ICP)	E200.7
12J	Car8-02-138	SN	S802088-13A	CL8240	Volatile Organic Compounds	SW8240
12J	Car8-02-139	SN	S802088-14A	CL8270	Semivolatile Organic Compounds	SW8270
12J	Car8-02-139	SN	S802088-14A	DRY_WT	Soil Moisture	UNK
12J	Car8-02-140	SN	8802135-07A	HC_IR	Petroleum Hydrocarbons	E418.1
12J	Car8-02-140	SN	8802135-07A	ICP200	Metal Screen (ICP)	E200.7
12K	Car8-02-089	SN	S802084-03A	CL8240	Volatile Organic Compounds	SW8240
12K	Car8-02-090	SN	S802084-04A	CL8270	Semivolatile Organic Compounds	SW8270
12K	Car8-02-090	SN	S802084-04A	DRY_WT	Soil Moisture	UNK
12K	Car8-02-091	SN	8802130-02A	HC_IR	Petroleum Hydrocarbons	E418.1
12K	Car8-02-091	SN	8802130-02A	ICP200	Metal Screen (ICP)	E200.7
13	CAR8-03-067	TB	S804009-07A	CL8240	Volatile Organic Compounds	SW8240
13G	CAR8-03-039		S803027-01B	CL8240	Volatile Organic Compounds	SW8240
13G	CAR8-03-039		S803027-01A	CL8270	Semivolatile Organic Compounds	SW8270
13G	CAR8-03-039		S803027-01A	DRY_WT	Soil Moisture	UNK

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
13G	CAR8-03-039		8803042-01A	HC_IR	Petroleum Hydrocarbons	E418.1
13G	CAR8-03-039		8803042-01A	HG_C	Metals	E245.1
13G	CAR8-03-039		8803042-01A	ICP200	Metal Screen (ICP)	E200.7
13G	CAR8-03-061	SN	S804009-01A	CL8240	Volatile Organic Compounds	SW8240
13G	CAR8-03-061	SN	S804009-10A	CL8270	Semivolatile Organic Compounds	SW8270
13G	CAR8-03-061	SN	S804009-10A	DRY_WT	Soil Moisture	UNK
13G	CAR8-03-061	SN	8804003-01A	HC_IR	Petroleum Hydrocarbons	E418.1
13G	CAR8-03-061	SN	8804003-01A	HG_C	Metals	E245.1
13G	CAR8-03-061	SN	8804003-01A	ICP200	Metal Screen (ICP)	E200.7
13G	CAR8-03-062	SD	S804009-02A	CL8240	Volatile Organic Compounds	SW8240
13G	CAR8-03-062	SD	S804009-11A	CL8270	Semivolatile Organic Compounds	SW8270
13G	CAR8-03-062	SD	S804009-11A	DRY_WT	Soil Moisture	UNK
13G	CAR8-03-062	SD	8804003-02A	HC_IR	Petroleum Hydrocarbons	E418.1
13G	CAR8-03-062	SD	8804003-02A	HG_C	Metals	E245.1
13G	CAR8-03-062	SD	8804003-02A	ICP200	Metal Screen (ICP)	E200.7
13H	CAR8-03-041		S803027-03B	CL8240	Volatile Organic Compounds	SW8240
13H	CAR8-03-041		S803027-03A	CL8270	Semivolatile Organic Compounds	SW8270
13H	CAR8-03-041		S803027-03A	DRY_WT	Soil Moisture	UNK
13H	CAR8-03-041		8803042-03A	HC_IR	Petroleum Hydrocarbons	E418.1
13H	CAR8-03-041		8803042-03A	HG_C	Metals	E245.1
13H	CAR8-03-041		8803042-03A	ICP200	Metal Screen (ICP)	E200.7
13H	CAR8-03-064	SN	S804009-04A	CL8240	Volatile Organic Compounds	SW8240
13H	CAR8-03-064	SN	S804009-13A	CL8270	Semivolatile Organic Compounds	SW8270
13H	CAR8-03-064	SN	S804009-13A	DRY_WT	Soil Moisture	UNK
13H	CAR8-03-064	SN	8804003-04A	HC_IR	Petroleum Hydrocarbons	E418.1
13H	CAR8-03-064	SN	8804003-04A	HG_C	Metals	E245.1
13H	CAR8-03-064	SN	8804003-04A	ICP200	Metal Screen (ICP)	E200.7
13I	CAR8-03-043		S803027-05B	CL8240	Volatile Organic Compounds	SW8240
13I	CAR8-03-043		S803027-05A	CL8270	Semivolatile Organic Compounds	SW8270
13I	CAR8-03-043		S803027-05A	DRY_WT	Soil Moisture	UNK
13I	CAR8-03-043		8803042-05A	HC_IR	Petroleum Hydrocarbons	E418.1
13I	CAR8-03-043		8803042-05A	HG_C	Metals	E245.1
13I	CAR8-03-043		8803042-05A	ICP200	Metal Screen (ICP)	E200.7
13I	CAR8-03-066	SN	S804009-06A	CL8240	Volatile Organic Compounds	SW8240
13I	CAR8-03-066	SN	S804009-15A	CL8270	Semivolatile Organic Compounds	SW8270
13I	CAR8-03-066	SN	S804009-15A	DRY_WT	Soil Moisture	UNK
13I	CAR8-03-066	SN	8804003-06A	HC_IR	Petroleum Hydrocarbons	E418.1
13I	CAR8-03-066	SN	8804003-06A	HG_C	Metals	E245.1
13I	CAR8-03-066	SN	8804003-06A	ICP200	Metal Screen (ICP)	E200.7
13J	CAR8-03-042		S803027-04B	CL8240	Volatile Organic Compounds	SW8240
13J	CAR8-03-042		S803027-04A	CL8270	Semivolatile Organic Compounds	SW8270
13J	CAR8-03-042		S803027-04A	DRY_WT	Soil Moisture	UNK
13J	CAR8-03-042		8803042-04A	HC_IR	Petroleum Hydrocarbons	E418.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
13J	CAR8-03-042		8803042-04A	HG_C	Metals	E245.1
13J	CAR8-03-042		8803042-04A	ICP200	Metal Screen (ICP)	E200.7
13J	CAR8-03-065	SN	S804009-05A	CL8240	Volatile Organic Compounds	SW8240
13J	CAR8-03-065	SN	S804009-14A	CL8270	Semivolatile Organic Compounds	SW8270
13J	CAR8-03-065	SN	S804009-14A	DRY_WT	Soil Moisture	UNK
13J	CAR8-03-065	SN	8804003-05A	HC_IR	Petroleum Hydrocarbons	E418.1
13J	CAR8-03-065	SN	8804003-05A	HG_C	Metals	E245.1
13J	CAR8-03-065	SN	8804003-05A	ICP200	Metal Screen (ICP)	E200.7
13K	CAR8-03-040		S803027-02B	CL8240	Volatile Organic Compounds	SW8240
13K	CAR8-03-040		S803027-02A	CL8270	Semivolatile Organic Compounds	SW8270
13K	CAR8-03-040		S803027-02A	DRY_WT	Soil Moisture	UNK
13K	CAR8-03-040		8803042-02A	HC_IR	Petroleum Hydrocarbons	E418.1
13K	CAR8-03-040		8803042-02A	HG_C	Metals	E245.1
13K	CAR8-03-040		8803042-02A	ICP200	Metal Screen (ICP)	E200.7
13K	CAR8-03-063	SN	S804009-03A	CL8240	Volatile Organic Compounds	SW8240
13K	CAR8-03-063	SN	S804009-12A	CL8270	Semivolatile Organic Compounds	SW8270
13K	CAR8-03-063	SN	S804009-12A	DRY_WT	Soil Moisture	UNK
13K	CAR8-03-063	SN	8804003-03A	HC_IR	Petroleum Hydrocarbons	E418.1
13K	CAR8-03-063	SN	8804003-03A	HG_C	Metals	E245.1
13K	CAR8-03-063	SN	8804003-03A	ICP200	Metal Screen (ICP)	E200.7
15D	CAR8-03-068	SN	S804010-01B	8080	Organochlorine Pesticides and PCBs	SW8080
15D	CAR8-03-068	SN	S804010-01A	8150	Chlorinated Phenoxy Herbicides	SW8150
15E	CAR8-03-045	SN	S803135-01B	8080	Organochlorine Pesticides and PCBs	SW8080
15E	CAR8-03-045	SN	S803135-01A	8150	Chlorinated Phenoxy Herbicides	SW8150
15F	CAR8-03-046	SN	S803135-02B	8080	Organochlorine Pesticides and PCBs	SW8080
15F	CAR8-03-046	SN	S803135-02A	8150	Chlorinated Phenoxy Herbicides	SW8150
15G	CAR8-03-069	SN	S804010-02B	8080	Organochlorine Pesticides and PCBs	SW8080
15G	CAR8-03-069	SN	S804010-02A	8150	Chlorinated Phenoxy Herbicides	SW8150
15H	CAR8-03-070	SN	S804010-03B	8080	Organochlorine Pesticides and PCBs	SW8080
15H	CAR8-03-070	SN	S804010-03A	8150	Chlorinated Phenoxy Herbicides	SW8150
15I	CAR8-03-071	SN	S804010-04B	8080	Organochlorine Pesticides and PCBs	SW8080
15I	CAR8-03-071	SN	S804010-04A	8150	Chlorinated Phenoxy Herbicides	SW8150
15J	CAR8-03-072	SN	S804010-05B	8080	Organochlorine Pesticides and PCBs	SW8080
15J	CAR8-03-072	SN	S804010-05A	8150	Chlorinated Phenoxy Herbicides	SW8150
15J	CAR8-03-073	SD	S804010-06B	8080	Organochlorine Pesticides and PCBs	SW8080
15J	CAR8-03-073	SD	S804010-06A	8150	Chlorinated Phenoxy Herbicides	SW8150
16	03-06	TB	8803017-07A	EPA601	Purgeable Halocarbons	E601
16	03-06	TB	8803080-05A	EPA601	Purgeable Halocarbons	E601
16	03-06	TB	8803017-07C	EPA602	Purgeable Aromatics	E602
16	03-06	TB	8803017-07C	XYLENE	Purgeable Aromatics	E602
16	03-07	FB	8803017-08A	EPA601	Purgeable Halocarbons	E601
16	03-07	FB	8803080-06A	EPA601	Purgeable Halocarbons	E601
16	03-07	FB	8803080-06B	EPA602	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
16	03-07	FB	8803017-08C	EPA602	Purgeable Aromatics	E602
16	03-07	FB	8803017-08C	XYLENE	Purgeable Aromatics	E602
16	03-07	FB	8803080-06B	XYLENE	Purgeable Aromatics	E602
16DN3	03-03	N	8803016-03D	AS_G	Metals	E206.2
16DN3	03-03	N	8803016-03A	CL_T	Chloride	E325.3
16DN3	03-03	N	8803080-02B	EPA601	Purgeable Halocarbons	E601
16DN3	03-03	N	8803017-04A	EPA601	Purgeable Halocarbons	E601
16DN3	03-03	N	8803080-02A	EPA602	Purgeable Aromatics	E602
16DN3	03-03	N	8803017-04C	EPA602	Purgeable Aromatics	E602
16DN3	03-03	N	8803016-03A	F_SIE	Fluoride	E340.2
16DN3	03-03	N	8803016-03D	HG_C	Metals	E245.1
16DN3	03-03	N	8803016-03D	ICP200	Metal Screen (ICP)	E200.7
16DN3	03-03	N	8803016-03E	NO2NO3	Nitrate	E353.1
16DN3	03-03	N	8803016-03C	ONG_IR	Oil & Grease	E413.2
16DN3	03-03	N	8803016-03A	OPO4	Orthophosphate	E365.4
16DN3	03-03	N	8803016-03D	PB_G	Metals	E239.2
16DN3	03-03	N	8803016-03D	SE_G	Metals	E270.2
16DN3	03-03	N	8803016-03A	SO4_N	Sulfate	E375.4
16DN3	03-03	N	8803016-03A	TDS	Total Dissolved Solids	E160.1
16DN3	03-03	N	8803080-02A	XYLENE	Purgeable Aromatics	E602
16DN3	03-03	N	8803017-04C	XYLENE	Purgeable Aromatics	E602
16DN3	04-24	N	8804040-04B	AS_G	Metals	E206.2
16DN3	04-24	N	8804040-04C	CL_T	Chloride	E325.3
16DN3	04-24	N	8804041-04A	EPA601	Purgeable Halocarbons	E601
16DN3	04-24	N	8804041-04C	EPA602	Purgeable Aromatics	E602
16DN3	04-24	N	8804040-04C	F_SIE	Fluoride	E340.2
16DN3	04-24	N	8804040-04B	HG_C	Metals	E245.1
16DN3	04-24	N	8804040-04B	ICP200	Metal Screen (ICP)	E200.7
16DN3	04-24	N	8804040-04A	NO3	Nitrate	E353.2
16DN3	04-24	N	8804040-04D	ONG_IR	Oil & Grease	E413.2
16DN3	04-24	N	8804040-04C	OPO4	Orthophosphate	E365.4
16DN3	04-24	N	8804040-04B	PB_G	Metals	E239.2
16DN3	04-24	N	8804040-04B	SE_G	Metals	E270.2
16DN3	04-24	N	8804040-04C	SO4_N	Sulfate	E375.4
16DN3	04-24	N	8804040-04C	TDS	Total Dissolved Solids	E160.1
16DN3	04-24	N	8804041-04C	XYLENE	Purgeable Aromatics	E602
16DN4	03-04	N	8803016-04D	AS_G	Metals	E206.2
16DN4	03-04	N	8803016-04A	CL_T	Chloride	E325.3
16DN4	03-04	N	8803017-05A	EPA601	Purgeable Halocarbons	E601
16DN4	03-04	N	8803080-03A	EPA601	Purgeable Halocarbons	E601
16DN4	03-04	N	8803017-05C	EPA602	Purgeable Aromatics	E602
16DN4	03-04	N	8803016-04A	F_SIE	Fluoride	E340.2
16DN4	03-04	N	8803016-04D	HG_C	Metals	E245.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
16DN4	03-04	N	8803016-04D	ICP200	Metal Screen (ICP)	E200.7
16DN4	03-04	N	8803016-04E	NO2NO3	Nitrate	E353.1
16DN4	03-04	N	8803016-04C	ONG_IR	Oil & Grease	E413.2
16DN4	03-04	N	8803016-04A	OPO4	Orthophosphate	E365.4
16DN4	03-04	N	8803016-04D	PB_G	Metals	E239.2
16DN4	03-04	N	8803016-04D	SE_G	Metals	E270.2
16DN4	03-04	N	8803016-04A	SO4_N	Sulfate	E375.4
16DN4	03-04	N	8803016-04A	TDS	Total Dissolved Solids	E160.1
16DN4	03-04	N	8803017-05C	XYLENE	Purgeable Aromatics	E602
16DN4	03-05	D	8803016-05D	AS_G	Metals	E206.2
16DN4	03-05	D	8803016-05A	CL_T	Chloride	E325.3
16DN4	03-05	D	8803080-04A	EPA601	Purgeable Halocarbons	E601
16DN4	03-05	D	8803017-06A	EPA601	Purgeable Halocarbons	E601
16DN4	03-05	D	8803017-06C	EPA602	Purgeable Aromatics	E602
16DN4	03-05	D	8803080-04B	EPA602	Purgeable Aromatics	E602
16DN4	03-05	D	8803016-05A	F_SIE	Fluoride	E340.2
16DN4	03-05	D	8803016-05D	HG_C	Metals	E245.1
16DN4	03-05	D	8803016-05D	ICP200	Metal Screen (ICP)	E200.7
16DN4	03-05	D	8803016-05E	NO2NO3	Nitrate	E353.1
16DN4	03-05	D	8803016-05C	ONG_IR	Oil & Grease	E413.2
16DN4	03-05	D	8803016-05A	OPO4	Orthophosphate	E365.4
16DN4	03-05	D	8803016-05D	PB_G	Metals	E239.2
16DN4	03-05	D	8803016-05D	SE_G	Metals	E270.2
16DN4	03-05	D	8803016-05A	SO4_N	Sulfate	E375.4
16DN4	03-05	D	8803016-05A	TDS	Total Dissolved Solids	E160.1
16DN4	03-05	D	8803080-04B	XYLENE	Purgeable Aromatics	E602
16DN4	03-05	D	8803017-06C	XYLENE	Purgeable Aromatics	E602
16DN4	04-25	N	8804040-05B	AS_G	Metals	E206.2
16DN4	04-25	N	8804040-05C	CL_T	Chloride	E325.3
16DN4	04-25	N	8804041-05A	EPA601	Purgeable Halocarbons	E601
16DN4	04-25	N	8804041-11A	EPA601	Purgeable Halocarbons	E601
16DN4	04-25	N	8804041-05C	EPA602	Purgeable Aromatics	E602
16DN4	04-25	N	8804040-05C	F_SIE	Fluoride	E340.2
16DN4	04-25	N	8804040-05B	HG_C	Metals	E245.1
16DN4	04-25	N	8804040-05B	ICP200	Metal Screen (ICP)	E200.7
16DN4	04-25	N	8804040-05A	NO3	Nitrate	E353.2
16DN4	04-25	N	8804040-05D	ONG_IR	Oil & Grease	E413.2
16DN4	04-25	N	8804040-05C	OPO4	Orthophosphate	E365.4
16DN4	04-25	N	8804040-05B	PB_G	Metals	E239.2
16DN4	04-25	N	8804040-05B	SE_G	Metals	E270.2
16DN4	04-25	N	8804040-05C	SO4_N	Sulfate	E375.4
16DN4	04-25	N	8804040-05C	TDS	Total Dissolved Solids	E160.1
16DN4	04-25	N	8804041-05C	XYLENE	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
16UP1	03-01	N	8803016-01D	AS_G	Metals	E206.2
16UP1	03-01	N	8803016-01A	CL_T	Chloride	E325.3
16UP1	03-01	N	8803017-02A	EPA601	Purgeable Halocarbons	E601
16UP1	03-01	N	8803080-01A	EPA602	Purgeable Aromatics	E602
16UP1	03-01	N	8803017-02C	EPA602	Purgeable Aromatics	E602
16UP1	03-01	N	8803016-01A	F_SIE	Fluoride	E340.2
16UP1	03-01	N	8803016-01D	HG_C	Metals	E245.1
16UP1	03-01	N	8803016-01D	ICP200	Metal Screen (ICP)	E200.7
16UP1	03-01	N	8803016-01E	NO2NO3	Nitrate	E353.1
16UP1	03-01	N	8803016-01C	ONG_IR	Oil & Grease	E413.2
16UP1	03-01	N	8803016-01A	OPO4	Orthophosphate	E365.4
16UP1	03-01	N	8803016-01D	PB_G	Metals	E239.2
16UP1	03-01	N	8803016-01D	SE_G	Metals	E270.2
16UP1	03-01	N	8803016-01A	SO4_N	Sulfate	E375.4
16UP1	03-01	N	8803016-01A	TDS	Total Dissolved Solids	E160.1
16UP1	03-01	N	8803080-01A	XYLENE	Purgeable Aromatics	E602
16UP1	03-01	N	8803017-02C	XYLENE	Purgeable Aromatics	E602
16UP1	04-22	N	8804040-02B	AS_G	Metals	E206.2
16UP1	04-22	N	8804040-02C	CL_T	Chloride	E325.3
16UP1	04-22	N	8804041-02A	EPA601	Purgeable Halocarbons	E601
16UP1	04-22	N	8804041-09A	EPA602	Purgeable Aromatics	E602
16UP1	04-22	N	8804041-02C	EPA602	Purgeable Aromatics	E602
16UP1	04-22	N	8804040-02C	F_SIE	Fluoride	E340.2
16UP1	04-22	N	8804040-02B	HG_C	Metals	E245.1
16UP1	04-22	N	8804040-02B	ICP200	Metal Screen (ICP)	E200.7
16UP1	04-22	N	8804040-02A	NO3	Nitrate	E353.2
16UP1	04-22	N	8804040-02D	ONG_IR	Oil & Grease	E413.2
16UP1	04-22	N	8804040-02C	OPO4	Orthophosphate	E365.4
16UP1	04-22	N	8804040-02B	PB_G	Metals	E239.2
16UP1	04-22	N	8804040-02B	SE_G	Metals	E270.2
16UP1	04-22	N	8804040-02C	SO4_N	Sulfate	E375.4
16UP1	04-22	N	8804040-02C	TDS	Total Dissolved Solids	E160.1
16UP1	04-22	N	8804041-09A	XYLENE	Purgeable Aromatics	E602
16UP1	04-22	N	8804041-02C	XYLENE	Purgeable Aromatics	E602
16UP2	03-02	N	8803016-02D	AS_G	Metals	E206.2
16UP2	03-02	N	8803016-02A	CL_T	Chloride	E325.3
16UP2	03-02	N	8803017-03A	EPA601	Purgeable Halocarbons	E601
16UP2	03-02	N	8803017-03C	EPA602	Purgeable Aromatics	E602
16UP2	03-02	N	8803016-02A	F_SIE	Fluoride	E340.2
16UP2	03-02	N	8803016-02D	HG_C	Metals	E245.1
16UP2	03-02	N	8803016-02D	ICP200	Metal Screen (ICP)	E200.7
16UP2	03-02	N	8803016-02E	NO2NO3	Nitrate	E353.1
16UP2	03-02	N	8803016-02C	ONG_IR	Oil & Grease	E413.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
16UP2	03-02	N	8803016-02A	OPO4	Orthophosphate	E365.4
16UP2	03-02	N	8803016-02D	PB_G	Metals	E239.2
16UP2	03-02	N	8803016-02D	SE_G	Metals	E270.2
16UP2	03-02	N	8803016-02A	SO4_N	Sulfate	E375.4
16UP2	03-02	N	8803016-02A	TDS	Total Dissolved Solids	E160.1
16UP2	03-02	N	8803017-03C	XYLENE	Purgeable Aromatics	E602
16UP2	04-23	N	8804040-03B	AS_G	Metals	E206.2
16UP2	04-23	N	8804040-03C	CL_T	Chloride	E325.3
16UP2	04-23	N	8804041-03A	EPA601	Purgeable Halocarbons	E601
16UP2	04-23	N	8804041-03C	EPA602	Purgeable Aromatics	E602
16UP2	04-23	N	8804041-10A	EPA602	Purgeable Aromatics	E602
16UP2	04-23	N	8804040-03C	F_SIE	Fluoride	E340.2
16UP2	04-23	N	8804040-03B	HG_C	Metals	E245.1
16UP2	04-23	N	8804040-03B	ICP200	Metal Screen (ICP)	E200.7
16UP2	04-23	N	8804040-03A	NO3	Nitrate	E353.2
16UP2	04-23	N	8804040-03D	ONG_IR	Oil & Grease	E413.2
16UP2	04-23	N	8804040-03C	OPO4	Orthophosphate	E365.4
16UP2	04-23	N	8804040-03B	PB_G	Metals	E239.2
16UP2	04-23	N	8804040-03B	SE_G	Metals	E270.2
16UP2	04-23	N	8804040-03C	SO4_N	Sulfate	E375.4
16UP2	04-23	N	8804040-03C	TDS	Total Dissolved Solids	E160.1
16UP2	04-23	N	8804041-10A	XYLENE	Purgeable Aromatics	E602
16UP2	04-23	N	8804041-03C	XYLENE	Purgeable Aromatics	E602
17	Car8-02-141	SN	S802089-01A	CL8240	Volatile Organic Compounds	SW8240
17	Car8-02-142	SN	S802089-02A	CL8270	Semivolatile Organic Compounds	SW8270
17	Car8-02-142	SN	S802089-02A	DRY_WT	Soil Moisture	UNK
17	Car8-02-143	SN	S802094-01B	8080	Organochlorine Pesticides and PCBs	SW8080
17	Car8-02-143	SN	S802094-01C	8150	Chlorinated Phenoxy Herbicides	SW8150
17	Car8-02-143	SN	S802094-01A	AG_EM	Metal Screen (ICP)	E200.7
17	Car8-02-143	SN	S802094-01A	AS_GF	Metals	E206.2
17	Car8-02-143	SN	S802094-01A	BA_EM	Metal Screen (ICP)	E200.7
17	Car8-02-143	SN	S802094-01A	CD_EM	Metal Screen (ICP)	E200.7
17	Car8-02-143	SN	S802094-01A	CR_EM	Metal Screen (ICP)	E200.7
17	Car8-02-143	SN	S802094-01A	HG_CV	Metals	E245.1
17	Car8-02-143	SN	S802094-01A	PB_G	Metals	E239.2
17	Car8-02-143	SN	S802094-01A	SE_GF	Metals	E270.2
17I	03-08	N	8803016-06D	AS_G	Metals	E206.2
17I	03-08	N	S803006-01A	CL_625	Extractable Priority Pollutants	E625
17I	03-08	N	8803016-06A	CL_T	Chloride	E325.3
17I	03-08	N	8803017-09A	EPA601	Purgeable Halocarbons	E601
17I	03-08	N	8803017-09C	EPA602	Purgeable Aromatics	E602
17I	03-08	N	8803016-06A	F_SIE	Fluoride	E340.2
17I	03-08	N	8803016-06C	HC_IR	Petroleum Hydrocarbons	E418.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
17I	03-08	N	8803016-06D	HG_C	Metals	E245.1
17I	03-08	N	8803016-06D	ICP200	Metal Screen (ICP)	E200.7
17I	03-08	N	8803016-06E	NO2NO3	Nitrate	E353.1
17I	03-08	N	8803016-06A	OPO4	Orthophosphate	E365.4
17I	03-08	N	8803016-06D	PB_G	Metals	E239.2
17I	03-08	N	8803016-06D	SE_G	Metals	E270.2
17I	03-08	N	8803016-06A	SO4_N	Sulfate	E375.4
17I	03-08	N	8803016-06A	TDS	Total Dissolved Solids	E160.1
17I	03-08	N	8803017-09C	XYLENE	Purgeable Aromatics	E602
17I	03-09	TB	8803017-10A	EPA601	Purgeable Halocarbons	E601
17I	03-09	TB	8803080-07A	EPA601	Purgeable Halocarbons	E601
17I	03-09	TB	8803017-10C	EPA602	Purgeable Aromatics	E602
17I	03-09	TB	8803080-07B	EPA602	Purgeable Aromatics	E602
17I	03-09	TB	8803017-10C	XYLENE	Purgeable Aromatics	E602
17I	03-09	TB	8803080-07B	XYLENE	Purgeable Aromatics	E602
17I	03-10	FB	8803018-06A	EPA601	Purgeable Halocarbons	E601
17I	03-10	FB	8803018-01A	EPA601	Purgeable Halocarbons	E601
17I	03-10	FB	8803018-01C	EPA602	Purgeable Aromatics	E602
17I	03-10	FB	8803018-01C	XYLENE	Purgeable Aromatics	E602
17I	04-64	N	8804074-05D	AS_G	Metals	E206.2
17I	04-64	N	S804083-05A	CL_625	Extractable Priority Pollutants	E625
17I	04-64	N	8804074-05A	CL_T	Chloride	E325.3
17I	04-64	N	8804075-06A	EPA601	Purgeable Halocarbons	E601
17I	04-64	N	8804075-06C	EPA602	Purgeable Aromatics	E602
17I	04-64	N	8804074-05A	F_SIE	Fluoride	E340.2
17I	04-64	N	8804074-05C	HC_IR	Petroleum Hydrocarbons	E418.1
17I	04-64	N	8804074-05D	HG_C	Metals	E245.1
17I	04-64	N	8804074-05D	ICP200	Metal Screen (ICP)	E200.7
17I	04-64	N	8804074-05B	NO2NO3	Nitrate	E353.1
17I	04-64	N	8804074-05A	OPO4	Orthophosphate	E365.4
17I	04-64	N	8804074-05D	PB_G	Metals	E239.2
17I	04-64	N	8804074-05A	SO4_N	Sulfate	E375.4
17I	04-64	N	8804074-05A	TDS	Total Dissolved Solids	E160.1
17I	04-64	N	8804075-06C	XYLENE	Purgeable Aromatics	E602
17I	Car8-02-053	SN	S802056-14A	CL8240	Volatile Organic Compounds	SW8240
17I	Car8-02-054	SN	8802084-10A	HC_IR	Petroleum Hydrocarbons	E418.1
17I	Car8-02-054	SN	8802084-10A	PB_G	Metals	E239.2
17I	Car8-02-055	SN	S802056-15A	CL8240	Volatile Organic Compounds	SW8240
17I	Car8-02-056	SN	8802084-11A	HC_IR	Petroleum Hydrocarbons	E418.1
17I	Car8-02-056	SN	8802084-11A	PB_G	Metals	E239.2
17J	03-13	N	8803016-09D	AS_G	Metals	E206.2
17J	03-13	N	8803016-09A	CL_T	Chloride	E325.3
17J	03-13	N	8803018-04A	EPA601	Purgeable Halocarbons	E601

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
17J	03-13	N	8803018-04C	EPA602	Purgeable Aromatics	E602
17J	03-13	N	8803016-09A	F_SIE	Fluoride	E340.2
17J	03-13	N	8803016-09C	HC_IR	Petroleum Hydrocarbons	E418.1
17J	03-13	N	8803016-09D	HG_C	Metals	E245.1
17J	03-13	N	8803016-09D	ICP200	Metal Screen (ICP)	E200.7
17J	03-13	N	8803016-09E	NO2NO3	Nitrate	E353.1
17J	03-13	N	8803016-09A	OPO4	Orthophosphate	E365.4
17J	03-13	N	8803016-09D	PB_G	Metals	E239.2
17J	03-13	N	8803016-09D	SE_G	Metals	E270.2
17J	03-13	N	8803016-09A	SO4_N	Sulfate	E375.4
17J	03-13	N	8803016-09A	TDS	Total Dissolved Solids	E160.1
17J	03-13	N	8803018-04C	XYLENE	Purgeable Aromatics	E602
17J	04-69	N	8804079-01C	AS_G	Metals	E206.2
17J	04-69	N	8804079-01A	CL_T	Chloride	E325.3
17J	04-69	N	8804080-01A	EPA601	Purgeable Halocarbons	E601
17J	04-69	N	8804080-01C	EPA602	Purgeable Aromatics	E602
17J	04-69	N	8804079-01A	F_SIE	Fluoride	E340.2
17J	04-69	N	8804079-01D	HC_IR	Petroleum Hydrocarbons	E418.1
17J	04-69	N	8804079-01C	HG_C	Metals	E245.1
17J	04-69	N	8804079-01C	ICP200	Metal Screen (ICP)	E200.7
17J	04-69	N	8804079-01B	NO2NO3	Nitrate	E353.1
17J	04-69	N	8804079-01A	OPO4	Orthophosphate	E365.4
17J	04-69	N	8804079-01C	PB_G	Metals	E239.2
17J	04-69	N	8804079-01A	SO4_N	Sulfate	E375.4
17J	04-69	N	8804079-01A	TDS	Total Dissolved Solids	E160.1
17J	04-69	N	8804080-01C	XYLENE	Purgeable Aromatics	E602
17J	04-70	D	8804079-02C	AS_G	Metals	E206.2
17J	04-70	D	8804079-02C	AS_G	Metals	E206.2
17J	04-70	D	8804079-02A	CL_T	Chloride	E325.3
17J	04-70	D	8804079-02A	CL_T	Chloride	E325.3
17J	04-70	D	8804080-02A	EPA601	Purgeable Halocarbons	E601
17J	04-70	D	8804080-02A	EPA601	Purgeable Halocarbons	E601
17J	04-70	D	8804080-02C	EPA602	Purgeable Aromatics	E602
17J	04-70	D	8804080-02C	EPA602	Purgeable Aromatics	E602
17J	04-70	D	8804079-02A	F_SIE	Fluoride	E340.2
17J	04-70	D	8804079-02A	F_SIE	Fluoride	E340.2
17J	04-70	D	8804079-02D	HC_IR	Petroleum Hydrocarbons	E418.1
17J	04-70	D	8804079-02D	HC_IR	Petroleum Hydrocarbons	E418.1
17J	04-70	D	8804079-02C	HG_C	Metals	E245.1
17J	04-70	D	8804079-02C	HG_C	Metals	E245.1
17J	04-70	D	8804079-02C	ICP200	Metal Screen (ICP)	E200.7
17J	04-70	D	8804079-02C	ICP200	Metal Screen (ICP)	E200.7
17J	04-70	D	8804079-02B	NO2NO3	Nitrate	E353.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
17J	04-70	D	8804079-02B	NO2NO3	Nitrate	E353.1
17J	04-70	D	8804079-02A	OPO4	Orthophosphate	E365.4
17J	04-70	D	8804079-02A	OPO4	Orthophosphate	E365.4
17J	04-70	D	8804079-02C	PB_G	Metals	E239.2
17J	04-70	D	8804079-02C	PB_G	Metals	E239.2
17J	04-70	D	8804079-02A	SO4_N	Sulfate	E375.4
17J	04-70	D	8804079-02A	SO4_N	Sulfate	E375.4
17J	04-70	D	8804079-02A	TDS	Total Dissolved Solids	E160.1
17J	04-70	D	8804079-02A	TDS	Total Dissolved Solids	E160.1
17J	04-70	D	8804080-02C	XYLENE	Purgeable Aromatics	E602
17J	04-70	D	8804080-02C	XYLENE	Purgeable Aromatics	E602
17J	04-71	ER	8804079-03C	AS_G	Metals	E206.2
17J	04-71	ER	8804079-03A	CL_T	Chloride	E325.3
17J	04-71	ER	8804080-03A	EPA601	Purgeable Halocarbons	E601
17J	04-71	ER	8804080-07A	EPA602	Purgeable Aromatics	E602
17J	04-71	ER	8804080-03C	EPA602	Purgeable Aromatics	E602
17J	04-71	ER	8804079-03A	F_SIE	Fluoride	E340.2
17J	04-71	ER	8804079-03D	HC_IR	Petroleum Hydrocarbons	E418.1
17J	04-71	ER	8804079-03C	HG_C	Metals	E245.1
17J	04-71	ER	8804079-03C	ICP200	Metal Screen (ICP)	E200.7
17J	04-71	ER	8804079-03B	NO2NO3	Nitrate	E353.1
17J	04-71	ER	8804079-03E	ONG_IR	Oil & Grease	E413.2
17J	04-71	ER	8804079-03A	OPO4	Orthophosphate	E365.4
17J	04-71	ER	8804079-03C	PB_G	Metals	E239.2
17J	04-71	ER	8804079-03C	SE_G	Metals	E270.2
17J	04-71	ER	8804079-03A	SO4_N	Sulfate	E375.4
17J	04-71	ER	8804079-03A	TDS	Total Dissolved Solids	E160.1
17J	04-71	ER	8804080-07A	XYLENE	Purgeable Aromatics	E602
17J	04-71	ER	8804080-03C	XYLENE	Purgeable Aromatics	E602
17J	Car8-02-065	SN	S802064-05A	CL8240	Volatile Organic Compounds	SW8240
17J	Car8-02-066	SN	8802111-05A	HC_IR	Petroleum Hydrocarbons	E418.1
17J	Car8-02-066	SN	8802111-05A	PB_G	Metals	E239.2
17J	Car8-02-067	FB	S802064-06A	CL8240	Volatile Organic Compounds	SW8240
17K	03-11	N	8803016-07D	AS_G	Metals	E206.2
17K	03-11	N	8803016-07A	CL_T	Chloride	E325.3
17K	03-11	N	8803018-02A	EPA601	Purgeable Halocarbons	E601
17K	03-11	N	8803018-07A	EPA602	Purgeable Aromatics	E602
17K	03-11	N	8803018-02C	EPA602	Purgeable Aromatics	E602
17K	03-11	N	8803016-07A	F_SIE	Fluoride	E340.2
17K	03-11	N	8803016-07C	HC_IR	Petroleum Hydrocarbons	E418.1
17K	03-11	N	8803016-07D	HG_C	Metals	E245.1
17K	03-11	N	8803016-07D	ICP200	Metal Screen (ICP)	E200.7
17K	03-11	N	8803016-07E	NO2NO3	Nitrate	E353.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
17K	03-11	N	8803016-07A	OPO4	Orthophosphate	E365.4
17K	03-11	N	8803016-07D	PB_G	Metals	E239.2
17K	03-11	N	8803016-07D	SE_G	Metals	E270.2
17K	03-11	N	8803016-07A	SO4_N	Sulfate	E375.4
17K	03-11	N	8803016-07A	TDS	Total Dissolved Solids	E160.1
17K	03-11	N	8803018-07A	XYLENE	Purgeable Aromatics	E602
17K	03-11	N	8803018-Q2C	XYLENE	Purgeable Aromatics	E602
17K	04-68	N	8804074-09D	AS_G	Metals	E206.2
17K	04-68	N	8804074-09A	CL_T	Chloride	E325.3
17K	04-68	N	8804145-08A	EPA601	Purgeable Halocarbons	E601
17K	04-68	N	8804075-10A	EPA601	Purgeable Halocarbons	E601
17K	04-68	N	8804145-08A	EPA602	Purgeable Aromatics	E602
17K	04-68	N	8804075-10C	EPA602	Purgeable Aromatics	E602
17K	04-68	N	8804074-09A	F_SIE	Fluoride	E340.2
17K	04-68	N	8804074-09C	HC_IR	Petroleum Hydrocarbons	E418.1
17K	04-68	N	8804074-09D	HG_C	Metals	E245.1
17K	04-68	N	8804074-09D	ICP200	Metal Screen (ICP)	E200.7
17K	04-68	N	8804074-09B	NO2NO3	Nitrate	E353.1
17K	04-68	N	8804074-09A	OPO4	Orthophosphate	E365.4
17K	04-68	N	8804074-09D	PB_G	Metals	E239.2
17K	04-68	N	8804074-09A	SO4_N	Sulfate	E375.4
17K	04-68	N	8804074-09A	TDS	Total Dissolved Solids	E160.1
17K	04-68	N	8804075-10C	XYLENE	Purgeable Aromatics	E602
17K	04-68	N	8804145-08A	XYLENE	Purgeable Aromatics	E602
17K	Car8-02-057	SD	S802064-01A	CL8240	Volatile Organic Compounds	SW8240
17K	Car8-02-058	SD	S802064-02A	CL8240	Volatile Organic Compounds	SW8240
17K	Car8-02-059	SD	8802111-01A	HC_IR	Petroleum Hydrocarbons	E418.1
17K	Car8-02-059	SD	8802111-01A	PB_G	Metals	E239.2
17K	Car8-02-060	SD	8802111-02A	HC_IR	Petroleum Hydrocarbons	E418.1
17K	Car8-02-060	SD	8802111-02A	PB_G	Metals	E239.2
17L	03-12	N	8803016-08D	AS_G	Metals	E206.2
17L	03-12	N	8803016-08A	CL_T	Chloride	E325.3
17L	03-12	N	8803018-03A	EPA601	Purgeable Halocarbons	E601
17L	03-12	N	8803018-03C	EPA602	Purgeable Aromatics	E602
17L	03-12	N	8803016-08A	F_SIE	Fluoride	E340.2
17L	03-12	N	8803016-08C	HC_IR	Petroleum Hydrocarbons	E418.1
17L	03-12	N	8803016-08D	HG_C	Metals	E245.1
17L	03-12	N	8803016-08D	ICP200	Metal Screen (ICP)	E200.7
17L	03-12	N	8803016-08E	NO2NO3	Nitrate	E353.1
17L	03-12	N	8803016-08A	OPO4	Orthophosphate	E365.4
17L	03-12	N	8803016-08D	PB_G	Metals	E239.2
17L	03-12	N	8803016-08D	SE_G	Metals	E270.2
17L	03-12	N	8803016-08A	SO4_N	Sulfate	E375.4

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
17L	03-12	N	8803016-08A	TDS	Total Dissolved Solids	E160.1
17L	03-12	N	8803018-03C	XYLENE	Purgeable Aromatics	E602
17L	04-72	N	8804079-04C	AS_G	Metals	E206.2
17L	04-72	N	8804079-04A	CL_T	Chloride	E325.3
17L	04-72	N	8804080-04A	EPA601	Purgeable Halocarbons	E601
17L	04-72	N	8804080-04C	EPA602	Purgeable Aromatics	E602
17L	04-72	N	8804079-04A	F_SIE	Fluoride	E340.2
17L	04-72	N	8804079-04D	HC_IR	Petroleum Hydrocarbons	E418.1
17L	04-72	N	8804079-04C	HG_C	Metals	E245.1
17L	04-72	N	8804079-04C	ICP200	Metal Screen (ICP)	E200.7
17L	04-72	N	8804079-04B	NO2NO3	Nitrate	E353.1
17L	04-72	N	8804079-04A	OPO4	Orthophosphate	E365.4
17L	04-72	N	8804079-04C	PB_G	Metals	E239.2
17L	04-72	N	8804079-04A	SO4_N	Sulfate	E375.4
17L	04-72	N	8804079-04A	TDS	Total Dissolved Solids	E160.1
17L	04-72	N	8804080-04C	XYLENE	Purgeable Aromatics	E602
17L	04-73	ER	8804079-05C	AS_G	Metals	E206.2
17L	04-73	ER	8804079-05A	CL_T	Chloride	E325.3
17L	04-73	ER	8804080-08A	EPA601	Purgeable Halocarbons	E601
17L	04-73	ER	8804080-05A	EPA601	Purgeable Halocarbons	E601
17L	04-73	ER	8804080-08A	EPA602	Purgeable Aromatics	E602
17L	04-73	ER	8804080-05C	EPA602	Purgeable Aromatics	E602
17L	04-73	ER	8804079-05A	F_SIE	Fluoride	E340.2
17L	04-73	ER	8804079-05C	HG_C	Metals	E245.1
17L	04-73	ER	8804079-05C	ICP200	Metal Screen (ICP)	E200.7
17L	04-73	ER	8804079-05B	NO2NO3	Nitrate	E353.1
17L	04-73	ER	8804079-05A	OPO4	Orthophosphate	E365.4
17L	04-73	ER	8804079-05C	PB_G	Metals	E239.2
17L	04-73	ER	8804079-05A	SO4_N	Sulfate	E375.4
17L	04-73	ER	8804079-05A	TDS	Total Dissolved Solids	E160.1
17L	04-73	ER	8804080-05C	XYLENE	Purgeable Aromatics	E602
17L	04-73	ER	8804080-08A	XYLENE	Purgeable Aromatics	E602
17L	Car8-02-063	SN	S802064-04A	CL8240	Volatile Organic Compounds	SW8240
17L	Car8-02-064	SN	8802111-04A	HC_IR	Petroleum Hydrocarbons	E418.1
17L	Car8-02-064	SN	8802111-04A	PB_G	Metals	E239.2
17M	03-14	N	8803031-01C	AS_G	Metals	E206.2
17M	03-14	N	8803031-01A	CL_T	Chloride	E325.3
17M	03-14	N	8803029-01A	EPA601	Purgeable Halocarbons	E601
17M	03-14	N	8803029-01C	EPA602	Purgeable Aromatics	E602
17M	03-14	N	8803031-01A	F_SIE	Fluoride	E340.2
17M	03-14	N	8803031-01D	HC_IR	Petroleum Hydrocarbons	E418.1
17M	03-14	N	8803031-01C	HG_C	Metals	E245.1
17M	03-14	N	8803031-01C	ICP200	Metal Screen (ICP)	E200.7

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
17M	03-14	N	8803031-01E	NO2NO3	Nitrate	E353.1
17M	03-14	N	8803031-01A	OPO4	Orthophosphate	E365.4
17M	03-14	N	8803031-01C	PB_G	Metals	E239.2
17M	03-14	N	8803031-01C	SE_G	Metals	E270.2
17M	03-14	N	8803031-01A	SO4_N	Sulfate	E375.4
17M	03-14	N	8803031-01A	TDS	Total Dissolved Solids	E160.1
17M	03-14	N	8803029-01C	XYLENE	Purgeable Aromatics	E602
17M	04-65	N	8804074-06D	AS_G	Metals	E206.2
17M	04-65	N	8804074-06A	CL_T	Chloride	E325.3
17M	04-65	N	8804075-07A	EPA601	Purgeable Halocarbons	E601
17M	04-65	N	8804075-07C	EPA602	Purgeable Aromatics	E602
17M	04-65	N	8804074-06A	F_SIE	Fluoride	E340.2
17M	04-65	N	8804074-06C	HC_IR	Petroleum Hydrocarbons	E418.1
17M	04-65	N	8804074-06D	HG_C	Metals	E245.1
17M	04-65	N	8804074-06D	ICP200	Metal Screen (ICP)	E200.7
17M	04-65	N	8804074-06B	NO2NO3	Nitrate	E353.1
17M	04-65	N	8804074-06A	OPO4	Orthophosphate	E365.4
17M	04-65	N	8804074-06D	PB_G	Metals	E239.2
17M	04-65	N	8804074-06A	SO4_N	Sulfate	E375.4
17M	04-65	N	8804074-06A	TDS	Total Dissolved Solids	E160.1
17M	04-65	N	8804075-07C	XYLENE	Purgeable Aromatics	E602
17M	Car8-02-061	SN	S802064-03A	CL8240	Volatile Organic Compounds	SW8240
17M	Car8-02-062	SN	8802111-03A	HC_IR	Petroleum Hydrocarbons	E418.1
17M	Car8-02-062	SN	8802111-03A	PB_G	Metals	E239.2
1A	02-159	N	8802191-05D	AS_G	Metals	E206.2
1A	02-159	N	S802099-03A	CL_625	Extractable Priority Pollutants	E625
1A	02-159	N	8802191-05E	CL_T	Chloride	E325.3
1A	02-159	N	8802190-05A	EPA601	Purgeable Halocarbons	E601
1A	02-159	N	8802190-05C	EPA602	Purgeable Aromatics	E602
1A	02-159	N	8802191-05E	F_SIE	Fluoride	E340.2
1A	02-159	N	8802191-05D	HG_C	Metals	E245.1
1A	02-159	N	8802191-05D	ICP200	Metal Screen (ICP)	E200.7
1A	02-159	N	8802191-05B	NO2NO3	Nitrate	E353.1
1A	02-159	N	8802191-05C	ONG_IR	Oil & Grease	E413.2
1A	02-159	N	8802191-05E	OPO4	Orthophosphate	E365.4
1A	02-159	N	8802191-05D	PB_G	Metals	E239.2
1A	02-159	N	8802191-05D	SE_G	Metals	E270.2
1A	02-159	N	8802191-05E	SO4_N	Sulfate	E375.4
1A	02-159	N	8802191-05E	TDS	Total Dissolved Solids	E160.1
1A	02-159	N	8802190-05C	XYLENE	Purgeable Aromatics	E602
1A	04-12	N	8804029-01B	AS_G	Metals	E206.2
1A	04-12	N	8804029-01C	CL_T	Chloride	E325.3
1A	04-12	N	8804030-01A	EPA601	Purgeable Halocarbons	E601

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
1A	04-12	N	8804030-10A	EPA602	Purgeable Aromatics	E602
1A	04-12	N	8804030-01C	EPA602	Purgeable Aromatics	E602
1A	04-12	N	8804029-01C	F_SIE	Fluoride	E340.2
1A	04-12	N	8804029-01B	HG_C	Metals	E245.1
1A	04-12	N	8804029-01B	ICP200	Metal Screen (ICP)	E200.7
1A	04-12	N	8804029-01A	NO3	Nitrate	E353.2
1A	04-12	N	8804029-01D	ONG_IR	Oil & Grease	E413.2
1A	04-12	N	8804029-01C	OPO4	Orthophosphate	E365.4
1A	04-12	N	8804029-01B	PB_G	Metals	E239.2
1A	04-12	N	8804029-01B	SE_G	Metals	E270.2
1A	04-12	N	8804029-01C	SO4_N	Sulfate	E375.4
1A	04-12	N	8804029-01C	TDS	Total Dissolved Solids	E160.1
1A	04-12	N	8804030-01C	XYLENE	Purgeable Aromatics	E602
1A	04-12	N	8804030-10A	XYLENE	Purgeable Aromatics	E602
1A	04-13	TB	8804030-02A	EPA601	Purgeable Halocarbons	E601
1A	04-13	TB	8804030-02C	EPA602	Purgeable Aromatics	E602
1A	04-13	TB	8804030-02C	XYLENE	Purgeable Aromatics	E602
1A	04-14	FB	8804030-03A	EPA601	Purgeable Halocarbons	E601
1A	04-14	FB	8804030-03C	EPA602	Purgeable Aromatics	E602
1A	04-14	FB	8804030-03C	XYLENE	Purgeable Aromatics	E602
1B	02-158	N	8803017-01A	EPA602	Purgeable Aromatics	E602
1B	02-158	N	8803017-01A	EPA602	Purgeable Aromatics	E602
1B	02-158	N	8803017-01A	XYLENE	Purgeable Aromatics	E602
1B	02-158	N	8803017-01A	XYLENE	Purgeable Aromatics	E602
1B	04-15	N	8804075-01A	EPA601	Purgeable Halocarbons	E601
1B	04-15	N	8804145-01A	EPA601	Purgeable Halocarbons	E601
1B	04-15	N	8804075-01B	EPA602	Purgeable Aromatics	E602
1B	04-15	N	8804075-01B	XYLENE	Purgeable Aromatics	E602
1C	02-160	N	8802191-06D	AS_G	Metals	E206.2
1C	02-160	N	8802191-06E	CL_T	Chloride	E325.3
1C	02-160	N	8802190-06A	EPA601	Purgeable Halocarbons	E601
1C	02-160	N	8802190-06C	EPA602	Purgeable Aromatics	E602
1C	02-160	N	8802190-13A	EPA602	Purgeable Aromatics	E602
1C	02-160	N	8802191-06E	F_SIE	Fluoride	E340.2
1C	02-160	N	8802191-06D	HG_C	Metals	E245.1
1C	02-160	N	8802191-06D	ICP200	Metal Screen (ICP)	E200.7
1C	02-160	N	8802191-06B	NO2NO3	Nitrate	E353.1
1C	02-160	N	8802191-06C	ONG_IR	Oil & Grease	E413.2
1C	02-160	N	8802191-06E	OPO4	Orthophosphate	E365.4
1C	02-160	N	8802191-06D	PB_G	Metals	E239.2
1C	02-160	N	8802191-06D	SE_G	Metals	E270.2
1C	02-160	N	8802191-06E	SO4_N	Sulfate	E375.4
1C	02-160	N	8802191-06E	TDS	Total Dissolved Solids	E160.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
1C	02-160	N	8802190-13A	XYLENE	Purgeable Aromatics	E602
1C	02-160	N	8802190-06C	XYLENE	Purgeable Aromatics	E602
1C	04-17	N	8804029-03B	AS_G	Metals	E206.2
1C	04-17	N	8804029-03C	CL_T	Chloride	E325.3
1C	04-17	N	8804030-05A	EPA601	Purgeable Halocarbons	E601
1C	04-17	N	8804030-11A	EPA602	Purgeable Aromatics	E602
1C	04-17	N	8804030-05C	EPA602	Purgeable Aromatics	E602
1C	04-17	N	8804029-03C	F_SIE	Fluoride	E340.2
1C	04-17	N	8804029-03B	HG_C	Metals	E245.1
1C	04-17	N	8804029-03B	ICP200	Metal Screen (ICP)	E200.7
1C	04-17	N	8804029-03A	NO3	Nitrate	E353.2
1C	04-17	N	8804029-03D	ONG_IR	Oil & Grease	E413.2
1C	04-17	N	8804029-03C	OPO4	Orthophosphate	E365.4
1C	04-17	N	8804029-03B	PB_G	Metals	E239.2
1C	04-17	N	8804029-03B	SE_G	Metals	E270.2
1C	04-17	N	8804029-03C	SO4_N	Sulfate	E375.4
1C	04-17	N	8804029-03C	TDS	Total Dissolved Solids	E160.1
1C	04-17	N	8804030-05C	XYLENE	Purgeable Aromatics	E602
1C	04-17	N	8804030-11A	XYLENE	Purgeable Aromatics	E602
1D	02-161	N	8802191-07D	AS_G	Metals	E206.2
1D	02-161	N	8802191-07E	CL_T	Chloride	E325.3
1D	02-161	N	8802190-07A	EPA601	Purgeable Halocarbons	E601
1D	02-161	N	8802190-07C	EPA602	Purgeable Aromatics	E602
1D	02-161	N	8802191-07E	F_SIE	Fluoride	E340.2
1D	02-161	N	8802191-07D	HG_C	Metals	E245.1
1D	02-161	N	8802191-07D	ICP200	Metal Screen (ICP)	E200.7
1D	02-161	N	8802191-07B	NO2NO3	Nitrate	E353.1
1D	02-161	N	8802191-07C	ONG_IR	Oil & Grease	E413.2
1D	02-161	N	8802191-07E	OPO4	Orthophosphate	E365.4
1D	02-161	N	8802191-07D	PB_G	Metals	E239.2
1D	02-161	N	8802191-07D	SE_G	Metals	E270.2
1D	02-161	N	8802191-07E	SO4_N	Sulfate	E375.4
1D	02-161	N	8802191-07E	TDS	Total Dissolved Solids	E160.1
1D	02-161	N	8802190-07C	XYLENE	Purgeable Aromatics	E602
1D	04-16	N	8804029-02B	AS_G	Metals	E206.2
1D	04-16	N	8804029-02C	CL_T	Chloride	E325.3
1D	04-16	N	8804030-04A	EPA601	Purgeable Halocarbons	E601
1D	04-16	N	8804030-04C	EPA602	Purgeable Aromatics	E602
1D	04-16	N	8804029-02C	F_SIE	Fluoride	E340.2
1D	04-16	N	8804029-02B	HG_C	Metals	E245.1
1D	04-16	N	8804029-02B	ICP200	Metal Screen (ICP)	E200.7
1D	04-16	N	8804029-02A	NO3	Nitrate	E353.2
1D	04-16	N	8804029-02D	ONG_IR	Oil & Grease	E413.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
1D	04-16	N	8804029-02C	OPO4	Orthophosphate	E365.4
1D	04-16	N	8804029-02B	PB_G	Metals	E239.2
1D	04-16	N	8804029-02B	SE_G	Metals	E270.2
1D	04-16	N	8804029-02C	SO4_N	Sulfate	E375.4
1D	04-16	N	8804029-02C	TDS	Total Dissolved Solids	E160.1
1D	04-16	N	8804030-04C	XYLENE	Purgeable Aromatics	E602
1E	02-163	N	8802191-09D	AS_G	Metals	E206.2
1E	02-163	N	8802191-09E	CL_T	Chloride	E325.3
1E	02-163	N	8802190-09A	EPA601	Purgeable Halocarbons	E601
1E	02-163	N	8802190-09C	EPA602	Purgeable Aromatics	E602
1E	02-163	N	8802191-09E	F_SIE	Fluoride	E340.2
1E	02-163	N	8802191-09D	HG_C	Metals	E245.1
1E	02-163	N	8802191-09D	ICP200	Metal Screen (ICP)	E200.7
1E	02-163	N	8802191-09B	NO2NO3	Nitrate	E353.1
1E	02-163	N	8802191-09C	ONG_IR	Oil & Grease	E413.2
1E	02-163	N	8802191-09E	OPO4	Orthophosphate	E365.4
1E	02-163	N	8802191-09D	PB_G	Metals	E239.2
1E	02-163	N	8802191-09D	SE_G	Metals	E270.2
1E	02-163	N	8802191-09E	SO4_N	Sulfate	E375.4
1E	02-163	N	8802191-09E	TDS	Total Dissolved Solids	E160.1
1E	02-163	N	8802190-09C	XYLENE	Purgeable Aromatics	E602
1E	04-18	N	8804029-04B	AS_G	Metals	E206.2
1E	04-18	N	S804038-01A	CL_625	Extractable Priority Pollutants	E625
1E	04-18	N	8804029-04C	CL_T	Chloride	E325.3
1E	04-18	N	8804030-06A	EPA601	Purgeable Halocarbons	E601
1E	04-18	N	8804030-12A	EPA602	Purgeable Aromatics	E602
1E	04-18	N	8804030-06C	EPA602	Purgeable Aromatics	E602
1E	04-18	N	8804029-04C	F_SIE	Fluoride	E340.2
1E	04-18	N	8804029-04B	HG_C	Metals	E245.1
1E	04-18	N	8804029-04B	ICP200	Metal Screen (ICP)	E200.7
1E	04-18	N	8804029-04A	NO3	Nitrate	E353.2
1E	04-18	N	8804029-04D	ONG_IR	Oil & Grease	E413.2
1E	04-18	N	8804029-04C	OPO4	Orthophosphate	E365.4
1E	04-18	N	8804029-04B	PB_G	Metals	E239.2
1E	04-18	N	8804029-04B	SE_G	Metals	E270.2
1E	04-18	N	8804029-04C	SO4_N	Sulfate	E375.4
1E	04-18	N	8804029-04C	TDS	Total Dissolved Solids	E160.1
1E	04-18	N	8804030-12A	XYLENE	Purgeable Aromatics	E602
1E	04-18	N	8804030-06C	XYLENE	Purgeable Aromatics	E602
1E	04-20	D	8804029-06B	AS_G	Metals	E206.2
1E	04-20	D	S804038-02A	CL_625	Extractable Priority Pollutants	E625
1E	04-20	D	8804029-06C	CL_T	Chloride	E325.3
1E	04-20	D	8804030-08A	EPA601	Purgeable Halocarbons	E601

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
1E	04-20	D	8804030-08C	EPA602	Purgeable Aromatics	E602
1E	04-20	D	8804029-06C	F_SIE	Fluoride	E340.2
1E	04-20	D	8804029-06B	HG_C	Metals	E245.1
1E	04-20	D	8804029-06B	ICP200	Metal Screen (ICP)	E200.7
1E	04-20	D	8804029-06A	NO3	Nitrate	E353.2
1E	04-20	D	8804029-06D	ONG_IR	Oil & Grease	E413.2
1E	04-20	D	8804029-06C	OPO4	Orthophosphate	E365.4
1E	04-20	D	8804029-06B	PB_G	Metals	E239.2
1E	04-20	D	8804029-06B	SE_G	Metals	E270.2
1E	04-20	D	8804029-06C	SO4_N	Sulfate	E375.4
1E	04-20	D	8804029-06C	TDS	Total Dissolved Solids	E160.1
1E	04-20	D	8804030-08C	XYLENE	Purgeable Aromatics	E602
1E	Car8-02-031	SN	S802056-01A	CL8240	Volatile Organic Compounds	SW8240
1E	Car8-02-032	SN	S802056-02A	CL8270	Semivolatile Organic Compounds	SW8270
1E	Car8-02-032	SN	S802056-02A	DRY_WT	Soil Moisture	UNK
1E	Car8-02-033	SN	8802084-01A	AS_G	Metals	E206.2
1E	Car8-02-033	SN	8802084-01A	HG_C	Metals	E245.1
1E	Car8-02-033	SN	8802084-01A	ICP200	Metal Screen (ICP)	E200.7
1E	Car8-02-033	SN	8802084-01A	ONG_IR	Oil & Grease	E413.2
1E	Car8-02-033	SN	8802084-01A	SE_G	Metals	E270.2
1E	Car8-02-034	SN	S802056-03A	CL8240	Volatile Organic Compounds	SW8240
1E	Car8-02-035	SN	S802056-04A	CL8270	Semivolatile Organic Compounds	SW8270
1E	Car8-02-035	SN	S802056-04A	DRY_WT	Soil Moisture	UNK
1E	Car8-02-036	SN	8802084-02A	AS_G	Metals	E206.2
1E	Car8-02-036	SN	8802084-02A	HG_C	Metals	E245.1
1E	Car8-02-036	SN	8802084-02A	ICP200	Metal Screen (ICP)	E200.7
1E	Car8-02-036	SN	8802084-02A	ONG_IR	Oil & Grease	E413.2
1E	Car8-02-036	SN	8802084-02A	SE_G	Metals	E270.2
1F	02-162	N	8802191-08D	AS_G	Metals	E206.2
1F	02-162	N	8802191-08E	CL_T	Chloride	E325.3
1F	02-162	N	8802190-08A	EPA601	Purgeable Halocarbons	E601
1F	02-162	N	8802190-08C	EPA602	Purgeable Aromatics	E602
1F	02-162	N	8802190-14A	EPA602	Purgeable Aromatics	E602
1F	02-162	N	8802191-08E	F_SIE	Fluoride	E340.2
1F	02-162	N	8802191-08D	HG_C	Metals	E245.1
1F	02-162	N	8802191-08D	ICP200	Metal Screen (ICP)	E200.7
1F	02-162	N	8802191-08B	NO2NO3	Nitrate	E353.1
1F	02-162	N	8802191-08C	ONG_IR	Oil & Grease	E413.2
1F	02-162	N	8802191-08E	OPO4	Orthophosphate	E365.4
1F	02-162	N	8802191-08D	PB_G	Metals	E239.2
1F	02-162	N	8802191-08D	SE_G	Metals	E270.2
1F	02-162	N	8802191-08E	SO4_N	Sulfate	E375.4
1F	02-162	N	8802191-08E	TDS	Total Dissolved Solids	E160.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
1F	02-162	N	8802190-08C	XYLENE	Purgeable Aromatics	E602
1F	02-162	N	8802190-14A	XYLENE	Purgeable Aromatics	E602
1F	04-19	N	8804029-05B	AS_G	Metals	E206.2
1F	04-19	N	8804029-05C	CL_T	Chloride	E325.3
1F	04-19	N	8804030-07A	EPA601	Purgeable Halocarbons	E601
1F	04-19	N	8804030-13A	EPA602	Purgeable Aromatics	E602
1F	04-19	N	8804030-07C	EPA602	Purgeable Aromatics	E602
1F	04-19	N	8804029-05C	F_SIE	Fluoride	E340.2
1F	04-19	N	8804029-05B	HG_C	Metals	E245.1
1F	04-19	N	8804029-05B	ICP200	Metal Screen (ICP)	E200.7
1F	04-19	N	8804029-05A	NO3	Nitrate	E353.2
1F	04-19	N	8804029-05D	ONG_IR	Oil & Grease	E413.2
1F	04-19	N	8804029-05C	OPO4	Orthophosphate	E365.4
1F	04-19	N	8804029-05B	PB_G	Metals	E239.2
1F	04-19	N	8804029-05B	SE_G	Metals	E270.2
1F	04-19	N	8804029-05C	SO4_N	Sulfate	E375.4
1F	04-19	N	8804029-05C	TDS	Total Dissolved Solids	E160.1
1F	04-19	N	8804030-07C	XYLENE	Purgeable Aromatics	E602
1F	04-19	N	8804030-13A	XYLENE	Purgeable Aromatics	E602
1F	04-21	ER	8804040-01B	AS_G	Metals	E206.2
1F	04-21	ER	8804040-01C	CL_T	Chloride	E325.3
1F	04-21	ER	8804041-01A	EPA601	Purgeable Halocarbons	E601
1F	04-21	ER	8804041-01C	EPA602	Purgeable Aromatics	E602
1F	04-21	ER	8804041-08A	EPA602	Purgeable Aromatics	E602
1F	04-21	ER	8804040-01C	F_SIE	Fluoride	E340.2
1F	04-21	ER	8804040-01B	HG_C	Metals	E245.1
1F	04-21	ER	8804040-01B	ICP200	Metal Screen (ICP)	E200.7
1F	04-21	ER	8804040-01A	NO3	Nitrate	E353.2
1F	04-21	ER	8804040-01D	ONG_IR	Oil & Grease	E413.2
1F	04-21	ER	8804040-01C	OPO4	Orthophosphate	E365.4
1F	04-21	ER	8804040-01B	PB_G	Metals	E239.2
1F	04-21	ER	8804040-01B	SE_G	Metals	E270.2
1F	04-21	ER	8804040-01C	SO4_N	Sulfate	E375.4
1F	04-21	ER	8804041-01C	XYLENE	Purgeable Aromatics	E602
1F	04-21	ER	8804041-08A	XYLENE	Purgeable Aromatics	E602
1F	Car8-02-037	SN	S802056-05A	CL8240	Volatile Organic Compounds	SW8240
1F	Car8-02-038	SN	S802056-06A	CL8270	Semivolatile Organic Compounds	SW8270
1F	Car8-02-038	SN	S802056-06A	DRY_WT	Soil Moisture	UNK
1F	Car8-02-039	SN	8802084-03A	AS_G	Metals	E206.2
1F	Car8-02-039	SN	8802084-03A	HG_C	Metals	E245.1
1F	Car8-02-039	SN	8802084-03A	ICP200	Metal Screen (ICP)	E200.7
1F	Car8-02-039	SN	8802084-03A	ONG_IR	Oil & Grease	E413.2
1F	Car8-02-039	SN	8802084-03A	SE_G	Metals	E270.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
1F	Car8-02-040	SN	S802056-07A	CL8240	Volatile Organic Compounds	SW8240
1F	Car8-02-041	SN	S802056-08A	CL8270	Semivolatile Organic Compounds	SW8270
1F	Car8-02-041	SN	S802056-08A	DRY_WT	Soil Moisture	UNK
1F	Car8-02-042	SN	8802084-04A	AS_G	Metals	E206.2
1F	Car8-02-042	SN	8802084-04A	HG_C	Metals	E245.1
1F	Car8-02-042	SN	8802084-04A	ICP200	Metal Screen (ICP)	E200.7
1F	Car8-02-042	SN	8802084-04A	ONG_IR	Oil & Grease	E413.2
1F	Car8-02-042	SN	8802084-04A	SE_G	Metals	E270.2
3A	Car8-01-001	SN	S801166-01A	CL8240	Volatile Organic Compounds	SW8240
3A	Car8-01-002	SN	S801166-02A	CL8270	Semivolatile Organic Compounds	SW8270
3A	Car8-01-002	SN	S801166-02A	DRY_WT	Soil Moisture	UNK
3A	Car8-01-003	SN	8801151-01A	AS_G	Metals	E206.2
3A	Car8-01-003	SN	8801151-01A	HG_C	Metals	E245.1
3A	Car8-01-003	SN	8801151-01A	ICP200	Metal Screen (ICP)	E200.7
3A	Car8-01-003	SN	8801151-01A	ONG_IR	Oil & Grease	E413.2
3A	Car8-01-003	SN	8801151-01A	SE_G	Metals	E270.2
3B	Car8-01-004	SN	S801166-03A	CL8240	Volatile Organic Compounds	SW8240
3B	Car8-01-005	SN	S801166-04A	CL8270	Semivolatile Organic Compounds	SW8270
3B	Car8-01-005	SN	S801166-04A	DRY_WT	Soil Moisture	UNK
3B	Car8-01-006	SN	8801151-02A	AS_G	Metals	E206.2
3B	Car8-01-006	SN	8801151-02A	HG_C	Metals	E245.1
3B	Car8-01-006	SN	8801151-02A	ICP200	Metal Screen (ICP)	E200.7
3B	Car8-01-006	SN	8801151-02A	ONG_IR	Oil & Grease	E413.2
3B	Car8-01-006	SN	8801151-02A	SE_G	Metals	E270.2
3C	Car8-01-007	SN	S801166-05A	CL8240	Volatile Organic Compounds	SW8240
3C	Car8-01-008	SN	S801166-06A	CL8270	Semivolatile Organic Compounds	SW8270
3C	Car8-01-008	SN	S801166-06A	DRY_WT	Soil Moisture	UNK
3C	Car8-01-009	SN	8801151-03A	AS_G	Metals	E206.2
3C	Car8-01-009	SN	8801151-03A	HG_C	Metals	E245.1
3C	Car8-01-009	SN	8801151-03A	ICP200	Metal Screen (ICP)	E200.7
3C	Car8-01-009	SN	8801151-03A	ONG_IR	Oil & Grease	E413.2
3C	Car8-01-009	SN	8801151-03A	SE_G	Metals	E270.2
3D	02-150	N	S802090-01D	509B	Chlorinated Phenoxy Acid Herbicides	A509B
3D	02-150	N	S802090-01A	604	Phenols	E604
3D	02-150	N	S802090-01B	608	Organochlorine Pesticides	E608
3D	02-150	N	8802136-01G	AS_G	Metals	E206.2
3D	02-150	N	S802090-01C	CL_625	Extractable Priority Pollutants	E625
3D	02-150	N	8802136-01J	CL_T	Chloride	E325.3
3D	02-150	N	8802136-06A	EPA601	Purgeable Halocarbons	E601
3D	02-150	N	8802136-01A	EPA601	Purgeable Halocarbons	E601
3D	02-150	N	8802136-01C	EPA602	Purgeable Aromatics	E602
3D	02-150	N	8802136-01J	F_SIE	Fluoride	E340.2
3D	02-150	N	8802136-01H	HC_IR	Petroleum Hydrocarbons	E418.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
3D	02-150	N	8802136-01G	HG_C	Metals	E245.1
3D	02-150	N	8802136-01G	ICP200	Metal Screen (ICP)	E200.7
3D	02-150	N	8802136-01F	NO3	Nitrate	E353.2
3D	02-150	N	8802136-01I	ONG_IR	Oil & Grease	E413.2
3D	02-150	N	8802136-01J	OPO4	Orthophosphate	E365.4
3D	02-150	N	8802136-01G	PB_G	Metals	E239.2
3D	02-150	N	8802136-01G	SE_G	Metals	E270.2
3D	02-150	N	8802136-01J	SO4_N	Sulfate	E375.4
3D	02-150	N	8802136-01J	TDS	Total Dissolved Solids	E160.1
3D	02-150	N	8802136-01C	XYLENE	Purgeable Aromatics	E602
3D	03-44		8803042-06A	ONG_IR	Oil & Grease	E413.2
3D	04-01	N	S804017-01G	509B	Chlorinated Phenoxy Acid Herbicides	A509B
3D	04-01	N	S804017-01C	604	Phenols	E604
3D	04-01	N	S804017-01E	608	Organochlorine Pesticides	E608
3D	04-01	N	8804014-01G	AS_G	Metals	E206.2
3D	04-01	N	S804017-01A	CL_625	Extractable Priority Pollutants	E625
3D	04-01	N	8804014-01F	CL_T	Chloride	E325.3
3D	04-01	N	8804014-05A	EPA601	Purgeable Halocarbons	E601
3D	04-01	N	8804014-01A	EPA601	Purgeable Halocarbons	E601
3D	04-01	N	8804014-01C	EPA602	Purgeable Aromatics	E602
3D	04-01	N	8804014-05A	EPA602	Purgeable Aromatics	E602
3D	04-01	N	8804014-01F	F_SIE	Fluoride	E340.2
3D	04-01	N	8804016-01A	HC_IR	Petroleum Hydrocarbons	E418.1
3D	04-01	N	8804014-01G	HG_C	Metals	E245.1
3D	04-01	N	8804014-01G	ICP200	Metal Screen (ICP)	E200.7
3D	04-01	N	8804014-01E	NO3	Nitrate	E353.2
3D	04-01	N	8804077-01A	ONG_IR	Oil & Grease	E413.2
3D	04-01	N	8804014-01F	OPO4	Orthophosphate	E365.4
3D	04-01	N	8804014-01G	PB_G	Metals	E239.2
3D	04-01	N	8804014-01G	SE_G	Metals	E270.2
3D	04-01	N	8804014-01F	SO4_N	Sulfate	E375.4
3D	04-01	N	8804014-01F	TDS	Total Dissolved Solids	E160.1
3D	04-01	N	8804014-01C	XYLENE	Purgeable Aromatics	E602
3D	04-01	N	8804014-05A	XYLENE	Purgeable Aromatics	E602
3D	Car8-01-010	SN	S801166-07A	CL8240	Volatile Organic Compounds	SW8240
3D	Car8-01-011	SN	S801166-08A	CL8270	Semivolatile Organic Compounds	SW8270
3D	Car8-01-011	SN	S801166-08A	DRY_WT	Soil Moisture	UNK
3D	Car8-01-012	SN	8801151-04A	AS_G	Metals	E206.2
3D	Car8-01-012	SN	8801151-04A	HG_C	Metals	E245.1
3D	Car8-01-012	SN	8801151-04A	ICP200	Metal Screen (ICP)	E200.7
3D	Car8-01-012	SN	8801151-04A	ONG_IR	Oil & Grease	E413.2
3D	Car8-01-012	SN	8801151-04A	SE_G	Metals	E270.2
3E	Car8-01-013	SN	S801166-09A	CL8240	Volatile Organic Compounds	SW8240

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
3E	Car8-01-014	SN	S801166-10A	CL8270	Semivolatile Organic Compounds	SW8270
3E	Car8-01-014	SN	S801166-10A	DRY_WT	Soil Moisture	UNK
3E	Car8-01-015	SN	8801151-05A	AS_G	Metals	E206.2
3E	Car8-01-015	SN	8801151-05A	HG_C	Metals	E245.1
3E	Car8-01-015	SN	8801151-05A	ICP200	Metal Screen (ICP)	E200.7
3E	Car8-01-015	SN	8801151-05A	ONG_IR	Oil & Grease	E413.2
3E	Car8-01-015	SN	8801151-05A	SE_G	Metals	E270.2
4A	02-157	N	8802191-04C	AS_G	Metals	E206.2
4A	02-157	N	8802191-04D	CL_T	Chloride	E325.3
4A	02-157	N	8802190-12A	EPA601	Purgeable Halocarbons	E601
4A	02-157	N	8802190-04A	EPA601	Purgeable Halocarbons	E601
4A	02-157	N	8802190-12A	EPA602	Purgeable Aromatics	E602
4A	02-157	N	8802190-04C	EPA602	Purgeable Aromatics	E602
4A	02-157	N	8802191-04D	F_SIE	Fluoride	E340.2
4A	02-157	N	8802191-04C	HG_C	Metals	E245.1
4A	02-157	N	8802191-04C	ICP200	Metal Screen (ICP)	E200.7
4A	02-157	N	8802191-04B	NO2NO3	Nitrate	E353.1
4A	02-157	N	8802191-04D	OPO4	Orthophosphate	E365.4
4A	02-157	N	8802191-04C	PB_G	Metals	E239.2
4A	02-157	N	8802191-04C	SE_G	Metals	E270.2
4A	02-157	N	8802191-04D	SO4_N	Sulfate	E375.4
4A	02-157	N	8802191-04D	TDS	Total Dissolved Solids	E160.1
4A	02-157	N	8802190-04C	XYLENE	Purgeable Aromatics	E602
4A	02-157	N	8802190-12A	XYLENE	Purgeable Aromatics	E602
4A	04-06	N	8804016-04C	AS_G	Metals	E206.2
4A	04-06	N	S804030-02A	CL_625	Extractable Priority Pollutants	E625
4A	04-06	N	8804016-04A	CL_T	Chloride	E325.3
4A	04-06	N	8804017-12A	EPA601	Purgeable Halocarbons	E601
4A	04-06	N	8804017-03A	EPA601	Purgeable Halocarbons	E601
4A	04-06	N	8804017-03C	EPA602	Purgeable Aromatics	E602
4A	04-06	N	8804016-04A	F_SIE	Fluoride	E340.2
4A	04-06	N	8804016-04C	HG_C	Metals	E245.1
4A	04-06	N	8804016-04C	ICP200	Metal Screen (ICP)	E200.7
4A	04-06	N	8804016-04B	NO3	Nitrate	E353.2
4A	04-06	N	8804016-04A	OPO4	Orthophosphate	E365.4
4A	04-06	N	8804016-04C	SE_G	Metals	E270.2
4A	04-06	N	8804016-04A	SO4_N	Sulfate	E375.4
4A	04-06	N	8804016-04A	TDS	Total Dissolved Solids	E160.1
4A	04-06	N	8804017-03C	XYLENE	Purgeable Aromatics	E602
4A	04-07	TB	8804017-04A	EPA601	Purgeable Halocarbons	E601
4A	04-07	TB	8804017-13A	EPA602	Purgeable Aromatics	E602
4A	04-07	TB	8804017-04C	EPA602	Purgeable Aromatics	E602
4A	04-07	TB	8804017-04C	XYLENE	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4A	04-07	TB	8804017-13A	XYLENE	Purgeable Aromatics	E602
4A	04-08	FB	8804017-05A	EPA601	Purgeable Halocarbons	E601
4A	04-08	FB	8804017-14A	EPA602	Purgeable Aromatics	E602
4A	04-08	FB	8804017-05C	EPA602	Purgeable Aromatics	E602
4A	04-08	FB	8804017-05C	XYLENE	Purgeable Aromatics	E602
4A	04-08	FB	8804017-14A	XYLENE	Purgeable Aromatics	E602
4B	02-156	N	8802191-03C	AS_G	Metals	E206.2
4B	02-156	N	S802099-02A	CL_625	Extractable Priority Pollutants	E625
4B	02-156	N	8802191-03D	CL_T	Chloride	E325.3
4B	02-156	N	8802190-03A	EPA601	Purgeable Halocarbons	E601
4B	02-156	N	8802190-03C	EPA602	Purgeable Aromatics	E602
4B	02-156	N	8802191-03D	F_SIE	Fluoride	E340.2
4B	02-156	N	8802191-03C	HG_C	Metals	E245.1
4B	02-156	N	8802191-03C	ICP200	Metal Screen (ICP)	E200.7
4B	02-156	N	8802191-03B	NO2NO3	Nitrate	E353.1
4B	02-156	N	8802191-03D	OPO4	Orthophosphate	E365.4
4B	02-156	N	8802191-03C	PB_G	Metals	E239.2
4B	02-156	N	8802191-03C	SE_G	Metals	E270.2
4B	02-156	N	8802191-03D	SO4_N	Sulfate	E375.4
4B	02-156	N	8802191-03D	TDS	Total Dissolved Solids	E160.1
4B	02-156	N	8802190-03C	XYLENE	Purgeable Aromatics	E602
4B	04-09	N	8804016-05C	AS_G	Metals	E206.2
4B	04-09	N	8804016-05A	CL_T	Chloride	E325.3
4B	04-09	N	8804017-06A	EPA601	Purgeable Halocarbons	E601
4B	04-09	N	8804017-06C	EPA602	Purgeable Aromatics	E602
4B	04-09	N	8804016-05A	F_SIE	Fluoride	E340.2
4B	04-09	N	8804016-05C	HG_C	Metals	E245.1
4B	04-09	N	8804016-05C	ICP200	Metal Screen (ICP)	E200.7
4B	04-09	N	8804016-05B	NO3	Nitrate	E353.2
4B	04-09	N	8804016-05A	OPO4	Orthophosphate	E365.4
4B	04-09	N	8804016-05C	SE_G	Metals	E270.2
4B	04-09	N	8804016-05A	SO4_N	Sulfate	E375.4
4B	04-09	N	8804016-05A	TDS	Total Dissolved Solids	E160.1
4B	04-09	N	8804017-06C	XYLENE	Purgeable Aromatics	E602
4B	04-10	ER	8804016-06C	AS_G	Metals	E206.2
4B	04-10	ER	8804016-06A	CL_T	Chloride	E325.3
4B	04-10	ER	8804017-07A	EPA601	Purgeable Halocarbons	E601
4B	04-10	ER	8804017-15A	EPA602	Purgeable Aromatics	E602
4B	04-10	ER	8804017-07C	EPA602	Purgeable Aromatics	E602
4B	04-10	ER	8804016-06A	F_SIE	Fluoride	E340.2
4B	04-10	ER	8804016-06C	HG_C	Metals	E245.1
4B	04-10	ER	8804016-06C	ICP200	Metal Screen (ICP)	E200.7
4B	04-10	ER	8804016-06B	NO3	Nitrate	E353.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4B	04-10	ER	8804016-06A	OPO4	Orthophosphate	E365.4
4B	04-10	ER	8804016-06C	SE_G	Metals	E270.2
4B	04-10	ER	8804016-06A	SO4_N	Sulfate	E375.4
4B	04-10	ER	8804016-06A	TDS	Total Dissolved Solids	E160.1
4B	04-10	ER	8804017-07C	XYLENE	Purgeable Aromatics	E602
4B	04-10	ER	8804017-15A	XYLENE	Purgeable Aromatics	E602
4C	02-164	N	8803006-01C	AS_G	Metals	E206.2
4C	02-164	N	8803006-01D	CL_T	Chloride	E325.3
4C	02-164	N	8803005-01A	EPA601	Purgeable Halocarbons	E601
4C	02-164	N	8803005-08A	EPA601	Purgeable Halocarbons	E601
4C	02-164	N	8803005-01C	EPA602	Purgeable Aromatics	E602
4C	02-164	N	8803006-01D	F_SIE	Fluoride	E340.2
4C	02-164	N	8803006-01C	HG_C	Metals	E245.1
4C	02-164	N	8803006-01C	ICP200	Metal Screen (ICP)	E200.7
4C	02-164	N	8803006-01B	NO2NO3	Nitrate	E353.1
4C	02-164	N	8803006-01D	OPO4	Orthophosphate	E365.4
4C	02-164	N	8803006-01C	PB_G	Metals	E239.2
4C	02-164	N	8803006-01C	SE_G	Metals	E270.2
4C	02-164	N	8803006-01D	SO4_N	Sulfate	E375.4
4C	02-164	N	8803006-01D	TDS	Total Dissolved Solids	E160.1
4C	02-164	N	8803005-01C	XYLENE	Purgeable Aromatics	E602
4C	04-26	N	8804040-06B	AS_G	Metals	E206.2
4C	04-26	N	8804040-06C	CL_T	Chloride	E325.3
4C	04-26	N	8804041-06A	EPA601	Purgeable Halocarbons	E601
4C	04-26	N	8804041-12A	EPA601	Purgeable Halocarbons	E601
4C	04-26	N	8804041-06C	EPA602	Purgeable Aromatics	E602
4C	04-26	N	8804041-12A	EPA602	Purgeable Aromatics	E602
4C	04-26	N	8804040-06C	F_SIE	Fluoride	E340.2
4C	04-26	N	8804040-06B	HG_C	Metals	E245.1
4C	04-26	N	8804040-06B	ICP200	Metal Screen (ICP)	E200.7
4C	04-26	N	8804040-06A	NO3	Nitrate	E353.2
4C	04-26	N	8804040-06C	OPO4	Orthophosphate	E365.4
4C	04-26	N	8804040-06B	SE_G	Metals	E270.2
4C	04-26	N	8804040-06C	SO4_N	Sulfate	E375.4
4C	04-26	N	8804040-06C	TDS	Total Dissolved Solids	E160.1
4C	04-26	N	8804041-06C	XYLENE	Purgeable Aromatics	E602
4C	04-26	N	8804041-12A	XYLENE	Purgeable Aromatics	E602
4D	03-33		8803041-03A	AS_G	Metals	E206.2
4D	03-33		8803041-03B	CL_T	Chloride	E325.3
4D	03-33		8803040-03A	EPA601	Purgeable Halocarbons	E601
4D	03-33		8803040-03C	EPA602	Purgeable Aromatics	E602
4D	03-33		8803041-03B	F_SIE	Fluoride	E340.2
4D	03-33		8803041-03A	HG_C	Metals	E245.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4D	03-33		8803041-03A	ICP200	Metal Screen (ICP)	E200.7
4D	03-33		8803041-03C	NO2NO3	Nitrate	E353.1
4D	03-33		8803041-03B	OPO4	Orthophosphate	E365.4
4D	03-33		8803041-03A	SE_G	Metals	E270.2
4D	03-33		8803041-03B	SO4_N	Sulfate	E375.4
4D	03-33		8803041-03B	TDS	Total Dissolved Solids	E160.1
4D	03-33		8803040-03C	XYLENE	Purgeable Aromatics	E602
4D	04-36	N	8804056-01C	AS_G	Metals	E206.2
4D	04-36	N	8804056-01A	CL_T	Chloride	E325.3
4D	04-36	N	8805006-01A	EPA601	Purgeable Halocarbons	E601
4D	04-36	N	8804057-01A	EPA601	Purgeable Halocarbons	E601
4D	04-36	N	8804057-01C	EPA602	Purgeable Aromatics	E602
4D	04-36	N	8804056-01A	F_SIE	Fluoride	E340.2
4D	04-36	N	8804056-01C	HG_C	Metals	E245.1
4D	04-36	N	8804056-01C	ICP200	Metal Screen (ICP)	E200.7
4D	04-36	N	8804056-01B	NO2NO3	Nitrate	E353.1
4D	04-36	N	8804056-01A	OPO4	Orthophosphate	E365.4
4D	04-36	N	8804056-01C	SE_G	Metals	E270.2
4D	04-36	N	8804056-01A	SO4_N	Sulfate	E375.4
4D	04-36	N	8804056-01A	TDS	Total Dissolved Solids	E160.1
4D	04-36	N	8804057-01C	XYLENE	Purgeable Aromatics	E602
4D	04-37	ER	8804056-02C	AS_G	Metals	E206.2
4D	04-37	ER	8804056-02A	CL_T	Chloride	E325.3
4D	04-37	ER	8805006-02A	EPA601	Purgeable Halocarbons	E601
4D	04-37	ER	8804057-02A	EPA601	Purgeable Halocarbons	E601
4D	04-37	ER	8804057-02C	EPA602	Purgeable Aromatics	E602
4D	04-37	ER	8805006-02A	EPA602	Purgeable Aromatics	E602
4D	04-37	ER	8804056-02A	F_SIE	Fluoride	E340.2
4D	04-37	ER	8804056-02C	HG_C	Metals	E245.1
4D	04-37	ER	8804056-02C	ICP200	Metal Screen (ICP)	E200.7
4D	04-37	ER	8804056-02B	NO2NO3	Nitrate	E353.1
4D	04-37	ER	8804056-02A	OPO4	Orthophosphate	E365.4
4D	04-37	ER	8804056-02C	SE_G	Metals	E270.2
4D	04-37	ER	8804056-02A	SO4_N	Sulfate	E375.4
4D	04-37	ER	8804056-02A	TDS	Total Dissolved Solids	E160.1
4D	04-37	ER	8805006-02A	XYLENE	Purgeable Aromatics	E602
4D	04-37	ER	8804057-02C	XYLENE	Purgeable Aromatics	E602
4E	03-31		8803041-01A	AS_G	Metals	E206.2
4E	03-31		8803041-01B	CL_T	Chloride	E325.3
4E	03-31		8803040-01A	EPA601	Purgeable Halocarbons	E601
4E	03-31		8803040-01C	EPA602	Purgeable Aromatics	E602
4E	03-31		8803041-01B	F_SIE	Fluoride	E340.2
4E	03-31		8803041-01A	HG_C	Metals	E245.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4E	03-31		8803041-01A	ICP200	Metal Screen (ICP)	E200.7
4E	03-31		8803041-01C	NO2NO3	Nitrate	E353.1
4E	03-31		8803041-01B	OPO4	Orthophosphate	E365.4
4E	03-31		8803041-01A	SE_G	Metals	E270.2
4E	03-31		8803041-01B	SO4_N	Sulfate	E375.4
4E	03-31		8803041-01B	TDS	Total Dissolved Solids	E160.1
4E	03-31		8803040-01C	XYLENE	Purgeable Aromatics	E602
4E	03-32		8803041-02A	AS_G	Metals	E206.2
4E	03-32		8803041-02B	CL_T	Chloride	E325.3
4E	03-32		8803040-02A	EPA601	Purgeable Halocarbons	E601
4E	03-32		8803040-02C	EPA602	Purgeable Aromatics	E602
4E	03-32		8803041-02B	F_SIE	Fluoride	E340.2
4E	03-32		8803041-02A	HG_C	Metals	E245.1
4E	03-32		8803041-02A	ICP200	Metal Screen (ICP)	E200.7
4E	03-32		8803041-02C	NO2NO3	Nitrate	E353.1
4E	03-32		8803041-02B	OPO4	Orthophosphate	E365.4
4E	03-32		8803041-02A	SE_G	Metals	E270.2
4E	03-32		8803041-02B	SO4_N	Sulfate	E375.4
4E	03-32		8803041-02B	TDS	Total Dissolved Solids	E160.1
4E	03-32		8803040-02C	XYLENE	Purgeable Aromatics	E602
4E	04-35	N	8804046-05C	AS_G	Metals	E206.2
4E	04-35	N	8804046-05A	CL_T	Chloride	E325.3
4E	04-35	N	8804045-09A	EPA601	Purgeable Halocarbons	E601
4E	04-35	N	8804076-09A	EPA601	Purgeable Halocarbons	E601
4E	04-35	N	8804045-09C	EPA602	Purgeable Aromatics	E602
4E	04-35	N	8804046-05A	F_SIE	Fluoride	E340.2
4E	04-35	N	8804046-05C	HG_C	Metals	E245.1
4E	04-35	N	8804046-05C	ICP200	Metal Screen (ICP)	E200.7
4E	04-35	N	8804046-05B	NO3	Nitrate	E353.2
4E	04-35	N	8804046-05A	OPO4	Orthophosphate	E365.4
4E	04-35	N	8804046-05C	SE_G	Metals	E270.2
4E	04-35	N	8804046-05A	SO4_N	Sulfate	E375.4
4E	04-35	N	8804046-05A	TDS	Total Dissolved Solids	E160.1
4E	04-35	N	8804045-09C	XYLENE	Purgeable Aromatics	E602
4F	04-38	N	8804056-03C	AS_G	Metals	E206.2
4F	04-38	N	8804056-03A	CL_T	Chloride	E325.3
4F	04-38	N	8804057-03A	EPA601	Purgeable Halocarbons	E601
4F	04-38	N	8805006-03A	EPA601	Purgeable Halocarbons	E601
4F	04-38	N	8804057-03C	EPA602	Purgeable Aromatics	E602
4F	04-38	N	8804056-03A	F_SIE	Fluoride	E340.2
4F	04-38	N	8804056-03C	HG_C	Metals	E245.1
4F	04-38	N	8804056-03C	ICP200	Metal Screen (ICP)	E200.7
4F	04-38	N	8804056-03B	NO2NO3	Nitrate	E353.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4F	04-38	N	8804056-03A	OPO4	Orthophosphate	E365.4
4F	04-38	N	8804056-03C	SE_G	Metals	E270.2
4F	04-38	N	8804056-03A	SO4_N	Sulfate	E375.4
4F	04-38	N	8804056-03A	TDS	Total Dissolved Solids	E160.1
4F	04-38	N	8804057-03C	XYLENE	Purgeable Aromatics	E602
4F	04-39	D	8804056-04C	AS_G	Metals	E206.2
4F	04-39	D	8804056-04A	CL_T	Chloride	E325.3
4F	04-39	D	8805006-04A	EPA601	Purgeable Halocarbons	E601
4F	04-39	D	8804057-04A	EPA601	Purgeable Halocarbons	E601
4F	04-39	D	8804057-04C	EPA602	Purgeable Aromatics	E602
4F	04-39	D	8804056-04A	F_SIE	Fluoride	E340.2
4F	04-39	D	8804056-04C	HG_C	Metals	E245.1
4F	04-39	D	8804056-04C	ICP200	Metal Screen (ICP)	E200.7
4F	04-39	D	8804056-04B	NO2NO3	Nitrate	E353.1
4F	04-39	D	8804056-04A	OPO4	Orthophosphate	E365.4
4F	04-39	D	8804056-04C	SE_G	Metals	E270.2
4F	04-39	D	8804056-04A	SO4_N	Sulfate	E375.4
4F	04-39	D	8804056-04A	TDS	Total Dissolved Solids	E160.1
4F	04-39	D	8804057-04C	XYLENE	Purgeable Aromatics	E602
4F	04-40	TB	8804057-05A	EPA601	Purgeable Halocarbons	E601
4F	04-40	TB	8805006-05A	EPA602	Purgeable Aromatics	E602
4F	04-40	TB	8804057-05C	EPA602	Purgeable Aromatics	E602
4F	04-40	TB	8804057-05C	XYLENE	Purgeable Aromatics	E602
4F	04-40	TB	8805006-05A	XYLENE	Purgeable Aromatics	E602
4F	04-41	FB	8804057-06A	EPA601	Purgeable Halocarbons	E601
4F	04-41	FB	8805006-06A	EPA602	Purgeable Aromatics	E602
4F	04-41	FB	8804057-06C	EPA602	Purgeable Aromatics	E602
4F	04-41	FB	8805006-06A	XYLENE	Purgeable Aromatics	E602
4F	04-41	FB	8804057-06C	XYLENE	Purgeable Aromatics	E602
4F	04-42	ER	8804056-05C	AS_G	Metals	E206.2
4F	04-42	ER	8804056-05A	CL_T	Chloride	E325.3
4F	04-42	ER	8804057-07A	EPA601	Purgeable Halocarbons	E601
4F	04-42	ER	8805006-07A	EPA601	Purgeable Halocarbons	E601
4F	04-42	ER	8804057-07C	EPA602	Purgeable Aromatics	E602
4F	04-42	ER	8805006-07A	EPA602	Purgeable Aromatics	E602
4F	04-42	ER	8804056-05A	F_SIE	Fluoride	E340.2
4F	04-42	ER	8804056-05C	HG_C	Metals	E245.1
4F	04-42	ER	8804056-05C	ICP200	Metal Screen (ICP)	E200.7
4F	04-42	ER	8804056-05B	NO2NO3	Nitrate	E353.1
4F	04-42	ER	8804056-05A	OPO4	Orthophosphate	E365.4
4F	04-42	ER	8804056-05C	SE_G	Metals	E270.2
4F	04-42	ER	8804056-05A	SO4_N	Sulfate	E375.4
4F	04-42	ER	8804056-05A	TDS	Total Dissolved Solids	E160.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4F	04-42	ER	8804057-07C	XYLENE	Purgeable Aromatics	E602
4F	04-42	ER	8805006-07A	XYLENE	Purgeable Aromatics	E602
4F	Car8-02-025	SD	S802040-11A	CL8240	Volatile Organic Compounds	SW8240
4F	Car8-02-026	SD	S802040-12A	CL8240	Volatile Organic Compounds	SW8240
4F	Car8-02-027	SD	S802040-13A	CL8270	Semivolatile Organic Compounds	SW8270
4F	Car8-02-027	SD	S802040-13A	DRY_WT	Soil Moisture	UNK
4F	Car8-02-028	SD	S802040-14A	CL8270	Semivolatile Organic Compounds	SW8270
4F	Car8-02-028	SD	S802040-14A	DRY_WT	Soil Moisture	UNK
4F	Car8-02-029	SD	8802072-06A	AS_G	Metals	E206.2
4F	Car8-02-029	SD	8802072-06A	HG_C	Metals	E245.1
4F	Car8-02-029	SD	8802072-06A	ICP200	Metal Screen (ICP)	E200.7
4F	Car8-02-029	SD	8802072-06A	ONG_IR	Oil & Grease	E413.2
4F	Car8-02-029	SD	8802072-06A	SE_G	Metals	E270.2
4F	Car8-02-030	SD	8802072-07A	AS_G	Metals	E206.2
4F	Car8-02-030	SD	8802072-07A	HG_C	Metals	E245.1
4F	Car8-02-030	SD	8802072-07A	ICP200	Metal Screen (ICP)	E200.7
4F	Car8-02-030	SD	8802072-07A	ONG_IR	Oil & Grease	E413.2
4F	Car8-02-030	SD	8802072-07A	SE_G	Metals	E270.2
4G	02-166	N	8803006-03C	AS_G	Metals	E206.2
4G	02-166	N	8803006-03D	CL_T	Chloride	E325.3
4G	02-166	N	8803005-03A	EPA601	Purgeable Halocarbons	E601
4G	02-166	N	8803005-10A	EPA601	Purgeable Halocarbons	E601
4G	02-166	N	8803005-03C	EPA602	Purgeable Aromatics	E602
4G	02-166	N	8803006-03D	F_SIE	Fluoride	E340.2
4G	02-166	N	8803006-03C	HG_C	Metals	E245.1
4G	02-166	N	8803006-03C	ICP200	Metal Screen (ICP)	E200.7
4G	02-166	N	8803006-03B	NO2NO3	Nitrate	E353.1
4G	02-166	N	8803006-03D	OPO4	Orthophosphate	E365.4
4G	02-166	N	8803006-03C	PB_G	Metals	E239.2
4G	02-166	N	8803006-03C	SE_G	Metals	E270.2
4G	02-166	N	8803006-03D	SO4_N	Sulfate	E375.4
4G	02-166	N	8803006-03D	TDS	Total Dissolved Solids	E160.1
4G	02-166	N	8803005-03C	XYLENE	Purgeable Aromatics	E602
4G	02-167	D	8803006-04C	AS_G	Metals	E206.2
4G	02-167	D	8803006-04D	CL_T	Chloride	E325.3
4G	02-167	D	8803005-04A	EPA601	Purgeable Halocarbons	E601
4G	02-167	D	8803005-11A	EPA601	Purgeable Halocarbons	E601
4G	02-167	D	8803005-11A	EPA602	Purgeable Aromatics	E602
4G	02-167	D	8803005-04C	EPA602	Purgeable Aromatics	E602
4G	02-167	D	8803006-04D	F_SIE	Fluoride	E340.2
4G	02-167	D	8803006-04C	HG_C	Metals	E245.1
4G	02-167	D	8803006-04C	ICP200	Metal Screen (ICP)	E200.7
4G	02-167	D	8803006-04B	NO2NO3	Nitrate	E353.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4G	02-167	D	8803006-04D	OPO4	Orthophosphate	E365.4
4G	02-167	D	8803006-04C	PB_G	Metals	E239.2
4G	02-167	D	8803006-04C	SE_G	Metals	E270.2
4G	02-167	D	8803006-04D	SO4_N	Sulfate	E375.4
4G	02-167	D	8803006-04D	TDS	Total Dissolved Solids	E160.1
4G	02-167	D	8803005-04C	XYLENE	Purgeable Aromatics	E602
4G	02-167	D	8803005-11A	XYLENE	Purgeable Aromatics	E602
4G	04-30	N	8804046-02C	AS_G	Metals	E206.2
4G	04-30	N	8804046-02A	CL_T	Chloride	E325.3
4G	04-30	N	8804076-04A	EPA601	Purgeable Halocarbons	E601
4G	04-30	N	8804045-04A	EPA601	Purgeable Halocarbons	E601
4G	04-30	N	8804045-04C	EPA602	Purgeable Aromatics	E602
4G	04-30	N	8804046-02A	F_SIE	Fluoride	E340.2
4G	04-30	N	8804046-02C	HG_C	Metals	E245.1
4G	04-30	N	8804046-02C	ICP200	Metal Screen (ICP)	E200.7
4G	04-30	N	8804046-02B	NO3	Nitrate	E353.2
4G	04-30	N	8804046-02A	OPO4	Orthophosphate	E365.4
4G	04-30	N	8804046-02C	SE_G	Metals	E270.2
4G	04-30	N	8804046-02A	SO4_N	Sulfate	E375.4
4G	04-30	N	8804046-02A	TDS	Total Dissolved Solids	E160.1
4G	04-30	N	8804045-04C	XYLENE	Purgeable Aromatics	E602
4G	Car8-02-007	SN	S802009-07A	CL8240	Volatile Organic Compounds	SW8240
4G	Car8-02-008	SN	S802009-08A	CL8270	Semivolatile Organic Compounds	SW8270
4G	Car8-02-008	SN	S802009-08A	DRY_WT	Soil Moisture	UNK
4G	Car8-02-009	SN	8802028-04A	AS_G	Metals	E206.2
4G	Car8-02-009	SN	8802028-04A	HG_C	Metals	E245.1
4G	Car8-02-009	SN	8802028-04A	ICP200	Metal Screen (ICP)	E200.7
4G	Car8-02-009	SN	8802028-04A	ONG_IR	Oil & Grease	E413.2
4G	Car8-02-009	SN	8802028-04A	SE_G	Metals	E270.2
4H	02-165	N	8803006-02C	AS_G	Metals	E206.2
4H	02-165	N	8803006-02D	CL_T	Chloride	E325.3
4H	02-165	N	8803005-09A	EPA601	Purgeable Halocarbons	E601
4H	02-165	N	8803005-02A	EPA601	Purgeable Halocarbons	E601
4H	02-165	N	8803005-02C	EPA602	Purgeable Aromatics	E602
4H	02-165	N	8803005-09A	EPA602	Purgeable Aromatics	E602
4H	02-165	N	8803006-02D	F_SIE	Fluoride	E340.2
4H	02-165	N	8803006-02C	HG_C	Metals	E245.1
4H	02-165	N	8803006-02C	ICP200	Metal Screen (ICP)	E200.7
4H	02-165	N	8803006-02B	NO2NO3	Nitrate	E353.1
4H	02-165	N	8803006-02D	OPO4	Orthophosphate	E365.4
4H	02-165	N	8803006-02C	PB_G	Metals	E239.2
4H	02-165	N	8803006-02C	SE_G	Metals	E270.2
4H	02-165	N	8803006-02D	SO4_N	Sulfate	E375.4

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
4H	02-165	N	8803006-02D	TDS	Total Dissolved Solids	E160.1
4H	02-165	N	8803005-02C	XYLENE	Purgeable Aromatics	E602
4H	02-165	N	8803005-09A	XYLENE	Purgeable Aromatics	E602
4H	04-27	N	8804046-01C	AS_G	Metals	E206.2
4H	04-27	N	8804046-01A	CL_T	Chloride	E325.3
4H	04-27	N	8804045-01A	EPA601	Purgeable Halocarbons	E601
4H	04-27	N	8804076-01A	EPA601	Purgeable Halocarbons	E601
4H	04-27	N	8804045-01C	EPA602	Purgeable Aromatics	E602
4H	04-27	N	8804076-01A	EPA602	Purgeable Aromatics	E602
4H	04-27	N	8804046-01A	F_SIE	Fluoride	E340.2
4H	04-27	N	8804046-01C	HG_C	Metals	E245.1
4H	04-27	N	8804046-01C	ICP200	Metal Screen (ICP)	E200.7
4H	04-27	N	8804046-01B	NO3	Nitrate	E353.2
4H	04-27	N	8804046-01A	OPO4	Orthophosphate	E365.4
4H	04-27	N	8804046-01C	SE_G	Metals	E270.2
4H	04-27	N	8804046-01A	SO4_N	Sulfate	E375.4
4H	04-27	N	8804046-01A	TDS	Total Dissolved Solids	E160.1
4H	04-27	N	8804045-01C	XYLENE	Purgeable Aromatics	E602
4H	04-27	N	8804076-01A	XYLENE	Purgeable Aromatics	E602
4H	04-28	TB	8804045-02A	EPA601	Purgeable Halocarbons	E601
4H	04-28	TB	8804045-02C	EPA602	Purgeable Aromatics	E602
4H	04-28	TB	8804076-02A	EPA602	Purgeable Aromatics	E602
4H	04-28	TB	8804045-02C	XYLENE	Purgeable Aromatics	E602
4H	04-28	TB	8804076-02A	XYLENE	Purgeable Aromatics	E602
4H	04-29	FB	8804045-03A	EPA601	Purgeable Halocarbons	E601
4H	04-29	FB	8804076-03A	EPA602	Purgeable Aromatics	E602
4H	04-29	FB	8804045-03C	EPA602	Purgeable Aromatics	E602
4H	04-29	FB	8804076-03A	XYLENE	Purgeable Aromatics	E602
4H	04-29	FB	8804045-03C	XYLENE	Purgeable Aromatics	E602
4H	Car8-02-022	SN	S802040-09A	CL8240	Volatile Organic Compounds	SW8240
4H	Car8-02-023	SN	S802040-10A	CL8270	Semivolatile Organic Compounds	SW8270
4H	Car8-02-023	SN	S802040-10A	DRY_WT	Soil Moisture	UNK
4H	Car8-02-024	SN	8802072-05A	AS_G	Metals	E206.2
4H	Car8-02-024	SN	8802072-05A	HG_C	Metals	E245.1
4H	Car8-02-024	SN	8802072-05A	ICP200	Metal Screen (ICP)	E200.7
4H	Car8-02-024	SN	8802072-05A	ONG_IR	Oil & Grease	E413.2
4H	Car8-02-024	SN	8802072-05A	SE_G	Metals	E270.2
5A	03-16	N	8803031-03C	AS_G	Metals	E206.2
5A	03-16	N	S803014-01A	CL_625	Extractable Priority Pollutants	E625
5A	03-16	N	8803031-03A	CL_T	Chloride	E325.3
5A	03-16	N	8803029-12A	EPA601	Purgeable Halocarbons	E601
5A	03-16	N	8803029-03A	EPA601	Purgeable Halocarbons	E601
5A	03-16	N	8803029-03C	EPA602	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
5A	03-16	N	8803031-03A	F_SIE	Fluoride	E340.2
5A	03-16	N	8803031-03C	HG_C	Metals	E245.1
5A	03-16	N	8803031-03C	ICP200	Metal Screen (ICP)	E200.7
5A	03-16	N	8803031-03D	NO2NO3	Nitrate	E353.1
5A	03-16	N	8803031-03A	OPO4	Orthophosphate	E365.4
5A	03-16	N	8803031-03C	PB_G	Metals	E239.2
5A	03-16	N	8803031-03C	SE_G	Metals	E270.2
5A	03-16	N	8803031-03A	SO4_N	Sulfate	E375.4
5A	03-16	N	8803031-03A	TDS	Total Dissolved Solids	E160.1
5A	03-16	N	8803029-03C	XYLENE	Purgeable Aromatics	E602
5A	03-17	TB	8803029-04A	EPA601	Purgeable Halocarbons	E601
5A	03-17	TB	8803029-04C	EPA602	Purgeable Aromatics	E602
5A	03-17	TB	8803029-04C	XYLENE	Purgeable Aromatics	E602
5A	03-18	FB	8803029-13A	EPA601	Purgeable Halocarbons	E601
5A	03-18	FB	8803029-05A	EPA601	Purgeable Halocarbons	E601
5A	03-18	FB	8803029-05C	EPA602	Purgeable Aromatics	E602
5A	03-18	FB	8803029-13A	EPA602	Purgeable Aromatics	E602
5A	03-18	FB	8803029-05C	XYLENE	Purgeable Aromatics	E602
5A	03-18	FB	8803029-13A	XYLENE	Purgeable Aromatics	E602
5A	04-46	N	8804056-09C	AS_G	Metals	E206.2
5A	04-46	N	8804056-09A	CL_T	Chloride	E325.3
5A	04-46	N	8804057-11A	EPA601	Purgeable Halocarbons	E601
5A	04-46	N	8805006-10A	EPA601	Purgeable Halocarbons	E601
5A	04-46	N	8804057-11C	EPA602	Purgeable Aromatics	E602
5A	04-46	N	8804056-09A	F_SIE	Fluoride	E340.2
5A	04-46	N	8804056-09C	HG_C	Metals	E245.1
5A	04-46	N	8804056-09C	ICP200	Metal Screen (ICP)	E200.7
5A	04-46	N	8804056-09B	NO2NO3	Nitrate	E353.1
5A	04-46	N	8804056-09A	OPO4	Orthophosphate	E365.4
5A	04-46	N	8804056-09C	SE_G	Metals	E270.2
5A	04-46	N	8804056-09A	SO4_N	Sulfate	E375.4
5A	04-46	N	8804056-09A	TDS	Total Dissolved Solids	E160.1
5A	04-46	N	8804057-11C	XYLENE	Purgeable Aromatics	E602
5A	04-47	D	8804056-10C	AS_G	Metals	E206.2
5A	04-47	D	8804056-10A	CL_T	Chloride	E325.3
5A	04-47	D	8804057-12A	EPA601	Purgeable Halocarbons	E601
5A	04-47	D	8804057-12C	EPA602	Purgeable Aromatics	E602
5A	04-47	D	8804056-10A	F_SIE	Fluoride	E340.2
5A	04-47	D	8804056-10C	HG_C	Metals	E245.1
5A	04-47	D	8804056-10C	ICP200	Metal Screen (ICP)	E200.7
5A	04-47	D	8804056-10B	NO2NO3	Nitrate	E353.1
5A	04-47	D	8804056-10A	OPO4	Orthophosphate	E365.4
5A	04-47	D	8804056-10C	SE_G	Metals	E270.2

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
5A	04-47	D	8804056-10A	SO4_N	Sulfate	E375.4
5A	04-47	D	8804056-10A	TDS	Total Dissolved Solids	E160.1
5A	04-47	D	8804057-12C	XYLENE	Purgeable Aromatics	E602
5B	03-30	N	8803035-08C	AS_G	Metals	E206.2
5B	03-30	N	8803035-08A	CL_T	Chloride	E325.3
5B	03-30	N	8803036-08A	EPA601	Purgeable Halocarbons	E601
5B	03-30	N	8803036-08C	EPA602	Purgeable Aromatics	E602
5B	03-30	N	8803035-08A	F_SIE	Fluoride	E340.2
5B	03-30	N	8803035-08C	HG_C	Metals	E245.1
5B	03-30	N	8803035-08C	ICP200	Metal Screen (ICP)	E200.7
5B	03-30	N	8803035-08B	NO2NO3	Nitrate	E353.1
5B	03-30	N	8803035-08A	OPO4	Orthophosphate	E365.4
5B	03-30	N	8803035-08C	PB_G	Metals	E239.2
5B	03-30	N	8803035-08C	SE_G	Metals	E270.2
5B	03-30	N	8803035-08A	SO4_N	Sulfate	E375.4
5B	03-30	N	8803035-08A	TDS	Total Dissolved Solids	E160.1
5B	03-30	N	8803036-08C	XYLENE	Purgeable Aromatics	E602
5B	04-44	N	8804056-07C	AS_G	Metals	E206.2
5B	04-44	N	8804056-07A	CL_T	Chloride	E325.3
5B	04-44	N	8804057-09A	EPA601	Purgeable Halocarbons	E601
5B	04-44	N	8804057-09C	EPA602	Purgeable Aromatics	E602
5B	04-44	N	8804056-07A	F_SIE	Fluoride	E340.2
5B	04-44	N	8804056-07C	HG_C	Metals	E245.1
5B	04-44	N	8804056-07C	ICP200	Metal Screen (ICP)	E200.7
5B	04-44	N	8804056-07B	NO2NO3	Nitrate	E353.1
5B	04-44	N	8804056-07A	OPO4	Orthophosphate	E365.4
5B	04-44	N	8804056-07C	SE_G	Metals	E270.2
5B	04-44	N	8804056-07A	SO4_N	Sulfate	E375.4
5B	04-44	N	8804056-07A	TDS	Total Dissolved Solids	E160.1
5B	04-44	N	8804057-09C	XYLENE	Purgeable Aromatics	E602
5C	03-15	N	8803031-02C	AS_G	Metals	E206.2
5C	03-15	N	8803031-02A	CL_T	Chloride	E325.3
5C	03-15	N	8803029-02A	EPA601	Purgeable Halocarbons	E601
5C	03-15	N	8803029-11A	EPA601	Purgeable Halocarbons	E601
5C	03-15	N	8803029-02C	EPA602	Purgeable Aromatics	E602
5C	03-15	N	8803031-02A	F_SIE	Fluoride	E340.2
5C	03-15	N	8803031-02C	HG_C	Metals	E245.1
5C	03-15	N	8803031-02C	ICP200	Metal Screen (ICP)	E200.7
5C	03-15	N	8803031-02D	NO2NO3	Nitrate	E353.1
5C	03-15	N	8803031-02A	OPO4	Orthophosphate	E365.4
5C	03-15	N	8803031-02C	PB_G	Metals	E239.2
5C	03-15	N	8803031-02C	SE_G	Metals	E270.2
5C	03-15	N	8803031-02A	SO4_N	Sulfate	E375.4

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
5D	03-19	N	8803031-04A	SO4_N	Sulfate	E375.4
5D	03-19	N	8803031-04A	TDS	Total Dissolved Solids	E160.1
5D	03-19	N	8803029-06C	XYLENE	Purgeable Aromatics	E602
5D	03-20	ER	8803031-05C	AS_G	Metals	E206.2
5D	03-20	ER	8803031-05A	CL_T	Chloride	E325.3
5D	03-20	ER	8803029-14A	EPA601	Purgeable Halocarbons	E601
5D	03-20	ER	8803029-07A	EPA601	Purgeable Halocarbons	E601
5D	03-20	ER	8803029-07C	EPA602	Purgeable Aromatics	E602
5D	03-20	ER	8803031-05A	F_SIE	Fluoride	E340.2
5D	03-20	ER	8803031-05C	HG_C	Metals	E245.1
5D	03-20	ER	8803031-05C	ICP200	Metal Screen (ICP)	E200.7
5D	03-20	ER	8803031-05D	NO2NO3	Nitrate	E353.1
5D	03-20	ER	8803031-05A	OPO4	Orthophosphate	E365.4
5D	03-20	ER	8803031-05C	PB_G	Metals	E239.2
5D	03-20	ER	8803031-05C	SE_G	Metals	E270.2
5D	03-20	ER	8803031-05A	SO4_N	Sulfate	E375.4
5D	03-20	ER	8803031-05A	TDS	Total Dissolved Solids	E160.1
5D	03-20	ER	8803029-07C	XYLENE	Purgeable Aromatics	E602
5D	04-43	N	8804056-06C	AS_G	Metals	E206.2
5D	04-43	N	8804056-06A	CL_T	Chloride	E325.3
5D	04-43	N	8804057-08A	EPA601	Purgeable Halocarbons	E601
5D	04-43	N	8805006-08A	EPA601	Purgeable Halocarbons	E601
5D	04-43	N	8804057-08C	EPA602	Purgeable Aromatics	E602
5D	04-43	N	8804056-06A	F_SIE	Fluoride	E340.2
5D	04-43	N	8804056-06C	HG_C	Metals	E245.1
5D	04-43	N	8804056-06C	ICP200	Metal Screen (ICP)	E200.7
5D	04-43	N	8804056-06B	NO2NO3	Nitrate	E353.1
5D	04-43	N	8804056-06A	OPO4	Orthophosphate	E365.4
5D	04-43	N	8804056-06C	SE_G	Metals	E270.2
5D	04-43	N	8804056-06A	SO4_N	Sulfate	E375.4
5D	04-43	N	8804056-06A	TDS	Total Dissolved Solids	E160.1
5D	04-43	N	8804057-08C	XYLENE	Purgeable Aromatics	E602
5D	Car8-01-032	SN	S802009-01A	CL8240	Volatile Organic Compounds	SW8240
5D	Car8-01-033	SN	S802009-02A	CL8270	Semivolatile Organic Compounds	SW8270
5D	Car8-01-033	SN	S802009-02A	DRY_WT	Soil Moisture	UNK
5D	Car8-01-034	SN	8802028-01A	AS_G	Metals	E206.2
5D	Car8-01-034	SN	8802028-01A	HG_C	Metals	E245.1
5D	Car8-01-034	SN	8802028-01A	ICP200	Metal Screen (ICP)	E200.7
5D	Car8-01-034	SN	8802028-01A	ONG_IR	Oil & Grease	E413.2
5D	Car8-01-034	SN	8802028-01A	SE_G	Metals	E270.2
5E	03-21	N	8803031-06C	AS_G	Metals	E206.2
5E	03-21	N	8803031-06A	CL_T	Chloride	E325.3
5E	03-21	N	8803029-08A	EPA601	Purgeable Halocarbons	E601

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
5E	03-21	N	8803029-08C	EPA602	Purgeable Aromatics	E602
5E	03-21	N	8803031-06A	F_SIE	Fluoride	E340.2
5E	03-21	N	8803031-06C	HG_C	Metals	E245.1
5E	03-21	N	8803031-06C	ICP200	Metal Screen (ICP)	E200.7
5E	03-21	N	8803031-06D	NO2NO3	Nitrate	E353.1
5E	03-21	N	8803031-06A	OPO4	Orthophosphate	E365.4
5E	03-21	N	8803031-06C	PB_G	Metals	E239.2
5E	03-21	N	8803031-06C	SE_G	Metals	E270.2
5E	03-21	N	8803031-06A	SO4_N	Sulfate	E375.4
5E	03-21	N	8803031-06A	TDS	Total Dissolved Solids	E160.1
5E	03-21	N	8803029-08C	XYLENE	Purgeable Aromatics	E602
5E	04-45	N	8804056-08C	AS_G	Metals	E206.2
5E	04-45	N	8804056-08A	CL_T	Chloride	E325.3
5E	04-45	N	8804057-10A	EPA601	Purgeable Halocarbons	E601
5E	04-45	N	8805006-09A	EPA601	Purgeable Halocarbons	E601
5E	04-45	N	8804057-10C	EPA602	Purgeable Aromatics	E602
5E	04-45	N	8804056-08A	F_SIE	Fluoride	E340.2
5E	04-45	N	8804056-08C	HG_C	Metals	E245.1
5E	04-45	N	8804056-08C	ICP200	Metal Screen (ICP)	E200.7
5E	04-45	N	8804056-08B	NO2NO3	Nitrate	E353.1
5E	04-45	N	8804056-08A	OPO4	Orthophosphate	E365.4
5E	04-45	N	8804056-08C	SE_G	Metals	E270.2
5E	04-45	N	8804056-08A	SO4_N	Sulfate	E375.4
5E	04-45	N	8804056-08A	TDS	Total Dissolved Solids	E160.1
5E	04-45	N	8804057-10C	XYLENE	Purgeable Aromatics	E602
5E	Car8-02-001	SN	S802009-03A	CL8240	Volatile Organic Compounds	SW8240
5E	Car8-02-002	SN	S802009-04A	CL8270	Semivolatile Organic Compounds	SW8270
5E	Car8-02-002	SN	S802009-04A	DRY_WT	Soil Moisture	UNK
5E	Car8-02-003	SN	8802028-02A	AS_G	Metals	E206.2
5E	Car8-02-003	SN	8802028-02A	HG_C	Metals	E245.1
5E	Car8-02-003	SN	8802028-02A	ICP200	Metal Screen (ICP)	E200.7
5E	Car8-02-003	SN	8802028-02A	ONG_IR	Oil & Grease	E413.2
5E	Car8-02-003	SN	8802028-02A	SE_G	Metals	E270.2
5E	Car8-02-004	SN	S802009-05A	CL8240	Volatile Organic Compounds	SW8240
5E	Car8-02-005	SN	S802009-06A	CL8270	Semi volatile Organic Compounds	SW8270
5E	Car8-02-005	SN	S802009-06A	DRY_WT	Soil Moisture	UNK
5E	Car8-02-006	SN	8802028-03A	AS_G	Metals	E206.2
5E	Car8-02-006	SN	8802028-03A	HG_C	Metals	E245.1
5E	Car8-02-006	SN	8802028-03A	ICP200	Metal Screen (ICP)	E200.7
5E	Car8-02-006	SN	8802028-03A	ONG_IR	Oil & Grease	E413.2
5E	Car8-02-006	SN	8802028-03A	SE_G	Metals	E270.2
5F	03-37		8803041-07A	AS_G	Metals	E206.2
5F	03-37		8803041-07B	CL_T	Chloride	E325.3

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
5F	04-67	ER	8804074-08A	F_SIE	Fluoride	E340.2
5F	04-67	ER	8804074-08C	HG_C	Metals	E245.1
5F	04-67	ER	8804074-08C	ICP200	Metal Screen (ICP)	E200.7
5F	04-67	ER	8804074-08B	NO2NO3	Nitrate	E353.1
5F	04-67	ER	8804074-08A	OPO4	Orthophosphate	E365.4
5F	04-67	ER	8804074-08C	SE_G	Metals	E270.2
5F	04-67	ER	8804074-08A	SO4_N	Sulfate	E375.4
5F	04-67	ER	8804074-08A	TDS	Total Dissolved Solids	E160.1
5F	04-67	ER	8804075-09C	XYLENE	Purgeable Aromatics	E602
5F	Car8-02-016	SN	S802040-05A	CL8240	Volatile Organic Compounds	SW8240
5F	Car8-02-017	SN	S802040-06A	CL8270	Semivolatile Organic Compounds	SW8270
5F	Car8-02-017	SN	S802040-06A	DRY_WT	Soil Moisture	UNK
5F	Car8-02-018	SN	8802072-03A	AS_G	Metals	E206.2
5F	Car8-02-018	SN	8802072-03A	HG_C	Metals	E245.1
5F	Car8-02-018	SN	8802072-03A	ICP200	Metal Screen (ICP)	E200.7
5F	Car8-02-018	SN	8802072-03A	ONG_IR	Oil & Grease	E413.2
5F	Car8-02-018	SN	8802072-03A	SE_G	Metals	E270.2
5F	Car8-02-019	SN	S802040-07A	CL8240	Volatile Organic Compounds	SW8240
5F	Car8-02-020	SN	S802040-08A	CL8270	Semivolatile Organic Compounds	SW8270
5F	Car8-02-020	SN	S802040-08A	DRY_WT	Soil Moisture	UNK
5F	Car8-02-021	SN	8802072-04A	AS_G	Metals	E206.2
5F	Car8-02-021	SN	8802072-04A	HG_C	Metals	E245.1
5F	Car8-02-021	SN	8802072-04A	ICP200	Metal Screen (ICP)	E200.7
5F	Car8-02-021	SN	8802072-04A	ONG_IR	Oil & Grease	E413.2
5F	Car8-02-021	SN	8802072-04A	SE_G	Metals	E270.2
5G	02-168	N	8803006-05C	AS_G	Metals	E206.2
5G	02-168	N	8803006-05D	CL_T	Chloride	E325.3
5G	02-168	N	8803005-05A	EPA601	Purgeable Halocarbons	E601
5G	02-168	N	8803005-12A	EPA601	Purgeable Halocarbons	E601
5G	02-168	N	8803005-05C	EPA602	Purgeable Aromatics	E602
5G	02-168	N	8803006-05D	F_SIE	Fluoride	E340.2
5G	02-168	N	8803006-05C	HG_C	Metals	E245.1
5G	02-168	N	8803006-05C	ICP200	Metal Screen (ICP)	E200.7
5G	02-168	N	8803006-05B	NO2NO3	Nitrate	E353.1
5G	02-168	N	8803006-05D	OPO4	Orthophosphate	E365.4
5G	02-168	N	8803006-05C	PB_G	Metals	E239.2
5G	02-168	N	8803006-05C	SE_G	Metals	E270.2
5G	02-168	N	8803006-05D	SO4_N	Sulfate	E375.4
5G	02-168	N	8803006-05D	TDS	Total Dissolved Solids	E160.1
5G	02-168	N	8803005-05C	XYLENE	Purgeable Aromatics	E602
5G	04-32	N	8804046-04C	AS_G	Metals	E206.2
5G	04-32	N	8804046-04A	CL_T	Chloride	E325.3
5G	04-32	N	8804045-06A	EPA601	Purgeable Halocarbons	E601

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
5G	04-32	N	8804076-06A	EPA601	Purgeable Halocarbons	E601
5G	04-32	N	8804045-06C	EPA602	Purgeable Aromatics	E602
5G	04-32	N	8804046-04A	F_SIE	Fluoride	E340.2
5G	04-32	N	8804046-04C	HG_C	Metals	E245.1
5G	04-32	N	8804046-04C	ICP200	Metal Screen (ICP)	E200.7
5G	04-32	N	8804046-04B	NO3	Nitrate	E353.2
5G	04-32	N	8804046-04A	OPO4	Orthophosphate	E365.4
5G	04-32	N	8804046-04C	SE_G	Metals	E270.2
5G	04-32	N	8804046-04A	SO4_N	Sulfate	E375.4
5G	04-32	N	8804046-04A	TDS	Total Dissolved Solids	E160.1
5G	04-32	N	8804045-06C	XYLENE	Purgeable Aromatics	E602
5G	04-33	TB	8804045-07A	EPA601	Purgeable Halocarbons	E601
5G	04-33	TB	8804045-07C	EPA602	Purgeable Aromatics	E602
5G	04-33	TB	8804076-07A	EPA602	Purgeable Aromatics	E602
5G	04-33	TB	8804045-07C	XYLENE	Purgeable Aromatics	E602
5G	04-33	TB	8804076-07A	XYLENE	Purgeable Aromatics	E602
5G	04-34	FB	8804045-08A	EPA601	Purgeable Halocarbons	E601
5G	04-34	FB	8804045-08C	EPA602	Purgeable Aromatics	E602
5G	04-34	FB	8804076-08A	EPA602	Purgeable Aromatics	E602
5G	04-34	FB	8804076-08A	XYLENE	Purgeable Aromatics	E602
5G	04-34	FB	8804045-08C	XYLENE	Purgeable Aromatics	E602
5G	Car8-02-010	SN	S802040-01A	CL8240	Volatile Organic Compounds	SW8240
5G	Car8-02-011	SN	S802040-02A	CL8270	Semivolatile Organic Compounds	SW8270
5G	Car8-02-011	SN	S802040-02A	DRY_WT	Soil Moisture	UNK
5G	Car8-02-012	SN	8802072-01A	AS_G	Metals	E206.2
5G	Car8-02-012	SN	8802072-01A	HG_C	Metals	E245.1
5G	Car8-02-012	SN	8802072-01A	ICP200	Metal Screen (ICP)	E200.7
5G	Car8-02-012	SN	8802072-01A	ONG_IR	Oil & Grease	E413.2
5G	Car8-02-012	SN	8802072-01A	SE_G	Metals	E270.2
5H	02-169	N	8803006-06C	AS_G	Metals	E206.2
5H	02-169	N	8803006-06D	CL_T	Chloride	E325.3
5H	02-169	N	8803005-06A	EPA601	Purgeable Halocarbons	E601
5H	02-169	N	8803005-13A	EPA601	Purgeable Halocarbons	E601
5H	02-169	N	8803005-06C	EPA602	Purgeable Aromatics	E602
5H	02-169	N	8803005-13A	EPA602	Purgeable Aromatics	E602
5H	02-169	N	8803006-06D	F_SIE	Fluoride	E340.2
5H	02-169	N	8803006-06C	HG_C	Metals	E245.1
5H	02-169	N	8803006-06C	ICP200	Metal Screen (ICP)	E200.7
5H	02-169	N	8803006-06B	NO2NO3	Nitrate	E353.1
5H	02-169	N	8803006-06D	OPO4	Orthophosphate	E365.4
5H	02-169	N	8803006-06C	PB_G	Metals	E239.2
5H	02-169	N	8803006-06C	SE_G	Metals	E270.2
5H	02-169	N	8803006-06D	SO4_N	Sulfate	E375.4

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
5H	02-169	N	8803006-06D	TDS	Total Dissolved Solids	E160.1
5H	02-169	N	8803005-13A	XYLENE	Purgeable Aromatics	E602
5H	02-169	N	8803005-06C	XYLENE	Purgeable Aromatics	E602
5H	04-31	N	8804046-03C	AS_G	Metals	E206.2
5H	04-31	N	8804046-03A	CL_T	Chloride	E325.3
5H	04-31	N	8804045-05A	EPA601	Purgeable Halocarbons	E601
5H	04-31	N	8804076-05A	EPA601	Purgeable Halocarbons	E601
5H	04-31	N	8804045-05C	EPA602	Purgeable Aromatics	E602
5H	04-31	N	8804046-03A	F_SIE	Fluoride	E340.2
5H	04-31	N	8804046-03C	HG_C	Metals	E245.1
5H	04-31	N	8804046-03C	ICP200	Metal Screen (ICP)	E200.7
5H	04-31	N	8804046-03B	NO3	Nitrate	E353.2
5H	04-31	N	8804046-03A	OPO4	Orthophosphate	E365.4
5H	04-31	N	8804046-03C	SE_G	Metals	E270.2
5H	04-31	N	8804046-03A	SO4_N	Sulfate	E375.4
5H	04-31	N	8804046-03A	TDS	Total Dissolved Solids	E160.1
5H	04-31	N	8804045-05C	XYLENE	Purgeable Aromatics	E602
5H	Car8-02-013	SN	S802040-03A	CL8240	Volatile Organic Compounds	SW8240
5H	Car8-02-014	SN	S802040-04A	CL8270	Semivolatile Organic Compounds	SW8270
5H	Car8-02-014	SN	S802040-04A	ORY_WT	Soil Moisture	UNK
5H	Car8-02-015	SN	8802072-02A	AS_G	Metals	E206.2
5H	Car8-02-015	SN	8802072-02A	HG_C	Metals	E245.1
5H	Car8-02-015	SN	8802072-02A	ICP200	Metal Screen (ICP)	E200.7
5H	Car8-02-015	SN	8802072-02A	ONG_IR	Oil & Grease	E413.2
5H	Car8-02-015	SN	8802072-02A	SE_G	Metals	E270.2
BSS	Car8-02-144	SN	S802089-03A	CL8240	Volatile Organic Compounds	SW8240
BSS	Car8-02-145	SN	S802089-04A	CL8270	Semivolatile Organic Compounds	SW8270
BSS	Car8-02-145	SN	S802089-04A	ORY_WT	Soil Moisture	UNK
BSS	Car8-02-146	SN	S802094-02B	8080	Organochlorine Pesticides and PCBs	SW8080
BSS	Car8-02-146	SN	S802094-02C	8150	Chlorinated Phenoxy Herbicides	SW8150
BSS	Car8-02-146	SN	S802094-02A	AG_EM	Metal Screen (ICP)	E200.7
BSS	Car8-02-146	SN	S802094-02A	AS_GF	Metals	E206.2
BSS	Car8-02-146	SN	S802094-02A	BA_EM	Metal Screen (ICP)	E200.7
BSS	Car8-02-146	SN	S802094-02A	CD_EM	Metal Screen (ICP)	E200.7
BSS	Car8-02-146	SN	S802094-02A	CR_EM	Metal Screen (ICP)	E200.7
BSS	Car8-02-146	SN	S802094-02A	HG_CV	Metals	E245.1
BSS	Car8-02-146	SN	S802094-02A	PB_G	Metals	E239.2
BSS	Car8-02-146	SN	S802094-02A	SE_GF	Metals	E270.2
BSSA	03-34		8803041-04A	AS_G	Metals	E206.2
BSSA	03-34		8803040-04A	EPA601	Purgeable Halocarbons	E601
BSSA	03-34		8803040-10A	EPA602	Purgeable Aromatics	E602
BSSA	03-34		8803040-04C	EPA602	Purgeable Aromatics	E602
BSSA	03-34		8803041-04C	HC_IR	Petroleum Hydrocarbons	E418.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
BSSA	03-34		8803041-04A	HG_C	Metals	E245.1
BSSA	03-34		8803041-04A	ICP200	Metal Screen (ICP)	E200.7
BSSA	03-34		8803041-04A	PB_G	Metals	E239.2
BSSA	03-34		8803041-04A	SE_G	Metals	E270.2
BSSA	03-34		8803041-04B	TDS	Total Dissolved Solids	E160.1
BSSA	03-34		8803040-04C	XYLENE	Purgeable Aromatics	E602
BSSA	03-34		8803040-10A	XYLENE	Purgeable Aromatics	E602
BSSA	04-77	N	8804081-04A	AS_G	Metals	E206.2
BSSA	04-77	N	8804082-04A	EPA601	Purgeable Halocarbons	E601
BSSA	04-77	N	8804082-11A	EPA601	Purgeable Halocarbons	E601
BSSA	04-77	N	8804082-04C	EPA602	Purgeable Aromatics	E602
BSSA	04-77	N	8804081-04B	HC_IR	Petroleum Hydrocarbons	E418.1
BSSA	04-77	N	8804081-04A	HG_C	Metals	E245.1
BSSA	04-77	N	8804081-04A	ICP200	Metal Screen (ICP)	E200.7
BSSA	04-77	N	8804081-04A	PB_G	Metals	E239.2
BSSA	04-77	N	8804081-04A	SE_G	Metals	E270.2
BSSA	04-77	N	8804081-04C	TDS	Total Dissolved Solids	E160.1
BSSA	04-77	N	8804082-04C	XYLENE	Purgeable Aromatics	E602
BSSA	04-78	ER	8804081-05A	AS_G	Metals	E206.2
BSSA	04-78	ER	8804082-05A	EPA601	Purgeable Halocarbons	E601
BSSA	04-78	ER	8804082-05C	EPA602	Purgeable Aromatics	E602
BSSA	04-78	ER	8804081-05B	HC_IR	Petroleum Hydrocarbons	E418.1
BSSA	04-78	ER	8804081-05A	HG_C	Metals	E245.1
BSSA	04-78	ER	8804081-05A	ICP200	Metal Screen (ICP)	E200.7
BSSA	04-78	ER	8804081-05A	PB_G	Metals	E239.2
BSSA	04-78	ER	8804081-05A	SE_G	Metals	E270.2
BSSA	04-78	ER	8804082-05C	XYLENE	Purgeable Aromatics	E602
BSSA	Car8-02-049	SN	S802056-12A	CL8240	Volatile Organic Compounds	SW8240
BSSA	Car8-02-050	SD	8802084-08A	HC_IR	Petroleum Hydrocarbons	E418.1
BSSA	Car8-02-050	SD	8802084-08A	PB_G	Metals	E239.2
BSSA	Car8-02-051	SN	S802056-13A	CL8240	Volatile Organic Compounds	SW8240
BSSA	Car8-02-052	SD	8802084-09A	HC_IR	Petroleum Hydrocarbons	E418.1
BSSA	Car8-02-052	SD	8802084-09A	PB_G	Metals	E239.2
BSSB	03-35		8803041-05A	AS_G	Metals	E206.2
BSSB	03-35		8803040-05A	EPA601	Purgeable Halocarbons	E601
BSSB	03-35		8803040-11A	EPA602	Purgeable Aromatics	E602
BSSB	03-35		8803040-05C	EPA602	Purgeable Aromatics	E602
BSSB	03-35		8803041-05C	HC_IR	Petroleum Hydrocarbons	E418.1
BSSB	03-35		8803041-05A	HG_C	Metals	E245.1
BSSB	03-35		8803041-05A	ICP200	Metal Screen (ICP)	E200.7
BSSB	03-35		8803041-05A	PB_G	Metals	E239.2
BSSB	03-35		8803041-05A	SE_G	Metals	E270.2
BSSB	03-35		8803041-05B	TDS	Total Dissolved Solids	E160.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
BSSB	03-35		8803040-05C	XYLENE	Purgeable Aromatics	E602
BSSB	03-35		8803040-11A	XYLENE	Purgeable Aromatics	E602
BSSB	04-74	N	8804081-01A	AS_G	Metals	E206.2
BSSB	04-74	N	8804082-09A	EPA601	Purgeable Halocarbons	E601
BSSB	04-74	N	8804082-01A	EPA601	Purgeable Halocarbons	E601
BSSB	04-74	N	8804082-01C	EPA602	Purgeable Aromatics	E602
BSSB	04-74	N	8804082-09A	EPA602	Purgeable Aromatics	E602
BSSB	04-74	N	8804081-01B	HC_IR	Petroleum Hydrocarbons	E418.1
BSSB	04-74	N	8804081-01A	HG_C	Metals	E245.1
BSSB	04-74	N	8804081-01A	ICP200	Metal Screen (ICP)	E200.7
BSSB	04-74	N	8804081-01A	PB_G	Metals	E239.2
BSSB	04-74	N	8804081-01A	SE_G	Metals	E270.2
BSSB	04-74	N	8804081-01C	TDS	Total Dissolved Solids	E160.1
BSSB	04-74	N	8804082-09A	XYLENE	Purgeable Aromatics	E602
BSSB	04-74	N	8804082-01C	XYLENE	Purgeable Aromatics	E602
BSSB	04-75	D	8804081-02A	AS_G	Metals	E206.2
BSSB	04-75	D	8804082-10A	EPA601	Purgeable Halocarbons	E601
BSSB	04-75	D	8804082-02A	EPA601	Purgeable Halocarbons	E601
BSSB	04-75	D	8804082-10A	EPA602	Purgeable Aromatics	E602
BSSB	04-75	D	8804082-02C	EPA602	Purgeable Aromatics	E602
BSSB	04-75	D	8804081-02B	HC_IR	Petroleum Hydrocarbons	E418.1
BSSB	04-75	D	8804081-02A	HG_C	Metals	E245.1
BSSB	04-75	D	8804081-02A	ICP200	Metal Screen (ICP)	E200.7
BSSB	04-75	D	8804081-02A	PB_G	Metals	E239.2
BSSB	04-75	D	8804081-02A	SE_G	Metals	E270.2
BSSB	04-75	D	8804081-02C	TDS	Total Dissolved Solids	E160.1
BSSB	04-75	D	8804082-02C	XYLENE	Purgeable Aromatics	E602
BSSB	04-75	D	8804082-10A	XYLENE	Purgeable Aromatics	E602
BSSB	04-79	FB	8804082-06A	EPA601	Purgeable Halocarbons	E601
BSSB	04-79	FB	8804082-06C	EPA602	Purgeable Aromatics	E602
BSSB	04-79	FB	8804082-06C	XYLENE	Purgeable Aromatics	E602
BSSB	04-80	TB	8804082-07A	EPA601	Purgeable Halocarbons	E601
BSSB	04-80	TB	8804082-07C	EPA602	Purgeable Aromatics	E602
BSSB	04-80	TB	8804082-07C	XYLENE	Purgeable Aromatics	E602
BSSB	Car8-02-047	SN	S802056-11A	CL8240	Volatile Organic Compounds	SW8240
BSSB	Car8-02-048	SN	8802084-07A	HC_IR	Petroleum Hydrocarbons	E418.1
BSSB	Car8-02-048	SN	8802084-07A	PB_G	Metals	E239.2
BSSC	03-36		8803041-06A	AS_G	Metals	E206.2
BSSC	03-36		8803040-06A	EPA601	Purgeable Halocarbons	E601
BSSC	03-36		8803040-06C	EPA602	Purgeable Aromatics	E602
BSSC	03-36		8803040-12A	EPA602	Purgeable Aromatics	E602
BSSC	03-36		8803041-06C	HC_IR	Petroleum Hydrocarbons	E418.1
BSSC	03-36		8803041-06A	HG_C	Metals	E245.1

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
BSSC	03-36		8803041-06A	ICP200	Metal Screen (ICP)	E200.7
BSSC	03-36		8803041-06A	PB_G	Metals	E239.2
BSSC	03-36		8803041-06A	SE_G	Metals	E270.2
BSSC	03-36		8803041-06B	TDS	Total Dissolved Solids	E160.1
BSSC	03-36		8803040-06C	XYLENE	Purgeable Aromatics	E602
BSSC	03-36		8803040-12A	XYLENE	Purgeable Aromatics	E602
BSSC	04-76	N	8804081-03A	AS_G	Metals	E206.2
BSSC	04-76	N	8804082-03A	EPA601	Purgeable Halocarbons	E601
BSSC	04-76	N	8804082-03C	EPA602	Purgeable Aromatics	E602
BSSC	04-76	N	8804081-03B	HC_IR	Petroleum Hydrocarbons	E418.1
BSSC	04-76	N	8804081-03A	HG_C	Metals	E245.1
BSSC	04-76	N	8804081-03A	ICP200	Metal Screen (ICP)	E200.7
BSSC	04-76	N	8804081-03A	PB_G	Metals	E239.2
BSSC	04-76	N	8804081-03A	SE_G	Metals	E270.2
BSSC	04-76	N	8804081-03C	TDS	Total Dissolved Solids	E160.1
BSSC	04-76	N	8804082-03C	XYLENE	Purgeable Aromatics	E602
BSSC	Car8-02-043	SN	S802056-09A	CL8240	Volatile Organic Compounds	SW8240
BSSC	Car8-02-044	SN	8802084-05A	HC_IR	Petroleum Hydrocarbons	E418.1
BSSC	Car8-02-044	SN	8802084-05A	PB_G	Metals	E239.2
BSSD	Car8-02-045	SN	S802056-10A	CL8240	Volatile Organic Compounds	SW8240
BSSD	Car8-02-046	SN	8802084-06A	HC_IR	Petroleum Hydrocarbons	E418.1
BSSD	Car8-02-046	SN	8802084-06A	PB_G	Metals	E239.2
P1	02-153	N	8802136-04G	AS_G	Metals	E206.2
P1	02-153	N	8802136-04H	CL_T	Chloride	E325.3
P1	02-153	N	8802136-04A	EPA601	Purgeable Halocarbons	E601
P1	02-153	N	8802136-04C	EPA602	Purgeable Aromatics	E602
P1	02-153	N	8802136-08A	EPA602	Purgeable Aromatics	E602
P1	02-153	N	8802136-04H	F_SIE	Fluoride	E340.2
P1	02-153	N	8802136-04G	HG_C	Metals	E245.1
P1	02-153	N	8802136-04G	ICP200	Metal Screen (ICP)	E200.7
P1	02-153	N	8802136-04F	NO3	Nitrate	E353.2
P1	02-153	N	8802136-04H	OPO4	Orthophosphate	E365.4
P1	02-153	N	8802136-04G	PB_G	Metals	E239.2
P1	02-153	N	8802136-04G	SE_G	Metals	E270.2
P1	02-153	N	8802136-04H	SO4_N	Sulfate	E375.4
P1	02-153	N	8802136-04H	TDS	Total Dissolved Solids	E160.1
P1	02-153	N	8802136-04C	XYLENE	Purgeable Aromatics	E602
P1	02-153	N	8802136-08A	XYLENE	Purgeable Aromatics	E602
P1	04-05	N	8804016-03C	AS_G	Metals	E206.2
P1	04-05	N	S804030-01A	CL_625	Extractable Priority Pollutants	E625
P1	04-05	N	8804016-03A	CL_T	Chloride	E325.3
P1	04-05	N	8804017-02A	EPA601	Purgeable Halocarbons	E601
P1	04-05	N	8804017-11A	EPA602	Purgeable Aromatics	E602

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
P1	04-05	N	8804017-02C	EPA602	Purgeable Aromatics	E602
P1	04-05	N	8804016-03A	F_SIE	Fluoride	E340.2
P1	04-05	N	8804016-03C	HG_C	Metals	E245.1
P1	04-05	N	8804016-03C	ICP200	Metal Screen (ICP)	E200.7
P1	04-05	N	8804016-03B	NO3	Nitrate	E353.2
P1	04-05	N	8804016-03A	OPO4	Orthophosphate	E365.4
P1	04-05	N	8804016-03C	SE_G	Metals	E270.2
P1	04-05	N	8804016-03A	SO4_N	Sulfate	E375.4
P1	04-05	N	8804016-03A	TDS	Total Dissolved Solids	E160.1
P1	04-05	N	8804017-02C	XYLENE	Purgeable Aromatics	E602
P1	04-05	N	8804017-11A	XYLENE	Purgeable Aromatics	E602
P2	02-155	N	8802191-02C	AS_G	Metals	E206.2
P2	02-155	N	8802191-02D	CL_T	Chloride	E325.3
P2	02-155	N	8802190-02A	EPA601	Purgeable Halocarbons	E601
P2	02-155	N	8802190-11A	EPA602	Purgeable Aromatics	E602
P2	02-155	N	8802190-02C	EPA602	Purgeable Aromatics	E602
P2	02-155	N	8802191-02D	F_SIE	Fluoride	E340.2
P2	02-155	N	8802191-02C	HG_C	Metals	E245.1
P2	02-155	N	8802191-02C	ICP200	Metal Screen (ICP)	E200.7
P2	02-155	N	8802191-02B	NO2NO3	Nitrate	E353.1
P2	02-155	N	8802191-02D	OPO4	Orthophosphate	E365.4
P2	02-155	N	8802191-02C	PB_G	Metals	E239.2
P2	02-155	N	8802191-02C	SE_G	Metals	E270.2
P2	02-155	N	8802191-02D	SO4_N	Sulfate	E375.4
P2	02-155	N	8802191-02D	TDS	Total Dissolved Solids	E160.1
P2	02-155	N	8802190-02C	XYLENE	Purgeable Aromatics	E602
P2	02-155	N	8802190-11A	XYLENE	Purgeable Aromatics	E602
P2	04-11	N	8804016-07C	AS_G	Metals	E206.2
P2	04-11	N	8804016-07A	CL_T	Chloride	E325.3
P2	04-11	N	8804017-08A	EPA601	Purgeable Halocarbons	E601
P2	04-11	N	8804017-16A	EPA602	Purgeable Aromatics	E602
P2	04-11	N	8804017-08C	EPA602	Purgeable Aromatics	E602
P2	04-11	N	8804016-07A	F_SIE	Fluoride	E340.2
P2	04-11	N	8804016-07C	HG_C	Metals	E245.1
P2	04-11	N	8804016-07C	ICP200	Metal Screen (ICP)	E200.7
P2	04-11	N	8804016-07B	NO3	Nitrate	E353.2
P2	04-11	N	8804016-07A	OPO4	Orthophosphate	E365.4
P2	04-11	N	8804016-07C	SE_G	Metals	E270.2
P2	04-11	N	8804016-07A	SO4_N	Sulfate	E375.4
P2	04-11	N	8804016-07A	TDS	Total Dissolved Solids	E160.1
P2	04-11	N	8804017-08C	XYLENE	Purgeable Aromatics	E602
P2	04-11	N	8804017-16A	XYLENE	Purgeable Aromatics	E602
WSA	CAR8-03-060	TB	S803133-04A	CL8240	Volatile Organic Compounds	SW8240

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
WSAD	CAR8-03-059	SN	S803133-03A	CL8240	Volatile Organic Compounds	SW8240
WSAD	CAR8-03-059	SN	S803134-13A	CL8270	Semivolatile Organic Compounds	SW8270
WSAD	CAR8-03-059	SN	S803134-13A	DRY_WT	Soil Moisture	UNK
WSAD	CAR8-03-059	SN	8803173-13A	ICP200	Metal Screen (ICP)	E200.7
WSAE	CAR8-03-057	SN	S803133-02A	CL8240	Volatile Organic Compounds	SW8240
WSAE	CAR8-03-057	SN	S803134-11A	CL8270	Semivolatile Organic Compounds	SW8270
WSAE	CAR8-03-057	SN	S803134-11A	DRY_WT	Soil Moisture	UNK
WSAE	CAR8-03-057	SN	8803173-11A	ICP200	Metal Screen (ICP)	E200.7
WSAE	CAR8-03-058	SD	S803134-12A	CL8270	Semivolatile Organic Compounds	SW8270
WSAE	CAR8-03-058	SD	S803134-12A	DRY_WT	Soil Moisture	UNK
WSAE	CAR8-03-058	SD	8803173-12A	ICP200	Metal Screen (ICP)	E200.7
WSAF	CAR8-03-056	SN	S803133-01A	CL8240	Volatile Organic Compounds	SW8240
WSAF	CAR8-03-056	SN	S803134-10A	CL8270	Semivolatile Organic Compounds	SW8270
WSAF	CAR8-03-056	SN	S803134-10A	DRY_WT	Soil Moisture	UNK
WSAF	CAR8-03-056	SN	8803173-10A	ICP200	Metal Screen (ICP)	E200.7
WSAG	CAR8-03-055	SN	S803133-13A	CL8240	Volatile Organic Compounds	SW8240
WSAG	CAR8-03-055	SN	S803134-09A	CL8270	Semivolatile Organic Compounds	SW8270
WSAG	CAR8-03-055	SN	S803134-09A	DRY_WT	Soil Moisture	UNK
WSAG	CAR8-03-055	SN	8803173-09A	ICP200	Metal Screen (ICP)	E200.7
WSAH	CAR8-03-053	SD	S803133-11A	CL8240	Volatile Organic Compounds	SW8240
WSAH	CAR8-03-053	SD	S803134-07A	CL8270	Semivolatile Organic Compounds	SW8270
WSAH	CAR8-03-053	SD	S803134-07A	DRY_WT	Soil Moisture	UNK
WSAH	CAR8-03-053	SD	8803173-07A	ICP200	Metal Screen (ICP)	E200.7
WSAH	CAR8-03-054	SD	S803133-12A	CL8240	Volatile Organic Compounds	SW8240
WSAH	CAR8-03-054	SD	S803134-08A	CL8270	Semivolatile Organic Compounds	SW8270
WSAH	CAR8-03-054	SD	S803134-08A	DRY_WT	Soil Moisture	UNK
WSAH	CAR8-03-054	SD	8803173-08A	ICP200	Metal Screen (ICP)	E200.7
WSAI	CAR8-03-051	SN	S803133-09A	CL8240	Volatile Organic Compounds	SW8240
WSAI	CAR8-03-051	SN	S803134-05A	CL8270	Semivolatile Organic Compounds	SW8270
WSAI	CAR8-03-051	SN	S803134-05A	DRY_WT	Soil Moisture	UNK
WSAI	CAR8-03-051	SN	8803173-05A	ICP200	Metal Screen (ICP)	E200.7
WSAI	CAR8-03-052	SN	S803133-10A	CL8240	Volatile Organic Compounds	SW8240
WSAI	CAR8-03-052	SN	S803134-06A	CL8270	Semivolatile Organic Compounds	SW8270
WSAI	CAR8-03-052	SN	S803134-06A	DRY_WT	Soil Moisture	UNK
WSAI	CAR8-03-052	SN	8803173-06A	ICP200	Metal Screen (ICP)	E200.7
WSAJ	CAR8-03-049	SN	S803133-07A	CL8240	Volatile Organic Compounds	SW8240
WSAJ	CAR8-03-049	SN	S803134-03A	CL8270	Semivolatile Organic Compounds	SW8270
WSAJ	CAR8-03-049	SN	S803134-03A	DRY_WT	Soil Moisture	UNK
WSAJ	CAR8-03-049	SN	8803173-03A	ICP200	Metal Screen (ICP)	E200.7
WSAJ	CAR8-03-050	SN	S803133-08A	CL8240	Volatile Organic Compounds	SW8240
WSAJ	CAR8-03-050	SN	S803134-04A	CL8270	Semivolatile Organic Compounds	SW8270
WSAJ	CAR8-03-050	SN	S803134-04A	DRY_WT	Soil Moisture	UNK
WSAJ	CAR8-03-050	SN	8803173-04A	ICP200	Metal Screen (ICP)	E200.7

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

SAMPLE CROSS-REFERENCE INDEX FOR CARSWELL AFB IRP - STAGE 2

Location ID	Sample ID	Sample Type	Lab ID	Method Code	Method	IRP Method
WSAK	CAR8-03-047	SN	S803133-05A	CL8240	Volatile Organic Compounds	SW8240
WSAK	CAR8-03-047	SN	S803134-01A	CL8270	Semivolatile Organic Compounds	SW8270
WSAK	CAR8-03-047	SN	S803134-01A	DRY_WT	Soil Moisture	UNK
WSAK	CAR8-03-047	SN	8803173-01A	ICP200	Metal Screen (ICP)	E200.7
WSAK	CAR8-03-048	SN	S803133-06A	CL8240	Volatile Organic Compounds	SW8240
WSAK	CAR8-03-048	SN	S803134-02A	CL8270	Semivolatile Organic Compounds	SW8270
WSAK	CAR8-03-048	SN	S803134-02A	DRY_WT	Soil Moisture	UNK
WSAK	CAR8-03-048	SN	8803173-02A	ICP200	Metal Screen (ICP)	E200.7

NOTE: Refer to Lab ID to locate original chemical analysis data sheets for individual method results.

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8802111-01A	17K	Car8-02-059	SD	HC_IR	Petroleum Hydrocarbons
8802111-01A	17K	Car8-02-059	SD	PB_G	Metals
8802111-02A	17K	Car8-02-060	SD	HC_IR	Petroleum Hydrocarbons
8802111-02A	17K	Car8-02-060	SD	PB_G	Metals
8802111-03A	17M	Car8-02-062	SN	HC_IR	Petroleum Hydrocarbons
8802111-03A	17M	Car8-02-062	SN	PB_G	Metals
8802111-04A	17L	Car8-02-064	SN	HC_IR	Petroleum Hydrocarbons
8802111-04A	17L	Car8-02-064	SN	PB_G	Metals
8802111-05A	17J	Car8-02-066	SN	HC_IR	Petroleum Hydrocarbons
8802111-05A	17J	Car8-02-066	SN	PB_G	Metals
8802115-01A	10D	Car8-02-068	SN	HC_IR	Petroleum Hydrocarbons
8802115-02A	10E	Car8-02-070	SN	HC_IR	Petroleum Hydrocarbons
8802115-03A	10E	Car8-02-072	SN	HC_IR	Petroleum Hydrocarbons
8802115-04A	10F	Car8-02-074	SD	HC_IR	Petroleum Hydrocarbons
8802115-05A	10F	Car8-02-075	SD	HC_IR	Petroleum Hydrocarbons
8802115-06A	12D	Car8-02-082	SN	HC_IR	Petroleum Hydrocarbons
8802115-06A	12D	Car8-02-082	SN	ICP200	Metal Screen (ICP)
8802115-07A	12D	Car8-02-085	SN	HC_IR	Petroleum Hydrocarbons
8802115-07A	12D	Car8-02-085	SN	ICP200	Metal Screen (ICP)
8802130-01A	12G	Car8-02-088	SN	HC_IR	Petroleum Hydrocarbons
8802130-01A	12G	Car8-02-088	SN	ICP200	Metal Screen (ICP)
8802130-02A	12K	Car8-02-091	SN	HC_IR	Petroleum Hydrocarbons
8802130-02A	12K	Car8-02-091	SN	ICP200	Metal Screen (ICP)
8802130-03A	12E	Car8-02-093	SN	HC_IR	Petroleum Hydrocarbons
8802130-03A	12E	Car8-02-093	SN	ICP200	Metal Screen (ICP)
8802130-04A	12E	Car8-02-096	SN	HC_IR	Petroleum Hydrocarbons
8802130-04A	12E	Car8-02-096	SN	ICP200	Metal Screen (ICP)
8802130-05A	12E	Car8-02-099	SN	HC_IR	Petroleum Hydrocarbons
8802130-05A	12E	Car8-02-099	SN	ICP200	Metal Screen (ICP)
8802130-06A	12H	Car8-02-104	SN	HC_IR	Petroleum Hydrocarbons
8802130-06A	12H	Car8-02-104	SN	ICP200	Metal Screen (ICP)
8802130-07A	12H	Car8-02-107	SD	HC_IR	Petroleum Hydrocarbons
8802130-07A	12H	Car8-02-107	SD	ICP200	Metal Screen (ICP)
8802130-08A	12H	Car8-02-110	SD	HC_IR	Petroleum Hydrocarbons
8802130-08A	12H	Car8-02-110	SD	ICP200	Metal Screen (ICP)
8802130-09A	12H	Car8-02-113	SN	HC_IR	Petroleum Hydrocarbons
8802130-09A	12H	Car8-02-113	SN	ICP200	Metal Screen (ICP)
8802130-10A	12H	Car8-02-116	SN	HC_IR	Petroleum Hydrocarbons
8802130-10A	12H	Car8-02-116	SN	ICP200	Metal Screen (ICP)
8802130-11A	12H	Car8-02-119	SN	HC_IR	Petroleum Hydrocarbons
8802130-11A	12H	Car8-02-119	SN	ICP200	Metal Screen (ICP)
8802135-01A	12I	Car8-02-122	SN	HC_IR	Petroleum Hydrocarbons
8802135-01A	12I	Car8-02-122	SN	ICP200	Metal Screen (ICP)
8802135-02A	12I	Car8-02-125	SN	HC_IR	Petroleum Hydrocarbons
8802135-02A	12I	Car8-02-125	SN	ICP200	Metal Screen (ICP)
8802135-03A	12I	Car8-02-128	SN	HC_IR	Petroleum Hydrocarbons

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8802135-03A	12I	Car8-02-128	SN	ICP200	Metal Screen (ICP)
8802135-04A	12J	Car8-02-131	SD	HC_IR	Petroleum Hydrocarbons
8802135-04A	12J	Car8-02-131	SD	ICP200	Metal Screen (ICP)
8802135-05A	12J	Car8-02-134	SD	HC_IR	Petroleum Hydrocarbons
8802135-05A	12J	Car8-02-134	SD	ICP200	Metal Screen (ICP)
8802135-06A	12J	Car8-02-137	SN	HC_IR	Petroleum Hydrocarbons
8802135-06A	12J	Car8-02-137	SN	ICP200	Metal Screen (ICP)
8802135-07A	12J	Car8-02-140	SN	HC_IR	Petroleum Hydrocarbons
8802135-07A	12J	Car8-02-140	SN	ICP200	Metal Screen (ICP)
8802136-01A	3D	02-150	N	EPA601	Purgeable Halocarbons
8802136-01C	3D	02-150	N	EPA602	Purgeable Aromatics
8802136-01C	3D	02-150	N	XYLENE	Purgeable Aromatics
8802136-01F	3D	02-150	N	NO3	Nitrate
8802136-01G	3D	02-150	N	AS_G	Metals
8802136-01G	3D	02-150	N	HG_C	Metals
8802136-01G	3D	02-150	N	ICP200	Metal Screen (ICP)
8802136-01G	3D	02-150	N	PB_G	Metals
8802136-01G	3D	02-150	N	SE_G	Metals
8802136-01H	3D	02-150	N	HC_IR	Petroleum Hydrocarbons
8802136-01I	3D	02-150	N	ONG_IR	Oil & Grease
8802136-01J	3D	02-150	N	CL_T	Chloride
8802136-01J	3D	02-150	N	TDS	Total Dissolved Solids
8802136-01J	3D	02-150	N	F_SIE	Fluoride
8802136-01J	3D	02-150	N	OPO4	Orthophosphate
8802136-01J	3D	02-150	N	SO4_N	Sulfate
8802136-02A	11A	02-151	N	EPA601	Purgeable Halocarbons
8802136-02C	11A	02-151	N	EPA602	Purgeable Aromatics
8802136-02C	11A	02-151	N	XYLENE	Purgeable Aromatics
8802136-02F	11A	02-151	N	NO3	Nitrate
8802136-02G	11A	02-151	N	HG_C	Metals
8802136-02G	11A	02-151	N	ICP200	Metal Screen (ICP)
8802136-02G	11A	02-151	N	PB_G	Metals
8802136-02G	11A	02-151	N	AS_G	Metals
8802136-02G	11A	02-151	N	SE_G	Metals
8802136-02H	11A	02-151	N	HC_IR	Petroleum Hydrocarbons
8802136-02I	11A	02-151	N	CL_T	Chloride
8802136-02I	11A	02-151	N	F_SIE	Fluoride
8802136-02I	11A	02-151	N	OPO4	Orthophosphate
8802136-02I	11A	02-151	N	SO4_N	Sulfate
8802136-02I	11A	02-151	N	TDS	Total Dissolved Solids
8802136-03A	11B	02-152	N	EPA601	Purgeable Halocarbons
8802136-03C	11B	02-152	N	EPA602	Purgeable Aromatics
8802136-03C	11B	02-152	N	XYLENE	Purgeable Aromatics
8802136-03F	11B	02-152	N	NO3	Nitrate
8802136-03G	11B	02-152	N	AS_G	Metals
8802136-03G	11B	02-152	N	HG_C	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8802136-03G	11B	02-152	N	ICP200	Metal Screen (ICP)
8802136-03G	11B	02-152	N	PB_G	Metals
8802136-03G	11B	02-152	N	SE_G	Metals
8802136-03H	11B	02-152	N	HC_IR	Petroleum Hydrocarbons
8802136-03I	11B	02-152	N	CL_T	Chloride
8802136-03I	11B	02-152	N	F_SIE	Fluoride
8802136-03I	11B	02-152	N	TDS	Total Dissolved Solids
8802136-03I	11B	02-152	N	OPO4	Orthophosphate
8802136-03I	11B	02-152	N	SO4_N	Sulfate
8802136-04A	P1	02-153	N	EPA601	Purgeable Halocarbons
8802136-04C	P1	02-153	N	EPA602	Purgeable Aromatics
8802136-04C	P1	02-153	N	XYLENE	Purgeable Aromatics
8802136-04F	P1	02-153	N	NO3	Nitrate
8802136-04G	P1	02-153	N	HG_C	Metals
8802136-04G	P1	02-153	N	ICP200	Metal Screen (ICP)
8802136-04G	P1	02-153	N	PB_G	Metals
8802136-04G	P1	02-153	N	AS_G	Metals
8802136-04G	P1	02-153	N	SE_G	Metals
8802136-04H	P1	02-153	N	CL_T	Chloride
8802136-04H	P1	02-153	N	F_SIE	Fluoride
8802136-04H	P1	02-153	N	OPO4	Orthophosphate
8802136-04H	P1	02-153	N	SO4_N	Sulfate
8802136-04H	P1	02-153	N	TDS	Total Dissolved Solids
8802136-06A	3D	02-150	N	EPA601	Purgeable Halocarbons
8802136-07A	11A	02-151	N	EPA602	Purgeable Aromatics
8802136-07A	11A	02-151	N	XYLENE	Purgeable Aromatics
8802136-08A	P1	02-153	N	EPA602	Purgeable Aromatics
8802136-08A	P1	02-153	N	XYLENE	Purgeable Aromatics
8802190-01A	12A	02-154	N	EPA601	Purgeable Halocarbons
8802190-01C	12A	02-154	N	EPA602	Purgeable Aromatics
8802190-01C	12A	02-154	N	XYLENE	Purgeable Aromatics
8802190-02A	P2	02-155	N	EPA601	Purgeable Halocarbons
8802190-02C	P2	02-155	N	EPA602	Purgeable Aromatics
8802190-02C	P2	02-155	N	XYLENE	Purgeable Aromatics
8802190-03A	4B	02-156	N	EPA601	Purgeable Halocarbons
8802190-03C	4B	02-156	N	EPA602	Purgeable Aromatics
8802190-03C	4B	02-156	N	XYLENE	Purgeable Aromatics
8802190-04A	4A	02-157	N	EPA601	Purgeable Halocarbons
8802190-04C	4A	02-157	N	EPA602	Purgeable Aromatics
8802190-04C	4A	02-157	N	XYLENE	Purgeable Aromatics
8802190-05A	1A	02-159	N	EPA601	Purgeable Halocarbons
8802190-05C	1A	02-159	N	EPA602	Purgeable Aromatics
8802190-05C	1A	02-159	N	XYLENE	Purgeable Aromatics
8802190-06A	1C	02-160	N	EPA601	Purgeable Halocarbons
8802190-06C	1C	02-160	N	EPA602	Purgeable Aromatics
8802190-06C	1C	02-160	N	XYLENE	Purgeable Aromatics

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8802190-07A	1D	02-161	N	EPA601	Purgeable Halocarbons
8802190-07C	1D	02-161	N	EPA602	Purgeable Aromatics
8802190-07C	1D	02-161	N	XYLENE	Purgeable Aromatics
8802190-08A	1F	02-162	N	EPA601	Purgeable Halocarbons
8802190-08C	1F	02-162	N	EPA602	Purgeable Aromatics
8802190-08C	1F	02-162	N	XYLENE	Purgeable Aromatics
8802190-09A	1E	02-163	N	EPA601	Purgeable Halocarbons
8802190-09C	1E	02-163	N	EPA602	Purgeable Aromatics
8802190-09C	1E	02-163	N	XYLENE	Purgeable Aromatics
8802190-11A	P2	02-155	N	EPA602	Purgeable Aromatics
8802190-11A	P2	02-155	N	XYLENE	Purgeable Aromatics
8802190-12A	4A	02-157	N	EPA601	Purgeable Halocarbons
8802190-12A	4A	02-157	N	EPA602	Purgeable Aromatics
8802190-12A	4A	02-157	N	XYLENE	Purgeable Aromatics
8802190-13A	1C	02-160	N	EPA602	Purgeable Aromatics
8802190-13A	1C	02-160	N	XYLENE	Purgeable Aromatics
8802190-14A	1F	02-162	N	EPA602	Purgeable Aromatics
8802190-14A	1F	02-162	N	XYLENE	Purgeable Aromatics
8802191-01B	12A	02-154	N	NO2NO3	Nitrate
8802191-01C	12A	02-154	N	HC_IR	Petroleum Hydrocarbons
8802191-01D	12A	02-154	N	AS_G	Metals
8802191-01D	12A	02-154	N	HG_C	Metals
8802191-01D	12A	02-154	N	ICP200	Metal Screen (ICP)
8802191-01D	12A	02-154	N	PB_G	Metals
8802191-01D	12A	02-154	N	SE_G	Metals
8802191-01E	12A	02-154	N	CL_T	Chloride
8802191-01E	12A	02-154	N	F_SIE	Fluoride
8802191-01E	12A	02-154	N	TDS	Total Dissolved Solids
8802191-01E	12A	02-154	N	OPO4	Orthophosphate
8802191-01E	12A	02-154	N	SO4_N	Sulfate
8802191-02B	P2	02-155	N	NO2NO3	Nitrate
8802191-02C	P2	02-155	N	AS_G	Metals
8802191-02C	P2	02-155	N	HG_C	Metals
8802191-02C	P2	02-155	N	ICP200	Metal Screen (ICP)
8802191-02C	P2	02-155	N	PB_G	Metals
8802191-02C	P2	02-155	N	SE_G	Metals
8802191-02D	P2	02-155	N	F_SIE	Fluoride
8802191-02D	P2	02-155	N	OPO4	Orthophosphate
8802191-02D	P2	02-155	N	SO4_N	Sulfate
8802191-02D	P2	02-155	N	CL_T	Chloride
8802191-02D	P2	02-155	N	TDS	Total Dissolved Solids
8802191-03B	4B	02-156	N	NO2NO3	Nitrate
8802191-03C	4B	02-156	N	AS_G	Metals
8802191-03C	4B	02-156	N	HG_C	Metals
8802191-03C	4B	02-156	N	ICP200	Metal Screen (ICP)
8802191-03C	4B	02-156	N	PB_G	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8802191-03C	4B	02-156	N	SE_G	Metals
8802191-03D	4B	02-156	N	F_SIE	Fluoride
8802191-03D	4B	02-156	N	CL_T	Chloride
8802191-03D	4B	02-156	N	OPO4	Orthophosphate
8802191-03D	4B	02-156	N	TDS	Total Dissolved Solids
8802191-03D	4B	02-156	N	SO4_N	Sulfate
8802191-04B	4A	02-157	N	NO2NO3	Nitrate
8802191-04C	4A	02-157	N	AS_G	Metals
8802191-04C	4A	02-157	N	HG_C	Metals
8802191-04C	4A	02-157	N	ICP200	Metal Screen (ICP)
8802191-04C	4A	02-157	N	PB_G	Metals
8802191-04C	4A	02-157	N	SE_G	Metals
8802191-04D	4A	02-157	N	F_SIE	Fluoride
8802191-04D	4A	02-157	N	OPO4	Orthophosphate
8802191-04D	4A	02-157	N	CL_T	Chloride
8802191-04D	4A	02-157	N	SO4_N	Sulfate
8802191-04D	4A	02-157	N	TDS	Total Dissolved Solids
8802191-05B	1A	02-159	N	NO2NO3	Nitrate
8802191-05C	1A	02-159	N	ONG_IR	Oil & Grease
8802191-05D	1A	02-159	N	AS_G	Metals
8802191-05D	1A	02-159	N	HG_C	Metals
8802191-05D	1A	02-159	N	ICP200	Metal Screen (ICP)
8802191-05D	1A	02-159	N	PB_G	Metals
8802191-05D	1A	02-159	N	SE_G	Metals
8802191-05E	1A	02-159	N	F_SIE	Fluoride
8802191-05E	1A	02-159	N	CL_T	Chloride
8802191-05E	1A	02-159	N	OPO4	Orthophosphate
8802191-05E	1A	02-159	N	TDS	Total Dissolved Solids
8802191-05E	1A	02-159	N	SO4_N	Sulfate
8802191-06B	1C	02-160	N	NO2NO3	Nitrate
8802191-06C	1C	02-160	N	ONG_IR	Oil & Grease
8802191-06D	1C	02-160	N	AS_G	Metals
8802191-06D	1C	02-160	N	HG_C	Metals
8802191-06D	1C	02-160	N	ICP200	Metal Screen (ICP)
8802191-06D	1C	02-160	N	PB_G	Metals
8802191-06D	1C	02-160	N	SE_G	Metals
8802191-06E	1C	02-160	N	F_SIE	Fluoride
8802191-06E	1C	02-160	N	OPO4	Orthophosphate
8802191-06E	1C	02-160	N	CL_T	Chloride
8802191-06E	1C	02-160	N	SO4_N	Sulfate
8802191-06E	1C	02-160	N	TDS	Total Dissolved Solids
8802191-07B	1D	02-161	N	NO2NO3	Nitrate
8802191-07C	1D	02-161	N	ONG_IR	Oil & Grease
8802191-07D	1D	02-161	N	AS_G	Metals
8802191-07D	1D	02-161	N	HG_C	Metals
8802191-07D	1D	02-161	N	ICP200	Metal Screen (ICP)

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8802191-07D	1D	02-161	N	PB_G	Metals
8802191-07D	1D	02-161	N	SE_G	Metals
8802191-07E	1D	02-161	N	F_SIE	Fluoride
8802191-07E	1D	02-161	N	CL_T	Chloride
8802191-07E	1D	02-161	N	OPO4	Orthophosphate
8802191-07E	1D	02-161	N	TDS	Total Dissolved Solids
8802191-07E	1D	02-161	N	SO4_N	Sulfate
8802191-08B	1F	02-162	N	NO2NO3	Nitrate
8802191-08C	1F	02-162	N	ONG_IR	Oil & Grease
8802191-08D	1F	02-162	N	AS_G	Metals
8802191-08D	1F	02-162	N	HG_C	Metals
8802191-08D	1F	02-162	N	ICP200	Metal Screen (ICP)
8802191-08D	1F	02-162	N	PB_G	Metals
8802191-08D	1F	02-162	N	SE_G	Metals
8802191-08E	1F	02-162	N	F_SIE	Fluoride
8802191-08E	1F	02-162	N	CL_T	Chloride
8802191-08E	1F	02-162	N	OPO4	Orthophosphate
8802191-08E	1F	02-162	N	TDS	Total Dissolved Solids
8802191-08E	1F	02-162	N	SO4_N	Sulfate
8802191-09B	1E	02-163	N	NO2NO3	Nitrate
8802191-09C	1E	02-163	N	ONG_IR	Oil & Grease
8802191-09D	1E	02-163	N	AS_G	Metals
8802191-09D	1E	02-163	N	HG_C	Metals
8802191-09D	1E	02-163	N	ICP200	Metal Screen (ICP)
8802191-09D	1E	02-163	N	PB_G	Metals
8802191-09D	1E	02-163	N	SE_G	Metals
8802191-09E	1E	02-163	N	F_SIE	Fluoride
8802191-09E	1E	02-163	N	CL_T	Chloride
8802191-09E	1E	02-163	N	OPO4	Orthophosphate
8802191-09E	1E	02-163	N	TDS	Total Dissolved Solids
8802191-09E	1E	02-163	N	SO4_N	Sulfate
8803005-01A	4C	02-164	N	EPA601	Purgeable Halocarbons
8803005-01C	4C	02-164	N	EPA602	Purgeable Aromatics
8803005-01C	4C	02-164	N	XYLENE	Purgeable Aromatics
8803005-02A	4H	02-165	N	EPA601	Purgeable Halocarbons
8803005-02C	4H	02-165	N	EPA602	Purgeable Aromatics
8803005-02C	4H	02-165	N	XYLENE	Purgeable Aromatics
8803005-03A	4G	02-166	N	EPA601	Purgeable Halocarbons
8803005-03C	4G	02-166	N	EPA602	Purgeable Aromatics
8803005-03C	4G	02-166	N	XYLENE	Purgeable Aromatics
8803005-04A	4G	02-167	D	EPA601	Purgeable Halocarbons
8803005-04C	4G	02-167	D	EPA602	Purgeable Aromatics
8803005-04C	4G	02-167	D	XYLENE	Purgeable Aromatics
8803005-05A	5G	02-168	N	EPA601	Purgeable Halocarbons
8803005-05C	5G	02-168	N	EPA602	Purgeable Aromatics
8803005-05C	5G	02-168	N	XYLENE	Purgeable Aromatics

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803005-06A	5H	02-169	N	EPA601	Purgeable Halocarbons
8803005-06C	5H	02-169	N	EPA602	Purgeable Aromatics
8803005-06C	5H	02-169	N	XYLENE	Purgeable Aromatics
8803005-08A	4C	02-164	N	EPA601	Purgeable Halocarbons
8803005-09A	4H	02-165	N	EPA601	Purgeable Halocarbons
8803005-09A	4H	02-165	N	XYLENE	Purgeable Aromatics
8803005-09A	4H	02-165	N	EPA602	Purgeable Aromatics
8803005-10A	4G	02-166	N	EPA601	Purgeable Halocarbons
8803005-11A	4G	02-167	D	EPA601	Purgeable Halocarbons
8803005-11A	4G	02-167	D	EPA602	Purgeable Aromatics
8803005-11A	4G	02-167	D	XYLENE	Purgeable Aromatics
8803005-12A	5G	02-168	N	EPA601	Purgeable Halocarbons
8803005-13A	5H	02-169	N	EPA601	Purgeable Halocarbons
8803005-13A	5H	02-169	N	EPA602	Purgeable Aromatics
8803005-13A	5H	02-169	N	XYLENE	Purgeable Aromatics
8803006-01B	4C	02-164	N	NO2NO3	Nitrate
8803006-01C	4C	02-164	N	AS_G	Metals
8803006-01C	4C	02-164	N	HG_C	Metals
8803006-01C	4C	02-164	N	ICP200	Metal Screen (ICP)
8803006-01C	4C	02-164	N	PB_G	Metals
8803006-01C	4C	02-164	N	SE_G	Metals
8803006-01D	4C	02-164	N	CL_T	Chloride
8803006-01D	4C	02-164	N	F_SIE	Fluoride
8803006-01D	4C	02-164	N	OPO4	Orthophosphate
8803006-01D	4C	02-164	N	SO4_N	Sulfate
8803006-01D	4C	02-164	N	TDS	Total Dissolved Solids
8803006-02B	4H	02-165	N	NO2NO3	Nitrate
8803006-02C	4H	02-165	N	AS_G	Metals
8803006-02C	4H	02-165	N	HG_C	Metals
8803006-02C	4H	02-165	N	ICP200	Metal Screen (ICP)
8803006-02C	4H	02-165	N	PB_G	Metals
8803006-02C	4H	02-165	N	SE_G	Metals
8803006-02D	4H	02-165	N	CL_T	Chloride
8803006-02D	4H	02-165	N	F_SIE	Fluoride
8803006-02D	4H	02-165	N	OPO4	Orthophosphate
8803006-02D	4H	02-165	N	SO4_N	Sulfate
8803006-02D	4H	02-165	N	TDS	Total Dissolved Solids
8803006-03B	4G	02-166	N	NO2NO3	Nitrate
8803006-03C	4G	02-166	N	AS_G	Metals
8803006-03C	4G	02-166	N	HG_C	Metals
8803006-03C	4G	02-166	N	ICP200	Metal Screen (ICP)
8803006-03C	4G	02-166	N	PB_G	Metals
8803006-03C	4G	02-166	N	SE_G	Metals
8803006-03D	4G	02-166	N	CL_T	Chloride
8803006-03D	4G	02-166	N	F_SIE	Fluoride
8803006-03D	4G	02-166	N	OPO4	Orthophosphate

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803006-03D	4G	02-166	N	SO4_N	Sulfate
8803006-03D	4G	02-166	N	TDS	Total Dissolved Solids
8803006-04B	4G	02-167	D	NO2NO3	Nitrate
8803006-04C	4G	02-167	D	AS_G	Metals
8803006-04C	4G	02-167	D	HG_C	Metals
8803006-04C	4G	02-167	D	ICP200	Metal Screen (ICP)
8803006-04C	4G	02-167	D	PB_G	Metals
8803006-04C	4G	02-167	D	SE_G	Metals
8803006-04D	4G	02-167	D	CL_T	Chloride
8803006-04D	4G	02-167	D	F_SIE	Fluoride
8803006-04D	4G	02-167	D	OPO4	Orthophosphate
8803006-04D	4G	02-167	D	SO4_N	Sulfate
8803006-04D	4G	02-167	D	TDS	Total Dissolved Solids
8803006-05B	5G	02-168	N	NO2NO3	Nitrate
8803006-05C	5G	02-168	N	AS_G	Metals
8803006-05C	5G	02-168	N	HG_C	Metals
8803006-05C	5G	02-168	N	ICP200	Metal Screen (ICP)
8803006-05C	5G	02-168	N	PB_G	Metals
8803006-05C	5G	02-168	N	SE_G	Metals
8803006-05D	5G	02-168	N	CL_T	Chloride
8803006-05D	5G	02-168	N	F_SIE	Fluoride
8803006-05D	5G	02-168	N	OPO4	Orthophosphate
8803006-05D	5G	02-168	N	SO4_N	Sulfate
8803006-05D	5G	02-168	N	TDS	Total Dissolved Solids
8803006-06B	5H	02-169	N	NO2NO3	Nitrate
8803006-06C	5H	02-169	N	AS_G	Metals
8803006-06C	5H	02-169	N	HG_C	Metals
8803006-06C	5H	02-169	N	ICP200	Metal Screen (ICP)
8803006-06C	5H	02-169	N	PB_G	Metals
8803006-06C	5H	02-169	N	SE_G	Metals
8803006-06D	5H	02-169	N	CL_T	Chloride
8803006-06D	5H	02-169	N	F_SIE	Fluoride
8803006-06D	5H	02-169	N	OPO4	Orthophosphate
8803006-06D	5H	02-169	N	SO4_N	Sulfate
8803006-06D	5H	02-169	N	TDS	Total Dissolved Solids
8803016-01A	16UP1	03-01	N	F_SIE	Fluoride
8803016-01A	16UP1	03-01	N	OPO4	Orthophosphate
8803016-01A	16UP1	03-01	N	CL_T	Chloride
8803016-01A	16UP1	03-01	N	SO4_N	Sulfate
8803016-01A	16UP1	03-01	N	TDS	Total Dissolved Solids
8803016-01C	16UP1	03-01	N	ONG_IR	Oil & Grease
8803016-01D	16UP1	03-01	N	AS_G	Metals
8803016-01D	16UP1	03-01	N	HG_C	Metals
8803016-01D	16UP1	03-01	N	ICP200	Metal Screen (ICP)
8803016-01D	16UP1	03-01	N	PB_G	Metals
8803016-01D	16UP1	03-01	N	SE_G	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803016-01E	16UP1	03-01	N	NO2NO3	Nitrate
8803016-02A	16UP2	03-02	N	F_SIE	Fluoride
8803016-02A	16UP2	03-02	N	CL_T	Chloride
8803016-02A	16UP2	03-02	N	OPO4	Orthophosphate
8803016-02A	16UP2	03-02	N	TDS	Total Dissolved Solids
8803016-02A	16UP2	03-02	N	SO4_N	Sulfate
8803016-02C	16UP2	03-02	N	ONG_IR	Oil & Grease
8803016-02D	16UP2	03-02	N	AS_G	Metals
8803016-02D	16UP2	03-02	N	HG_C	Metals
8803016-02D	16UP2	03-02	N	ICP200	Metal Screen (ICP)
8803016-02D	16UP2	03-02	N	PB_G	Metals
8803016-02D	16UP2	03-02	N	SE_G	Metals
8803016-02E	16UP2	03-02	N	NO2NO3	Nitrate
8803016-03A	16DN3	03-03	N	F_SIE	Fluoride
8803016-03A	16DN3	03-03	N	CL_T	Chloride
8803016-03A	16DN3	03-03	N	OPO4	Orthophosphate
8803016-03A	16DN3	03-03	N	TDS	Total Dissolved Solids
8803016-03A	16DN3	03-03	N	SO4_N	Sulfate
8803016-03C	16DN3	03-03	N	ONG_IR	Oil & Grease
8803016-03D	16DN3	03-03	N	AS_G	Metals
8803016-03D	16DN3	03-03	N	HG_C	Metals
8803016-03D	16DN3	03-03	N	ICP200	Metal Screen (ICP)
8803016-03D	16DN3	03-03	N	PB_G	Metals
8803016-03D	16DN3	03-03	N	SE_G	Metals
8803016-03E	16DN3	03-03	N	NO2NO3	Nitrate
8803016-04A	16DN4	03-04	N	F_SIE	Fluoride
8803016-04A	16DN4	03-04	N	CL_T	Chloride
8803016-04A	16DN4	03-04	N	OPO4	Orthophosphate
8803016-04A	16DN4	03-04	N	TDS	Total Dissolved Solids
8803016-04A	16DN4	03-04	N	SO4_N	Sulfate
8803016-04C	16DN4	03-04	N	ONG_IR	Oil & Grease
8803016-04D	16DN4	03-04	N	AS_G	Metals
8803016-04D	16DN4	03-04	N	HG_C	Metals
8803016-04D	16DN4	03-04	N	ICP200	Metal Screen (ICP)
8803016-04D	16DN4	03-04	N	PB_G	Metals
8803016-04D	16DN4	03-04	N	SE_G	Metals
8803016-04E	16DN4	03-04	N	NO2NO3	Nitrate
8803016-05A	16DN4	03-05	D	CL_T	Chloride
8803016-05A	16DN4	03-05	D	F_SIE	Fluoride
8803016-05A	16DN4	03-05	D	OPO4	Orthophosphate
8803016-05A	16DN4	03-05	D	SO4_N	Sulfate
8803016-05A	16DN4	03-05	D	TDS	Total Dissolved Solids
8803016-05C	16DN4	03-05	D	ONG_IR	Oil & Grease
8803016-05D	16DN4	03-05	D	HG_C	Metals
8803016-05D	16DN4	03-05	D	ICP200	Metal Screen (ICP)
8803016-05D	16DN4	03-05	D	AS_G	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803016-05D	16DN4	03-05	D	PB_G	Metals
8803016-05D	16DN4	03-05	D	SE_G	Metals
8803016-05E	16DN4	03-05	D	NO2NO3	Nitrate
8803016-06A	17I	03-08	N	CL_T	Chloride
8803016-06A	17I	03-08	N	F_SIE	Fluoride
8803016-06A	17I	03-08	N	OPO4	Orthophosphate
8803016-06A	17I	03-08	N	SO4_N	Sulfate
8803016-06A	17I	03-08	N	TDS	Total Dissolved Solids
8803016-06C	17I	03-08	N	HC_IR	Petroleum Hydrocarbons
8803016-06D	17I	03-08	N	HG_C	Metals
8803016-06D	17I	03-08	N	ICP200	Metal Screen (ICP)
8803016-06D	17I	03-08	N	AS_G	Metals
8803016-06D	17I	03-08	N	PB_G	Metals
8803016-06D	17I	03-08	N	SE_G	Metals
8803016-06E	17I	03-08	N	NO2NO3	Nitrate
8803016-07A	17K	03-11	N	CL_T	Chloride
8803016-07A	17K	03-11	N	F_SIE	Fluoride
8803016-07A	17K	03-11	N	OPO4	Orthophosphate
8803016-07A	17K	03-11	N	SO4_N	Sulfate
8803016-07A	17K	03-11	N	TDS	Total Dissolved Solids
8803016-07C	17K	03-11	N	HC_IR	Petroleum Hydrocarbons
8803016-07D	17K	03-11	N	HG_C	Metals
8803016-07D	17K	03-11	N	AS_G	Metals
8803016-07D	17K	03-11	N	ICP200	Metal Screen (ICP)
8803016-07D	17K	03-11	N	SE_G	Metals
8803016-07D	17K	03-11	N	PB_G	Metals
8803016-07E	17K	03-11	N	NO2NO3	Nitrate
8803016-08A	17L	03-12	N	CL_T	Chloride
8803016-08A	17L	03-12	N	F_SIE	Fluoride
8803016-08A	17L	03-12	N	OPO4	Orthophosphate
8803016-08A	17L	03-12	N	SO4_N	Sulfate
8803016-08A	17L	03-12	N	TDS	Total Dissolved Solids
8803016-08C	17L	03-12	N	HC_IR	Petroleum Hydrocarbons
8803016-08D	17L	03-12	N	HG_C	Metals
8803016-08D	17L	03-12	N	ICP200	Metal Screen (ICP)
8803016-08D	17L	03-12	N	PB_G	Metals
8803016-08D	17L	03-12	N	AS_G	Metals
8803016-08D	17L	03-12	N	SE_G	Metals
8803016-08E	17L	03-12	N	NO2NO3	Nitrate
8803016-09A	17J	03-13	N	CL_T	Chloride
8803016-09A	17J	03-13	N	F_SIE	Fluoride
8803016-09A	17J	03-13	N	OPO4	Orthophosphate
8803016-09A	17J	03-13	N	SO4_N	Sulfate
8803016-09A	17J	03-13	N	TDS	Total Dissolved Solids
8803016-09C	17J	03-13	N	HC_IR	Petroleum Hydrocarbons
8803016-09D	17J	03-13	N	HG_C	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803016-09D	17J	03-13	N	ICP200	Metal Screen (ICP)
8803016-09D	17J	03-13	N	AS_G	Metals
8803016-09D	17J	03-13	N	PB_G	Metals
8803016-09D	17J	03-13	N	SE_G	Metals
8803016-09E	17J	03-13	N	NO2NO3	Nitrate
8803017-01A	1B	02-158	N	EPA602	Purgeable Aromatics
8803017-01A	1B	02-158	N	EPA602	Purgeable Aromatics
8803017-01A	1B	02-158	N	XYLENE	Purgeable Aromatics
8803017-01A	1B	02-158	N	XYLENE	Purgeable Aromatics
8803017-02A	16UP1	03-01	N	EPA601	Purgeable Halocarbons
8803017-02C	16UP1	03-01	N	EPA602	Purgeable Aromatics
8803017-02C	16UP1	03-01	N	XYLENE	Purgeable Aromatics
8803017-03A	16UP2	03-02	N	EPA601	Purgeable Halocarbons
8803017-03C	16UP2	03-02	N	EPA602	Purgeable Aromatics
8803017-03C	16UP2	03-02	N	XYLENE	Purgeable Aromatics
8803017-04A	16DN3	03-03	N	EPA601	Purgeable Halocarbons
8803017-04C	16DN3	03-03	N	EPA602	Purgeable Aromatics
8803017-04C	16DN3	03-03	N	XYLENE	Purgeable Aromatics
8803017-05A	16DN4	03-04	N	EPA601	Purgeable Halocarbons
8803017-05C	16DN4	03-04	N	EPA602	Purgeable Aromatics
8803017-05C	16DN4	03-04	N	XYLENE	Purgeable Aromatics
8803017-06A	16DN4	03-05	D	EPA601	Purgeable Halocarbons
8803017-06C	16DN4	03-05	D	EPA602	Purgeable Aromatics
8803017-06C	16DN4	03-05	D	XYLENE	Purgeable Aromatics
8803017-07A	16	03-06	TB	EPA601	Purgeable Halocarbons
8803017-07C	16	03-06	TB	EPA602	Purgeable Aromatics
8803017-07C	16	03-06	TB	XYLENE	Purgeable Aromatics
8803017-08A	16	03-07	FB	EPA601	Purgeable Halocarbons
8803017-08C	16	03-07	FB	EPA602	Purgeable Aromatics
8803017-08C	16	03-07	FB	XYLENE	Purgeable Aromatics
8803017-09A	17I	03-08	N	EPA601	Purgeable Halocarbons
8803017-09C	17I	03-08	N	EPA602	Purgeable Aromatics
8803017-09C	17I	03-08	N	XYLENE	Purgeable Aromatics
8803017-10A	17I	03-09	TB	EPA601	Purgeable Halocarbons
8803017-10C	17I	03-09	TB	EPA602	Purgeable Aromatics
8803017-10C	17I	03-09	TB	XYLENE	Purgeable Aromatics
8803018-01A	17I	03-10	FB	EPA601	Purgeable Halocarbons
8803018-01C	17I	03-10	FB	EPA602	Purgeable Aromatics
8803018-01C	17I	03-10	FB	XYLENE	Purgeable Aromatics
8803018-02A	17K	03-11	N	EPA601	Purgeable Halocarbons
8803018-02C	17K	03-11	N	EPA602	Purgeable Aromatics
8803018-02C	17K	03-11	N	XYLENE	Purgeable Aromatics
8803018-03A	17L	03-12	N	EPA601	Purgeable Halocarbons
8803018-03C	17L	03-12	N	EPA602	Purgeable Aromatics
8803018-03C	17L	03-12	N	XYLENE	Purgeable Aromatics
8803018-04A	17J	03-13	N	EPA601	Purgeable Halocarbons

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803018-04C	17J	03-13	N	EPA602	Purgeable Aromatics
8803018-04C	17J	03-13	N	XYLENE	Purgeable Aromatics
8803018-06A	17I	03-10	FB	EPA601	Purgeable Halocarbons
8803018-07A	17K	03-11	N	EPA602	Purgeable Aromatics
8803018-07A	17K	03-11	N	XYLENE	Purgeable Aromatics
8803029-01A	17M	03-14	N	EPA601	Purgeable Halocarbons
8803029-01C	17M	03-14	N	EPA602	Purgeable Aromatics
8803029-01C	17M	03-14	N	XYLENE	Purgeable Aromatics
8803029-02A	5C	03-15	N	EPA601	Purgeable Halocarbons
8803029-02C	5C	03-15	N	EPA602	Purgeable Aromatics
8803029-02C	5C	03-15	N	XYLENE	Purgeable Aromatics
8803029-03A	5A	03-16	N	EPA601	Purgeable Halocarbons
8803029-03C	5A	03-16	N	EPA602	Purgeable Aromatics
8803029-03C	5A	03-16	N	XYLENE	Purgeable Aromatics
8803029-04A	5A	03-17	TB	EPA601	Purgeable Halocarbons
8803029-04C	5A	03-17	TB	EPA602	Purgeable Aromatics
8803029-04C	5A	03-17	TB	XYLENE	Purgeable Aromatics
8803029-05A	5A	03-18	FB	EPA601	Purgeable Halocarbons
8803029-05C	5A	03-18	FB	EPA602	Purgeable Aromatics
8803029-05C	5A	03-18	FB	XYLENE	Purgeable Aromatics
8803029-06A	5D	03-19	N	EPA601	Purgeable Halocarbons
8803029-06C	5D	03-19	N	EPA602	Purgeable Aromatics
8803029-06C	5D	03-19	N	XYLENE	Purgeable Aromatics
8803029-07A	5D	03-20	ER	EPA601	Purgeable Halocarbons
8803029-07C	5D	03-20	ER	EPA602	Purgeable Aromatics
8803029-07C	5D	03-20	ER	XYLENE	Purgeable Aromatics
8803029-08A	5E	03-21	N	EPA601	Purgeable Halocarbons
8803029-08C	5E	03-21	N	EPA602	Purgeable Aromatics
8803029-08C	5E	03-21	N	XYLENE	Purgeable Aromatics
8803029-09A	10A	03-22	N	EPA601	Purgeable Halocarbons
8803029-09C	10A	03-22	N	EPA602	Purgeable Aromatics
8803029-09C	10A	03-22	N	XYLENE	Purgeable Aromatics
8803029-11A	5C	03-15	N	EPA601	Purgeable Halocarbons
8803029-12A	5A	03-16	N	EPA601	Purgeable Halocarbons
8803029-13A	5A	03-18	FB	EPA601	Purgeable Halocarbons
8803029-13A	5A	03-18	FB	EPA602	Purgeable Aromatics
8803029-13A	5A	03-18	FB	XYLENE	Purgeable Aromatics
8803029-14A	5D	03-20	ER	EPA601	Purgeable Halocarbons
8803031-01A	17M	03-14	N	CL_T	Chloride
8803031-01A	17M	03-14	N	F_SIE	Fluoride
8803031-01A	17M	03-14	N	OPO4	Orthophosphate
8803031-01A	17M	03-14	N	SO4_N	Sulfate
8803031-01A	17M	03-14	N	TDS	Total Dissolved Solids
8803031-01C	17M	03-14	N	HG_C	Metals
8803031-01C	17M	03-14	N	ICP200	Metal Screen (ICP)
8803031-01C	17M	03-14	N	AS_G	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803031-01C	17M	03-14	N	PB_G	Metals
8803031-01C	17M	03-14	N	SE_G	Metals
8803031-01D	17M	03-14	N	HC_IR	Petroleum Hydrocarbons
8803031-01E	17M	03-14	N	NO2NO3	Nitrate
8803031-02A	5C	03-15	N	CL_T	Chloride
8803031-02A	5C	03-15	N	F_SIE	Fluoride
8803031-02A	5C	03-15	N	OPO4	Orthophosphate
8803031-02A	5C	03-15	N	SO4_N	Sulfate
8803031-02A	5C	03-15	N	TDS	Total Dissolved Solids
8803031-02C	5C	03-15	N	HG_C	Metals
8803031-02C	5C	03-15	N	AS_G	Metals
8803031-02C	5C	03-15	N	ICP200	Metal Screen (ICP)
8803031-02C	5C	03-15	N	SE_G	Metals
8803031-02C	5C	03-15	N	PB_G	Metals
8803031-02D	5C	03-15	N	NO2NO3	Nitrate
8803031-03A	5A	03-16	N	CL_T	Chloride
8803031-03A	5A	03-16	N	F_SIE	Fluoride
8803031-03A	5A	03-16	N	OPO4	Orthophosphate
8803031-03A	5A	03-16	N	SO4_N	Sulfate
8803031-03A	5A	03-16	N	TDS	Total Dissolved Solids
8803031-03C	5A	03-16	N	HG_C	Metals
8803031-03C	5A	03-16	N	AS_G	Metals
8803031-03C	5A	03-16	N	ICP200	Metal Screen (ICP)
8803031-03C	5A	03-16	N	SE_G	Metals
8803031-03C	5A	03-16	N	PB_G	Metals
8803031-03D	5A	03-16	N	NO2NO3	Nitrate
8803031-04A	5D	03-19	N	CL_T	Chloride
8803031-04A	5D	03-19	N	F_SIE	Fluoride
8803031-04A	5D	03-19	N	OPO4	Orthophosphate
8803031-04A	5D	03-19	N	SO4_N	Sulfate
8803031-04A	5D	03-19	N	TDS	Total Dissolved Solids
8803031-04C	5D	03-19	N	HG_C	Metals
8803031-04C	5D	03-19	N	ICP200	Metal Screen (ICP)
8803031-04C	5D	03-19	N	AS_G	Metals
8803031-04C	5D	03-19	N	PB_G	Metals
8803031-04C	5D	03-19	N	SE_G	Metals
8803031-04D	5D	03-19	N	NO2NO3	Nitrate
8803031-05A	5D	03-20	ER	CL_T	Chloride
8803031-05A	5D	03-20	ER	F_SIE	Fluoride
8803031-05A	5D	03-20	ER	OPO4	Orthophosphate
8803031-05A	5D	03-20	ER	SO4_N	Sulfate
8803031-05A	5D	03-20	ER	TDS	Total Dissolved Solids
8803031-05C	5D	03-20	ER	HG_C	Metals
8803031-05C	5D	03-20	ER	AS_G	Metals
8803031-05C	5D	03-20	ER	ICP200	Metal Screen (ICP)
8803031-05C	5D	03-20	ER	SE_G	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803031-05C	5D	03-20	ER	PB_G	Metals
8803031-05D	5D	03-20	ER	NO2NO3	Nitrate
8803031-06A	5E	03-21	N	CL_T	Chloride
8803031-06A	5E	03-21	N	F_SIE	Fluoride
8803031-06A	5E	03-21	N	OPO4	Orthophosphate
8803031-06A	5E	03-21	N	SO4_N	Sulfate
8803031-06A	5E	03-21	N	TDS	Total Dissolved Solids
8803031-06C	5E	03-21	N	HG_C	Metals
8803031-06C	5E	03-21	N	ICP200	Metal Screen (ICP)
8803031-06C	5E	03-21	N	PB_G	Metals
8803031-06C	5E	03-21	N	AS_G	Metals
8803031-06C	5E	03-21	N	SE_G	Metals
8803031-06D	5E	03-21	N	NO2NO3	Nitrate
8803031-07A	10A	03-22	N	CL_T	Chloride
8803031-07A	10A	03-22	N	F_SIE	Fluoride
8803031-07A	10A	03-22	N	OPO4	Orthophosphate
8803031-07A	10A	03-22	N	SO4_N	Sulfate
8803031-07A	10A	03-22	N	TDS	Total Dissolved Solids
8803031-07C	10A	03-22	N	HG_C	Metals
8803031-07C	10A	03-22	N	ICP200	Metal Screen (ICP)
8803031-07C	10A	03-22	N	PB_G	Metals
8803031-07C	10A	03-22	N	AS_G	Metals
8803031-07C	10A	03-22	N	SE_G	Metals
8803031-07D	10A	03-22	N	HC_IR	Petroleum Hydrocarbons
8803031-07D	10A	03-22	N	ONG_IR	Oil & Grease
8803031-07E	10A	03-22	N	NO2NO3	Nitrate
8803035-01A	12D	03-23	N	CL_T	Chloride
8803035-01A	12D	03-23	N	F_SIE	Fluoride
8803035-01A	12D	03-23	N	OPO4	Orthophosphate
8803035-01A	12D	03-23	N	SO4_N	Sulfate
8803035-01A	12D	03-23	N	TDS	Total Dissolved Solids
8803035-01B	12D	03-23	N	NO2NO3	Nitrate
8803035-01C	12D	03-23	N	HG_C	Metals
8803035-01C	12D	03-23	N	AS_G	Metals
8803035-01C	12D	03-23	N	ICP200	Metal Screen (ICP)
8803035-01C	12D	03-23	N	SE_G	Metals
8803035-01C	12D	03-23	N	PB_G	Metals
8803035-01D	12D	03-23	N	HC_IR	Petroleum Hydrocarbons
8803035-02A	12B	03-24	N	CL_T	Chloride
8803035-02A	12B	03-24	N	F_SIE	Fluoride
8803035-02A	12B	03-24	N	OPO4	Orthophosphate
8803035-02A	12B	03-24	N	SO4_N	Sulfate
8803035-02A	12B	03-24	N	TDS	Total Dissolved Solids
8803035-02B	12B	03-24	N	NO2NO3	Nitrate
8803035-02C	12B	03-24	N	HG_C	Metals
8803035-02C	12B	03-24	N	AS_G	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803035-02C	12B	03-24	N	ICP200	Metal Screen (ICP)
8803035-02C	12B	03-24	N	SE_G	Metals
8803035-02C	12B	03-24	N	PB_G	Metals
8803035-02D	12B	03-24	N	HC_IR	Petroleum Hydrocarbons
8803035-03A	12B	03-25	D	CL_T	Chloride
8803035-03A	12B	03-25	D	F_SIE	Fluoride
8803035-03A	12B	03-25	D	OPO4	Orthophosphate
8803035-03A	12B	03-25	D	SO4_N	Sulfate
8803035-03A	12B	03-25	D	TDS	Total Dissolved Solids
8803035-03B	12B	03-25	D	NO2NO3	Nitrate
8803035-03C	12B	03-25	D	HG_C	Metals
8803035-03C	12B	03-25	D	AS_G	Metals
8803035-03C	12B	03-25	D	ICP200	Metal Screen (ICP)
8803035-03C	12B	03-25	D	SE_G	Metals
8803035-03C	12B	03-25	D	PB_G	Metals
8803035-03D	12B	03-25	D	HC_IR	Petroleum Hydrocarbons
8803035-04A	12C	03-26	N	CL_T	Chloride
8803035-04A	12C	03-26	N	F_SIE	Fluoride
8803035-04A	12C	03-26	N	OPO4	Orthophosphate
8803035-04A	12C	03-26	N	SO4_N	Sulfate
8803035-04A	12C	03-26	N	TDS	Total Dissolved Solids
8803035-04B	12C	03-26	N	NO2NO3	Nitrate
8803035-04C	12C	03-26	N	HG_C	Metals
8803035-04C	12C	03-26	N	AS_G	Metals
8803035-04C	12C	03-26	N	ICP200	Metal Screen (ICP)
8803035-04C	12C	03-26	N	SE_G	Metals
8803035-04C	12C	03-26	N	PB_G	Metals
8803035-04D	12C	03-26	N	HC_IR	Petroleum Hydrocarbons
8803035-05A	12E	03-27	N	CL_T	Chloride
8803035-05A	12E	03-27	N	F_SIE	Fluoride
8803035-05A	12E	03-27	N	OPO4	Orthophosphate
8803035-05A	12E	03-27	N	SO4_N	Sulfate
8803035-05A	12E	03-27	N	TDS	Total Dissolved Solids
8803035-05B	12E	03-27	N	NO2NO3	Nitrate
8803035-05C	12E	03-27	N	AS_G	Metals
8803035-05C	12E	03-27	N	SE_G	Metals
8803035-05C	12E	03-27	N	HG_C	Metals
8803035-05C	12E	03-27	N	ICP200	Metal Screen (ICP)
8803035-05C	12E	03-27	N	PB_G	Metals
8803035-05D	12E	03-27	N	HC_IR	Petroleum Hydrocarbons
8803035-06A	10B	03-28	N	CL_T	Chloride
8803035-06A	10B	03-28	N	F_SIE	Fluoride
8803035-06A	10B	03-28	N	OPO4	Orthophosphate
8803035-06A	10B	03-28	N	SO4_N	Sulfate
8803035-06A	10B	03-28	N	TDS	Total Dissolved Solids
8803035-06B	10B	03-28	N	NO2NO3	Nitrate

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8803035-06C	10B	03-28	N	HG_C	Metals
8803035-06C	10B	03-28	N	AS_G	Metals
8803035-06C	10B	03-28	N	ICP200	Metal Screen (ICP)
8803035-06C	10B	03-28	N	SE_G	Metals
8803035-06C	10B	03-28	N	PB_G	Metals
8803035-06D	10B	03-28	N	HC_IR	Petroleum Hydrocarbons
8803035-06E	10B	03-28	N	ONG_IR	Oil & Grease
8803035-07A	10C	03-29	N	CL_T	Chloride
8803035-07A	10C	03-29	N	F_SIE	Fluoride
8803035-07A	10C	03-29	N	OPO4	Orthophosphate
8803035-07A	10C	03-29	N	SO4_N	Sulfate
8803035-07A	10C	03-29	N	TDS	Total Dissolved Solids
8803035-07B	10C	03-29	N	NO2NO3	Nitrate
8803035-07C	10C	03-29	N	AS_G	Metals
8803035-07C	10C	03-29	N	HG_C	Metals
8803035-07C	10C	03-29	N	ICP200	Metal Screen (ICP)
8803035-07C	10C	03-29	N	PB_G	Metals
8803035-07C	10C	03-29	N	SE_G	Metals
8803035-07D	10C	03-29	N	HC_IR	Petroleum Hydrocarbons
8803035-07E	10C	03-29	N	ONG_IR	Oil & Grease
8803035-08A	5B	03-30	N	F_SIE	Fluoride
8803035-08A	5B	03-30	N	CL_T	Chloride
8803035-08A	5B	03-30	N	OPO4	Orthophosphate
8803035-08A	5B	03-30	N	TDS	Total Dissolved Solids
8803035-08A	5B	03-30	N	SO4_N	Sulfate
8803035-08B	5B	03-30	N	NO2NO3	Nitrate
8803035-08C	5B	03-30	N	AS_G	Metals
8803035-08C	5B	03-30	N	HG_C	Metals
8803035-08C	5B	03-30	N	ICP200	Metal Screen (ICP)
8803035-08C	5B	03-30	N	PB_G	Metals
8803035-08C	5B	03-30	N	SE_G	Metals

RADIAN CORPORATION

Page 1 RAS - Austin REPORT Work Order # 88-02-111

Received: 02/19/88 03/04/88 11:24:53

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 5
COMPANY: Carswell AFB
FACILITY: 601/602

WORK ID: site 17 soils
TAKEN: GC
TRANS: FEd Ex
TYPE:
P.O. #: 214-114-06-46
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

B - Sample result was greater than 4 times the spike added concentration, therefore the spike recovery should not be considered.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	Car8-02-059
02	Car8-02-060
03	Car8-02-062
04	Car8-02-064
05	Car8-02-066

TEST CODES and NAMES used on this report

D3050F	Digestion, meth.3050, AA
HC IR	Hydrocarbons
PB G	Lead, graphite AA
PREP W	Special preparation

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-111

Received: 02/19/88

Results By Test

SAMPLE Sample Id	Test: D3050F date complete	Test: HC IR mg/L	Test: PB G ug/ml	Test: PREP W date complete
01 Car8-02-059	02/24/88	<5 ug/g	11 ug/g	02/22/88
02 Car8-02-060	02/24/88	<5 ug/g	7.9B ug/g	02/22/88
03 Car8-02-062	02/24/88	8900 ug/g	11 ug/g	02/22/88
04 Car8-02-064	02/24/88	290 ug/g	3.2 ug/g	02/22/88
05 Car8-02-066	02/24/88	<4 ug/g	2.4 ug/g	02/22/88

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-115

Received: 02/20/88

04/18/88 08:09:40

REPORT TO: Radian, Bl. 4, Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 8

COMPANY: Carswell AFB

FACILITY: IRP

PREPARED BY: Radian Analytical Services, 8501 Mo-pac Bl., PO Box 201088, Austin, TX 78720-1088

ATTEN:

PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

WORK ID: sites 10 and 12

TAKEN: QC

TRANS: Fed Ex

TYPE:

P.O. #: 227-005-04-40

INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	Car8-02-068
02	Car8-02-070
03	Car8-02-072
04	Car8-02-074
05	Car8-02-075
06	Car8-02-082
07	Car8-02-085
08	Car8-02-078

TEST CODES and NAMES used on this report

D3050P	Digestion, method 3050, ICP
HC IR	Hydrocarbons
ICP200	ICPES, EPA 200.7 elements
PREP W	Special preparation

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-115

Received: 02/20/88

Results By Test

SAMPLE Sample Id	Test: D3050P date complete	Test: HC IR mg/L	Test: PREP W date complete
01 Car8-02-068		<4 ug/g	02/25/88
02 Car8-02-070		<5 ug/g	02/25/88
03 Car8-02-072		<5 ug/g	02/25/88
04 Car8-02-074		<5 ug/g	02/25/88
05 Car8-02-075		<5 ug/g	02/25/88
06 Car8-02-082	02/25/88	<5 ug/g	02/25/88
07 Car8-02-085	02/25/88	<2 ug/g	02/25/88

RADIAN CORPORATION

Received: 02/20/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-115

SAMPLE ID Car8-02-082

FRACTION 06A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/19/88 Category

ANALYST DES

VERIFIED RJH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.1*	0.88	Mg	Magnesium	120E	9.8
Al	Aluminum	820E	20	Mn	Manganese	21E	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	59	Na	Sodium	70E	7.8
Ba	Barium	4.9E	0.88	Ni	Nickel	2*	2.0
Be	Beryllium	0.13*	0.098	Pb	Lead	ND	4.9
Ca	Calcium	650	5.9	Sb	Antimony	ND	5.9
Cd	Cadmium	ND	0.29	Se	Selenium	ND	29
Co	Cobalt	ND	0.98	Si	Silicon	350E	29
Cr	Chromium	2.2*	0.88	Tl	Thallium	ND	8.8
Cu	Copper	1.9*	0.98	V	Vanadium	4*	2.0
Fe	Iron	2700	2.9	Zn	Zinc	3.3E	0.59
K	Potassium	80*	29				

RADIAN CORPORATION

Received: 02/20/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-115
Continued From Above

SAMPLE ID Car8-02-082

FRACTION 06A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/19/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 02/20/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-115

SAMPLE ID Car8-02-085

FRACTION 07A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/19/88 Category

VERIFIED RHH

UNITS ug/g

ANALYST DES

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.89	Mg	Magnesium	350E	9.9
Al	Aluminum	740E	20	Mn	Manganese	41E	0.30
As	Arsenic	ND	30	Mo	Molybdenum	ND	5.0
B	Boron	ND	59	Na	Sodium	140E	7.9
Ba	Barium	5.8E	0.89	Ni	Nickel	ND	2.0
Be	Beryllium	0.11*	0.099	Pb	Lead	ND	5.0
Ca	Calcium	44000	5.9	Sb	Antimony	ND	9.9
Cd	Cadmium	0.3*	0.30	Se	Selenium	ND,E	30
Co	Cobalt	ND	0.99	Si	Silicon	440	30
Cr	Chromium	3.0*	0.89	Tl	Thallium	ND	8.9
Cu	Copper	1.3*	0.99	V	Vanadium	7*	2.0
Fe	Iron	2600	3.0	Zn	Zinc	3.2E	0.99
K	Potassium	80*	30				

RADIAN CORPORATION

Received: 02/20/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-115
Continued From Above

SAMPLE ID Car8-02-085

FRACTION 07A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/19/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
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NA = not analyzed
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N\A = not available

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

OBA : HOLD

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88 04/28/88 12:48:27

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 11
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: site 12
TAKEN: GC
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	Car8-02-088
02	Car8-02-091
03	Car8-02-093
04	Car8-02-096
05	Car8-02-099
06	Car8-02-104
07	Car8-02-107
08	Car8-02-110
09	Car8-02-113
10	Car8-02-116
11	Car8-02-119

TEST CODES and NAMES used on this report

D3050P	Digestion, method 3050, ICP
HC IR	Hydrocarbons
ICP200	ICPES, EPA 200.7 elements
PREP W	Special preparation

CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88

Results By Test

SAMPLE Sample Id	Test: D3050P date complete	Test: HC IR mg/L	Test: PREP W date complete
01 Car8-02-088	02/26/88	<5 ug/g	02/25/88
02 Car8-02-091	02/26/88	14* ug/g	02/25/88
03 Car8-02-093	02/26/88	<5 ug/g	02/25/88
04 Car8-02-096	02/26/88	14* ug/g	02/25/88
05 Car8-02-099	02/26/88	<5 ug/g	02/25/88
06 Car8-02-104	02/26/88	3230 ug/g	02/25/88
07 Car8-02-107	02/26/88	2110 ug/g	02/25/88
08 Car8-02-110	02/26/88	1200 ug/g	02/25/88
09 Car8-02-113	02/26/88	450 ug/g	02/25/88
10 Car8-02-116	02/26/88	340 ug/g	02/25/88
11 Car8-02-119	02/26/88	5760 ug/g	02/25/88

RADIAN CORPORATION

Received: 02/24/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-130

SAMPLE ID Car8-02-088 FRACTION 01A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/20/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.3*	0.89	Mg	Magnesium	1400	9.9
Al	Aluminum	7100	79	Mn	Manganese	47	0.30
As	Arsenic	ND	30	Mo	Molybdenum	ND	5.0
B	Boron	ND	59	Na	Sodium	93	7.9
Ba	Barium	33	0.89	Ni	Nickel	6*	2.0
Be	Beryllium	0.33*	0.099	Pb	Lead	9*	5.0
Ca	Calcium	120000	24	Sb	Antimony	19*	5.9
Cd	Cadmium	0.7*	0.30	Se	Selenium	ND	30
Co	Cobalt	1.6*	0.99	Si	Silicon	320	30
Cr	Chromium	8.7	0.89	Tl	Thallium	12*	8.9
Cu	Copper	1.6*	0.99	V	Vanadium	27E	2.0
Fe	Iron	7700	3.0	Zn	Zinc	12	0.59
K	Potassium	690	30				

SAMPLE ID Car8-02-088

FRACTION 01A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/20/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
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NA = not analyzed
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N\A = not available

KAUFMAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-130

Received: 02/24/88

Results by Sample

SAMPLE ID Car8-02-091 FRACTION 02A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/20/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.9*	0.89	Mg	Magnesium	930	9.9
Al	Aluminum	5300	20	Mn	Manganese	230	0.30
As	Arsenic	ND	30	Mo	Molybdenum	ND	5.0
B	Boron	ND	59	Na	Sodium	68	7.9
Ba	Barium	49	0.89	Ni	Nickel	9*	2.0
Be	Beryllium	0.41*	0.099	Pb	Lead	11*	5.0
Ca	Calcium	27000	5.9	Sb	Antimony	6*	5.9
Cd	Cadmium	ND	0.30	Se	Selenium	ND	30
Co	Cobalt	4.6*	0.99	Si	Silicon	330	30
Cr	Chromium	9.9	0.89	Tl	Thallium	10*	8.9
Cu	Copper	5.1	0.99	V	Vanadium	25E	2.0
Fe	Iron	11000	3.0	Zn	Zinc	17	0.59
K	Potassium	670	30				

SAMPLE ID Car8-02-091

FRACTION 02A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/20/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
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N\A = not available

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88 Results by Sample

SAMPLE ID Car8-02-093 FRACTION 03A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/23/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.88	Mg	Magnesium	1700	9.8
Al	Aluminum	8600	20	Mn	Manganese	76	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	59	Na	Sodium	40	7.8
Ba	Barium	43	0.88	Ni	Nickel	9*	2.0
Be	Beryllium	0.53	0.098	Pb	Lead	13*	4.9
Ca	Calcium	51000	5.9	Sb	Antimony	7*	5.9
Cd	Cadmium	ND	0.29	Se	Selenium	ND	29
Co	Cobalt	3.8*	0.98	Si	Silicon	310	29
Cr	Chromium	9.6	0.88	Tl	Thallium	9*	8.8
Cu	Copper	3.0*	0.98	V	Vanadium	22E	2.0
Fe	Iron	8800	2.9	Zn	Zinc	17	0.59
K	Potassium	1200	29				

Received: 02/24/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-130
Continued From Above

SAMPLE ID Car8-02-093

FRACTION 03A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
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N\A = not available

KAUFMAN CORPORATION

Received: 02/24/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-130

SAMPLE ID Car8-02-096 FRACTION 04A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.5*	0.87	Mg	Magnesium	74	9.6
Al	Aluminum	510	19	Mn	Manganese	21	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.8
B	Boron	ND	58	Na	Sodium	39	7.7
Ba	Barium	2.6*	0.87	Ni	Nickel	4*	1.9
Be	Beryllium	0.10*	0.096	Pb	Lead	6*	4.8
Ca	Calcium	340	5.8	Sb	Antimony	ND	5.8
Cd	Cadmium	0.5*	0.29	Se	Selenium	ND	29
Co	Cobalt	1.9*	0.96	Si	Silicon	280	29
Cr	Chromium	2.4*	0.87	Tl	Thallium	ND	8.7
Cu	Copper	ND	0.96	V	Vanadium	6*E	1.9
Fe	Iron	3200	2.9	Zn	Zinc	3.7	0.58
K	Potassium	45*	29				

SAMPLE ID Car8-02-096 FRACTION 04A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
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RADIAN CORPORATION

Received: 02/24/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-130

SAMPLE ID Car8-02-099 FRACTION 05A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/23/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.4*	0.88	Mg	Magnesium	420	9.8
Al	Aluminum	2000	20	Mn	Manganese	60	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	59	Na	Sodium	43	7.8
Ba	Barium	8.6	0.88	Ni	Nickel	6*	2.0
Be	Beryllium	0.17*	0.098	Pb	Lead	11*	4.9
Ca	Calcium	5600	5.9	Sb	Antimony	ND	5.9
Cd	Cadmium	ND	0.29	Se	Selenium	ND	29
Co	Cobalt	2.3*	0.98	Si	Silicon	330	29
Cr	Chromium	6.4	0.88	Tl	Thallium	ND	8.8
Cu	Copper	2.0*	0.98	V	Vanadium	15E	2.0
Fe	Iron	7800	2.9	Zn	Zinc	9.8	0.59
K	Potassium	270	29				

SAMPLE ID Car8-02-099 FRACTION 05A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
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KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88 Results by Sample

SAMPLE ID Car8-02-104 FRACTION Q6A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/23/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.88	Mg	Magnesium	1700	9.8
Al	Aluminum	13000	20	Mn	Manganese	250	0.29
As	Arsenic	30*	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	59	Na	Sodium	74	7.8
Ba	Barium	86	0.88	Ni	Nickel	10	2.0
Be	Beryllium	0.67	0.098	Pb	Lead	16*	4.9
Ca	Calcium	41000	5.9	Sb	Antimony	ND	5.9
Cd	Cadmium	0.6*	0.29	Se	Selenium	50*	29
Co	Cobalt	4.6*	0.98	Si	Silicon	350	29
Cr	Chromium	14	0.88	Tl	Thallium	ND	8.8
Cu	Copper	3.4*	0.98	V	Vanadium	30E	2.0
Fe	Iron	12000	2.9	Zn	Zinc	18	0.59
K	Potassium	1100	29				

SAMPLE ID Car8-02-104 FRACTION 06A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
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N\A = not available

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88 Results by Sample

SAMPLE ID Car8-02-107 FRACTION 07A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/23/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	2.3*	0.89	Mg	Magnesium	1800	9.9
Al	Aluminum	10000	40	Mn	Manganese	190	0.30
As	Arsenic	ND	30	Mo	Molybdenum	ND	5.0
B	Boron	ND	59	Na	Sodium	88	7.9
Ba	Barium	170	0.89	Ni	Nickel	9*	2.0
Be	Beryllium	0.49*	0.099	Pb	Lead	11*	5.0
Ca	Calcium	120000	12	Sb	Antimony	16*	5.9
Cd	Cadmium	ND	0.30	Se	Selenium	30*	30
Co	Cobalt	3.0*	0.99	Si	Silicon	280	30
Cr	Chromium	12	0.89	Tl	Thallium	ND	8.9
Cu	Copper	1.2*	0.99	V	Vanadium	28E	2.0
Fe	Iron	9000	3.0	Zn	Zinc	15	0.59
K	Potassium	1000	30				

SAMPLE ID Car8-02-107 FRACTION 07A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
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N\A = not available

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88 Results by Sample

SAMPLE ID Car8-02-110 FRACTION 08A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/23/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.4*	0.87	Mg	Magnesium	1600	9.7
Al	Aluminum	7800	39	Mn	Manganese	130	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	58	Na	Sodium	91	7.8
Ba	Barium	97	0.87	Ni	Nickel	9*	1.9
Be	Beryllium	0.45*	0.097	Pb	Lead	10*	4.9
Ca	Calcium	91000	12	Sb	Antimony	10*	5.8
Cd	Cadmium	ND	0.29	Se	Selenium	ND	29
Co	Cobalt	4.4*	0.97	Si	Silicon	230	29
Cr	Chromium	9.9	0.87	Tl	Thallium	9*	8.7
Cu	Copper	1.5*	0.97	V	Vanadium	23E	1.9
Fe	Iron	8200	2.9	Zn	Zinc	15	0.58
K	Potassium	930	29				

SAMPLE ID Car8-02-110 FRACTION 08A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
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N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88 Results by Sample

SAMPLE ID Car8-02-113 FRACTION 09A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/23/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	2.0*	0.87	Mg	Magnesium	1400	9.7
Al	Aluminum	5400	78	Mn	Manganese	180	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	58	Na	Sodium	87	7.8
Ba	Barium	37	0.87	Ni	Nickel	8*	1.9
Be	Beryllium	0.32*	0.097	Pb	Lead	11*	4.9
Ca	Calcium	160000	23	Sb	Antimony	40*	23
Cd	Cadmium	ND	0.29	Se	Selenium	ND	29
Co	Cobalt	3.2*	0.97	Si	Silicon	290	29
Cr	Chromium	9.5	0.87	Tl	Thallium	10*	8.7
Cu	Copper	2.9*	0.97	V	Vanadium	29E	1.9
Fe	Iron	8400	2.9	Zn	Zinc	12	0.58
K	Potassium	640	29				

SAMPLE ID Car8-02-113 FRACTION 09A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
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N\A = not available

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-130

Received: 02/24/88 Results by Sample

SAMPLE ID Car8-02-116 FRACTION 10A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/23/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	2.7*	0.87	Mg	Magnesium	1200	9.7
Al	Aluminum	5900	19	Mn	Manganese	280	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	58	Na	Sodium	71	7.8
Ba	Barium	37	0.87	Ni	Nickel	9*	1.9
Be	Beryllium	0.45*	0.097	Pb	Lead	14*	4.9
Ca	Calcium	61000	5.8	Sb	Antimony	9*	5.8
Cd	Cadmium	ND	0.29	Se	Selenium	ND	29
Co	Cobalt	4.5*	0.97	Si	Silicon	290	29
Cr	Chromium	9.1	0.87	Tl	Thallium	16*	8.7
Cu	Copper	5.2	0.97	V	Vanadium	24E	1.9
Fe	Iron	9900	2.9	Zn	Zinc	16	0.58
K	Potassium	730	29				

SAMPLE ID Car8-02-116 FRACTION 10A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

KADIAN CORPORATION

Received: 02/24/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-130

SAMPLE ID Car8-02-119

FRACTION 11A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	3.9*	0.88	Mg	Magnesium	66	9.8
Al	Aluminum	380	20	Mn	Manganese	40	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	59	Na	Sodium	44	7.8
Ba	Barium	3.4*	0.88	Ni	Nickel	ND	2.0
Be	Beryllium	ND	0.098	Pb	Lead	6*	4.9
Ca	Calcium	520	5.9	Sb	Antimony	ND	5.9
Cd	Cadmium	0.8*	0.29	Se	Selenium	ND	29
Co	Cobalt	1.6*	0.98	Si	Silicon	250	29
Cr	Chromium	3.6*	0.88	Tl	Thallium	ND	8.8
Cu	Copper	ND	0.98	V	Vanadium	8*E	2.0
Fe	Iron	3900	2.9	Zn	Zinc	2.6*	0.59
K	Potassium	90*	29				

SAMPLE ID Car8-02-119 FRACTION 11A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/23/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
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N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-135

Received: 02/25/88 04/28/88 12:58:11

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 7
COMPANY: Carswell AFB
FACILITY: IRP

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

WORK ID: site 12
TAKEN: GC
TRANS: GC, LF
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	Car8-02-122
02	Car8-02-125
03	Car8-02-128
04	Car8-02-131
05	Car8-02-134
06	Car8-02-137
07	Car8-02-140

TEST CODES and NAMES used on this report

D3050P	Digestion, method 3050, ICP
HC IR	Hydrocarbons
ICP200	ICPES, EPA 200.7 elements
PREP W	Special preparation

CORPORATION

 RAS - Austin REPORT Work Order # 88-02-135

Received: 02/25/88

Results By Test

SAMPLE Sample Id	Test: D3050P date complete	Test: HC IR mg/L	Test: PREP W date complete
01 Car8-02-122	03/04/88	670^ ug/g	02/29/88
02 Car8-02-125	03/04/88	450 ug/g	02/29/88
03 Car8-02-128	03/04/88	1250 ug/g	02/29/88
04 Car8-02-131	03/04/88	<5 ug/g	02/29/88
05 Car8-02-134	03/04/88	<5 ug/g	02/29/88
06 Car8-02-137	03/04/88	<6 ug/g	02/29/88
07 Car8-02-140	03/04/88	17* ug/g	02/29/88

RADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-135

SAMPLE ID Car8-02-122

FRACTION 01A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/24/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.88	Mg	Magnesium	2200E	9.8
Al	Aluminum	13000	78	Mn	Manganese	170	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	59	Na	Sodium	22*	7.8
Ba	Barium	54E	0.88	Ni	Nickel	9*	2.0
Be	Beryllium	0.51	0.098	Pb	Lead	14*	4.9
Ca	Calcium	130000E	24	Sb	Antimony	28*	5.9
Cd	Cadmium	0.7*	0.29	Se	Selenium	42*	29
Co	Cobalt	2.6*	0.98	Si	Silicon	330	29
Cr	Chromium	13	0.88	Tl	Thallium	ND	8.8
Cu	Copper	2.1*	0.98	V	Vanadium	32	2.0
Fe	Iron	10000	2.9	Zn	Zinc	18E	0.59
K	Potassium	1200	29				

CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-135
Continued From Above

SAMPLE ID Car8-02-122

FRACTION 01A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-135

Received: 02/25/88

Results by Sample

SAMPLE ID Car8-02-125 FRACTION 02A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/24/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.87	Mg	Magnesium	1800E	9.7
Al	Aluminum	9500	78	Mn	Manganese	200	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	58	Na	Sodium	ND	7.8
Ba	Barium	42E	0.87	Ni	Nickel	7*	1.9
Be	Beryllium	0.39*	0.097	Pb	Lead	7*	4.9
Ca	Calcium	110000E	23	Sb	Antimony	22*	5.8
Cd	Cadmium	ND	0.29	Se	Selenium	ND	29
Co	Cobalt	2.8*	0.97	Si	Silicon	320	29
Cr	Chromium	11	0.87	Tl	Thallium	11*	8.7
Cu	Copper	3.6*	0.97	V	Vanadium	22	1.9
Fe	Iron	8800	2.9	Zn	Zinc	15E	0.58
K	Potassium	1100	29				

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-135
Continued From Above

SAMPLE ID Car8-02-125

FRACTION 02A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

KRADMAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-135

SAMPLE ID Car8-02-128 FRACTION 03A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

ANALYST DES

VERIFIED RHM
UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.87	Mg	Magnesium	110E	9.7
Al	Aluminum	590	19	Mn	Manganese	170	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.9
B	Boron	ND	58	Na	Sodium	ND	7.8
Ba	Barium	15E	0.87	Ni	Nickel	3*	1.9
Be	Beryllium	0.11*	0.097	Pb	Lead	7*	4.9
Ca	Calcium	5600E	5.8	Sb	Antimony	ND	5.8
Cd	Cadmium	0.5*	0.29	Se	Selenium	ND	29
Co	Cobalt	1.2*	0.97	Si	Silicon	260	29
Cr	Chromium	4.2*	0.87	Tl	Thallium	9*	8.7
Cu	Copper	1.3*	0.97	V	Vanadium	11	1.9
Fe	Iron	5500	2.9	Zn	Zinc	3.4E	0.58
K	Potassium	ND	29				

SAMPLE ID Car8-02-128 FRACTION 03A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
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N\A = not available

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-135

Received: 02/25/88 Results by Sample

SAMPLE ID Car8-02-131 FRACTION 04A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/24/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	2.0*	0.90	Mg	Magnesium	2300E	10
Al	Aluminum	14000	80	Mn	Manganese	140	0.30
As	Arsenic	ND	30	Mo	Molybdenum	ND	5.0
B	Boron	ND	60	Na	Sodium	ND	8.0
Ba	Barium	48E	0.90	Ni	Nickel	10	2.0
Be	Beryllium	0.7	0.10	Pb	Lead	13*	5.0
Ca	Calcium	120000E	24	Sb	Antimony	31	6.0
Cd	Cadmium	0.6*	0.30	Se	Selenium	30*	30
Co	Cobalt	2*	1.0	Si	Silicon	290	30
Cr	Chromium	16	0.90	Tl	Thallium	ND	9.0
Cu	Copper	5	1.0	V	Vanadium	42	2.0
Fe	Iron	11000	3.0	Zn	Zinc	18E	0.60
K	Potassium	1400	30				

SAMPLE ID Car8-02-131

FRACTION 04A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
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N\A = not available

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-135

SAMPLE ID Car8-02-134 FRACTION 05A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.2*	0.86	Mg	Magnesium	2700E	9.5
Al	Aluminum	21000	76	Mn	Manganese	240	0.29
As	Arsenic	ND	29	Mo	Molybdenum	ND	4.8
B	Boron	ND	57	Na	Sodium	ND	7.6
Ba	Barium	91E	0.86	Ni	Nickel	12	1.9
Be	Beryllium	0.77	0.095	Pb	Lead	20*	4.8
Ca	Calcium	81000E	23	Sb	Antimony	20*	5.7
Cd	Cadmium	0.5*	0.29	Se	Selenium	70*	29
Co	Cobalt	4.8	0.95	Si	Silicon	250	29
Cr	Chromium	19	0.86	Tl	Thallium	ND	8.6
Cu	Copper	4.8	0.95	V	Vanadium	38	1.9
Fe	Iron	13000	2.9	Zn	Zinc	24E	0.57
K	Potassium	1900	29				

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-135
Continued From Above

SAMPLE ID Car8-02-134 FRACTION 05A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

KADIMAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-135

SAMPLE ID Car8-02-137

FRACTION 06A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.4*	0.83	Mg	Magnesium	2000E	9.3
Al	Aluminum	10000	74	Mn	Manganese	150	0.28
As	Arsenic	ND	28	Mo	Molybdenum	ND	4.6
B	Boron	ND	56	Na	Sodium	65	7.4
Ba	Barium	38E	0.83	Ni	Nickel	8*	1.9
Be	Beryllium	0.50	0.093	Pb	Lead	12*	4.6
Ca	Calcium	110000E	22	Sb	Antimony	30	5.6
Cd	Cadmium	0.5*	0.28	Se	Selenium	30*	28
Co	Cobalt	5.2	0.93	Si	Silicon	230	28
Cr	Chromium	13	0.83	Tl	Thallium	ND	8.3
Cu	Copper	4.8	0.93	V	Vanadium	26	1.9
Fe	Iron	10000	2.8	Zn	Zinc	17E	0.56
K	Potassium	1300	28				

SAMPLE ID Car8-02-137 FRACTION 06A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

KAUFMAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-135

SAMPLE ID Car8-02-140 FRACTION 07A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/g

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	1.7*	0.82	Mg	Magnesium	130E	9.1
Al	Aluminum	900	18	Mn	Manganese	100	0.27
As	Arsenic	ND	27	Mo	Molybdenum	ND	4.5
B	Boron	ND	55	Na	Sodium	ND	7.3
Ba	Barium	7.0E	0.82	Ni	Nickel	4*	1.8
Be	Beryllium	0.09*	0.091	Pb	Lead	12*	4.5
Ca	Calcium	980E	5.5	Sb	Antimony	10*	5.5
Cd	Cadmium	0.3*	0.27	Se	Selenium	ND	27
Co	Cobalt	1.7*	0.91	Si	Silicon	270	27
Cr	Chromium	4.0*	0.82	Tl	Thallium	ND	8.2
Cu	Copper	2.0*	0.91	V	Vanadium	9*	1.8
Fe	Iron	3400	2.7	Zn	Zinc	4.7E	0.55
K	Potassium	130*	27				

SAMPLE ID Car8-02-140 FRACTION 07A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT

06/16/88 14:21:03

Work Order # 88-02-136

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO4 SAMPLES: 8
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: flightline - waters
TAKEN: RP,WGM
TRANS: GC,LF
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

2nd column confirmations run on 601 -01 and 602 -02, -04.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	02-150
02	02-151
03	02-152
04	02-153
05	reagent blank
06	2nd col conf 02-150
07	2nd col conf 02-151
08	2nd col conf 02-153

TEST CODES and NAMES used on this report

AS G	Arsenic, graphite AA
CL T	Chloride
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
EPA601	EPA method 601
EPA602	EPA method 602
F SIE	Fluoride, SIE
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ICP200	ICPES, EPA 200.7 elements
NO3	Nitrate, colorimetric
ONG IR	Oil and grease, infrared
OPO4	Orthophosphate
PB G	Lead, graphite AA
SE G	Selenium, graphite AA
SO4 N	Sulfate, nephelometry
TDS	Total dissolved solids
XYLENE	Xylenes, EPA 602

CORPORATION

 RAS - Austin REPORT Work Order # 88-02-136

Received: 02/25/88 Results By Test

SAMPLE Sample Id	Test: AS G ug/ml	Test: CL T mg/L	Test: DG3020 date complete	Test: DG6010 date complete	Test: F SIE mg/L
01 02-150	0.060	36	02/29/88	02/29/88	0.40
02 02-151	0.002*	68	02/29/88	02/29/88	0.25
03 02-152	0.096	18	02/29/88	02/29/88	0.22
04 02-153	<0.002	25	02/29/88	02/29/88	0.17

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
01 02-150	0.3*	0.29	NA	0.021	<0.005@
02 02-151	<0.2	0.64		0.005*R+	<0.005R+
03 02-152	<0.2	<0.02		0.036	<0.005
04 02-153		0.02*		<0.002	<0.005

SAMPLE Sample Id	Test: SO4 N mg/L
01 02-150	140
02 02-151	46

KRADMAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results By Test

Work Order # 88-02-136
Continued From Above

SAMPLE Sample Id	Test: SO4 N mg/L
03 02-152	60
04 02-153	48

CORPORATION

RAS - Austin REPORT

Work Order # 88-02-136

Received: 02/25/88

Results by Sample

SAMPLE ID 02-150

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/24/88 Category

ANALYST RW

INSTRMT Q

INJECTD 02/29/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-150 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/24/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	0.7*	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	100	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-150 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/24/88 Category

460-00-4 1-Bromo-4-fluorobenzene 101 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-150

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/24/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

FILE #

INJECTED 02/26/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.4
108-88-3	Toluene	0.6*	0.4
100-41-4	Ethylbenzene	ND	0.6
108-90-7	Chlorobenzene-A	ND	0.6
106-46-7	1,4-Dichlorobenzene	ND	0.6
541-73-1	1,3-Dichlorobenzene	ND	0.8
95-50-1	1,2-Dichlorobenzene	ND	0.8

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	117% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-150

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/24/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KALMANN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-150 FRACTION 01G TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/24/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/07/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
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N\A = not available

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-150

FRACTION 01G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<0.009	0.0090	Mg	Magnesium	29	0.10
Al	Aluminum	66	0.20	Mn	Manganese	1.1	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	27	0.080
Ba	Barium	.37	0.0090	Ni	Nickel	.06*	0.020
Be	Beryllium	.003*	0.0010	Pb	Lead	<.05	0.050
Ca	Calcium	1100	0.12	Sb	Antimony	.18*	0.060
Cd	Cadmium	<.003	0.0030	Se	Selenium	<.03	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	140	0.30
Cr	Chromium	.13	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	.02*	0.010	V	Vanadium	.21	0.020
Fe	Iron	56	0.030	Zn	Zinc	.11	0.0060
K	Potassium	12	0.30				

KADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-150

FRACTION 01G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/24/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
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N\A = not available

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-150 FRACTION 01J TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/24/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/26/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-150 FRACTION 01J TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/24/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/01/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	840	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 02-150 FRACTION 01J TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/24/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-150 FRACTION 01C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/24/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 02/26/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.4
108-38-3	m-Xylene-A	ND	0.4
95-47-6	o-Xylene	ND	0.2

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	117% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.
Q = daily EPA standard recovery outside

SAMPLE ID 02-150 FRACTION 01C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/24/88 Category

95% confidence interval.
Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KAUFMAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-136

Received: 02/25/88 Results by Sample

SAMPLE ID 02-151 FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/25/88 Category

ANALYST RW VERIFIED CL

INSTRMT Q INJECTD 02/29/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-151 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	102	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-151 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene 101 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-151 FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW
INSTRMT G
INJECTED 02/25/88
FILE #
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.6*	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 109% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 02-151

FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

Received: 02/25/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-151

FRACTION 02G TEST CODE HG C NAME Mercury, cold vapor

Date & Time Collected 02/25/88 Category

VERIFIED RHH

ANALYST KCP

INSTRMT 403

ANALYZED 03/07/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

Received: 02/25/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-151

FRACTION 02G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/25/88 Category

ANALYST DES

VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	10	0.10
Al	Aluminum	4.7	0.20	Mn	Manganese	.22	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<.6	0.60	Na	Sodium	14	0.080
Ba	Barium	.18	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	.001*	0.0010	Pb	Lead	<.05	0.050
Ca	Calcium	170	0.060	Sb	Antimony	<.06	0.060
Cd	Cadmium	<.003	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	19	0.30
Cr	Chromium	.012*	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	<.01	0.010	V	Vanadium	<.02	0.020
Fe	Iron	5.4	0.030	Zn	Zinc	.023*	0.0060
K	Potassium	5.4	0.30				

SAMPLE ID 02-151 FRACTION 02G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/25/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-151 FRACTION 02I TEST CODE OPO4 NAME Orthophosphate
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/26/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-151 FRACTION 02I TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/01/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	570	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-151 FRACTION 02I TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-151 FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW
INSTRMT Q

INJECTD 02/25/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND,Q	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 109% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside

SAMPLE ID 02-151 FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

95% confidence interval.
Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless otherwise noted.

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-152

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

ANALYST RW
INSTRMT Q

INJECTD 02/29/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-152 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	99	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-152 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene 103 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

KARDIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-152

FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW
INSTRMT G

FILE #

INJECTED 02/25/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	2
108-88-3	Toluene	3.2	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	ND	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 105% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 02-152 FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Guantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-152

FRACTION 03G TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/25/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/07/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-152

FRACTION 03G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/25/88 Category

ANALYST DES

VERIFIED DES
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	13	0.10
Al	Aluminum	32	0.20	Mn	Manganese	1.5	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	35	0.080
Ba	Barium	.25	0.0090	Ni	Nickel	.05*	0.020
Be	Beryllium	.002*	0.0010	Pb	Lead	0.1*	0.050
Ca	Calcium	350	0.060	Sb	Antimony	0.07*	0.060
Cd	Cadmium	<.003	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	80	0.30
Cr	Chromium	.053	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	.04*	0.010	V	Vanadium	.11	0.020
Fe	Iron	68	0.030	Zn	Zinc	.098	0.0060
K	Potassium	5.3	0.30				

SAMPLE ID 02-152

FRACTION 03G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/25/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-152 FRACTION 03I TEST CODE OPO4 NAME Orthophosphate
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 02/26/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-152 FRACTION 03I TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/01/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	820	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

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RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-152 FRACTION 03I TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-152 FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW
INSTRMT G
INJECTD 02/25/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	2
108-38-3	m-Xylene-A	ND, Q	2
95-47-6	o-Xylene	ND	1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 105% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.
Q = daily EPA standard recovery outside

SAMPLE ID 02-152

FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

95% confidence interval.
Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-153

FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

ANALYST RW
INSTRMT B

INJECTD 02/29/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-153 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	116	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-153 FRACTION 04A . TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene 109 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-153

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW
INSTRMT Q

INJECTED 02/25/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.6*	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	107% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

KADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-153

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID 02-153

FRACTION 04G TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/25/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/07/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

KADUAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-136

Received: 02/25/88 Results by Sample

SAMPLE ID 02-153 FRACTION 04G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/25/88 Category

ANALYST DES VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	.02*	0.0090	Mg	Magnesium	5.1	0.10
Al	Aluminum	<.02	0.20	Mn	Manganese	.015*	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	100	0.080
Ba	Barium	.042*	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	.001*	0.0010	Pb	Lead	.08*	0.050
Ca	Calcium	13	0.060	Sb	Antimony	<.06	0.060
Cd	Cadmium	.005*	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	6.7	0.30
Cr	Chromium	.014*	0.0090	Tl	Thallium	<0.09	0.090
Cu	Copper	.02*	0.010	V	Vanadium	.03*	0.020
Fe	Iron	.68	0.030	Zn	Zinc	.056	0.0060
K	Potassium	3.8	0.30				

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 02-153

FRACTION 04G TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/25/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

SAMPLE ID 02-153 FRACTION 04H TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/26/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-153 FRACTION 04H TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/01/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	380	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 02-153 FRACTION 04H TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-153 FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW
INSTRMT Q
INJECTD 02/25/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND,Q	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 107% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.
Q = daily EPA standard recovery outside

SAMPLE ID 02-153 FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

95% confidence interval.
Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID reagent blank FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

ANALYST CL VERIFIED CL
INSTRMT B INJECTD 02/29/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID reagent blank FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID reagent blank FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136

SAMPLE ID reagent blank

FRACTION OSA TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL
INSTRMT Q

INJECTED 02/25/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID reagent blank FRACTION 05A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-136

Received: 02/25/88 Results by Sample

SAMPLE ID reagent blank FRACTION 05A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT G INJECTD 02/25/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND,G	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 2nd col conf 02-150 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/24/88 Category

ANALYST CL VERIFIED CL
INSTRMT Q INJECTD 03/07/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 2nd col conf 02-150 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/24/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	0.6*	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 02-150 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/24/88 Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

KEARFOTT CORPORATION

 RAS - Austin REPORT Work Order # 88-02-136

Received: 02/25/88 Results by Sample

SAMPLE ID 2nd col conf 02-151 FRACTION 07A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/24/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/08/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.9	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 2nd col conf 02-151 FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/24/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-136

Received: 02/25/88 Results by Sample

SAMPLE ID 2nd col conf 02-151 FRACTION 07A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/24/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/08/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

CORPORATION

 RAS - Austin REPORT Work Order # 88-02-136

Received: 02/25/88 Results by Sample

SAMPLE ID 2nd col conf 02-153 FRACTION 08A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/24/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/08/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.0	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

KADIAN CORPORATION

Received: 02/25/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-136
Continued From Above

SAMPLE ID 2nd col conf 02-153

FRACTION 08A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/24/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

Received: 02/25/88 Results by Sample

SAMPLE ID 2nd col conf 02-153 FRACTION 08A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/24/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/08/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	!	SPR601	01D	!	SPR602
02B	!	SPR601	02D	!	SPR602
03B	!	SPR601	03D	!	SPR602
04B	!	SPR601	04D	!	SPR602

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

03/24/88 08:57:02

REPORT TO: Radian
B1.4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 14
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: sites 01 and 04
TAKEN: RP,GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

2nd column confirmations run on 601 -04 and 602 -02, -04, -06, -08. 1,1-Dichloroethane and 1,1,1-trichloroethane confirmed on 2nd column analysis but no quantitative results available because of coelution.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	02-154
02	02-155
03	02-156
04	02-157
05	02-159
06	02-160
07	02-161
08	02-162
09	02-163
10	reagent blank
11	2nd col conf 02-155
12	2nd col conf 02-157
13	2nd col conf 02-160
14	2nd col conf 02-162

TEST CODES and NAMES used on this report

EPA601	EPA method 601
EPA602	EPA method 602
XYLENE	Xylenes, EPA 602

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-154 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

ANALYST RW
INSTRMT G
INJECTD 03/02/88
FILE #
VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-154 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	121	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-154 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene 105 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-154

FRACTION 01C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 02/29/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.1	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-154 FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-154

FRACTION 01C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTD 02/29/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-155

FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/25/88 Category

ANALYST CL

INSTRMT G

INJECTD 03/03/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-155 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND,G	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	106	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-155 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene 97 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-155

FRACTION 02C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/01/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	5.0	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	105% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 02-155 FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-155 FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTD 03/01/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,@	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 105% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-156 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

ANALYST RW
INSTRMT G
INJECTD 03/03/88
FILE #
VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-156 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND,G	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	100	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-156 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene 80 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-156

FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/01/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	21	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-156 FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-156 FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/01/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-157 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

ANALYST RW
INSTRMT G
INJECTD 03/03/88
FILE #
VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	1.5	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	0.9	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-157 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	0.7*	0.20
124-48-1	Dibromochloromethane-B	ND,G	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	109	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-157 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene 98 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-157

FRACTION 04C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/01/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	4.5	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	97% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-157

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-157 FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/01/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 97% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-159

FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

ANALYST RW
INSTRMT G

INJECTD 03/03/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-159 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND,G	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	97	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-159 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

460-00-4 1-Bromo-4-fluorobenzene 85 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-159 FRACTION 05C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST CL

INSTRMT B

INJECTED 03/01/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	9.7	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 02-159 FRACTION 05C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-159 FRACTION OSC TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST CL
INSTRMT B
INJECTD 03/01/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-160

FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

ANALYST RW
INSTRMT G

INJECTD 03/03/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-160 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND,G	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	92	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-160 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

460-00-4 1-Bromo-4-fluorobenzene 86 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-160 FRACTION 06C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/01/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	26	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	0.5*	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 108% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-160

FRACTION 06C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-160 FRACTION 06C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/01/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 108% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-161 FRACTION 07A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/26/88 Category

ANALYST RW

INSTRMT G

INJECTD 03/03/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-161 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND,G	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	88	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-161 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

460-00-4 1-Bromo-4-fluorobenzene 80 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-161 FRACTION 07C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/01/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	15	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	101% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-161

FRACTION 07C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-161

FRACTION 07C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 03/01/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 101% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-162

FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/26/88 Category

ANALYST RW

INSTRMT Q

INJECTD 03/03/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID 02-162 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND,G	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	100	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-162

FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

460-00-4 1-Bromo-4-fluorobenzene 87 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

SAMPLE ID 02-162 FRACTION 08C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW FILE #
INSTRMT D INJECTED 03/01/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	2.4	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-162

FRACTION 08C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

Received: 02/27/88

Results by Sample

SAMPLE ID 02-162 FRACTION 08C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/01/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 02-163

FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

ANALYST CL
INSTRMT G

INJECTD 03/04/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-163 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	95	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-163 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/26/88 Category

460-00-4 1-Bromo-4-fluorobenzene 99 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-163 FRACTION 09C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/01/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	3.0	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

RADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 02-163

FRACTION 09C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 02-163 FRACTION 09C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/01/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-190

Received: 02/27/88 Results by Sample

SAMPLE ID reagent blank FRACTION 10A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

ANALYST CL VERIFIED CL

INSTRMT G INJECTD 03/04/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID reagent blank FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID reagent blank FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

SAMPLE ID reagent blank FRACTION 10A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #
INSTRMT D INJECTED 03/01/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID reagent blank FRACTION 10A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

 RAS - Austin REPORT Work Order # 88-02-190

Received: 02/27/88 Results by Sample

SAMPLE ID reagent blank FRACTION 10A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/01/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-190

SAMPLE ID 2nd col conf 02-155 FRACTION 11A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/08/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.9	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 2nd col conf 02-155 FRACTION 11A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-190

Received: 02/27/88 Results by Sample

SAMPLE ID 2nd col conf 02-155 FRACTION 11A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/08/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

Received: 02/27/88

Results by Sample

SAMPLE ID 2nd col conf 02-157 FRACTION 12A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/25/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 03/07/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190
Continued From Above

SAMPLE ID 2nd col conf 02-157 FRACTION 12A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	1.4	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 02-157 FRACTION 12A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/25/88 Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

KAUFMAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-190

Received: 02/27/88 Results by Sample

SAMPLE ID 2nd col conf 02-157 FRACTION 12A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/08/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	4.7	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 2nd col conf 02-157 FRACTION 12A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/25/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-190

Received: 02/27/88 Results by Sample

SAMPLE ID 2nd col conf 02-157 FRACTION 12A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/25/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/08/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

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ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 2nd col conf 02-160 FRACTION 13A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/08/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	7.0	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	0.4*	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 2nd col conf 02-160 FRACTION 13A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-02-190

Received: 02/27/88

Results by Sample

SAMPLE ID 2nd col conf 02-160 FRACTION 13A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/08/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-190

Received: 02/27/88 Results by Sample

SAMPLE ID 2nd col conf 02-162 FRACTION 14A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/09/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	2.6	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 2nd col conf 02-162 FRACTION 14A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/26/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-190

SAMPLE ID 2nd col conf 02-162 FRACTION 14A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/26/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTD 03/09/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	SPR601	01D	SPR602
02B	SPR601	02D	SPR602
03B	SPR601	03D	SPR602
04B	SPR601	04D	SPR602
05B	SPR601	05D	SPR602
06B	SPR601	06D	SPR602
07B	SPR601	07D	SPR602
08B	SPR601	08D	SPR602
09B	SPR601	09D	SPR602

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-02-191

Received: 02/27/88 06/16/88 13:53:44

REPORT TO: Radian
B1.4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO4 SAMPLES: 9
COMPANY: Carswell AFB
FACILITY: IRP

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

WORK ID: sites 01 and 04
TAKEN: RP,GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	02-154
02	02-155
03	02-156
04	02-157
05	02-159
06	02-160
07	02-161
08	02-162
09	02-163

TEST CODES and NAMES used on this report

AS G	Arsenic, graphite AA
CL T	Chloride
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
F SIE	Fluoride, SIE
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ICP200	ICPES, EPA 200.7 elements
NO2NO3	Nitrate + nitrite
ONG IR	Oil and grease, infrared
OPO4	Orthophosphate
PB G	Lead, graphite AA
SE G	Selenium, graphite AA
SO4 N	Sulfate, nephelometry
TDS	Total dissolved solids

CORPORATION

RAS - Austin REPORT

Work Order # 88-02-191

Received: 02/27/88

Results By Test

SAMPLE Sample Id	Test: AS G ug/ml	Test: CL T mg/L	Test: DG3020 date complete	Test: DG6010 date complete	Test: F SIE mg/L
01 02-154	0.010^	15	03/03/88	03/03/88	0.34
02 02-155	<0.002	20	03/03/88	03/03/88	0.14
03 02-156	0.002*	30	03/03/88	03/03/88	0.36
04 02-157	0.015	20	03/03/88	03/03/88	0.39
05 02-159	0.018	25	03/03/88	03/03/88	0.27
06 02-160	0.015	43	03/03/88	03/03/88	0.28
07 02-161	0.020	18	03/03/88	03/03/88	0.33
08 02-162	0.170	42	03/03/88	03/03/88	0.35
09 02-163	0.140	13	03/03/88	03/03/88	0.24

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
01 02-154	<0.2	0.52		0.006	0.004*
02 02-155		<0.02		<0.002	0.004*
03 02-156		0.97		0.003*	0.014*

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-02-191

Received: 02/27/88

Results By Test

Continued From Above

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
04 02-157		1.1		0.015	<0.003
05 02-159		<0.04	<0.2	0.017	<0.003
06 02-160		<0.02	0.3*	0.024	<0.003
07 02-161		<0.1	0.3*	0.003*	<0.003
08 02-162		<0.1	0.6*	0.290	<0.003
09 02-163		<0.1	0.7*	0.180	<0.003

SAMPLE Sample Id	Test: SO4 N mg/L
01 02-154	29
02 02-155	46
03 02-156	61
04 02-157	69@
05 02-159	26

SAMPLE Sample Id	Test: SO4 N mg/L
06 02-160	13
07 02-161	460
08 02-162	17
09 02-163	22

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-154

FRACTION 01D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/25/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-154

FRACTION 01D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/25/88 Category

ANALYST DES

VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	6.4	0.10
Al	Aluminum	16	0.20	Mn	Manganese	.173	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	13	0.080
Ba	Barium	.14	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	.001*	0.0010	Pb	Lead	.041*	0.050
Ca	Calcium	220	0.060	Sb	Antimony	<.06	0.060
Cd	Cadmium	.003*	0.0030	Se	Selenium	<.03	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	42	0.30
Cr	Chromium	.033*	0.0090	Tl	Thallium	.077*	0.090
Cu	Copper	<.01	0.010	V	Vanadium	.053*	0.020
Fe	Iron	15	0.030	Zn	Zinc	.018*	0.0060
K	Potassium	3.2	0.30				

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-154

FRACTION 01D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/25/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

SAMPLE ID 02-154 FRACTION 01E TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/27/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.04*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-154 FRACTION 01E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	380	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-154 FRACTION 01E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-155 FRACTION 02C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403
ANALYZED 03/16/88
UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-155

FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

ANALYST DES

VERIFIED DES
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	3.8	0.10
Al	Aluminum	<0.2	0.20	Mn	Manganese	.007*	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	110	0.080
Ba	Barium	.035*	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	<.001	0.0010	Pb	Lead	<.05	0.050
Ca	Calcium	11	0.060	Sb	Antimony	.11*	0.060
Cd	Cadmium	<.003	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	6.0	0.30
Cr	Chromium	<.009	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	<.01	0.010	V	Vanadium	<.02	0.020
Fe	Iron	<.03	0.030	Zn	Zinc	<.006	0.0060
K	Potassium	3.1	0.30				

KRAUSMAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-155

FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-155 FRACTION 02D TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 02/27/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-155 FRACTION 02D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/07/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	390	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

KADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-155 FRACTION 02D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-156 FRACTION 03C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403
ANALYZED 03/16/88
UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

 RAS - Austin REPORT Work Order # 88-02-191

Received: 02/27/88 Results by Sample

SAMPLE ID 02-156 FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/29/88 Category

ANALYST DES VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	4.0	0.10
Al	Aluminum	1.9	0.20	Mn	Manganese	.27	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	22	0.080
Ba	Barium	.086	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	<.001	0.0010	Pb	Lead	<.05	0.050
Ca	Calcium	110	0.060	Sb	Antimony	.094*	0.060
Cd	Cadmium	<.003	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	7.5	0.30
Cr	Chromium	.012*	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	<.01	0.010	V	Vanadium	<.02	0.020
Fe	Iron	2.7	0.030	Zn	Zinc	.008*	0.0060
K	Potassium	.82*	0.30				

SAMPLE ID 02-156 FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-156 FRACTION 03D TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/27/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-156 FRACTION 03D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	430	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

KRADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-156 FRACTION 03D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-157 FRACTION 04C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/25/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-157 FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/25/88 Category

ANALYST DES

VERIFIED DES
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	8.0	0.10
Al	Aluminum	15	0.20	Mn	Manganese	.72	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	25	0.080
Ba	Barium	.14	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	<.001	0.0010	Pb	Lead	<.05	0.050
Ca	Calcium	270	0.060	Sb	Antimony	.11*	0.060
Cd	Cadmium	<.003	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	.012*	0.010	Si	Silicon	39	0.30
Cr	Chromium	.037*	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	.044*	0.010	V	Vanadium	.054*	0.020
Fe	Iron	17	0.030	Zn	Zinc	.043	0.0060
K	Potassium	2.9	0.30				

SAMPLE ID 02-157

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/25/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

SAMPLE ID 02-157 FRACTION 04D TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/27/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-157 FRACTION 04D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	430	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 02-157 FRACTION 04D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/25/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-159 FRACTION 05D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/26/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-159 FRACTION 05D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/26/88 Category

ANALYST DES

VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	6.2	0.10
Al	Aluminum	10	0.20	Mn	Manganese	.85	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	17	0.080
Ba	Barium	.28	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	<.001	0.0010	Pb	Lead	<.05	0.050
Ca	Calcium	300	0.060	Sb	Antimony	.14*	0.060
Cd	Cadmium	<.003	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	.015*	0.010	Si	Silicon	25	0.30
Cr	Chromium	.038*	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	<.01	0.010	V	Vanadium	.057*	0.020
Fe	Iron	17	0.030	Zn	Zinc	.031	0.0060
K	Potassium	2.2	0.30				

SAMPLE ID 02-159 FRACTION 05D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/26/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

SAMPLE ID 02-159 FRACTION 05E TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/26/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/27/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-159 FRACTION 05E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/26/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	500	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 02-159 FRACTION 05E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/26/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-160 FRACTION 06D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-160

FRACTION 06D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/29/88 Category

ANALYST DES

VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	11	0.10
Al	Aluminum	22	0.20	Mn	Manganese	.65	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	25	0.080
Ba	Barium	.26	0.0090	Ni	Nickel	<.02	0.020
Be	Beryllium	<.001	0.0010	Pb	Lead	.067*	0.050
Ca	Calcium	340	0.060	Sb	Antimony	.18*	0.060
Cd	Cadmium	.006*	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	<.01	0.010	Si	Silicon	48	0.30
Cr	Chromium	.049	0.0090	Tl	Thallium	<0.09	0.090
Cu	Copper	.019*	0.010	V	Vanadium	.074*	0.020
Fe	Iron	36	0.030	Zn	Zinc	.064	0.0060
K	Potassium	5.9	0.30				

KARDIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-160

FRACTION 06D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-160 FRACTION 06E TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/27/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-160 FRACTION 06E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	500	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

KAUFFMAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-160 FRACTION 06E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-161 FRACTION 07D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

Received: 02/27/88

Results by Sample

SAMPLE ID 02-161 FRACTION 07D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/29/88 Category

ANALYST DES

VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<0.009	0.0090	Mg	Magnesium	21	0.10
Al	Aluminum	9.7	0.20	Mn	Manganese	0.76	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<0.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	17	0.080
Ba	Barium	0.11	0.0090	Ni	Nickel	<0.02	0.020
Be	Beryllium	<0.001	0.0010	Pb	Lead	<0.05	0.050
Ca	Calcium	620	0.060	Sb	Antimony	0.19*	0.060
Cd	Cadmium	0.004*	0.0030	Se	Selenium	<0.3	0.30
Co	Cobalt	<0.01	0.010	Si	Silicon	29	0.30
Cr	Chromium	0.051	0.0090	Tl	Thallium	<0.090	0.090
Cu	Copper	<0.01	0.010	V	Vanadium	0.063*	0.020
Fe	Iron	16	0.030	Zn	Zinc	0.031	0.0060
K	Potassium	3.9	0.30				

SAMPLE ID 02-161 FRACTION 07D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-161 FRACTION 07E TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/27/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-161 FRACTION 07E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	1110	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 02-161 FRACTION 07E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-162 FRACTION 08D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	0.0002*	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-162

FRACTION 08D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/29/88 Category

ANALYST DES

VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	.011*	0.0090	Mg	Magnesium	77	0.10
Al	Aluminum	380	0.20	Mn	Manganese	7.4	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	34	0.080
Ba	Barium	2.9	0.0090	Ni	Nickel	.43	0.020
Be	Beryllium	.022	0.0010	Pb	Lead	.44	0.050
Ca	Calcium	1300	0.24	Sb	Antimony	.48	0.060
Cd	Cadmium	.021	0.0030	Se	Selenium	1.5	0.30
Co	Cobalt	.20	0.010	Si	Silicon	47	0.30
Cr	Chromium	.50	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	.34	0.010	V	Vanadium	.79	0.020
Fe	Iron	420	0.12	Zn	Zinc	.94	0.0060
K	Potassium	52	0.30				

KRADIAN CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-162

FRACTION 08D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

CORPORATION

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191

SAMPLE ID 02-162 FRACTION 08E TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 02/27/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.06*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-162 FRACTION 08E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/07/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	680	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 02-162 FRACTION 08E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-163 FRACTION 09D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

 RAS - Austin REPORT Work Order # 88-02-191

Received: 02/27/88 Results by Sample

SAMPLE ID 02-163 FRACTION 09D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/29/88 Category

ANALYST DES VERIFIED DES

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	<.009	0.0090	Mg	Magnesium	50	0.10
Al	Aluminum	270	0.20	Mn	Manganese	8.2	0.0030
As	Arsenic	<0.3	0.30	Mo	Molybdenum	<.05	0.050
B	Boron	<0.6	0.60	Na	Sodium	23	0.080
Ba	Barium	2.1	0.0090	Ni	Nickel	.27	0.020
Be	Beryllium	.013	0.0010	Pb	Lead	.32	0.050
Ca	Calcium	720	0.060	Sb	Antimony	.15*	0.060
Cd	Cadmium	.011*	0.0030	Se	Selenium	.94*	0.30
Co	Cobalt	.12	0.010	Si	Silicon	36	0.30
Cr	Chromium	.33	0.0090	Tl	Thallium	<.09	0.090
Cu	Copper	.19	0.010	V	Vanadium	.50	0.020
Fe	Iron	270	0.030	Zn	Zinc	.66	0.0060
K	Potassium	36	0.30				

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-163

FRACTION 09D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

SAMPLE ID 02-163 FRACTION 09E TEST CODE OPO4 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 02/27/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.02*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-163 FRACTION 09E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	1300	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 02/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-02-191
Continued From Above

SAMPLE ID 02-163

FRACTION 09E TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

03/28/88 12:41:39

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 13
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: sites 4 and 5
TAKEN: RP, GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

2nd col.conf. on all samples for EPA601 and -02,-04,-06 for EPA602. Compound confirmed on EPA601 -01 for vinyl chloride and chloroform but no quantitation possible because of coelution.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	02-164
02	02-165
03	02-166
04	02-167
05	02-168
06	02-169
07	reagent blank
08	2nd col conf 02-164
09	2nd col conf 02-165
10	2nd col conf 02-166
11	2nd col conf 02-167
12	2nd col conf 02-168
13	2nd col conf 02-169

TEST CODES and NAMES used on this report

EPA601	EPA method 601
EPA602	EPA method 602
XYLENE	Xylenes, EPA 602

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID 02-164 FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST CL VERIFIED CL

INSTRMT G INJECTD 03/04/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	1.5
74-83-9	Bromomethane	ND	6.0
75-01-4	Vinyl chloride	1.6*	1.0
75-00-3	Chloroethane	ND	2.5
75-09-2	Methylene chloride	ND	1.5
75-69-4	Trichlorofluoromethane	ND	0.50
75-35-4	1,1-Dichloroethene	ND	0.50
75-34-3	1,1-Dichloroethane	ND	0.45
156-60-5	trans-1,2-Dichloroethene	ND	1.0
67-66-3	Chloroform	8.0	0.25
107-06-2	1,2-Dichloroethane	ND	0.15
71-55-6	1,1,1-Trichloroethane	ND	0.45
56-23-5	Carbon tetrachloride	ND	0.50
75-27-4	Bromodichloromethane	ND	0.50

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-164 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.50
10061-02-6	trans-1,3-Dichloropropene-A	ND	1.5
79-01-6	Trichloroethene	27	1.0
124-48-1	Dibromochloromethane-B	ND	1.0
79-00-5	1,1,2-Trichloroethane-B	ND	0.35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	1.0
75-25-2	Bromoform	ND	1.5
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.60
127-18-4	Tetrachloroethene-C	4.1	0.15
108-90-7	Chlorobenzene	1.5*	1.5
541-73-1	1,3-Dichlorobenzene	ND	1.5
95-50-1	1,2-Dichlorobenzene	ND	2.5
106-46-7	1,4-Dichlorobenzene	6.3*	2.0

SURROGATES

74-97-5	Bromochloromethane	117	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-164

FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene 122 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID 02-164

FRACTION 01C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

FILE #

INJECTED 03/01/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	19	0.2
108-88-3	Toluene	4.4	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	2.2	0.3
106-46-7	1,4-Dichlorobenzene	5.8	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	0.7*	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	95% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-164

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-164

FRACTION 01C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTD 03/01/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	95% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-165

FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

ANALYST RW
INSTRMT G

INJECTD 03/04/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

SAMPLE ID 02-165 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	3200	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	103	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-165 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene 121 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-165

FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTED 03/02/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 109% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-165

FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID 02-165

FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 03/02/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	109% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-166

FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST RW

INSTRMT G

INJECTD 03/04/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-166 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	2500@	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	99	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-166 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene 110 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/01/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-166

FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/02/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	280	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	107% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-166

FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-166

FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTD 03/02/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,G	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 107% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 02-167 FRACTION 04A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST RW VERIFIED CL

INSTRMT G INJECTD 03/04/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

SAMPLE ID 02-167 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	2400	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	99	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 02-167 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene 105 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID 02-167 FRACTION Q4C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/02/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 109% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-167

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-167

FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTD 03/02/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	109% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 02-168 FRACTION 05A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST RW VERIFIED CL

INSTRMT G INJECTD 03/04/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-168

FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	1200	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	106	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-168 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene 99 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/01/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-168

FRACTION 05C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/02/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	220	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-168

FRACTION 05C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

'eceived: 03/01/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-005

SAMPLE ID 02-168

FRACTION 05C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/02/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND@Q	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 02-169 FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST RW VERIFIED CL

INSTRMT G INJECTD 03/04/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	75
74-83-9	Bromomethane	ND	300
75-01-4	Vinyl chloride	ND	50
75-00-3	Chloroethane	ND	130
75-09-2	Methylene chloride	ND	75
75-69-4	Trichlorofluoromethane	ND	25
75-35-4	1,1-Dichloroethene	ND	25
75-34-3	1,1-Dichloroethane	ND	23
156-60-5	trans-1,2-Dichloroethene	ND	50
67-66-3	Chloroform	ND	13
107-06-2	1,2-Dichloroethane	ND	7.5
71-55-6	1,1,1-Trichloroethane	ND	23
56-23-5	Carbon tetrachloride	ND	25
75-27-4	Bromodichloromethane	ND	25

SAMPLE ID 02-169 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	25
10061-02-6	trans-1,3-Dichloropropene-A	ND	75
79-01-6	Trichloroethene	2600	50
124-48-1	Dibromochloromethane-B	ND	50
79-00-5	1,1,2-Trichloroethane-B	ND	18
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	50
75-25-2	Bromoform	ND	75
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	30
127-18-4	Tetrachloroethene-C	ND	7.5
108-90-7	Chlorobenzene	ND	75
541-73-1	1,3-Dichlorobenzene	ND	75
95-50-1	1,2-Dichlorobenzene	ND	130
106-46-7	1,4-Dichlorobenzene	ND	100

SURROGATES

74-97-5	Bromochloromethane	111	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 02-169

FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene 116 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/01/88

Results by Sample

SAMPLE ID 02-169 FRACTION Q6C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/02/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 02-169 FRACTION Q6C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID 02-169 FRACTION 06C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/02/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	110% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID reagent blank FRACTION 07A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

ANALYST CL VERIFIED CL

INSTRMT G INJECTD 03/04/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

SAMPLE ID reagent blank FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID reagent blank FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

460-00-4 1-Bromo-4-fluorobenzene N/A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

SAMPLE ID reagent blank FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #
INSTRMT D INJECTED 03/02/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID reagent blank FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID reagent blank FRACTION 07A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 03/02/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 2nd col conf 02-164 FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT B INJECTD 03/07/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.60
74-83-9	Bromomethane	ND	2.4
75-01-4	Vinyl chloride	ND	0.40
75-00-3	Chloroethane	ND	1.0
75-09-2	Methylene chloride	ND	0.60
75-69-4	Trichlorofluoromethane	ND	0.20
75-35-4	1,1-Dichloroethene	ND	0.20
75-34-3	1,1-Dichloroethane	ND	0.18
156-60-5	trans-1,2-Dichloroethene	ND	0.40
67-66-3	Chloroform	ND	0.10
107-06-2	1,2-Dichloroethane	ND	0.060
71-55-6	1,1,1-Trichloroethane	ND	0.18
56-23-5	Carbon tetrachloride	ND	0.20
75-27-4	Bromodichloromethane	ND	0.20

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 2nd col conf 02-164 FRACTION OBA TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.20
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.60
79-01-6	Trichloroethene	60	0.40
124-48-1	Dibromochloromethane-B	ND	0.40
79-00-5	1,1,2-Trichloroethane-B	ND	0.14
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.40
75-25-2	Bromoform	ND	0.60
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.24
127-18-4	Tetrachloroethene-C	7.6	0.060
108-90-7	Chlorobenzene	1.5*	0.60
541-73-1	1,3-Dichlorobenzene	ND	0.60
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	2.9*	0.80

SURROGATES

74-97-5	Bromochloromethane	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 02-164 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene N/A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005

SAMPLE ID 2nd col conf 02-165 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

ANALYST RW
INSTRMT B
INJECTD 03/07/88
FILE #
VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 2nd col conf 02-165 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	5500	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 02-165 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene N/A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 2nd col conf 02-165 FRACTION 09A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/09/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 2nd col conf 02-165 FRACTION 09A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 2nd col conf 02-165 FRACTION 09A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/09/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 2nd col conf 02-166 FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

ANALYST RW VERIFIED CL
INSTRMT B INJECTD 03/07/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample Continued From Above

SAMPLE ID 2nd col conf 02-166 FRACTION 10A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	3800	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200
	SURROGATES		
74-97-5	Bromochloromethane	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 02-166 FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene N/A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 2nd col conf 02-167 FRACTION 11A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 03/07/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

SAMPLE ID 2nd col conf 02-167 FRACTION 11A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	4000	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 02-167 FRACTION 11A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene N/A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 2nd col conf 02-167 FRACTION 11A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/09/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 2nd col conf 02-167 FRACTION 11A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 2nd col conf 02-167 FRACTION 11A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/09/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

KAUFMAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID 2nd col conf 02-168 FRACTION 12A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST CL VERIFIED CL

INSTRMT B INJECTD 03/08/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample Continued From Above

SAMPLE ID 2nd col conf 02-168 FRACTION 12A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	1400	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-005
Continued From Above

SAMPLE ID 2nd col conf 02-168 FRACTION 12A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene N/A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-005

Received: 03/01/88

Results by Sample

SAMPLE ID 2nd col conf 02-169 FRACTION 13A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

ANALYST CL

INSTRMT B

INJECTD 03/08/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	75
74-83-9	Bromomethane	ND	300
75-01-4	Vinyl chloride	ND	50
75-00-3	Chloroethane	ND	130
75-09-2	Methylene chloride	ND	75
75-69-4	Trichlorofluoromethane	ND	25
75-35-4	1,1-Dichloroethene	ND	25
75-34-3	1,1-Dichloroethane	ND	23
156-60-5	trans-1,2-Dichloroethene	ND	50
67-66-3	Chloroform	ND	13
107-06-2	1,2-Dichloroethane	ND	7.5
71-55-6	1,1,1-Trichloroethane	ND	23
56-23-5	Carbon tetrachloride	ND	25
75-27-4	Bromodichloromethane	ND	25

KAUFMAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample Continued From Above

SAMPLE ID 2nd col conf 02-169 FRACTION 13A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 02/29/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	25
10061-02-6	trans-1,3-Dichloropropene-A	ND	75
79-01-6	Trichloroethene	2700	50
124-48-1	Dibromochloromethane-B	ND	50
79-00-5	1,1,2-Trichloroethane-B	ND	18
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	50
75-25-2	Bromoform	ND	75
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	30
127-18-4	Tetrachloroethene-C	ND	7.5
108-90-7	Chlorobenzene	ND	75
541-73-1	1,3-Dichlorobenzene	ND	75
95-50-1	1,2-Dichlorobenzene	ND	130
106-46-7	1,4-Dichlorobenzene	ND	100

SURROGATES

74-97-5	Bromochloromethane	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 02-169 FRACTION 13A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 02/29/88 Category

460-00-4 1-Bromo-4-fluorobenzene N/A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-005

Received: 03/01/88 Results by Sample

SAMPLE ID 2nd col conf 02-169 FRACTION 13A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/09/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 2nd col conf 02-169 FRACTION 13A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 02/29/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-005

SAMPLE ID 2nd col conf 02-169 FRACTION 13A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 02/29/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/09/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N/A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	SPR601	01D	:	SPR602
02B	:	SPR601	02D	:	SPR602
03B	:	SPR601	03D	:	SPR602
04B	:	SPR601	04D	:	SPR602
05B	:	SPR601	05D	:	SPR602
06B	:	SPR601	06D	:	SPR602

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-006

Received: 03/01/88

07/01/88 09:25:35

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 6
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: sites 4 and 5
TAKEN: RP, GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	02-164
02	02-165
03	02-166
04	02-167
05	02-168
06	02-169

TEST CODES and NAMES used on this report

AS G	Arsenic, graphite AA
CL T	Chloride
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
F SIE	Fluoride, SIE
HG C	Mercury, cold vapor
ICP200	ICPES, EPA 200.7 elements
NO2NO3	Nitrate + nitrite
OPO4	Orthophosphate
PB G	Lead, graphite AA
SE G	Selenium, graphite AA
SO4 N	Sulfate, nephelometry
TDS	Total dissolved solids

CORPORATION

RAS - Austin REPORT

Work Order # 88-03-006

Received: 03/01/88

Results By Test

SAMPLE Sample Id	Test: AS G ug/ml	Test: CL T mg/L	Test: DG3020 date complete	Test: DG6010 date complete	Test: F SIE mg/L
01 02-164	0.026	47	03/03/88	03/05/88	0.36
02 02-165	0.028R+	20	03/03/88	03/05/88	0.28
03 02-166	0.022	24	03/03/88	03/05/88	0.29
04 02-167	0.026	27	03/03/88	03/05/88	0.30
05 02-168	0.056	21	03/03/88	03/05/88	0.29
06 02-169	0.040	21	03/03/88	03/05/88	0.30

SAMPLE Sample Id	Test: NO2NO3 mg/L as N	Test: PB G ug/ml	Test: SE G ug/ml	Test: SO4 N mg/L
01 02-164	<0.1	0.056	<0.003	43
02 02-165	1.3@	0.017	<0.003R	59
03 02-166	1.5	0.11	<0.003	72
04 02-167	1.3	0.12	<0.003	61
05 02-168	0.04*	0.026	<0.003	40
06 02-169	0.65	0.022	<0.003	27

KADIMAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-164

FRACTION 01C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 03/01/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-164

FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/29/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.016*	0.0090	Mg	Magnesium	35	0.10
Al	Aluminum	82	0.20	Mn	Manganese	4.5	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	47	0.080
Ba	Barium	0.38	0.0090	Ni	Nickel	0.13	0.020
Be	Beryllium	0.011	0.0010	Pb	Lead	0.21*	0.050
Ca	Calcium	2600	0.60	Sb	Antimony	0.38^	0.060
Cd	Cadmium	0.008*	0.0030	Se	Selenium	0.4*	0.30
Co	Cobalt	0.04*	0.010	Si	Silicon	81	0.30
Cr	Chromium	0.22	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.12	0.010	V	Vanadium	0.56	0.020
Fe	Iron	180	0.030	Zn	Zinc	0.24	0.0060
K	Potassium	12	0.30				

RADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-164

FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

SAMPLE ID 02-164 FRACTION 01D TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-164 FRACTION 01D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	710	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-164 FRACTION 01D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-165 FRACTION 02C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/01/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

 RAS - Austin REPORT Work Order # 88-03-006

Received: 03/01/88 Results by Sample

SAMPLE ID 02-165 FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/01/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.013*	0.0090	Mg	Magnesium	16	0.10
Al	Aluminum	37R	0.20	Mn	Manganese	3.6	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND,R	0.60	Na	Sodium	30	0.080
Ba	Barium	0.44	0.0090	Ni	Nickel	0.08*	0.020
Be	Beryllium	0.005*	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	720	0.060	Sb	Antimony	0.15*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.01*	0.010	Si	Silicon	57	0.30
Cr	Chromium	0.12	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.05*	0.010	V	Vanadium	0.20	0.020
Fe	Iron	73	0.030	Zn	Zinc	0.11	0.0060
K	Potassium	8.5	0.30				

RADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-165

FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/01/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-165 FRACTION 02D TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-165 FRACTION 02D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	660	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 02-165 FRACTION 02D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/01/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-166 FRACTION 03C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/01/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-14 FRACTION 01A TEST CODE OPO4 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/04/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-14 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/09/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	450	2.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-14 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-15 FRACTION 02C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-14

FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-031

Received: 03/03/88 Results by Sample

SAMPLE ID 03-14 FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.010*	0.0090	Mg	Magnesium	48	0.10
Al	Aluminum	190	0.20	Mn	Manganese	11	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	19	0.080
Ba	Barium	1.7	0.0090	Ni	Nickel	0.41	0.020
Be	Beryllium	0.031	0.0010	Pb	Lead	0.56	0.050
Ca	Calcium	3300	0.60	Sb	Antimony	0.47	0.060
Cd	Cadmium	0.020	0.0030	Se	Selenium	0.8*	0.30
Co	Cobalt	0.22	0.010	Si	Silicon	130	0.30
Cr	Chromium	0.56	0.0090	Tl	Thallium	0.23*	0.090
Cu	Copper	0.34	0.010	V	Vanadium	1.3	0.020
Fe	Iron	560	0.30	Zn	Zinc	1.3	0.0060
K	Potassium	27	0.30				

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-14

FRACTION 01C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	0.0002	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
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N\A = not available

Received: 03/03/88

RAS - Austin REPORT
Results By Test

Work Order # 88-03-031
Continued From Above

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
06 03-21		0.46		0.066	<0.005
07 03-22	0.6*	1.5	0.6*	0.034	<0.005

SAMPLE Sample Id	Test: SO4 N mg/L
01 03-14	4.2
02 03-15	24
03 03-16	81
04 03-19	26
05 03-20	4.2
06 03-21	29
07 03-22	30

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-031

Received: 03/03/88

Results By Test

SAMPLE Sample Id	Test: AS G ug/ml	Test: CL T mg/L	Test: DG3020 date complete	Test: DG6010 date complete	Test: F SIE mg/L
01 03-14	0.058	18	03/06/88	03/14/88	0.19
02 03-15	0.021R	18	03/06/88	03/14/88	0.24
03 03-16	0.045	6	03/06/88	03/14/88	0.32
04 03-19	0.055	15	03/06/88	03/14/88	0.21
05 03-20	<0.002	15	03/06/88	03/14/88	0.02*
06 03-21	0.061	18	03/06/88	03/14/88	0.23
07 03-22	0.027	18	03/06/88	03/14/88	0.27

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
01 03-14	1700	<0.1		0.56	<0.005
02 03-15		1.3		0.022R+	<0.005R
03 03-16		0.54		0.082	<0.005
04 03-19		0.60		0.068	<0.005
05 03-20		<0.02		0.004	<0.005

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-031

Received: 03/03/88 07/13/88 11:07:53

REPORT TO: Radian
B1.4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 7
COMPANY: Carswell AFB
FACILITY: IRP

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

WORK ID: 05-10-17
TAKEN: RP,GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	03-14
02	03-15
03	03-16
04	03-19
05	03-20
06	03-21
07	03-22

TEST CODES and NAMES used on this report

AS G	Arsenic, graphite AA
CL T	Chloride
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
F SIE	Fluoride, SIE
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ICP200	ICPES, EPA 200.7 elements
NO2NO3	Nitrate + nitrite
ONG IR	Oil and grease, infrared
OPO4	Orthophosphate
PB G	Lead, graphite AA
SE G	Selenium, graphite AA
SO4 N	Sulfate, nephelometry
TDS	Total dissolved solids

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	SPR601	01D	SPR602
02B	SPR601	02D	SPR602
03B	SPR601	03D	SPR602
04B	SPR601	04D	SPR602
05B	SPR601	05D	SPR602
06B	SPR601	06D	SPR602
07B	SPR601	07D	SPR602
08B	SPR601	08D	SPR602
09B	SPR601	09D	SPR602

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 2nd col conf 03-20 FRACTION 14A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 2nd col conf 03-20 FRACTION 14A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-029

Received: 03/03/88 Results by Sample

SAMPLE ID 2nd col conf 03-20 FRACTION 14A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT B INJECTD 03/08/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	1.7	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-029

SAMPLE ID 2nd col conf 03-18

FRACTION 13A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 03/14/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 2nd col conf 03-18 FRACTION 13A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 2nd col conf 03-18 FRACTION 13A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/14/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	39	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	1.6	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 2nd col conf 03-18 FRACTION 13A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 2nd col conf 03-18

FRACTION 13A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	0.4*	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 2nd col conf 03-18 FRACTION 13A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

ANALYST RW
INSTRMT B
INJECTD 03/08/88
FILE #
VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	1.7	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	0.9	0.10

SAMPLE ID 2nd col conf 03-16 FRACTION 12A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 2nd col conf 03-16 FRACTION 12A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	4000	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 2nd col conf 03-16 FRACTION 12A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW

INSTRMT B

INJECTD 03/08/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 2nd col conf 03-15

FRACTION 11A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 2nd col conf 03-15 FRACTION 11A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	3600	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-029

Received: 03/03/88 Results by Sample

SAMPLE ID 2nd col conf 03-15 FRACTION 11A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 03/08/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID reagent blank

FRACTION 10A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL
INSTRMT D

FILE #

INJECTD 03/10/88

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID reagent blank

FRACTION 10A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID reagent blank

FRACTION 10A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/10/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID reagent blank

FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-029

Received: 03/03/88 Results by Sample Continued From Above

SAMPLE ID reagent blank FRACTION 10A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-029

Received: 03/03/88 Results by Sample

SAMPLE ID reagent blank FRACTION 10A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

ANALYST CL VERIFIED CL

INSTRMT G INJECTD 03/09/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-22

FRACTION 09C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/10/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-22

FRACTION 09C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-22

FRACTION 09C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

FILE #

INJECTED 03/10/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-22

FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 109 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-22 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	100
10061-02-6	trans-1,3-Dichloropropene-A	ND	300
79-01-6	Trichloroethene	3000	200
124-48-1	Dibromochloromethane-B	ND	200
79-00-5	1,1,2-Trichloroethane-B	ND	70
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	200
75-25-2	Bromoform	ND	300
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	120
127-18-4	Tetrachloroethene-C	ND	30
108-90-7	Chlorobenzene	ND	300
541-73-1	1,3-Dichlorobenzene	ND	300
95-50-1	1,2-Dichlorobenzene	ND	500
106-46-7	1,4-Dichlorobenzene	ND	400
	SURROGATES		
74-97-5	Bromochloromethane	99	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-22

FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

ANALYST RW
INSTRMT G

INJECTD 03/09/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	300
74-83-9	Bromomethane	ND	1200
75-01-4	Vinyl chloride	ND	200
75-00-3	Chloroethane	ND	500
75-09-2	Methylene chloride	ND	300
75-69-4	Trichlorofluoromethane	ND	100
75-35-4	1,1-Dichloroethene	ND	100
75-34-3	1,1-Dichloroethane	ND	90
156-60-5	trans-1,2-Dichloroethene	ND	200
67-66-3	Chloroform	ND	50
107-06-2	1,2-Dichloroethane	ND	30
71-55-6	1,1,1-Trichloroethane	ND	90
56-23-5	Carbon tetrachloride	ND	100
75-27-4	Bromodichloromethane	ND	100

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-21

FRACTION 08C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTD 03/10/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	10
108-38-3	m-Xylene-A	ND	10
95-47-6	o-Xylene	ND	5

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-21

FRACTION OBC TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-21

FRACTION 08C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

FILE #

INJECTED 03/10/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	10
108-88-3	Toluene	ND	10
100-41-4	Ethylbenzene	ND	20
108-90-7	Chlorobenzene-A	ND	20
106-46-7	1,4-Dichlorobenzene	ND	20
541-73-1	1,3-Dichlorobenzene	ND	20
95-50-1	1,2-Dichlorobenzene	ND	20

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-21

FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 102 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-21

FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	25
10061-02-6	trans-1,3-Dichloropropene-A	ND	75
79-01-6	Trichloroethene	770	50
124-48-1	Dibromochloromethane-B	ND	50
79-00-5	1,1,2-Trichloroethane-B	ND	18
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	50
75-25-2	Bromoform	ND	75
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	30
127-18-4	Tetrachloroethene-C	ND	7.5
108-90-7	Chlorobenzene	ND	75
541-73-1	1,3-Dichlorobenzene	ND	75
95-50-1	1,2-Dichlorobenzene	ND	130
106-46-7	1,4-Dichlorobenzene	ND	100

SURROGATES

74-97-5	Bromochloromethane	99	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

Received: 03/03/88

Results by Sample

SAMPLE ID 03-21 FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT G INJECTD 03/09/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	75
74-83-9	Bromomethane	ND	300
75-01-4	Vinyl chloride	ND	50
75-00-3	Chloroethane	ND	130
75-09-2	Methylene chloride	ND	75
75-69-4	Trichlorofluoromethane	ND	25
75-35-4	1,1-Dichloroethene	ND	25
75-34-3	1,1-Dichloroethane	ND	23
156-60-5	trans-1,2-Dichloroethene	ND	50
67-66-3	Chloroform	ND	13
107-06-2	1,2-Dichloroethane	ND	7.5
71-55-6	1,1,1-Trichloroethane	ND	23
56-23-5	Carbon tetrachloride	ND	25
75-27-4	Bromodichloromethane	ND	25

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-029

Received: 03/03/88 Results by Sample

SAMPLE ID 03-20 FRACTION 07C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/10/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-20

FRACTION 07C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-20

FRACTION 07C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTED 03/10/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	3.9	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	2.6	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

Received: 03/03/88

RADIAN CORPORATION

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-20

FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 103 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-20

FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	1.3*	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	102	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-20

FRACTION 07A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

ANALYST RW

INSTRMT B

INJECTD 03/05/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	1.2	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	0.9	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

{eceived: 03/03/88

Results by Sample

;AMPLE ID 03-19

FRACTION 06C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL

FILE #

INSTRMT D

INJECTD 03/10/88

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,@	5
108-38-3	m-Xylene-A	ND	5
95-47-6	o-Xylene	ND	3

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 03-19 FRACTION 06C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 03-19

FRACTION 06C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/10/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	5
108-88-3	Toluene	ND	5
100-41-4	Ethylbenzene	ND	8
108-90-7	Chlorobenzene-A	ND	8
106-46-7	1,4-Dichlorobenzene	ND	8
541-73-1	1,3-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-19

FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 109 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-19 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	5.0
10061-02-6	trans-1,3-Dichloropropene-A	ND	15
79-01-6	Trichloroethene	170	10
124-48-1	Dibromochloromethane-B	ND	10
79-00-5	1,1,2-Trichloroethane-B	ND	3.5
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	10
75-25-2	Bromoform	ND	15
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	6.0
127-18-4	Tetrachloroethene-C	ND	1.5
108-90-7	Chlorobenzene	ND	15
541-73-1	1,3-Dichlorobenzene	ND	15
95-50-1	1,2-Dichlorobenzene	ND	25
106-46-7	1,4-Dichlorobenzene	ND	20

SURROGATES

74-97-5	Bromochloromethane	108	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

Received: 03/03/88

Results by Sample

SAMPLE ID 03-19 FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 03/05/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	15
74-83-9	Bromomethane	ND	60
75-01-4	Vinyl chloride	ND	10
75-00-3	Chloroethane	ND	25
75-09-2	Methylene chloride	ND	15
75-69-4	Trichlorofluoromethane	ND	5.0
75-35-4	1,1-Dichloroethene	ND	5.0
75-34-3	1,1-Dichloroethane	ND	4.5
156-60-5	trans-1,2-Dichloroethene	ND	10
67-66-3	Chloroform	ND	2.5
107-06-2	1,2-Dichloroethane	ND	1.5
71-55-6	1,1,1-Trichloroethane	67	4.5
56-23-5	Carbon tetrachloride	ND	5.0
75-27-4	Bromodichloromethane	ND	5.0

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-18

FRACTION 05C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTD 03/10/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-18

FRACTION OSC TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-18

FRACTION 05C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTED 03/10/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	6.0	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	2.3	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	104% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 03-18 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 111 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-18 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	0.4*	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	1.0*	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	106	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-029

Received: 03/03/88 Results by Sample

SAMPLE ID 03-18 FRACTION 05A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 03/05/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	1.1	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	1.4	0.10

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-029

Received: 03/03/88 Results by Sample

SAMPLE ID 03-17 FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/05/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 90% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 03-17 FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-17

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTED 03/05/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	1.1	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	90% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 03-17 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 100 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-17 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	99	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 03-17 FRACTION 04A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 03/05/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	0.4*	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 03-16

FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/05/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 89% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
G = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 03-16 FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 03-16

FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/05/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	89% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-16 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 105 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-16

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	2600	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200
	SURROGATES		
74-97-5	Bromochloromethane	103	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-16

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

ANALYST RW
INSTRMT B

INJECTD 03/05/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-15

FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTD 03/05/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	20
108-38-3	m-Xylene-A	ND	20
95-47-6	o-Xylene	ND	10

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	91% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 03-15

FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 03-15 FRACTION 02C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/05/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	20
108-88-3	Toluene	ND	20
100-41-4	Ethylbenzene	ND	30
108-90-7	Chlorobenzene-A	ND	30
106-46-7	1,4-Dichlorobenzene	ND	30
541-73-1	1,3-Dichlorobenzene	ND	40
95-50-1	1,2-Dichlorobenzene	ND	40

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	91% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 03-15 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 109 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-15 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	50
10061-02-6	trans-1,3-Dichloropropene-A	ND	150
79-01-6	Trichloroethene	1800	100
124-48-1	Dibromochloromethane-B	ND	100
79-00-5	1,1,2-Trichloroethane-B	ND	35
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	100
75-25-2	Bromoform	ND	150
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	60
127-18-4	Tetrachloroethene-C	ND	15
108-90-7	Chlorobenzene	ND	150
541-73-1	1,3-Dichlorobenzene	ND	150
95-50-1	1,2-Dichlorobenzene	ND	250
106-46-7	1,4-Dichlorobenzene	ND	200

SURROGATES

74-97-5	Bromochloromethane	111	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-029

Received: 03/03/88

Results by Sample

SAMPLE ID 03-15

FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST CL

INSTRMT B

INJECTD 03/05/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	150
74-83-9	Bromomethane	ND	600
75-01-4	Vinyl chloride	ND	100
75-00-3	Chloroethane	ND	250
75-09-2	Methylene chloride	ND	150
75-69-4	Trichlorofluoromethane	ND	50
75-35-4	1,1-Dichloroethene	ND	50
75-34-3	1,1-Dichloroethane	ND	45
156-60-5	trans-1,2-Dichloroethene	ND	100
67-66-3	Chloroform	ND	25
107-06-2	1,2-Dichloroethane	ND	15
71-55-6	1,1,1-Trichloroethane	ND	45
56-23-5	Carbon tetrachloride	ND	50
75-27-4	Bromodichloromethane	ND	50

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-14

FRACTION 01C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/05/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	4000
108-38-3	m-Xylene-A	ND	4000
95-47-6	o-Xylene	ND	2000

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 123**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-14

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-14

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/02/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

FILE #

INJECTED 03/05/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	11000*	4000
108-88-3	Toluene	ND	4000
100-41-4	Ethylbenzene	ND	6000
108-90-7	Chlorobenzene-A	ND	6000
106-46-7	1,4-Dichlorobenzene	ND	6000
541-73-1	1,3-Dichlorobenzene	ND	8000
95-50-1	1,2-Dichlorobenzene	ND	8000

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	123**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-14

FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

460-00-4 1-Bromo-4-fluorobenzene 100 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-029
Continued From Above

SAMPLE ID 03-14 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/02/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	98	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-029

SAMPLE ID 03-14

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/02/88 Category

ANALYST CL

INSTRMT B

INJECTD 03/05/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	0.3*	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

03/28/88 13:24:22

Work Order # 88-03-029

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 14
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: 05-10-17
TAKEN: RP, GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

2nd col confs run on 601 -01, -02, -03, -05, -06, -07 and 602 -02, -03, -05. Uknwn cmpds present in 602 -01, -02, -03. 2nd column quantitation unavaiable due to coelution on 601 -01, -05, -06, -07. **Possible interferences.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	03-14
02	03-15
03	03-16
04	03-17
05	03-18
06	03-19
07	03-20
08	03-21
09	03-22
10	reagent blank
11	2nd col conf 03-15
12	2nd col conf 03-16
13	2nd col conf 03-18
14	2nd col conf 03-20

TEST CODES and NAMES used on this report

EPA601	EPA method 601
EPA602	EPA method 602
XYLENE	Xylenes, EPA 602

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01D	!	DUP624
02D	!	DUP624
03D	!	DUP624
04D	!	DUP624
05D	!	DUP624

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID REAGENT BLANK VOA FRACTION 07A TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected not specified Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	108-10-1	4-methyl-2-pentanone	ND	46
	127-18-4	tetrachloroethene	ND	4.1
	79-34-5	1,1,2,2-tetrachloroethane	ND	6.9
	108-88-3	toluene	ND	6.0
	108-90-7	chlorobenzene	ND	6.0
	100-41-4	ethylbenzene	ND	7.2
	100-42-5	styrene	ND	3.0
	95-47-6	total xylenes	ND	4.6

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
204	1,2-dichloroethane-d4	90 %
394	Toluene-d8	100 %
488	BFB	96 %

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit
NA = not analyzed.
N\A = not available.
B = detected in Reagent Blank; background subtraction not performed.
J = estimated value less than minimum detection limit.

SAMPLE ID REAGENT BLANK VOA FRACTION 07A TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PURGEABLES

VERIFIED LAK

ANALYST REM EXTRCTD FILE # 0302707A
INSTRMT 5100 INJECTD 03/16/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	74-87-3	chloromethane	ND	5.0
	74-83-9	bromomethane	ND	5.0
	75-01-4	vinyl chloride	ND	5.0
	75-00-3	chloroethane	ND	5.0
103	75-09-2	methylene chloride	6.1	2.8
116	67-64-1	acetone	30	7.5
	75-15-0	carbon disulfide	ND	1.7
	75-69-4	trichlorofluoromethane	ND	5.0
	75-35-4	1,1-dichloroethene	ND	4.7
	75-34-3	1,1-dichloroethane	ND	2.8
	156-60-5	trans-1,2-dichloroethene	ND	1.6
	67-66-3	chloroform	ND	1.6
	107-06-2	1,2-dichloroethane	ND	2.8
	78-93-3	2-butanone	ND	25
	71-55-6	1,1,1-trichloroethane	ND	3.8
	56-23-5	carbon tetrachloride	ND	2.8
	108-05-4	vinyl acetate	ND	6.9
	75-27-4	bromodichloromethane	ND	2.2
	78-87-5	1,2-dichloropropane	ND	6.0
	10061-01-5	cis-1,3-dichloropropene	ND	5.0
	79-01-6	trichloroethene	ND	1.9
	124-48-1	dibromochloromethane	ND	3.1
	79-00-5	1,1,2-trichloroethane	ND	5.0
	71-43-2	benzene	ND	4.4
	10061-02-6	trans-1,3-dichloropropene	ND	5.0
	110-75-8	2-chloroethylvinyl ether	ND	5.0
	75-25-2	bromoform	ND	4.7
	591-78-6	2-hexanone	ND	36

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID REAGENT BLANK BNA FRACTION 06A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected not specified Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	170
	117-84-0	di-n-octyl phthalate	ND	170
	205-99-2	benzo(b)fluoranthene	ND	320
	207-08-9	benzo(k)fluoranthene	ND	170
	50-32-8	benzo(a)pyrene	ND	170
	193-39-5	indeno(1,2,3-cd)pyrene	ND	250
	53-70-3	dibenz(a,h)anthracene	ND	170
	191-24-2	benzo(ghi)perylene	ND	270

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
382	2-fluorophenol	75 %
501	d5-phenol	87 %
620	d5-nitrobenzene	79 %
886	2-fluorobiphenyl	80 %
1105	2,4,6-tribromophenol	80 %
1456	d14-terphenyl	86 %

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
N\A = not available.
B = detected in Reagent Blank; background subtraction not performed.
J = estimated value less than detection limit.

SAMPLE ID REAGENT BLANK BNA FRACTION 06A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected not specified Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	400
	88-06-2	2,4,6-trichlorophenol	ND	180
	95-95-4	2,4,5-trichlorophenol	ND	670
	91-58-7	2-chloronaphthalene	ND	130
	88-74-4	2-nitroaniline	ND	3300
	131-11-3	dimethyl phthalate	ND	110
	208-96-8	acenaphthylene	ND	230
	99-09-2	3-nitroaniline	ND	3300
	83-32-9	acenaphthene	ND	130
	51-28-5	2,4-dinitrophenol	ND	2800
	100-02-7	4-nitrophenol	ND	160
	132-64-9	dibenzofuran	ND	670
	606-20-2	2,6-dinitrotoluene	ND	130
	121-14-2	2,4-dinitrotoluene	ND	380
	84-66-2	diethylphthalate	ND	130
	7005-72-3	4-chlorophenyl-phenylether	ND	280
	86-73-7	fluorene	ND	130
	100-01-06	4-nitroaniline	ND	3300
	534-52-1	4,6-dinitro-2-methylphenol	ND	1600
	86-30-6	n-nitrosodiphenylamine	ND	130
	101-55-3	4-bromophenyl-phenylether	ND	130
	118-74-1	hexachlorobenzene	ND	130
	87-86-5	pentachlorophenol	ND	240
	85-01-8	phenanthrene	ND	360
	120-12-7	anthracene	ND	130
	84-74-2	di-n-butylphthalate	ND	170
	206-44-0	fluoranthene	ND	150
	92-87-5	benzidine	ND	2900
	129-00-0	pyrene	ND	130
	85-68-7	butylbenzylphthalate	ND	170
	91-94-1	3,3'-dichlorobenzidine	ND	1100
	56-55-3	benzo(a)anthracene	ND	520
	117-81-7	bis(2-ethylhexyl)phthalate	ND	170

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID REAGENT BLANK BNA FRACTION 06A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST SAL EXTRCTD 03/09/88 FILE # 0302706A VERIFIED LAK
INSTRMT F1 INJECTD 03/14/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	670
	108-95-2	phenol	ND	100
	62-53-3	aniline	ND	670
	111-44-4	bis(2-chloroethyl) ether	ND	380
	95-57-8	2-chlorophenol	ND	220
	541-73-1	1,3-dichlorobenzene	ND	130
	106-46-7	1,4-dichlorobenzene	ND	290
	100-51-6	benzyl alcohol	ND	3300
	95-50-1	1,2-dichlorobenzene	ND	130
	95-48-7	2-methylphenol	ND	670
	108-60-1	bis(2-chloroisopropyl)ether	ND	380
	106-44-5	4-methylphenol	ND	670
	621-64-7	n-nitroso-di-n-propylamine	ND	800
	67-72-1	hexachloroethane	ND	110
	98-95-3	nitrobenzene	ND	130
	78-59-1	isophorone	ND	150
	88-75-5	2-nitrophenol	ND	240
	105-67-9	2,4-dimethylphenol	ND	180
	65-85-0	benzoic acid	ND	3300
	111-91-1	bis(2-chloroethoxy)methane	ND	350
	120-83-2	2,4-dichlorophenol	ND	180
	120-82-1	1,2,4-trichlorobenzene	ND	130
	91-20-3	naphthalene	ND	110
	106-47-8	4-chloroaniline	ND	670
	87-68-3	hexachlorobutadiene	ND	60
	59-50-7	4-chloro-3-methylphenol	ND	200
	91-57-6	2-methylnaphthalene	ND	670

SAMPLE ID REAGENT BLANK BNA SAMPLE # 06 FRACTIONS: A
Date & Time Collected not specified Category

EX BNA 03/09/88 GPC 03/09/88
DATE COMPLETED DATE COMPLETED

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-43

FRACTION 05A TEST CODE CLB270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
1620	218-01-9	chrysene	4300	260
	117-84-0	di-n-octyl phthalate	ND	260
1806	205-99-2	benzo(b)fluoranthene	7000	500
1810	207-08-9	benzo(k)fluoranthene	3600	260
1881	50-32-8	benzo(a)pyrene	5900	260
2208	193-39-5	indeno(1,2,3-cd)pyrene	3100	380
2215	53-70-3	dibenz(a,h)anthracene	1200	260
2302	191-24-2	benzo(ghi)perylene	3200	420

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
367	2-fluorophenol	89 %
493	d5-phenol	89 %
616	d5-nitrobenzene	85 %
886	2-fluorobiphenyl	85 %
1107	2,4,6-tribromophenol	84 %
1457	d14-terphenyl	86 %

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
N\A = not available.
B = detected in Reagent Blank; background subtraction not performed.
J = estimated value less than detection limit.

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-43

FRACTION 05A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	620
	88-06-2	2,4,6-trichlorophenol	ND	280
	95-95-4	2,4,5-trichlorophenol	ND	1000
	91-58-7	2-chloronaphthalene	ND	200
	88-74-4	2-nitroaniline	ND	5200
	131-11-3	dimethyl phthalate	ND	170
	208-96-8	acenaphthylene	ND	360
	99-09-2	3-nitroaniline	ND	5200
991	83-32-9	acenaphthene	340	200
	51-28-5	2,4-dinitrophenol	ND	4300
	100-02-7	4-nitrophenol	ND	250
1015	132-64-9	dibenzofuran	170 J	1000
	606-20-2	2,6-dinitrotoluene	ND	200
	121-14-2	2,4-dinitrotoluene	ND	590
	84-66-2	diethylphthalate	ND	200
	7005-72-3	4-chlorophenyl-phenylether	ND	430
1067	86-73-7	fluorene	320	200
	100-01-06	4-nitroaniline	ND	5200
	534-52-1	4,6-dinitro-2-methylphenol	ND	2500
	86-30-6	n-nitrosodiphenylamine	ND	200
	101-55-3	4-bromophenyl-phenylether	ND	200
	118-74-1	hexachlorobenzene	ND	200
	87-86-5	pentachlorophenol	ND	370
1213	85-01-8	phenanthrene	3900	560
1219	120-12-7	anthracene	1100	200
	84-74-2	di-n-butylphthalate	ND	260
1395	206-44-0	fluoranthene	7600	230
	92-87-5	benzidine	ND	4500
1429	129-00-0	pyrene	6800	200
	85-68-7	butylbenzylphthalate	ND	260
	91-94-1	3,3'-dichlorobenzidine	ND	1700
1613	56-55-3	benzo(a)anthracene	3200	810
1632	117-81-7	bis(2-ethylhexyl)phthalate	2600	260

RADIAN CORPORATION

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RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-43 FRACTION 05A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST SAL EXTRCTD 03/09/88 FILE # 0302705A VERIFIED LAK
INSTRMT F1 INJECTD 03/14/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	1000
	108-95-2	phenol	ND	160
	62-53-3	aniline	ND	1000
	111-44-4	bis(2-chloroethyl) ether	ND	590
	95-57-8	2-chlorophenol	ND	340
	541-73-1	1,3-dichlorobenzene	ND	200
	106-46-7	1,4-dichlorobenzene	ND	450
	100-51-6	benzyl alcohol	ND	5200
	95-50-1	1,2-dichlorobenzene	ND	200
	95-48-7	2-methylphenol	ND	1000
	108-60-1	bis(2-chloroisopropyl)ether	ND	590
	106-44-5	4-methylphenol	ND	1000
	621-64-7	n-nitroso-di-n-propylamine	ND	1200
	67-72-1	hexachloroethane	ND	170
	98-95-3	nitrobenzene	ND	200
	78-59-1	isophorone	ND	230
	88-75-5	2-nitrophenol	ND	370
	105-67-9	2,4-dimethylphenol	ND	280
	65-85-0	benzoic acid	ND	5200
	111-91-1	bis(2-chloroethoxy)methane	ND	550
	120-83-2	2,4-dichlorophenol	ND	280
	120-82-1	1,2,4-trichlorobenzene	ND	200
722	91-20-3	naphthalene	170 J	170
	106-47-8	4-chloroaniline	ND	1000
	87-68-3	hexachlorobutadiene	ND	93
	59-50-7	4-chloro-3-methylphenol	ND	310
826	91-57-6	2-methylnaphthalene	420 J	1000

RAS Sacramento REPORT
Results by Sample

SAMPLE ID 03-43 FRACTION 05B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	108-10-1	4-methyl-2-pentanone	ND	72
	127-18-4	tetrachloroethene	ND	6.4
	79-34-5	1,1,2,2-tetrachloroethane	ND	11
396	108-88-3	toluene	360	9.4
	108-90-7	chlorobenzene	ND	9.4
447	100-41-4	ethylbenzene	17	11
	100-42-5	styrene	ND	4.7
519	95-47-6	total xylenes	150	7.2

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
203	1,2-dichloroethane-d4	96 %
393	Toluene-d8	107 %
487	BFB	105 %

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RAS Sacramento REPORT

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Results by Sample

SAMPLE ID 03-43 FRACTION 05B TEST CODE CL8240 NAME Purgeable Organics - Soil

Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
PURGEABLES

VERIFIED LAK

ANALYST REM EXTRCTD FILE # 0302705B

INSTRMT 5100 INJECTD 03/16/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	74-87-3	chloromethane	ND	7.8
	74-83-9	bromomethane	ND	7.8
	75-01-4	vinyl chloride	ND	7.8
	75-00-3	chloroethane	ND	7.8
100	75-09-2	methylene chloride	17 B	4.4
113	67-64-1	acetone	36 B	12
	75-15-0	carbon disulfide	ND	2.7
	75-69-4	trichlorofluoromethane	ND	7.8
	75-35-4	1,1-dichloroethene	ND	7.3
	75-34-3	1,1-dichloroethane	ND	4.4
	156-60-5	trans-1,2-dichloroethene	ND	2.5
	67-66-3	chloroform	ND	2.5
	107-06-2	1,2-dichloroethane	ND	4.4
	78-93-3	2-butanone	ND	39
	71-55-6	1,1,1-trichloroethane	ND	5.9
	56-23-5	carbon tetrachloride	ND	4.4
	108-05-4	vinyl acetate	ND	11
	75-27-4	bromodichloromethane	ND	3.4
	78-87-5	1,2-dichloropropane	ND	9.4
	10061-01-5	cis-1,3-dichloropropene	ND	7.8
	79-01-6	trichloroethene	ND	3.0
	124-48-1	dibromochloromethane	ND	4.8
	79-00-5	1,1,2-trichloroethane	ND	7.8
289	71-43-2	benzene	7.5	6.9
	10061-02-6	trans-1,3-dichloropropene	ND	7.8
	110-75-8	2-chloroethylvinyl ether	ND	7.8
	75-25-2	bromoform	ND	7.3
	591-78-6	2-hexanone	ND	56

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RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-43

SAMPLE # 05 FRACTIONS: A,B,C,D
Date & Time Collected 03/07/88

Category

BNA_S 03/08/88 DATE COMPLETED

DRY_WT 36 % MOISTURE

EX_BNA 03/09/88 DATE COMPLETED

GPC 03/09/88 DATE COMPLETED

VOA_S 03/09/88 DATE COMPLETED

RADIAN CORPORATION

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RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-42

FRACTION 04A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
1620	218-01-9	chrysene	720	230
	117-84-0	di-n-octyl phthalate	ND	230
	205-99-2	benzo(b)fluoranthene	ND	440
1792	207-08-9	benzo(k)fluoranthene	1100	230
1859	50-32-8	benzo(a)pyrene	860	230
2166	193-39-5	indeno(1,2,3-cd)pyrene	420	340
	53-70-3	dibenz(a,h)anthracene	ND	230
2255	191-24-2	benzo(ghi)perylene	460	370

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
372	2-fluorophenol	93 %
496	d5-phenol	95 %
616	d5-nitrobenzene	91 %
885	2-fluorobiphenyl	88 %
1106	2,4,6-tribromophenol	90 %
1457	d14-terphenyl	92 %

NOTES AND DEFINITIONS FOR THIS REPORT.
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Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-42

FRACTION 04A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	550
	88-06-2	2,4,6-trichlorophenol	ND	250
	95-95-4	2,4,5-trichlorophenol	ND	910
	91-58-7	2-chloronaphthalene	ND	170
	88-74-4	2-nitroaniline	ND	4600
	131-11-3	dimethyl phthalate	ND	150
965	208-96-8	acenaphthylene	120 J	320
	99-09-2	3-nitroaniline	ND	4600
990	83-32-9	acenaphthene	230	170
	51-28-5	2,4-dinitrophenol	ND	3800
	100-02-7	4-nitrophenol	ND	220
1014	132-64-9	dibenzofuran	93 J	910
	606-20-2	2,6-dinitrotoluene	ND	170
1020	121-14-2	2,4-dinitrotoluene	290 J	520
	84-66-2	diethylphthalate	ND	170
	7005-72-3	4-chlorophenyl-phenylether	ND	380
1067	86-73-7	fluorene	230	170
	100-01-06	4-nitroaniline	ND	4600
	534-52-1	4,6-dinitro-2-methylphenol	ND	2200
1088	86-30-6	n-nitrosodiphenylamine	750	170
	101-55-3	4-bromophenyl-phenylether	ND	170
	118-74-1	hexachlorobenzene	ND	170
	87-86-5	pentachlorophenol	ND	330
1212	85-01-8	phenanthrene	910	490
1219	120-12-7	anthracene	240	170
	84-74-2	di-n-butylphthalate	ND	230
1395	206-44-0	fluoranthene	1600	200
	92-87-5	benzidine	ND	4000
1429	129-00-0	pyrene	1400	170
	85-68-7	butylbenzylphthalate	ND	230
	91-94-1	3,3'-dichlorobenzidine	ND	1500
1614	56-55-3	benzo(a)anthracene	530 J	710
1633	117-81-7	bis(2-ethylhexyl)phthalate	2700	230

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-027

Received: 03/08/88 Results by Sample

SAMPLE ID 03-42 FRACTION 04A TEST CODE CL8270 NAME Semivolatile Organics-Soil

Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST SAL EXTRCTD 03/09/88 FILE # 0302704A VERIFIED LAK

INSTRMT F1 INJECTD 03/14/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	910
	108-95-2	phenol	ND	140
	62-53-3	aniline	ND	910
	111-44-4	bis(2-chloroethyl) ether	ND	520
	95-57-8	2-chlorophenol	ND	300
	541-73-1	1,3-dichlorobenzene	ND	170
	106-46-7	1,4-dichlorobenzene	ND	400
	100-51-6	benzyl alcohol	ND	4600
	95-50-1	1,2-dichlorobenzene	ND	170
	95-48-7	2-methylphenol	ND	910
	108-60-1	bis(2-chloroisopropyl)ether	ND	520
	106-44-5	4-methylphenol	ND	910
	621-64-7	n-nitroso-di-n-propylamine	ND	1100
	67-72-1	hexachloroethane	ND	150
	98-95-3	nitrobenzene	ND	170
	78-59-1	isophorone	ND	200
	88-75-5	2-nitrophenol	ND	330
	105-67-9	2,4-dimethylphenol	ND	250
	65-85-0	benzoic acid	ND	4600
	111-91-1	bis(2-chloroethoxy)methane	ND	480
	120-83-2	2,4-dichlorophenol	ND	250
	120-82-1	1,2,4-trichlorobenzene	ND	170
722	91-20-3	naphthalene	250	150
	106-47-8	4-chloroaniline	ND	910
	87-68-3	hexachlorobutadiene	ND	82
	59-50-7	4-chloro-3-methylphenol	ND	270
826	91-57-6	2-methylnaphthalene	2300	910

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RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-42 FRACTION 048 TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	108-10-1	4-methyl-2-pentanone	ND	64
	127-18-4	tetrachloroethene	ND	5.7
	79-34-5	1,1,2,2-tetrachloroethane	ND	9.6
396	108-88-3	toluene	8.3 J	8.3
	108-90-7	chlorobenzene	ND	8.3
448	100-41-4	ethylbenzene	3.7 J	10
	100-42-5	styrene	ND	4.2
534	95-47-6	total xylenes	20	6.4

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY	
204	1,2-dichloroethane-d4	82	%
393	Toluene-d8	108	%
487	BFB	112	%

NOTES AND DEFINITIONS FOR THIS REPORT.
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ND = not detected at specified detection limit
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N\A = not available.
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Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-42

FRACTION 04B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
PURGEABLES

VERIFIED LAK

ANALYST REM EXTRCTD FILE # 0302704B
INSTRMT 5100 INJECTD 03/16/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	74-87-3	chloromethane	ND	7.0
	74-83-9	bromomethane	ND	7.0
	75-01-4	vinyl chloride	ND	7.0
	75-00-3	chloroethane	ND	7.0
	75-09-2	methylene chloride	ND	3.9
114	67-64-1	acetone	11 B	10
	75-15-0	carbon disulfide	ND	2.4
	75-69-4	trichlorofluoromethane	ND	7.0
	75-35-4	1,1-dichloroethene	ND	6.5
	75-34-3	1,1-dichloroethane	ND	3.9
	156-60-5	trans-1,2-dichloroethene	ND	2.2
	67-66-3	chloroform	ND	2.2
	107-06-2	1,2-dichloroethane	ND	3.9
	78-93-3	2-butanone	ND	35
	71-55-6	1,1,1-trichloroethane	ND	5.3
	56-23-5	carbon tetrachloride	ND	3.9
	108-05-4	vinyl acetate	ND	9.6
	75-27-4	bromodichloromethane	ND	3.1
	78-87-5	1,2-dichloropropane	ND	8.3
	10061-01-5	cis-1,3-dichloropropene	ND	7.0
	79-01-6	trichloroethene	ND	2.6
	124-48-1	dibromochloromethane	ND	4.3
	79-00-5	1,1,2-trichloroethane	ND	7.0
289	71-43-2	benzene	3.0 J	6.1
	10061-02-6	trans-1,3-dichloropropene	ND	7.0
	110-75-8	2-chloroethylvinyl ether	ND	7.0
	75-25-2	bromoform	ND	6.5
	591-78-6	2-hexanone	ND	50

RADIAN CORPORATION

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RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-42

SAMPLE # 04 FRACTIONS: A,B,C,D
Date & Time Collected 03/07/88 Category

BNA_S 03/08/88 DATE COMPLETED
DRY_WT 28 % MOISTURE
EX_BNA 03/09/88 DATE COMPLETED
GPC 03/09/88 DATE COMPLETED
VOA_S 03/09/88 DATE COMPLETED

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-41

FRACTION 03A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
1617	218-01-9	chrysene	930	440
	117-84-0	di-n-octyl phthalate	ND	440
	205-99-2	benzo(b)fluoranthene	ND	840
1790	207-08-9	benzo(k)fluoranthene	1100	440
1856	50-32-8	benzo(a)pyrene	890	440
2175	193-39-5	indeno(1,2,3-cd)pyrene	340 J	650
	53-70-3	dibenz(a,h)anthracene	ND	440
2267	191-24-2	benzo(ghi)perylene	370 J	720

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
370	2-fluorophenol	99 %
495	d5-phenol	97 %
617	d5-nitrobenzene	92 %
885	2-fluorobiphenyl	92 %
1105	2,4,6-tribromophenol	87 %
1455	d14-terphenyl	89 %

NOTES AND DEFINITIONS FOR THIS REPORT.
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J = estimated value less than detection limit.

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-41 FRACTION 03A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	1100
	88-06-2	2,4,6-trichlorophenol	ND	470
	95-95-4	2,4,5-trichlorophenol	ND	1800
	91-58-7	2-chloronaphthalene	ND	330
	88-74-4	2-nitroaniline	ND	8800
	131-11-3	dimethyl phthalate	ND	280
961	208-96-8	acenaphthylene	190 J	610
	99-09-2	3-nitroaniline	ND	8800
	83-32-9	acenaphthene	ND	330
	51-28-5	2,4-dinitrophenol	ND	7400
	100-02-7	4-nitrophenol	ND	420
1014	132-64-9	dibenzofuran	310 J	1800
	606-20-2	2,6-dinitrotoluene	ND	330
	121-14-2	2,4-dinitrotoluene	ND	1000
	84-66-2	diethylphthalate	ND	330
	7005-72-3	4-chlorophenyl-phenylether	ND	740
1067	86-73-7	fluorene	440	330
	100-01-06	4-nitroaniline	ND	8800
	534-52-1	4,6-dinitro-2-methylphenol	ND	4200
	86-30-6	n-nitrosodiphenylamine	ND	330
	101-55-3	4-bromophenyl-phenylether	ND	330
	118-74-1	hexachlorobenzene	ND	330
	87-86-5	pentachlorophenol	ND	630
1211	85-01-8	phenanthrene	1700	950
	120-12-7	anthracene	ND	330
	84-74-2	di-n-butylphthalate	ND	440
1393	206-44-0	fluoranthene	1800	390
	92-87-5	benzidine	ND	7700
1427	129-00-0	pyrene	1700	330
	85-68-7	butylbenzylphthalate	ND	440
	91-94-1	3,3'-dichlorobenzidine	ND	2900
1611	56-55-3	benzo(a)anthracene	570 J	1400
1630	117-81-7	bis(2-ethylhexyl)phthalate	23000	440

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-41 FRACTION 03A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST SAL EXTRCTD 03/09/88 FILE # 0302703A VERIFIED LAK
INSTRMT F1 INJECTD 03/14/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	1800
	108-95-2	phenol	ND	260
	62-53-3	aniline	ND	1800
	111-44-4	bis(2-chloroethyl) ether	ND	1000
	95-57-8	2-chlorophenol	ND	580
	541-73-1	1,3-dichlorobenzene	ND	330
	106-46-7	1,4-dichlorobenzene	ND	770
	100-51-6	benzyl alcohol	ND	8800
	95-50-1	1,2-dichlorobenzene	ND	330
	95-48-7	2-methylphenol	ND	1800
	108-60-1	bis(2-chloroisopropyl)ether	ND	1000
	106-44-5	4-methylphenol	ND	1800
	621-64-7	n-nitroso-di-n-propylamine	ND	2100
	67-72-1	hexachloroethane	ND	280
	98-95-3	nitrobenzene	ND	330
	78-59-1	isophorone	ND	390
	88-75-5	2-nitrophenol	ND	630
	105-67-9	2,4-dimethylphenol	ND	470
	65-85-0	benzoic acid	ND	8800
	111-91-1	bis(2-chloroethoxy)methane	ND	930
	120-83-2	2,4-dichlorophenol	ND	470
	120-82-1	1,2,4-trichlorobenzene	ND	330
722	91-20-3	naphthalene	370	280
	106-47-8	4-chloroaniline	ND	1800
	87-68-3	hexachlorobutadiene	ND	160
	59-50-7	4-chloro-3-methylphenol	ND	530
826	91-57-6	2-methylnaphthalene	1400 J	1800

CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-03-027
Continued From Above

SAMPLE ID 03-41

FRACTION 03B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	108-10-1	4-methyl-2-pentanone	ND	73
	127-18-4	tetrachloroethene	ND	6.5
	79-34-5	1,1,2,2-tetrachloroethane	ND	11
396	108-88-3	toluene	34	9.5
	108-90-7	chlorobenzene	ND	9.5
447	100-41-4	ethylbenzene	11 J	11
	100-42-5	styrene	ND	4.8
519	95-47-6	total xylenes	63	7.3

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
202	1,2-dichloroethane-d4	108 %
393	Toluene-d8	105 %
487	BFB	109 %

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RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-41

FRACTION 03B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
PURGEABLES

VERIFIED LAK

ANALYST REM EXTRCTD FILE # 0302703B
INSTRMT 5100 INJECTD 03/16/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	74-87-3	chloromethane	ND	8.0
	74-83-9	bromomethane	ND	8.0
	75-01-4	vinyl chloride	ND	8.0
	75-00-3	chloroethane	ND	8.0
	75-09-2	methylene chloride	ND	4.5
110	67-64-1	acetone	88 B	12
	75-15-0	carbon disulfide	ND	2.7
	75-69-4	trichlorofluoromethane	ND	8.0
	75-35-4	1,1-dichloroethene	ND	7.5
	75-34-3	1,1-dichloroethane	ND	4.5
	156-60-5	trans-1,2-dichloroethene	ND	2.5
	67-66-3	chloroform	ND	2.5
	107-06-2	1,2-dichloroethane	ND	4.5
	78-93-3	2-butanone	ND	40
	71-55-6	1,1,1-trichloroethane	ND	6.0
	56-23-5	carbon tetrachloride	ND	4.5
	108-05-4	vinyl acetate	ND	11
	75-27-4	bromodichloromethane	ND	3.5
	78-87-5	1,2-dichloropropane	ND	9.5
	10061-01-5	cis-1,3-dichloropropene	ND	8.0
	79-01-6	trichloroethene	ND	3.0
	124-48-1	dibromochloromethane	ND	4.9
	79-00-5	1,1,2-trichloroethane	ND	8.0
289	71-43-2	benzene	3.1 J	7.0
	10061-02-6	trans-1,3-dichloropropene	ND	8.0
	110-75-8	2-chloroethylvinyl ether	ND	8.0
	75-25-2	bromoform	ND	7.5
	591-78-6	2-hexanone	ND	57

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-41

SAMPLE # 03 FRACTIONS: A,B,C,D
Date & Time Collected 03/07/88 Category

BNA_S 03/08/88 DATE COMPLETED
DRY_WT 37 % MOISTURE
EX_BNA 03/09/88 DATE COMPLETED
GPC 03/09/88 DATE COMPLETED
VOA_S 03/09/88 DATE COMPLETED

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-40 FRACTION 02A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	220
	117-84-0	di-n-octyl phthalate	ND	220
	205-99-2	benzo(b)fluoranthene	ND	430
	207-08-9	benzo(k)fluoranthene	ND	220
	50-32-8	benzo(a)pyrene	ND	220
	193-39-5	indeno(1,2,3-cd)pyrene	ND	330
	53-70-3	dibenz(a,h)anthracene	ND	220
	191-24-2	benzo(ghi)perylene	ND	370

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
366	2-fluorophenol	89 %
494	d5-phenol	88 %
616	d5-nitrobenzene	89 %
886	2-fluorobiphenyl	84 %
1106	2,4,6-tribromophenol	81 %
1457	d14-terphenyl	79 %

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J = estimated value less than detection limit.

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-40

FRACTION 02A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	540
	88-06-2	2,4,6-trichlorophenol	ND	240
	95-95-4	2,4,5-trichlorophenol	ND	900
	91-58-7	2-chloronaphthalene	ND	170
	88-74-4	2-nitroaniline	ND	4500
	131-11-3	dimethyl phthalate	ND	140
	208-96-8	acenaphthylene	ND	310
	99-09-2	3-nitroaniline	ND	4500
	83-32-9	acenaphthene	ND	170
	51-28-5	2,4-dinitrophenol	ND	3800
	100-02-7	4-nitrophenol	ND	220
	132-64-9	dibenzofuran	ND	900
	606-20-2	2,6-dinitrotoluene	ND	170
	121-14-2	2,4-dinitrotoluene	ND	510
	84-66-2	diethylphthalate	ND	170
	7005-72-3	4-chlorophenyl-phenylether	ND	380
	86-73-7	fluorene	ND	170
	100-01-06	4-nitroaniline	ND	4500
	534-52-1	4,6-dinitro-2-methylphenol	ND	2200
	86-30-6	n-nitrosodiphenylamine	ND	170
	101-55-3	4-bromophenyl-phenylether	ND	170
	118-74-1	hexachlorobenzene	ND	170
	87-86-5	pentachlorophenol	ND	320
	85-01-8	phenanthrene	ND	480
	120-12-7	anthracene	ND	170
	84-74-2	di-n-butylphthalate	ND	220
1395	206-44-0	fluoranthene	120 J	200
	92-87-5	benzidine	ND	3900
1429	129-00-0	pyrene	95 J	170
	85-68-7	butylbenzylphthalate	ND	220
	91-94-1	3,3'-dichlorobenzidine	ND	1500
	56-55-3	benzo(a)anthracene	ND	700
1632	117-81-7	bis(2-ethylhexyl)phthalate	340	220

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-40 FRACTION 02A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST SAL EXTRCTD 03/09/88 FILE # 0302702A VERIFIED LAK
INSTRMT F1 INJECTD 03/14/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	900
	108-95-2	phenol	ND	130
	62-53-3	aniline	ND	900
	111-44-4	bis(2-chloroethyl) ether	ND	510
	95-57-8	2-chlorophenol	ND	300
	541-73-1	1,3-dichlorobenzene	ND	170
	106-46-7	1,4-dichlorobenzene	ND	390
	100-51-6	benzyl alcohol	ND	4500
	95-50-1	1,2-dichlorobenzene	ND	170
	95-48-7	2-methylphenol	ND	900
	108-60-1	bis(2-chloroisopropyl)ether	ND	510
	106-44-5	4-methylphenol	ND	900
	621-64-7	n-nitroso-di-n-propylamine	ND	1100
	67-72-1	hexachloroethane	ND	140
	98-95-3	nitrobenzene	ND	170
	78-59-1	isophorone	ND	200
	88-75-5	2-nitrophenol	ND	320
	105-67-9	2,4-dimethylphenol	ND	240
	65-85-0	benzoic acid	ND	4500
	111-91-1	bis(2-chloroethoxy)methane	ND	470
	120-83-2	2,4-dichlorophenol	ND	240
	120-82-1	1,2,4-trichlorobenzene	ND	170
722	91-20-3	naphthalene	97 J	140
	106-47-8	4-chloroaniline	ND	900
	87-68-3	hexachlorobutadiene	ND	81
	59-50-7	4-chloro-3-methylphenol	ND	270
827	91-57-6	2-methylnaphthalene	460 J	900

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-40

FRACTION 02B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	108-10-1	4-methyl-2-pentanone	ND	62
	127-18-4	tetrachloroethene	ND	5.5
	79-34-5	1,1,2,2-tetrachloroethane	ND	9.3
397	108-88-3	toluene	12	8.1
	108-90-7	chlorobenzene	ND	8.1
448	100-41-4	ethylbenzene	4.1 J	9.7
	100-42-5	styrene	ND	4.1
535	95-47-6	total xylenes	28	6.2

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
197	1,2-dichloroethane-d4	121 %
394	Toluene-d8	109 %
488	BFB	103 %

NOTES AND DEFINITIONS FOR THIS REPORT.
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RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-40

FRACTION 02B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
PURGEABLES

VERIFIED LAK

ANALYST REM EXTRCTD FILE # 0302702B
INSTRMT 5100 INJECTD 03/16/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	74-87-3	chloromethane	ND	6.8
	74-83-9	bromomethane	ND	6.8
	75-01-4	vinyl chloride	ND	6.8
	75-00-3	chloroethane	ND	6.8
83	75-09-2	methylene chloride	6.5 B	3.8
	67-64-1	acetone	ND	10
	75-15-0	carbon disulfide	ND	2.3
	75-69-4	trichlorofluoromethane	ND	6.8
	75-35-4	1,1-dichloroethene	ND	6.3
	75-34-3	1,1-dichloroethane	ND	3.8
	156-60-5	trans-1,2-dichloroethene	ND	2.2
	67-66-3	chloroform	ND	2.2
	107-06-2	1,2-dichloroethane	ND	3.8
	78-93-3	2-butanone	ND	34
	71-55-6	1,1,1-trichloroethane	ND	5.1
	56-23-5	carbon tetrachloride	ND	3.8
	108-05-4	vinyl acetate	ND	9.3
	75-27-4	bromodichloromethane	ND	3.0
	78-87-5	1,2-dichloropropane	ND	8.1
	10061-01-5	cis-1,3-dichloropropene	ND	6.8
	79-01-6	trichloroethene	ND	2.6
	124-48-1	dibromochloromethane	ND	4.2
	79-00-5	1,1,2-trichloroethane	ND	6.8
288	71-43-2	benzene	3.8 J	5.9
	10061-02-6	trans-1,3-dichloropropene	ND	6.8
	110-75-8	2-chloroethylvinyl ether	ND	6.8
	75-25-2	bromoform	ND	6.3
	591-78-6	2-hexanone	ND	49

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-40

SAMPLE # 02 FRACTIONS: A,B,C,D
Date & Time Collected 03/07/88 Category

BNA S 03/08/88 DATE COMPLETED
DRY WT 26 % MOISTURE
EX BNA 03/09/88 DATE COMPLETED
GPC 03/09/88 DATE COMPLETED
VOA S 03/09/88 DATE COMPLETED

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-39

FRACTION 01A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
1618	218-01-9	chrysene	6200	440
	117-84-0	di-n-octyl phthalate	ND	440
	205-99-2	benzo(b)fluoranthene	ND	840
1790	207-08-9	benzo(k)fluoranthene	8500	440
1857	50-32-8	benzo(a)pyrene	6200	440
2172	193-39-5	indeno(1,2,3-cd)pyrene	3300	650
2179	53-70-3	dibenz(a,h)anthracene	1200	440
2263	191-24-2	benzo(ghi)perylene	3600	720

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
370	2-fluorophenol	92 %
495	d5-phenol	88 %
617	d5-nitrobenzene	97 %
885	2-fluorobiphenyl	94 %
1105	2,4,6-tribromophenol	95 %
1456	d14-terphenyl	107 %

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CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-39 FRACTION 01A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	1100
	88-06-2	2,4,6-trichlorophenol	ND	470
	95-95-4	2,4,5-trichlorophenol	ND	1800
	91-58-7	2-chloronaphthalene	ND	330
	88-74-4	2-nitroaniline	ND	8800
	131-11-3	dimethyl phthalate	ND	280
	208-96-8	acenaphthylene	ND	610
	99-09-2	3-nitroaniline	ND	8800
990	83-32-9	acenaphthene	560	330
	51-28-5	2,4-dinitrophenol	ND	7400
	100-02-7	4-nitrophenol	ND	420
1014	132-64-9	dibenzofuran	370 J	1800
	606-20-2	2,6-dinitrotoluene	ND	330
	121-14-2	2,4-dinitrotoluene	ND	1000
	84-66-2	diethylphthalate	ND	330
	7005-72-3	4-chlorophenyl-phenylether	ND	740
1066	86-73-7	fluorene	510	330
	100-01-06	4-nitroaniline	ND	8800
	534-52-1	4,6-dinitro-2-methylphenol	ND	4200
	86-30-6	n-nitrosodiphenylamine	ND	330
	101-55-3	4-bromophenyl-phenylether	ND	330
	118-74-1	hexachlorobenzene	ND	330
	87-86-5	pentachlorophenol	ND	630
1211	85-01-8	phenanthrene	4400	950
1218	120-12-7	anthracene	1200	330
	84-74-2	di-n-butylphthalate	ND	440
1394	206-44-0	fluoranthene	9700	390
	92-87-5	benzidine	ND	7700
1427	129-00-0	pyrene	9100	330
	85-68-7	butylbenzylphthalate	ND	440
	91-94-1	3,3'-dichlorobenzidine	ND	2900
1612	56-55-3	benzo(a)anthracene	3900	1400
1630	117-81-7	bis(2-ethylhexyl)phthalate	3500	440

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-39 FRACTION 01A TEST CODE CL8270 NAME Semivolatile Organics-Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

ANALYST SAL EXTRCTD 03/09/88 FILE # 0302701A VERIFIED LAK
INSTRMT F1 INJECTD 03/14/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	1800
	108-95-2	phenol	ND	260
	62-53-3	aniline	ND	1800
	111-44-4	bis(2-chloroethyl) ether	ND	1000
	95-57-8	2-chlorophenol	ND	580
	541-73-1	1,3-dichlorobenzene	ND	330
	106-46-7	1,4-dichlorobenzene	ND	770
	100-51-6	benzyl alcohol	ND	8800
	95-50-1	1,2-dichlorobenzene	ND	330
	95-48-7	2-methylphenol	ND	1800
	108-60-1	bis(2-chloroisopropyl)ether	ND	1000
600	106-44-5	4-methylphenol	1000 J	1800
	621-64-7	n-nitroso-di-n-propylamine	ND	2100
	67-72-1	hexachloroethane	ND	280
	98-95-3	nitrobenzene	ND	330
	78-59-1	isophorone	ND	390
	88-75-5	2-nitrophenol	ND	630
	105-67-9	2,4-dimethylphenol	ND	470
	65-85-0	benzoic acid	ND	8800
	111-91-1	bis(2-chloroethoxy)methane	ND	930
	120-83-2	2,4-dichlorophenol	ND	470
	120-82-1	1,2,4-trichlorobenzene	ND	330
722	91-20-3	naphthalene	1400	280
	106-47-8	4-chloroaniline	ND	1800
	87-68-3	hexachlorobutadiene	ND	160
	59-50-7	4-chloro-3-methylphenol	ND	530
826	91-57-6	2-methylnaphthalene	3200	1800

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027
Continued From Above

SAMPLE ID 03-39 FRACTION 01B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	108-10-1	4-methyl-2-pentanone	ND	330
	127-18-4	tetrachloroethene	ND	29
	79-34-5	1,1,2,2-tetrachloroethane	ND	49
396	108-88-3	toluene	160	43
	108-90-7	chlorobenzene	ND	43
448	100-41-4	ethylbenzene	750	51
	100-42-5	styrene	ND	21
519	95-47-6	total xylenes	3900	33

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
200	1,2-dichloroethane-d4	92 %
393	Toluene-d8	106 %
488	BFB	100 %

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RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-027

SAMPLE ID 03-39

FRACTION 01B TEST CODE CL8240 NAME Purgeable Organics - Soil
Date & Time Collected 03/07/88 Category

ORGANICS ANALYSIS DATA SHEET
PURGEABLES

VERIFIED LAK

ANALYST REM EXTRCTD FILE # 0302701R
INSTRMT 5100 INJECTD 03/16/88 UNITS ug/Kg

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	74-87-3	chloromethane	ND	36
	74-83-9	bromomethane	ND	36
	75-01-4	vinyl chloride	ND	36
	75-00-3	chloroethane	ND	36
	75-09-2	methylene chloride	ND	20
106	67-64-1	acetone	20 BJ	54
	75-15-0	carbon disulfide	ND	12
	75-69-4	trichlorofluoromethane	ND	36
	75-35-4	1,1-dichloroethene	ND	34
	75-34-3	1,1-dichloroethane	ND	20
	156-60-5	trans-1,2-dichloroethene	ND	11
	67-66-3	chloroform	ND	11
	107-06-2	1,2-dichloroethane	ND	20
	78-93-3	2-butanone	ND	180
	71-55-6	1,1,1-trichloroethane	ND	27
	56-23-5	carbon tetrachloride	ND	20
	108-05-4	vinyl acetate	ND	49
	75-27-4	bromodichloromethane	ND	16
	78-87-5	1,2-dichloropropane	ND	43
	10061-01-5	cis-1,3-dichloropropene	ND	36
	79-01-6	trichloroethene	ND	14
	124-48-1	dibromochloromethane	ND	22
	79-00-5	1,1,2-trichloroethane	ND	36
289	71-43-2	benzene	11 J	31
	10061-02-6	trans-1,3-dichloropropene	ND	36
	110-75-8	2-chloroethylvinyl ether	ND	36
	75-25-2	bromoform	ND	34
	591-78-6	2-hexanone	ND	260

RAS Sacramento REPORT

Work Order # 88-03-027

Received: 03/08/88

Results by Sample

SAMPLE ID 03-39

SAMPLE # 01 FRACTIONS: A,B,C,D

Date & Time Collected 03/07/88 Category

BNA S	DRY WT	EX BNA	GPC	VOA S
03/08/88	30	03/09/88	03/09/88	03/09/88
DATE COMPLETED	% MOISTURE	DATE COMPLETED	DATE COMPLETED	DATE COMPLETED

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-027

Received: 03/08/88

Results By Test

SAMPLE Sample Id	Test: BNA S date completed	Test: DRY WT % moisture	Test: EX BNA date completed	Test: GPC date completed	Test: VOA S date completed
01	03/08/88	30	03/09/88	03/09/88	03/09/88
03-39	DATE COMPLETED	% MOISTURE	DATE COMPLETED	DATE COMPLETED	DATE COMPLETED
02	03/08/88	26	03/09/88	03/09/88	03/09/88
03-40	DATE COMPLETED	% MOISTURE	DATE COMPLETED	DATE COMPLETED	DATE COMPLETED
03	03/08/88	37	03/09/88	03/09/88	03/09/88
03-41	DATE COMPLETED	% MOISTURE	DATE COMPLETED	DATE COMPLETED	DATE COMPLETED
04	03/08/88	28	03/09/88	03/09/88	03/09/88
03-42	DATE COMPLETED	% MOISTURE	DATE COMPLETED	DATE COMPLETED	DATE COMPLETED
05	03/08/88	36	03/09/88	03/09/88	03/09/88
03-43	DATE COMPLETED	% MOISTURE	DATE COMPLETED	DATE COMPLETED	DATE COMPLETED
06			03/09/88	03/09/88	
REAGENT BLANK B			DATE COMPLETED	DATE COMPLETED	

RAS Sacramento REPORT

Work Order # S8-03-027

Received: 03/08/88

Results By Test

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
BNA_S date completed	03/08/88 DATE COMPLETED	03/08/88 DATE COMPLETED	03/08/88 DATE COMPLETED	03/08/88 DATE COMPLETED	03/08/88 DATE COMPLETED
DRY_WT % moisture	30 % MOISTURE	26 % MOISTURE	37 % MOISTURE	28 % MOISTURE	36 % MOISTURE
EX_BNA date completed	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED
GPC date completed	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED
VOA_S date completed	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED	03/09/88 DATE COMPLETED

TEST CODE default units	Sample 06 (entered units)
EX_BNA date completed	03/09/88 DATE COMPLETED
GPC date completed	03/09/88 DATE COMPLETED

RADIAN CORPORATION

Received: 03/08/88

RAS Sacramento REPORT

04/12/88 13:51:19

Work Order # S8-03-027

REPORT TO: Radian Corporation
8501 MoPac Blvd.
Austin, Tx 78766

ATTEN: Larry French

CLIENT: CARSWELL AFB SAMPLES: 7
COMPANY: Carswell AFB.
FACILITY: Headquarters, SAC
Offutt, Nebraska 68113

WORK ID: Site 13
TAKEN: 03/07/88
TRANS: Federal 763228454
TYPE: Soil-BNA & VOA
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
10395 Old Placerville Road
Sacramento,
California 95827

ATTEN:
PHONE: 916-362-5332

CERTIFIED BY

CONTACT: LARRY FRENCH

SAMPLE IDENTIFICATION

01 03-39
02 03-40
03 03-41
04 03-42
05 03-43
06 REAGENT BLANK BNA
07 REAGENT BLANK VOA

TEST CODES and NAMES used on this report

BNA S	Semivolatiles Screen
CL8240	Purgeable Organics - Soil
CL8270	Semivolatile Organics-Soil
DRY WT	Dry weight determination
EX BNA	Semivolatiles extraction
GPC	Gel Perm Clean-Up
VOA S	Volatiles Screen Analysis

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # 58-03-019
Continued From Above

SAMPLE ID METHOD SPIKE HERB. FRACTION 06A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-019

Received: 03/04/88 Results by Sample

SAMPLE ID METHOD SPIKE HERB. FRACTION 06A TEST CODE 509B NAME Herbicides in water

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST AL EXTRCTD 03/08/88 FILE # 718031517

INSTRMT 7 INJECTD 03/15/88 FACTOR 1 UNITS %

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	54	0.50	1
93-72-1	2,4,5-TP (Silvex)	63	0.10	1
93-76-5	2,4,5-T	53	0.10	1

SURROGATE

2,4-Dichlorophenyl Acetic Acid 55 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID METHOD SPIKE HERB.

SAMPLE # 06 FRACTIONS: A
Date & Time Collected not specified Category

EXHERB 03/08/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK PHENOL FRACTION 05A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 03/04/88 Results by Sample

SAMPLE ID REAGENT BLANK PHENOL FRACTION 05A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED JD

ANALYST AL EXTRCTD 03/04/88 FILE # 81803228
INSTRMT 8 INJECTD 03/23/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.20	1
95-57-8	2-Chlorophenol	ND	0.20	1
88-75-5	2-Nitrophenol	ND	2.0	1
105-67-9	2,4-Dimethylphenol	ND	0.30	1
120-83-2	2,4-Dichlorophenol	ND	0.50	1
59-50-7	4-Chloro-3-Methylphenol	ND	0.40	1
88-06-2	2,4,6-Trichlorophenol	ND	0.60	1
51-28-5	2,4-Dinitrophenol	ND	13	1
100-02-7	4-Nitrophenol	ND	2.5	1
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	16	1
87-86-5	Pentachlorophenol	ND	7.5	1

SURROGATE

1770-80-5 2-Fluorophenol 88 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
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NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
Confirmation: C = confirmed; NC = not confirmed;
NR = not required; NP = not performed
PC = Previously confirmed
J = Estimated value.
QC = Outside control limits.

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID REAGENT BLANK PHENOL

SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category

EXPHEN 03/04/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK PEST. FRACTION 04A TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected not specified Category

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed
D = Not reportable due to dilution

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-019

Received: 03/04/88 Results by Sample

SAMPLE ID REAGENT BLANK PEST. FRACTION 04A TEST CODE 608 NAME EPA-Pest/PCB's Water

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 03/04/88 FILE # 118031725 VERIFIED JD

INSTRMT 1 INJECTD 03/17/88 FACTOR 2 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.020	2
58-89-9	gamma-BHC (lindane)	ND	0.020	2
319-85-7	beta-BHC	ND	0.020	2
76-44-8	Heptachlor	ND	0.020	2
319-86-8	delta-BHC	ND	0.020	2
309-00-02	Aldrin	ND	0.020	2
1024-57-3	Heptachlor Epoxide	ND	0.020	2
959-98-8	Endosulfan I	ND	0.020	2
72-55-9	4,4'-DDE	ND	0.020	2
60-57-1	Dieldrin	ND	0.020	2
72-20-8	Endrin	ND	0.020	2
72-54-8	4,4'-DDD	ND	0.020	2
33213-65-9	Endosulfan II	ND	0.060	2
50-29-3	4,4'-DDT	ND	0.040	2
7421-93-4	Endrin Aldehyde	ND	0.040	2
1031-07-8	Endosulfan Sulphate	ND	0.10	2
53494-70-5	Endrin Ketone	ND	0.10	2
72-43-5	Methoxychlor	ND	0.10	2
57-74-9	Chlordane	ND	0.10	2
8001-35-2	Toxaphene	ND	1.0	2
12674-11-2	PCB-1016	ND	0.20	2
11104-28-2	PCB-1221	ND	0.40	2
11141-16-5	PCB-1232	ND	0.40	2
53469-21-9	PCB-1242	ND	0.20	2
12672-29-6	PCB-1248	ND	0.20	2
11097-69-1	PCB-1254	ND	0.40	2
11096-82-5	PCB-1260	ND	0.40	2

SURROGATE 1770-80-5 Dibutylchlorendate 103 % Recovery

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID REAGENT BLANK PEST.

SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category

EXPEST 03/04/88
DATE COMPLETED

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019
Continued From Above

SAMPLE ID REAGENT BLANK HERB. FRACTION 03A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 03/04/88

Results by Sample

SAMPLE ID REAGENT BLANK HERB. FRACTION 03A TEST CODE 509B NAME Herbicides in water

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST AL EXTRCTD 03/08/88 FILE # 718031516

INSTRMT 7 INJECTD 03/15/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1
93-76-5	2,4,5-T	ND	0.10	1

SURROGATE

2,4-Dichlorophenyl Acetic Acid 82 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

RADIAN CORPORATION

Received: 03/04/88

KAS Sacramento REPORT

Results by Sample

Work Order # SB-03-019

SAMPLE ID REAGENT BLANK HERB.

SAMPLE # 03 FRACTIONS: A

Date & Time Collected not specified

Category

EXHERB 03/08/88

DATE COMPLETED

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019
Continued From Above

SAMPLE ID 03-29

FRACTION 02B TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed
D = Not reportable due to dilution

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID 03-29 FRACTION 02B TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 03/03/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 03/04/88 FILE # 118031731 VERIFIED JD
INSTRMT 1 INJECTD 03/17/88 FACTOR 4 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.25	25
58-89-9	gamma-BHC (lindane)	ND	0.25	25
319-85-7	beta-BHC	ND	0.25	25
76-44-8	Heptachlor	ND	0.25	25
319-86-8	delta-BHC	ND	0.040	4
309-00-02	Aldrin	ND	0.040	4
1024-57-3	Heptachlor Epoxide	ND	0.040	4
959-98-8	Endosulfan I	ND	0.25	25
72-55-9	4,4'-DDE	ND	0.25	25
60-57-1	Dieldrin	ND	0.25	25
72-20-8	Endrin	ND	0.040	4
72-54-8	4,4'-DDD	ND	0.040	4
33213-65-9	Endosulfan II	ND	0.12	4
50-29-3	4,4'-DDT	ND	0.080	4
7421-93-4	Endrin Aldehyde	ND	0.080	4
1031-07-8	Endosulfan Sulphate	ND	0.20	4
53494-70-5	Endrin Ketone	ND	0.20	4
72-43-5	Methoxychlor	ND	0.20	4
57-74-9	Chlordane	ND	0.20	4
8001-35-2	Toxaphene	ND	2.0	4
12674-11-2	PCB-1016	ND	2.5	25
11104-28-2	PCB-1221	ND	5.0	25
11141-16-5	PCB-1232	ND	5.0	25
53469-21-9	PCB-1242	ND	2.5	25
12672-29-6	PCB-1248	ND	0.40	4
11097-69-1	PCB-1254	ND	0.80	4
11096-82-5	PCB-1260	ND	0.80	4

SURROGATE 1770-80-5 Dibutylchlorendate 30 % Recovery

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019
Continued From Above

SAMPLE ID 03-29

FRACTION 02A TEST CODE 604 NAME Phenols in water.
Date & Time Collected 03/03/88 Category

D = Not reportable due to dilution

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-019

Received: 03/04/88 Results by Sample

SAMPLE ID 03-29 FRACTION 02A TEST CODE 604 NAME Phenols in water.

Date & Time Collected 03/03/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED JD

ANALYST AL EXTRCTD 03/04/88 FILE # 81803237

INSTRMT 8 INJECTD 03/23/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.20	1
95-57-8	2-Chlorophenol	ND	0.20	1
88-75-5	2-Nitrophenol	ND	2.0	1
105-67-9	2,4-Dimethylphenol	ND	0.30	1
120-83-2	2,4-Dichlorophenol	1.4 C	0.50	1
59-50-7	4-Chloro-3-Methylphenol	ND	0.40	1
88-06-2	2,4,6-Trichlorophenol	ND	0.60	1
51-28-5	2,4-Dinitrophenol	ND	13	1
100-02-7	4-Nitrophenol	ND	2.5	1
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	16	1
87-86-5	Pentachlorophenol	ND	7.5	1

SURROGATE

1770-80-5 2-Fluorophenol 72 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
Confirmation: C = confirmed; NC = not confirmed;
NR = not required; NP = not performed
PC = Previously confirmed
J = Estimated value.
QC = Outside control limits.

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019
Continued From Above

SAMPLE ID 03-29

FRACTION 02C TEST CODE 509B NAME Herbicides in water
Date & Time Collected 03/03/88 Category

D = Not reportable due to dilution

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID 03-29 FRACTION 02C TEST CODE 509B NAME Herbicides in water
Date & Time Collected 03/03/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST AL EXTRCTD 03/08/88 FILE # 71803163
INSTRMT 7 INJECTD 03/16/88 FACTOR 5 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	2.5	5
93-72-1	2,4,5-TP (Silvex)	ND	0.50	5
93-76-5	2,4,5-T	ND	0.50	5

SURROGATE

2,4-Dichlorophenyl Acetic Acid 53 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
OC = Outside control limits.
C = Confirmed NC = Not confirmed

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID 03-29

SAMPLE # 02 FRACTIONS: A,B,C
Date & Time Collected 03/03/88 Category

EXHERB 03/08/88 DATE COMPLETED
EXPEST 03/04/88 DATE COMPLETED
EXPHEN 03/04/88 DATE COMPLETED

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019
Continued From Above

SAMPLE ID 03-28

FRACTION 01B TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed
D = Not reportable due to dilution

Received: 03/04/88

RAS Sacramento REPORT

Results by Sample

Work Order # SB-03-019

SAMPLE ID 03-28 FRACTION 01B TEST CODE 608 NAME EPA-Pest/PCB's Water

Date & Time Collected 03/03/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 03/04/88 FILE # 118031729 VERIFIED JD

INSTRMT 1 INJECTD 03/17/88 FACTOR 4 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.040	4
58-89-9	gamma-BHC (lindane)	ND	0.040	4
319-85-7	beta-BHC	ND	0.040	4
76-44-8	Heptachlor	ND	0.040	4
319-86-8	delta-BHC	ND	0.040	4
309-00-02	Aldrin	ND	0.040	4
1024-57-3	Heptachlor Epoxide	ND	0.040	4
959-98-8	Endosulfan I	ND	0.040	4
72-55-9	4,4'-DDE	ND	0.25	25
60-57-1	Dieldrin	ND	0.25	25
72-20-8	Endrin	ND	0.040	4
72-54-8	4,4'-DDD	ND	0.040	4
33213-65-9	Endosulfan II	ND	0.12	4
50-29-3	4,4'-DDT	ND	0.080	4
7421-93-4	Endrin Aldehyde	ND	0.080	4
1031-07-8	Endosulfan Sulphate	ND	0.20	4
53494-70-5	Endrin Ketone	ND	0.20	4
72-43-5	Methoxychlor	ND	0.20	4
57-74-9	Chlordane	ND	0.20	4
8001-35-2	Toxaphene	ND	2.0	4
12674-11-2	PCB-1016	ND	0.40	4
11104-28-2	PCB-1221	ND	5.0	25
11141-16-5	PCB-1232	ND	0.80	4
53469-21-9	PCB-1242	ND	0.40	4
12672-29-6	PCB-1248	ND	0.40	4
11097-69-1	PCB-1254	ND	0.80	4
11096-82-5	PCB-1260	ND	0.80	4

SURROGATE 1770-80-5 Dibutylchlorendate 39 % Recovery

KADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019
Continued From Above

SAMPLE ID 03-28

FRACTION 01A TEST CODE 604 NAME Phenols in water.
Date & Time Collected 03/03/88 Category

D = Not reportable due to dilution

Received: 03/04/88 Results by Sample

SAMPLE ID 03-28 FRACTION 01A TEST CODE 604 NAME Phenols in water.
Date & Time Collected 03/03/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED JD

ANALYST AL EXTRCTD 03/04/88 FILE # B1B03236
INSTRMT 8 INJECTD 03/22/88 FACTOR 1.1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.22	1.1
95-57-8	2-Chlorophenol	ND	0.22	1.1
88-75-5	2-Nitrophenol	ND	2.2	1.1
105-67-9	2,4-Dimethylphenol	ND	0.33	1.1
120-83-2	2,4-Dichlorophenol	ND	0.55	1.1
59-50-7	4-Chloro-3-Methylphenol	ND	0.44	1.1
88-06-2	2,4,6-Trichlorophenol	ND	0.66	1.1
51-28-5	2,4-Dinitrophenol	ND	14	1.1
100-02-7	4-Nitrophenol	ND	2.8	1.1
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	18	1.1
87-86-5	Pentachlorophenol	ND	8.3	1.1

SURROGATE

1770-80-5 2-Fluorophenol 85 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
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N\A = not available.
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Confirmation: C = confirmed; NC = not confirmed;
NR = not required; NP = not performed
PC = Previously confirmed
J = Estimated value.
QC = Outside control limits.

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019
Continued From Above

SAMPLE ID 03-28

FRACTION 01C TEST CODE 509B NAME Herbicides in water
Date & Time Collected 03/03/88 Category

D = Not reportable due to dilution

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID 03-28

FRACTION 01C TEST CODE 509B NAME Herbicides in water
Date & Time Collected 03/03/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST AL
INSTRMT 7

EXTRCTD 03/08/88
INJECTD 03/15/88

FILE # 718031523
FACTOR 1

UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1
93-76-5	2,4,5-T	ND	0.10	1

SURROGATE

2,4-Dichlorophenyl Acetic Acid 88 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

RADIAN CORPORATION

Received: 03/04/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-019

SAMPLE ID 03-28

SAMPLE # 01 FRACTIONS: A,B,C
Date & Time Collected 03/03/88 Category

EXHERB 03/08/88 DATE COMPLETED
EXPEST 03/04/88 DATE COMPLETED
EXPHEN 03/04/88 DATE COMPLETED

CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-019

Received: 03/04/88

Results By Test

SAMPLE Sample Id	Test: EXHERB Date completed	Test: EXPEST date completed	Test: EXPHEN date completed
01 03-28	03/08/88 DATE COMPLETED	03/04/88 DATE COMPLETED	03/04/88 DATE COMPLETED
02 03-29	03/08/88 DATE COMPLETED	03/04/88 DATE COMPLETED	03/04/88 DATE COMPLETED
03 REAGENT BLANK H	03/08/88 DATE COMPLETED		
04 REAGENT BLANK P		03/04/88 DATE COMPLETED	
05 REAGENT BLANK P			03/04/88 DATE COMPLETED
06 METHOD SPIKE HE	03/08/88 DATE COMPLETED		

RADIAN CORPORATION

RAS Sacramento REPORT

Work Order # S8-03-019

Received: 03/04/88

Results By Test

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EXHERB Date completed	03/08/88 DATE COMPLETED	03/08/88 DATE COMPLETED	03/08/88 DATE COMPLETED		
EXPEST date completed	03/04/88 DATE COMPLETED	03/04/88 DATE COMPLETED		03/04/88 DATE COMPLETED	
EXPHEN date completed	03/04/88 DATE COMPLETED	03/04/88 DATE COMPLETED			03/04/88 DATE COMPLETED

TEST CODE default units	Sample 06 (entered units)
EXHERB Date completed	03/08/88 DATE COMPLETED

RADIAN CORPORATION

Page 1
Received: 03/04/88

RAS Sacramento REPORT
04/04/88 17:38:07

Work Order # S8-03-019

REPORT TO: Radian Corporation
8501 MoPac Blvd.
Austin, Tx 78766

ATTEN: Larry French

CLIENT: CARSWELL AFB SAMPLES: 6
COMPANY: Carswell AFB.
FACILITY: Headquarters, SAC
Offutt, Nebraska 68113

WORK ID: Site 10
TAKEN: 03/03/88
TRANS: Federal 54718998456
TYPE: H20-509/604/608
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
10395 Old Placerville Road
Sacramento,
California 95827

ATTEN:
PHONE: 916-362-5332

CERTIFIED BY: Rand H Hale

CONTACT: LARRY FRENCH

SAMPLE IDENTIFICATION

01 03-28
02 03-29
03 REAGENT BLANK HERB.
04 REAGENT BLANK PEST.
05 REAGENT BLANK PHENOL
06 METHOD SPIKE HERB.

TEST CODES and NAMES used on this report

509B	Herbicides in water
604	Phenols in water.
608	EPA-Pest/PCB's Water
EXHERB	Extraction for Herbicides
EXPEST	Extraction for Pest/PCBs
EXPHEN	Extraction for Phenols

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	SPR601	01D	:	SPR602
02B	:	SPR601	02D	:	SPR602
03B	:	SPR601	03D	:	SPR602
04B	:	SPR601	04D	:	SPR602

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-018

Received: 03/02/88 Results by Sample

SAMPLE ID 03-11 2nd col. conf. FRACTION 07A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/09/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-11 2nd col. conf.

FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-11 2nd col. conf. FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

FILE #

INJECTED 03/09/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	2.7	0.2
108-88-3	Toluene	19	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 03-10 2nd col. conf. FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-10 2nd col. conf. FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	0.6*	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-018

Received: 03/02/88 Results by Sample

SAMPLE ID 03-10 2nd col. conf. FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/01/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 03/08/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	3.2	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	1.4	0.10

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018

SAMPLE ID reagent blank

FRACTION 05A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTD 03/05/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID reagent blank FRACTION 05A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-018

Received: 03/02/88 Results by Sample

SAMPLE ID reagent blank FRACTION 05A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/05/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID reagent blank FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

SAMPLE ID reagent blank FRACTION Q5A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-018

SAMPLE ID reagent blank FRACTION Q5A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL

INSTRMT G

INJECTD 03/05/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-13

FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTD 03/05/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	2
108-38-3	m-Xylene-A	ND	2
95-47-6	o-Xylene	ND	1

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	91% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-13

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-018

Received: 03/02/88

Results by Sample

SAMPLE ID 03-13 FRACTION 04C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/05/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	2
108-88-3	Toluene	ND	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	ND	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	91% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 03-13 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 102 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-13 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	101	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-13

FRACTION 04A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/01/88 Category

ANALYST CL

INSTRMT G

INJECTD 03/05/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-018

Received: 03/02/88

Results by Sample

SAMPLE ID 03-12

FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 03/05/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	5
108-38-3	m-Xylene-A	ND	5
95-47-6	o-Xylene	ND	3

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 140**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-12

FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-018

Received: 03/02/88

Results by Sample

SAMPLE ID 03-12

FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/05/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	5
108-88-3	Toluene	ND	5
100-41-4	Ethylbenzene	ND	8
108-90-7	Chlorobenzene-A	ND	8
106-46-7	1,4-Dichlorobenzene	ND	8
541-73-1	1,3-Dichlorobenzene	ND	10
95-50-1	1,2-Dichlorobenzene	ND	10

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 104**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-12

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 102 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-12

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	110	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-12

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

ANALYST CL
INSTRMT G

INJECTD 03/05/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-11

FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 03/04/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-11

FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-018

Received: 03/02/88

Results by Sample

SAMPLE ID 03-11

FRACTION 02C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/04/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	1.6	0.2
108-88-3	Toluene	1.8	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 03-11 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 102 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-11

FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40
	SURROGATES		
74-97-5	Bromochloromethane	106	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-11

FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT G

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-10

FRACTION 01C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-10

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-018

Received: 03/02/88 Results by Sample

SAMPLE ID 03-10 FRACTION 01C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED C

ANALYST RW FILE #

INSTRMT D INJECTED 03/04/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	4.6	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	3.6	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	106% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-10 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 106 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-018
Continued From Above

SAMPLE ID 03-10 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	0.7*	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	2.4	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	102	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

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Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-018

SAMPLE ID 03-10

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/01/88 Category

ANALYST RW

INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	2.4	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	1.6	0.10

RADIAN CORPORATION

Page 1
Received: 03/02/88

RAS - Austin REPORT
03/16/88 12:30:39

Work Order # 88-03-018

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 7
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: sites 1,16,17,stream
TAKEN: RP,GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

2nd column confirmations run on 601 -01 and 602 -02. Compound is confirmed on 601 -01 for chlorobenzene but quantitation is not possible because of coelution. Unknown compounds present in -03 and -04 for 602 analysis. **Possible interferences.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 03-10
02 03-11
03 03-12
04 03-13
05 reagent blank
06 03-10 2nd col. conf.
07 03-11 2nd col. conf.

TEST CODES and NAMES used on this report

EPA601 EPA method 601
EPA602 EPA method 602
XYLENE Xylenes, EPA 602

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	!	SPR602			
02B	!	SPR601	02D	!	SPR602
03B	!	SPR601	03D	!	SPR602
04B	!	SPR601	04D	!	SPR602
05B	!	SPR601	05D	!	SPR602
06B	!	SPR601	06D	!	SPR602
07B	!	SPR601	07D	!	SPR602
08B	!	SPR601	08D	!	SPR602
09B	!	SPR601	09D	!	SPR602
10B	!	SPR601	10D	!	SPR602

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID reagent blank FRACTION 11A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/04/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID reagent blank

FRACTION 11A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected not specified Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID reagent blank FRACTION 11A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 03/04/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	N\A% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID reagent blank FRACTION 11A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

460-00-4 1-Bromo-4-fluorobenzene N\A % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

SAMPLE ID reagent blank FRACTION 11A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected not specified Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-017

SAMPLE ID reagent blank

FRACTION 11A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

ANALYST CL

INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL

UNITS ug/L3

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 03-09 FRACTION 10C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/04/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	2
108-38-3	m-Xylene-A	ND	2
95-47-6	o-Xylene	ND	1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 102% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

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NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-09

FRACTION 10C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 03-09 FRACTION 10C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/04/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	2
108-88-3	Toluene	40	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	ND	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	102% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-09

FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 103 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-09 FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	98	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-09

FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

ANALYST RW
INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	0.5*	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID 03-08

FRACTION 09C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND, Q, @	2
108-38-3	m-Xylene-A	ND	2
95-47-6	o-Xylene	ND	1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 173**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

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Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-08

FRACTION 09C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 03-08 FRACTION 09C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/04/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	54	2
108-88-3	Toluene	ND	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	ND	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 173**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-08

FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 105 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-08 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	102	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-08

FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

ANALYST RW
INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID 03-07

FRACTION 08C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 108% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-07

FRACTION OBC TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-07

FRACTION 08C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/04/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	2
108-88-3	Toluene	3.4	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	3.7	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 108% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 03-07 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 103 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample Continued From Above

SAMPLE ID 03-07 FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	0.5*	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	2.3	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	102	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-07 FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/01/88 Category

ANALYST RW

INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	2.6	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	3.3	0.10

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-06

FRACTION 07C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 113% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 03-06 FRACTION 07C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-06

FRACTION 07C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

INJECTED 03/04/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	11	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	113% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

SAMPLE ID 03-06 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 102 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

SAMPLE ID 03-06 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	100	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-06

FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT B

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	0.4*	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID 03-05 FRACTION 06C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	1
108-38-3	m-Xylene-A	ND	1
95-47-6	o-Xylene	ND	0.5

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 164**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-05

FRACTION 06C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 03-05 FRACTION 06C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/04/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	46	1
108-88-3	Toluene	34	1
100-41-4	Ethylbenzene	ND	2
108-90-7	Chlorobenzene-A	ND	2
106-46-7	1,4-Dichlorobenzene	ND	2
541-73-1	1,3-Dichlorobenzene	ND	2
95-50-1	1,2-Dichlorobenzene	ND	2

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 164**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-05

FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 95 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-05 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	0.7	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	96	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-05

FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

ANALYST RW
INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-04

FRACTION 05C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	1
108-38-3	m-Xylene-A	ND	1
95-47-6	o-Xylene	ND	0.5

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 172**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-04

FRACTION OSC TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-04 FRACTION 05C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTED 03/04/88
FILE #
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	39	1
108-88-3	Toluene	3.7*	1
100-41-4	Ethylbenzene	ND	2
108-90-7	Chlorobenzene-A	ND	2
106-46-7	1,4-Dichlorobenzene	ND	2
541-73-1	1,3-Dichlorobenzene	ND	2
95-50-1	1,2-Dichlorobenzene	ND	2

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	172**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed
unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-04 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 97 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-04

FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	0.7	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	92	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-04

FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW
INSTRMT B

INJECTD 03/04/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID 03-03 FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 03/04/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	2
108-38-3	m-Xylene-A	ND	2
95-47-6	o-Xylene	ND	1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 152**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-03

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 03-03 FRACTION 04C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 03/04/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	54	2
108-88-3	Toluene	17	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	ND	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 152**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

SAMPLE ID 03-03 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 101 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-03 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	97	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-03

FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

ANALYST CL
INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID 03-02 FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/02/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	2
108-38-3	m-Xylene-A	ND	2
95-47-6	o-Xylene	ND	1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 222**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 03-02 FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RAS - Austin REPORT

Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID 03-02 FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/02/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	120	2
108-88-3	Toluene	16	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	ND	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 222**% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-02 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 102 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.
A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.
B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.
C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-02

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	97	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-02 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

ANALYST CL
INSTRMT B
INJECTD 03/04/88
FILE #
VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 03-01 FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/02/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	2
108-38-3	m-Xylene-A	ND	2
95-47-6	o-Xylene	ND	1

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	108% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-01

FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 03-01 FRACTION 02C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 03/02/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	110	2
108-88-3	Toluene	5.3*	2
100-41-4	Ethylbenzene	ND	3
108-90-7	Chlorobenzene-A	ND	3
106-46-7	1,4-Dichlorobenzene	ND	3
541-73-1	1,3-Dichlorobenzene	ND	4
95-50-1	1,2-Dichlorobenzene	ND	4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	108% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 03-01

FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

460-00-4 1-Bromo-4-fluorobenzene 103 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A= not available
Second column confirmation NOT performed unless otherwise noted.

A-1,2-dichloropropane and trans-1,3-dichloropropene co-elute. Quantitated as 1,2-dichloropropane unless otherwise noted.

B-Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. Quantitated as dibromochloromethane unless otherwise noted.

C-1,1,2,2-tetrachloroethane and tetrachloroethene co-elute. Quantitated as tetrachloroethene unless otherwise noted.

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample Continued From Above

SAMPLE ID 03-01 FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 03/01/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	0.10
10061-02-6	trans-1,3-Dichloropropene-A	ND	0.30
79-01-6	Trichloroethene	ND	0.20
124-48-1	Dibromochloromethane-B	ND	0.20
79-00-5	1,1,2-Trichloroethane-B	ND	0.070
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	0.20
75-25-2	Bromoform	ND	0.30
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	0.12
127-18-4	Tetrachloroethene-C	ND	0.030
108-90-7	Chlorobenzene	ND	0.30
541-73-1	1,3-Dichlorobenzene	ND	0.30
95-50-1	1,2-Dichlorobenzene	ND	0.50
106-46-7	1,4-Dichlorobenzene	ND	0.40

SURROGATES

74-97-5	Bromochloromethane	101	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017

SAMPLE ID 03-01

FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 03/01/88 Category

ANALYST CL
INSTRMT B

INJECTD 03/04/88

FILE #

VERIFIED CL
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	0.30
74-83-9	Bromomethane	ND	1.2
75-01-4	Vinyl chloride	ND	0.20
75-00-3	Chloroethane	ND	0.50
75-09-2	Methylene chloride	ND	0.30
75-69-4	Trichlorofluoromethane	ND	0.10
75-35-4	1,1-Dichloroethene	ND	0.10
75-34-3	1,1-Dichloroethane	ND	0.090
156-60-5	trans-1,2-Dichloroethene	ND	0.20
67-66-3	Chloroform	ND	0.050
107-06-2	1,2-Dichloroethane	ND	0.030
71-55-6	1,1,1-Trichloroethane	ND	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-017

Received: 03/02/88 Results by Sample

SAMPLE ID 02-158 FRACTION 01A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 03/02/88 UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND,Q	0.2
108-38-3	m-Xylene-A	ND	0.2
95-47-6	o-Xylene	ND	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 111% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-017
Continued From Above

SAMPLE ID 02-158

FRACTION 01A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 03/01/88 Category

A-Chlorobenzene and m-xylene co-elute.
Quantitated as chlorobenzene unless
otherwise noted.

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-017

Received: 03/02/88

Results by Sample

SAMPLE ID 02-158

FRACTION 01A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 03/01/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 03/02/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	ND	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	ND	0.3
541-73-1	1,3-Dichlorobenzene	ND	0.4
95-50-1	1,2-Dichlorobenzene	ND	0.4

SURROGATES

98-08-8	a,a,a-Trifluorotoluene	111% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available
Second column confirmation NOT performed unless otherwise noted.

RADIAN CORPORATION

Page 1
Received: 03/02/88

RAS - Austin REPORT
03/16/88 12:46:03

Work Order # 88-03-017

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO4 SAMPLES: 11
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: sites 1,16,17,stream
TAKEN: RP,GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

2nd col confs on 601 -04, -05, -06, -07, -08, -10 and 602 -02, -04, -06, -08, -10. Cmpd is confd on 601 -08 but quantitation is not possible because of coelution. Unknown cmpnds in 602 -02, -03, -04, -05, -06, -09. **Possible interferences.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	02-158
02	03-01
03	03-02
04	03-03
05	03-04
06	03-05
07	03-06
08	03-07
09	03-08
10	03-09
11	reagent blank

TEST CODES and NAMES used on this report

EPA601	EPA method 601
EPA602	EPA method 602
XYLENE	Xylenes, EPA 602

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-13

FRACTION 09A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-13 FRACTION 09A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-13 FRACTION 09A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	620	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-13

FRACTION 09D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-13

FRACTION 09D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

ANALYST RHH

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	20E	0.40
Al	Aluminum	76	0.80	Mn	Manganese	0.50	0.012
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	13E	0.32
Ba	Barium	0.76	0.036	Ni	Nickel	0.041*	0.020
Be	Beryllium	0.005*	0.0010	Pb	Lead	0.11*	0.050
Ca	Calcium	1700E	0.24	Sb	Antimony	0.28*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.013*,E	0.010	Si	Silicon	100	0.30
Cr	Chromium	0.15E	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.075	0.010	V	Vanadium	0.29E	0.020
Fe	Iron	58E	0.12	Zn	Zinc	0.23E	0.0060
K	Potassium	12	0.30				

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-12 FRACTION 08A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-13 FRACTION 09D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-016

Received: 03/02/88 Results by Sample

SAMPLE ID 03-12 FRACTION 08A TEST CODE OPO4 NAME Orthophosphate

Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-12 FRACTION 08A TEST CODE TDS NAME Total dissolved solids

Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	560	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 03-12 FRACTION 08D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-12

FRACTION 08D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

VERIFIED RHH
UNITS ug/ml

ANALYST RHH

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	43E	0.40
Al	Aluminum	160	0.80	Mn	Manganese	8.5	0.012
As	Arsenic	0.63*	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	12E	0.080
Ba	Barium	1.2	0.036	Ni	Nickel	0.63	0.020
Be	Beryllium	0.048	0.0040	Pb	Lead	0.63	0.050
Ca	Calcium	2440E	0.24	Sb	Antimony	0.58*	0.24
Cd	Cadmium	0.031	0.0030	Se	Selenium	0.56*	0.30
Co	Cobalt	0.33E	0.040	Si	Silicon	140	1.2
Cr	Chromium	0.45E	0.036	Tl	Thallium	ND	0.090
Cu	Copper	0.41	0.010	V	Vanadium	2.3E	0.080
Fe	Iron	730E	0.12	Zn	Zinc	1.6E	0.024
K	Potassium	22	1.2				

SAMPLE ID 03-11 FRACTION 07A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-12 FRACTION 08D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-11 FRACTION 07A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/02/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-11 FRACTION 07A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/07/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	810	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-11

FRACTION 07D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-016

Received: 03/02/88 Results by Sample

SAMPLE ID 03-11 FRACTION 07D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST RHH VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.010*	0.0090	Mg	Magnesium	51E	0.40
Al	Aluminum	250	0.80	Mn	Manganese	4.4	0.012
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	30E	0.32
Ba	Barium	2.0	0.036	Ni	Nickel	0.35	0.020
Be	Beryllium	0.027	0.0010	Pb	Lead	0.40	0.050
Ca	Calcium	2500E	0.24	Sb	Antimony	0.48	0.060
Cd	Cadmium	0.012*	0.0030	Se	Selenium	0.88*	0.30
Co	Cobalt	0.16E	0.010	Si	Silicon	100	0.30
Cr	Chromium	0.45E	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.31	0.010	V	Vanadium	1.1E	0.080
Fe	Iron	300E	0.12	Zn	Zinc	0.85E	0.024
K	Potassium	36	0.30				

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-08 FRACTION 06A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-11 FRACTION 07D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-08 FRACTION 06A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-08 FRACTION 06A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	980	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-08

FRACTION 06D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-08

FRACTION 06D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

ANALYST RHH

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.009*	0.0090	Mg	Magnesium	62E	0.40
Al	Aluminum	320	0.80	Mn	Manganese	3.1	0.012
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	25E	0.32
Ba	Barium	2.2	0.036	Ni	Nickel	0.48	0.020
Be	Beryllium	0.035	0.0010	Pb	Lead	0.64	0.050
Ca	Calcium	2800E	0.24	Sb	Antimony	0.80	0.060
Cd	Cadmium	0.015*	0.0030	Se	Selenium	1.0*	0.30
Co	Cobalt	0.24E	0.010	Si	Silicon	110	0.30
Cr	Chromium	0.58E	0.036	Tl	Thallium	ND	0.090
Cu	Copper	0.47	0.010	V	Vanadium	1.6E	0.080
Fe	Iron	370E	0.12	Zn	Zinc	1.6E	0.024
K	Potassium	45	0.30				

SAMPLE ID 03-05 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-08 FRACTION 06D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-05 FRACTION 05A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-05 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	440	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 03-05

FRACTION 05D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-016

Received: 03/02/88 Results by Sample

SAMPLE ID 03-05 FRACTION 05D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST RHH VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	5.5E	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	0.17	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	24E	0.080
Ba	Barium	0.20	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	110E	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND,E	0.010	Si	Silicon	9.6	0.30
Cr	Chromium	ND,E	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND,E	0.020
Fe	Iron	8.6E	0.030	Zn	Zinc	0.016*,E	0.0060
K	Potassium	ND	0.30				

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-04 FRACTION 04A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-05 FRACTION 05D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-016

Received: 03/02/88 Results by Sample

SAMPLE ID 03-04 FRACTION 04A TEST CODE OPO4 NAME Orthophosphate

Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-04 FRACTION 04A TEST CODE TDS NAME Total dissolved solids

Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	450	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-04

FRACTION 04D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-04

FRACTION 04D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST RHH

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	5.4E	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	0.17	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	23E	0.080
Ba	Barium	0.20	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	110E	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND,E	0.010	Si	Silicon	9.0	0.30
Cr	Chromium	ND,E	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND,E	0.020
Fe	Iron	10E	0.030	Zn	Zinc	0.008*,E	0.0060
K	Potassium	ND	0.30				

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-03 FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-04 FRACTION 04D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-03 FRACTION 03A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-03 FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	420	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-03

FRACTION 03D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-03 FRACTION 03D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

ANALYST RHH

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	5.2E	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	0.18	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	23E	0.080
Ba	Barium	0.20	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	110E	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND,E	0.010	Si	Silicon	9.1	0.30
Cr	Chromium	ND,E	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND,E	0.020
Fe	Iron	9.3E	0.030	Zn	Zinc	0.021*,E	0.0060
K	Potassium	ND	0.30				

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-02

FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-03

FRACTION 03D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-02

FRACTION 02A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/02/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-02

FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/07/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	380	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-02

FRACTION 02D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-02

FRACTION 02D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST RHH

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	5.5E	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	0.19	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	25E	0.080
Ba	Barium	0.22	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	110E	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND,E	0.010	Si	Silicon	9.7	0.30
Cr	Chromium	ND,E	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND,E	0.020
Fe	Iron	12E	0.030	Zn	Zinc	0.015*,E	0.0060
K	Potassium	ND	0.30				

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-01 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/01/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-02 FRACTION 02D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403
ANALYZED 03/16/88
UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-01 FRACTION 01A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/02/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-01 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/07/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	410	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016
Continued From Above

SAMPLE ID 03-01

FRACTION 01D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/01/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-016

Received: 03/02/88 Results by Sample

SAMPLE ID 03-01 FRACTION 01D TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/01/88 Category

ANALYST RHH VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	5.3E	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	0.18	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	24E	0.080
Ba	Barium	0.21	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	110E	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND,R	0.30
Co	Cobalt	ND,E	0.010	Si	Silicon	9.3	0.30
Cr	Chromium	ND,E	0.0090	Tl	Thallium	ND,R	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND,E	0.020
Fe	Iron	10E	0.030	Zn	Zinc	0.007*,E	0.0060
K	Potassium	ND	0.30				

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-016

SAMPLE ID 03-01

FRACTION 01D TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/01/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/16/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results By Test

Work Order # 88-03-016
Continued From Above

SAMPLE Sample Id	Test: SO4 N mg/L
06 03-08	9.1
07 03-11	17
08 03-12	8.7
09 03-13	7.0

RADIAN CORPORATION

Received: 03/02/88

RAS - Austin REPORT
Results By Test

Work Order # 88-03-016
Continued From Above

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
04 03-04		0.60	0.7*	0.004*	<0.005R
05 03-05		0.64	0.9*	0.002*	<0.005
06 03-08	3.5	<0.1		0.4	<0.005
07 03-11	<0.2	<0.1		0.295	<0.005
08 03-12	3.2	<0.1		0.39	<0.005
09 03-13	4.3	<0.1		0.10	<0.005

SAMPLE Sample Id	Test: SO4 N mg/L
01 03-01	5.4
02 03-02	5.4
03 03-03	5.3
04 03-04	8.0
05 03-05	8.0

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-016

Received: 03/02/88 Results By Test

SAMPLE Sample Id	Test: AS G ug/ml	Test: CL T mg/L	Test: DG3020 date complete	Test: DG6010 date complete	Test: F SIE mg/L
01 03-01	0.033	20	03/07/88	03/14/88	0.25
02 03-02	0.033	21	03/07/88	03/14/88	0.25
03 03-03	0.029	23	03/07/88	03/14/88	0.28
04 03-04	0.031	24	03/07/88	03/14/88	0.26
05 03-05	0.023	24	03/07/88	03/14/88	0.25
06 03-08	0.130	27	03/07/88	03/14/88	0.22
07 03-11	0.110	27	03/07/88	03/14/88	0.24
08 03-12	0.068	12	03/07/88	03/14/88	0.23
09 03-13	0.072	12	03/07/88	03/14/88	0.19

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
01 03-01		0.44	1.1	<0.002	<0.005
02 03-02		<0.02	1.2	<0.002	<0.005
03 03-03		<0.02	1.0*	0.003*	<0.005

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-016

Received: 03/02/88 06/24/88 11:35:24

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 9
COMPANY: Carswell AFB
FACILITY: IRP

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT SMITH

WORK ID: sites 1,16,17,stream
TAKEN: RP,GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	03-01
02	03-02
03	03-03
04	03-04
05	03-05
06	03-08
07	03-11
08	03-12
09	03-13

TEST CODES and NAMES used on this report

AS G	Arsenic, graphite AA
CL T	Chloride
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
F SIE	Fluoride, SIE
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ICP200	ICPES, EPA 200.7 elements
NO2NO3	Nitrate + nitrite
ONG IR	Oil and grease, infrared
OPO4	Orthophosphate
PB G	Lead, graphite AA
SE G	Selenium, graphite AA
SO4 N	Sulfate, nephelometry
TDS	Total dissolved solids

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014
Continued From Above

SAMPLE ID REAGENT BLANK 625 FRACTION 06A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected not specified Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.5
	117-84-0	di-n-octyl phthalate	ND	2.5
	205-99-2	benzo(b)fluoranthene	ND	4.8
	207-08-9	benzo(k)fluoranthene	ND	2.5
	50-32-8	benzo(a)pyrene	ND	2.5
	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
	53-70-3	dibenz(a,h)anthracene	ND	2.5
	191-24-2	benzo(ghi)perylene	ND	4.1

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
369	2-fluorophenol	86 %
498	d5-phenol	88 %
622	d5-nitrobenzene	88 %
893	2-fluorobiphenyl	80 %
1115	2,4,6-tribromophenol	85 %
1466	d14-terphenyl	135 %

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
N\A = not available.
B = detected in Reagent Blank; background subtraction not performed.
J = estimated value less than detection limit.

SAMPLE ID REAGENT BLANK 625 FRACTION 06A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected not specified Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.0
	88-06-2	2,4,6-trichlorophenol	ND	2.7
	95-95-4	2,4,5-trichlorophenol	ND	10
	91-58-7	2-chloronaphthalene	ND	1.9
	88-74-4	2-nitroaniline	ND	50
	131-11-3	dimethyl phthalate	ND	1.6
	208-96-8	acenaphthylene	ND	3.5
	99-09-2	3-nitroaniline	ND	50
	83-32-9	acenaphthene	ND	1.9
	51-28-5	2,4-dinitrophenol	ND	42
	100-02-7	4-nitrophenol	ND	2.4
	132-64-9	dibenzofuran	ND	10
	606-20-2	2,6-dinitrotoluene	ND	1.9
	121-14-2	2,4-dinitrotoluene	ND	5.7
	84-66-2	diethylphthalate	ND	1.9
	7005-72-3	4-chlorophenyl-phenylether	ND	4.2
	86-73-7	fluorene	ND	1.9
	100-01-06	4-nitroaniline	ND	50
	534-52-1	4,6-dinitro-2-methylphenol	ND	24
	86-30-6	n-nitrosodiphenylamine	ND	1.9
	101-55-3	4-bromophenyl-phenylether	ND	1.9
	118-74-1	hexachlorobenzene	ND	1.9
	87-86-5	pentachlorophenol	ND	3.6
	85-01-8	phenanthrene	ND	5.4
	120-12-7	anthracene	ND	1.9
	84-74-2	di-n-butylphthalate	ND	2.5
	206-44-0	fluoranthene	ND	2.2
	92-87-5	benzidine	ND	44
	129-00-0	pyrene	ND	1.9
	85-68-7	butylbenzylphthalate	ND	2.5
	91-94-1	3,3'-dichlorobenzidine	ND	17
	56-55-3	benzo(a)anthracene	ND	7.8
1640	117-81-7	bis(2-ethylhexyl)phthalate	31	2.5

RADIAN CORPORATION

RAS Sacramento REPORT

Work Order # 58-03-014

Received: 03/03/88

Results by Sample

SAMPLE ID REAGENT BLANK 625 FRACTION 06A TEST CODE CL 625 NAME Semivolatile Organics H2O

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST KS EXTRCTD 03/07/88 FILE # 0301406A VERIFIED LAK

INSTRMT F1 INJECTD 03/11/88 UNITS ug/L

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	10
	108-95-2	phenol	ND	1.5
	62-53-3	aniline	ND	10
	111-44-4	bis(2-chloroethyl) ether	ND	5.7
	95-57-8	2-chlorophenol	ND	3.3
	541-73-1	1,3-dichlorobenzene	ND	1.9
	106-46-7	1,4-dichlorobenzene	ND	4.4
	100-51-6	benzyl alcohol	ND	50
	95-50-1	1,2-dichlorobenzene	ND	1.9
	95-48-7	2-methylphenol	ND	10
	108-60-1	bis(2-chloroisopropyl)ether	ND	5.7
	106-44-5	4-methylphenol	ND	10
	621-64-7	n-nitroso-di-n-propylamine	ND	12
	67-72-1	hexachloroethane	ND	1.6
	98-95-3	nitrobenzene	ND	1.9
	78-59-1	isophorone	ND	2.2
	88-75-5	2-nitrophenol	ND	3.6
	105-67-9	2,4-dimethylphenol	ND	2.7
	65-85-0	benzoic acid	ND	50
	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
	120-83-2	2,4-dichlorophenol	ND	2.7
	120-82-1	1,2,4-trichlorobenzene	ND	1.9
	91-20-3	naphthalene	ND	1.6
	106-47-8	4-chloroaniline	ND	10
	87-68-3	hexachlorobutadiene	ND	0.90
	59-50-7	4-chloro-3-methylphenol	ND	3.0
	91-57-6	2-methylnaphthalene	ND	10

SAMPLE ID REAGENT BLANK 625 SAMPLE # 06 FRACTIONS: A
Date & Time Collected not specified Category

EX BNA 03/07/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK 509 FRACTION 05A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 03/03/88

Results by Sample

SAMPLE ID REAGENT BLANK 509 FRACTION 05A TEST CODE 509B NAME Herbicides in water

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST AL EXTRCTD 03/08/88 FILE # 718031514

INSTRMT 7 INJECTD 03/11/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1
93-76-5	2,4,5-T	ND	0.10	1

SURROGATE

2,4-Dichlorophenyl Acetic Acid 55 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

SAMPLE ID REAGENT BLANK 509 SAMPLE # 05 FRACTIONS: A

Date & Time Collected not specified Category

EXHERB 03/08/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK 608 FRACTION 04A TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected not specified Category

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed
D = Not reportable due to dilution

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-014

Received: 03/03/88 Results by Sample

SAMPLE ID REAGENT BLANK 608 FRACTION 04A TEST CODE 608 NAME EPA-Pest/PCB's Water

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 03/04/88 FILE # 718031114 VERIFIED JD

INSTRMT 7 INJECTD 03/11/88 FACTOR 2 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.020	2
58-89-9	gamma-BHC (lindane)	ND	0.020	2
319-85-7	beta-BHC	ND	0.020	2
76-44-8	Heptachlor	ND	0.020	2
319-86-8	delta-BHC	ND	0.020	2
309-00-02	Aldrin	ND	0.020	2
1024-57-3	Heptachlor Epoxide	ND	0.020	2
959-98-8	Endosulfan I	ND	0.020	2
72-55-9	4,4'-DDE	ND	0.020	2
60-57-1	Dieldrin	ND	0.020	2
72-20-8	Endrin	ND	0.020	2
72-54-8	4,4'-DDD	ND	0.020	2
33213-65-9	Endosulfan II	ND	0.060	2
50-29-3	4,4'-DDT	ND	0.040	2
7421-93-4	Endrin Aldehyde	ND	0.040	2
1031-07-8	Endosulfan Sulphate	ND	0.10	2
53494-70-5	Endrin Ketone	ND	0.10	2
72-43-5	Methoxychlor	ND	0.10	2
57-74-9	Chlordane	ND	0.10	2
8001-35-2	Toxaphene	ND	1.0	2
12674-11-2	PCB-1016	ND	0.20	2
11104-28-2	PCB-1221	ND	0.40	2
11141-16-5	PCB-1232	ND	0.40	2
53469-21-9	PCB-1242	ND	0.20	2
12672-29-6	PCB-1248	ND	0.20	2
11097-69-1	PCB-1254	ND	0.40	2
11096-82-5	PCB-1260	ND	0.40	2

SURROGATE 1770-80-5 Dibutylchlorendate 103 % Recovery

SAMPLE ID REAGENT BLANK 608 SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category

EXPEST 03/04/88
DATE COMPLETED

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014
Continued From Above

SAMPLE ID REAGENT BLANK 604 FRACTION 03A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 03/03/88

Results by Sample

SAMPLE ID REAGENT BLANK 604 FRACTION 03A TEST CODE 604 NAME Phenols in water.

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED JD

ANALYST AL EXTRCTD 03/04/88 FILE # B1B03228

INSTRMT 8 INJECTD 03/22/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.20	1
95-57-8	2-Chlorophenol	ND	0.20	1
88-75-5	2-Nitrophenol	ND	2.0	1
105-67-9	2,4-Dimethylphenol	ND	0.30	1
120-83-2	2,4-Dichlorophenol	ND	0.50	1
59-50-7	4-Chloro-3-Methylphenol	ND	0.40	1
88-06-2	2,4,6-Trichlorophenol	ND	0.60	1
51-28-5	2,4-Dinitrophenol	ND	13	1
100-02-7	4-Nitrophenol	ND	2.5	1
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	16	1
87-86-5	Pentachlorophenol	ND	7.5	1

SURROGATE

1770-80-5 2-Fluorophenol 88 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
Confirmation: C = confirmed; NC = not confirmed;
NR = not required; NP = not performed
PC = Previously confirmed
J = Estimated value.
QC = Outside control limits.

SAMPLE ID REAGENT BLANK 604 SAMPLE # 03 FRACTIONS: A
Date & Time Collected not specified Category

EXPHEN 03/04/88
DATE COMPLETED

SAMPLE ID 03-22 FRACTION 02B TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed
D = Not reportable due to dilution

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014

SAMPLE ID 03-22 FRACTION 02B TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 03/02/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 03/04/88 FILE # 718031119 VERIFIED JD
INSTRMT 7 INJECTD 03/11/88 FACTOR 2 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.020	2
58-89-9	gamma-BHC (lindane)	ND	0.020	2
319-85-7	beta-BHC	ND	0.020	2
76-44-8	Heptachlor	ND	0.020	2
319-86-8	delta-BHC	ND	0.020	2
309-00-02	Aldrin	ND	0.020	2
1024-57-3	Heptachlor Epoxide	ND	0.020	2
959-98-8	Endosulfan I	ND	0.020	2
72-55-9	4,4'-DDE	ND	0.25	25
60-57-1	Dieldrin	ND	0.25	25
72-20-8	Endrin	ND	0.25	25
72-54-8	4,4'-DDD	ND	0.25	25
33213-65-9	Endosulfan II	ND	0.75	25
50-29-3	4,4'-DDT	ND	0.040	2
7421-93-4	Endrin Aldehyde	ND	0.040	2
1031-07-8	Endosulfan Sulphate	ND	0.10	2
53494-70-5	Endrin Ketone	ND	0.10	2
72-43-5	Methoxychlor	ND	0.10	2
57-74-9	Chlordane	ND	0.10	2
8001-35-2	Toxaphene	ND	13	25
12674-11-2	PCB-1016	ND	0.20	2
11104-28-2	PCB-1221	ND	0.40	2
11141-16-5	PCB-1232	ND	0.40	2
53469-21-9	PCB-1242	ND	0.20	2
12672-29-6	PCB-1248	ND	0.20	2
11097-69-1	PCB-1254	ND	5.0	25
11096-82-5	PCB-1260	ND	5.0	25

SURROGATE 1770-80-5 Dibutylchlorendate 26 % Recovery

SAMPLE ID 03-22 FRACTION 02C TEST CODE 604 NAME Phenols in water.
Date & Time Collected 03/02/88 Category

D = Not reportable due to dilution

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-03-014

SAMPLE ID 03-22

FRACTION 02C TEST CODE 604 NAME Phenols in water.
Date & Time Collected 03/02/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED JD

ANALYST AL
INSTRMT 8

EXTRCTD 03/04/88
INJECTD 03/23/88

FILE # B1803235
FACTOR 1.0

UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.20	1.0
95-57-8	2-Chlorophenol	13 C	0.20	1.0
88-75-5	2-Nitrophenol	ND	2.0	1.0
105-67-9	2,4-Dimethylphenol	ND	0.30	1.0
120-83-2	2,4-Dichlorophenol	ND	0.50	1.0
59-50-7	4-Chloro-3-Methylphenol	ND	0.40	1.0
88-06-2	2,4,6-Trichlorophenol	ND	0.60	1.0
51-28-5	2,4-Dinitrophenol	14 C	13	1.0
100-02-7	4-Nitrophenol	ND	2.5	1.0
534-52-1	2-Methyl-4,6-Dinitrophenol	19 C	16	1.0
87-86-5	Pentachlorophenol	ND	7.5	1.0

SURROGATE

1770-80-5 2-Fluorophenol 19 QC % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
Confirmation: C = confirmed; NC = not confirmed;
NR = not required; NP = not performed
PC = Previously confirmed
J = Estimated value.
QC = Outside control limits.

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014
Continued From Above

SAMPLE ID 03-22

FRACTION 02A TEST CODE 5098 NAME Herbicides in water
Date & Time Collected 03/02/88 Category

D = Not reportable due to dilution

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014

SAMPLE ID 03-22 FRACTION 02A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 03/02/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST AL EXTRCTD 03/08/88 FILE # 718031521
INSTRMT 7 INJECTD 03/11/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1
93-76-5	2,4,5-T	ND	0.10	1

SURROGATE

2,4-Dichlorophenyl Acetic Acid 81 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
NS = not spiked.
N\A = not available.
* = less than 5 times the detection limit.
J = Estimated value.
GC = Outside control limits.
C = Confirmed NC = Not confirmed

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014

SAMPLE ID 03-22

SAMPLE # 02 FRACTIONS: A,B,C
Date & Time Collected 03/02/88

Category

EXHERB 03/08/88 DATE COMPLETED
EXPEST 03/04/88 DATE COMPLETED
EXPHEN 03/04/88 DATE COMPLETED

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014
Continued From Above

SAMPLE ID 03-16

FRACTION 01A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected 03/02/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.5
	117-84-0	di-n-octyl phthalate	ND	2.5
	205-99-2	benzo(b)fluoranthene	ND	4.8
	207-08-9	benzo(k)fluoranthene	ND	2.5
	50-32-8	benzo(a)pyrene	ND	2.5
	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
	53-70-3	dibenz(a,h)anthracene	ND	2.5
	191-24-2	benzo(ghi)perylene	ND	4.1

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
368	2-fluorophenol	43 %
498	d5-phenol	48 %
623	d5-nitrobenzene	82 %
895	2-fluorobiphenyl	78 %
1117	2,4,6-tribromophenol	26 %
1468	d14-terphenyl	78 %

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
N\A = not available.
B = detected in Reagent Blank; background subtraction not performed.
J = estimated value less than detection limit.

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-03-014
Continued From Above

SAMPLE ID 03-16

FRACTION 01A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected 03/02/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.0
	88-06-2	2,4,6-trichlorophenol	ND	2.7
	95-95-4	2,4,5-trichlorophenol	ND	10
	91-58-7	2-chloronaphthalene	ND	1.9
	88-74-4	2-nitroaniline	ND	50
	131-11-3	dimethyl phthalate	ND	1.6
	208-96-8	acenaphthylene	ND	3.5
	99-09-2	3-nitroaniline	ND	50
	83-32-9	acenaphthene	ND	1.9
	51-28-5	2,4-dinitrophenol	ND	42
	100-02-7	4-nitrophenol	ND	2.4
	132-64-9	dibenzofuran	ND	10
	606-20-2	2,6-dinitrotoluene	ND	1.9
	121-14-2	2,4-dinitrotoluene	ND	5.7
	84-66-2	diethylphthalate	ND	1.9
	7005-72-3	4-chlorophenyl-phenylether	ND	4.2
	86-73-7	fluorene	ND	1.9
	100-01-06	4-nitroaniline	ND	50
	534-52-1	4,6-dinitro-2-methylphenol	ND	24
	86-30-6	n-nitrosodiphenylamine	ND	1.9
	101-55-3	4-bromophenyl-phenylether	ND	1.9
	118-74-1	hexachlorobenzene	ND	1.9
	87-86-5	pentachlorophenol	ND	3.6
	85-01-8	phenanthrene	ND	5.4
	120-12-7	anthracene	ND	1.9
	84-74-2	di-n-butylphthalate	ND	2.5
	206-44-0	fluoranthene	ND	2.2
	92-87-5	benzidine	ND	44
	129-00-0	pyrene	ND	1.9
	85-68-7	butylbenzylphthalate	ND	2.5
	91-94-1	3,3'-dichlorobenzidine	ND	17
	56-55-3	benzo(a)anthracene	ND	7.8
1642	117-81-7	bis(2-ethylhexyl)phthalate	5.2 B	2.5

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014

SAMPLE ID 03-16

FRACTION 01A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected 03/02/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST KS EXTRCTD 03/07/88 FILE # 0301401A VERIFIED LAK
INSTRMT F1 INJECTD 03/11/88 UNITS ug/L

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	10
	108-95-2	phenol	ND	1.5
	62-53-3	aniline	ND	10
	111-44-4	bis(2-chloroethyl) ether	ND	5.7
	95-57-8	2-chlorophenol	ND	3.3
	541-73-1	1,3-dichlorobenzene	ND	1.9
	106-46-7	1,4-dichlorobenzene	ND	4.4
	100-51-6	benzyl alcohol	ND	50
	95-50-1	1,2-dichlorobenzene	ND	1.9
	95-48-7	2-methylphenol	ND	10
	108-60-1	bis(2-chloroisopropyl)ether	ND	5.7
	106-44-5	4-methylphenol	ND	10
	621-64-7	n-nitroso-di-n-propylamine	ND	12
	67-72-1	hexachloroethane	ND	1.6
	98-95-3	nitrobenzene	ND	1.9
	78-59-1	isophorone	ND	2.2
	88-75-5	2-nitrophenol	ND	3.6
	105-67-9	2,4-dimethylphenol	ND	2.7
	65-85-0	benzoic acid	ND	50
	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
	120-83-2	2,4-dichlorophenol	ND	2.7
	120-82-1	1,2,4-trichlorobenzene	ND	1.9
	91-20-3	naphthalene	ND	1.6
	106-47-8	4-chloroaniline	ND	10
	87-68-3	hexachlorobutadiene	ND	0.90
	59-50-7	4-chloro-3-methylphenol	ND	3.0
	91-57-6	2-methylnaphthalene	ND	10

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-014

SAMPLE ID 03-16

SAMPLE # 01 FRACTIONS: A
Date & Time Collected 03/02/88 Category

EX BNA 03/07/88
DATE COMPLETED

RADIAN CORPORATION

RAS Sacramento REPORT

Work Order # S8-03-014

Received: 03/03/88

Results By Test

SAMPLE Sample Id	Test: EXHERB Date completed	Test: EXPEST date completed	Test: EXPHEN date completed	Test: EX BNA date completed
01 03-16				03/07/88 DATE COMPLETED
02 03-22	03/08/88 DATE COMPLETED	03/04/88 DATE COMPLETED	03/04/88 DATE COMPLETED	
03 REAGENT BLANK 6			03/04/88 DATE COMPLETED	
04 REAGENT BLANK 6		03/04/88 DATE COMPLETED		
05 REAGENT BLANK 5	03/08/88 DATE COMPLETED			
06 REAGENT BLANK 6				03/07/88 DATE COMPLETED

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-014

Received: 03/03/88

Results By Test

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EXHERB Date completed		03/08/88 DATE COMPLETED			03/08/88 DATE COMPLETED
EXPEST date completed		03/04/88 DATE COMPLETED		03/04/88 DATE COMPLETED	
EXPHEN date completed		03/04/88 DATE COMPLETED	03/04/88 DATE COMPLETED		
EX_BNA date completed	03/07/88 DATE COMPLETED				

TEST CODE default units	Sample 06 (entered units)
EX_BNA date completed	03/07/88 DATE COMPLETED

RADIAN CORPORATION

Received: 03/03/88

RAS Sacramento REPORT
04/06/88 12:04:26

Work Order # S8-03-014

REPORT TO: Radian Corporation
8501 MoPac Blvd.
Austin, Tx 78766

ATTEN: Larry French

CLIENT: CARSWELL AFB SAMPLES 6
COMPANY: Carswell AFB.
FACILITY: Headquarters, SAC
Offutt, Nebraska 68113

WORK ID: Site 05-10
TAKEN: 03/02/88
TRANS: Federal 5471898460
TYPE: H20-509/604/608/625
P.O. #: 227-005-04-40
INVOICE: under separate cover

PREPARED BY: Radian Analutical Services
10395 Old Placerville Road
Sacramento,
California 95827
ATTEN:
PHONE: 916-362-5332

Lucas A Petkopoh
CERTIFIED BY

CONTACT LARRY FRENCH

SURROGATE RECOVERY ON FRACTION 02C IS LOW DUE TO MATRIX EFFECTS AND IS FLAGGED AS "QC".

SAMPLE IDENTIFICATION

01 03-16
02 03-22
03 REAGENT BLANK 604
04 REAGENT BLANK 608
05 REAGENT BLANK 509
06 REAGENT BLANK 625

TEST CODES and NAMES used on this report

509B	Herbicides in water
604	Phenols in water.
608	EPA-Pest/PCB's Water
CL 625	Semivolatile Organics H2O
EXHERB	Extraction for Herbicides
EXPEST	Extraction for Pest/PCBs
EXPHEN	Extraction for Phenols
EX BNA	Semivolatiles extraction

SAMPLE ID REAGENT BLANK BNA FRACTION 02A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected not specified Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.5
	117-84-0	di-n-octyl phthalate	ND	2.5
	205-99-2	benzo(b)fluoranthene	ND	4.8
	207-08-9	benzo(k)fluoranthene	ND	2.5
	50-32-8	benzo(a)pyrene	ND	2.5
	193-39-5	indeno(1,2,3-cd)pyrene	ND	3.7
	53-70-3	dibenz(a,h)anthracene	ND	2.5
	191-24-2	benzo(ghi)perylene	ND	4.1

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
223	2-fluorophenol	85 %
377	d5-phenol	83 %
502	d5-nitrobenzene	96 %
777	2-fluorobiphenyl	88 %
992	2,4,6-tribromophenol	82 %
1343	d14-terphenyl	93 %

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
N\A = not available.
B = detected in Reagent Blank; background subtraction not performed.
J = estimated value less than detection limit.

RADIAN CORPORATION

Received: 03/02/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-006
Continued From Above

SAMPLE ID REAGENT BLANK BNA FRACTION 02A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected not specified Category

SCAN	CAS. #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.0
	88-06-2	2,4,6-trichlorophenol	ND	2.7
	95-95-4	2,4,5-trichlorophenol	ND	10
	91-58-7	2-chloronaphthalene	ND	1.9
	88-74-4	2-nitroaniline	ND	50
	131-11-3	dimethyl phthalate	ND	1.6
	208-96-8	acenaphthylene	ND	3.5
	99-09-2	3-nitroaniline	ND	50
	83-32-9	acenaphthene	ND	1.9
	51-28-5	2,4-dinitrophenol	ND	42
	100-02-7	4-nitrophenol	ND	2.4
	132-64-9	dibenzofuran	ND	10
	606-20-2	2,6-dinitrotoluene	ND	1.9
	121-14-2	2,4-dinitrotoluene	ND	5.7
	84-66-2	diethylphthalate	ND	1.9
	7005-72-3	4-chlorophenyl-phenylether	ND	4.2
	86-73-7	fluorene	ND	1.9
	100-01-06	4-nitroaniline	ND	50
	534-52-1	4,6-dinitro-2-methylphenol	ND	24
	86-30-6	n-nitrosodiphenylamine	ND	1.9
	101-55-3	4-bromophenyl-phenylether	ND	1.9
	118-74-1	hexachlorobenzene	ND	1.9
	87-86-5	pentachlorophenol	ND	3.6
	85-01-8	phenanthrene	ND	5.4
	120-12-7	anthracene	ND	1.9
	84-74-2	di-n-butylphthalate	ND	2.5
	206-44-0	fluoranthene	ND	2.2
	92-87-5	benzidine	ND	44
	129-00-0	pyrene	ND	1.9
	85-68-7	butylbenzylphthalate	ND	2.5
	91-94-1	3,3'-dichlorobenzidine	ND	17
	56-55-3	benzo(a)anthracene	ND	7.8
	117-81-7	bis(2-ethylhexyl)phthalate	ND	2.5

RADIAN CORPORATION

 KAS Sacramento REPORT Work Order # S8-03-006

Received: 03/02/88 Results by Sample

SAMPLE ID REAGENT BLANK BNA FRACTION 02A TEST CODE CL 625 NAME Semivolatile Organics H2O

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST SAL EXTRCTD 03/02/88 FILE # 0300602A VERIFIED LAK

INSTRMT F2 INJECTD 03/08/88 UNITS ug/L

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	10
	108-95-2	phenol	ND	1.5
	62-53-3	aniline	ND	10
	111-44-4	bis(2-chloroethyl) ether	ND	5.7
	95-57-8	2-chlorophenol	ND	3.3
	541-73-1	1,3-dichlorobenzene	ND	1.9
	106-46-7	1,4-dichlorobenzene	ND	4.4
	100-51-6	benzyl alcohol	ND	50
	95-50-1	1,2-dichlorobenzene	ND	1.9
	95-48-7	2-methylphenol	ND	10
	108-60-1	bis(2-chloroisopropyl)ether	ND	5.7
	106-44-5	4-methylphenol	ND	10
	621-64-7	n-nitroso-di-n-propylamine	ND	12
	67-72-1	hexachloroethane	ND	1.6
	98-95-3	nitrobenzene	ND	1.9
	78-59-1	isophorone	ND	2.2
	88-75-5	2-nitrophenol	ND	3.6
	105-67-9	2,4-dimethylphenol	ND	2.7
	65-85-0	benzoic acid	ND	50
	111-91-1	bis(2-chloroethoxy)methane	ND	5.3
	120-83-2	2,4-dichlorophenol	ND	2.7
	120-82-1	1,2,4-trichlorobenzene	ND	1.9
	91-20-3	naphthalene	ND	1.6
	106-47-8	4-chloroaniline	ND	10
	87-68-3	hexachlorobutadiene	ND	0.90
	59-50-7	4-chloro-3-methylphenol	ND	3.0
	91-57-6	2-methylnaphthalene	ND	10

RADIAN CORPORATION

Received: 03/02/88

KAS Sacramento REPORT
Results by Sample

Work Order # S8-03-006

SAMPLE ID REAGENT BLANK BNA

SAMPLE # 02 FRACTIONS: A
Date & Time Collected not specified Category

EX BNA 03/02/88
DATE COMPLETED

RADIAN CORPORATION

Received: 03/02/88

RAS Sacramento REPORT
Results by Sample

Work Order # 58-03-006
Continued From Above

SAMPLE ID 03-08

FRACTION 01A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected 03/01/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	2.8
	117-84-0	di-n-octyl phthalate	ND	2.8
	205-99-2	benzo(b)fluoranthene	ND	5.4
	207-08-9	benzo(k)fluoranthene	ND	2.8
	50-32-8	benzo(a)pyrene	ND	2.8
	193-39-5	indeno(1,2,3-cd)pyrene	ND	4.1
	53-70-3	dibenz(a,h)anthracene	ND	2.8
	191-24-2	benzo(ghi)perylene	ND	4.6

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
217	2-fluorophenol	72 %
373	d5-phenol	73 %
501	d5-nitrobenzene	92 %
777	2-fluorobiphenyl	64 %
992	2,4,6-tribromophenol	57 %
1343	d14-terphenyl	47 %

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = detection limit.
ND = not detected at specified detection limit.
NA = not analyzed.
N\A = not available.
B = detected in Reagent Blank; background subtraction not performed.
J = estimated value less than detection limit.

KADIAN CORPORATION

Received: 03/02/88

KAS Sacramento REPORT
Results by Sample

Work Order # 58-03-006
Continued From Above

SAMPLE ID 03-08 FRACTION 01A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected 03/01/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.7
	88-06-2	2,4,6-trichlorophenol	ND	3.0
	95-95-4	2,4,5-trichlorophenol	ND	11
	91-58-7	2-chloronaphthalene	ND	2.1
	88-74-4	2-nitroaniline	ND	56
	131-11-3	dimethyl phthalate	ND	1.8
	208-96-8	acenaphthylene	ND	3.9
	99-09-2	3-nitroaniline	ND	56
	83-32-9	acenaphthene	ND	2.1
	51-28-5	2,4-dinitrophenol	ND	47
	100-02-7	4-nitrophenol	ND	2.7
	132-64-9	dibenzofuran	ND	11
	606-20-2	2,6-dinitrotoluene	ND	2.1
	121-14-2	2,4-dinitrotoluene	ND	6.4
	84-66-2	diethylphthalate	ND	2.1
	7005-72-3	4-chlorophenyl-phenylether	ND	4.7
	86-73-7	fluorene	ND	2.1
	100-01-06	4-nitroaniline	ND	56
	534-52-1	4,6-dinitro-2-methylphenol	ND	27
	86-30-6	n-nitrosodiphenylamine	ND	2.1
	101-55-3	4-bromophenyl-phenylether	ND	2.1
	118-74-1	hexachlorobenzene	ND	2.1
	87-86-5	pentachlorophenol	ND	4.0
	85-01-8	phenanthrene	ND	6.0
	120-12-7	anthracene	ND	2.1
1205	84-74-2	di-n-butylphthalate	3.4	2.8
	206-44-0	fluoranthene	ND	2.5
	92-87-5	benzidine	ND	49
	129-00-0	pyrene	ND	2.1
	85-68-7	butylbenzylphthalate	ND	2.8
	91-94-1	3,3'-dichlorobenzidine	ND	18
	56-55-3	benzo(a)anthracene	ND	8.7
	117-81-7	bis(2-ethylhexyl)phthalate	ND	2.8

CORPORATION

Received: 03/02/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-03-006

SAMPLE ID 03-08

FRACTION 01A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected 03/01/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST SAL EXTRCTD 03/02/88 FILE # 0300601R VERIFIED LAK
INSTRMT F2 INJECTD 03/08/88 UNITS ug/L

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	11
	108-95-2	phenol	ND	1.7
	62-53-3	aniline	ND	11
	111-44-4	bis(2-chloroethyl) ether	ND	6.4
	95-57-8	2-chlorophenol	ND	3.7
	541-73-1	1,3-dichlorobenzene	ND	2.1
	106-46-7	1,4-dichlorobenzene	ND	4.9
	100-51-6	benzyl alcohol	ND	56
	95-50-1	1,2-dichlorobenzene	ND	2.1
	95-48-7	2-methylphenol	ND	11
	108-60-1	bis(2-chloroisopropyl)ether	ND	6.4
	106-44-5	4-methylphenol	ND	11
	621-64-7	n-nitroso-di-n-propylamine	ND	13
	67-72-1	hexachloroethane	ND	1.8
	98-95-3	nitrobenzene	ND	2.1
	78-59-1	isophorone	ND	2.5
	88-75-5	2-nitrophenol	ND	4.0
	105-67-9	2,4-dimethylphenol	ND	3.0
	65-85-0	benzoic acid	ND	56
	111-91-1	bis(2-chloroethoxy)methane	ND	5.9
	120-83-2	2,4-dichlorophenol	ND	3.0
	120-82-1	1,2,4-trichlorobenzene	ND	2.1
607	91-20-3	naphthalene	32	1.8
	106-47-8	4-chloroaniline	ND	11
	87-68-3	hexachlorobutadiene	ND	1.0
	59-50-7	4-chloro-3-methylphenol	ND	3.4
715	91-57-6	2-methylnaphthalene	24	11

KADIAN CORPORATION

Received: 03/02/88

RAS Sacramento REPORT

Results by Sample

Work Order # S8-03-006

SAMPLE ID 03-08

SAMPLE # 01 FRACTIONS: A

Date & Time Collected 03/01/88 Category

EX BNA 03/02/88
DATE COMPLETED

CORPORATION

 RAS Sacramento REPORT Work Order # S8-03-006

Received: 03/02/88

Results By Test

SAMPLE Sample Id	Test: EX BNA date completed
01	03/02/88
03-08	DATE COMPLETED
02	03/02/88
REAGENT BLANK B	DATE COMPLETED

KADIAN CORPORATION

Received: 03/02/88

KAS Sacramento REPORT
Results By Test

Work Order # S8-03-006

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)
EX BNA date completed	03/02/88 DATE COMPLETED	03/02/88 DATE COMPLETED

CORPORATION

 KAS Sacramento REPORT Work Order # S8-03-006

Received: 03/02/88 04/06/88 09:05:58

REPORT TO
Radian Corporation
8501 MoPac Blvd.
Austin, Tx 78766

ATTEN Larry French

CLIENT CARSWELL AFB SAMPLES 2
COMPANY Carswell AFB
FACILITY Headquarters, SAC
Offutt, Nebraska 68113

WORK ID Site 17
TAKEN 03/01/88
TRANS Federal 5471890471
TYPE H20-BNA Only
P.O. # 227-005-04-40
INVOICE under separate cover

PREPARED BY
Radian Analytical Services
10395 Old Placerville Road
Sacramento,
California 95827

ATTEN
PHONE 916-362-5332

Lucas a Petkoon
CERTIFIED BY

CONTACT LARRY FRENCH

SAMPLE IDENTIFICATION

01 03-08
02 REAGENT BLANK BNA

TEST CODES and NAMES used on this report

CL 625 Semivolatile Organics H20
EX BNA Semivolatiles extraction

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-169

FRACTION 06D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

RAS - Austin REPORT Work Order # 88-03-006

Received: 03/01/88

Results by Sample

SAMPLE ID 02-169 FRACTION 06D TEST CODE OP04 NAME Orthophosphate

Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-169 FRACTION 06D TEST CODE TDS NAME Total dissolved solids

Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	660	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-169

FRACTION 06C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-169 FRACTION 06C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.019*	0.0090	Mg	Magnesium	19	0.10
Al	Aluminum	51	0.20	Mn	Manganese	0.89	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	21	0.080
Ba	Barium	0.30	0.0090	Ni	Nickel	0.06*	0.020
Be	Beryllium	0.005*	0.0010	Pb	Lead	0.09*	0.050
Ca	Calcium	660	0.060	Sb	Antimony	0.10*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.03*	0.010	Si	Silicon	75	0.30
Cr	Chromium	0.12	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.05*	0.010	V	Vanadium	0.21	0.020
Fe	Iron	59	0.030	Zn	Zinc	0.11	0.0060
K	Potassium	13	0.30				

KAPLAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-006
Received: 03/01/88 Results by Sample Continued From Above

SAMPLE ID 02-168 FRACTION 05D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/01/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-169 FRACTION 06C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-168 FRACTION 05D TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-168 FRACTION 05D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	770	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

KARDIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-168

FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/01/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

CORPORATION

 RAS - Austin REPORT Work Order # 88-03-006

Received: 03/01/88

Results by Sample

SAMPLE ID 02-168 FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/01/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.019*	0.0090	Mg	Magnesium	17	0.10
Al	Aluminum	35	0.20	Mn	Manganese	2.2	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	19	0.080
Ba	Barium	0.42	0.0090	Ni	Nickel	0.10*	0.020
Be	Beryllium	0.004*	0.0010	Pb	Lead	0.09*	0.050
Ca	Calcium	640	0.060	Sb	Antimony	0.12*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.02*	0.010	Si	Silicon	50	0.30
Cr	Chromium	0.11	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.04*	0.010	V	Vanadium	0.17	0.020
Fe	Iron	59	0.030	Zn	Zinc	0.089	0.0060
K	Potassium	11	0.30				

KRAUSMAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-167 FRACTION 04D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-168 FRACTION 05C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/01/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-167 FRACTION 04D TEST CODE OPO4 NAME Orthophosphate
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-167 FRACTION 04D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 02/29/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	750	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-167

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 02/29/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

CORPORATION

Received: 03/01/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-167

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 02/29/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.029*	0.0090	Mg	Magnesium	61	0.10
Al	Aluminum	200	0.20	Mn	Manganese	9.3	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	25	0.080
Ba	Barium	1.2	0.0090	Ni	Nickel	0.38	0.020
Be	Beryllium	0.026	0.0010	Pb	Lead	0.39	0.050
Ca	Calcium	4100	0.60	Sb	Antimony	0.5*	0.24
Cd	Cadmium	0.025	0.0030	Se	Selenium	0.9*	0.30
Co	Cobalt	0.12	0.010	Si	Silicon	47	0.30
Cr	Chromium	0.44	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.27	0.010	V	Vanadium	1.0	0.020
Fe	Iron	360	0.030	Zn	Zinc	0.53	0.0060
K	Potassium	36	0.30				

KADIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-166 FRACTION 03D TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/01/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-167 FRACTION 04C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 02/29/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/16/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RAS - Austin REPORT

Work Order # 88-03-006

Received: 03/01/88

Results by Sample

SAMPLE ID 02-166 FRACTION 03D TEST CODE OPO4 NAME Orthophosphate

Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT 21 ANALYZED 03/02/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 02-166 FRACTION 03D TEST CODE TDS NAME Total dissolved solids

Date & Time Collected 03/01/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT ANALYZED 03/07/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	920	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

KARDIAN CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006
Continued From Above

SAMPLE ID 02-166

FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/01/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

CORPORATION

Received: 03/01/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-006

SAMPLE ID 02-166 FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/01/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.021*	0.0090	Mg	Magnesium	57	0.10
Al	Aluminum	170	0.20	Mn	Manganese	9.1	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	26	0.080
Ba	Barium	1.2	0.0090	Ni	Nickel	0.34	0.020
Be	Beryllium	0.025	0.0010	Pb	Lead	0.40	0.050
Ca	Calcium	4000	0.60	Sb	Antimony	0.5*	0.24
Cd	Cadmium	0.013*	0.0030	Se	Selenium	1.0*	0.30
Co	Cobalt	0.12	0.010	Si	Silicon	67	0.30
Cr	Chromium	0.41	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.26	0.010	V	Vanadium	0.95	0.020
Fe	Iron	340	0.030	Zn	Zinc	0.54	0.0060
K	Potassium	32	0.30				

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-15

FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

ANALYST DES

VERIFIED RH#1
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	10	0.10
Al	Aluminum	24	0.20	Mn	Manganese	0.97	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	20	0.080
Ba	Barium	0.29	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	0.002*	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	190	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.01*	0.010	Si	Silicon	57	0.30
Cr	Chromium	0.039*	0.0090	Tl	Thallium	0.13*	0.090
Cu	Copper	0.02*	0.010	V	Vanadium	0.08*	0.020
Fe	Iron	35	0.030	Zn	Zinc	0.054^	0.0060
K	Potassium	4.9	0.30				

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-15 FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-16 FRACTION 03C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/21/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

Received: 03/03/88 Results by Sample

SAMPLE ID 03-15 FRACTION 02A TEST CODE OPO4 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/04/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.03*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-15 FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/09/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	380	2.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-16

FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-16

FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	16	0.10
Al	Aluminum	58	0.20	Mn	Manganese	5.7	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	25	0.080
Ba	Barium	0.72	0.0090	Ni	Nickel	0.07*	0.020
Be	Beryllium	0.005	0.0010	Pb	Lead	0.08*	0.050
Ca	Calcium	480	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.01*	0.010	Si	Silicon	120	0.30
Cr	Chromium	0.12	0.0090	Tl	Thallium	0.22*	0.090
Cu	Copper	0.06	0.010	V	Vanadium	0.21	0.020
Fe	Iron	90	0.030	Zn	Zinc	0.15	0.0060
K	Potassium	9.9	0.30				

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-16 FRACTION 03A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/04/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.02*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-16 FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/09/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	550	2.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-16 FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-19 FRACTION 04C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/21/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-19

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	23	0.10
Al	Aluminum	72	0.20	Mn	Manganese	4.2	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	12	0.080
Ba	Barium	0.53	0.0090	Ni	Nickel	0.06*	0.020
Be	Beryllium	0.006	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	690	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	0.4*	0.30
Co	Cobalt	0.05	0.010	Si	Silicon	120	0.30
Cr	Chromium	0.15	0.0090	Tl	Thallium	0.16*	0.090
Cu	Copper	0.06	0.010	V	Vanadium	0.23	0.020
Fe	Iron	110	0.030	Zn	Zinc	0.21	0.0060
K	Potassium	13	0.30				

SAMPLE ID 03-19

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-19 FRACTION 04A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/04/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-19 FRACTION 04A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/09/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	640	2.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 03-19 FRACTION 04A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-20 FRACTION 05C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/21/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-20

FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.022*	0.0090	Mg	Magnesium	0.1*	0.10
Al	Aluminum	0.3*	0.20	Mn	Manganese	0.007*	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	ND	0.080
Ba	Barium	ND	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	0.35	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND	0.010	Si	Silicon	ND	0.30
Cr	Chromium	0.016*	0.0090	Tl	Thallium	0.17*	0.090
Cu	Copper	0.02*	0.010	V	Vanadium	0.03*	0.020
Fe	Iron	0.16	0.030	Zn	Zinc	ND	0.0060
K	Potassium	0.3*	0.30				

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-20

FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-20 FRACTION 05A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-20 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/09/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	13	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-20 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-21 FRACTION 06C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-21

FRACTION 06C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	25	0.10
Al	Aluminum	52	0.20	Mn	Manganese	3.5	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	25	0.080
Ba	Barium	0.42	0.0090	Ni	Nickel	0.08*	0.020
Be	Beryllium	0.007	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	2000	0.24	Sb	Antimony	0.24*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	1.2
Co	Cobalt	ND	0.040	Si	Silicon	95	0.30
Cr	Chromium	0.17	0.0090	Tl	Thallium	0.20*	0.090
Cu	Copper	0.06	0.010	V	Vanadium	0.31	0.020
Fe	Iron	130	0.030	Zn	Zinc	0.17	0.0060
K	Potassium	8.9	0.30				

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-21

FRACTION 06C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031

SAMPLE ID 03-21 FRACTION 06A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-21 FRACTION 06A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/09/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	470	2.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-21 FRACTION 06A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-22 FRACTION 07C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/02/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

Received: 03/03/88

Results by Sample

SAMPLE ID 03-22 FRACTION 07C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/02/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	14	0.10
Al	Aluminum	38	0.20	Mn	Manganese	6.3	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	22	0.080
Ba	Barium	0.93	0.0090	Ni	Nickel	0.03*	0.020
Be	Beryllium	0.004*	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	470	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.03*	0.010	Si	Silicon	80	0.30
Cr	Chromium	0.089	0.0090	Tl	Thallium	0.11*	0.090
Cu	Copper	0.04*	0.010	V	Vanadium	0.16	0.020
Fe	Iron	79	0.030	Zn	Zinc	0.13	0.0060
K	Potassium	6.3	0.30				

SAMPLE ID 03-22 FRACTION 07C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/02/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RAS - Austin REPORT

Work Order # 88-03-031

Received: 03/03/88

Results by Sample

SAMPLE ID 03-22 FRACTION 07A TEST CODE OP04 NAME Orthophosphate

Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT 21 ANALYZED 03/04/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.05*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-22 FRACTION 07A TEST CODE TDS NAME Total dissolved solids

Date & Time Collected 03/02/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT ANALYZED 03/09/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	540	2.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

Received: 03/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-031
Continued From Above

SAMPLE ID 03-22

FRACTION 07A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/02/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-035

Received: 03/04/88 06/17/88 14:49:37

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 8
COMPANY: Carswell AFB
FACILITY: IRP

PREPARED BY: Radian Analytical Services
8501 Mo-pac Bl.
PO Box 201088
Austin, TX 78720-1088

ATTEN:
PHONE: 512-454-4797

CERTIFIED BY

CONTACT: SMITH

WORK ID: 05-10-12
TAKEN: RP,GM
TRANS: Fed Ex
TYPE:
P.O. #: 227-005-04-40
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	03-23
02	03-24
03	03-25
04	03-26
05	03-27
06	03-28
07	03-29
08	03-30

TEST CODES and NAMES used on this report

AS G	Arsenic, graphite AA
CL T	Chloride
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
F SIE	Fluoride, SIE
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ICP200	ICPES, EPA 200.7 elements
NO2NO3	Nitrate + nitrite
ONG IR	Oil and grease, infrared
OPO4	Orthophosphate
PB G	Lead, graphite AA
SE G	Selenium, graphite AA
SO4 N	Sulfate, nephelometry
TDS	Total dissolved solids

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-03-035

Received: 03/04/88

Results By Test

SAMPLE Sample Id	Test: AS G ug/ml	Test: CL T mg/L	Test: DG3020 date complete	Test: DG6010 date complete	Test: F SIE mg/L
01 03-23	0.082B	9	03/08/88	03/10/88	0.31
02 03-24	0.044^	6	03/08/88	03/10/88	0.25
03 03-25	0.051	6	03/08/88	03/10/88	0.25
04 03-26	0.056	18	03/08/88	03/10/88	0.26
05 03-27	0.028	15	03/08/88	03/10/88	0.22
06 03-28	0.022	15	03/08/88	03/10/88	0.24@
07 03-29	0.007	27	03/08/88	03/10/88	0.27
08 03-30	0.045	27	03/08/88	03/10/88	0.25

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
01 03-23	<0.2	0.46		0.128B+	<0.005R
02 03-24	<0.2	0.26		0.066^	<0.005
03 03-25	<0.2	0.25		0.048	<0.005
04 03-26	0.6*	<0.1		0.050	<0.02@

Received: 03/04/88

RAS - Austin REPORT
Results By Test

Work Order # 88-03-035
Continued From Above

SAMPLE Sample Id	Test: HC IR mg/L	Test: NO2NO3 mg/L as N	Test: ONG IR mg/L	Test: PB G ug/ml	Test: SE G ug/ml
05 03-27	<0.2	0.13		0.061	<0.005
06 03-28	<0.2	3.6	0.3*	0.029	<0.005
07 03-29	0.4*	0.22	1.0*	0.007*	<0.005
08 03-30		<0.02		0.027	<0.005

SAMPLE Sample Id	Test: SO4 N mg/L
01 03-23	61
02 03-24	26
03 03-25	28
04 03-26	15
05 03-27	31
06 03-28	25
07 03-29	17

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
Results By Test

Work Order # 88-03-035
Continued From Above

SAMPLE Sample Id	Test: SO4 N mg/L
08 03-30	18

KAPLAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035

SAMPLE ID 03-23

FRACTION 01C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	0.0003*	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-03-035

Received: 03/04/88 Results by Sample

SAMPLE ID 03-23 FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/03/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.010*	0.0090	Mg	Magnesium	45	0.10
Al	Aluminum	190	0.20	Mn	Manganese	4.0	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	32	0.080
Ba	Barium	0.79	0.0090	Ni	Nickel	0.31	0.020
Be	Beryllium	0.006	0.0010	Pb	Lead	0.27	0.050
Ca	Calcium	2300	0.24	Sb	Antimony	0.50	0.060
Cd	Cadmium	0.015*	0.0030	Se	Selenium	0.6*	0.30
Co	Cobalt	0.12	0.010	Si	Silicon	140	0.30
Cr	Chromium	0.35	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.24	0.010	V	Vanadium	0.93	0.020
Fe	Iron	330	0.030	Zn	Zinc	0.55	0.0060
K	Potassium	28	1.2				

CORPORATION

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035
Continued From Above

SAMPLE ID 03-23

FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035

SAMPLE ID 03-23 FRACTION 01A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.05*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-23 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/14/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	590	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 03/04/88

RAS - Austin REPORT
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SAMPLE ID 03-23 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-24 FRACTION 02C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403
ANALYZED 03/21/88
UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
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Work Order # 88-03-035

SAMPLE ID 03-24

FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

ANALYST DES

VERIFIED RHH
UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	24	0.10
Al	Aluminum	100	0.20	Mn	Manganese	3.1	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	23	0.080
Ba	Barium	0.46	0.0090	Ni	Nickel	0.16	0.020
Be	Beryllium	0.002*	0.0010	Pb	Lead	0.13*	0.050
Ca	Calcium	1100	0.12	Sb	Antimony	0.30*	0.060
Cd	Cadmium	0.007*	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.06	0.010	Si	Silicon	150	0.30
Cr	Chromium	0.18	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.07	0.010	V	Vanadium	0.33	0.020
Fe	Iron	120	0.030	Zn	Zinc	0.23	0.0060
K	Potassium	15	0.60				

RADIAN CORPORATION

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RAS - Austin REPORT
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SAMPLE ID 03-24

FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
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Work Order # 88-03-035

SAMPLE ID 03-24

FRACTION 02A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.08*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-24

FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/14/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	450	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

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Results by Sample

Work Order # 88-03-035
Continued From Above

SAMPLE ID 03-24

FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-25

FRACTION 03C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	0.0001*	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-035

SAMPLE ID 03-25

FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/03/88 Category

ANALYST T D

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	29	0.10
Al	Aluminum	130B	0.20	Mn	Manganese	3.5	0.0030
As	Arsenic	ND,R	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND,R	0.60	Na	Sodium	22	0.080
Ba	Barium	0.53	0.0090	Ni	Nickel	0.20	0.020
Be	Beryllium	0.003*	0.0010	Pb	Lead	0.11*	0.050
Ca	Calcium	1200B	0.12	Sb	Antimony	0.24*R	0.060
Cd	Cadmium	0.008*	0.0030	Se	Selenium	0.5*	0.30
Co	Cobalt	0.07	0.010	Si	Silicon	160B	0.30
Cr	Chromium	0.22	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.08	0.010	V	Vanadium	0.39	0.020
Fe	Iron	150B	0.030	Zn	Zinc	0.31	0.0060
K	Potassium	19R	0.60				

RADIAN CORPORATION

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RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035
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SAMPLE ID 03-25

FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

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SAMPLE ID 03-25 FRACTION 03A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-25 FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/14/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	510	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

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Received: 03/04/88

RAS - Austin REPORT
Results by Sample

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SAMPLE ID 03-25

FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-26

FRACTION 04C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	0.0003*	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

KADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-035

SAMPLE ID 03-26

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/03/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	34	0.10
Al	Aluminum	100	0.20	Mn	Manganese	7.2	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	25	0.080
Ba	Barium	0.66	0.0090	Ni	Nickel	0.18	0.020
Be	Beryllium	0.003*	0.0010	Pb	Lead	0.09*	0.050
Ca	Calcium	2000	0.24	Sb	Antimony	0.39	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.05*	0.010	Si	Silicon	130	0.30
Cr	Chromium	0.22	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.05	0.010	V	Vanadium	0.36	0.020
Fe	Iron	120	0.030	Zn	Zinc	0.19	0.0060
K	Potassium	18	1.2				

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RAS - Austin REPORT
Results by Sample

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SAMPLE ID 03-26

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

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RAS - Austin REPORT
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SAMPLE ID 03-26 FRACTION 04A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/04/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.07*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-26 FRACTION 04A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/14/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	540	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

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Results by Sample

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SAMPLE ID 03-26 FRACTION 04A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-27 FRACTION 05C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/21/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	0.0001*	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

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Received: 03/04/88 Results by Sample

SAMPLE ID 03-27 FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/03/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	40	0.10
Al	Aluminum	120	0.20	Mn	Manganese	5.7	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	23	0.080
Ba	Barium	0.70	0.0090	Ni	Nickel	0.23	0.020
Be	Beryllium	0.002*	0.0010	Pb	Lead	0.13*	0.050
Ca	Calcium	2900	0.60	Sb	Antimony	0.59	0.060
Cd	Cadmium	0.007*	0.0030	Se	Selenium	0.5*	0.30
Co	Cobalt	0.06	0.010	Si	Silicon	120	0.30
Cr	Chromium	0.31	0.0090	Tl	Thallium	0.11*	0.090
Cu	Copper	0.13	0.010	V	Vanadium	0.53	0.020
Fe	Iron	200	0.030	Zn	Zinc	0.33	0.0060
K	Potassium	20	3.0				

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035
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SAMPLE ID 03-27 FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
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SAMPLE ID 03-27 FRACTION 05A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	ND	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-27 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/14/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	530	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 03-27 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-28 FRACTION 06C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/21/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	0.0003	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

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SAMPLE ID 03-28

FRACTION 06C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/03/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	13	0.10
Al	Aluminum	43	0.20	Mn	Manganese	0.65	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	22	0.080
Ba	Barium	0.24	0.0090	Ni	Nickel	0.06*	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	390	0.060	Sb	Antimony	0.15*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND	0.010	Si	Silicon	81	0.30
Cr	Chromium	0.066	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.02*	0.010	V	Vanadium	0.12	0.020
Fe	Iron	52	0.030	Zn	Zinc	0.10	0.0060
K	Potassium	8.6	0.30				

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035
Continued From Above

SAMPLE ID 03-28

FRACTION 06C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

SAMPLE ID 03-28 FRACTION 06A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 03/04/88 UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.11	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-28 FRACTION 06A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 03/14/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	510	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 03-28 FRACTION 06A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-29 FRACTION 07C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403 ANALYZED 03/21/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

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Received: 03/04/88 Results by Sample

SAMPLE ID 03-29 FRACTION 07C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/03/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	9.7	0.10
Al	Aluminum	8.2	0.20	Mn	Manganese	0.21	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	27	0.080
Ba	Barium	0.19	0.0090	Ni	Nickel	ND	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	180	0.060	Sb	Antimony	0.08*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND	0.010	Si	Silicon	24	0.30
Cr	Chromium	0.011*	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND	0.020
Fe	Iron	9.9	0.030	Zn	Zinc	0.016*	0.0060
K	Potassium	2.5	0.30				

RADIAN CORPORATION

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RAS - Austin REPORT
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SAMPLE ID 03-29

FRACTION 07C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035

SAMPLE ID 03-29

FRACTION 07A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.03*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-29

FRACTION 07A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/14/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	670	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

RADIAN CORPORATION

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RAS - Austin REPORT
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SAMPLE ID 03-29

FRACTION 07A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-30

FRACTION 08C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 03/03/88 Category

VERIFIED RHH

ANALYST KCP
INSTRMT 403

ANALYZED 03/21/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-03-035

SAMPLE ID 03-30

FRACTION 08C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 03/03/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	ND	0.0090	Mg	Magnesium	14	0.10
Al	Aluminum	43	0.20	Mn	Manganese	2.2	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	21	0.080
Ba	Barium	0.70	0.0090	Ni	Nickel	0.09*	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	300	0.060	Sb	Antimony	0.17*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.01*	0.010	Si	Silicon	84	0.30
Cr	Chromium	0.060	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	0.09*	0.020
Fe	Iron	52	0.030	Zn	Zinc	0.099	0.0060
K	Potassium	6.0	0.30				

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035
Continued From Above

SAMPLE ID 03-30

FRACTION 08C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 03/03/88 Category

NOTES AND DEFINITIONS FOR THIS REPORT
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit.
N\A = not available

RADIAN CORPORATION

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035

SAMPLE ID 03-30

FRACTION 08A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 03/04/88

UNITS mg/L as P

ANALYTE	RESULT	DET LIMIT
Orthophosphate	0.03*	0.020

NOTES AND DEFINITIONS FOR THIS REPORT.
DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

SAMPLE ID 03-30

FRACTION 08A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 03/14/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	460	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

Received: 03/04/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-03-035
Continued From Above

SAMPLE ID 03-30

FRACTION 08A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 03/03/88 Category

DET LIMIT = DETECTION LIMIT
ND = not detected at detection limit
NA = not analyzed
* = less than 5 times the detection limit
N\A = not available

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ADMINISTRATIVE RECORD

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