N83447.AR.000031
NAS FORT WORTH
5090.3a

DRAFT FINAL INSTALLATION RESTORATION REMEDIAL INVESTIGATION FEASIBILITY STUDY STAGE 2 VOLUME 7 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 37

File: 17A-10
D.B.

37

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 7: APPENDIX F-5
ANALYTICAL DATA, WORK ORDERS 04076-05006

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 7: APPENDIX F5 - ANALYTICAL DATA
WORK ORDERS 04076-05006

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-5

Analytical Data,
Work Orders 04076-05006

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	0	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	0	8804074-04A	TOS	Total Oissolved Solids	E160.1
10C	04-63	0	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-D3I	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
12B	03-25	D	8803035-03D	HC_IR	Petroleum Hydrocarbons	E418.1
12B	03-25	D	8803035-03C	HG_C	Metals	E245.1
12B	03-25	D	8803035-03C	ICP200	Metal Screen (ICP)	E200.7
12B	03-25	D	8803035-03B	NO2NO3	Nitrate	E353.1
12B	03-25	D	8803035-03A	OPO4	Orthophosphate	E365.4
12B	03-25	D	8803035-03C	PB_G	Metals	E239.2
12B	03-25	D	8803035-03C	SE_G	Metals	E270.2
12B	03-25	D	8803035-03A	SO4_N	Sulfate	E375.4
12B	03-25	D	8803035-03A	TDS	Total Dissolved Solids	E160.1
12B	03-25	D	8803036-03C	XYLENE	Purgeable Aromatics	E602
12B	04-57	N	8804064-06D	AS_G	Metals	E206.2
12B	04-57	N	8804064-06A	CL_T	Chloride	E325.3
12B	04-57	N	8804148-09A	EPA601	Purgeable Halocarbons	E601
12B	04-57	N	8804062-10A	EPA601	Purgeable Halocarbons	E601
12B	04-57	N	8804062-10C	EPA602	Purgeable Aromatics	E602
12B	04-57	N	8804064-06A	F_SIE	Fluoride	E340.2
12B	04-57	N	8804064-06C	HC_IR	Petroleum Hydrocarbons	E418.1
12B	04-57	N	8804064-06D	HG_C	Metals	E245.1
12B	04-57	N	8804064-06D	ICP200	Metal Screen (ICP)	E200.7
12B	04-57	N	8804064-06B	NO2NO3	Nitrate	E353.1
12B	04-57	N	8804064-06A	OPO4	Orthophosphate	E365.4
12B	04-57	N	8804064-06D	SE_G	Metals	E270.2
12B	04-57	N	8804064-06A	SO4_N	Sulfate	E375.4
12B	04-57	N	8804064-06A	TDS	Total Dissolved Solids	E160.1
12B	04-57	N	8804062-10C	XYLENE	Purgeable Aromatics	E602
12C	03-26	N	8803035-04C	AS_G	Metals	E206.2
12C	03-26	N	8803035-04A	CL_T	Chloride	E325.3
12C	03-26	N	8803036-04A	EPA601	Purgeable Halocarbons	E601
12C	03-26	N	8803036-04C	EPA602	Purgeable Aromatics	E602
12C	03-26	N	8803036-13A	EPA602	Purgeable Aromatics	E602
12C	03-26	N	8803035-04A	F_SIE	Fluoride	E340.2
12C	03-26	N	8803035-04D	HC_IR	Petroleum Hydrocarbons	E418.1
12C	03-26	N	8803035-04C	HG_C	Metals	E245.1
12C	03-26	N	8803035-04C	ICP200	Metal Screen (ICP)	E200.7
12C	03-26	N	8803035-04B	NO2NO3	Nitrate	E353.1
12C	03-26	N	8803035-04A	OPO4	Orthophosphate	E365.4
12C	03-26	N	8803035-04C	PB_G	Metals	E239.2
12C	03-26	N	8803035-04C	SE_G	Metals	E270.2
12C	03-26	N	8803035-04A	SO4_N	Sulfate	E375.4
12C	03-26	N	8803035-04A	TDS	Total Dissolved Solids	E160.1
12C	03-26	N	8803036-04C	XYLENE	Purgeable Aromatics	E602
12C	03-26	N	8803036-13A	XYLENE	Purgeable Aromatics	E602
12C	04-59	N	8804064-08D	AS_G	Metals	E206.2

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	OPO4	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	OPO4	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	8803018-02C	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	CLB270	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	0	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	D4-39	D	8804056-04C	HG_C	Metals	E245.1
4F	D4-39	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
5C	03-15	N	8803031-02A	TDS	Total Dissolved Solids	E160.1
5C	03-15	N	8803029-02C	XYLENE	Purgeable Aromatics	E602
5C	04-48	ER	8804064-01C	AS_G	Metals	E206.2
5C	04-48	ER	8804064-01A	CL_T	Chloride	E325.3
5C	04-48	ER	8804148-01A	EPA601	Purgeable Halocarbons	E601
5C	04-48	ER	8804062-01A	EPA601	Purgeable Halocarbons	E601
5C	04-48	ER	8804062-01C	EPA602	Purgeable Aromatics	E602
5C	04-48	ER	8804148-01A	EPA602	Purgeable Aromatics	E602
5C	04-48	ER	8804064-01A	F_SIE	Fluoride	E340.2
5C	04-48	ER	8804064-01C	HG_C	Metals	E245.1
5C	04-48	ER	8804064-01C	ICP200	Metal Screen (ICP)	E200.7
5C	04-48	ER	8804064-01B	NO2NO3	Nitrate	E353.1
5C	04-48	ER	8804064-01A	OPO4	Orthophosphate	E365.4
5C	04-48	ER	8804064-01C	SE_G	Metals	E270.2
5C	04-48	ER	8804064-01A	SO4_N	Sulfate	E375.4
5C	04-48	ER	8804064-01A	TDS	Total Dissolved Solids	E160.1
5C	04-48	ER	8804148-01A	XYLENE	Purgeable Aromatics	E602
5C	04-48	ER	8804062-01C	XYLENE	Purgeable Aromatics	E602
5C	04-49	N	8804064-02C	AS_G	Metals	E206.2
5C	04-49	N	8804064-02A	CL_T	Chloride	E325.3
5C	04-49	N	8804062-02A	EPA601	Purgeable Halocarbons	E601
5C	04-49	N	8804148-02A	EPA601	Purgeable Halocarbons	E601
5C	04-49	N	8804062-02C	EPA602	Purgeable Aromatics	E602
5C	04-49	N	8804064-02A	F_SIE	Fluoride	E340.2
5C	04-49	N	8804064-02C	HG_C	Metals	E245.1
5C	04-49	N	8804064-02C	ICP200	Metal Screen (ICP)	E200.7
5C	04-49	N	8804064-02B	NO2NO3	Nitrate	E353.1
5C	04-49	N	8804064-02A	OPO4	Orthophosphate	E365.4
5C	04-49	N	8804064-02C	SE_G	Metals	E270.2
5C	04-49	N	8804064-02A	SO4_N	Sulfate	E375.4
5C	04-49	N	8804064-02A	TDS	Total Dissolved Solids	E160.1
5C	04-49	N	8804062-02C	XYLENE	Purgeable Aromatics	E602
5D	03-19	N	8803031-04C	AS_G	Metals	E206.2
5D	03-19	N	8803031-04A	CL_T	Chloride	E325.3
5D	03-19	N	8803029-06A	EPA601	Purgeable Halocarbons	E601
5D	03-19	N	8803029-06C	EPA602	Purgeable Aromatics	E602
5D	03-19	N	8803031-04A	F_SIE	Fluoride	E340.2
5D	03-19	N	8803031-04C	HG_C	Metals	E245.1
5D	03-19	N	8803031-04C	ICP200	Metal Screen (ICP)	E200.7
5D	03-19	N	8803031-04D	NO2NO3	Nitrate	E353.1
5D	03-19	N	8803031-04A	OPO4	Orthophosphate	E365.4
5D	03-19	N	8803031-04C	PB_G	Metals	E239.2
5D	03-19	N	8803031-04C	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
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	Semivolatile 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	03-37		8803040-07A	EPA601	Purgeable Halocarbons	E601
5F	03-37		8803040-07C	EPA602	Purgeable Aromatics	E602
5F	03-37		8803041-07B	F_SIE	Fluoride	E340.2
5F	03-37		8803041-07A	HG_C	Metals	E245.1
5F	03-37		8803041-07A	ICP200	Metal Screen (ICP)	E200.7
5F	03-37		8803041-07C	NO2NO3	Nitrate	E353.1
5F	03-37		8803041-07B	OPO4	Orthophosphate	E365.4
5F	03-37		8803041-07A	SE_G	Metals	E270.2
5F	03-37		8803041-07B	SO4_N	Sulfate	E375.4
5F	03-37		8803041-07B	TDS	Total Dissolved Solids	E160.1
5F	03-37		8803040-07C	XYLENE	Purgeable Aromatics	E602
5F	03-38		8803041-08A	AS_G	Metals	E206.2
5F	03-38		8803041-08B	CL_T	Chloride	E325.3
5F	03-38		8803040-08A	EPA601	Purgeable Halocarbons	E601
5F	03-38		8803040-08C	EPA602	Purgeable Aromatics	E602
5F	03-38		8803041-08B	F_SIE	Fluoride	E340.2
5F	03-38		8803041-08A	HG_C	Metals	E245.1
5F	03-38		8803041-08A	ICP200	Metal Screen (ICP)	E200.7
5F	03-38		8803041-08C	NO2NO3	Nitrate	E353.1
5F	03-38		8803041-08B	OPO4	Orthophosphate	E365.4
5F	03-38		8803041-08A	SE_G	Metals	E270.2
5F	03-38		8803041-08B	SO4_N	Sulfate	E375.4
5F	03-38		8803041-08B	TDS	Total Dissolved Solids	E160.1
5F	03-38		8803040-08C	XYLENE	Purgeable Aromatics	E602
5F	04-66	N	8804074-07C	AS_G	Metals	E206.2
5F	04-66	N	8804074-07A	CL_T	Chloride	E325.3
5F	04-66	N	8804075-08A	EPA601	Purgeable Halocarbons	E601
5F	04-66	N	8804145-06A	EPA601	Purgeable Halocarbons	E601
5F	04-66	N	8804075-08C	EPA602	Purgeable Aromatics	E602
5F	04-66	N	8804074-07A	F_SIE	Fluoride	E340.2
5F	04-66	N	8804074-07C	HG_C	Metals	E245.1
5F	04-66	N	8804074-07C	ICP200	Metal Screen (ICP)	E200.7
5F	04-66	N	8804074-07B	NO2NO3	Nitrate	E353.1
5F	04-66	N	8804074-07A	OPO4	Orthophosphate	E365.4
5F	04-66	N	8804074-07C	SE_G	Metals	E270.2
5F	04-66	N	8804074-07A	SO4_N	Sulfate	E375.4
5F	04-66	N	8804074-07A	TDS	Total Dissolved Solids	E160.1
5F	04-66	N	8804075-08C	XYLENE	Purgeable Aromatics	E602
5F	04-67	ER	8804074-08C	AS_G	Metals	E206.2
5F	04-67	ER	8804074-08A	CL_T	Chloride	E325.3
5F	04-67	ER	8804145-07A	EPA601	Purgeable Halocarbons	E601
5F	04-67	ER	8804075-09A	EPA601	Purgeable Halocarbons	E601
5F	04-67	ER	8804075-09C	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
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	DRY_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	DRY_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
8804076-01A	4H	04-27	N	EPA601	Purgeable Halocarbons
8804076-01A	4H	04-27	N	EPA602	Purgeable Aromatics
8804076-01A	4H	04-27	N	XYLENE	Purgeable Aromatics
8804076-02A	4H	04-28	TB	EPA602	Purgeable Aromatics
8804076-02A	4H	04-28	TB	XYLENE	Purgeable Aromatics
8804076-03A	4H	04-29	FB	EPA602	Purgeable Aromatics
8804076-03A	4H	04-29	FB	XYLENE	Purgeable Aromatics
8804076-04A	4G	04-30	N	EPA601	Purgeable Halocarbons
8804076-05A	5H	04-31	N	EPA601	Purgeable Halocarbons
8804076-06A	5G	04-32	N	EPA601	Purgeable Halocarbons
8804076-07A	5G	04-33	TB	EPA602	Purgeable Aromatics
8804076-07A	5G	04-33	TB	XYLENE	Purgeable Aromatics
8804076-08A	5G	04-34	FB	EPA602	Purgeable Aromatics
8804076-08A	5G	04-34	FB	XYLENE	Purgeable Aromatics
8804076-09A	4E	04-35	N	EPA601	Purgeable Halocarbons
8804077-01A	3D	04-01	N	ONG_IR	Oil & Grease
8804077-02A	10B	04-61	ER	HC_IR	Petroleum Hydrocarbons
8804077-03A	10C	04-62	N	HC_IR	Petroleum Hydrocarbons
8804077-04A	10C	04-63	D	HC_IR	Petroleum Hydrocarbons
8804077-04B	10C	04-63	D	ONG_IR	Oil & Grease
8804077-05A	10B	04-60	N	HC_IR	Petroleum Hydrocarbons
8804079-01A	17J	04-69	N	CL_T	Chloride
8804079-01A	17J	04-69	N	F_SIE	Fluoride
8804079-01A	17J	04-69	N	OPO4	Orthophosphate
8804079-01A	17J	04-69	N	SO4_N	Sulfate
8804079-01A	17J	04-69	N	TDS	Total Dissolved Solids
8804079-01B	17J	04-69	N	NO2NO3	Nitrate
8804079-01C	17J	04-69	N	AS_G	Metals
8804079-01C	17J	04-69	N	PB_G	Metals
8804079-01C	17J	04-69	N	HG_C	Metals
8804079-01C	17J	04-69	N	ICP200	Metal Screen (ICP)
8804079-01D	17J	04-69	N	HC_IR	Petroleum Hydrocarbons
8804079-02A	17J	04-70	D	CL_T	Chloride
8804079-02A	17J	04-70	D	F_SIE	Fluoride
8804079-02A	17J	04-70	D	F_SIE	Fluoride
8804079-02A	17J	04-70	D	CL_T	Chloride
8804079-02A	17J	04-70	D	OPO4	Orthophosphate
8804079-02A	17J	04-70	D	TDS	Total Dissolved Solids
8804079-02A	17J	04-70	D	OPO4	Orthophosphate
8804079-02A	17J	04-70	D	SO4_N	Sulfate
8804079-02A	17J	04-70	D	SO4_N	Sulfate
8804079-02A	17J	04-70	D	TDS	Total Dissolved Solids
8804079-02B	17J	04-70	D	NO2NO3	Nitrate
8804079-02B	17J	04-70	D	NO2NO3	Nitrate
8804079-02C	17J	04-70	D	AS_G	Metals
8804079-02C	17J	04-70	D	AS_G	Metals

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8804079-02C	17J	04-70	D	HG_C	Metals
8804079-02C	17J	04-70	D	HG_C	Metals
8804079-02C	17J	04-70	D	ICP200	Metal Screen (ICP)
8804079-02C	17J	04-70	D	ICP200	Metal Screen (ICP)
8804079-02C	17J	04-70	D	PB_G	Metals
8804079-02C	17J	04-70	D	PB_G	Metals
8804079-02D	17J	04-70	D	HC_IR	Petroleum Hydrocarbons
8804079-02D	17J	04-70	D	HC_IR	Petroleum Hydrocarbons
8804079-03A	17J	04-71	ER	CL_T	Chloride
8804079-03A	17J	04-71	ER	TDS	Total Dissolved Solids
8804079-03A	17J	04-71	ER	F_SIE	Fluoride
8804079-03A	17J	04-71	ER	OPO4	Orthophosphate
8804079-03A	17J	04-71	ER	SO4_N	Sulfate
8804079-03B	17J	04-71	ER	NO2NO3	Nitrate
8804079-03C	17J	04-71	ER	AS_G	Metals
8804079-03C	17J	04-71	ER	HG_C	Metals
8804079-03C	17J	04-71	ER	ICP200	Metal Screen (ICP)
8804079-03C	17J	04-71	ER	PB_G	Metals
8804079-03C	17J	04-71	ER	SE_G	Metals
8804079-03D	17J	04-71	ER	HC_IR	Petroleum Hydrocarbons
8804079-03E	17J	04-71	ER	ONG_IR	Oil & Grease
8804079-04A	17L	04-72	N	F_SIE	Fluoride
8804079-04A	17L	04-72	N	OPO4	Orthophosphate
8804079-04A	17L	04-72	N	SO4_N	Sulfate
8804079-04A	17L	04-72	N	CL_T	Chloride
8804079-04A	17L	04-72	N	TDS	Total Dissolved Solids
8804079-04B	17L	04-72	N	NO2NO3	Nitrate
8804079-04C	17L	04-72	N	AS_G	Metals
8804079-04C	17L	04-72	N	HG_C	Metals
8804079-04C	17L	04-72	N	ICP200	Metal Screen (ICP)
8804079-04C	17L	04-72	N	PB_G	Metals
8804079-04D	17L	04-72	N	HC_IR	Petroleum Hydrocarbons
8804079-05A	17L	04-73	ER	CL_T	Chloride
8804079-05A	17L	04-73	ER	F_SIE	Fluoride
8804079-05A	17L	04-73	ER	OPO4	Orthophosphate
8804079-05A	17L	04-73	ER	SO4_N	Sulfate
8804079-05A	17L	04-73	ER	TDS	Total Dissolved Solids
8804079-05B	17L	04-73	ER	NO2NO3	Nitrate
8804079-05C	17L	04-73	ER	AS_G	Metals
8804079-05C	17L	04-73	ER	HG_C	Metals
8804079-05C	17L	04-73	ER	ICP200	Metal Screen (ICP)
8804079-05C	17L	04-73	ER	PB_G	Metals
8804080-01A	17J	04-69	N	EPA601	Purgeable Halocarbons
8804080-01C	17J	04-69	N	EPA602	Purgeable Aromatics
8804080-01C	17J	04-69	N	XYLENE	Purgeable Aromatics
8804080-02A	17J	04-70	D	EPA601	Purgeable Halocarbons

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8804080-02A	17J	04-70	D	EPA601	Purgeable Halocarbons
8804080-02C	17J	04-70	D	EPA602	Purgeable Aromatics
8804080-02C	17J	04-70	D	XYLENE	Purgeable Aromatics
8804080-02C	17J	04-70	D	EPA602	Purgeable Aromatics
8804080-02C	17J	04-70	D	XYLENE	Purgeable Aromatics
8804080-03A	17J	04-71	ER	EPA601	Purgeable Halocarbons
8804080-03C	17J	04-71	ER	EPA602	Purgeable Aromatics
8804080-03C	17J	04-71	ER	XYLENE	Purgeable Aromatics
8804080-04A	17L	04-72	N	EPA601	Purgeable Halocarbons
8804080-04C	17L	04-72	N	EPA602	Purgeable Aromatics
8804080-04C	17L	04-72	N	XYLENE	Purgeable Aromatics
8804080-05A	17L	04-73	ER	EPA601	Purgeable Halocarbons
8804080-05C	17L	04-73	ER	EPA602	Purgeable Aromatics
8804080-05C	17L	04-73	ER	XYLENE	Purgeable Aromatics
8804080-07A	17J	04-71	ER	EPA602	Purgeable Aromatics
8804080-07A	17J	04-71	ER	XYLENE	Purgeable Aromatics
8804080-08A	17L	04-73	ER	EPA601	Purgeable Halocarbons
8804080-08A	17L	04-73	ER	EPA602	Purgeable Aromatics
8804080-08A	17L	04-73	ER	XYLENE	Purgeable Aromatics
8804081-01A	BSSB	04-74	N	AS_G	Metals
8804081-01A	BSSB	04-74	N	HG_C	Metals
8804081-01A	BSSB	04-74	N	ICP200	Metal Screen (ICP)
8804081-01A	BSSB	04-74	N	PB_G	Metals
8804081-01A	BSSB	04-74	N	SE_G	Metals
8804081-01B	BSSB	04-74	N	HC_IR	Petroleum Hydrocarbons
8804081-01C	BSSB	04-74	N	TDS	Total Dissolved Solids
8804081-02A	BSSB	04-75	D	AS_G	Metals
8804081-02A	BSSB	04-75	D	HG_C	Metals
8804081-02A	BSSB	04-75	D	ICP200	Metal Screen (ICP)
8804081-02A	BSSB	04-75	D	PB_G	Metals
8804081-02A	BSSB	04-75	D	SE_G	Metals
8804081-02B	BSSB	04-75	D	HC_IR	Petroleum Hydrocarbons
8804081-02C	BSSB	04-75	D	TDS	Total Dissolved Solids
8804081-03A	BSSC	04-76	N	AS_G	Metals
8804081-03A	BSSC	04-76	N	HG_C	Metals
8804081-03A	BSSC	04-76	N	ICP200	Metal Screen (ICP)
8804081-03A	BSSC	04-76	N	PB_G	Metals
8804081-03A	BSSC	04-76	N	SE_G	Metals
8804081-03B	BSSC	04-76	N	HC_IR	Petroleum Hydrocarbons
8804081-03C	BSSC	04-76	N	TDS	Total Dissolved Solids
8804081-04A	BSSA	04-77	N	AS_G	Metals
8804081-04A	BSSA	04-77	N	HG_C	Metals
8804081-04A	BSSA	04-77	N	ICP200	Metal Screen (ICP)
8804081-04A	BSSA	04-77	N	PB_G	Metals
8804081-04A	BSSA	04-77	N	SE_G	Metals
8804081-04B	BSSA	04-77	N	HC_IR	Petroleum Hydrocarbons

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8804081-04C	BSSA	04-77	N	TDS	Total Dissolved Solids
8804081-05A	BSSA	04-78	ER	AS_G	Metals
8804081-05A	BSSA	04-78	ER	HG_C	Metals
8804081-05A	BSSA	04-78	ER	ICP200	Metal Screen (ICP)
8804081-05A	BSSA	04-78	ER	PB_G	Metals
8804081-05A	BSSA	04-78	ER	SE_G	Metals
8804081-05B	BSSA	04-78	ER	HC_IR	Petroleum Hydrocarbons
8804082-01A	BSSB	04-74	N	EPA601	Purgeable Halocarbons
8804082-01C	BSSB	04-74	N	EPA602	Purgeable Aromatics
8804082-01C	BSSB	04-74	N	XYLENE	Purgeable Aromatics
8804082-02A	BSSB	04-75	D	EPA601	Purgeable Halocarbons
8804082-02C	BSSB	04-75	D	EPA602	Purgeable Aromatics
8804082-02C	BSSB	04-75	D	XYLENE	Purgeable Aromatics
8804082-03A	BSSC	04-76	N	EPA601	Purgeable Halocarbons
8804082-03C	BSSC	04-76	N	EPA602	Purgeable Aromatics
8804082-03C	BSSC	04-76	N	XYLENE	Purgeable Aromatics
8804082-04A	BSSA	04-77	N	EPA601	Purgeable Halocarbons
8804082-04C	BSSA	04-77	N	EPA602	Purgeable Aromatics
8804082-04C	BSSA	04-77	N	XYLENE	Purgeable Aromatics
8804082-05A	BSSA	04-78	ER	EPA601	Purgeable Halocarbons
8804082-05C	BSSA	04-78	ER	EPA602	Purgeable Aromatics
8804082-05C	BSSA	04-78	ER	XYLENE	Purgeable Aromatics
8804082-06A	BSSB	04-79	FB	EPA601	Purgeable Halocarbons
8804082-06C	BSSB	04-79	FB	EPA602	Purgeable Aromatics
8804082-06C	BSSB	04-79	FB	XYLENE	Purgeable Aromatics
8804082-07A	BSSB	04-80	TB	EPA601	Purgeable Halocarbons
8804082-07C	BSSB	04-80	TB	EPA602	Purgeable Aromatics
8804082-07C	BSSB	04-80	TB	XYLENE	Purgeable Aromatics
8804082-09A	BSSB	04-74	N	EPA601	Purgeable Halocarbons
8804082-09A	BSSB	04-74	N	EPA602	Purgeable Aromatics
8804082-09A	BSSB	04-74	N	XYLENE	Purgeable Aromatics
8804082-10A	BSSB	04-75	D	EPA601	Purgeable Halocarbons
8804082-10A	BSSB	04-75	D	EPA602	Purgeable Aromatics
8804082-10A	BSSB	04-75	D	XYLENE	Purgeable Aromatics
8804082-11A	BSSA	04-77	N	EPA601	Purgeable Halocarbons
8804145-01A	1B	04-15	N	EPA601	Purgeable Halocarbons
8804145-02A	10B	04-60	N	EPA601	Purgeable Halocarbons
8804145-03A	10B	04-61	ER	EPA601	Purgeable Halocarbons
8804145-03A	10B	04-61	ER	EPA602	Purgeable Aromatics
8804145-03A	10B	04-61	ER	XYLENE	Purgeable Aromatics
8804145-04A	10C	04-62	N	EPA601	Purgeable Halocarbons
8804145-05A	10C	04-63	D	EPA601	Purgeable Halocarbons
8804145-06A	5F	04-66	N	EPA601	Purgeable Halocarbons
8804145-07A	5F	04-67	ER	EPA601	Purgeable Halocarbons
8804145-08A	17K	04-68	N	EPA601	Purgeable Halocarbons
8804145-08A	17K	04-68	N	EPA602	Purgeable Aromatics

Lab ID	Location ID	Sample ID	Sample Type	Method Code	Method
8804145-08A	17K	04-68	N	XYLENE	Purgeable Aromatics
8804148-01A	5C	04-48	ER	EPA601	Purgeable Halocarbons
8804148-01A	5C	04-48	ER	EPA602	Purgeable Aromatics
8804148-01A	5C	04-48	ER	XYLENE	Purgeable Aromatics
8804148-02A	5C	04-49	N	EPA601	Purgeable Halocarbons
8804148-03A	10A	04-50	N	EPA601	Purgeable Halocarbons
8804148-04A	10A	04-51	TB	EPA602	Purgeable Aromatics
8804148-04A	10A	04-51	TB	XYLENE	Purgeable Aromatics
8804148-05A	10A	04-52	FB	EPA602	Purgeable Aromatics
8804148-05A	10A	04-52	FB	XYLENE	Purgeable Aromatics
8804148-06A	12D	04-53	N	EPA601	Purgeable Halocarbons
8804148-06A	12D	04-53	N	EPA602	Purgeable Aromatics
8804148-06A	12D	04-53	N	XYLENE	Purgeable Aromatics
8804148-07A	12D	04-55	FB	EPA602	Purgeable Aromatics
8804148-07A	12D	04-55	FB	XYLENE	Purgeable Aromatics
8804148-08A	12E	04-56	N	EPA601	Purgeable Halocarbons
8804148-08A	12E	04-56	N	EPA602	Purgeable Aromatics
8804148-08A	12E	04-56	N	XYLENE	Purgeable Aromatics
8804148-09A	12B	04-57	N	EPA601	Purgeable Halocarbons
8805006-01A	4D	04-36	N	EPA601	Purgeable Halocarbons
8805006-02A	4D	04-37	ER	EPA602	Purgeable Aromatics
8805006-02A	4D	04-37	ER	EPA601	Purgeable Halocarbons
8805006-02A	4D	04-37	ER	XYLENE	Purgeable Aromatics
8805006-03A	4F	04-38	N	EPA601	Purgeable Halocarbons
8805006-04A	4F	04-39	D	EPA601	Purgeable Halocarbons
8805006-05A	4F	04-40	TB	EPA602	Purgeable Aromatics
8805006-05A	4F	04-40	TB	XYLENE	Purgeable Aromatics
8805006-06A	4F	04-41	FB	EPA602	Purgeable Aromatics
8805006-06A	4F	04-41	FB	XYLENE	Purgeable Aromatics
8805006-07A	4F	04-42	ER	EPA601	Purgeable Halocarbons
8805006-07A	4F	04-42	ER	XYLENE	Purgeable Aromatics
8805006-07A	4F	04-42	ER	EPA602	Purgeable Aromatics
8805006-08A	5D	04-43	N	EPA601	Purgeable Halocarbons
8805006-09A	5E	04-45	N	EPA601	Purgeable Halocarbons
8805006-10A	5A	04-46	N	EPA601	Purgeable Halocarbons

RADIAN CORPORATION

RAS Sacramento REPORT

Work Order # SB-04-076

Received: 04/14/88

05/23/88 09:42:25

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 Carswell AFB
TAKEN 04/13/88
TRANS Federal 6942333532
TYPE H2O
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 Petkovich
CERTIFIED BY

CONTACT LARRY FRENCH

QC = OUTSIDE CONTROL LIMITS.

SAMPLE IDENTIFICATION

01	04-50 H2O
02	04-59 H2O
03	REAGENT BLANK H2O
04	REAGENT BLANK H2O
05	REAGENT BLANK H2O
06	REAGENT BLANK H2O
07	METHOD SPIKE

TEST CODES and NAMES used on this report

509B	Herbicides in water
604	Phenols in water.
608	EPA-Pest/PCB's Water
CL 625	SEMI-VOA/CLP 10/86(LIQUID)
EXHERB	Extraction for Herbicides
EXPEST	Extraction for Pest/PCBs
EXPHEN	Extraction for Phenols
EX BNA	Semivolatiles extraction

KADIAN CORPORATION

RAS Sacramento REPORT

Work Order # S8-04-076

Received: 04/14/88

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)
EXHFRB Date completed	04/18/88 DATE COMPLETED				
EXPEST date completed	04/18/88 DATE COMPLETED				04/18/88 DATE COMPLETED
EXPHEN date completed	04/18/88 DATE COMPLETED			04/18/88 DATE COMPLETED	
EX_BNA date completed		04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED		

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)
EXHFRB Date completed	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED

RAS Sacramento REPORT

Work Order # S8-04-076

Received: 04/14/88

Results By Test

SAMPLE Sample Id	Test: EXHERB Date completed	Test: EXPEST date completed	Test: EXPHEN date completed	Test: EX BNA date completed
01 04-50 H20	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	
02 04-59 H20				04/18/88 DATE COMPLETED
03 REAGENT BLANK H				04/18/88 DATE COMPLETED
04 REAGENT BLANK H			04/18/88 DATE COMPLETED	
05 REAGENT BLANK H		04/18/88 DATE COMPLETED		
06 REAGENT BLANK H	04/18/88 DATE COMPLETED			
07 METHOD SPIKE	04/18/88 DATE COMPLETED			

Received: 04/14/88

Results by Sample

SAMPLE ID 04-50 H20 SAMPLE # 01 FRACTIONS: A,B,C,D,E,F,G,H

Date & Time Collected 04/13/88 Category

EXHERB 04/18/88 DATE COMPLETED EXPEST 04/18/88 DATE COMPLETED EXPHEN 04/18/88 DATE COMPLETED

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076

SAMPLE ID 04-50 H20

FRACTION 01G TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/13/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

ANALYST MR
INSTRMT 1
EXTRCTD 04/18/88
INJECTD 05/05/88
VERIFIED JD
FILE # 118050516
FACTOR 1.0
UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 96 % 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 04-50 H20 FRACTION 01G TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/13/88 Category

D = Not reportable due to dilution

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076

SAMPLE ID 04-50 H20 FRACTION 01A TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/13/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/18/88 FILE # 81805066
INSTRMT 8 INJECTD 05/06/88 FACTOR 2 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.40	2
95-57-8	2-Chlorophenol	ND	0.40	2
88-75-5	2-Nitrophenol	ND	4.0	2
105-67-9	2,4-Dimethylphenol	ND	0.60	2
120-83-2	2,4-Dichlorophenol	ND	1.0	2
59-50-7	4-Chloro-3-Methylphenol	ND	0.80	2
88-06-2	2,4,6-Trichlorophenol	ND	1.2	2
51-28-5	2,4-Dinitrophenol	ND	26	2
100-02-7	4-Nitrophenol	ND	5.0	2
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	32	2
87-86-5	Pentachlorophenol	ND	15	2

SURROGATE

1770-80-5 2-Fluorophenol 46 % 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.

RADIAN CORPORATION

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076
Continued From Above

SAMPLE ID 04-50 H20 FRACTION 01A TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/13/88 Category

D = Not reportable due to dilution

CORPORATION

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076

SAMPLE ID 04-50 H20 FRACTION 01E TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/13/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/18/88 FILE # 118051129 VERIFIED JD
INSTRMT 1 INJECTD 05/11/88 FACTOR 5 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.050	5
58-89-9	gamma-BHC (lindane)	ND	0.050	5
319-85 7	beta-BHC	ND	0.050	5
76-44-8	Heptachlor	ND	0.050	5
319-86-8	delta-BHC	ND	0.050	5
309-00-02	Aldrin	ND	0.050	5
1024-57-3	Heptachlor Epoxide	ND	0.050	5
959-98-8	Endosulfan I	ND	0.050	5
72-55 9	4,4'-DDE	ND	0.050	5
60-57-1	Dieldrin	ND	0.050	5
72-20 8	Endrin	ND	0.050	5
72-54-8	4,4'-DDD	ND	0.050	5
33213-65 9	Endosulfan II	ND	0.15	5
50-29-3	4,4'-DDT	ND	0.10	5
7421-93-4	Endrin Aldehyde	ND	0.10	5
1031-07-8	Endosulfan Sulphate	ND	0.25	5
53494-70 5	Endrin Ketone	ND	0.25	5
72-43-5	Methoxychlor	ND	0.25	5
57-74-9	Chlordane	ND	0.25	5
8001-35 2	Toxaphene	ND	2.5	5
12674-11-2	PCB-1016	ND	0.50	5
11104-28-2	PCB-1221	ND	1.0	5
11141-16-5	PCB-1232	ND	1.0	5
53469-21-9	PCB-1242	ND	0.50	5
12672-29-6	PCB-1248	ND	0.50	5
11097-69-1	PCB-1254	ND	1.0	5
11096-82-5	PCB-1260	ND	1.0	5

SURROGATE 17/0-80-5 Dibutylchlorendate 38 % Recovery

SAMPLE ID 04-50 H20 FRACTION 01E . TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/13/88 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.
GC = Outside control limits.
C = Confirmed NC = Not confirmed
D = Not reportable due to dilution

Received: 04/14/88

RAS Sacramento REPORT

Results by Sample

Work Order # S8-04-076

SAMPLE ID 04-59 H20

SAMPLE # 02 FRACTIONS: A

Date & Time Collected 04/13/88

Category

EX BNA 04/18/88
DATE COMPLETED

KADIAN CORPORATION

RAS Sacramento REPORT

Work Order # S8-04-076

Received: 04/14/88

Results by Sample

SAMPLE ID 04-59 H2O FRACTION 02A TEST CODE CL 625 NAME SEMI-VOA/CLP 10/86(LIQUID)

Date & Time Collected 04/13/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST KS EXTRCTD 04/18/88 FILE # 0407602A VERIFIED LAK

INSTRMT F1 INJECTD 04/21/88 UNITS ug/L

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	62-75-9	n-nitrosodimethylamine	ND	13
	108-95-2	phenol	ND	2.0
	62-53-3	aniline	ND	13
	111-44-4	bis(2-chloroethyl) ether	ND	7.5
	95-57-8	2-chlorophenol	ND	4.4
	541-73-1	1,3-dichlorobenzene	ND	2.5
	106-46-7	1,4-dichlorobenzene	ND	5.8
	100-51-6	benzyl alcohol	ND	66
597	95-50-1	1,2-dichlorobenzene	2.3 J	2.5
	95-48-7	2-methylphenol	ND	13
	108-60-1	bis(2-chloroisopropyl)ether	ND	7.5
	106-44-5	4-methylphenol	ND	13
	621-64-7	n-nitroso-di-n-propylamine	ND	16
	67-72-1	hexachloroethane	ND	2.1
	98-95-3	nitrobenzene	ND	2.5
	78-59-1	isophorone	ND	2.9
	88-75-5	2-nitrophenol	ND	4.8
	105-67-9	2,4-dimethylphenol	ND	3.6
	65-85-0	benzoic acid	ND	66
	111-91-1	bis(2-chloroethoxy)methane	ND	7.0
	120-83-2	2,4-dichlorophenol	ND	3.6
	120-82-1	1,2,4-trichlorobenzene	ND	2.5
	91-20-3	naphthalene	ND	2.1
	106-47-8	4-chloroaniline	ND	13
	87-68-3	hexachlorobutadiene	ND	1.2
	59-50-7	4-chloro-3-methylphenol	ND	4.0
	91-57-6	2-methylnaphthalene	ND	13

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076
Continued From Above

SAMPLE ID 04-59 H20 FRACTION 02A TEST CODE CL 625 NAME SEMI-VOA/CLP 10/86(LIQUID)
Date & Time Collected 04/13/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	7.9
	88-06-2	2,4,6-trichlorophenol	ND	3.6
	95-95-4	2,4,5-trichlorophenol	ND	13
	91-58-7	2-chloronaphthalene	ND	2.5
	88-74-4	2-nitroaniline	ND	66
	131-11-3	dimethyl phthalate	ND	2.1
	208-96-8	acenaphthylene	ND	4.6
	99-09-2	3-nitroaniline	ND	66
	83-32-9	acenaphthene	ND	2.5
	51-28-5	2,4-dinitrophenol	ND	55
	100-02-7	4-nitrophenol	ND	3.2
	132-64-9	dibenzofuran	ND	13
	606-20-2	2,6-dinitrotoluene	ND	2.5
	121-14-2	2,4-dinitrotoluene	ND	7.5
	84-66-2	diethylphthalate	ND	2.5
	7005-72-3	4-chlorophenyl-phenylether	ND	5.5
	86-73-7	fluorene	ND	2.5
	100-01-06	4-nitroaniline	ND	66
	534-52-1	4,6-dinitro-2-methylphenol	ND	32
	86-30-6	n-nitrosodiphenylamine	ND	2.5
	101-55-3	4-bromophenyl-phenylether	ND	2.5
	118-74-1	hexachlorobenzene	ND	2.5
	87-86-5	pentachlorophenol	ND	4.8
	85-01-8	phenanthrene	ND	7.1
	120-12-7	anthracene	ND	2.5
1330	84-74-2	di-n-butylphthalate	1.4 J	3.3
	206-44-0	fluoranthene	ND	2.9
	92-87-5	benzidine	ND	58
	129-00-0	pyrene	ND	2.5
1557	85-68-7	butylbenzylphthalate	8.9	3.3
	91-94-1	3,3'-dichlorobenzidine	ND	22
	56-55-3	benzo(a)anthracene	ND	10
1618	117-81-7	bis(2-ethylhexyl)phthalate	2.3 J	3.3

KADIAN CORPORATION

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076
Continued From Above

SAMPLE ID 04-59 H2O

FRACTION 02A TEST CODE CL 625 NAME SEMI-VOA/CLP 10/86(LIQUID)
Date & Time Collected 04/13/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	218-01-9	chrysene	ND	3.3
	117-84-0	di-n-octyl phthalate	ND	3.3
	205-99-2	benzo(b)fluoranthene	ND	6.3
	207-08-9	benzo(k)fluoranthene	ND	3.3
	50-32-8	benzo(a)pyrene	ND	3.3
	193-39-5	indeno(1,2,3-cd)pyrene	ND	4.9
	53-70-3	dibenz(a,h)anthracene	ND	3.3
	191-24-2	benzo(ghi)perylene	ND	5.4

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
397	2-fluorophenol	70 %
518	d5-phenol	73 %
641	d5-nitrobenzene	84 %
908	2-fluorobiphenyl	64 %
1129	2,4,6-tribromophenol	70 %
1478	d14-terphenyl	71 %

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: 04/14/88

Results by Sample

SAMPLE ID REAGENT BLANK H2O SAMPLE # 03 FRACTIONS: A

Date & Time Collected not specified Category

EX BNA 04/18/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK H2O FRACTION 03A TEST CODE CL 625 NAME SEMI-VOA/CLP 10/86(LIQUID)
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST KS EXTRCTD 04/18/88 FILE # 0407693A VERIFIED LAK
INSTRMT F1 INJECTD 04/21/88 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 H2O FRACTION 03A TEST CODE CL 625 NAME SEMI-VOA/CLP 10/86(LIQUID)
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

SAMPLE ID REAGENT BLANK H2O FRACTION 03A TEST CODE CL 625 NAME SEMI-VOA/CLP 10/86(LIQUID)
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
400	2-fluorophenol	76 %
521	d5-phenol	81 %
644	d5-nitrobenzene	89 %
911	2-fluorobiphenyl	75 %
1132	2,4,6-tribromophenol	86 %
1483	d14-terphenyl	103 %

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: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category

EXPHEN 04/18/88
DATE COMPLFIED

SAMPLE ID REAGENT BLANK H2O FRACTION 04A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/18/88 FILE # 81805063
INSTRMT 8 INJECTD 05/06/88 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 70 % 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.
GC = Outside control limits.

SAMPLE ID REAGENT BLANK H2O FRACTION 04A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

D = Not reportable due to dilution

KADIAN CORPORATION

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category

EXPEST 04/18/88
DATE COMPLFIED

SAMPLE ID REAGENT BLANK H2O FRACTION 05A TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/18/88 FILE # 116051125 VERIFIED JD
INSTRMT 1 INJECTD 05/11/88 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 101 % Recovery

SAMPLE ID REAGENT BLANK H2O FRACTION Q5A 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

Received: 04/14/88

Results by Sample

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 06 FRACTIONS: A

Date & Time Collected not specified Category

EXHERB 04/18/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK H2O FRACTION 06A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/18/88 FILE # 118050513
INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 75 % 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

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-076
Continued From Above

SAMPLE ID REAGENT BLANK H2O

FRACTION 06A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 04/14/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-04-076

SAMPLE ID METHOD SPIKE

SAMPLE # 07 FRACTIONS: A
Date & Time Collected not specified Category

EXHERB 04/18/88
DATE COMPLETED

SAMPLE ID METHOD SPIKE FRACTION 07A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/18/88 FILE # 118050522
INSTRMT 1 INJECTD 05/05/88 FACTOR 1 UNITS % RECOV.

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	57	0.50	1
93-72-1	2,4,5-TP (Silvex)	59	0.10	1
93-76-5	2,4,5-T	50 QC	0.10	1

SURROGATE

2,4-Dichlorophenyl Acetic Acid 0 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.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

SAMPLE ID METHOD SPIKE FRACTION 07A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

O1B	DUPGC	O1C	DUPGC	O1D	DUPGC	O1F	DUPGC	O1H	DUPGC		

RADIAN CORPORATION

Received: 04/18/88

RAS - Austin REPORT

04/25/88 09:08:25

Work Order # 88-04-076

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

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

WORK ID: Second col. conf. 88-04-045
TAKEN:
TRANS:
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	2nd col conf 04-27
02	2nd col conf 04-28
03	2nd col conf 04-29
04	2nd col conf 04-30
05	2nd col conf 04-31
06	2nd col conf 04-32
07	2nd col conf 04-33
08	2nd col conf 04-34
09	2nd col conf 04-35

TEST CODES and NAMES used on this report

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

CORPORATION

 RAS - Austin REPORT Work Order # 88-04-076

Received: 04/18/88 Results by Sample

SAMPLE ID 2nd col conf 04-27 FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT B INJECTD 04/12/88 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: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076
Continued From Above

SAMPLE ID 2nd col conf 04-27 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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

Received: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076
Continued From Above

SAMPLE ID 2nd col conf 04-27 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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 # 88-04-076

Received: 04/18/88 Results by Sample

SAMPLE ID 2nd col conf 04-27 FRACTION 01A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/14/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.3*	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	1.9	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 04-27 FRACTION 01A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/11/88 Category

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

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-076

Received: 04/18/88

Results by Sample

SAMPLE ID 2nd col conf 04-27 FRACTION 01A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 04/14/88

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.

RAS - Austin REPORT

Work Order # 88-04-076

Received: 04/18/88

Results by Sample

SAMPLE ID 2nd col conf 04-28 FRACTION 02A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 04/14/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	46	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 04-28 FRACTION 02A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/11/88 Category

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

CORPORATION

Received: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076

SAMPLE ID 2nd col conf 04-28 FRACTION 02A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTD 04/14/88
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.

KADIAN CORPORATION

Received: 04/18/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-076

SAMPLE ID 2nd col conf 04-29 FRACTION 03A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/14/88

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	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 04-29 FRACTION 03A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/11/88 Category

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

KADIAN CORPORATION

Received: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076

SAMPLE ID 2nd col conf 04-29 FRACTION 03A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 04/14/88
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.

Received: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076

SAMPLE ID 2nd col conf 04-30 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 Category

ANALYST RW
INSTRMT B
INJECTD 04/12/88
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: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076
Continued From Above

SAMPLE ID 2nd col conf 04-30 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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	3100	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 04-30 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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

Received: 04/18/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-076

SAMPLE ID 2nd col conf 04-31 FRACTION 05A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW

INSTRMT B

INJECTD 04/12/88

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 2nd col conf 04-31 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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	3000	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 04-31 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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 # 88-04-076

Received: 04/18/88

Results by Sample

SAMPLE ID 2nd col conf 04-32 FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/11/88 Category

ANALYST RW

INSTRMT B

INJECTD 04/12/88

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

KADIAN CORPORATION

Received: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076
Continued From Above

SAMPLE ID 2nd col conf 04-32 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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	1400	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 04-32 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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 # 88-04-076

Received: 04/18/88

Results by Sample

SAMPLE ID 2nd col conf 04-33 FRACTION 07A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/14/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	5.7	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 04-33 FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/11/88 Category

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

KADIAN CORPORATION

Received: 04/18/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-076

SAMPLE ID 2nd col conf 04-33 FRACTION 07A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/14/88

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.

RAS - Austin REPORT

Work Order # 88-04-076

Received: 04/18/88

Results by Sample

SAMPLE ID 2nd col conf 04-34 FRACTION 08A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/14/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	27	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: 04/18/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-076
Continued From Above

SAMPLE ID 2nd col conf 04-34 FRACTION 08A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/11/88 Category

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

RAS - Austin REPORT Work Order # 88-04-076

Received: 04/18/88

Results by Sample

SAMPLE ID 2nd col conf 04-34 FRACTION 08A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/11/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 04/14/88 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

 RAS - Austin REPORT Work Order # 88-04-076

Received: 04/18/88 Results by Sample

SAMPLE ID 2nd col conf 04-35 FRACTION 09A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/11/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/12/88 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 04-35 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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	4100	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 04-35 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/11/88 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 # 88-04-077

Received: 04/16/88

04/26/88 12:15:54

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 5
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: 3,10
TAKEN: RP,GS
TRANS: RP
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 04-01
02 04-61
03 04-62
04 04-63
05 04-60

TEST CODES and NAMES used on this report

HC IR Hydrocarbons
ONG IR Oil and grease, infrared

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-077

Received: 04/16/88

Results By Test

SAMPLE Sample Id	Test: HC IR mg/L	Test: ONG IR mg/L
01 04-01		<0.2
02 04-61	<0.2	
03 04-62	<0.2	
04 04-63	<0.2	<0.2
05 04-60	<0.2	

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B : SPARE

RADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT

07/14/88 13:58:44

Work Order # 88-04-079

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO4 SAMPLES: 5
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: 17
TAKEN: RP, GS
TRANS: RP
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	04-69
02	04-70
03	04-71
04	04-72
05	04-73

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 # 88-04-079

Received: 04/16/88 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 04-69	0.062	14	04/25/88	05/02/88	0.23
02 04-70	0.030	12	04/25/88	05/02/88	0.23
03 04-71	<0.002	1*	04/25/88	05/02/88	0.01*
04 04-72	0.047	19	04/25/88	05/02/88	0.24
05 04-73	<0.002	1*	04/25/88	05/02/88	0.01*

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 04-69	<0.2	<0.2		0.096	
02 04-70	<0.2	<0.2		0.054	
03 04-71	<0.2	<0.1	<0.2	<0.002	0.003*
04 04-72	2.9	<0.1		0.150	
05 04-73		<0.1		0.004*	

RAS - Austin REPORT

Work Order # 88-04-079

Received: 04/16/88

Results By Test

SAMPLE Sample Id	Test: SO4 N mg/L
01 04-69	7
02 04-70	7
03 04-71	4*
04 04-72	5*
05 04-73	4*

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-69

FRACTION 01C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403

ANALYZED 04/28/88

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

 RAS - Austin REPORT Work Order # 88-04-079

Received: 04/16/88 Results by Sample

SAMPLE ID 04-69 FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 04/15/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.026*	0.0090	Mg	Magnesium	30	0.10
Al	Aluminum	150	0.20	Mn	Manganese	0.83	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	15	0.080
Ba	Barium	1.2	0.0090	Ni	Nickel	0.14	0.020
Be	Beryllium	0.007	0.0010	Pb	Lead	0.17*	0.050
Ca	Calcium	2900	0.60	Sb	Antimony	0.53	0.060
Cd	Cadmium	0.010*	0.0030	Se	Selenium	0.7*	0.30
Co	Cobalt	0.03*	0.010	Si	Silicon	140	0.30
Cr	Chromium	0.25	0.0090	Tl	Thallium	0.10*	0.090
Cu	Copper	0.14	0.010	V	Vanadium	0.39	0.020
Fe	Iron	92	0.030	Zn	Zinc	0.37	0.0060
K	Potassium	22	0.30				

SAMPLE ID 04-69 FRACTION 01C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-69 FRACTION 01A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 04/16/88

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 04-69 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 04/22/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	490	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079
Continued From Above

SAMPLE ID 04-69 FRACTION 01A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 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 04-70 FRACTION 02C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403

ANALYZED 04/28/88

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

KLADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-70

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

Date & Time Collected 04/15/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.014*	0.0090	Mg	Magnesium	20	0.10
Al	Aluminum	78	0.20	Mn	Manganese	0.49	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	14	0.080
Ba	Barium	0.73	0.0090	Ni	Nickel	0.09*	0.020
Be	Beryllium	0.003*	0.0010	Pb	Lead	0.09*	0.050
Ca	Calcium	1700	0.24	Sb	Antimony	0.27*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	0.3*	0.30
Co	Cobalt	ND	0.010	Si	Silicon	140	0.30
Cr	Chromium	0.15	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.08	0.010	V	Vanadium	0.22	0.020
Fe	Iron	50	0.030	Zn	Zinc	0.19	0.0060
K	Potassium	13	0.30				

SAMPLE ID 04-70 FRACTION 02C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-70 FRACTION 02A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21 ANALYZED 04/16/88 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 04-70 FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT ANALYZED 04/22/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	470	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 04-70 FRACTION 02A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 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 04-71 FRACTION 03C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403 ANALYZED 04/28/88 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

KAUFMAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-71 FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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	ND	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	ND	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	ND	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	ND	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND	0.020
Fe	Iron	0.05*	0.030	Zn	Zinc	ND	0.0060
K	Potassium	ND	0.30				

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079
Continued From Above

SAMPLE ID 04-71

FRACTION 03C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-71 FRACTION 03A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 04/16/88

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 04-71 FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 04/22/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	4*	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079
Continued From Above

SAMPLE ID 04-71 FRACTION 03A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 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 04-72 FRACTION 04C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403

ANALYZED 04/28/88

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

KRAUSMAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-72

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 04/15/88 Category

ANALYST DES

VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.012*	0.0090	Mg	Magnesium	25	0.10
Al	Aluminum	94	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	16	0.080
Ba	Barium	0.50	0.0090	Ni	Nickel	0.29	0.020
Be	Beryllium	0.006	0.0010	Pb	Lead	0.24*	0.050
Ca	Calcium	1100	0.12	Sb	Antimony	0.17*	0.060
Cd	Cadmium	0.014*	0.0030	Se	Selenium	0.4*	0.30
Co	Cobalt	0.11	0.010	Si	Silicon	140	0.30
Cr	Chromium	0.23	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.17	0.010	V	Vanadium	1.0	0.020
Fe	Iron	270	0.030	Zn	Zinc	0.68	0.0060
K	Potassium	15	0.30				

SAMPLE ID 04-72

FRACTION 04C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-72 FRACTION 04A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 04/16/88

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 04-72 FRACTION 04A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 04/22/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	500	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 04-72 FRACTION 04A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 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 04-73 FRACTION 05C TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403 ANALYZED 04/28/88 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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-73

FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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	ND	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	ND	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	ND	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	ND	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND	0.020
Fe	Iron	0.14*	0.030	Zn	Zinc	ND	0.0060
K	Potassium	ND	0.30				

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079
Continued From Above

SAMPLE ID 04-73

FRACTION 05C TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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

KRADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-079

SAMPLE ID 04-73 FRACTION 05A TEST CODE OP04 NAME Orthophosphate
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT 21

ANALYZED 04/16/88

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 04-73 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 04/22/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	8	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 04-73 FRACTION 05A TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 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 # 88-04-080

Received: 04/16/88 05/04/88 10:56:11

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 8
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: 17
TAKEN: RP,OS
TRANS: RP
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. performed for EPA601 on: -05; for EPA602 on: -03,-04,-05. Unknown compounds present on EPA602: -01,-02, -04. Unknown compound co-eluting with surrogate on EPA602: -01,-02.

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 04-69
02 04-70
03 04-71
04 04-72
05 04-73
06 reagent blank
07 2nd col conf 04-71
08 2nd col conf 04-73

TEST CODES and NAMES used on this report

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

CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-69

FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 Category

ANALYST BM

INSTRMT G

INJECTD 04/18/88

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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-69 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

SAMPLE ID 04-69 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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.

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-69

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D

INJECTED 04/20/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	2
108-88-3	Toluene	46	2
100-41-4	Ethylbenzene	120	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 3000**% 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.

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-69

FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-69 FRACTION 01C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTD 04/20/88
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 3000**% 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-70 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST BM
INSTRMT G
INJECTD 04/18/88
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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-70 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	94	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 04-70 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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.

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-70

FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D

FILE #

INJECTED 04/20/88

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	2
108-88-3	Toluene	13	2
100-41-4	Ethylbenzene	66	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 1180**% 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-70 FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-70

FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/20/88

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 1180**% 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

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-71 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST RW
INSTRMT G
INJECTD 04/18/88
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	0.5	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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-71 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	0.3*	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	105	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 04-71 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

460-00-4 1-Bromo-4-fluorobenzene 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.
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 # 88-04-080

Received: 04/16/88

Results by Sample

SAMPLE ID 04-71

FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/20/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	8.1	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	0.7*	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	135**% 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 04-71

FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-71 FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 04/20/88
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 135**% 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.

RAS - Austin REPORT

Work Order # 88-04-080

Received: 04/16/88

Results by Sample

SAMPLE ID 04-72 FRACTION 04A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 Category

ANALYST RW VERIFIED CL

INSTRMT G INJECTD 04/18/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-72 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

RAS - Austin REPORT
Results by Sample

SAMPLE ID 04-72 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

460-00-4 1-Bromo-4-fluorobenzene 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.
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 # 88-04-080

Received: 04/16/88 Results by Sample

SAMPLE ID 04-72 FRACTION 04C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/20/88 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 158**% 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-72

FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-080

Received: 04/16/88 Results by Sample

SAMPLE ID 04-72 FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 04/20/88 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 158**% 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

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080

SAMPLE ID 04-73 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST RW
INSTRMT G
INJECTD 04/18/88
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	0.6	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	ND	0.10

RADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 04-73 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

SAMPLE ID 04-73 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

460-00-4 1-Bromo-4-fluorobenzene 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.
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 # 88-04-080

Received: 04/16/88 Results by Sample

SAMPLE ID 04-73 FRACTION 05C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/20/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	3.7	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	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.

SAMPLE ID 04-73 FRACTION 05C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-080

Received: 04/16/88

Results by Sample

SAMPLE ID 04-73 FRACTION OSC TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/20/88

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 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.
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 # 88-04-080

Received: 04/16/88

Results by Sample

SAMPLE ID reagent blank FRACTION Q6A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

ANALYST CL VERIFIED CL

INSTRMT G INJECTD 04/18/88 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 06A 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 06A 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 # 88-04-080

Received: 04/16/88 Results by Sample

SAMPLE ID reagent blank FRACTION 06A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/20/88 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 Q6A 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 # 88-04-080

Received: 04/16/88 Results by Sample

SAMPLE ID reagent blank FRACTION 06A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 04/20/88 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.

RAS - Austin REPORT

Work Order # 88-04-080

Received: 04/16/88

Results by Sample

SAMPLE ID 2nd col conf 04-71 FRACTION 07A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 04/27/88

FILE #

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	0.8*	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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 2nd col conf 04-71

FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-080

SAMPLE ID 2nd col conf 04-71

FRACTION 07A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88

Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 04/27/88

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.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-080

Received: 04/16/88 Results by Sample

SAMPLE ID 2nd col conf 04-73 FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT B INJECTD 04/19/88 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	0.3*	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 04-73 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

SAMPLE ID 2nd col conf 04-73 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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 # 88-04-080

Received: 04/16/88

Results by Sample

SAMPLE ID 2nd col conf 04-73 FRACTION OBA TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 04/27/88

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.

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-080
Continued From Above

SAMPLE ID 2nd col conf 04-73

FRACTION 08A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RAS - Austin REPORT

Work Order # 88-04-080

Received: 04/16/88

Results by Sample

SAMPLE ID 2nd col conf 04-73 FRACTION OBA TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 04/28/88

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

CORPORATION

 RAS - Austin REPORT Work Order # 88-04-081

Received: 04/16/88 07/05/88 12:43:29

REPORT TO: Radian
B1.4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 5
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: 30
TAKEN: RP, GS
TRANS: RP
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	04-74
02	04-75
03	04-76
04	04-77
05	04-78

TEST CODES and NAMES used on this report

AS G	Arsenic, graphite AA
DG3020	Digestion, method 3020
DG6010	Digestion, method 6010
HC IR	Hydrocarbons
HG C	Mercury, cold vapor
ICP200	ICPES, EPA 200.7 elements
PB G	Lead, graphite AA
SE G	Selenium, graphite AA
TDS	Total dissolved solids

KADMAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-081

Received: 04/16/88

Results By Test

SAMPLE Sample Id	Test: AS G ug/ml	Test: DG3020 date complete	Test: DG6010 date complete	Test: HC IR mg/L	Test: PB G ug/ml
01 04-74	0.040	04/25/88	05/02/88	3.2	0.035
02 04-75	0.018	04/25/88	05/02/88	1.4	0.016
03 04-76	0.340	04/25/88	05/02/88	<0.2	0.020
04 04-77	0.012	04/25/88	05/02/88	<0.2	0.037
05 04-78	<0.002	04/25/88	05/02/88	<0.2	0.002*

SAMPLE Sample Id	Test: SE G ug/ml
01 04-74	<0.003
02 04-75	<0.003
03 04-76	<0.003
04 04-77	<0.003
05 04-78	<0.003

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-74

FRACTION 01A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403

ANALYZED 04/29/88

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

KRAUSKOPF CORPORATION

 RAS - Austin REPORT Work Order # 88-04-081

Received: 04/16/88 Results by Sample

SAMPLE ID 04-74 FRACTION 01A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 04/15/88 Category

ANALYST DES VERIFIED RHH

UNITS ug/ml

CODE	METAL	RESULT	DET LIMIT	CODE	METAL	RESULT	DET LIMIT
Ag	Silver	0.011*	0.0090	Mg	Magnesium	18	0.10
Al	Aluminum	23	0.20	Mn	Manganese	0.64	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	82	0.080
Ba	Barium	0.21	0.0090	Ni	Nickel	0.06*	0.020
Be	Beryllium	0.001*	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	250	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	57	0.30
Cr	Chromium	0.059	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.03*	0.010	V	Vanadium	0.12	0.020
Fe	Iron	40	0.030	Zn	Zinc	0.069	0.0060
K	Potassium	3.6	0.30				

SAMPLE ID 04-74 FRACTION 01A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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 # 88-04-081

Received: 04/16/88 Results by Sample

SAMPLE ID 04-74 FRACTION 01C TEST CODE TDS NAME Total dissolved solids

Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS

INSTRMT

ANALYZED 04/22/88 UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	760	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.

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 04-75 FRACTION 02A TEST CODE HG C NAME Mercury, cold vapor

Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP

INSTRMT 403

ANALYZED 04/29/88 UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-75

FRACTION 02A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-75

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

Date & Time Collected 04/15/88 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	12	0.20	Mn	Manganese	0.53	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	88	0.080
Ba	Barium	0.16	0.0090	Ni	Nickel	0.04*	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	210	0.060	Sb	Antimony	ND	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND	0.010	Si	Silicon	35	0.30
Cr	Chromium	0.033*	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.01*	0.010	V	Vanadium	0.05*	0.020
Fe	Iron	20	0.030	Zn	Zinc	0.031	0.0060
K	Potassium	1.7	0.30				

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-75

FRACTION 02A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-75

FRACTION 02C TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 04/22/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	760	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.
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 04-76

FRACTION 03A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403

ANALYZED 04/29/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-76

FRACTION 03A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-76

FRACTION 03A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 04/15/88 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	20	0.20	Mn	Manganese	3.4	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	49	0.080
Ba	Barium	0.61	0.0090	Ni	Nickel	0.05*	0.020
Be	Beryllium	ND	0.0010	Pb	Lead	ND	0.050
Ca	Calcium	430	0.060	Sb	Antimony	0.10*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	ND	0.010	Si	Silicon	54	0.30
Cr	Chromium	0.068	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.03*	0.010	V	Vanadium	0.11	0.020
Fe	Iron	93	0.030	Zn	Zinc	0.026*	0.0060
K	Potassium	3.7	0.30				

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-76

FRACTION 03A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-76 FRACTION 03C TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT
ANALYZED 04/22/88
UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	510	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.
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 04-77 FRACTION 04A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403
ANALYZED 04/29/88
UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-77 FRACTION 04A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-77

FRACTION 04A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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	17	0.10
Al	Aluminum	47	0.20	Mn	Manganese	4.1	0.0030
As	Arsenic	ND	0.30	Mo	Molybdenum	ND	0.050
B	Boron	ND	0.60	Na	Sodium	57	0.080
Ba	Barium	0.54	0.0090	Ni	Nickel	0.12	0.020
Be	Beryllium	0.001*	0.0010	Pb	Lead	0.08*	0.050
Ca	Calcium	790	0.12	Sb	Antimony	0.12*	0.060
Cd	Cadmium	ND	0.0030	Se	Selenium	ND	0.30
Co	Cobalt	0.04*	0.010	Si	Silicon	93	0.30
Cr	Chromium	0.14	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	0.06	0.010	V	Vanadium	0.30	0.020
Fe	Iron	130	0.030	Zn	Zinc	0.22	0.0060
K	Potassium	13	0.30				

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-77

FRACTION 04A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-77 FRACTION 04C TEST CODE TDS NAME Total dissolved solids
Date & Time Collected 04/15/88 Category

VERIFIED LM

ANALYST MJS
INSTRMT

ANALYZED 04/22/88

UNITS mg/L

ANALYTE	RESULT	DET LIMIT
Filterable Residue (TDS)	580	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.
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 04-78 FRACTION 05A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 Category

VERIFIED DMC

ANALYST KCP
INSTRMT 403

ANALYZED 04/29/88

UNITS ug/ml

ANALYTE	RESULT	DET LIMIT
Mercury	ND	0.00012

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-78

FRACTION 05A TEST CODE HG C NAME Mercury, cold vapor
Date & Time Collected 04/15/88 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: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-081

SAMPLE ID 04-78 FRACTION 05A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements

Date & Time Collected 04/15/88 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	ND	0.10
Al	Aluminum	ND	0.20	Mn	Manganese	ND	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	ND	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	ND	0.0090	Tl	Thallium	ND	0.090
Cu	Copper	ND	0.010	V	Vanadium	ND	0.020
Fe	Iron	0.06*	0.030	Zn	Zinc	ND	0.0060
K	Potassium	ND	0.30				

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-081
Continued From Above

SAMPLE ID 04-78

FRACTION 05A TEST CODE ICP200 NAME ICPES, EPA 200.7 elements
Date & Time Collected 04/15/88 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 # 88-04-082

Received: 04/16/88

04/30/88 08:51:54

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

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

WORK ID: 30
TAKEN: RP, GS
TRANS: RP
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 run on 601 samples -01, -02, -04, and 602 samples -01, -02. Unknown compounds present in 602 samples -01, -02, -03, -05. P- and m- xylenes confirmed on samples -01 and -02 but not quantated due to 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	04-74
02	04-75
03	04-76
04	04-77
05	04-78
06	04-79
07	04-80
08	reagent blank
09	2nd col conf 04-74
10	2nd col conf 04-75
11	2nd col conf 04-77

TEST CODES and NAMES used on this report

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

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-74

FRACTION Q1A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST CL
INSTRMT G

INJECTD 04/19/88

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	4.7	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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-74 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	0.6	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	103	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-74 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

RAS - Austin REPORT

Work Order # 88-04-082

Received: 04/16/88

Results by Sample

SAMPLE ID 04-74 FRACTION 01C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/20/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	2200@	50
108-88-3	Toluene	5900	50
100-41-4	Ethylbenzene	730	80
108-90-7	Chlorobenzene-A	ND	80
106-46-7	1,4-Dichlorobenzene	ND	80
541-73-1	1,3-Dichlorobenzene	ND	100
95-50-1	1,2-Dichlorobenzene	ND	100

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 04-74 FRACTION 01C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-74 FRACTION OIC TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 04/20/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	1100@+	50
108-38-3	m-Xylene-A	2300@	50
95-47-6	o-Xylene	1500	30

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.

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-75 FRACTION 02A . TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST CL
INSTRMT G
INJECTD 04/19/88
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	2.3	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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-75 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	0.8	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	105	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 04-75 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

460-00-4 1-Bromo-4-fluorobenzene 93 % 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 # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 04-75 FRACTION 02C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/20/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	1500	50
108-88-3	Toluene	4100	50
100-41-4	Ethylbenzene	560	80
108-90-7	Chlorobenzene-A	ND	80
106-46-7	1,4-Dichlorobenzene	ND	80
541-73-1	1,3-Dichlorobenzene	ND	100
95-50-1	1,2-Dichlorobenzene	ND	100

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.

SAMPLE ID 04-75 FRACTION 02C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-75

FRACTION 02C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/20/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	850	50
108-38-3	m-Xylene-A	1700	50
95-47-6	o-Xylene	1100	30

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.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-76

FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST CL
INSTRMT G

INJECTD 04/19/88

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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-76 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-76 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

RAS - Austin REPORT

Work Order # 88-04-082

Received: 04/16/88

Results by Sample

SAMPLE ID 04-76 FRACTION 03C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 04/21/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	20	2
108-88-3	Toluene	2.0*	2
100-41-4	Ethylbenzene	5.5*	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	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.

SAMPLE ID 04-76

FRACTION 03C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 04-76 FRACTION 03C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 04/21/88 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,@Q	1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 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.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

SAMPLE ID 04-77 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST RW VERIFIED CL
INSTRMT G INJECTD 04/19/88 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 tetrathloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-77 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	0.5*	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 04-77 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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.

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-082

Received: 04/16/88

Results by Sample

SAMPLE ID 04-77 FRACTION 04C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTED 04/21/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	0.2*	0.2
108-88-3	Toluene	0.8*	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	96% 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 04-77 FRACTION 04C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-77

FRACTION 04C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 04/21/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	0.3*	0.2
108-38-3	m-Xylene-A	0.4*	0.2
95-47-6	o-Xylene	0.2*Q	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 96% 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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-78 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST BM
INSTRMT G
INJECTD 04/19/88
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	0.2*	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	ND	0.10

SAMPLE ID 04-78 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	103	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 04-78 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

 RAS - Austin REPORT Work Order # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 04-78 FRACTION 05C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/21/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	0.6*	0.2
108-88-3	Toluene	1.4	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 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.

SAMPLE ID 04-78 FRACTION 05C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 04-78 FRACTION 05C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 04/21/88 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,Q	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.
Q = daily EPA standard recovery outside 95% confidence interval.
Chlorobenzene and m-xylene co-elute. Quantitated as chlorobenzene unless otherwise noted.

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-79 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 Category

ANALYST RW
INSTRMT G
INJECTD 04/19/88
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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-79 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	94	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-79 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 04-79 FRACTION 06C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/21/88 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 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.

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-79

FRACTION 06C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-79 FRACTION 06C TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTD 04/21/88
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,Q	0.1

SURROGATES

98-08-8 a,a,a-Trifluorotoluene 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.
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 # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 04-80 FRACTION 07A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT G INJECTD 04/19/88 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	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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 04-80 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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 04-80 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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.

KADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-082

SAMPLE ID 04-80

FRACTION 07C TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/21/88

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	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.

SAMPLE ID 04-80

FRACTION 07C TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-082

Received: 04/16/88

Results by Sample

SAMPLE ID 04-80

FRACTION 07C TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/21/88

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,Q	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.
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 # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID reagent blank FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected not specified Category

ANALYST CL VERIFIED CL

INSTRMT G INJECTD 04/19/88 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 08A 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	Tetrachloroethane-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 08A 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.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID reagent blank FRACTION OBA TEST CODE EPA602 NAME EPA method 602

Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/21/88 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.

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID reagent blank

FRACTION 08A 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

Received: 04/16/88

RAS -. Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID reagent blank FRACTION 08A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected not specified Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTD 04/21/88
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,Q	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.

RAS - Austin REPORT

Work Order # 88-04-082

Received: 04/16/88

Results by Sample

SAMPLE ID 2nd col conf 04-74 FRACTION 09A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 Category

ANALYST CL VERIFIED CL

INSTRMT B INJECTD 04/19/88 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	4.8	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: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082
Continued From Above

SAMPLE ID 2nd col conf 04-74 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	N\A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 04-74 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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 # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 2nd col conf 04-74 FRACTION 09A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/27/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	2500	50
108-88-3	Toluene	6900	50
100-41-4	Ethylbenzene	810	80
108-90-7	Chlorobenzene-A	ND	80
106-46-7	1,4-Dichlorobenzene	ND	80
541-73-1	1,3-Dichlorobenzene	ND	100
95-50-1	1,2-Dichlorobenzene	ND	100

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 04-74 FRACTION 09A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

KADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-082

Received: 04/16/88

Results by Sample

SAMPLE ID 2nd col conf 04-74 FRACTION 09A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 04/27/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	50
108-38-3	m-Xylene-A	ND	50
95-47-6	o-Xylene	1500	30

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.

RAS - Austin REPORT

Work Order # 88-04-082

Received: 04/16/88

Results by Sample

SAMPLE ID 2nd col conf 04-75 FRACTION 10A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 Category

ANALYST CL

INSTRMT B

INJECTD 04/19/88

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	3.0	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 04-75 FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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	1.0	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 04-75 FRACTION 10A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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

 RAS - Austin REPORT Work Order # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 2nd col conf 04-75 FRACTION 10A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/27/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	1600	50
108-88-3	Toluene	4800	50
100-41-4	Ethylbenzene	630	80
108-90-7	Chlorobenzene-A	ND	80
106-46-7	1,4-Dichlorobenzene	ND	80
541-73-1	1,3-Dichlorobenzene	ND	100
95-50-1	1,2-Dichlorobenzene	ND	100

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 04-75 FRACTION 10A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/15/88 Category

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

RADIAN CORPORATION

Received: 04/16/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-082

SAMPLE ID 2nd col conf 04-75 FRACTION 10A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/15/88 Category

VERIFIED CL

ANALYST CL
INSTRMT D
INJECTD 04/27/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	50
108-38-3	m-Xylene-A	ND	50
95-47-6	o-Xylene	1200	30

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 # 88-04-082

Received: 04/16/88 Results by Sample

SAMPLE ID 2nd col conf 04-77 FRACTION 11A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/19/88 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 # 88-04-082

Received: 04/16/88 Results by Sample Continued From Above

SAMPLE ID 2nd col conf 04-77 FRACTION 11A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/15/88 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 04-77 FRACTION 11A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/15/88 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.

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

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-083

Received: 04/15/88 05/19/88 20:58:56

REPORT TO: Radian Corporation
8501 MoPac Blvd.
Austin, Tx 78766

ATTEN: Larry French

CLIENT: CARSWELL AFB SAMPLES: 9
COMPANY: Carswell AFB.
FACILITY: Headquarters, SAC
Offutt, Nebraska 68113

WORK ID: Site 10
TAKEN: 04/14/88
TRANS: Federal 6942333554
TYPE: H2O
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: Paul H Gale

CONTACT: LARRY FRENCH

SAMPLE IDENTIFICATION

01	04-60 H2O
02	04-61 H2O
03	04-62 H2O
04	04-63 H2O
05	04-64 H2O
06	REAGENT BLANK H2O
07	REAGENT BLANK H2O
08	REAGENT BLANK H2O
09	REAGENT BLANK H2O

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

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-083

Received: 04/15/88

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	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	04/19/88 DATE COMPLETED	04/19/88 DATE COMPLETED	
EXPEST date completed		04/19/88 DATE COMPLETED	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	
EXPHEN date completed	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	
EX_BNA date completed					04/19/88 DATE COMPLETED

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)	Sample 09 (entered units)
EXHERB Date completed	04/19/88 DATE COMPLETED			
EXPEST date completed			04/18/88 DATE COMPLETED	
EXPHEN date completed		04/18/88 DATE COMPLETED		
EX_BNA date completed				04/19/88 DATE COMPLETED

RAS Sacramento REPORT

Work Order # S8-04-083

Received: 04/15/88

Results By Test

SAMPLE Sample Id	Test: EXHERB Date completed	Test: EXPEST date completed	Test: EXPHEN date completed	Test: EX BNA date completed
01 04-60 H20	04/18/88 DATE COMPLETED		04/18/88 DATE COMPLETED	
02 04-61 H20	04/18/88 DATE COMPLETED	04/19/88 DATE COMPLETED	04/18/88 DATE COMPLETED	
03 04-62 H20	04/19/88 DATE COMPLETED	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	
04 04-63 H20	04/19/88 DATE COMPLETED	04/18/88 DATE COMPLETED	04/18/88 DATE COMPLETED	
05 04-64 H20				04/19/88 DATE COMPLETED
06 REAGENT BLANK H	04/19/88 DATE COMPLETED			
07 REAGENT BLANK H			04/18/88 DATE COMPLETED	
08 REAGENT BLANK H		04/18/88 DATE COMPLETED		
09 REAGENT BLANK H				04/19/88 DATE COMPLETED

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-60 H20

SAMPLE # 01 FRACTIONS: A, B
Date & Time Collected 04/14/88 Category

EXHERB 04/18/88 EXPHEN 04/18/88
DATE COMPLETED DATE COMPLETED

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-60 H20

FRACTION 01A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR
INSTRMT 1

EXTRCTD 04/18/88
INJECTD 05/05/88

FILE # 118050517
FACTOR 1.0

UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 105 % 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: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID 04-60 H20

FRACTION 01A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-60 H20 FRACTION 01B TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/18/88 FILE # 81805097
INSTRMT 8 INJECTD 05/09/88 FACTOR 2.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.40	2.0
95-57-8	2-Chlorophenol	ND	0.40	2.0
88-75-5	2-Nitrophenol	ND	4.0	2.0
105-67-9	2,4-Dimethylphenol	ND	0.60	2.0
120-83-2	2,4-Dichlorophenol	ND	1.0	2.0
59-50-7	4-Chloro-3-Methylphenol	ND	0.80	2.0
88-06-2	2,4,6-Trichlorophenol	ND	1.2	2.0
51-28-5	2,4-Dinitrophenol	ND	26	2.0
100-02-7	4-Nitrophenol	ND	5.0	2.0
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	32	2.0
87-86-5	Pentachlorophenol	ND	15	2.0

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.

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID 04-60 H20

FRACTION 01B TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

Received: 04/15/88

Results by Sample

SAMPLE ID 04-61 H20 SAMPLE # 02 FRACTIONS: A,B,C,D,E

Date & Time Collected 04/14/88 Category

EXHERB 04/18/88 DATE COMPLETED EXPEST 04/19/88 DATE COMPLETED EXPHEN 04/18/88 DATE COMPLETED

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-083

Received: 04/15/88 Results by Sample

SAMPLE ID 04-61 H20 FRACTION 02A TEST CODE 509B NAME Herbicides in water

Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/18/88 FILE # 118050537

INSTRMT 1 INJECTD 05/05/88 FACTOR 1.2 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.60	1.2
93-72-1	2,4,5-TP (Silvex)	ND	0.12	1.2
93-76-5	2,4,5-T	ND	0.12	1.2

SURROGATE

2,4-Dichlorophenyl Acetic Acid 96 % 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 04-61 H20 FRACTION 02A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-61 H2O

FRACTION 02D TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD
INSTRMT 8

EXTRCTD 04/18/88
INJECTD 05/09/88

FILE # 81805098
FACTOR 2.1

UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.42	2.1
95-57-8	2-Chlorophenol	ND	0.42	2.1
88-75-5	2-Nitrophenol	ND	4.2	2.1
105-67-9	2,4-Dimethylphenol	ND	0.63	2.1
120-83-2	2,4-Dichlorophenol	ND	1.1	2.1
59-50-7	4-Chloro-3-Methylphenol	ND	0.84	2.1
88-06-2	2,4,6-Trichlorophenol	ND	1.3	2.1
51-28-5	2,4-Dinitrophenol	ND	27	2.1
100-02-7	4-Nitrophenol	ND	5.3	2.1
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	34	2.1
87-86-5	Pentachlorophenol	ND	16	2.1

SURROGATE

1770-80-5 2-Fluorophenol 50 % 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: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID 04-61 H20 FRACTION 02D TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-61 H20 FRACTION 02B TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/18/88 FILE # 118051127 VERIFIED JD
INSTRMT 1 INJECTD 05/11/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.010	1
58-89-9	gamma-BHC (lindane)	ND	0.010	1
319-85-7	beta-BHC	ND	0.010	1
76-44-8	Heptachlor	ND	0.010	1
319-86-8	delta-BHC	ND	0.010	1
309-00-02	Aldrin	ND	0.010	1
1024-57-3	Heptachlor Epoxide	ND	0.010	1
959-98-8	Endosulfan I	ND	0.010	1
72-55-9	4,4'-DDE	ND	0.010	1
60-57-1	Dieldrin	ND	0.010	1
72-20-8	Endrin	ND	0.010	1
72-54-8	4,4'-DDD	ND	0.010	1
33213-65-9	Endosulfan II	ND	0.030	1
50-29-3	4,4'-DDT	ND	0.020	1
7421-93-4	Endrin Aldehyde	ND	0.020	1
1031-07-8	Endosulfan Sulphate	ND	0.050	1
53494-70-5	Endrin Ketone	ND	0.050	1
72-43-5	Methoxychlor	ND	0.050	1
57-74-9	Chlordane	ND	0.050	1
8001-35-2	Toxaphene	ND	0.50	1
12674-11-2	PCB-1016	ND	0.10	1
11104-28-2	PCB-1221	ND	0.20	1
11141-16-5	PCB-1232	ND	0.20	1
53469-21-9	PCB-1242	ND	0.10	1
12672-29-6	PCB-1248	ND	0.10	1
11097-69-1	PCB-1254	ND	0.20	1
11096-82-5	PCB-1260	ND	0.20	1

SURROGATE 1770-80-5 Dibutylchlorendate 85 % Recovery

SAMPLE ID 04-61 H20 FRACTION 02B TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/14/88 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: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-62 H20

SAMPLE # 03 FRACTIONS: A,B,C,D,E,F
Date & Time Collected 04/14/88 Category

EXHERB 04/19/88 DATE COMPLETED
EXPEST 04/18/88 DATE COMPLETED
EXPHEN 04/18/88 DATE COMPLETED

SAMPLE ID 04-62 H20 FRACTION 03A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/19/88 FILE # 118050528
INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 84 % 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: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID 04-62 H20

FRACTION 03A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

Received: 04/15/88

Results by Sample

SAMPLE ID 04-62 H20 FRACTION 03E TEST CODE 604 NAME Phenols in water.

Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/18/88 FILE # 81805099

INSTRMT 8 INJECTD 05/09/88 FACTOR 2 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.40	2
95-57-8	2-Chlorophenol	ND	0.40	2
88-75-5	2-Nitrophenol	ND	4.0	2
105-67-9	2,4-Dimethylphenol	ND	0.60	2
120-83-2	2,4-Dichlorophenol	ND	1.0	2
59-50-7	4-Chloro-3-Methylphenol	ND	0.80	2
88-06-2	2,4,6-Trichlorophenol	ND	1.2	2
51-28-5	2,4-Dinitrophenol	ND	26	2
100-02-7	4-Nitrophenol	ND	5.0	2
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	32	2
87-86-5	Pentachlorophenol	ND	15	2

SURROGATE

1770-80-5 2-Fluorophenol 34 % 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.

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID 04-62 H20

FRACTION 03E TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-04-083

SAMPLE ID 04-62 H20 FRACTION 03C TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/18/88 FILE # 118051131 VERIFIED JD
INSTRMT 1 INJECTD 05/11/88 FACTOR 4.2 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.21	21
58-89-9	gamma-BHC (lindane)	ND	0.21	21
319-85-7	beta-BHC	ND	0.21	21
76-44-8	Heptachlor	ND	0.042	4.2
319-86-8	delta-BHC	ND	0.042	4.2
309-00-02	Aldrin	ND	0.042	4.2
1024-57-3	Heptachlor Epoxide	ND	0.042	4.2
959-98-8	Endosulfan I	ND	0.042	4.2
72-55-9	4,4'-DDE	ND	0.042	4.2
60-57-1	Dieldrin	ND	0.042	4.2
72-20-8	Endrin	ND	0.042	4.2
72-54-8	4,4'-DDD	ND	0.042	4.2
33213-65-9	Endosulfan II	ND	0.13	4.2
50-29-3	4,4'-DDT	ND	0.084	4.2
7421-93-4	Endrin Aldehyde	ND	0.084	4.2
1031-07-8	Endosulfan Sulphate	ND	0.21	4.2
53494-70-5	Endrin Ketone	ND	0.21	4.2
72-43-5	Methoxychlor	ND	0.21	4.2
57-74-9	Chlordane	ND	0.21	4.2
8001-35-2	Toxaphene	ND	2.1	4.2
12674-11-2	PCB-1016	ND	2.1	21
11104-28-2	PCB-1221	ND	4.2	21
11141-16-5	PCB-1232	ND	4.2	21
53469-21-9	PCB-1242	ND	2.1	21
12672-29-6	PCB-1248	ND	0.42	4.2
11097-69-1	PCB-1254	ND	0.84	4.2
11096-82-5	PCB-1260	ND	0.84	4.2

SURROGATE 1770-80-5 Dibutylchlorendate 20 % Recovery

RADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID 04-62 H20 FRACTION 03C TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/14/88 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: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-63 H20

SAMPLE # 04 FRACTIONS: A,B,C,D,E,F
Date & Time Collected 04/14/88 Category

EXHERB 04/19/88 DATE COMPLETED
EXPEST 04/18/88 DATE COMPLETED
EXPHEN 04/18/88 DATE COMPLETED

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # SB-04-083

Received: 04/15/88 Results by Sample

SAMPLE ID 04-63 H20 FRACTION 04A TEST CODE 509B NAME Herbicides in water

Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/19/88 FILE # 118050519

INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 98 % 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

CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID 04-63 H20

FRACTION 04A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-083

Received: 04/15/88 Results by Sample

SAMPLE ID 04-63 H20 FRACTION 04E TEST CODE 604 NAME Phenols in water.

Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/18/88 FILE # 818050910

INSTRMT 8 INJECTD 05/09/88 FACTOR 5 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	1.0	5
95-57-8	2-Chlorophenol	ND	1.0	5
88-75-5	2-Nitrophenol	ND	10	5
105-67-9	2,4-Dimethylphenol	ND	1.5	5
120-83-2	2,4-Dichlorophenol	ND	2.5	5
59-50-7	4-Chloro-3-Methylphenol	ND	2.0	5
88-06-2	2,4,6-Trichlorophenol	ND	3.0	5
51-28-5	2,4-Dinitrophenol	ND	65	5
100-02-7	4-Nitrophenol	ND	13	5
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	80	5
87-86-5	Pentachlorophenol	ND	38	5

SURROGATE

1770-80-5 2-Fluorophenol 73 % 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.

CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-04-083
Continued From Above

SAMPLE ID 04-63 H20

FRACTION 04E TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/14/88 Category

D = Not reportable due to dilution

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT

Results by Sample

Work Order # S8-04-083

SAMPLE ID 04-63 H20 FRACTION 04C TEST CODE 608 NAME EPA-Pest/PCB's Water

Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/18/88 FILE # 118051133 VERIFIED JD

INSTRMT 1 INJECTD 05/11/88 FACTOR 4.1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.26	26
58-89-9	gamma-BHC (lindane)	ND	0.26	26
319-85-7	beta-BHC	ND	0.041	4.1
76-44-8	Heptachlor	ND	0.041	4.1
319-86-8	delta-BHC	ND	0.041	4.1
309-00-02	Aldrin	ND	0.041	4.1
1024-57-3	Heptachlor Epoxide	ND	0.041	4.1
959-98-8	Endosulfan I	ND	0.041	4.1
72-55-9	4,4'-DDE	ND	0.041	4.1
60-57-1	Dieldrin	ND	0.041	4.1
72-20-8	Endrin	ND	0.041	4.1
72-54-8	4,4'-DDD	ND	0.041	4.1
33213-65-9	Endosulfan II	ND	0.12	4.1
50-29-3	4,4'-DDT	ND	0.082	4.1
7421-93-4	Endrin Aldehyde	ND	0.092	4.1
1031-07-8	Endosulfan Sulphate	ND	0.21	4.1
53494-70-5	Endrin Ketone	ND	0.21	4.1
72-43-5	Methoxychlor	ND	0.21	4.1
57-74-9	Chlordane	ND	0.21	4.1
8001-35-2	Toxaphene	ND	2.1	4.1
12674-11-2	PCB-1016	ND	2.6	26
11104-28-2	PCB-1221	ND	0.82	4.1
11141-16-5	PCB-1232	ND	0.82	4.1
53469-21-9	PCB-1242	ND	0.41	4.1
12672-29-6	PCB-1248	ND	0.41	4.1
11097-69-1	PCB-1254	ND	0.82	4.1
11096-82-5	PCB-1260	ND	0.82	4.1

SURROGATE 1770-80-5 Dibutylchlorendate 26 % Recovery

SAMPLE ID 04-63 H20 FRACTION 04C TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/14/88 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: 04/15/88

Results by Sample

SAMPLE ID 04-64 H20

SAMPLE # 05 FRACTIONS: A

Date & Time Collected 04/14/88 Category

EX BNA 04/19/88
DATE COMPLETED

SAMPLE ID 04-64 H20 FRACTION 05A TEST CODE CL 625 NAME Semivolatile Organics H20
Date & Time Collected 04/14/88 Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST KS EXTRCTD 04/19/88 FILE # 0408305A VERIFIED LAK
INSTRMT F1 INJECTD 04/21/88 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	6.3
	95-57-8	2-chlorophenol	ND	3.6
	541-73-1	1,3-dichlorobenzene	ND	2.1
	106-46-7	1,4-dichlorobenzene	ND	4.8
	100-51-6	benzyl alcohol	ND	55
	95-50-1	1,2-dichlorobenzene	ND	2.1
	95-48-7	2-methylphenol	ND	11
	108-60-1	bis(2-chloroisopropyl)ether	ND	6.3
	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	2.4
	88-75-5	2-nitrophenol	ND	4.0
	105-67-9	2,4-dimethylphenol	ND	3.0
	65-85-0	benzoic acid	ND	55
	111-91-1	bis(2-chloroethoxy)methane	ND	5.8
	120-83-2	2,4-dichlorophenol	ND	3.0
	120-82-1	1,2,4-trichlorobenzene	ND	2.1
747	91-20-3	naphthalene	24	1.8
	106-47-8	4-chloroaniline	ND	11
	87-68-3	hexachlorobutadiene	ND	0.99
	59-50-7	4-chloro-3-methylphenol	ND	3.3
850	91-57-6	2-methylnaphthalene	14	11

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-04-083
Continued From Above

SAMPLE ID 04-64 H20

FRACTION 05A TEST CODE CL 625 NAME Semivolatile Organics H20
Date & Time Collected 04/14/88 Category

SCAN	CAS #	COMPOUND	RESULT	DET LIMIT
	77-47-4	hexachlorocyclopentadiene	ND	6.6
	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	55
	131-11-3	dimethyl phthalate	ND	1.8
	208-96-8	acenaphthylene	ND	3.9
	99-09-2	3-nitroaniline	ND	55
	83-32-9	acenaphthene	ND	2.1
	51-28-5	2,4-dinitrophenol	ND	46
	100-02-7	4-nitrophenol	ND	2.6
	132-64-9	dibenzofuran	ND	11
	606-20-2	2,6-dinitrotoluene	ND	2.1
	121-14-2	2,4-dinitrotoluene	ND	6.3
	84-66-2	diethylphthalate	ND	2.1
	7005-72-3	4-chlorophenyl-phenylether	ND	4.6
	86-73-7	fluorene	ND	2.1
	100-01-06	4-nitroaniline	ND	55
	534-52-1	4,6-dinitro-2-methylphenol	ND	26
	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	5.9
	120-12-7	anthracene	ND	2.1
	84-74-2	di-n-butylphthalate	ND	2.8
	206-44-0	fluoranthene	ND	2.4
	92-87-5	benzidine	ND	48
	129-00-0	pyrene	ND	2.1
1557	85-68-7	butylbenzylphthalate	8.0 B	2.8
	91-94-1	3,3'-dichlorobenzidine	ND	18
	56-55-3	benzo(a)anthracene	ND	8.6
1649	117-81-7	bis(2-ethylhexyl)phthalate	2.0 J	2.8

SAMPLE ID 04-64 H20 FRACTION 05A TEST CODE CL 625 NAME Semivolatile Organics H2O
Date & Time Collected 04/14/88 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	5.3
	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	4.5

SURROGATE RECOVERIES

SCAN	COMPOUND	RECOVERY
394	2-fluorophenol	70 %
517	d5-phenol	74 %
641	d5-nitrobenzene	95 %
909	2-fluorobiphenyl	74 %
1129	2,4,6-tribromophenol	58 %
1478	d14-terphenyl	67 %

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: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 06 FRACTIONS: A

Date & Time Collected not specified Category

EXHERB 04/19/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK H2O FRACTION 06A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/19/88 FILE # 118050514
INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

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

KADIAN CORPORATION

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID REAGENT BLANK H2O FRACTION 06A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 07 FRACTIONS: A
Date & Time Collected not specified Category

EXPHEN 04/18/88
DATE COMPLETED

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-083

Received: 04/15/88 Results by Sample

SAMPLE ID REAGENT BLANK H2O FRACTION 07A TEST CODE 604 NAME Phenols in water.

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/18/88 FILE # 81805092

INSTRMT. 8 INJECTD 05/09/88 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 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: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID REAGENT BLANK H2O

FRACTION 07A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 04/15/88

RADIAN CORPORATION

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 08 FRACTIONS: A
Date & Time Collected not specified Category

EXPEST 04/18/88
DATE COMPLETED

Received: 04/15/88 Results by Sample

SAMPLE ID REAGENT BLANK H2O FRACTION 08A TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/18/88 FILE # 118051126 VERIFIED JD
INSTRMT 1 INJECTD 05/11/88 FACTOR 1 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.010	1
58-89-9	gamma-BHC (lindane)	ND	0.010	1
319-85-7	beta-BHC	ND	0.010	1
76-44-8	Heptachlor	ND	0.010	1
319-86-8	delta-BHC	ND	0.010	1
309-00-02	Aldrin	ND	0.010	1
1024-57-3	Heptachlor Epoxide	ND	0.010	1
959-98-8	Endosulfan I	ND	0.010	1
72-55-9	4,4'-DDE	ND	0.010	1
60-57-1	Dieldrin	ND	0.010	1
72-20-8	Endrin	ND	0.010	1
72-54-8	4,4'-DDD	ND	0.010	1
33213-65-9	Endosulfan II	ND	0.030	1
50-29-3	4,4'-DDT	ND	0.020	1
7421-93-4	Endrin Aldehyde	ND	0.020	1
1031-07-8	Endosulfan Sulphate	ND	0.050	1
53494-70-5	Endrin Ketone	ND	0.050	1
72-43-5	Methoxychlor	ND	0.050	1
57-74-9	Chlordane	ND	0.050	1
8001-35-2	Toxaphene	ND	0.50	1
12674-11-2	PCB-1016	ND	0.10	1
11104-28-2	PCB-1221	ND	0.20	1
11141-16-5	PCB-1232	ND	0.20	1
53469-21-9	PCB-1242	ND	0.10	1
12672-29-6	PCB-1248	ND	0.10	1
11097-69-1	PCB-1254	ND	0.20	1
11096-82-5	PCB-1260	ND	0.20	1

SURROGATE 1770-80-5 Dibutylchlorendate 100 % Recovery

SAMPLE ID REAGENT BLANK H2O FRACTION 08A 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

Received: 04/15/88

RADIAN CORPORATION

RAS Sacramento REPORT

Results by Sample

Work Order # S8-04-083

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 09 FRACTIONS: A

Date & Time Collected not specified

Category

EX BNA 04/19/88
DATE COMPLETED

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # SB-04-083

Received: 04/15/88 Results by Sample

SAMPLE ID REAGENT BLANK H2O FRACTION 09A TEST CODE CL 625 NAME Semivolatile Organics H2O

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE HSL COMPOUNDS

ANALYST KS EXTRCTD 04/19/88 FILE # 0408309A VERIFIED LAK

INSTRMT F1 INJECTD 04/21/88 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

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID REAGENT BLANK H2O FRACTION 09A 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
1558	85-68-7	butylbenzylphthalate	1.3 J	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

Received: 04/15/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-083
Continued From Above

SAMPLE ID REAGENT BLANK H2O

FRACTION 09A 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
397	2-fluorophenol	81 %
519	d5-phenol	87 %
642	d5-nitrobenzene	92 %
910	2-fluorobiphenyl	81 %
1130	2,4,6-tribromophenol	95 %
1479	d14-terphenyl	105 %

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.

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

02C	DUPGC	02E	DUPGC				
03B	DUPGC	03D	DUPGC	03F	DUPGC		
04B	DUPGC	04D	DUPGC	04F	DUPGC		

RADIAN CORPORATION

Received: 04/23/88

RAS Sacramento REPORT

05/24/88 08:16:03

Work Order # 88-04-131

REPORT TO: Radian Corporation
8501 MoPac Blvd.
Austin, Tx 78766

ATTEN: Larry French

CLIENT: CARSWELL AFB SAMPLES: 8
COMPANY: Carswell AFB.
FACILITY: Headquarters, SAC
Offutt, Nebraska 68113

WORK ID: Site 10 Re-Sample
TAKEN: 04/22/88
TRANS: Federal 6942335094
TYPE: H20-509B/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

Lucas A Petkovich
CERTIFIED BY

CONTACT LARRY FRENCH

SAMPLES 04-60 AND 04-61 HAD NO HERBICIDE SURROGATE RECOVERY ALTHOUGH SUBSEQUENT GC CHECKS SHOWED THAT THE INSTRUMENT WAS WITHIN CONTROL LIMITS. GC= OUTSIDE CONTROL LIMITS. MSD EXTRACT FOR 04-60 LOST DUE TO CRACKED SPL VIAL. L.FRENCH INFORMED 5/13

SAMPLE IDENTIFICATION

01	04-60 H20
02	04-61 H20
03	04-60 MATRIX SPIKE
03	04-60 MATRIX SPIKE DUP
04	REAGENT BLANK H20
05	04-60 MATRIX SPIKE
05	04-60 MATRIX SPIKE DUP
06	REAGENT BLANK H20
07	04-60 MATRIX SPIKE
08	REAGENT BLANK H20

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

CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-131

Received: 04/23/88

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	04/25/88 DATE COMPLETED	04/25/88 DATE COMPLETED			04/25/88 DATE COMPLETED 04/25/88 DATE COMPLETED
EXPEST date completed	04/25/88 DATE COMPLETED				
EXPHEN date completed	04/25/88 DATE COMPLETED		04/25/88 DATE COMPLETED 04/25/88 DATE COMPLETED	04/25/88 DATE COMPLETED	

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)
EXHERB Date completed	04/25/88 DATE COMPLETED		
EXPEST date completed		04/25/88 DATE COMPLETED	04/25/88 DATE COMPLETED

KARDIAN CORPORATION

Received: 04/23/88

RAS Sacramento REPORT
Results By Test

Work Order # S8-04-131

SAMPLE Sample Id	Test: EXHERB Date completed	Test: EXPEST date completed	Test: EXPHEN date completed
01 04-60 H20	04/25/88 DATE COMPLETED	04/25/88 DATE COMPLETED	04/25/88 DATE COMPLETED
02 04-61 H20	04/25/88 DATE COMPLETED		
03 04-60 MATRIX SP			04/25/88 DATE COMPLETED
			04/25/88 DATE COMPLETED
04 REAGENT BLANK H			04/25/88 DATE COMPLETED
05 04-60 MATRIX SP	04/25/88 DATE COMPLETED		
	04/25/88 DATE COMPLETED		
06 REAGENT BLANK H	04/25/88 DATE COMPLETED		
07 04-60 MATRIX SP		04/25/88 DATE COMPLETED	
08 REAGENT BLANK H		04/25/88 DATE COMPLETED	

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID 04-60 H2O

SAMPLE # 01 FRACTIONS: A,B,C,D,E,F
Date & Time Collected 04/22/88 Category

EXHERB 04/25/88 DATE COMPLETED
EXPEST 04/25/88 DATE COMPLETED
EXPHEN 04/25/88 DATE COMPLETED

KADIAN CORPORATION

Received: 04/23/88

RAS Sacramento REPORT

Results by Sample

Work Order # S8-04-131

SAMPLE ID 04-60 H20

FRACTION 01C TEST CODE 509B NAME Herbicides in water

Date & Time Collected 04/22/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/25/88 FILE # 118050540

INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 0 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.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131
Continued From Above

SAMPLE ID 04-60 H20 FRACTION 01C TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/22/88 Category

D = Not reportable due to dilution

RADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-131

Received: 04/23/88 Results by Sample

SAMPLE ID 04-60 H20 FRACTION 01A TEST CODE 604 NAME Phenols in water.

Date & Time Collected 04/22/88 Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/25/88 FILE # 81805094

INSTRMT 8 INJECTD 05/09/88 FACTOR 2.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	ND	0.40	2.0
95-57-8	2-Chlorophenol	ND	0.40	2.0
88-75-5	2-Nitrophenol	ND	4.0	2.0
105-67-9	2,4-Dimethylphenol	ND	0.60	2.0
120-83-2	2,4-Dichlorophenol	ND	1.0	2.0
59-50-7	4-Chloro-3-Methylphenol	ND	0.80	2.0
88-06-2	2,4,6-Trichlorophenol	ND	1.2	2.0
51-28-5	2,4-Dinitrophenol	ND	26	2.0
100-02-7	4-Nitrophenol	ND	5.0	2.0
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	32	2.0
87-86-5	Pentachlorophenol	ND	15	2.0

SURROGATE

1770-80-5 2-Fluorophenol 70 % 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: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131
Continued From Above

SAMPLE ID 04-60 H20

FRACTION 01A TEST CODE 604 NAME Phenols in water.
Date & Time Collected 04/22/88 Category

D = Not reportable due to dilution

RADIAN CORPORATION

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID 04-60 H2O FRACTION 01E TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/22/88 Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/25/88 FILE # 118051143 VERIFIED JD
INSTRMT 1 INJECTD 05/11/88 FACTOR 11 UNITS UG/L

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	ND	0.11	11
58-89-9	gamma-BHC (lindane)	ND	0.11	11
319-85 7	beta-BHC	ND	0.11	11
76-44-8	Heptachlor	ND	0.11	11
319-86-8	delta-BHC	ND	0.11	11
309-00-02	Aldrin	ND	0.11	11
1024-57-3	Heptachlor Epoxide	ND	0.11	11
959-98-8	Endosulfan I	ND	0.11	11
72-55 9	4,4'-DDE	ND	0.11	11
60-57-1	Dieldrin	ND	0.11	11
72-20-8	Endrin	ND	0.11	11
72-54-8	4,4'-DDD	ND	0.11	11
33213-65 9	Endosulfan II	ND	0.33	11
50-29-3	4,4'-DDT	ND	0.22	11
7421-93-4	Endrin Aldehyde	ND	0.22	11
1031-07-8	Endosulfan Sulphate	ND	0.55	11
53494-70-5	Endrin Ketone	ND	0.55	11
72-43-5	Methoxychlor	ND	0.55	11
57-74-9	Chlordane	ND	0.55	11
8001-35 2	Toxaphene	ND	5.5	11
12674-11-2	PCB-1016	ND	1.1	11
11104-28-2	PCB-1221	ND	2.2	11
11141-16-5	PCB-1232	ND	2.2	11
53469-21-9	PCB-1242	ND	1.1	11
12672-29-6	PCB-1248	ND	1.1	11
11097-69-1	PCB-1254	ND	2.2	11
11096-82-5	PCB-1260	ND	2.2	11

SURROGATE 1770-80-5 Dibutylchlorendate 31 % Recovery

SAMPLE ID 04-60 H20 FRACTION 01E TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected 04/22/88 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

KADIAN CORPORATION

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-04-131

SAMPLE ID 04-61 H2O

SAMPLE # 02 FRACTIONS: A
Date & Time Collected 04/22/88 Category

EXHERB 04/25/88
DATE COMPLETED

CORPORATION

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID 04-61 H20

FRACTION 02A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/22/88 Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR
INSTRMT 1

EXTRCTD 04/25/88
INJECTD 05/05/88

FILE # 118050521
FACTOR 1.0

UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 0.4 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.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

SAMPLE ID 04-61 H20 FRACTION 02A TEST CODE 509B NAME Herbicides in water
Date & Time Collected 04/22/88 Category

D = Not reportable due to dilution

Received: 04/23/88

RAS Sacramento REPORT

Results by Sample

Work Order # S8-04-131

SAMPLE ID 04-60 MATRIX SPIKE

SAMPLE # 03 FRACTIONS: A

Date & Time Collected not specified

Category

EXPHEN 04/25/88
DATE COMPLETED

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-131

Received: 04/23/88 Results by Sample

SAMPLE ID 04-60 MATRIX SPIKE FRACTION 03A TEST CODE 604 NAME Phenols in water.

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/25/88 FILE # 81805095

INSTRMT 8 INJECTD 05/09/88 FACTOR 4 UNITS % RECOV.

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	NS	0.80	4
95-57-8	2-Chlorophenol	59	0.80	4
88-75-5	2-Nitrophenol	NS	8.0	4
105-67-9	2,4-Dimethylphenol	59	1.2	4
120-83-2	2,4-Dichlorophenol	NS	2.0	4
59-50-7	4-Chloro-3-Methylphenol	NS	1.6	4
88-06-2	2,4,6-Trichlorophenol	61	2.4	4
51-28-5	2,4-Dinitrophenol	NS	52	4
100-02-7	4-Nitrophenol	66	10	4
534-52-1	2-Methyl-4,6-Dinitrophenol	95	64	4
87-86-5	Pentachlorophenol	NS	30	4

SURROGATE

1770-80-5 2-Fluorophenol 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.
Confirmation: C = confirmed; NC = not confirmed;
NR = not required; NP = not performed
PC = Previously confirmed
J = Estimated value.
QC = Outside control limits.

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # SB-04-131
Continued From Above

SAMPLE ID 04-60 MATRIX SPIKE FRACTION 03A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 04/23/88

RADIAN CORPORATION

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID 04-60 MATRIX SPIKE DUP

SAMPLE # 03 FRACTIONS: B

Date & Time Collected not specified

Category

EXPHEN 04/25/88
DATE COMPLETED

SAMPLE ID 04-60 MATRIX SPIKE DUP FRACTION 03B TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/25/88 FILE # 81805096
INSTRMT 8 INJECTD 05/09/88 FACTOR 4.0 UNITS % RECOV.

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
108-95-2	Phenol	NS	0.80	4.0
95-57-8	2-Chlorophenol	77	0.80	4.0
88-75-5	2-Nitrophenol	NS	8.0	4.0
105-67-9	2,4-Dimethylphenol	75	1.2	4.0
120-83-2	2,4-Dichlorophenol	76	2.0	4.0
59-50-7	4-Chloro-3-Methylphenol	NS	1.6	4.0
88-06-2	2,4,6-Trichlorophenol	83	2.4	4.0
51-28-5	2,4-Dinitrophenol	NS	52	4.0
100-02-7	4-Nitrophenol	86	10	4.0
534-52-1	2-Methyl-4,6-Dinitrophenol	110	64	4.0
87-86-5	Pentachlorophenol	NS	30	4.0

SURROGATE

1770-80-5 2-Fluorophenol 70 % 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.
GC = Outside control limits.

SAMPLE ID 04-60 MATRIX SPIKE DUP FRACTION 03B TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 04 FRACTIONS: A
Date & Time Collected not specified Category

EXPHEN 04/25/88
DATE COMPLFIED

KADIAN CORPORATION

 RAS Sacramento REPORT Work Order # S8-04-131

Received: 04/23/88 Results by Sample

SAMPLE ID REAGENT BLANK H2O FRACTION 04A TEST CODE 604 NAME Phenols in water.

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
PHENOLS

VERIFIED LF

ANALYST JD EXTRCTD 04/25/88 FILE # 81805093

INSTRMT 8 INJECTD 05/09/88 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	ND	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	ND	13	1.0
100-02-7	4-Nitrophenol	ND	2.5	1.0
534-52-1	2-Methyl-4,6-Dinitrophenol	ND	16	1.0
87-86-5	Pentachlorophenol	ND	7.5	1.0

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.

SAMPLE ID REAGENT BLANK H2O FRACTION 04A TEST CODE 604 NAME Phenols in water.
Date & Time Collected not specified Category

D = Not reportable due to dilution

SAMPLE ID 04-60 MATRIX SPIKE SAMPLE # 05 FRACTIONS: A
Date & Time Collected not specified Category

EXHERB 04/25/88
DATE COMPLETED

Received: 04/23/88

Results by Sample

SAMPLE ID 04-60 MATRIX SPIKE FRACTION 05A TEST CODE 509B NAME Herbicides in water

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/25/88 FILE # 118050547

INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS % RECOV.

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	86	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	84	0.10	1.0
93-76-5	2,4,5-T	75	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 111 % 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 04-60 MATRIX SPIKE FRACTION 05A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

SAMPLE ID 04-60 MATRIX SPIKE DUP SAMPLE # 05 FRACTIONS: B
Date & Time Collected not specified Category

EXHERB 04/25/88
DATE COMPLETED

SAMPLE ID 04-60 MATRIX SPIKE DUP FRACTION 05B TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

ANALYST MR EXTRCTD 04/25/88 FILE # 118050549 VERIFIED JD
INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS % RECOV.

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	67	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	75	0.10	1.0
93-76-5	2,4,5-T	69	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 125 % 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 04-60 MATRIX SPIKE DUP FRACTION 05B TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 06 FRACTIONS: A
Date & Time Collected not specified Category

EXHERB 04/25/88
DATE COMPLETED

SAMPLE ID REAGENT BLANK H2O FRACTION 06A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET
HERBICIDES

VERIFIED JD

ANALYST MR EXTRCTD 04/25/88 FILE # 118050515
INSTRMT 1 INJECTD 05/05/88 FACTOR 1.0 UNITS UG/L

CAS #	COMPOUND	RESULT	DET. LIMIT	FACTOR
94-75-7	2,4-D	ND	0.50	1.0
93-72-1	2,4,5-TP (Silvex)	ND	0.10	1.0
93-76-5	2,4,5-T	ND	0.10	1.0

SURROGATE

2,4-Dichlorophenyl Acetic Acid 0 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.
J = Estimated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed

RADIAN CORPORATION

Received: 04/23/89

RAS Sacramento REPORT
Results by Sample

Work Order # 58-04-131
Continued From Above

SAMPLE ID REAGENT BLANK H2O

FRACTION 06A TEST CODE 509B NAME Herbicides in water
Date & Time Collected not specified Category

D = Not reportable due to dilution

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID 04-60 MATRIX SPIKE

SAMPLE # 07 FRACTIONS: A
Date & Time Collected not specified Category

EXPEST 04/25/88
DATE COMPLETED

KALMAN CORPORATION

RAS Sacramento REPORT

Work Order # S8-04-131

Received: 04/23/88

Results by Sample

SAMPLE ID 04-60 MATRIX SPIKE FRACTION 07A TEST CODE 608 NAME EPA-Pest/PCB's Water

Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/25/88 FILE # 118051144 VERIFIED JD

INSTRMT 1 INJECTD 05/11/88 FACTOR 50 UNITS % RECOV.

CAS #	COMPOUND	RESULT	DET LIMIT	FACTOR
319-84-6	alpha-BHC	NS	0.50	50
58-89-9	gamma-BHC (lindane)	89	0.50	50
319-85 7	beta-BHC	NS	0.50	50
76-44-8	Heptachlor	87	0.50	50
319-86-8	delta-BHC	NS	0.50	50
309-00 02	Aldrin	85	0.50	50
1024-57-3	Heptachlor Epoxide	NS	0.50	50
959-98-8	Endosulfan I	NS	0.50	50
72-55 9	4,4'-DDE	NS	0.50	50
60-57-1	Dieldrin	100	0.50	50
72-20 8	Endrin	88	0.50	50
72-54-8	4,4'-DDD	NS	0.50	50
33213-65 9	Endosulfan II	NS	1.5	50
50-29-3	4,4'-DDT	28 QC	1.0	50
7421-93-4	Endrin Aldehyde	NS	1.0	50
1031-07-8	Endosulfan Sulphate	NS	2.5	50
53494-70 5	Endrin Ketone	NS	2.5	50
72-43-5	Methoxychlor	NS	2.5	50
57-74-9	Chlordane	NS	2.5	50
8001-35 2	Toxaphene	NS	25	50
12674-11-2	PCB-1016	NS	5.0	50
11104-28-2	PCB-1221	NS	10	50
11141-16-5	PCB-1232	NS	10	50
53469-21-9	PCB-1242	NS	5.0	50
12672-29-6	PCB-1248	NS	5.0	50
11097-69-1	PCB-1254	NS	10	50
11096-82-5	PCB-1260	NS	10	50

SURROGATE 1770-80-5 Dibutylchlorendate 51 % Recovery

SAMPLE ID 04-60 MATRIX SPIKE FRACTION 07A 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

KADIAN CORPORATION

Received: 04/23/88

RAS Sacramento REPORT
Results by Sample

Work Order # S8-04-131

SAMPLE ID REAGENT BLANK H2O

SAMPLE # 08 FRACTIONS: A
Date & Time Collected not specified Category

EXPEST 04/25/88
DATE COMPLETED

Received: 04/23/88 Results by Sample

SAMPLE ID REAGENT BLANK H2O FRACTION OBA TEST CODE 608 NAME EPA-Pest/PCB's Water
Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET - PESTICIDES

ANALYST AL EXTRCTD 04/25/88 FILE # 118051139 VERIFIED JD
INSTRMT 1 INJECTD 05/11/88 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 17/0-80-5 Dibutylchlorendate 101 % Recovery

SAMPLE ID REAGENT BLANK H2O FRACTION 08A 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 = Estinated value.
QC = Outside control limits.
C = Confirmed NC = Not confirmed
D = Not reportable due to dilution

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	DUPGC	01D	DUPGC	01F	DUPGC

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-145

Received: 04/27/88 04/29/88 08:16:54

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 8
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: 2nd col. conf. for 88-04-075
TAKEN:
TRANS:
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	2nd col. conf. 04-15
02	2nd col. conf. 04-60
03	2nd col. conf. 04-61
04	2nd col. conf. 04-62
05	2nd col. conf. 04-63
06	2nd col. conf. 04-66
07	2nd col. conf. 04-67
08	2nd col. conf. 04-68

TEST CODES and NAMES used on this report

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

CORPORATION

RAS - Austin REPORT

Work Order # 88-04-145

Received: 04/27/88

Results by Sample

SAMPLE ID 2nd col. conf. 04-15 FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/15/88 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

 RAS - Austin REPORT Work Order # 88-04-145

Received: 04/27/88 Results by Sample Continued From Above

SAMPLE ID 2nd col. conf. 04-15 FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 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	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col. conf. 04-15 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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 # 88-04-145

Received: 04/27/88 Results by Sample

SAMPLE ID 2nd col. conf. 04-60 FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/15/88 FILE # 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

SAMPLE ID 2nd col. conf. 04-60 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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	6800	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	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col. conf. 04-60 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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 # 88-04-145

Received: 04/27/88

Results by Sample

SAMPLE ID 2nd col. conf. 04-61 FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 Category

ANALYST RW

INSTRMT B

INJECTD 04/15/88

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	0.4*	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	ND	0.10

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-145

Received: 04/27/88 Results by Sample Continued From Above

SAMPLE ID 2nd col. conf. 04-61 FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 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	2.3	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. 04-61 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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

RAS - Austin REPORT

Work Order # 88-04-145

Received: 04/27/88

Results by Sample

SAMPLE ID 2nd col. conf. 04-61 FRACTION 03A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/14/88 Category

VERIFIED CL

ANALYST BM

INSTRMT D

INJECTED 04/26/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.4*	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 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. 04-61 FRACTION 03A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/14/88 Category

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

RADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-145

Received: 04/27/88 Results by Sample

SAMPLE ID 2nd col. conf. 04-61 FRACTION 03A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/14/88 Category

VERIFIED CL

ANALYST BM FILE #

INSTRMT D INJECTD 04/26/88 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 # 88-04-145

Received: 04/27/88 Results by Sample

SAMPLE ID 2nd col. conf. 04-62 FRACTION 04A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/14/88 FILE # 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

KADIAN CORPORATION

Received: 04/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-145
Continued From Above

SAMPLE ID 2nd col. conf. 04-62 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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	2400	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	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col. conf. 04-62 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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 # 88-04-145

Received: 04/27/88 Results by Sample

SAMPLE ID 2nd col. conf. 04-63 FRACTION 05A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 Category

ANALYST CL VERIFIED CL

INSTRMT B INJECTD 04/18/88 FILE # 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

SAMPLE ID 2nd col. conf. 04-63 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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	2300	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	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col. conf. 04-63 FRACTION 05A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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 # 88-04-145

Received: 04/27/88

Results by Sample

SAMPLE ID 2nd col. conf. 04-66 FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 Category

ANALYST RW

INSTRMT B

INJECTD 04/18/88

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: 04/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-145
Continued From Above

SAMPLE ID 2nd col. conf. 04-66 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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. 04-66 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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: 04/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-145

SAMPLE ID 2nd col. conf. 04-67 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 Category

VERIFIED CL

ANALYST RW
INSTRMT B

INJECTD 04/18/88

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	0.4*	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	ND	0.10

SAMPLE ID 2nd col. conf. 04-67 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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	1.6	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. 04-67 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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 # 88-04-145

Received: 04/27/88

Results by Sample

SAMPLE ID 2nd col. conf. 04-68 FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/14/88 Category

VERIFIED CL

ANALYST RW

INSTRMT B

INJECTD 04/18/88

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. 04-68 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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	0.2*	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

Received: 04/27/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-145
Continued From Above

SAMPLE ID 2nd col. conf. 04-68 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/14/88 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

 RAS - Austin REPORT Work Order # 88-04-145

Received: 04/27/88 Results by Sample

SAMPLE ID 2nd col. conf. 04-68 FRACTION 08A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/14/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/26/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	0.6*	0.2
108-88-3	Toluene	0.8*	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	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. 04-68 FRACTION 08A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/14/88 Category

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

RADIAN CORPORATION

Received: 04/27/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-145

SAMPLE ID 2nd col. conf. 04-68 FRACTION OBA TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/14/88 Category

VERIFIED CL

ANALYST CL

INSTRMT D

INJECTD 04/26/88

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 # 88-04-148

Received: 04/28/88 04/29/88 12:23:18

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 9
COMPANY: Carswell AFB
FACILITY: IRP

WORK ID: 2nd col. conf. for 88-04-062
TAKEN:
TRANS:
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	2nd col conf 04-48
02	2nd col conf 04-49
03	2nd col conf 04-50
04	2nd col conf 04-51
05	2nd col conf 04-52
06	2nd col conf 04-53
07	2nd col conf 04-55
08	2nd col conf 04-56
09	2nd col conf 04-57

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 # 88-04-148

Received: 04/28/88 Results by Sample

SAMPLE ID 2nd col conf 04-48 FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/13/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/14/88 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	0.4	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	0.2*	0.10

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-48 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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	2.9	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

KADIAN CORPORATION

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-48 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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 # 88-04-148

Received: 04/28/88 Results by Sample

SAMPLE ID 2nd col conf 04-48 FRACTION 01A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/25/88 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	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: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-48 FRACTION 01A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/13/88 Category

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

CORPORATION

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148

SAMPLE ID 2nd col conf 04-48 FRACTION 01A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 04/25/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	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

RAS - Austin REPORT

Work Order # 88-04-148

Received: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-49 FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW

INSTRMT B INJECTD 04/14/88 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

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-49 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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	3100	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

RADIAN CORPORATION

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-49 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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 # 88-04-148

Received: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-50 FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW

INSTRMT B

INJECTD 04/14/88

FILE #

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: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-50 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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	4200	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	N/A	% Recovery
3017-95-6	2-Bromo-1-chloropropane		% Recovery
110-56-5	1-4-Dichlorobutane		% Recovery

SAMPLE ID 2nd col conf 04-50 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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

 RAS - Austin REPORT Work Order # 88-04-148

Received: 04/28/88 Results by Sample

SAMPLE ID 2nd col conf 04-51 FRACTION 04A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTED 04/26/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.9(	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 04-51 FRACTION 04A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/13/88 Category

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

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-148

Received: 04/28/88 Results by Sample

SAMPLE ID 2nd col conf 04-51 FRACTION 04A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST CL FILE #

INSTRMT D INJECTD 04/26/88 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.

RAS - Austin REPORT

Work Order # 88-04-148

Received: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-52 FRACTION 05A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/26/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.3*	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: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-52

FRACTION 05A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/13/88 Category

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

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-04-148

Received: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-52 FRACTION 05A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/26/88

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.

KADIAN CORPORATION

 RAS - Austin REPORT Work Order # 88-04-148

Received: 04/28/88 Results by Sample

SAMPLE ID 2nd col conf 04-53 FRACTION 06A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/13/88 Category

ANALYST CL VERIFIED CL

INSTRMT B INJECTD 04/15/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	7.5
74-83-9	Bromomethane	ND	30
75-01-4	Vinyl chloride	ND	5.0
75-00-3	Chloroethane	ND	13
75-09-2	Methylene chloride	ND	7.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1-Dichloroethene	ND	2.5
75-34-3	1,1-Dichloroethane	ND	2.3
156-60-5	trans-1,2-Dichloroethene	ND	5.0
67-66-3	Chloroform	ND	1.3
107-06-2	1,2-Dichloroethane	ND	0.75
71-55-6	1,1,1-Trichloroethane	ND	2.3
56-23-5	Carbon tetrachloride	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5

SAMPLE ID 2nd col conf 04-53 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	2.5
10061-02-6	trans-1,3-Dichloropropene-A	ND	7.5
79-01-6	Trichloroethene	70	5.0
124-48-1	Dibromochloromethane-B	ND	5.0
79-00-5	1,1,2-Trichloroethane-B	ND	1.8
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	5.0
75-25-2	Bromoform	ND	7.5
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	3.0
127-18-4	Tetrachloroethene-C	ND	0.75
108-90-7	Chlorobenzene	ND	7.5
541-73-1	1,3-Dichlorobenzene	ND	7.5
95-50-1	1,2-Dichlorobenzene	ND	13
106-46-7	1,4-Dichlorobenzene	ND	10

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 04-53 FRACTION 06A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-53 FRACTION 06A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/26/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	3.1	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	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: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-53

FRACTION 06A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/13/88 Category

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

RAS - Austin REPORT

Work Order # 88-04-148

Received: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-53 FRACTION Q6A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTD 04/26/88 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: 04/28/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-148

SAMPLE ID 2nd col conf 04-55

FRACTION 07A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/26/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.7*	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 04-55 FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/13/88 Category

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

KADIAN CORPORATION

Received: 04/28/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-04-148

SAMPLE ID 2nd col conf 04-55

FRACTION 07A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/26/88

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 # 88-04-148

Received: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-56 FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/13/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/15/88 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	0.8	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	0.8	0.090
56-23-5	Carbon tetrachloride	ND	0.10
75-27-4	Bromodichloromethane	ND	0.10

KADIAN CORPORATION

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-56 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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	1.3	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	0.3	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 04-56 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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

 RAS - Austin REPORT Work Order # 88-04-148

Received: 04/28/88 Results by Sample

SAMPLE ID 2nd col conf 04-56 FRACTION 08A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/26/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	3.1	0.2
108-88-3	Toluene	0.4*	0.2
100-41-4	Ethylbenzene	ND	0.3
108-90-7	Chlorobenzene-A	ND	0.3
106-46-7	1,4-Dichlorobenzene	4.7	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.

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-56 FRACTION 08A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/13/88 Category

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

RADIAN CORPORATION

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148

SAMPLE ID 2nd col conf 04-56 FRACTION 08A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/13/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 04/26/88
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.

RAS - Austin REPORT

Work Order # 88-04-148

Received: 04/28/88

Results by Sample

SAMPLE ID 2nd col conf 04-57 FRACTION 09A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/13/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/15/88 FILE # UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	7.5
74-83-9	Bromomethane	ND	30
75-01-4	Vinyl chloride	ND	5.0
75-00-3	Chloroethane	ND	13
75-09-2	Methylene chloride	ND	7.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1-Dichloroethene	ND	2.5
75-34-3	1,1-Dichloroethane	ND	2.3
156-60-5	trans-1,2-Dichloroethene	ND	5.0
67-66-3	Chloroform	ND	1.3
107-06-2	1,2-Dichloroethane	ND	0.75
71-55-6	1,1,1-Trichloroethane	ND	2.3
56-23-5	Carbon tetrachloride	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5

KADIAN CORPORATION

Received: 04/28/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-04-148
Continued From Above

SAMPLE ID 2nd col conf 04-57 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	2.5
10061-02-6	trans-1,3-Dichloropropene-A	ND	7.5
79-01-6	Trichloroethene	110	5.0
124-48-1	Dibromochloromethane-B	ND	5.0
79-00-5	1,1,2-Trichloroethane-B	ND	1.8
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	5.0
75-25-2	Bromoform	ND	7.5
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	3.0
127-18-4	Tetrachloroethene-C	40	0.75
108-90-7	Chlorobenzene	ND	7.5
541-73-1	1,3-Dichlorobenzene	ND	7.5
95-50-1	1,2-Dichlorobenzene	ND	13
106-46-7	1,4-Dichlorobenzene	ND	10

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 04-57 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/13/88 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 # 88-05-006

Received: 05/03/88 05/04/88 10:39:04

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D04 SAMPLES: 10
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: 2nd col. conf. for 88-04-057
TAKEN:
TRANS:
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	2nd col conf 04-36
02	2nd col conf 04-37
03	2nd col conf 04-38
04	2nd col conf 04-39
05	2nd col conf 04-40
06	2nd col conf 04-41
07	2nd col conf 04-42
08	2nd col conf 04-43
09	2nd col conf 04-45
10	2nd col conf 04-46

TEST CODES and NAMES used on this report

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

RADIAN CORPORATION

RAS - Austin REPORT Work Order # 88-05-006

Received: 05/03/88

Results by Sample

SAMPLE ID 2nd col conf 04-36 FRACTION 01A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/12/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/13/88 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: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-36 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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	2900	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 04-36 FRACTION 01A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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: 05/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-05-006

SAMPLE ID 2nd col conf 04-37 FRACTION 02A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST CL

INSTRMT B

INJECTD 04/14/88

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	0.2*	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	ND	0.10

SAMPLE ID 2nd col conf 04-37 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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

KADIAN CORPORATION

Received: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-37 FRACTION 02A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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: 05/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-05-006

SAMPLE ID 2nd col conf 04-37

FRACTION 02A · TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/12/88

Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/25/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.4*	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	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: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-37

FRACTION 02A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/12/88 Category

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

RAS - Austin REPORT

Work Order # 88-05-006

Received: 05/03/88

Results by Sample

SAMPLE ID 2nd col conf 04-37 FRACTION 02A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/25/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	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

RAS - Austin REPORT

Work Order # 88-05-006

Received: 05/03/88

Results by Sample

SAMPLE ID 2nd col conf 04-38 FRACTION 03A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/12/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/13/88 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 04-38 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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 04-38 FRACTION 03A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006

SAMPLE ID 2nd col conf 04-39 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 Category

ANALYST CL VERIFIED CL
INSTRMT B INJECTD 04/14/88 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: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-39 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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	4900	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 04-39 FRACTION 04A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006

SAMPLE ID 2nd col conf 04-40 FRACTION 05A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTED 04/25/88
FILE #
UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	8.3	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 04-40 FRACTION 05A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/12/88 Category

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

KADIAN CORPORATION

Received: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006

SAMPLE ID 2nd col conf 04-40 FRACTION 05A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 04/25/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	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.

RAS - Austin REPORT

Work Order # 88-05-006

Received: 05/03/88

Results by Sample

SAMPLE ID 2nd col conf 04-41 FRACTION 06A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTED 04/25/88

FILE #

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	0.8*	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	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: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-41

FRACTION 06A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/12/88 Category

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

RADIAN CORPORATION

RAS - Austin REPORT

Work Order # 88-05-006

Received: 05/03/88

Results by Sample

SAMPLE ID 2nd col conf 04-41 FRACTION Q6A TEST CODE XYLENE NAME Xylenes, EPA 602

Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW

INSTRMT D

INJECTD 04/25/88

FILE #

UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	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

 RAS - Austin REPORT Work Order # 88-05-006

Received: 05/03/88 Results by Sample

SAMPLE ID 2nd col conf 04-42 FRACTION 07A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/12/88 Category

ANALYST RW VERIFIED CL

INSTRMT B INJECTD 04/14/88 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	0.3*	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 04-42 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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	0.9*	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 04-42 FRACTION 07A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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: 05/03/88 Results by Sample

SAMPLE ID 2nd col conf 04-42 FRACTION 07A TEST CODE EPA602 NAME EPA method 602

Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW FILE #

INSTRMT D INJECTED 04/25/88 UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
71-43-2	Benzene	ND	0.2
108-88-3	Toluene	7.5	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	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: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-42

FRACTION 07A TEST CODE EPA602 NAME EPA method 602
Date & Time Collected 04/12/88 Category

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

Received: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006

SAMPLE ID 2nd col conf 04-42 FRACTION 07A TEST CODE XYLENE NAME Xylenes, EPA 602
Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW
INSTRMT D
INJECTD 04/25/88
FILE #
UNITS ug/L

CAS #	COMPOUND	RESULT	DET LIMIT
106-42-3	p-Xylene	ND	0.2
108-38-3	m-Xylene-A	ND	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: 05/03/88

RAS - Austin REPORT

Results by Sample

Work Order # 88-05-006

SAMPLE ID 2nd col conf 04-43

FRACTION 08A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/12/88

Category

ANALYST RW

INSTRMT B

INJECTD 04/13/88

FILE #

VERIFIED CL

UNITS ug/L

CAS#	COMPOUND	RESULT	DET LIMIT
74-87-3	Chloromethane	ND	7.5
74-83-9	Bromomethane	ND	30
75-01-4	Vinyl chloride	ND	5.0
75-00-3	Chloroethane	ND	13
75-09-2	Methylene chloride	ND	7.5
75-69-4	Trichlorofluoromethane	ND	2.5
75-35-4	1,1-Dichloroethene	ND	2.5
75-34-3	1,1-Dichloroethane	ND	2.3
156-60-5	trans-1,2-Dichloroethene	ND	5.0
67-66-3	Chloroform	ND	1.3
107-06-2	1,2-Dichloroethane	ND	0.75
71-55-6	1,1,1-Trichloroethane	ND	2.3
56-23-5	Carbon tetrachloride	ND	2.5
75-27-4	Bromodichloromethane	ND	2.5

Received: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-43 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 Category

CAS#	COMPOUND	RESULT	DET LIMIT
78-87-5	1,2-Dichloropropane-A	ND	2.5
10061-02-6	trans-1,3-Dichloropropene-A	ND	7.5
79-01-6	Trichloroethene	65	5.0
124-48-1	Dibromochloromethane-B	ND	5.0
79-00-5	1,1,2-Trichloroethane-B	ND	1.8
10061-01-5	cis-1,3-Dichloropropene-B	ND	N\A
110-75-8	2-Chloroethylvinyl ether	ND	5.0
75-25-2	Bromoform	ND	7.5
79-34-5	1,1,2,2-Tetrachloroethane-C	ND	3.0
127-18-4	Tetrachloroethene-C	ND	0.75
108-90-7	Chlorobenzene	ND	7.5
541-73-1	1,3-Dichlorobenzene	ND	7.5
95-50-1	1,2-Dichlorobenzene	ND	13
106-46-7	1,4-Dichlorobenzene	ND	10

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 04-43 FRACTION 08A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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 # 88-05-006

Received: 05/03/88

Results by Sample

SAMPLE ID 2nd col conf 04-45 FRACTION 09A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/12/88 Category

VERIFIED CL

ANALYST RW

INSTRMT B

INJECTD 04/13/88

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

RADIAN CORPORATION

Received: 05/03/88

RAS - Austin REPORT
Results by Sample

Work Order # 88-05-006
Continued From Above

SAMPLE ID 2nd col conf 04-45 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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	1100	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 04-45 FRACTION 09A TEST CODE EPA601 NAME EPA method 601
Date & Time Collected 04/12/88 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 # 88-05-006

Received: 05/03/88 Results by Sample

SAMPLE ID 2nd col conf 04-46 FRACTION 10A TEST CODE EPA601 NAME EPA method 601

Date & Time Collected 04/12/88 Category

ANALYST CL VERIFIED CL

INSTRMT B INJECTD 04/14/88 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

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE