HARDING LAWSON ASSOCIATES

CHAIN OF CUSTODY RECORD

PROJ NO.	PROJECT NAME
47588-4000	CASMALIA

SAMPLER *(Signature)*

Lab: BCL

Shipped on: 01/04/2002

Sample ID	Sample Date	Sample Time	Matrix	Station Location	NO. OF CON-TAINERS	Analyses	TAT	Comments
18616	01/03/2002	7:45	Liquids	A5-4th-Diversion-01	10	8260, 8270, 8150, 9012 ; Metals (Tot); 8290; Gen Min; pH; TDS	1 wk	
18617	01/03/2002	8:00	Liquids	PS-4th-Concrete-01	10	8260, 8270, 8150, 9012 ; Metals (Tot), 8290, Gen Min, TDS, pH	1 wk	
18618	01/03/2002	8:10	Liquids	PS-4th-Concrete-04	1	8260	1 wk	

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
	1-3-02 1442				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*

BC Laboratories, Inc.

Dioxins / Furans Analysis
(EPA Method 8290)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/15/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Project Number: 47588-4000
Sampling Location: CASMALIA
Sample ID: A5-4TH-DIVERSION-01
Sample Matrix: Water

Date Collected: 01/03/2002 @ 07:45
Date Extracted: 01/05/2002
Date Analyzed: 01/07/2002
Analyst: EWW

Constituents	Analysis Results	Reporting Units	P.Q.L.	M.D.L.	
2,3,7,8-TCDD	None Detected	pg/L	2.99	1.18	
Total tetra-CDDs	None Detected	pg/L	2.99	-.	
1,2,3,7,8-PeCDD	None Detected	pg/L	9.06	3.33	
Total penta-CDDs	None Detected	pg/L	9.06	-.	
1,2,3,4,7,8-HxCDD	None Detected	pg/L	8.27	8.95	
1,2,3,6,7,8-HxCDD	None Detected	pg/L	9.55	5.50	
1,2,3,7,8,9-HxCDD	None Detected	pg/L	8.33	6.88	
Total hexa-CDDs	None Detected	pg/L	8.72	-.	
1,2,3,4,6,7,8-HpCDD	None Detected	pg/L	6.58	4.24	
Total hepta-CDDs	None Detected	pg/L	8.72	-.	
1,2,3,4,6,7,8,9-OCDD	None Detected	pg/L	11.8	14.2	H
2,3,7,8-TCDF	None Detected	pg/L	5.00	1.10	H
Total tetra-CDFs	None Detected	pg/L	5.00	-.	
1,2,3,7,8-PeCDF	None Detected	pg/L	5.88	4.52	
2,3,4,7,8-PeCDF	None Detected	pg/L	5.36	4.09	
Total penta-CDFs	None Detected	pg/L	5.62	-.	
1,2,3,4,7,8-HxCDF	None Detected	pg/L	2.82	4.67	H
1,2,3,6,7,8-HxCDF	None Detected	pg/L	2.90	5.30	H
2,3,4,6,7,8-HxCDF	None Detected	pg/L	3.32	4.16	
1,2,3,7,8,9-HxCDF	None Detected	pg/L	3.85	6.34	H
Total hexa-CDFs	None Detected	pg/L	3.19	-.	
1,2,3,4,6,7,8-HpCDF	None Detected	pg/L	3.62	4.53	H
1,2,3,4,7,8,9-HpCDF	None Detected	pg/L	4.56	5.88	
Total hepta-CDFs	None Detected	pg/L	4.07	-.	
1,2,3,4,6,7,8,9-OCDF	None Detected	pg/L	8.98	9.29	

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).

Note: Sample analyzed by Alta Analytical Laboratory Inc. - Certification #1640

Flag Explanations:
H = The signal-to-noise ratio is greater than 10:1.
California D.C.H.S. Cert. #1186

Stuart C. Buttram
Department Supervisor

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4100 Atlas Court * Bakersfield, CA 93308 * (661)327-4911 * Fax(661)327-1918 * www.bclabs.com

Jan-24-02 14:38 From-BC Labs 6613271918 P.01/01 F-107 --37

BC Laboratories, Inc.

Volatile Organic Analysis
(EPA Method 8260)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/11/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Project Number: 47588-4000
Sampling Location: CASMALIA
Sample ID: A5-4TH-DIVERSION-01
Sample Matrix: Water

Date Collected: 01/03/2002 @ 07:45
Date Extracted: 01/09/2002
Date Analyzed: 01/09/2002 @ 02:16
Analyst: LAH
Dilution Used: 1
Instrument ID: GC/MSIns

Constituents	Analysis Results	Reporting Units	Method P.Q.L.	Method Detection Level	
Benzene	None Detected	µg/L	0.5	0.18	
Bromobenzene	None Detected	µg/L	0.5	0.13	
Bromochloromethane	None Detected	µg/L	0.5	0.30	
Bromodichloromethane	None Detected	µg/L	0.5	0.18	
Bromoform	None Detected	µg/L	0.5	0.15	
Bromomethane	None Detected	µg/L	1.	0.13	
n-Butylbenzene	None Detected	µg/L	0.5	0.095	
sec-Butylbenzene	None Detected	µg/L	0.5	0.15	
tert-Butylbenzene	None Detected	µg/L	0.5	0.14	
Carbon tetrachloride	None Detected	µg/L	0.5	0.20	
Chlorobenzene	None Detected	µg/L	0.5	0.16	
Chloroethane	None Detected	µg/L	0.5	0.23	
2-Chloroethylvinyl ether	None Detected	µg/L	10.	5.3	**
Chloroform	None Detected	µg/L	0.5	0.20	
Chloromethane	None Detected	µg/L	0.5	0.30	
2-Chlorotoluene	None Detected	µg/L	0.5	0.19	
1,2-Dibromo-3-Chloropropane	None Detected	µg/L	1.	0.38	
1,2-Dibromoethane	None Detected	µg/L	0.5	0.23	
Dibromomethane	None Detected	µg/L	0.5	0.23	
1,2-Dichlorobenzene	None Detected	µg/L	0.5	0.21	
1,3-Dichlorobenzene	None Detected	µg/L	0.5	0.17	
1,4-Dichlorobenzene	None Detected	µg/L	0.5	0.16	
Dichlorodifluoromethane	None Detected	µg/L	0.5	0.16	
1,1-Dichloroethane	None Detected	µg/L	0.5	0.15	
1,2-Dichloroethane	None Detected	µg/L	0.5	0.22	
1,1-Dichloroethene	None Detected	µg/L	0.5	0.20	
cis-1,2-Dichloroethene	None Detected	µg/L	0.5	0.24	
trans-1,2-Dichloroethene	None Detected	µg/L	0.5	0.23	
1,2-Dichloropropane	None Detected	µg/L	0.5	0.15	
cis-1,3-Dichloropropene	None Detected	µg/L	0.5	0.19	
trans-1,3-Dichloropropene	None Detected	µg/L	0.5	0.16	
Ethyl Benzene	None Detected	µg/L	0.5	0.15	
Hexachlorobutadiene	None Detected	µg/L	0.5	0.13	
Isopropylbenzene	None Detected	µg/L	0.5	0.11	
p-Isopropyltoluene	None Detected	µg/L	0.5	0.098	
Methylene Chloride	None Detected	µg/L	1.	0.20	
Naphthalene	None Detected	µg/L	0.5	0.12	
n-Propylbenzene	None Detected	µg/L	0.5	0.12	
Styrene	None Detected	µg/L	0.5	0.15	

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BC Laboratories, Inc.

Volatile Organic Analysis
(EPA Method 8260)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/11/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Sample Description: 47588-4000, CASMALIA, A5-4TH-DIVERSION-01, 01/03/2002 @ 07:45

Constituents	Analysis Results	Reporting Units	Method P.Q.L.	Method Detection Level	
1,1,1,2-Tetrachloroethane	None Detected	µg/L	0.5	0.16	
1,1,2,2-Tetrachloroethane	None Detected	µg/L	0.5	0.16	
Tetrachloroethene	None Detected	µg/L	0.5	0.16	
Toluene	None Detected	µg/L	0.5	0.14	
1,2,3-Trichlorobenzene	None Detected	µg/L	0.5	0.17	
1,2,4-Trichlorobenzene	None Detected	µg/L	0.5	0.13	
1,1,1-Trichloroethane	None Detected	µg/L	0.5	0.16	
1,1,2-Trichloroethane	None Detected	µg/L	0.5	0.26	
Trichloroethene	None Detected	µg/L	0.5	0.18	
Trichlorofluoromethane	None Detected	µg/L	0.5	0.17	
1,2,3-Trichloropropane	None Detected	µg/L	1.	0.26	
1,1,2-Trichloro-1,2,2-trifluoroethane	None Detected	µg/L	0.5	0.21	
1,2,4-Trimethylbenzene	None Detected	µg/L	0.5	0.14	
1,3,5-Trimethylbenzene	None Detected	µg/L	0.5	0.14	
Vinyl Chloride	None Detected	µg/L	0.5	0.19	
Total Xylenes	None Detected	µg/L	1.	0.42	
o-Xylene	None Detected	µg/L	0.5	0.12	
Acetone	None Detected	µg/L	20.	18.	
Acetonitrile	None Detected	µg/L	20.	7.8	
Acrolein	None Detected	µg/L	50.	25.	
Acrylonitrile	None Detected	µg/L	20.	2.0	
Carbon Disulfide	None Detected	µg/L	1.	0.28	
2-Chloro-1,3-butadiene	None Detected	µg/L	5.	0.28	
Chlorodibromomethane	None Detected	µg/L	0.5	0.19	
3-Chloropropylene	None Detected	µg/L	5.	0.21	
Cyclohexanone	None Detected	µg/L	200.	7.6	*
trans-1,4-Dichloro-2-butene	None Detected	µg/L	5.	1.1	
1,4-Dioxane	None Detected	µg/L	300.	60.	
Ethanol	None Detected	µg/L	1000.	430.	
2-Hexanone	None Detected	µg/L	20.	7.0	
Iodomethane	None Detected	µg/L	2.	0.67	
Isobutyl alcohol	None Detected	µg/L	50.	32.	
Isopropyl alcohol	None Detected	µg/L	100.	25.	
Methacrylonitrile	None Detected	µg/L	10.	2.8	
Methyl Ethyl Ketone	None Detected	µg/L	20.	16.	
Methyl Isobutyl Ketone	None Detected	µg/L	20.	6.5	
Methyl Methacrylate	None Detected	µg/L	5.	2.9	
Pentachloroethane	None Detected	µg/L	10.	0.68	***
Propionitrile	None Detected	µg/L	20.	7.8	
Tetrahydrofuran	None Detected	µg/L	20.	14.	
Vinyl acetate	None Detected	µg/L	20.	11.	

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BC Laboratories, Inc.

Volatile Organic Analysis
(EPA Method 8260)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/11/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Sample Description: 47588-4000, CASMALIA, A5-4TH-DIVERSION-01, 01/03/2002 @ 07:45

Quality Control Data

Surrogates	% Recovery	Control Limits
1,2-Dichloroethane-d4	100.	76-114
Toluene-d8	101.	88-110
4-Bromofluorobenzene	96.	86-115

Flag Explanations:
* = ICV criteria not met.
** = CCV recovery not within method limits.
Initial calibration linearity criteria not met.
*** = Initial calibration linearity criteria not met.
ICV criteira not met.
California D.O.H.S. Cert. #1186

Stuart G. Buttram
Department Supervisor

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BC Laboratories, Inc.

Base Neutral and Acid Extractables
Organic Analysis
(EPA Method 8270)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/14/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Project Number: 47588-4000
Sampling Location: CASMALIA
Sample ID: A5-4TH-DIVERSION-01
Sample Matrix: Water

Date Collected: 01/03/2002 @ 07:45
Date Extracted: 01/04/2002
Date Analyzed: 01/08/2002 @ 19:37
Analyst: SKC
Dilution Used: 1.18

Constituents	Analysis Results	Reporting Units	P.Q.L.	M.D.L.	
Acenaphthene	None Detected	µg/L	3.	1.1	
Acenaphthylene	None Detected	µg/L	3.	1.3	
Aniline	None Detected	µg/L	6.	0.94	
Anthracene	None Detected	µg/L	3.	1.3	
Benzo (a) anthracene	None Detected	µg/L	3.	0.74	
Benzo (b) fluoranthene	None Detected	µg/L	3.	1.5	
Benzo (k) fluoranthene	None Detected	µg/L	3.	0.84	
Benzo (a) pyrene	None Detected	µg/L	3.	1.1	
Benzo (ghi) perylene	None Detected	µg/L	3.	1.8	
Benzoic Acid	None Detected	µg/L	20.	11.	
Benzyl alcohol	None Detected	µg/L	3.	0.90	
bis(2-chloroethyl)ether	None Detected	µg/L	3.	1.1	*22
bis(2-chloroethoxy)methane	None Detected	µg/L	3.	0.92	*22
bis(2-chloro-1-methylethyl)	None Detected	µg/L	3.	0.93	*22
bis(2-ethylhexyl)phthalate	1.2	µg/L	6.	1.1	*02
4-Bromophenyl phenyl ether	None Detected	µg/L	3.	1.4	
4-Chloroaniline	None Detected	µg/L	3.	1.1	*22
2-Chloronaphthalene	None Detected	µg/L	3.	1.2	
4-Chlorophenyl phenyl ether	None Detected	µg/L	3.	1.3	
Chrysene	None Detected	µg/L	3.	1.1	
Dibenzo (a,h) anthracene	None Detected	µg/L	4.	1.8	
Dibenzofuran	None Detected	µg/L	3.	1.3	
Di-n-butyl phthalate	None Detected	µg/L	3.	1.3	
3,3-Dichlorobenzidine	None Detected	µg/L	20.	1.9	
Diethyl phthalate	None Detected	µg/L	3.	1.3	
Dimethyl phthalate	None Detected	µg/L	3.	0.94	
2,4-Dinitrotoluene	None Detected	µg/L	3.	1.1	
2,6-Dinitrotoluene	None Detected	µg/L	3.	1.2	
Di-n-octylphthalate	None Detected	µg/L	3.	0.85	
Fluoranthene	None Detected	µg/L	3.	1.3	
Fluorene	None Detected	µg/L	3.	1.4	
Hexachlorobenzene	None Detected	µg/L	3.	1.2	
Hexachlorocyclopentadiene	None Detected	µg/L	3.	0.41	
Hexachloroethane	None Detected	µg/L	3.	0.88	*22
Indeno (1,2,3-cd) pyrene	None Detected	µg/L	3.	1.5	
Isophorone	None Detected	µg/L	3.	1.2	*22
2-Methylnaphthalene	None Detected	µg/L	3.	1.2	
2-Naphthylamine	None Detected	µg/L	30.	2.1	*40

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BC Laboratories, Inc.

Base Neutral and Acid Extractables
Organic Analysis
(EPA Method 8270)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/14/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Sample Description: 47588-4000, CASMALIA, A5-4TH-DIVERSION-01, 01/03/2002 @ 07:45

Constituents	Analysis Results	Reporting Units	P.Q.L.	M.D.L.	
2-Nitroaniline	None Detected	µg/L	3.	1.1	
3-Nitroaniline	None Detected	µg/L	3.	1.4	
4-Nitroaniline	None Detected	µg/L	6.	1.1	
Nitrobenzene	None Detected	µg/L	3.	1.1	*22
n-Nitrosodimethylamine	None Detected	µg/L	3.	0.76	*22
n-Nitrosodiphenylamine	None Detected	µg/L	3.	1.2	
N-Nitrosodi-n-propylamine	None Detected	µg/L	3.	1.1	*22
Phenanthrene	None Detected	µg/L	3.	1.3	
Pyrene	None Detected	µg/L	3.	1.1	
4-Chloro-3-methylphenol	None Detected	µg/L	6.	0.96	
2-Chlorophenol	None Detected	µg/L	3.	1.1	
2,4-Dichlorophenol	None Detected	µg/L	3.	1.1	
2,4-Dimethylphenol	None Detected	µg/L	3.	0.93	
2,4-Dinitrophenol	None Detected	µg/L	20.	4.0	
2-Nitrophenol	None Detected	µg/L	3.	1.2	
4-Nitrophenol	None Detected	µg/L	3.	0.37	
Pentachlorophenol	None Detected	µg/L	20.	1.5	
Phenol	None Detected	µg/L	3.	0.65	
2,4,5-Trichlorophenol	None Detected	µg/L	6.	1.1	
2,4,6-Trichlorophenol	None Detected	µg/L	6.	1.1	
Acetophenone	None Detected	µg/L	20.	0.32	*22
2-Acetylaminofluorene	None Detected	µg/L	20.	0.42	
4-Aminobiphenyl	None Detected	µg/L	30.	0.77	
Aramite	None Detected	µg/L	20.	3.7	*03
n-Butyl benzyl phthalate	None Detected	µg/L	3.	1.1	
Chlorobenzilate	None Detected	µg/L	20.	0.36	
o-Cresol	None Detected	µg/L	3.	1.1	
m- & p-Cresol	None Detected	µg/L	3.	1.9	
Diallate	None Detected	µg/L	20.	0.37	
2,6-Dichlorophenol	None Detected	µg/L	20.	0.27	
Dimethoate	None Detected	µg/L	30.	7.5	
Dimethylaminoazobenzene	None Detected	µg/L	20.	0.24	
7,12-Dimethylbenz (a) anthracene	None Detected	µg/L	20.	0.85	
3,3'-Dimethylbenzidine	None Detected	µg/L	30.	8.7	
a,a-Dimethylphenethylamine	None Detected	µg/L	30.	5.7	
m-Dinitrobenzene	None Detected	µg/L	20.	0.22	
4,6-Dinitro-2-methylphenol	None Detected	µg/L	20.	2.2	
Diphenylamine	None Detected	µg/L	20.	0.19	
Disulfoton	None Detected	µg/L	20.	0.34	
Ethyl methacrylate	None Detected	µg/L	20.	0.14	*22
Ethyl methanesulfonate	None Detected	µg/L	20.	0.37	*22
Famphur	None Detected	µg/L	30.	2.2	
Hexachlorophene	None Detected	µg/L	300.	35.	*22
Hexachloropropene	None Detected	µg/L	30.	0.37	
Isodrin	None Detected	µg/L	20.	0.38	

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BC Laboratories, Inc.

Base Neutral and Acid Extractables
Organic Analysis
(EPA Method 8270)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/14/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Sample Description: 47588-4000, CASMALIA, A5-4TH-DIVERSION-01, 01/03/2002 @ 07:45

Constituents	Analysis Results	Reporting Units	P.Q.L.	M.D.L.	
Isosafrole	None Detected	µg/L	20.	0.74	*22
Kepone	None Detected	µg/L	30.	1.5	
Methapyrilene	None Detected	µg/L	20.	5.5	*03
3-Methylcholanthrene	None Detected	µg/L	20.	0.28	
Methyl methanesulfonate	None Detected	µg/L	20.	0.42	*22
Methyl parathion	None Detected	µg/L	20.	0.42	
1,4-Napthoquinone	None Detected	µg/L	30.	3.6	
1-Napthylamine	None Detected	µg/L	30.	2.90	
5-Nitro-o-toluidine	None Detected	µg/L	20.	0.33	
Nitroquinoline-1-oxide	None Detected	µg/L	30.	14.	
n-Nitrosodibutylamine	None Detected	µg/L	20.	0.35	*22
n-Nitrosodiethylamine	None Detected	µg/L	20.	0.39	*22
n-Nitrosomethylethylamine	None Detected	µg/L	20.	0.43	*22
n-Nitrosomorpholine	None Detected	µg/L	20.	0.20	*22
n-Nitrosopiperidine	None Detected	µg/L	20.	0.35	*22
n-Nitrosopyrrolidine	None Detected	µg/L	20.	0.25	*22
Parathion	None Detected	µg/L	20.	0.25	
Pentachlorobenzene	None Detected	µg/L	20.	0.27	
Pentachloronitrobenzene	None Detected	µg/L	20.	0.68	
Phenacetin	None Detected	µg/L	20.	0.17	
1,4-Phenylenediamine	None Detected	µg/L	30.	0.26	*22
Phorate	None Detected	µg/L	20.	0.25	
2-Picoline	None Detected	µg/L	20.	0.36	*22
Pronamide	None Detected	µg/L	20.	0.50	
Pyridine	None Detected	µg/L	20.	1.8	*22
Safrole	None Detected	µg/L	20.	0.26	
1,2,4,5-Tetrachlorobenzene	None Detected	µg/L	20.	0.38	
2,3,4,6-Tetrachlorophenol	None Detected	µg/L	20.	0.45	
Tetraethyldithiopyro-phosphate	None Detected	µg/L	20.	0.23	
Thionazin	None Detected	µg/L	20.	0.19	
o-Toluidine	None Detected	µg/L	20.	0.52	*22
0,0,0-Triethyl phosphorothioate	None Detected	µg/L	20.	0.30	*22
1,3,5-Trinitrobenzene	None Detected	µg/L	20.	0.34	

Quality Control Data

Surrogates	% Recovery	Control Limits	
2-Fluorophenol	68.	21-100	
Phenol-d5	51.	10-94	
Nitrobenzene-d5	34.	35-114	*21
2-Fluorobiphenyl	72.	43-116	
2,4,6-Tribromophenol	97.	10-123	

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BC Laboratories, Inc.

Base Neutral and Acid Extractables
Organic Analysis
(EPA Method 8270)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/14/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Sample Description: 47588-4000, CASMALIA, A5-4TH-DIVERSION-01, 01/03/2002 @ 07:45

Quality Control Data

Surrogates	% Recovery	Control Limits
d14-Terphenyl	70.	33-141

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
M.D.L. = Method Detection Limit

Flag Explanations:
*02 = Sample result is between the MDL and PQL.
*03 = CCV recovery not within method limits.
*21 = Surrogate recovery not within established limits.
*22 = Associated surrogate recovery is low.
*40 = Initial calibration linearity criteria not met.

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Stuart G. Buttram
Department Supervisor

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BC Laboratories, Inc.

Chlorinated Herbicides
(EPA Method 8150)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/11/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Project Number: 47588-4000
Sampling Location: CASMALIA
Sample ID: A5-4TH-DIVERSION-01
Sample Matrix: Water

Date Collected: 01/03/2002 @ 07:45
Date Extracted: 01/04/2002
Date Analyzed: 01/09/2002 @ 05:13
Analyst: KMS
Dilution Used: 1

Constituents	Analysis Results	Reporting Units	P.Q.L.	M.D.L.	
2,4-D	None Detected	µg/L	0.4	0.16	
Dicamba	None Detected	µg/L	0.08	0.020	
Dichloroprop	0.17	µg/L	0.5	0.12	*02
Dinoseb	None Detected	µg/L	0.2	0.052	
2,4,5-T	None Detected	µg/L	0.09	0.032	
2,4,5-TP (Silvex)	None Detected	µg/L	0.07	0.024	

Quality Control Data

Surrogates	% Recovery	Control Limits
2,4-Dichlorophenylacetic acid	27.	62-170

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
M.D.L. = Method Detection Limit

Flag Explanations:
*02 = Sample result is between the MDL and PQL.

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Stuart G. Buttram
Department Supervisor

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BC Laboratories, Inc.

WATER ANALYSIS
(METALS)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG PASTANO 916-364-0793

Date Reported: 01/11/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Project Number: 47588-4000
Sampling Location: CASMALIA
Sample ID: A5-4TH-DIVERSION-01
Sampling Date/Time: 01/03/2002 @ 07:45

Constituents		Results	Units	P.Q.L.	M.D.L.	Method	Date Prepared	Date Analyzed
Total Antimony	*01	None Detected	µg/L	10.	0.60	EPA-200.8	01/07/02	01/09/02
Total Arsenic	*05	20	µg/L	5.0	0.85	EPA-200.8	01/07/02	01/09/02
Total Barium	*06	30.	µg/L	50.	5.	EPA-6010	01/07/02	01/08/02
Total Beryllium	*01	None Detected	µg/L	50	1.6	EPA-6010	01/07/02	01/08/02
Total Cadmium	*01	None Detected	µg/L	50	20	EPA-6010	01/07/02	01/08/02
Total Chromium	*01	None Detected	µg/L	50.	20.	EPA-6010	01/07/02	01/08/02
Total Cobalt	*01	None Detected	µg/L	250	7.	EPA-6010	01/07/02	01/08/02
Total Copper	*01	None Detected	µg/L	50.	20.	EPA-6010	01/07/02	01/08/02
Total Lead	*06	1.0	µg/L	5.0	0.28	EPA-200.8	01/07/02	01/09/02
Total Mercury		None Detected	µg/L	0.2	0.1	EPA-7470	01/07/02	01/08/02
Total Molybdenum	*06	40.	µg/L	250.	20	EPA-6010	01/07/02	01/08/02
Total Nickel		200.	µg/L	50.	20.	EPA-6010	01/07/02	01/08/02
Total Selenium		71	µg/L	5.0	1.3	EPA-200.8	01/07/02	01/09/02
Total Silver	*01	None Detected	µg/L	50.	20	EPA-6010	01/08/02	01/08/02
Total Tin	*01	None Detected	µg/L	5.0	0.27	EPA-200.8	01/07/02	01/07/02
Total Thallium	*06	0.58	µg/L	5.0	0.28	EPA-200.8	01/09/02	01/09/02
Total Vanadium		None Detected	µg/L	50	20	EPA-6010	01/08/02	01/08/02
Total Zinc	**	7.5	µg/L	250.	4.5	EPA-6010	01/08/02	01/08/02

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
M.D.L. = Method Detection Limit

Flag Explanations:
** = Note: PQL and MDL are raised due to matrix interferences. Sample result is between the MDL and PQL. Method blank for Zinc detected at 4.3 µg/L.
*01 = Note: PQL's and MDL's are raised due to matrix interferences.
*05 = Sample precision is not within established limits.
*06 = Note: PQL and MDL are raised due to matrix interferences. Sample result is between the MDL and PQL.

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Dan Schultz
Laboratory Director

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BC Laboratories, Inc.

WATER ANALYSIS
(GENERAL CHEMISTRY)

HARDING LAWSON ASSOCIATES
10265 ROCKINGHAM DRIVE
SUITE 150
SACRAMENTO, CA 95827
Attn: GREG FASIANO 916-364-0793

Date Reported: 01/17/2002
Date Received: 01/03/2002
Laboratory No.: 02-00119-1

Project Number: 47588-4000
Sampling Location: CASMALIA
Sample ID: A5-4TH-DIVERSION-01
Sampling Date/Time: 01/03/2002 @ 07:45

Constituents		Results	Units	P.Q.L.	M.D.L.	Method	Date Prepared	Date Analyzed
Total Calcium		620.	mg/L	0.25	0.07	EPA-6010	01/07/02	01/08/02
Total Magnesium		630.	mg/L	0.25	0.08	EPA-6010	01/07/02	01/08/02
Total Sodium		1300.	mg/L	2.5	0.4	EPA-6010	01/07/02	01/08/02
Total Potassium		25.	mg/L	5	0.6	EPA-6010	01/07/02	01/08/02
Hydroxide Alkalinity as CaCO3		None Detected	mg/L	10	10	EPA-310.1	01/09/02	01/09/02
Carbonate Alkalinity as CaCO3		None Detected	mg/L	10	10	EPA-310.1	01/09/02	01/09/02
Bicarbonate Alkalinity as CaCO3		289.	mg/L	10	10	EPA-310.1	01/09/02	01/09/02
Sulfate		2730.	mg/L	10.	2.5	EPA-300.0	01/04/02	01/04/02
Chloride		3140.	mg/L	5	0.90	EPA-300.0	01/04/02	01/04/02
Nitrate as NO3	*06	3.0	mg/L	4.4	0.90	EPA-300.0	01/04/02	01/04/02
Nitrate as N	*06	0.69	mg/L	1.	0.20	EPA-300.0	01/04/02	01/04/02
Fluoride		1.7	mg/L	0.5	0.20	EPA-300.0	01/04/02	01/04/02
Bromide		240.	mg/L	5	4	EPA-300.0	01/04/02	01/04/02
pH		8.15	pH Units	-	-	EPA-9040	01/04/02	01/04/02
Total Dissolved Solids @ 180 C		9000.	mg/L	500.	300	EPA-160.1	01/07/02	01/07/02
Alkalinity as CaCO3		289.	mg/L	10	10	EPA-310.1	01/09/02	01/09/02
Total Cyanide	*02	0.0094	mg/L	0.02	0.0063	SW-9012	01/10/02	01/10/02

P.Q.L. = Practical Quantitation Limit (refers to the least amount of analyte quantifiable based on sample size used and analytical technique employed).
M.D.L. = Method Detection Limit

Flag Explanations:
*02 = Sample result is between the MDL and PQL.
*06 = Note: PQL and MDL are raised due to matrix interferences. Sample result is between the MDL and PQL.

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M. Atencio

Marna Atencio
Department Supervisor

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