

CE Schmidt, Ph.D.
Environmental Consultant

ATTACHMENT C

LABORATORY REPORTS

Phase I- Downhole Flux Testing

Phase II- Bucket Control/Control Agent Testing

Phase IV- Lagoon Testing/Control Agent Testing

Phase VIII- Pit F Downhole Flux Testing/Control Agent Testing

Phases I, II, IV, and VIII - Odor Testing

CE Schmidt, Ph.D.
Environmental Consultant

ATTACHMENT C

LABORATORY REPORTS

Phase I- Downhole Flux Testing

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS, INC.	Date of Report:	04/08/04
Address:	2100 Main Street, Suite 150	Date Received:	03/17/04
	Huntington Beach, CA 92648	CAS Project No:	P2400531
Contact:	Mr. Mike Reardon	Purchase Order:	SB0202/31
Client Project ID: Ascon/SB0202			

Nine (9) 1.0 Liter Canisters labeled:

"PNL-15-100DHF"	"PNL-2-15DHF"	"PNL-15-12DHF"	"PNL-13-12DHF"
"PNL-12-100DHF"	"PNL-12-15DHF"	"PNL-12-15RDHF"	"PNL-5A-11DHF"
"PNL-3-21DHF"			

The samples were received at the laboratory under chain of custody on March 17, 2004. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

C1 through C6 Hydrocarbon Analysis


The samples were analyzed per modified EPA Method TO-3 for C₁ through >C₆ hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID).

Reviewed and Approved:



Chris Parnell
GCMS-VOA Team Leader
Air Quality Laboratory

Reviewed and Approved:



Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

CAS Project No: P2400531

Volatile Organic Compound Analysis

The samples were also analyzed by combined gas chromatography/mass spectrometry (GC/MS) for selected volatile organic compounds and tentatively identified compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of a Hewlett Packard Model 5972 GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-15-100DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
CAS Sample ID : P2400531-001

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00003

Date Collected: 3/15/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.8 Pf 1 = 10.0

D.F. = 1.59

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.80	
C ₂ as Ethane	ND	0.80	
C ₃ as Propane	ND	0.80	
C ₄ as n-Butane	ND	0.80	
C ₅ as n-Pentane	ND	0.80	
C ₆ as n-Hexane	ND	0.80	
C ₆ + as n-Hexane	ND	1.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/15/04
RG

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-2-15DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
CAS Sample ID : P2400531-002

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00002

Date Collected: 3/15/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.3 Pf 1 = 10.0

D.F. = 1.65

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	600	0.82	
C ₂ as Ethane	ND	0.82	
C ₃ as Propane	ND	0.82	
C ₄ as n-Butane	ND	0.82	
C ₅ as n-Pentane	ND	0.82	
C ₆ as n-Hexane	ND	0.82	
C ₆ + as n-Hexane	2.0	1.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-15-12DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
CAS Sample ID : P2400531-003

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00001

Date Collected: 3/15/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0

Pf 1 = 10.0

D.F. = 1.68

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	1,600	0.84	
C ₂ as Ethane	ND	0.84	
C ₃ as Propane	ND	0.84	
C ₄ as n-Butane	0.84	0.84	
C ₅ as n-Pentane	1.1	0.84	
C ₆ as n-Hexane	ND	0.84	
C ₆ ⁺ as n-Hexane	11	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-13-12DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
 CAS Sample ID : P2400531-004

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00004

Date Collected: 3/15/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.1 Pf 1 = 10.0

D.F. = 1.67

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	1,200	0.83	
C ₂ as Ethane	ND	0.83	
C ₃ as Propane	ND	0.83	
C ₄ as n-Butane	3.3	0.83	
C ₅ as n-Pentane	4.8	0.83	
C ₆ as n-Hexane	5.4	0.83	
C ₆ ⁺ as n-Hexane	100	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-100DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
 CAS Sample ID : P2400531-005

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00018

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.4

Pf 1 = 10.1

D.F. = 1.64

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.82	
C ₂ as Ethane	ND	0.82	
C ₃ as Propane	ND	0.82	
C ₄ as n-Butane	ND	0.82	
C ₅ as n-Pentane	ND	0.82	
C ₆ as n-Hexane	ND	0.82	
C ₆ + as n-Hexane	ND	1.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-15DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
CAS Sample ID : P2400531-006

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00017

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0 Pf 1 = 10.0

D.F. = 1.68

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	750	0.84	
C ₂ as Ethane	ND	0.84	
C ₃ as Propane	ND	0.84	
C ₄ as n-Butane	ND	0.84	
C ₅ as n-Pentane	ND	0.84	
C ₆ as n-Hexane	ND	0.84	
C ₆ ⁺ as n-Hexane	23	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-15RDHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
 CAS Sample ID : P2400531-007

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00016

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.0 Pf 1 = 10.5

D.F. = 1.71

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	140	0.86	
C ₂ as Ethane	ND	0.86	
C ₃ as Propane	ND	0.86	
C ₄ as n-Butane	ND	0.86	
C ₅ as n-Pentane	ND	0.86	
C ₆ as n-Hexane	ND	0.86	
C ₆ ⁺ as n-Hexane	12	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R.G. Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-5A-11DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
 CAS Sample ID : P2400531-008

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00020

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.1

Pf 1 = 10.2

D.F. = 1.68

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	380	0.84	
C ₂ as Ethane	ND	0.84	
C ₃ as Propane	ND	0.84	
C ₄ as n-Butane	ND	0.84	
C ₅ as n-Pentane	ND	0.84	
C ₆ as n-Hexane	ND	0.84	
C ₆ ⁺ as n-Hexane	2.1	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-3-21DHF
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
 CAS Sample ID : P2400531-009

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00019

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 3/18/04
Volume(s) Analyzed: 0.1 ml

Pi 1 = 0.3 Pf 1 = 10.2

D.F. = 1.66

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	240,000	8.3	
C ₂ as Ethane	41	8.3	
C ₃ as Propane	390	8.3	
C ₄ as n-Butane	800	8.3	
C ₅ as n-Pentane	530	8.3	
C ₆ as n-Hexane	280	8.3	
C ₆ + as n-Hexane	1,400	17	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon/SB0202

CAS Project ID : P2400531
 CAS Sample ID : P040318-MB

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Regan Lau
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 3/18/04
Volume(s) Analyzed: 1.0 ml

D.F. = 1.00

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.50	
C ₂ as Ethane	ND	0.50	
C ₃ as Propane	ND	0.50	
C ₄ as n-Butane	ND	0.50	
C ₅ as n-Pentane	ND	0.50	
C ₆ as n-Hexane	ND	0.50	
C ₆ + as n-Hexane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-15-100DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00003

Date Collected: 3/15/04
Date Received: 3/17/04
Date(s) Analyzed: 3/29/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.8 Pf 1 = 10.0

D.F. = 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	2.0	ND	0.96	
75-01-4	Vinyl Chloride	ND	2.0	ND	0.78	
106-99-0	1,3-Butadiene	ND	2.0	ND	0.90	
74-83-9	Bromomethane	ND	2.0	ND	0.51	
75-00-3	Chloroethane	ND	2.0	ND	0.75	
67-64-1	Acetone	ND	20	ND	8.4	
75-69-4	Trichlorofluoromethane	ND	2.0	ND	0.35	
107-13-1	Acrylonitrile	ND	2.0	ND	0.92	
75-35-4	1,1-Dichloroethene	ND	2.0	ND	0.50	
75-09-2	Methylene chloride	ND	2.0	ND	0.57	
76-13-1	Trichlorotrifluoroethane	ND	2.0	ND	0.26	
75-15-0	Carbon Disulfide	ND	2.0	ND	0.64	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ND	0.50	
75-34-3	1,1-Dichloroethane	ND	2.0	ND	0.49	
1634-04-4	Methyl tert-Butyl Ether	ND	2.0	ND	0.55	
108-05-4	Vinyl Acetate	ND	2.0	ND	0.56	
78-93-3	2-Butanone (MEK)	ND	2.0	ND	0.67	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ND	0.50	
67-66-3	Chloroform	ND	2.0	ND	0.41	
107-06-2	1,2-Dichloroethane	ND	2.0	ND	0.49	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ND	0.36	
71-43-2	Benzene	ND	2.0	ND	0.62	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
 Client Sample ID: PNL-15-100DHF
 Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
 CAS Sample ID: P2400531-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto
 Sampling Media: 1.0 Liter Canister
 Test Notes:
 Container ID: 1SC00003

Date Collected: 3/15/04
 Date Received: 3/17/04
 Date(s) Analyzed: 3/29/04
 Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.8 Pf 1 = 10.0

D.F. = 1.59

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	2.0	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	2.0	ND	0.43	
75-27-4	Bromodichloromethane	ND	2.0	ND	0.30	
79-01-6	Trichloroethene	ND	2.0	ND	0.37	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ND	0.44	
108-10-1	4-Methyl-2-pentanone	ND	2.0	ND	0.49	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ND	0.44	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ND	0.36	
108-88-3	Toluene	ND	2.0	ND	0.53	
591-78-6	2-Hexanone	ND	2.0	ND	0.49	
124-48-1	Dibromochloromethane	ND	2.0	ND	0.23	
106-93-4	1,2-Dibromoethane	ND	2.0	ND	0.26	
127-18-4	Tetrachloroethene	ND	2.0	ND	0.29	
108-90-7	Chlorobenzene	ND	2.0	ND	0.43	
100-41-4	Ethylbenzene	ND	2.0	ND	0.46	
136777-61-2	m,p-Xylenes	ND	4.0	ND	0.92	
75-25-2	Bromoform	ND	2.0	ND	0.19	
100-42-5	Styrene	ND	2.0	ND	0.47	
95-47-6	o-Xylene	ND	2.0	ND	0.46	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ND	0.33	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ND	0.33	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ND	0.33	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC

Date: 4/5/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.

Client Sample ID: PNL-15-100DHF

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P2400531-001

Tentatively Identified Compounds

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Michelle Sakamoto

Sampling Media: 1.0 Liter Canister

Test Notes:

Container ID: 1SC00003

Date Collected: 3/15/04

Date Received: 3/17/04

Date Analyzed: 3/29/04

Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.8

Pf 1 = 10.0

D.F. = 1.59

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-2-15DHF**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P2400531-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Chris Parnell/Wade Henton
 Sampling Media: 1.0 Liter Canister
 Test Notes:
 Container ID: 1SC00002

Date Collected: 3/15/04
 Date Received: 3/17/04
 Date(s) Analyzed: 4/1/04
 Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.3 Pf 1 = 10.0

D.F. = 1.65

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	2.1	ND	1.0	
75-01-4	Vinyl Chloride	ND	2.1	ND	0.81	
106-99-0	1,3-Butadiene	ND	2.1	ND	0.93	
74-83-9	Bromomethane	ND	2.1	ND	0.53	
75-00-3	Chloroethane	ND	2.1	ND	0.78	
67-64-1	Acetone	45	21	19	8.7	
75-69-4	Trichlorofluoromethane	ND	2.1	ND	0.37	
107-13-1	Acrylonitrile	ND	2.1	ND	0.95	
75-35-4	1,1-Dichloroethene	ND	2.1	ND	0.52	
75-09-2	Methylene chloride	ND	2.1	ND	0.59	
76-13-1	Trichlorotrifluoroethane	ND	2.1	ND	0.27	
75-15-0	Carbon Disulfide	4.8	2.1	1.6	0.66	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	ND	0.52	
75-34-3	1,1-Dichloroethane	ND	2.1	ND	0.51	
1634-04-4	Methyl tert-Butyl Ether	ND	2.1	ND	0.57	
108-05-4	Vinyl Acetate	ND	2.1	ND	0.59	
78-93-3	2-Butanone (MEK)	10	2.1	3.4	0.70	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	ND	0.52	
67-66-3	Chloroform	ND	2.1	ND	0.42	
107-06-2	1,2-Dichloroethane	ND	2.1	ND	0.51	
71-55-6	1,1,1-Trichloroethane	ND	2.1	ND	0.38	
71-43-2	Benzene	ND	2.1	ND	0.65	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RGDate: 4/5/04

Page No.:

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-2-15DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00002

Date Collected: 3/15/04
Date Received: 3/17/04
Date(s) Analyzed: 4/1/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.3 Pf 1 = 10.0

D.F. = 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	2.1	ND	0.33	
78-87-5	1,2-Dichloropropane	ND	2.1	ND	0.45	
75-27-4	Bromodichloromethane	ND	2.1	ND	0.31	
79-01-6	Trichloroethene	ND	2.1	ND	0.38	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	ND	0.45	
108-10-1	4-Methyl-2-pentanone	ND	2.1	ND	0.50	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	ND	0.45	
79-00-5	1,1,2-Trichloroethane	ND	2.1	ND	0.38	
108-88-3	Toluene	ND	2.1	ND	0.55	
591-78-6	2-Hexanone	ND	2.1	ND	0.50	
124-48-1	Dibromochloromethane	ND	2.1	ND	0.24	
106-93-4	1,2-Dibromoethane	ND	2.1	ND	0.27	
127-18-4	Tetrachloroethene	ND	2.1	ND	0.30	
108-90-7	Chlorobenzene	ND	2.1	ND	0.45	
100-41-4	Ethylbenzene	ND	2.1	ND	0.48	
136777-61-2	m,p-Xylenes	ND	4.1	ND	0.95	
75-25-2	Bromoform	ND	2.1	ND	0.20	
100-42-5	Styrene	ND	2.1	ND	0.48	
95-47-6	o-Xylene	ND	2.1	ND	0.48	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ND	0.30	
541-73-1	1,3-Dichlorobenzene	ND	2.1	ND	0.34	
106-46-7	1,4-Dichlorobenzene	ND	2.1	ND	0.34	
95-50-1	1,2-Dichlorobenzene	ND	2.1	ND	0.34	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC

Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-2-15DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-002

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes: T
Container ID: 1SC00002

Date Collected: 3/15/04
Date Received: 3/17/04
Date Analyzed: 4/1/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.3

Pf 1 = 10.0

D.F. = 1.65

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
4.85	Propane + Carbonyl Sulfide	70	
5.26	Isobutane	400	
5.58	n-Butane	70	
6.65	Isopentane	100	
8.07	2,2-Dimethylbutane	80	
8.92	2,3-Dimethylbutane	400	
11.21	2,4-Dimethylpentane	200	
12.89	2,3-Dimethylpentane	300	
15.39	Trimethylcyclopentane Isomer	200	
16.16	Trimethylcyclopentane Isomer	600	
17.83	Tetramethylcyclopentane Isomer	100	
18.95	Tetramethylcyclopentane Isomer	500	
20.34	Unidentified	100	
20.84	Unidentified	100	
22.74	C ₁₀ H ₂₀ Compound	200	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-15-12DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00001

Date Collected: 3/15/04
Date Received: 3/17/04
Date(s) Analyzed: 4/2/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.0

Pf 1 = 10.0

D.F. = 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	4.2	ND	2.0	
75-01-4	Vinyl Chloride	ND	4.2	ND	1.6	
106-99-0	1,3-Butadiene	13	4.2	6.1	1.9	
74-83-9	Bromomethane	ND	4.2	ND	1.1	
75-00-3	Chloroethane	ND	4.2	ND	1.6	
67-64-1	Acetone	ND	42	ND	18	
75-69-4	Trichlorofluoromethane	ND	4.2	ND	0.75	
107-13-1	Acrylonitrile	ND	4.2	ND	1.9	
75-35-4	1,1-Dichloroethene	ND	4.2	ND	1.1	
75-09-2	Methylene chloride	ND	4.2	ND	1.2	
76-13-1	Trichlorotrifluoroethane	ND	4.2	ND	0.55	
75-15-0	Carbon Disulfide	6.0	4.2	1.9	1.3	
156-60-5	trans-1,2-Dichloroethene	ND	4.2	ND	1.1	
75-34-3	1,1-Dichloroethane	ND	4.2	ND	1.0	
1634-04-4	Methyl tert-Butyl Ether	ND	4.2	ND	1.2	
108-05-4	Vinyl Acetate	ND	4.2	ND	1.2	
78-93-3	2-Butanone (MEK)	14	4.2	4.9	1.4	
156-59-2	cis-1,2-Dichloroethene	ND	4.2	ND	1.1	
67-66-3	Chloroform	ND	4.2	ND	0.86	
107-06-2	1,2-Dichloroethane	ND	4.2	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	4.2	ND	0.77	
71-43-2	Benzene	130	4.2	41	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-15-12DHF**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P2400531-003

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Chris Parnell/Wade Henton
 Sampling Media: 1.0 Liter Canister
 Test Notes:
 Container ID: 1SC00001

Date Collected: 3/15/04
 Date Received: 3/17/04
 Date(s) Analyzed: 4/2/04
 Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.0 Pf 1 = 10.0

D.F. = 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	4.2	ND	0.67	
78-87-5	1,2-Dichloropropane	ND	4.2	ND	0.91	
75-27-4	Bromodichloromethane	ND	4.2	ND	0.63	
79-01-6	Trichloroethene	ND	4.2	ND	0.78	
10061-01-5	cis-1,3-Dichloropropene	ND	4.2	ND	0.93	
108-10-1	4-Methyl-2-pentanone	ND	4.2	ND	1.0	
10061-02-6	trans-1,3-Dichloropropene	ND	4.2	ND	0.93	
79-00-5	1,1,2-Trichloroethane	ND	4.2	ND	0.77	
108-88-3	Toluene	86	4.2	23	1.1	
591-78-6	2-Hexanone	ND	4.2	ND	1.0	
124-48-1	Dibromochloromethane	ND	4.2	ND	0.49	
106-93-4	1,2-Dibromoethane	ND	4.2	ND	0.55	
127-18-4	Tetrachloroethene	ND	4.2	ND	0.62	
108-90-7	Chlorobenzene	ND	4.2	ND	0.91	
100-41-4	Ethylbenzene	140	4.2	32	0.97	
136777-61-2	m,p-Xylenes	160	8.4	38	1.9	
75-25-2	Bromoform	ND	4.2	ND	0.41	
100-42-5	Styrene	ND	4.2	ND	0.99	
95-47-6	o-Xylene	100	4.2	24	0.97	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.2	ND	0.61	
541-73-1	1,3-Dichlorobenzene	ND	4.2	ND	0.70	
106-46-7	1,4-Dichlorobenzene	ND	4.2	ND	0.70	
95-50-1	1,2-Dichlorobenzene	ND	4.2	ND	0.70	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R6 Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-15-12DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-003

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes: T
Container ID: 1SC00001

Date Collected: 3/15/04
Date Received: 3/17/04
Date Analyzed: 4/2/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.0

Pf 1 = 10.0

D.F. = 1.68

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
5.62	n-Butane	700	
6.70	Isopentane	900	
7.20	n-Pentane	800	
9.09	2-Methylpentane	600	
11.24	Methylcyclopentane	900	
13.59	Dimethylcyclopentane Isomer	600	
13.72	Dimethylcyclopentane Isomer	600	
13.84	Dimethylcyclopentane Isomer	900	
15.39	Methylcyclohexane	800	
16.22	Trimethylcyclopentane Isomer	600	
16.58	Trimethylcyclopentane Isomer	800	
17.99	Dimethylcyclohexane Isomer	600	
20.51	Trimethylcyclohexane Isomer	900	
23.40	C ₉ H ₁₆ Compound	500	
23.62	C ₁₀ H ₂₂ Branched Alkane	500	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RW Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-13-12DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00004

Date Collected: 3/15/04
Date Received: 3/17/04
Date(s) Analyzed: 3/31/04
Volume(s) Analyzed: 0.010 Liter(s)

Pi 1 = 0.1 Pf 1 = 10.0

D.F. = 1.67

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	84	ND	40	
75-01-4	Vinyl Chloride	ND	84	ND	33	
106-99-0	1,3-Butadiene	ND	84	ND	38	
74-83-9	Bromomethane	ND	84	ND	22	
75-00-3	Chloroethane	ND	84	ND	32	
67-64-1	Acetone	ND	840	ND	350	
75-69-4	Trichlorofluoromethane	ND	84	ND	15	
107-13-1	Acrylonitrile	ND	84	ND	38	
75-35-4	1,1-Dichloroethene	ND	84	ND	21	
75-09-2	Methylene chloride	ND	84	ND	24	
76-13-1	Trichlorotrifluoroethane	ND	84	ND	11	
75-15-0	Carbon Disulfide	ND	84	ND	27	
156-60-5	trans-1,2-Dichloroethene	ND	84	ND	21	
75-34-3	1,1-Dichloroethane	ND	84	ND	21	
1634-04-4	Methyl tert-Butyl Ether	ND	84	ND	23	
108-05-4	Vinyl Acetate	ND	84	ND	24	
78-93-3	2-Butanone (MEK)	ND	84	ND	28	
156-59-2	cis-1,2-Dichloroethene	ND	84	ND	21	
67-66-3	Chloroform	ND	84	ND	17	
107-06-2	1,2-Dichloroethane	ND	84	ND	21	
71-55-6	1,1,1-Trichloroethane	ND	84	ND	15	
71-43-2	Benzene	580	84	180	26	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.

Client Sample ID: PNL-13-12DHF

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P2400531-004

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Michelle Sakamoto

Sampling Media: 1.0 Liter Canister

Test Notes:

Container ID: 1SC00004

Date Collected: 3/15/04

Date Received: 3/17/04

Date(s) Analyzed: 3/31/04

Volume(s) Analyzed: 0.010 Liter(s)

Pi 1 = 0.1

Pf 1 = 10.0

D.F. = 1.67

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	84	ND	13	
78-87-5	1,2-Dichloropropane	ND	84	ND	18	
75-27-4	Bromodichloromethane	ND	84	ND	12	
79-01-6	Trichloroethene	ND	84	ND	16	
10061-01-5	cis-1,3-Dichloropropene	ND	84	ND	18	
108-10-1	4-Methyl-2-pentanone	ND	84	ND	20	
10061-02-6	trans-1,3-Dichloropropene	ND	84	ND	18	
79-00-5	1,1,2-Trichloroethane	ND	84	ND	15	
108-88-3	Toluene	1,300	84	360	22	
591-78-6	2-Hexanone	ND	84	ND	20	
124-48-1	Dibromochloromethane	ND	84	ND	9.8	
106-93-4	1,2-Dibromoethane	ND	84	ND	11	
127-18-4	Tetrachloroethene	ND	84	ND	12	
108-90-7	Chlorobenzene	ND	84	ND	18	
100-41-4	Ethylbenzene	940	84	220	19	
136777-61-2	m,p-Xylenes	2,200	170	510	38	
75-25-2	Bromoform	ND	84	ND	8.1	
100-42-5	Styrene	ND	84	ND	20	
95-47-6	o-Xylene	1,400	84	320	19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	84	ND	12	
541-73-1	1,3-Dichlorobenzene	ND	84	ND	14	
106-46-7	1,4-Dichlorobenzene	ND	84	ND	14	
95-50-1	1,2-Dichlorobenzene	ND	84	ND	14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-13-12DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-004

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes: T
Container ID: 1SC00004

Date Collected: 3/15/04
Date Received: 3/17/04
Date Analyzed: 3/31/04
Volume(s) Analyzed: 0.010 Liter(s)

Pi 1 = 0.1 Pf 1 = 10.0

D.F. = 1.67

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
6.66	Isopentane	6,000	
7.18	n-Pentane	5,000	
11.19	Methylcyclopentane	9,000	
13.55	Dimethylcyclopentane Isomer	7,000	
13.68	Dimethylcyclopentane Isomer	6,000	
13.79	Dimethylcyclopentane Isomer	9,000	
15.34	Methylcyclohexane	9,000	
16.17	Trimethylcyclopentane Isomer	6,000	
16.52	Trimethylcyclopentane Isomer	9,000	
17.94	Dimethylcyclohexane Isomer	7,000	
18.83	Dimethylcyclohexane Isomer	4,000	
20.47	Trimethylcyclohexane Isomer	10,000	
23.35	C ₁₀ H ₂₂ Branched Alkane + Unidentified Compound	5,000	
23.60	C ₁₀ H ₂₂ Branched Alkane	5,000	
24.46	C ₁₀ H ₂₀ Compound	4,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RU Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-12-100DHF**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P2400531-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto
 Sampling Media: 1.0 Liter Canister
 Test Notes:
 Container ID: 1SC00018

Date Collected: 3/16/04
 Date Received: 3/17/04
 Date(s) Analyzed: 3/30/04
 Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.4 PF 1 = 10.1

D.F. = 1.64

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	2.1	ND	0.99	
75-01-4	Vinyl Chloride	ND	2.1	ND	0.80	
106-99-0	1,3-Butadiene	ND	2.1	ND	0.93	
74-83-9	Bromomethane	ND	2.1	ND	0.53	
75-00-3	Chloroethane	ND	2.1	ND	0.78	
67-64-1	Acetone	ND	21	ND	8.6	
75-69-4	Trichlorofluoromethane	ND	2.1	ND	0.37	
107-13-1	Acrylonitrile	ND	2.1	ND	0.95	
75-35-4	1,1-Dichloroethene	ND	2.1	ND	0.52	
75-09-2	Methylene chloride	ND	2.1	ND	0.59	
76-13-1	Trichlorotrifluoroethane	ND	2.1	ND	0.27	
75-15-0	Carbon Disulfide	ND	2.1	ND	0.66	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	ND	0.52	
75-34-3	1,1-Dichloroethane	ND	2.1	ND	0.51	
1634-04-4	Methyl tert-Butyl Ether	ND	2.1	ND	0.57	
108-05-4	Vinyl Acetate	ND	2.1	ND	0.58	
78-93-3	2-Butanone (MEK)	ND	2.1	ND	0.70	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	ND	0.52	
67-66-3	Chloroform	ND	2.1	ND	0.42	
107-06-2	1,2-Dichloroethane	ND	2.1	ND	0.51	
71-55-6	1,1,1-Trichloroethane	ND	2.1	ND	0.38	
71-43-2	Benzene	ND	2.1	ND	0.64	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.

Client Sample ID: PNL-12-100DHF

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P2400531-005

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Michelle Sakamoto

Sampling Media: 1.0 Liter Canister

Test Notes:

Container ID: 1SC00018

Date Collected: 3/16/04

Date Received: 3/17/04

Date(s) Analyzed: 3/30/04

Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.4

Pf 1 = 10.1

D.F. = 1.64

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	2.1	ND	0.33	
78-87-5	1,2-Dichloropropane	ND	2.1	ND	0.44	
75-27-4	Bromodichloromethane	ND	2.1	ND	0.31	
79-01-6	Trichloroethene	ND	2.1	ND	0.38	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	ND	0.45	
108-10-1	4-Methyl-2-pentanone	ND	2.1	ND	0.50	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	ND	0.45	
79-00-5	1,1,2-Trichloroethane	ND	2.1	ND	0.38	
108-88-3	Toluene	ND	2.1	ND	0.54	
591-78-6	2-Hexanone	ND	2.1	ND	0.50	
124-48-1	Dibromochloromethane	ND	2.1	ND	0.24	
106-93-4	1,2-Dibromoethane	ND	2.1	ND	0.27	
127-18-4	Tetrachloroethene	ND	2.1	ND	0.30	
108-90-7	Chlorobenzene	ND	2.1	ND	0.45	
100-41-4	Ethylbenzene	ND	2.1	ND	0.47	
136777-61-2	m,p-Xylenes	ND	4.1	ND	0.94	
75-25-2	Bromoform	ND	2.1	ND	0.20	
100-42-5	Styrene	ND	2.1	ND	0.48	
95-47-6	o-Xylene	ND	2.1	ND	0.47	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ND	0.30	
541-73-1	1,3-Dichlorobenzene	ND	2.1	ND	0.34	
106-46-7	1,4-Dichlorobenzene	ND	2.1	ND	0.34	
95-50-1	1,2-Dichlorobenzene	ND	2.1	ND	0.34	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-100DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-005

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00018

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 3/30/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.4

Pf 1 = 10.1

D.F. = 1.64

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-15DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00017

Date Collected: 3/16/04
Date Received: 3/17/04
Date(s) Analyzed: 4/2/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.0 Pf 1 = 10.0

D.F. = 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	8.4	ND	4.1	
75-01-4	Vinyl Chloride	ND	8.4	ND	3.3	
106-99-0	1,3-Butadiene	ND	8.4	ND	3.8	
74-83-9	Bromomethane	ND	8.4	ND	2.2	
75-00-3	Chloroethane	ND	8.4	ND	3.2	
67-64-1	Acetone	ND	84	ND	35	
75-69-4	Trichlorofluoromethane	ND	8.4	ND	1.5	
107-13-1	Acrylonitrile	ND	8.4	ND	3.9	
75-35-4	1,1-Dichloroethene	ND	8.4	ND	2.1	
75-09-2	Methylene chloride	ND	8.4	ND	2.4	
76-13-1	Trichlorotrifluoroethane	ND	8.4	ND	1.1	
75-15-0	Carbon Disulfide	ND	8.4	ND	2.7	
156-60-5	trans-1,2-Dichloroethene	ND	8.4	ND	2.1	
75-34-3	1,1-Dichloroethane	ND	8.4	ND	2.1	
1634-04-4	Methyl tert-Butyl Ether	ND	8.4	ND	2.3	
108-05-4	Vinyl Acetate	ND	8.4	ND	2.4	
78-93-3	2-Butanone (MEK)	9.2	8.4	3.1	2.8	
156-59-2	cis-1,2-Dichloroethene	ND	8.4	ND	2.1	
67-66-3	Chloroform	ND	8.4	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	8.4	ND	2.1	
71-55-6	1,1,1-Trichloroethane	ND	8.4	ND	1.5	
71-43-2	Benzene	57	8.4	18	2.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-15DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00017

Date Collected: 3/16/04
Date Received: 3/17/04
Date(s) Analyzed: 4/2/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.0

Pf 1 = 10.0

D.F. = 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	8.4	ND	1.3	
78-87-5	1,2-Dichloropropane	ND	8.4	ND	1.8	
75-27-4	Bromodichloromethane	ND	8.4	ND	1.3	
79-01-6	Trichloroethene	ND	8.4	ND	1.6	
10061-01-5	cis-1,3-Dichloropropene	ND	8.4	ND	1.9	
108-10-1	4-Methyl-2-pentanone	ND	8.4	ND	2.1	
10061-02-6	trans-1,3-Dichloropropene	ND	8.4	ND	1.9	
79-00-5	1,1,2-Trichloroethane	ND	8.4	ND	1.5	
108-88-3	Toluene	15	8.4	3.9	2.2	
591-78-6	2-Hexanone	ND	8.4	ND	2.1	
124-48-1	Dibromochloromethane	ND	8.4	ND	0.99	
106-93-4	1,2-Dibromoethane	ND	8.4	ND	1.1	
127-18-4	Tetrachloroethene	ND	8.4	ND	1.2	
108-90-7	Chlorobenzene	ND	8.4	ND	1.8	
100-41-4	Ethylbenzene	230	8.4	52	1.9	
136777-61-2	m,p-Xylenes	98	17	22	3.9	
75-25-2	Bromoform	ND	8.4	ND	0.81	
100-42-5	Styrene	ND	8.4	ND	2.0	
95-47-6	o-Xylene	30	8.4	6.8	1.9	
79-34-5	1,1,2,2-Tetrachloroethane	ND	8.4	ND	1.2	
541-73-1	1,3-Dichlorobenzene	ND	8.4	ND	1.4	
106-46-7	1,4-Dichlorobenzene	ND	8.4	ND	1.4	
95-50-1	1,2-Dichlorobenzene	ND	8.4	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-15DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-006

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes: T
Container ID: 1SC00017

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 4/2/04
Volume(s) Analyzed: 0.10 Liter(s)

Pi 1 = 0.0

Pf 1 = 10.0

D.F. = 1.68

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
13.71	Dimethylcyclopentane Isomer	800	
13.84	Dimethylcyclopentane Isomer	900	
15.39	Methylcyclohexane	900	
15.45	Trimethylcyclopentane Isomer	700	
16.22	Trimethylcyclopentane Isomer	1,000	
16.57	Trimethylcyclopentane Isomer	1,000	
17.99	Dimethylcyclohexane	1,000	
18.57	Methyl Ethyl Cyclopentane Isomer	700	
18.88	Dimethylcyclohexane	700	
19.00	C ₉ H ₁₈ Substituted Cyclopentane Isomer	700	
20.52	Trimethylcyclohexane	1,000	
20.89	C ₉ H ₁₈ Compound	700	
21.08	Trimethylcyclohexane Isomer	700	
23.39	C ₉ H ₁₆ Compound	900	
24.49	C ₁₀ H ₂₀ Substituted Cyclohexane Isomer	700	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.

Client Sample ID: PNL-12-15RDHF

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P2400531-007

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Chris Parnell/Wade Henton

Sampling Media: 1.0 Liter Canister

Test Notes:

Container ID: 1SC00016

Date Collected: 3/16/04

Date Received: 3/17/04

Date(s) Analyzed: 4/2/04

Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.0

Pf 1 = 10.5

D.F. = 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	4.3	ND	2.1	
75-01-4	Vinyl Chloride	ND	4.3	ND	1.7	
106-99-0	1,3-Butadiene	ND	4.3	ND	1.9	
74-83-9	Bromomethane	ND	4.3	ND	1.1	
75-00-3	Chloroethane	ND	4.3	ND	1.6	
67-64-1	Acetone	ND	43	ND	18	
75-69-4	Trichlorofluoromethane	ND	4.3	ND	0.76	
107-13-1	Acrylonitrile	ND	4.3	ND	2.0	
75-35-4	1,1-Dichloroethene	ND	4.3	ND	1.1	
75-09-2	Methylene chloride	ND	4.3	ND	1.2	
76-13-1	Trichlorotrifluoroethane	ND	4.3	ND	0.56	
75-15-0	Carbon Disulfide	ND	4.3	ND	1.4	
156-60-5	trans-1,2-Dichloroethene	ND	4.3	ND	1.1	
75-34-3	1,1-Dichloroethane	ND	4.3	ND	1.1	
1634-04-4	Methyl tert-Butyl Ether	ND	4.3	ND	1.2	
108-05-4	Vinyl Acetate	ND	4.3	ND	1.2	
78-93-3	2-Butanone (MEK)	6.2	4.3	2.1	1.5	
156-59-2	cis-1,2-Dichloroethene	ND	4.3	ND	1.1	
67-66-3	Chloroform	ND	4.3	ND	0.88	
107-06-2	1,2-Dichloroethane	ND	4.3	ND	1.1	
71-55-6	1,1,1-Trichloroethane	ND	4.3	ND	0.78	
71-43-2	Benzene	22	4.3	6.8	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL

Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-12-15RDHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Chris Parnell/Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00016

Date Collected: 3/16/04
Date Received: 3/17/04
Date(s) Analyzed: 4/2/04
Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.0 Pf 1 = 10.5

D.F. = 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	4.3	ND	0.68	
78-87-5	1,2-Dichloropropane	ND	4.3	ND	0.93	
75-27-4	Bromodichloromethane	ND	4.3	ND	0.64	
79-01-6	Trichloroethene	ND	4.3	ND	0.80	
10061-01-5	cis-1,3-Dichloropropene	ND	4.3	ND	0.94	
108-10-1	4-Methyl-2-pentanone	ND	4.3	ND	1.0	
10061-02-6	trans-1,3-Dichloropropene	ND	4.3	ND	0.94	
79-00-5	1,1,2-Trichloroethane	ND	4.3	ND	0.78	
108-88-3	Toluene	7.2	4.3	1.9	1.1	
591-78-6	2-Hexanone	ND	4.3	ND	1.0	
124-48-1	Dibromochloromethane	ND	4.3	ND	0.50	
106-93-4	1,2-Dibromoethane	ND	4.3	ND	0.56	
127-18-4	Tetrachloroethene	ND	4.3	ND	0.63	
108-90-7	Chlorobenzene	ND	4.3	ND	0.93	
100-41-4	Ethylbenzene	120	4.3	28	0.98	
136777-61-2	m,p-Xylenes	51	8.6	12	2.0	
75-25-2	Bromoform	ND	4.3	ND	0.41	
100-42-5	Styrene	ND	4.3	ND	1.0	
95-47-6	o-Xylene	16	4.3	3.8	0.98	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.3	ND	0.62	
541-73-1	1,3-Dichlorobenzene	ND	4.3	ND	0.71	
106-46-7	1,4-Dichlorobenzene	ND	4.3	ND	0.71	
95-50-1	1,2-Dichlorobenzene	ND	4.3	ND	0.71	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
 Client Sample ID: PNL-12-15RDHF
 Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
 CAS Sample ID: P2400531-007

Tentatively Identified Compounds

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Chris Parnell/Wade Henton
 Sampling Media: 1.0 Liter Canister
 Test Notes: T
 Container ID: 1SC00016

Date Collected: 3/16/04
 Date Received: 3/17/04
 Date Analyzed: 4/2/04
 Volume(s) Analyzed: 0.20 Liter(s)

Pi 1 = 0.0

Pf 1 = 10.5

D.F. = 1.71

GC / MS Ret. Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
13.71	Dimethylcyclopentane Isomer	400	
13.84	Dimethylcyclopentane Isomer	400	
15.39	Methylcyclohexane	400	
15.45	Trimethylcyclopentane Isomer	300	
16.22	Trimethylcyclopentane Isomer	500	
16.57	Trimethylcyclopentane Isomer	600	
17.99	Dimethylcyclohexane	500	
18.57	Methyl Ethyl Cyclopentane Isomer	300	
18.88	Dimethylcyclohexane	500	
19.00	C ₉ H ₁₈ Substituted Cyclopentane Isomer	300	
20.52	Trimethylcyclohexane	300	
20.89	C ₉ H ₁₈ Compound	300	
21.08	Trimethylcyclohexane Isomer	400	
23.39	C ₉ H ₁₆ Compound	500	
24.49	C ₁₀ H ₂₀ Substituted Cyclohexane Isomer	400	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RL Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.

Client Sample ID: PNL-5A-11DHF

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P2400531-008

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Michelle Sakamoto

Sampling Media: 1.0 Liter Canister

Test Notes:

Container ID: 1SC00020

Date Collected: 3/16/04

Date Received: 3/17/04

Date(s) Analyzed: 3/30/04

Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.1

Pf 1 = 10.2

D.F. = 1.68

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	2.1	ND	1.0	
75-01-4	Vinyl Chloride	ND	2.1	ND	0.82	
106-99-0	1,3-Butadiene	ND	2.1	ND	0.95	
74-83-9	Bromomethane	ND	2.1	ND	0.54	
75-00-3	Chloroethane	ND	2.1	ND	0.80	
67-64-1	Acetone	ND	21	ND	8.8	
75-69-4	Trichlorofluoromethane	ND	2.1	ND	0.37	
107-13-1	Acrylonitrile	ND	2.1	ND	0.97	
75-35-4	1,1-Dichloroethene	ND	2.1	ND	0.53	
75-09-2	Methylene chloride	ND	2.1	ND	0.60	
76-13-1	Trichlorotrifluoroethane	ND	2.1	ND	0.27	
75-15-0	Carbon Disulfide	2.1	2.1	0.69	0.67	
156-60-5	trans-1,2-Dichloroethene	ND	2.1	ND	0.53	
75-34-3	1,1-Dichloroethane	ND	2.1	ND	0.52	
1634-04-4	Methyl tert-Butyl Ether	ND	2.1	ND	0.58	
108-05-4	Vinyl Acetate	ND	2.1	ND	0.60	
78-93-3	2-Butanone (MEK)	8.2	2.1	2.8	0.71	
156-59-2	cis-1,2-Dichloroethene	ND	2.1	ND	0.53	
67-66-3	Chloroform	ND	2.1	ND	0.43	
107-06-2	1,2-Dichloroethane	ND	2.1	ND	0.52	
71-55-6	1,1,1-Trichloroethane	ND	2.1	ND	0.39	
71-43-2	Benzene	3.1	2.1	1.0	0.66	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG

Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-5A-11DHF**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P2400531-008

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto
 Sampling Media: 1.0 Liter Canister
 Test Notes:
 Container ID: 1SC00020

Date Collected: 3/16/04
 Date Received: 3/17/04
 Date(s) Analyzed: 3/30/04
 Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.1 Pf 1 = 10.2

D.F. = 1.68

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	2.1	ND	0.33	
78-87-5	1,2-Dichloropropane	ND	2.1	ND	0.45	
75-27-4	Bromodichloromethane	ND	2.1	ND	0.31	
79-01-6	Trichloroethene	ND	2.1	ND	0.39	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	ND	0.46	
108-10-1	4-Methyl-2-pentanone	ND	2.1	ND	0.51	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	ND	0.46	
79-00-5	1,1,2-Trichloroethane	ND	2.1	ND	0.39	
108-88-3	Toluene	3.0	2.1	0.80	0.56	
591-78-6	2-Hexanone	ND	2.1	ND	0.51	
124-48-1	Dibromochloromethane	ND	2.1	ND	0.25	
106-93-4	1,2-Dibromoethane	ND	2.1	ND	0.27	
127-18-4	Tetrachloroethene	ND	2.1	ND	0.31	
108-90-7	Chlorobenzene	ND	2.1	ND	0.46	
100-41-4	Ethylbenzene	2.5	2.1	0.58	0.48	
136777-61-2	m,p-Xylenes	4.3	4.2	1.0	0.97	
75-25-2	Bromoform	ND	2.1	ND	0.20	
100-42-5	Styrene	ND	2.1	ND	0.49	
95-47-6	o-Xylene	2.8	2.1	0.64	0.48	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	ND	0.31	
541-73-1	1,3-Dichlorobenzene	ND	2.1	ND	0.35	
106-46-7	1,4-Dichlorobenzene	ND	2.1	ND	0.35	
95-50-1	1,2-Dichlorobenzene	ND	2.1	ND	0.35	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.

Client Sample ID: PNL-5A-11DHF

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P2400531-008

Tentatively Identified Compounds

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Michelle Sakamoto

Sampling Media: 1.0 Liter Canister

Test Notes: T

Container ID: 1SC00020

Date Collected: 3/16/04

Date Received: 3/17/04

Date Analyzed: 3/30/04

Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.1

Pf 1 = 10.2

D.F. = 1.68

GC / MS Ret. Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
25.65	C ₁₁ H ₂₄ Branched Alkane + Unidentified Compound	200	
25.71	C ₁₁ H ₂₄ Branched Alkane	200	
25.97	C ₁₂ H ₂₆ Branched Alkane + Unidentified Compound	200	
26.15	C ₁₂ H ₂₆ Branched Alkane	200	
26.45	C ₁₁ H ₂₂ Compound	200	
26.52	C ₁₂ H ₂₆ Branched Alkane	200	
26.59	C ₁₂ H ₂₆ Branched Alkane	200	
26.67	Decahydronaphthalene Isomer	300	
26.94	C ₁₂ H ₂₆ Branched Alkane + Unidentified Compound	200	
27.05	C ₁₃ H ₂₈ Branched Alkane + Unidentified Cyclic Compound	200	
27.11	C ₁₃ H ₂₈ Branched Alkane + Unidentified Compound	200	
27.27	C ₁₃ H ₂₈ Branched Alkane + Unidentified Cyclic Compound	200	
27.60	C ₁₃ H ₂₈ Branched Alkane + Unidentified Compound	200	
27.67	Decahydromethylnaphthalene Isomer	300	
27.96	Decahydromethylnaphthalene Isomer	300	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RK Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-3-21DHF**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P2400531-009

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto
 Sampling Media: 1.0 Liter Canister
 Test Notes:
 Container ID: 1SC00019

Date Collected: 3/16/04
 Date Received: 3/17/04
 Date(s) Analyzed: 3/31/04
 Volume(s) Analyzed: 0.0015 Liter(s)

Pi 1 = 0.3

Pf 1 = 10.2

D.F. = 1.66

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	550	ND	270	
75-01-4	Vinyl Chloride	ND	550	ND	220	
106-99-0	1,3-Butadiene	ND	550	ND	250	
74-83-9	Bromomethane	ND	550	ND	140	
75-00-3	Chloroethane	ND	550	ND	210	
67-64-1	Acetone	ND	5,500	ND	2,300	
75-69-4	Trichlorofluoromethane	ND	550	ND	99	
107-13-1	Acrylonitrile	ND	550	ND	260	
75-35-4	1,1-Dichloroethene	ND	550	ND	140	
75-09-2	Methylene chloride	ND	550	ND	160	
76-13-1	Trichlorotrifluoroethane	ND	550	ND	72	
75-15-0	Carbon Disulfide	ND	550	ND	180	
156-60-5	trans-1,2-Dichloroethene	ND	550	ND	140	
75-34-3	1,1-Dichloroethane	ND	550	ND	140	
1634-04-4	Methyl tert-Butyl Ether	ND	550	ND	150	
108-05-4	Vinyl Acetate	ND	550	ND	160	
78-93-3	2-Butanone (MEK)	ND	550	ND	190	
156-59-2	cis-1,2-Dichloroethene	ND	550	ND	140	
67-66-3	Chloroform	ND	550	ND	110	
107-06-2	1,2-Dichloroethane	ND	550	ND	140	
71-55-6	1,1,1-Trichloroethane	ND	550	ND	100	
71-43-2	Benzene	12,000	550	3,900	170	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: Ru Date: 4/6/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-3-21DHF
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P2400531-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes:
Container ID: 1SC00019

Date Collected: 3/16/04
Date Received: 3/17/04
Date(s) Analyzed: 3/31/04
Volume(s) Analyzed: 0.0015 Liter(s)

Pi 1 = 0.3 Pf 1 = 10.2

D.F. = 1.66

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	550	ND	88	
78-87-5	1,2-Dichloropropane	ND	550	ND	120	
75-27-4	Bromodichloromethane	ND	550	ND	83	
79-01-6	Trichloroethene	ND	550	ND	100	
10061-01-5	cis-1,3-Dichloropropene	ND	550	ND	120	
108-10-1	4-Methyl-2-pentanone	ND	550	ND	140	
10061-02-6	trans-1,3-Dichloropropene	ND	550	ND	120	
79-00-5	1,1,2-Trichloroethane	ND	550	ND	100	
108-88-3	Toluene	4,800	550	1,300	150	
591-78-6	2-Hexanone	ND	550	ND	140	
124-48-1	Dibromochloromethane	ND	550	ND	65	
106-93-4	1,2-Dibromoethane	ND	550	ND	72	
127-18-4	Tetrachloroethene	ND	550	ND	82	
108-90-7	Chlorobenzene	ND	550	ND	120	
100-41-4	Ethylbenzene	5,600	550	1,300	130	
136777-61-2	m,p-Xylenes	16,000	1,100	3,700	250	
75-25-2	Bromoform	ND	550	ND	54	
100-42-5	Styrene	ND	550	ND	130	
95-47-6	o-Xylene	6,100	550	1,400	130	
79-34-5	1,1,2,2-Tetrachloroethane	ND	550	ND	81	
541-73-1	1,3-Dichlorobenzene	ND	550	ND	92	
106-46-7	1,4-Dichlorobenzene	ND	550	ND	92	
95-50-1	1,2-Dichlorobenzene	ND	550	ND	92	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.

Client Sample ID: PNL-3-21DHF

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P2400531-009

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes: T
Container ID: 1SC00019

Date Collected: 3/16/04
Date Received: 3/17/04
Date Analyzed: 3/31/04
Volume(s) Analyzed: 0.0015 Liter(s)

Pi 1 = 0.3

Pf 1 = 10.2

D.F. = 1.66

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
5.28	Isobutane	100,000	
5.61	n-Butane	100,000	
6.69	Isopentane	200,000	
7.20	n-Pentane	100,000	
8.96	Cyclopentane	90,000	
9.06	2-Methylpentane	100,000	
9.54	3-Methylpentane	100,000	
10.11	n-Hexane	200,000	
11.21	Methylcyclopentane	100,000	
13.56	Dimethylcyclopentane Isomer	100,000	
13.69	Dimethylcyclopentane Isomer	100,000	
13.81	Dimethylcyclopentane Isomer	100,000	
15.35	Methylcyclohexane	100,000	
16.53	Trimethylcyclopentane Isomer	100,000	
20.47	Trimethylcyclohexane Isomer	80,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC

Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **Method Blank**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P040329-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto
 Sampling Media: 1.0 Liter Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 3/29/04
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.

Client Sample ID: Method Blank

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P040329-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Michelle Sakamoto

Sampling Media: 1.0 Liter Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date(s) Analyzed: 3/29/04

Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RGDate: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P040329-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 3/29/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **Method Blank**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P040331-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto
 Sampling Media: 1.0 Liter Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 3/31/04
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.

Client Sample ID: Method Blank

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P040331-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Michelle Sakamoto

Sampling Media: 1.0 Liter Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date(s) Analyzed: 3/31/04

Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RCDate: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P040331-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 3/31/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
	No Compounds Detected		

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **Method Blank**
 Client Project ID: **Ascon/SB0202**

CAS Project ID: P2400531
 CAS Sample ID: P040401-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Wade Henton
 Sampling Media: 1.0 Liter Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 4/1/04
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.

Client Sample ID: Method Blank

Client Project ID: Ascon/SB0202

CAS Project ID: P2400531

CAS Sample ID: P040401-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2

Analyst: Wade Henton

Sampling Media: 1.0 Liter Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date(s) Analyzed: 4/1/04

Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 4/5/04

Page No.:

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon/SB0202

CAS Project ID: P2400531
CAS Sample ID: P040401-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/1/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
	No Compounds Detected		

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2400531
Project: Ascon/SB0202
Sample(s) received on: 3/17/04 Date opened: 3/17/04 by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		<u>Yes</u>	<u>No</u>	<u>N/A</u>
1	Were custody seals on outside of cooler/Box?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Location of seal(s)? _____ Sealing Lid?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were signature and date included?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were custody seals on outside of sample container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Location of seal(s)? _____ Sealing Lid?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were signature and date included?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Were sample containers properly marked with client sample ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Did sample containers arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Were chain-of-custody papers used and filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Did sample container labels and/or tags agree with custody papers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Was sample volume received adequate for analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Are samples within specified holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Was proper temperature (thermal preservation) of cooler at receipt adhered to?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Cooler Temperature <u>NA</u> °C			
	Blank Temperature <u>NA</u> °C			
9	Is pH (acid) preservation necessary, according to method/SOP or Client specified information?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Is there a client indication that the submitted samples are pH (acid) preserved?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were VOA vials checked for presence/absence of air bubbles?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Tubes: Are the tubes capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Do they contain moisture?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Badges: Are the badges properly capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Are dual bed badges separated and individually capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2400531-001			NA	
P2400531-002			NA	
P2400531-003			NA	
P2400531-004			NA	
P2400531-005			NA	
P2400531-006			NA	
P2400531-007			NA	
P2400531-008			NA	
P2400531-009			NA	

Explain any discrepancies: (include lab sample ID numbers): _____

LABORATORY REPORT

Client:	GEOSYNTEC CONSULTANTS, INC.	Date of Report:	05/28/04
Address:	2100 Main Street, Suite 150	Date Received:	05/07/04
	Huntington Beach, CA 92648	CAS Project No:	P2400974
Contact:	Mr. Mike Reardon	Purchase Order:	SB0202/31
Client Project ID: Ascon - Phase I/SB0202/31			

Eleven (11) 1.0 Liter Canisters labeled:

"PNL-1-15-DHF"
"PNL-11-12 DHF"
"PNL-6-15-RDHF"
"PNL-8-6-DHF"

"PNL-14-21-DHF"
"PNL-10A-13 DHF"
"PNL-9-15-DHF"
"PNL-8-18-DHF"

"PNL-7-21-DHF"
"PNL-6-15-DHF"
"PNL-9-21-BDHF"

The samples were received at the laboratory under chain of custody on May 7, 2004. The samples were received intact. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time that they were received at the laboratory.

C1 through C6 Hydrocarbon Analysis

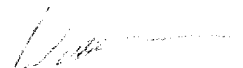
The samples were analyzed per modified EPA Method TO-3 for C₁ through >C₆ hydrocarbons using a gas chromatograph equipped with a flame ionization detector (FID).

Reviewed and Approved:



Michelle Sakamoto
Analytical Chemist
Air Quality Laboratory

Reviewed and Approved:



Wade Henton
GC-VOA Team Leader
Air Quality Laboratory

CAS Project No: P2400974

Volatile Organic Compound Analysis

The samples were also analyzed by combined gas chromatography/mass spectrometry (GC/MS) for volatile organic compounds and tentatively identified compounds. The analyses were performed according to the methodology outlined in EPA Method TO-15. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of a Hewlett Packard Model 5972 GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT_x-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data sheets. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-1-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
 CAS Sample ID : P2400974-001

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/3/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 0.250 ml

Pi 1 = -0.1 Pf 1 = 10.0

D.F. = 1.69

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	21,000	3.4	
C ₂ as Ethane	30	3.4	
C ₃ as Propane	93	3.4	
C ₄ as n-Butane	160	3.4	
C ₅ as n-Pentane	140	3.4	
C ₆ as n-Hexane	110	3.4	
C ₆ + as n-Hexane	1,700	6.8	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: 126 Date: 5/25/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-14-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
 CAS Sample ID : P2400974-002

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/3/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 0.250 ml

Pi 1 = -0.3 Pf 1 = 10.0

D.F. = 1.72

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	170,000	3.4	
C ₂ as Ethane	11	3.4	
C ₃ as Propane	54	3.4	
C ₄ as n-Butane	240	3.4	
C ₅ as n-Pentane	240	3.4	
C ₆ as n-Hexane	170	3.4	
C ₆ + as n-Hexane	1,800	6.9	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/25/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-7-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
 CAS Sample ID : P2400974-003

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/3/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 0.250 ml

Pi 1 = -0.1 Pf 1 = 10.0

D.F. = 1.69

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	170,000	3.4	
C ₂ as Ethane	7.6	3.4	
C ₃ as Propane	8.9	3.4	
C ₄ as n-Butane	100	3.4	
C ₅ as n-Pentane	140	3.4	
C ₆ as n-Hexane	100	3.4	
C ₆ + as n-Hexane	1,300	6.8	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RW Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-7-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P2400974-003DUP

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/3/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 0.250 ml

Pi 1 = -0.1 Pf 1 = 10.0

D.F. = 1.69

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	180,000	3.4	
C ₂ as Ethane	7.7	3.4	
C ₃ as Propane	9.4	3.4	
C ₄ as n-Butane	100	3.4	
C ₅ as n-Pentane	140	3.4	
C ₆ as n-Hexane	97	3.4	
C ₆ + as n-Hexane	1,400	6.8	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-11-12 DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
 CAS Sample ID : P2400974-004

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/4/04
Date Received: 5/7/04
Date Analyzed: 5/13/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	5.8	0.85	
C ₂ as Ethane	ND	0.85	
C ₃ as Propane	ND	0.85	
C ₄ as n-Butane	ND	0.85	
C ₅ as n-Pentane	ND	0.85	
C ₆ as n-Hexane	ND	0.85	
C ₆ + as n-Hexane	7.5	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-11-12 DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P2400974-004DUP

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/4/04
Date Received: 5/7/04
Date Analyzed: 5/13/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	6.1	0.85	
C ₂ as Ethane	ND	0.85	
C ₃ as Propane	ND	0.85	
C ₄ as n-Butane	ND	0.85	
C ₅ as n-Pentane	ND	0.85	
C ₆ as n-Hexane	ND	0.85	
C ₆ + as n-Hexane	8.0	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RLG Date: 5/25/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-10A-13 DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P2400974-005

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/4/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.5

Pf 1 = 10.0

D.F. = 1.63

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	1,700	0.81	
C ₂ as Ethane	ND	0.81	
C ₃ as Propane	ND	0.81	
C ₄ as n-Butane	ND	0.81	
C ₅ as n-Pentane	ND	0.81	
C ₆ as n-Hexane	ND	0.81	
C ₆ + as n-Hexane	5.1	1.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-6-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
 CAS Sample ID : P2400974-006

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/5/04
 Date Received: 5/7/04
 Date Analyzed: 5/11/04
 Volume(s) Analyzed: 0.250 ml

Pi 1 = 0.6 Pf 1 = 10.0

D.F. = 1.61

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	56,000	3.2	
C ₂ as Ethane	3.3	3.2	
C ₃ as Propane	ND	3.2	
C ₄ as n-Butane	13	3.2	
C ₅ as n-Pentane	13	3.2	
C ₆ as n-Hexane	7.4	3.2	
C ₆ + as n-Hexane	81	6.5	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-6-15-RDHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P2400974-007

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 0.250 ml

Pi 1 = 0.5

Pf 1 = 10.0

D.F. = 1.63

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	35,000	3.3	
C ₂ as Ethane	ND	3.3	
C ₃ as Propane	ND	3.3	
C ₄ as n-Butane	7.1	3.3	
C ₅ as n-Pentane	8.1	3.3	
C ₆ as n-Hexane	4.6	3.3	
C ₆ + as n-Hexane	37	6.5	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
 CAS Sample ID : P2400974-008

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 0.250 ml

Pi 1 = 0.2 Pf 1 = 10.0

D.F. = 1.66

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	6,600	3.3	
C ₂ as Ethane	ND	3.3	
C ₃ as Propane	ND	3.3	
C ₄ as n-Butane	ND	3.3	
C ₅ as n-Pentane	9.3	3.3	
C ₆ as n-Hexane	6.2	3.3	
C ₆ + as n-Hexane	50	6.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: 126 Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-21-BDHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P2400974-009

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 1.2

Pf 1 = 10.0

D.F. = 1.55

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	0.90	0.78	
C ₂ as Ethane	ND	0.78	
C ₃ as Propane	ND	0.78	
C ₄ as n-Butane	ND	0.78	
C ₅ as n-Pentane	ND	0.78	
C ₆ as n-Hexane	ND	0.78	
C ₆ + as n-Hexane	ND	1.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-8-6-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
 CAS Sample ID : P2400974-010

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 1.0 ml

Pi 1 = 0.2

Pf 1 = 10.0

D.F. = 1.66

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	370	0.83	
C ₂ as Ethane	ND	0.83	
C ₃ as Propane	ND	0.83	
C ₄ as n-Butane	ND	0.83	
C ₅ as n-Pentane	ND	0.83	
C ₆ as n-Hexane	ND	0.83	
C ₆ + as n-Hexane	6.0	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04 **14**

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-8-18-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P2400974-011

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/11/04
Volume(s) Analyzed: 0.250 ml

Pi 1 = -0.6

Pf 1 = 10.0

D.F. = 1.75

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	47,000	3.5	
C ₂ as Ethane	10	3.5	
C ₃ as Propane	29	3.5	
C ₄ as n-Butane	50	3.5	
C ₅ as n-Pentane	47	3.5	
C ₆ as n-Hexane	33	3.5	
C ₆ ⁺ as n-Hexane	300	7.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P040511-MB

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/11/04
Volume(s) Analyzed: 1.0 ml

D.F. = 1.00

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.50	
C ₂ as Ethane	ND	0.50	
C ₃ as Propane	ND	0.50	
C ₄ as n-Butane	ND	0.50	
C ₅ as n-Pentane	ND	0.50	
C ₆ as n-Hexane	ND	0.50	
C ₆ + as n-Hexane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID : P2400974
CAS Sample ID : P040513-MB

Test Code: Modified EPA TO-3
Instrument ID: HP5890II/GC8/FID
Analyst: Wade Henton
Sampling Media: 1.0 Liter Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/13/04
Volume(s) Analyzed: 1.0 ml

D.F. = 1.00

Compound	Result ppmV	MRL ppmV	Data Qualifier
Methane	ND	0.50	
C ₂ as Ethane	ND	0.50	
C ₃ as Propane	ND	0.50	
C ₄ as n-Butane	ND	0.50	
C ₅ as n-Pentane	ND	0.50	
C ₆ as n-Hexane	ND	0.50	
C ₆ + as n-Hexane	ND	1.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-1-15-DHF**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P2400974-001

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasini
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:
 Container ID: ISC00011

Date Collected: 5/3/04
 Date Received: 5/7/04
 Date(s) Analyzed: 5/18/04
 Volume(s) Analyzed: 0.00350 Liter(s)

Pi 1 = -0.1 Pf 1 = 10.0

D.F. = 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	240	ND	120	
75-01-4	Vinyl Chloride	ND	240	ND	94	
106-99-0	1,3-Butadiene	ND	240	ND	110	
74-83-9	Bromomethane	ND	240	ND	62	
75-00-3	Chloroethane	ND	240	ND	92	
67-64-1	Acetone	ND	2,400	ND	1,000	
75-69-4	Trichlorofluoromethane	ND	240	ND	43	
107-13-1	Acrylonitrile	ND	240	ND	110	
75-35-4	1,1-Dichloroethene	ND	240	ND	61	
75-09-2	Methylene chloride	ND	240	ND	70	
76-13-1	Trichlorotrifluoroethane	ND	240	ND	32	
75-15-0	Carbon Disulfide	ND	240	ND	78	
156-60-5	trans-1,2-Dichloroethene	ND	240	ND	61	
75-34-3	1,1-Dichloroethane	ND	240	ND	60	
1634-04-4	Methyl tert-Butyl Ether	ND	240	ND	67	
108-05-4	Vinyl Acetate	ND	240	ND	69	
78-93-3	2-Butanone (MEK)	ND	240	ND	82	
156-59-2	cis-1,2-Dichloroethene	ND	240	ND	61	
67-66-3	Chloroform	ND	240	ND	49	
107-06-2	1,2-Dichloroethane	ND	240	ND	60	
71-55-6	1,1,1-Trichloroethane	ND	240	ND	44	
71-43-2	Benzene	21,000	240	6,700	76	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

Page No :

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-1-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00011

Date Collected: 5/3/04
Date Received: 5/7/04
Date(s) Analyzed: 5/18/04
Volume(s) Analyzed: 0.00350 Liter(s)

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	240	ND	38	
78-87-5	1,2-Dichloropropane	ND	240	ND	52	
75-27-4	Bromodichloromethane	ND	240	ND	36	
79-01-6	Trichloroethene	ND	240	ND	45	
10061-01-5	cis-1,3-Dichloropropene	ND	240	ND	53	
108-10-1	4-Methyl-2-pentanone	ND	240	ND	59	
10061-02-6	trans-1,3-Dichloropropene	ND	240	ND	53	
79-00-5	1,1,2-Trichloroethane	ND	240	ND	44	
108-88-3	Toluene	33,000	240	8,700	64	
591-78-6	2-Hexanone	ND	240	ND	59	
124-48-1	Dibromochloromethane	ND	240	ND	28	
106-93-4	1,2-Dibromoethane	ND	240	ND	31	
127-18-4	Tetrachloroethene	ND	240	ND	36	
108-90-7	Chlorobenzene	ND	240	ND	52	
100-41-4	Ethylbenzene	11,000	240	2,600	56	
136777-61-2	m,p-Xylenes	25,000	480	5,700	110	
75-25-2	Bromoform	ND	240	ND	23	
100-42-5	Styrene	ND	240	ND	57	
95-47-6	o-Xylene	12,000	240	2,800	56	
79-34-5	1,1,2,2-Tetrachloroethane	ND	240	ND	35	
541-73-1	1,3-Dichlorobenzene	ND	240	ND	40	
106-46-7	1,4-Dichlorobenzene	ND	240	ND	40	
95-50-1	1,2-Dichlorobenzene	ND	240	ND	40	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL

Date: 5/15/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-1-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-001

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00011

Date Collected: 5/3/04
Date Received: 5/7/04
Date Analyzed: 5/18/04
Volume(s) Analyzed: 0.00350 Liter(s)

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
5.59	n-Butane	70,000	
6.67	Isopentane	70,000	
7.18	n-Pentane	70,000	
9.05	2-Methylpentane	60,000	
10.10	n-Hexane	80,000	
11.19	Methylcyclopentane	80,000	
12.58	Cyclohexane	60,000	
13.57	Dimethylcyclopentane Isomer	70,000	
13.69	Dimethylcyclopentane Isomer	70,000	
13.80	Dimethylcyclopentane Isomer	80,000	
15.35	Methylcyclohexane	80,000	
16.17	Trimethylcyclopentane Isomer	60,000	
16.53	Trimethylcyclopentane Isomer	80,000	
17.94	Dimethylcyclohexane Isomer	60,000	
20.47	Trimethylcyclohexane Isomer	70,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC Date: 5/25/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-14-21-DHF**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P2400974-002

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasini
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:
 Container ID: ISC00009

Date Collected: 5/3/04
 Date Received: 5/7/04
 Date(s) Analyzed: 5/18/04
 Volume(s) Analyzed: 0.00250 Liter(s)

Pi 1 = -0.3

Pf 1 = 10.0

D.F. = 1.72

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	340	ND	170	
75-01-4	Vinyl Chloride	ND	340	ND	130	
106-99-0	1,3-Butadiene	ND	340	ND	160	
74-83-9	Bromomethane	ND	340	ND	89	
75-00-3	Chloroethane	ND	340	ND	130	
67-64-1	Acetone	ND	3,400	ND	1,400	
75-69-4	Trichlorofluoromethane	ND	340	ND	61	
107-13-1	Acrylonitrile	ND	340	ND	160	
75-35-4	1,1-Dichloroethene	ND	340	ND	87	
75-09-2	Methylene chloride	ND	340	ND	99	
76-13-1	Trichlorotrifluoroethane	ND	340	ND	45	
75-15-0	Carbon Disulfide	ND	340	ND	110	
156-60-5	trans-1,2-Dichloroethene	ND	340	ND	87	
75-34-3	1,1-Dichloroethane	ND	340	ND	85	
1634-04-4	Methyl tert-Butyl Ether	ND	340	ND	95	
108-05-4	Vinyl Acetate	ND	340	ND	98	
78-93-3	2-Butanone (MEK)	ND	340	ND	120	
156-59-2	cis-1,2-Dichloroethene	ND	340	ND	87	
67-66-3	Chloroform	ND	340	ND	70	
107-06-2	1,2-Dichloroethane	ND	340	ND	85	
71-55-6	1,1,1-Trichloroethane	ND	340	ND	63	
71-43-2	Benzene	8,900	340	2,800	110	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-14-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasini
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00009

Date Collected: 5/3/04
Date Received: 5/7/04
Date(s) Analyzed: 5/18/04
Volume(s) Analyzed: 0.00250 Liter(s)

Pi 1 = -0.3

Pf 1 = 10.0

D.F. = 1.72

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	340	ND	55	
78-87-5	1,2-Dichloropropane	ND	340	ND	74	
75-27-4	Bromodichloromethane	ND	340	ND	51	
79-01-6	Trichloroethene	ND	340	ND	64	
10061-01-5	cis-1,3-Dichloropropene	ND	340	ND	76	
108-10-1	4-Methyl-2-pentanone	ND	340	ND	84	
10061-02-6	trans-1,3-Dichloropropene	ND	340	ND	76	
79-00-5	1,1,2-Trichloroethane	ND	340	ND	63	
108-88-3	Toluene	710	340	190	91	
591-78-6	2-Hexanone	ND	340	ND	84	
124-48-1	Dibromochloromethane	ND	340	ND	40	
106-93-4	1,2-Dibromoethane	ND	340	ND	45	
127-18-4	Tetrachloroethene	ND	340	ND	51	
108-90-7	Chlorobenzene	ND	340	ND	75	
100-41-4	Ethylbenzene	8,200	340	1,900	79	
136777-61-2	m,p-Xylenes	10,000	690	2,300	160	
75-25-2	Bromoform	ND	340	ND	33	
100-42-5	Styrene	ND	340	ND	81	
95-47-6	o-Xylene	2,000	340	470	79	
79-34-5	1,1,2,2-Tetrachloroethane	ND	340	ND	50	
541-73-1	1,3-Dichlorobenzene	ND	340	ND	57	
106-46-7	1,4-Dichlorobenzene	ND	340	ND	57	
95-50-1	1,2-Dichlorobenzene	ND	340	ND	57	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-14-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-002

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00009

Date Collected: 5/3/04
Date Received: 5/7/04
Date Analyzed: 5/18/04
Volume(s) Analyzed: 0.00250 Liter(s)

Pi 1 = -0.3

Pf 1 = 10.0

D.F. = 1.72

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
5.27	Isobutane	70,000	
5.60	n-Butane	100,000	
6.67	Isopentane	100,000	
7.19	n-Pentane	100,000	
9.05	2-Methylpentane	90,000	
9.52	3-Methylpentane	90,000	
11.20	Methylcyclopentane	100,000	
12.59	Cyclohexane	80,000	
13.56	Dimethylcyclopentane Isomer	100,000	
13.69	Dimethylcyclopentane Isomer	100,000	
13.80	Dimethylcyclopentane Isomer	100,000	
15.34	Methylcyclohexane	100,000	
16.17	Trimethylcyclopentane Isomer	80,000	
16.52	Trimethylcyclopentane Isomer	100,000	
20.46	Trimethylcyclohexane Isomer	90,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-7-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasini
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00006

Date Collected: 5/3/04
Date Received: 5/7/04
Date(s) Analyzed: 5/20/04
Volume(s) Analyzed: 0.00750 Liter(s)

Pi 1 = -0.1 Pf 1 = 10.0

D.F. = 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	110	ND	55	
75-01-4	Vinyl Chloride	ND	110	ND	44	
106-99-0	1,3-Butadiene	ND	110	ND	51	
74-83-9	Bromomethane	ND	110	ND	29	
75-00-3	Chloroethane	ND	110	ND	43	
67-64-1	Acetone	ND	1,100	ND	470	
75-69-4	Trichlorofluoromethane	ND	110	ND	20	
107-13-1	Acrylonitrile	ND	110	ND	52	
75-35-4	1,1-Dichloroethene	ND	110	ND	28	
75-09-2	Methylene chloride	ND	110	ND	32	
76-13-1	Trichlorotrifluoroethane	ND	110	ND	15	
75-15-0	Carbon Disulfide	ND	110	ND	36	
156-60-5	trans-1,2-Dichloroethene	ND	110	ND	28	
75-34-3	1,1-Dichloroethane	ND	110	ND	28	
1634-04-4	Methyl tert-Butyl Ether	ND	110	ND	31	
108-05-4	Vinyl Acetate	ND	110	ND	32	
78-93-3	2-Butanone (MEK)	ND	110	ND	38	
156-59-2	cis-1,2-Dichloroethene	ND	110	ND	28	
67-66-3	Chloroform	ND	110	ND	23	
107-06-2	1,2-Dichloroethane	ND	110	ND	28	
71-55-6	1,1,1-Trichloroethane	ND	110	ND	21	
71-43-2	Benzene	3,700	110	1,200	35	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-7-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasini
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00006

Date Collected: 5/3/04
Date Received: 5/7/04
Date(s) Analyzed: 5/20/04
Volume(s) Analyzed: 0.00750 Liter(s)

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	110	ND	18	
78-87-5	1,2-Dichloropropane	ND	110	ND	24	
75-27-4	Bromodichloromethane	ND	110	ND	17	
79-01-6	Trichloroethene	ND	110	ND	21	
10061-01-5	cis-1,3-Dichloropropene	ND	110	ND	25	
108-10-1	4-Methyl-2-pentanone	ND	110	ND	28	
10061-02-6	trans-1,3-Dichloropropene	ND	110	ND	25	
79-00-5	1,1,2-Trichloroethane	ND	110	ND	21	
108-88-3	Toluene	430	110	110	30	
591-78-6	2-Hexanone	ND	110	ND	28	
124-48-1	Dibromochloromethane	ND	110	ND	13	
106-93-4	1,2-Dibromoethane	ND	110	ND	15	
127-18-4	Tetrachloroethene	ND	110	ND	17	
108-90-7	Chlorobenzene	ND	110	ND	24	
100-41-4	Ethylbenzene	2,400	110	550	26	
136777-61-2	m,p-Xylenes	2,900	230	670	52	
75-25-2	Bromoform	ND	110	ND	11	
100-42-5	Styrene	ND	110	ND	26	
95-47-6	o-Xylene	1,300	110	300	26	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	ND	16	
541-73-1	1,3-Dichlorobenzene	ND	110	ND	19	
106-46-7	1,4-Dichlorobenzene	ND	110	ND	19	
95-50-1	1,2-Dichlorobenzene	ND	110	ND	19	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04 **25**

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-7-21-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-003

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00006

Date Collected: 5/3/04
Date Received: 5/7/04
Date Analyzed: 5/20/04
Volume(s) Analyzed: 0.00750 Liter(s)

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
6.69	Isopentane	40,000	
8.96	2,3-Dimethylbutane	30,000	
9.07	2-Methylpentane	30,000	
9.54	3-Methylpentane	30,000	
11.22	Methylcyclopentane	40,000	
12.93	2,3-Dimethylpentane	30,000	
13.57	Dimethylcyclopentane Isomer	40,000	
13.69	Dimethylcyclopentane Isomer	40,000	
13.82	Dimethylcyclopentane Isomer	40,000	
15.36	Methylcyclohexane	40,000	
15.42	Trimethylcyclopentane Isomer	30,000	
16.20	Trimethylcyclopentane Isomer	40,000	
16.54	Trimethylcyclopentane Isomer	30,000	
18.97	Tetramethylcyclopentane Isomer	30,000	
20.48	Trimethylcyclohexane Isomer	30,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-11-12 DHF**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P2400974-004

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasini
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:
 Container ID: ISC00014

Date Collected: 5/4/04
 Date Received: 5/7/04
 Date(s) Analyzed: 5/19 - 5/20/04
 Volume(s) Analyzed: 0.10 Liter(s)
 0.010 Liter(s)

Pi 1 = -0.1 Pf 1 = 10.0

D.F. = 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	8.5	ND	4.1	
75-01-4	Vinyl Chloride	ND	8.5	ND	3.3	
106-99-0	1,3-Butadiene	ND	8.5	ND	3.8	
74-83-9	Bromomethane	ND	8.5	ND	2.2	
75-00-3	Chloroethane	ND	8.5	ND	3.2	
67-64-1	Acetone	1,600	85	690	36	
75-69-4	Trichlorofluoromethane	ND	8.5	ND	1.5	
107-13-1	Acrylonitrile	ND	8.5	ND	3.9	
75-35-4	1,1-Dichloroethene	ND	8.5	ND	2.1	
75-09-2	Methylene chloride	ND	8.5	ND	2.4	
76-13-1	Trichlorotrifluoroethane	ND	8.5	ND	1.1	
75-15-0	Carbon Disulfide	ND	8.5	ND	2.7	
156-60-5	trans-1,2-Dichloroethene	ND	8.5	ND	2.1	
75-34-3	1,1-Dichloroethane	ND	8.5	ND	2.1	
1634-04-4	Methyl tert-Butyl Ether	ND	8.5	ND	2.3	
108-05-4	Vinyl Acetate	25	8.5	7.0	2.4	
78-93-3	2-Butanone (MEK)	12	8.5	4.0	2.9	
156-59-2	cis-1,2-Dichloroethene	ND	8.5	ND	2.1	
67-66-3	Chloroform	ND	8.5	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	8.5	ND	2.1	
71-55-6	1,1,1-Trichloroethane	ND	8.5	ND	1.5	
71-43-2	Benzene	220	8.5	70	2.6	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-11-12 DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00014

Date Collected: 5/4/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19 - 5/20/04
Volume(s) Analyzed: 0.10 Liter(s)
 0.010 Liter(s)

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	8.5	ND	1.3	
78-87-5	1,2-Dichloropropane	ND	8.5	ND	1.8	
75-27-4	Bromodichloromethane	ND	8.5	ND	1.3	
79-01-6	Trichloroethene	ND	8.5	ND	1.6	
10061-01-5	cis-1,3-Dichloropropene	ND	8.5	ND	1.9	
108-10-1	4-Methyl-2-pentanone	ND	8.5	ND	2.1	
10061-02-6	trans-1,3-Dichloropropene	ND	8.5	ND	1.9	
79-00-5	1,1,2-Trichloroethane	ND	8.5	ND	1.5	
108-88-3	Toluene	160	8.5	43	2.2	
591-78-6	2-Hexanone	ND	8.5	ND	2.1	
124-48-1	Dibromochloromethane	ND	8.5	ND	0.99	
106-93-4	1,2-Dibromoethane	ND	8.5	ND	1.1	
127-18-4	Tetrachloroethene	ND	8.5	ND	1.2	
108-90-7	Chlorobenzene	ND	8.5	ND	1.8	
100-41-4	Ethylbenzene	4,900	8.5	1,100	1.9	
136777-61-2	m,p-Xylenes	ND	17	ND	3.9	
75-25-2	Bromoform	ND	8.5	ND	0.82	
100-42-5	Styrene	1,100	8.5	260	2.0	
95-47-6	o-Xylene	11	8.5	2.5	1.9	
79-34-5	1,1,2,2-Tetrachloroethane	ND	8.5	ND	1.2	
541-73-1	1,3-Dichlorobenzene	ND	8.5	ND	1.4	
106-46-7	1,4-Dichlorobenzene	ND	8.5	ND	1.4	
95-50-1	1,2-Dichlorobenzene	ND	8.5	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-11-12 DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-004

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00014

Date Collected: 5/4/04
Date Received: 5/7/04
Date Analyzed: 5/19 - 5/20/04
Volume(s) Analyzed: 0.10 Liter(s)
0.010 Liter(s)

Pi 1 = -0.1

Pf 1 = 10.0

D.F. = 1.69

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
23.10	Cumene	2,000	
23.95	Propylbenzene	200	
24.13	3-Ethyltoluene	100	
24.58	alpha-Methylstyrene	3,000	
25.33	C ₁₀ H ₁₄ Compound	200	
25.39	C ₁₀ H ₁₄ Aromatic Compound	1,000	
25.61	Methylstyrene Isomer	1,000	
25.94	Indane	100	
26.12	Diethylbenzene Isomer	1,000	
26.19	Acetophenone	100	
26.27	Diethylbenzene Isomer	800	
26.40	Diethylbenzene Isomer	300	
27.31	C ₁₀ H ₁₂ Compound	300	
28.56	Naphthalene	500	
28.65	Benzothiophene Isomer	100	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RL

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-10A-13 DHF**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P2400974-005

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasini
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:
 Container ID: ISC00013

Date Collected: 5/4/04
 Date Received: 5/7/04
 Date(s) Analyzed: 5/19/04
 Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.5

Pf 1 = 10.0

D.F. = 1.63

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	2.0	ND	0.99	
75-01-4	Vinyl Chloride	ND	2.0	ND	0.80	
106-99-0	1,3-Butadiene	4.4	2.0	2.0	0.92	
74-83-9	Bromomethane	ND	2.0	ND	0.52	
75-00-3	Chloroethane	ND	2.0	ND	0.77	
67-64-1	Acetone	91	20	38	8.6	
75-69-4	Trichlorofluoromethane	ND	2.0	ND	0.36	
107-13-1	Acrylonitrile	ND	2.0	ND	0.94	
75-35-4	1,1-Dichloroethene	ND	2.0	ND	0.51	
75-09-2	Methylene chloride	ND	2.0	ND	0.59	
76-13-1	Trichlorotrifluoroethane	ND	2.0	ND	0.27	
75-15-0	Carbon Disulfide	13	2.0	4.0	0.65	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ND	0.51	
75-34-3	1,1-Dichloroethane	ND	2.0	ND	0.50	
1634-04-4	Methyl tert-Butyl Ether	ND	2.0	ND	0.57	
108-05-4	Vinyl Acetate	ND	2.0	ND	0.58	
78-93-3	2-Butanone (MEK)	21	2.0	7.0	0.69	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ND	0.51	
67-66-3	Chloroform	ND	2.0	ND	0.42	
107-06-2	1,2-Dichloroethane	ND	2.0	ND	0.50	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ND	0.37	
71-43-2	Benzene	24	2.0	7.6	0.64	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-10A-13 DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00013

Date Collected: 5/4/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.5 Pf 1 = 10.0

D.F. = 1.63

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	2.0	ND	0.32	
78-87-5	1,2-Dichloropropane	ND	2.0	ND	0.44	
75-27-4	Bromodichloromethane	ND	2.0	ND	0.30	
79-01-6	Trichloroethene	ND	2.0	ND	0.38	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ND	0.45	
108-10-1	4-Methyl-2-pentanone	ND	2.0	ND	0.50	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ND	0.45	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ND	0.37	
108-88-3	Toluene	20	2.0	5.3	0.54	
591-78-6	2-Hexanone	ND	2.0	ND	0.50	
124-48-1	Dibromochloromethane	ND	2.0	ND	0.24	
106-93-4	1,2-Dibromoethane	ND	2.0	ND	0.27	
127-18-4	Tetrachloroethene	ND	2.0	ND	0.30	
108-90-7	Chlorobenzene	ND	2.0	ND	0.44	
100-41-4	Ethylbenzene	63	2.0	14	0.47	
136777-61-2	m,p -Xylenes	52	4.1	12	0.94	
75-25-2	Bromoform	ND	2.0	ND	0.20	
100-42-5	Styrene	5.2	2.0	1.2	0.48	
95-47-6	o-Xylene	27	2.0	6.2	0.47	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ND	0.30	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ND	0.34	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ND	0.34	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ND	0.34	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-10A-13 DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-005

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00013

Date Collected: 5/4/04
Date Received: 5/7/04
Date Analyzed: 5/19/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 0.5

Pf 1 = 10.0

D.F. = 1.63

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
4.82	Propane + Propene	90	
10.06	n-Hexane	40	
11.17	Methylcyclopentane	200	
13.51	Dimethylcyclopentane Isomer	90	
13.64	Dimethylcyclopentane Isomer	90	
13.77	Dimethylcyclopentane Isomer	200	
15.31	Methylcyclohexane	100	
16.49	Trimethylcyclopentane Isomer	100	
17.91	Dimethylcyclohexane Isomer	90	
20.45	Trimethylcyclohexane Isomer	200	
22.49	n-Nonane	40	
23.57	C ₁₀ H ₂₂ Branched Alkane	90	
23.74	alpha-Pinene	200	
24.44	Tetramethylcyclohexane Isomer	90	
25.87	d-Limonene	50	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RG

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-6-15-DHF**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P2400974-006

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasin
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:
 Container ID: ISC00008

Date Collected: 5/5/04
 Date Received: 5/7/04
 Date(s) Analyzed: 5/20/04
 Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = 0.6

Pf 1 = 10.0

D.F. = 1.61

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	16	ND	7.8	
75-01-4	Vinyl Chloride	ND	16	ND	6.3	
106-99-0	1,3-Butadiene	140	16	63	7.3	
74-83-9	Bromomethane	ND	16	ND	4.1	
75-00-3	Chloroethane	ND	16	ND	6.1	
67-64-1	Acetone	ND	160	ND	68	
75-69-4	Trichlorofluoromethane	ND	16	ND	2.9	
107-13-1	Acrylonitrile	ND	16	ND	7.4	
75-35-4	1,1-Dichloroethene	ND	16	ND	4.1	
75-09-2	Methylene chloride	78	16	22	4.6	
76-13-1	Trichlorotrifluoroethane	ND	16	ND	2.1	
75-15-0	Carbon Disulfide	36	16	11	5.2	
156-60-5	trans-1,2-Dichloroethene	ND	16	ND	4.1	
75-34-3	1,1-Dichloroethane	ND	16	ND	4.0	
1634-04-4	Methyl tert-Butyl Ether	ND	16	ND	4.5	
108-05-4	Vinyl Acetate	ND	16	ND	4.6	
78-93-3	2-Butanone (MEK)	69	16	23	5.5	
156-59-2	cis-1,2-Dichloroethene	ND	16	ND	4.1	
67-66-3	Chloroform	ND	16	ND	3.3	
107-06-2	1,2-Dichloroethane	ND	16	ND	4.0	
71-55-6	1,1,1-Trichloroethane	ND	16	ND	3.0	
71-43-2	Benzene	26	16	8.1	5.0	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-6-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00008

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/20/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = 0.6 Pf 1 = 10.0

D.F. = 1.61

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	16	ND	2.6	
78-87-5	1,2-Dichloropropane	ND	16	ND	3.5	
75-27-4	Bromodichloromethane	ND	16	ND	2.4	
79-01-6	Trichloroethene	ND	16	ND	3.0	
10061-01-5	cis-1,3-Dichloropropene	ND	16	ND	3.5	
108-10-1	4-Methyl-2-pentanone	ND	16	ND	3.9	
10061-02-6	trans-1,3-Dichloropropene	ND	16	ND	3.5	
79-00-5	1,1,2-Trichloroethane	ND	16	ND	3.0	
108-88-3	Toluene	18	16	4.7	4.3	
591-78-6	2-Hexanone	ND	16	ND	3.9	
124-48-1	Dibromochloromethane	ND	16	ND	1.9	
106-93-4	1,2-Dibromoethane	ND	16	ND	2.1	
127-18-4	Tetrachloroethene	ND	16	ND	2.4	
108-90-7	Chlorobenzene	92	16	20	3.5	
100-41-4	Ethylbenzene	34	16	7.9	3.7	
136777-61-2	m,p-Xylenes	ND	32	ND	7.4	
75-25-2	Bromoform	ND	16	ND	1.6	
100-42-5	Styrene	ND	16	ND	3.8	
95-47-6	o-Xylene	ND	16	ND	3.7	
79-34-5	1,1,2,2-Tetrachloroethane	ND	16	ND	2.3	
541-73-1	1,3-Dichlorobenzene	ND	16	ND	2.7	
106-46-7	1,4-Dichlorobenzene	ND	16	ND	2.7	
95-50-1	1,2-Dichlorobenzene	ND	16	ND	2.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-6-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-006

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00008

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/20/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = 0.6

Pf 1 = 10.0

D.F. = 1.61

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
5.28	Isobutane	5,000	
5.60	n-Butane	5,000	
6.68	Isopentane	6,000	
8.95	2,3-Dimethylbutane	4,000	
9.53	3-Methylpentane	5,000	
12.90	2,3-Dimethylpentane	4,000	
13.10	Dimethylcyclopentane Isomer	4,000	
15.40	Trimethylcyclopentane Isomer	4,000	
16.17	Trimethylcyclopentane Isomer	5,000	
17.94	Trimethylcyclopentane Isomer	3,000	
18.82	Dimethylcyclohexane Isomer	3,000	
18.96	Tetramethylcyclopentane Isomer	4,000	
20.47	Trimethylcyclohexane Isomer	5,000	
20.87	C ₉ H ₁₈ Compound	3,000	
23.34	C ₉ H ₁₆ Compound	3,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RL Date: 5/25/04 **35**

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-6-15-RDHF**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P2400974-007

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasin
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:
 Container ID: ISC00012

Date Collected: 5/5/04
 Date Received: 5/7/04
 Date(s) Analyzed: 5/19/04
 Volume(s) Analyzed: 0.150 Liter(s)

Pi 1 = 0.5 Pf 1 = 10.0

D.F. = 1.63

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	5.4	ND	2.6	
75-01-4	Vinyl Chloride	ND	5.4	ND	2.1	
106-99-0	1,3-Butadiene	ND	5.4	ND	2.5	
74-83-9	Bromomethane	ND	5.4	ND	1.4	
75-00-3	Chloroethane	ND	5.4	ND	2.1	
67-64-1	Acetone	ND	54	ND	23	
75-69-4	Trichlorofluoromethane	ND	5.4	ND	0.97	
107-13-1	Acrylonitrile	ND	5.4	ND	2.5	
75-35-4	1,1-Dichloroethene	ND	5.4	ND	1.4	
75-09-2	Methylene chloride	28	5.4	8.0	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.4	ND	0.71	
75-15-0	Carbon Disulfide	13	5.4	4.2	1.7	
156-60-5	trans-1,2-Dichloroethene	ND	5.4	ND	1.4	
75-34-3	1,1-Dichloroethane	ND	5.4	ND	1.3	
1634-04-4	Methyl tert-Butyl Ether	ND	5.4	ND	1.5	
108-05-4	Vinyl Acetate	ND	5.4	ND	1.5	
78-93-3	2-Butanone (MEK)	33	5.4	11	1.8	
156-59-2	cis-1,2-Dichloroethene	ND	5.4	ND	1.4	
67-66-3	Chloroform	ND	5.4	ND	1.1	
107-06-2	1,2-Dichloroethane	ND	5.4	ND	1.3	
71-55-6	1,1,1-Trichloroethane	ND	5.4	ND	1.0	
71-43-2	Benzene	6.4	5.4	2.0	1.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-6-15-RDHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00012

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.150 Liter(s)

Pi 1 = 0.5 Pf 1 = 10.0

D.F. = 1.63

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	5.4	ND	0.86	
78-87-5	1,2-Dichloropropane	ND	5.4	ND	1.2	
75-27-4	Bromodichloromethane	ND	5.4	ND	0.81	
79-01-6	Trichloroethene	ND	5.4	ND	1.0	
10061-01-5	cis-1,3-Dichloropropene	ND	5.4	ND	1.2	
108-10-1	4-Methyl-2-pentanone	ND	5.4	ND	1.3	
10061-02-6	trans-1,3-Dichloropropene	ND	5.4	ND	1.2	
79-00-5	1,1,2-Trichloroethane	ND	5.4	ND	1.0	
108-88-3	Toluene	ND	5.4	ND	1.4	
591-78-6	2-Hexanone	ND	5.4	ND	1.3	
124-48-1	Dibromochloromethane	ND	5.4	ND	0.64	
106-93-4	1,2-Dibromoethane	ND	5.4	ND	0.71	
127-18-4	Tetrachloroethene	ND	5.4	ND	0.80	
108-90-7	Chlorobenzene	37	5.4	8.0	1.2	
100-41-4	Ethylbenzene	13	5.4	3.0	1.3	
136777-61-2	m,p-Xylenes	ND	11	ND	2.5	
75-25-2	Bromoform	ND	5.4	ND	0.53	
100-42-5	Styrene	ND	5.4	ND	1.3	
95-47-6	o-Xylene	ND	5.4	ND	1.3	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.4	ND	0.79	
541-73-1	1,3-Dichlorobenzene	ND	5.4	ND	0.90	
106-46-7	1,4-Dichlorobenzene	ND	5.4	ND	0.90	
95-50-1	1,2-Dichlorobenzene	ND	5.4	ND	0.90	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-6-15-RDHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-007

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00012

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/19/04
Volume(s) Analyzed: 0.150 Liter(s)

Pi 1 = 0.5

Pf 1 = 10.0

D.F. = 1.63

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
5.29	Isobutane	2,000	
5.61	n-Butane	2,000	
6.69	Isopentane	2,000	
8.96	2,3-Dimethylbutane	2,000	
9.54	3-Methylpentane	2,000	
12.91	2,3-Dimethylpentane	2,000	
13.11	Dimethylcyclopentane Isomer	1,000	
13.63	Dimethylcyclopentane Isomer + C ₇ H ₁₆ Compound	1,000	
15.40	Trimethylcyclopentane Isomer	2,000	
16.19	Trimethylcyclopentane Isomer	2,000	
18.83	Dimethylcyclohexane Isomer	1,000	
18.96	Tetramethylcyclopentane Isomer	1,000	
20.48	Trimethylcyclohexane Isomer	2,000	
20.88	C ₉ H ₁₈ Compound	1,000	
21.06	Trimethylcyclohexane Isomer	1,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00010

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = 0.2 Pf 1 = 10.0

D.F. = 1.66

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	17	ND	8.0	
75-01-4	Vinyl Chloride	ND	17	ND	6.5	
106-99-0	1,3-Butadiene	ND	17	ND	7.5	
74-83-9	Bromomethane	ND	17	ND	4.3	
75-00-3	Chloroethane	ND	17	ND	6.3	
67-64-1	Acetone	ND	170	ND	70	
75-69-4	Trichlorofluoromethane	ND	17	ND	3.0	
107-13-1	Acrylonitrile	ND	17	ND	7.7	
75-35-4	1,1-Dichloroethene	ND	17	ND	4.2	
75-09-2	Methylene chloride	38	17	11	4.8	
76-13-1	Trichlorotrifluoroethane	ND	17	ND	2.2	
75-15-0	Carbon Disulfide	ND	17	ND	5.3	
156-60-5	trans-1,2-Dichloroethene	ND	17	ND	4.2	
75-34-3	1,1-Dichloroethane	ND	17	ND	4.1	
1634-04-4	Methyl tert-Butyl Ether	ND	17	ND	4.6	
108-05-4	Vinyl Acetate	ND	17	ND	4.7	
78-93-3	2-Butanone (MEK)	64	17	22	5.6	
156-59-2	cis-1,2-Dichloroethene	ND	17	ND	4.2	
67-66-3	Chloroform	ND	17	ND	3.4	
107-06-2	1,2-Dichloroethane	ND	17	ND	4.1	
71-55-6	1,1,1-Trichloroethane	ND	17	ND	3.0	
71-43-2	Benzene	210	17	67	5.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00010

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = 0.2 Pf 1 = 10.0

D.F. = 1.66

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	17	ND	2.6	
78-87-5	1,2-Dichloropropane	ND	17	ND	3.6	
75-27-4	Bromodichloromethane	ND	17	ND	2.5	
79-01-6	Trichloroethene	ND	17	ND	3.1	
10061-01-5	cis-1,3-Dichloropropene	ND	17	ND	3.7	
108-10-1	4-Methyl-2-pentanone	ND	17	ND	4.1	
10061-02-6	trans-1,3-Dichloropropene	ND	17	ND	3.7	
79-00-5	1,1,2-Trichloroethane	ND	17	ND	3.0	
108-88-3	Toluene	51	17	14	4.4	
591-78-6	2-Hexanone	ND	17	ND	4.1	
124-48-1	Dibromochloromethane	ND	17	ND	1.9	
106-93-4	1,2-Dibromoethane	ND	17	ND	2.2	
127-18-4	Tetrachloroethene	ND	17	ND	2.4	
108-90-7	Chlorobenzene	ND	17	ND	3.6	
100-41-4	Ethylbenzene	360	17	83	3.8	
136777-61-2	m,p-Xylenes	750	33	170	7.6	
75-25-2	Bromoform	ND	17	ND	1.6	
100-42-5	Styrene	ND	17	ND	3.9	
95-47-6	o-Xylene	120	17	29	3.8	
79-34-5	1,1,2,2-Tetrachloroethane	ND	17	ND	2.4	
541-73-1	1,3-Dichlorobenzene	ND	17	ND	2.8	
106-46-7	1,4-Dichlorobenzene	ND	17	ND	2.8	
95-50-1	1,2-Dichlorobenzene	ND	17	ND	2.8	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-15-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-008

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00010

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/19/04
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = 0.2

Pf 1 = 10.0

D.F. = 1.66

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
5.58	n-Butane	2,000	
6.67	Isopentane	4,000	
7.19	n-Pentane	2,000	
8.94	Cyclopentane	2,000	
9.05	2-Methylpentane	3,000	
9.53	3-Methylpentane	3,000	
10.10	n-Hexane	3,000	
11.20	Methylcyclopentane	4,000	
12.58	Cyclohexane	2,000	
13.56	Dimethylcyclopentane Isomer	3,000	
13.68	Dimethylcyclopentane Isomer	3,000	
13.81	Dimethylcyclopentane Isomer	3,000	
15.34	Methylcyclohexane	3,000	
16.52	Trimethylcyclopentane Isomer	3,000	
20.46	Trimethylcyclohexane Isomer	2,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RL Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-21-BDHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00007

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 1.2 Pf 1 = 10.0

D.F. = 1.55

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.9	ND	0.94	
75-01-4	Vinyl Chloride	ND	1.9	ND	0.76	
106-99-0	1,3-Butadiene	ND	1.9	ND	0.88	
74-83-9	Bromomethane	ND	1.9	ND	0.50	
75-00-3	Chloroethane	ND	1.9	ND	0.73	
67-64-1	Acetone	ND	19	ND	8.2	
75-69-4	Trichlorofluoromethane	ND	1.9	ND	0.34	
107-13-1	Acrylonitrile	ND	1.9	ND	0.89	
75-35-4	1,1-Dichloroethene	ND	1.9	ND	0.49	
75-09-2	Methylene chloride	ND	1.9	ND	0.56	
76-13-1	Trichlorotrifluoroethane	ND	1.9	ND	0.25	
75-15-0	Carbon Disulfide	ND	1.9	ND	0.62	
156-60-5	trans-1,2-Dichloroethene	ND	1.9	ND	0.49	
75-34-3	1,1-Dichloroethane	ND	1.9	ND	0.48	
1634-04-4	Methyl tert-Butyl Ether	ND	1.9	ND	0.54	
108-05-4	Vinyl Acetate	ND	1.9	ND	0.55	
78-93-3	2-Butanone (MEK)	4.9	1.9	1.7	0.66	
156-59-2	cis-1,2-Dichloroethene	ND	1.9	ND	0.49	
67-66-3	Chloroform	ND	1.9	ND	0.40	
107-06-2	1,2-Dichloroethane	ND	1.9	ND	0.48	
71-55-6	1,1,1-Trichloroethane	ND	1.9	ND	0.36	
71-43-2	Benzene	ND	1.9	ND	0.61	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-21-BDHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00007

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 1.2 Pf 1 = 10.0

D.F. = 1.55

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	1.9	ND	0.31	
78-87-5	1,2-Dichloropropane	ND	1.9	ND	0.42	
75-27-4	Bromodichloromethane	ND	1.9	ND	0.29	
79-01-6	Trichloroethene	ND	1.9	ND	0.36	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	ND	0.43	
108-10-1	4-Methyl-2-pentanone	ND	1.9	ND	0.47	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	ND	0.43	
79-00-5	1,1,2-Trichloroethane	ND	1.9	ND	0.36	
108-88-3	Toluene	ND	1.9	ND	0.51	
591-78-6	2-Hexanone	ND	1.9	ND	0.47	
124-48-1	Dibromochloromethane	ND	1.9	ND	0.23	
106-93-4	1,2-Dibromoethane	ND	1.9	ND	0.25	
127-18-4	Tetrachloroethene	ND	1.9	ND	0.29	
108-90-7	Chlorobenzene	ND	1.9	ND	0.42	
100-41-4	Ethylbenzene	ND	1.9	ND	0.45	
136777-61-2	m,p-Xylenes	ND	3.9	ND	0.89	
75-25-2	Bromoform	ND	1.9	ND	0.19	
100-42-5	Styrene	ND	1.9	ND	0.46	
95-47-6	o-Xylene	ND	1.9	ND	0.45	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	ND	0.28	
541-73-1	1,3-Dichlorobenzene	ND	1.9	ND	0.32	
106-46-7	1,4-Dichlorobenzene	ND	1.9	ND	0.32	
95-50-1	1,2-Dichlorobenzene	ND	1.9	ND	0.32	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-9-21-BDHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-009

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00007

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/19/04
Volume(s) Analyzed: 0.40 Liter(s)

Pi 1 = 1.2

Pf 1 = 10.0

D.F. = 1.55

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
6.64	Isopentane	30	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RL Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-8-6-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00019

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.30 Liter(s)

Pi 1 = 0.2 Pf 1 = 10.0

D.F. = 1.66

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	2.8	ND	1.3	
75-01-4	Vinyl Chloride	ND	2.8	ND	1.1	
106-99-0	1,3-Butadiene	8.1	2.8	3.7	1.3	
74-83-9	Bromomethane	ND	2.8	ND	0.71	
75-00-3	Chloroethane	ND	2.8	ND	1.0	
67-64-1	Acetone	ND	28	ND	12	
75-69-4	Trichlorofluoromethane	ND	2.8	ND	0.49	
107-13-1	Acrylonitrile	ND	2.8	ND	1.3	
75-35-4	1,1-Dichloroethene	ND	2.8	ND	0.70	
75-09-2	Methylene chloride	36	2.8	10	0.80	
76-13-1	Trichlorotrifluoroethane	ND	2.8	ND	0.36	
75-15-0	Carbon Disulfide	6.1	2.8	2.0	0.89	
156-60-5	trans-1,2-Dichloroethene	ND	2.8	ND	0.70	
75-34-3	1,1-Dichloroethane	ND	2.8	ND	0.68	
1634-04-4	Methyl tert-Butyl Ether	ND	2.8	ND	0.77	
108-05-4	Vinyl Acetate	ND	2.8	ND	0.79	
78-93-3	2-Butanone (MEK)	51	2.8	17	0.94	
156-59-2	cis-1,2-Dichloroethene	ND	2.8	ND	0.70	
67-66-3	Chloroform	ND	2.8	ND	0.57	
107-06-2	1,2-Dichloroethane	ND	2.8	ND	0.68	
71-55-6	1,1,1-Trichloroethane	ND	2.8	ND	0.51	
71-43-2	Benzene	22	2.8	6.9	0.87	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-8-6-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00019

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/19/04
Volume(s) Analyzed: 0.30 Liter(s)

Pi 1 = 0.2 Pf 1 = 10.0

D.F. = 1.66

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	2.8	ND	0.44	
78-87-5	1,2-Dichloropropane	ND	2.8	ND	0.60	
75-27-4	Bromodichloromethane	ND	2.8	ND	0.41	
79-01-6	Trichloroethene	ND	2.8	ND	0.52	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	ND	0.61	
108-10-1	4-Methyl-2-pentanone	ND	2.8	ND	0.68	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	ND	0.61	
79-00-5	1,1,2-Trichloroethane	ND	2.8	ND	0.51	
108-88-3	Toluene	13	2.8	3.4	0.73	
591-78-6	2-Hexanone	ND	2.8	ND	0.68	
124-48-1	Dibromochloromethane	ND	2.8	ND	0.32	
106-93-4	1,2-Dibromoethane	ND	2.8	ND	0.36	
127-18-4	Tetrachloroethene	ND	2.8	ND	0.41	
108-90-7	Chlorobenzene	ND	2.8	ND	0.60	
100-41-4	Ethylbenzene	100	2.8	23	0.64	
136777-61-2	m,p-Xylenes	190	5.5	44	1.3	
75-25-2	Bromoform	ND	2.8	ND	0.27	
100-42-5	Styrene	ND	2.8	ND	0.65	
95-47-6	o-Xylene	32	2.8	7.4	0.64	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	ND	0.40	
541-73-1	1,3-Dichlorobenzene	ND	2.8	ND	0.46	
106-46-7	1,4-Dichlorobenzene	ND	2.8	ND	0.46	
95-50-1	1,2-Dichlorobenzene	ND	2.8	ND	0.46	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-8-6-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-010

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00019

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/19/04
Volume(s) Analyzed: 0.30 Liter(s)

Pi 1 = 0.2

Pf 1 = 10.0

D.F. = 1.66

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
6.65	Isopentane	300	
11.19	Methylcyclopentane	600	
13.54	Dimethylcyclopentane Isomer	500	
13.66	Dimethylcyclopentane Isomer	500	
13.79	Dimethylcyclopentane Isomer	600	
15.33	Methylcyclohexane	600	
16.16	Trimethylcyclopentane Isomer	500	
16.51	Trimethylcyclopentane Isomer	600	
17.93	Trimethylcyclopentane Isomer	500	
18.95	Tetramethylcyclopentane Isomer	300	
20.47	Trimethylcyclohexane Isomer	700	
20.87	C ₉ H ₁₈ Compound	300	
23.34	C ₉ H ₁₆ Compound	400	
24.45	Tetramethylcyclohexane Isomer	400	
25.65	1,2,3-Trimethylbenzene	300	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RC Date: 5/25/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **PNL-8-18-DHF**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P2400974-011

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasin
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:
 Container ID: ISC00020

Date Collected: 5/5/04
 Date Received: 5/7/04
 Date(s) Analyzed: 5/20/04
 Volume(s) Analyzed: 0.0150 Liter(s)

Pi 1 = -0.6

Pf 1 = 10.0

D.F. = 1.75

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	58	ND	28	
75-01-4	Vinyl Chloride	ND	58	ND	23	
106-99-0	1,3-Butadiene	ND	58	ND	26	
74-83-9	Bromomethane	ND	58	ND	15	
75-00-3	Chloroethane	ND	58	ND	22	
67-64-1	Acetone	ND	580	ND	250	
75-69-4	Trichlorofluoromethane	ND	58	ND	10	
107-13-1	Acrylonitrile	ND	58	ND	27	
75-35-4	1,1-Dichloroethene	ND	58	ND	15	
75-09-2	Methylene chloride	180	58	50	17	
76-13-1	Trichlorotrifluoroethane	ND	58	ND	7.6	
75-15-0	Carbon Disulfide	ND	58	ND	19	
156-60-5	trans-1,2-Dichloroethene	ND	58	ND	15	
75-34-3	1,1-Dichloroethane	ND	58	ND	14	
1634-04-4	Methyl tert-Butyl Ether	ND	58	ND	16	
108-05-4	Vinyl Acetate	ND	58	ND	17	
78-93-3	2-Butanone (MEK)	110	58	38	20	
156-59-2	cis-1,2-Dichloroethene	ND	58	ND	15	
67-66-3	Chloroform	ND	58	ND	12	
107-06-2	1,2-Dichloroethane	ND	58	ND	14	
71-55-6	1,1,1-Trichloroethane	ND	58	ND	11	
71-43-2	Benzene	9,000	58	2,800	18	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 5/25/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-8-18-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:
Container ID: ISC00020

Date Collected: 5/5/04
Date Received: 5/7/04
Date(s) Analyzed: 5/20/04
Volume(s) Analyzed: 0.0150 Liter(s)

Pi 1 = -0.6

Pf 1 = 10.0

D.F. = 1.75

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	58	ND	9.3	
78-87-5	1,2-Dichloropropane	ND	58	ND	13	
75-27-4	Bromodichloromethane	ND	58	ND	8.7	
79-01-6	Trichloroethene	ND	58	ND	11	
10061-01-5	cis-1,3-Dichloropropene	ND	58	ND	13	
108-10-1	4-Methyl-2-pentanone	ND	58	ND	14	
10061-02-6	trans-1,3-Dichloropropene	ND	58	ND	13	
79-00-5	1,1,2-Trichloroethane	ND	58	ND	11	
108-88-3	Toluene	5,300	58	1,400	15	
591-78-6	2-Hexanone	ND	58	ND	14	
124-48-1	Dibromochloromethane	ND	58	ND	6.9	
106-93-4	1,2-Dibromoethane	ND	58	ND	7.6	
127-18-4	Tetrachloroethene	ND	58	ND	8.6	
108-90-7	Chlorobenzene	ND	58	ND	13	
100-41-4	Ethylbenzene	2,600	58	590	13	
136777-61-2	m,p-Xylenes	4,300	120	990	27	
75-25-2	Bromoform	ND	58	ND	5.6	
100-42-5	Styrene	280	58	67	14	
95-47-6	o-Xylene	2,100	58	480	13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	58	ND	8.5	
541-73-1	1,3-Dichlorobenzene	ND	58	ND	9.7	
106-46-7	1,4-Dichlorobenzene	ND	58	ND	9.7	
95-50-1	1,2-Dichlorobenzene	ND	58	ND	9.7	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/25/04

Page No:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: PNL-8-18-DHF
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P2400974-011

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes: T
Container ID: ISC00020

Date Collected: 5/5/04
Date Received: 5/7/04
Date Analyzed: 5/20/04
Volume(s) Analyzed: 0.0150 Liter(s)

Pi 1 = -0.6

Pf 1 = 10.0

D.F. = 1.75

GC / MS Ret. Time	Compound Identification	Concentration µg/m³	Data Qualifier
5.28	Isobutane	20,000	
5.61	n-Butane	20,000	
6.69	Isopentane	20,000	
7.20	n-Pentane	20,000	
8.96	Cyclopentane	10,000	
9.06	2-Methylpentane	20,000	
9.54	3-Methylpentane	20,000	
10.11	n-Hexane	20,000	
11.21	Methylcyclopentane	20,000	
13.57	Dimethylcyclopentane Isomer	20,000	
13.70	Dimethylcyclopentane Isomer	20,000	
13.81	Dimethylcyclopentane Isomer	20,000	
15.35	Methylcyclohexane	20,000	
16.52	Trimethylcyclopentane Isomer	20,000	
20.47	Trimethylcyclohexane Isomer	20,000	

T = Analyte is a tentatively identified compound, result is estimated.

Verified By: RCS Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **Method Blank**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P040518-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasin
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 5/18/04
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RL Date: 5/25/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P040518-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 5/18/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P040518-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/18/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
	No Compounds Detected		

Verified By: RG Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 3

Client: **GeoSyntec Consultants, Inc.**
 Client Sample ID: **Method Blank**
 Client Project ID: **Ascon - Phase I/SB0202/31**

CAS Project ID: P2400974
 CAS Sample ID: P040520-MB

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
 Analyst: Michelle Sakamoto/Aristotle Bragasin
 Sampling Media: 1.0 LITER CANISTER
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 5/20/04
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.50	ND	0.24	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	0.50	ND	0.14	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RG Date: 5/25/04

Page No.:

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P040520-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 5/20/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
136777-61-2	m,p -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC

Date: 5/25/04

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: GeoSyntec Consultants, Inc.
Client Sample ID: Method Blank
Client Project ID: Ascon - Phase I/SB0202/31

CAS Project ID: P2400974
CAS Sample ID: P040520-MB

Tentatively Identified Compounds

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2
Analyst: Michelle Sakamoto/Aristotle Bragasin
Sampling Media: 1.0 LITER CANISTER
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/20/04
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
	No Compounds Detected		

Verified By: RC Date: 5/25/04

Page No.:

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc.

Work order:

P2400974

Project: Ascon - Phase I/SB0202/31

Sample(s) received on: 5/7/04

Date opened: 5/7/04

by: SM

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client or as required by the method/SOP.

		Yes	No	N/A
1	Were custody seals on outside of cooler/Box?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Location of seal(s)? _____ Sealing Lid?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were signature and date included?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were custody seals on outside of sample container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Location of seal(s)? _____ Sealing Lid?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were signature and date included?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Were sample containers properly marked with client sample ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Did sample containers arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Were chain-of-custody papers used and filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Did sample container labels and/or tags agree with custody papers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Was sample volume received adequate for analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Are samples within specified holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Was proper temperature (thermal preservation) of cooler at receipt adhered to?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Cooler Temperature _____ NA _____ °C			
	Blank Temperature _____ NA _____ °C			
9	Is pH (acid) preservation necessary, according to method/SOP or Client specified information?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Is there a client indication that the submitted samples are pH (acid) preserved?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Were VOA vials checked for presence/absence of air bubbles?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Tubes: Are the tubes capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Do they contain moisture?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Badges: Are the badges properly capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Are dual bed badges separated and individually capped and intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2400974-001			NA	
P2400974-002			NA	
P2400974-003			NA	
P2400974-004			NA	
P2400974-005			NA	
P2400974-006			NA	
P2400974-007			NA	
P2400974-008			NA	
P2400974-009			NA	
P2400974-010			NA	

Explain any discrepancies: (include lab sample ID numbers): _____

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: GeoSyntec Consultants, Inc. Work order: P2400974
Project: Ascon - Phase I/SB0202/31
Sample(s) received on: 5/7/04 Date opened: 5/7/04 by: SM

Lab Sample ID	Required pH	pH (as received, if required)	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2400974-011			NA	
P2400974-012			NA	
P2400974-013			NA	

Chain of Custody Record Analytical Service Request

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270



An Employee-Owned Company

Client/Address
GeoSyntec Consultants
2100 Main St. Ste 150
Huntington Beach, CA
92648
Phone (714) 969-0800 Fax (714) 969-0020
Email mreardon@geosyntec.com

Contact
Mike Reardon
Sampler (Signature)
Mike Reardon

Project Name Ascon - Phase I				Project Number SB0202/31		Sampling Location Ascon LF		P.O. #/Billing Information SB0202/31		Analysis		CAS Project No. P2400974
Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Type of Sample	Container ID (Serial #)	Flow Controller (Serial #)	Sample Volume (Liters)	Expected Turnaround Time (10 Business Days)	Comments (e.g., preservative or specific instructions)	Cooler / Blank	Temp	
PAL-1-15 DAF	05-03-04	08:40	-1	Summa	06768		1	To-15				
PAL-14-21 DAF	"	11:50	-2	Summa	06766		1		X			
PAL-7-21 DAF	"	14:45	-3	Summa	06763		1		X			
PAL-11-12 DAF	05-04-04	12:15	-4	Summa	06771		1		X			
PAL-10A-13 DAF	"	14:20	-5	Summa	06770		1		X			
PAL-6-15 DAF	05-05-04	08:18	-6	Summa	06765		1		X			
PAL-6-15-ROHF	"	08:21	-7	Summa	06769		1		X			
PAL-9-15-DAF	"	10:18	-8	Summa	06767		1		X			
PAL-9-21-ROHF	"	11:20	-9	Summa	06764		1		X			
PAL-8-6-DAF	"	12:52	-10	Summa	06776		1	X				
PAL-8-18-DAF	"	13:46	-11	Summa	06777		1	X				
Relinquished by: (Signature) <i>Mike Reardon</i> Date: 05-05-04 15:10												
Relinquished by: (Signature) <i>David Page</i> Date: 5/7/04												
Relinquished by: (Signature) <i>David Page</i> Date: 5/7/04												

Received by: (Signature) *David Page* Date: 5/5/04 15:10
Received by: (Signature) *David Page* Date: 5/7/04 13:58
Received by: (Signature) *David Page* Date: 5/7/04 15:38