Analytical Bio-Chemistry Laboratories, Inc.

Celebrating four decades
of product development expertise

June 02, 2010

Nuclear Regulatory Commission
Materials Licensing Branch
US Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

ATTN: Kevin Null

RE: License Amendment Request – License No. 24-13365-01, Amendment 36

Gentlemen,

Analytical Bio-Chemistry Laboratories, Inc. (ABC Labs) decided to permanently cease aquatic toxicology radioactive waste disposal into two sewage lagoons located to the southwest of Building D.

Title 10 CFR 20.1501 requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present.

Title 10 CFR 21.1402 requires that a site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a TEDE to an average member of the critical group that does not exceed 25 mrem (0.25 mSv) per year.

The survey results for the two sewage lagoons are included in Enclosure (1). ABC Labs is required to provide written notification that we have decided to cease the principle activity in the sewerage ponds. No residual contamination was found above the contamination level for unrestrictive release. For the sake of finality we are asking for recognition for release of these sewerage ponds.

Sheila Hecht

Sheila Hecht

Director, Safety and Occupational Health

RECEIVED JUN 0 4 2010

CHEMICAL SERVICES
7200 E. ABC Lane • Columbia, Missouri 65202

PHARMACEUTICAL SERVICES
4780 Discovery Drive • Columbia, Missouri 65201

www.abclabs.com
phone 800.538.5227 fax 573.777.6033

ABC Laboratories, Inc was started in 1968 and was nutritionally oriented with focus on amino acids. Because of lack of funding by the US Government and concern raised about the environmental impact of pesticides (DDT), the focus was broadened into residue work. Water compatible waste was put down the drain unless not compatible with the plastic pipes used for plumbing. Some low level C-14 waste was disposed of this way. Regardless, any waste put down the drain would have gone to a sanitary sewerage pond located to the northwest of the building. This would have been low level amounts of C-14 as our license did not allow significant quantities. This pond was approximately 1,191 square feet.

As the company grew additional buildings were built and a second sewerage pond was constructed to handle the additional waste. This second pond measured approximately 1,105 square feet. Use of the two ponds was discontinued in 1986 when a larger lagoon was built in 1985 and all waste was directed to the lagoon. The two lagoons were eventually back filled and is now a gravel parking lot.

On September 24, 2007, we had seven core samples drilled to a depth of 8 feet and one core sample drilled to a depth of 5 feet. These samples were divided into two with one sample being read in house and one sample of each going to GEL Laboratories, LLC to be analyzed.

Based on the results of these core samples, and using contamination levels found in NUREG-1556 Vol 1, Rev 2 no residual contamination was found above the contamination level for unrestrictive release.

All data and close out records will be kept until the license is terminated.

NRC FORM 313 (4-2008)
10 CFR 30, 32, 33, 34, 35, 36, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3150-0120 **EXPIRES: 10/31/2008**

Estimated burden per response to comply with this mandatory collection request: 4.4 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
612 E. LAMAR BOULEVARD, SUITE 400
ARLINGTON, TX 76011-4125

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S.NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [x] B. AMENDMENT TO LICENSE NUMBER **24-13365-01**
- [ ] C. RENEWAL OF LICENSE NUMBER

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include ZIP code)*

Analytical Bio-Chemistry Laboratories, Inc
7200 E. ABC Lane
Columbia, MO 65202

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Analytical Bio-Chemistry Laboratories, Inc
7200 E. ABC Lane
Columbia, MO 65202

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Sheila C. Hecht

TELEPHONE NUMBER

777-6070

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number; b. chemical and/or physical form; and c. maiximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES *(See 10 CFR 170 and Section 170.31)*

FEE CATEGORY | AMOUNT ENCLOSED $

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

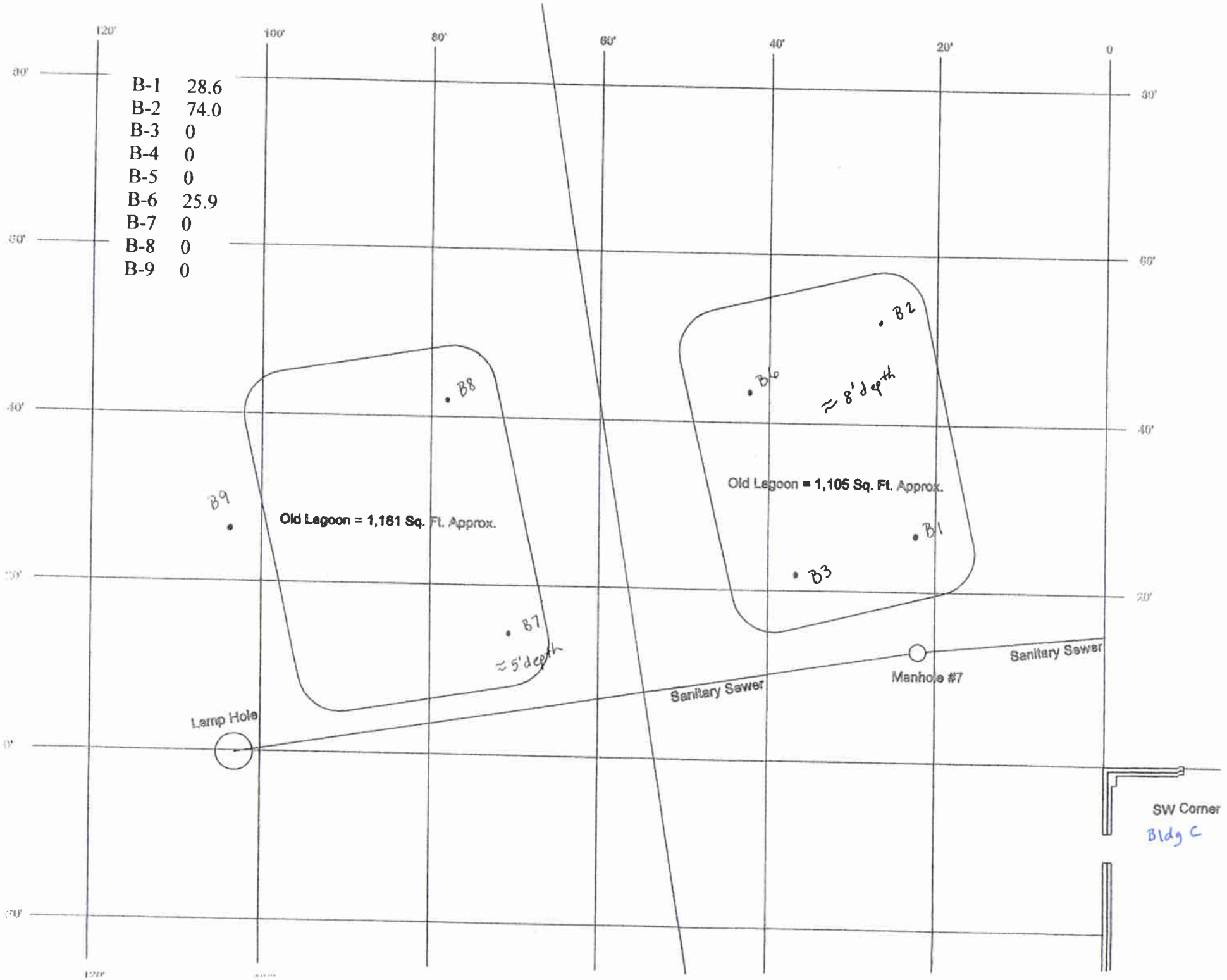
THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE	SIGNATURE	DATE
G. Scott Ward. Sr. VP & General Manager	G. Scott Ward	**06/02/2010**

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		
APPROVED BY				DATE	


B-1 28.6
B-2 74.0
B-3 0
B-4 0
B-5 0
B-6 25.9
B-7 0
B-8 0
B-9 0
Old Lagoon = 1,181 Sq. Ft. Approx.
Old Lagoon = 1,105 Sq. Ft. Approx.
≈ 8' depth
≈ 5' depth
Lamp Hole
Manhole #7
Sanitary Sewer
Sanitary Sewer
SW Corner
Bldg C

Enclosure 1

ID = HP
USER:20 COMMENT:LAGOON SAMPLES 25 SEP 2007 15:03

PRESET TIME : 5.00
DATA CALC : SL DPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : YES ID# : NO REPLICATES : 1 RS232 : OFF
TWO PHASE : NO AGC : NO CYCLE REPEATS : 1
SCINTILLATOR: LIQUID LUMEX: NO LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

ISOTOPE 1: 14C %ERROR: 0.00 FACTOR: 1.000000 DKG. SUB: 0

BACKGROUND QUENCH CURVE: OFF COLOR QUENCH CORRECTION: ON

Quench Limits Low:-0.869 High:324.89

SAM NO	POS	TIME MIN	H#	14C CPM	14C %ERROR	14C DPM	14C EFF-1	LUMEX %	ELAPSED TIME
B1	B3-1	3.00	202.8	80.60	9.96	94.48	86.31	2.56	5.47
B2	B3-2	5.00	205.7	60.60	11.49	71.37	84.91	0.50	11.05
		Blank Average DPM for 14C :				82.92	COEF. OF VAR:		19.710
1	B3-4	5.00	259.9	41.20	13.93	-28.73	74.03	1.97	16.65
2	B3-5	5.00	262.6	39.00	14.32	-31.24	75.46	2.61	22.24
3	B3-6	5.00	261.3	42.80	13.67	-26.43	75.76	1.06	27.80
4	B3-7	5.00	273.0	41.60	13.87	-26.26	73.41	1.26	33.38
5	B3-8	5.00	262.5	41.60	13.87	-27.84	75.52	2.08	38.97
6	B3-9	5.00	257.3	42.20	13.77	-27.51	76.15	4.09	44.56
7	B3-10	5.00	250.0	40.80	14.00	-29.40	76.23	3.50	50.15
8	B3-11	5.00	261.3	41.00	13.97	-28.80	75.76	0.98	55.72

1- ABC-BKG-3 (REPEAT)

2- ABC-SP-B06-01

3- ABC-SP-B06-02

4- ABC-SP-B06-03

5- ABC-SP-B06-04

6- ABC-SP-B06-06

7- ABC-SP-B06-07

8- ABC-SP-B06-08

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical – C14, H-3**

Client Sample ID: B-1
Sample ID: 181681001
Matrix: Soil
Collect Date: 27-FEB-07 09:20
Receive Date: 02-MAR-07
Collector: Client

Project: ABCL00106
Client ID: ABCL001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid											
Tritium	U	ND	+/-3.09	5.56	6.00	pCi/g		AXD2 03/23/07	1037	618092	1
Liquid Scint C14, Solid											
Carbon-14		28.6	+/-1.61	1.27	2.00	pCi/g		AXD2 03/17/07	1220	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C-01 Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 – (843) 556–8171 – www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical – C14, H–3**

Client Sample ID: B–2
Sample ID: 181681002
Matrix: Soil
Collect Date: 27–FEB–07 09:45
Receive Date: 02–MAR–07
Collector: Client

Project: ABCL00106
Client ID: ABCL001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid											
Tritium	U	ND	+/–3.07	5.74	6.00	pCi/g		AXD2 03/23/07	1053	618092	1
Liquid Scint C14, Solid											
Carbon–14		74.0	+/–2.44	1.36	2.00	pCi/g		AXD2 03/16/07	0342	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C–01 Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical - C14, H-3**

Client Sample ID:	B-3	Project:	ABCL00106
Sample ID:	181681003	Client ID:	ABCL001
Matrix:	Soil		
Collect Date:	27-FEB-07 10:05		
Receive Date:	02-MAR-07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Meth
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid												
Tritium	U	ND	+/-2.75	5.45	6.00	pCi/g		AXD2	03/23/07	1109	618092	1
Liquid Scint C14, Solid												
Carbon-14	U	ND	+/-0.857	1.47	2.00	pCi/g		AXD2	03/16/07	0358	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C-01 Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical – C14, H-3**

Client Sample ID:	B-4	Project:	ABCL00106
Sample ID:	181681004	Client ID:	ABCL001
Matrix:	Soil		
Collect Date:	27-FEB-07 10:30		
Receive Date:	02-MAR-07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid											
Tritium	U	ND	+/-2.99	5.43	6.00	pCi/g		AXD2 03/23/07	1125	618092	1
Liquid Scint C14, Solid											
Carbon-14	U	ND	+/-0.886	1.61	2.00	pCi/g		AXD2 03/16/07	0414	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C-01 Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical - C14, H-3**

Client Sample ID: B-5
Sample ID: 181681005
Matrix: Soil
Collect Date: 27-FEB-07 10:55
Receive Date: 02-MAR-07
Collector: Client

Project: ABCL00106
Client ID: ABCL001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid											
Tritium	U	ND	+/-2.90	5.60	6.00	pCi/g		AXD2 03/23/07	1141	618092	1
Liquid Scint C14, Solid											
Carbon-14	U	ND	+/-0.858	1.51	2.00	pCi/g		AXD2 03/16/07	0430	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C-01 Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical - C14, H-3**

Client Sample ID:	B-6	Project:	ABCL00106
Sample ID:	181681006	Client ID:	ABCL001
Matrix:	Soil		
Collect Date:	27-FEB-07 11:10		
Receive Date:	02-MAR-07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid											
Tritium	U	ND	+/-2.82	5.58	6.00	pCi/g		AXD2 03/23/07	1157	618092	1
Liquid Scint C14, Solid											
Carbon-14		25.9	+/-1.65	1.48	2.00	pCi/g		AXD2 03/16/07	0446	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C-01 Modified	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556–8171 – www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical – C14, H–3**

Client Sample ID: B–7
Sample ID: 181681007
Matrix: Soil
Collect Date: 27–FEB–07 11:25
Receive Date: 02–MAR–07
Collector: Client

Project: ABCL00106
Client ID: ABCL001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid											
Tritium	U	ND	+/–2.95	5.58	6.00	pCi/g		AXD2 03/23/07	1213	618092	1
Liquid Scint C14, Solid											
Carbon–14	U	ND	+/–0.990	1.61	2.00	pCi/g		AXD2 03/16/07	0503	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C–01 Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 – (843) 556–8171 – www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical – C14, H–3**

Client Sample ID: B–8
Sample ID: 181681008
Matrix: Soil
Collect Date: 27–FEB–07 11:50
Receive Date: 02–MAR–07
Collector: Client

Project: ABCL00106
Client ID: ABCL001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Solid											
Tritium	U	ND	+/–3.07	5.73	6.00	pCi/g		AXD2 03/23/07	1229	618092	1
Liquid Scint C14, Solid											
Carbon–14	U	ND	+/–1.04	1.72	2.00	pCi/g		AXD2 03/16/07	0519	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C–01 Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : ABC Laboratories, Inc.
Address : 7200 East ABC Lane
Columbia, Missouri 65202

Report Date: March 26, 2007

Contact: Sheila Hecht
Project: **Routine Analytical – C14, H-3**

Client Sample ID:	B-9	Project:	ABCL00106
Sample ID:	181681009	Client ID:	ABCL001
Matrix:	Soil		
Collect Date:	27-FEB-07 12:10		
Receive Date:	02-MAR-07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Meth
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid												
Tritium	U	ND	+/-2.96	5.42	6.00	pCi/g		AXD2	03/23/07	1245	618092	1
Liquid Scint C14, Solid												
Carbon-14	U	ND	+/-0.848	1.53	2.00	pCi/g		AXD2	03/16/07	0535	615381	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 906.0 Modified	
2	EPA EERF C-01 Modified	

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 26, 2007

ABC Laboratories, Inc.
7200 East ABC Lane
Columbia, Missouri

Contact: **Sheila Hecht**

Workorder: **181681**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation											
Batch 615381											
QC1201291294 181681001 DUP											
Carbon-14			28.6 +/-1.61		26.9 +/-1.65	pCi/g	6		(0%-20%)	AXD2	03/16/07 06:07
QC1201291296 LCS											
Carbon-14	22.9				21.9 +/-1.39	pCi/g		96	(75%-125%)		03/16/07 06:40
QC1201291293 MB											
Carbon-14				U	-0.274 +/-0.693	pCi/g					03/16/07 05:51
QC1201291295 181681001 MS											
Carbon-14	22.9		28.6 +/-1.61		46.8 +/-1.88	pCi/g		80	(75%-125%)		03/16/07 06:24
Batch 618092											
QC1201297974 181681001 DUP											
Tritium		U	0.138 +/-3.09	U	-2.81 +/-2.89	pCi/g	0		(0%-20%)	AXD2	03/23/07 13:17
QC1201297976 LCS											
Tritium	23.5				20.9 +/-4.44	pCi/g		89	(75%-125%)		03/23/07 13:50
QC1201297973 MB											
Tritium				U	-2.98 +/-2.77	pCi/g					03/23/07 13:01
QC1201297975 181681001 MS											
Tritium	23.9	U	0.138 +/-3.09		21.5 +/-4.53	pCi/g		90	(75%-125%)		03/23/07 13:33

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- ND Analyte concentration is not detected above the detection limit

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 181681

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

R Sample results are rejected

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

ABC Laboratories, Inc.
ATTN: Sheila Hecht
7200 E ABC Lane
Columbia MO 65202

CERTIFIED MAIL™

7009 1410 0001 0511 6958

017H15514900
$6.49
06/01/2010
Mailed From 65202
US POSTAGE
HASLER

Nuclear Regulatory Commission
Materials Licensing Branch
US Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Attn: Kevin Null