



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE**

Center for Coastal Fisheries and Habitat Research
101 Pivers Island Road
Beaufort, North Carolina 28516-9722

January 22, 2009

MS 16
J-6

RECEIVED
RETURN 1
2009 JAN 26 AM 10:36

Mr. Dennis R. Lawyer
U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

32-00426-02
03005594

Re. Mail Control No: 142793

Dear Mr. Lawyer:

We are writing to you to answer your inquiry for clarification of information that we have provided the Nuclear Regulatory Commission (NRC) regarding terminating our license.

1. In September 1995, we completely ripped out the area of contaminated floor in the hallway near room 112 so as to comply with Nuclear Regulatory Commission regulations and prevent our employees from being exposed to workplace hazards.
2. Room 112 was completely renovated in calendar year 1995 after it was certified for unrestricted release. *Please see enclosure 1.*
3. We are providing records that demonstrate we disposed of our U238 materials in accordance with NRC requirements. *Please see enclosure 2.*
4. We are providing records, calendar years 2007 and 2008, of final disposition of liquid radioactive materials we had in our possession prior to requesting termination of our license. *Please see enclosures 3a, 3b, and 3c.*
5. We are providing our calendar year 2008 record of sealed source removal material from the Beckman Coulter diagnostic machine. *Please see enclosure 4.*

Your point of contact for additional information or clarification of information is Joseph Bizzell, (252) 728-8718, or joseph.bizzell@noaa

Sincerely,

John J. Govoni
Deputy Director

Enclosures

142793

NAOIS/TONI MATERIALS-002



Enclosure (1) Cover letter for Post Decontamination Survey of Room 112.

Enclosure (2) Manifest record number 10307 for pickup of U238, C057, C-14, I129, C14, and H3.

Enclosure (3a) Records of quotes, Chain of Custody, and Laboratory analysis of radioactive materials.

Enclosure (3b) Documents certifying that radioactive materials picked up from our facility had been processed.

Enclosure (3c) Documents certifying final processing of radioactive materials from our Laboratory.

Enclosure (4) Receipt for pick up of Sealed Source Removal and Decommissioning Report.



SCIENTIFIC ECOLOGY GROUP, INC.

RADIOLOGICAL ENGINEERING AND
DECOMMISSIONING SERVICES

Phone: (615) 376-8206
FAX: (615) 376-6247

August 28, 1995

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Beaufort Laboratory
101 Pivers Island Road
Beaufort, NC 28516-9722

Attention: Dr. Susan Huntsman

Subject: POST DECONTAMINATION SURVEY DATA FOR ROOM 112

Reference: P.O. No. 401 ETNF500080

Dear Dr. Huntsman:

Scientific Ecology Group, Inc. (SEG) has completed the decontamination and final survey of the floor, wall and ceiling surfaces of Room 112 at the National Marine Fisheries Service at Beaufort Laboratory. The project engineer's report is attached. The data shows the floor, wall and ceiling surfaces meet the current NRC criteria for unrestricted release. Fixed contamination above the release criteria was found in the hallway adjacent to Room 112 and in a drain line in Room 112.

This complete the authorized scope of work, except for refinishing the floor. This task will be performed by an SEG subcontractor, Willis Construction Co., at your convenience. Please call me at (615) 376-8246 if you have any questions, or if I can be of any further service.

Sincerely,

David M. Hall
Manager, Decommissioning Contract Services
Radiological Engineering and
Decommissioning Services

DMH/tko

cc: D. Neely M. Lynch (NMFS)
A. Johnson P. Jones

082895-DAT\MEM\DAVE\SIGN\0650.L

Enclosure (1)

P.O. Box 2530
60 Bear Creek Rd.
Berk Ridge, Tennessee 37831-2530
(615) 481-0222 Fax: (615) 482-7206

P.O. Box 2138
Carlsbad, New Mexico 88220
(505) 887-1673 Fax: (505) 885-4219

1234 Columbia Dr. S.E.
Richland, Washington 99352
(509) 736-0626 Fax: (509) 735-3085

NRC FORM 541 (6-2004) U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste	1. MANIFEST TOTALS						2. MANIFEST NUMBER 10307
	NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME (m ³)	NET WASTE WEIGHT (kg)	SPECIFIC NUCLEAR MATERIAL (grams)			TOTAL
	3	0.1509	30.8	U-233	U-235	Pu	NP
				ACTIVITY (MBq)			SOURCE (kg)
ALL NUCLIDES		TRITIUM	C-14	Tc-99	I-129		
2.64812		0.037	0.777	NP	1.0064	0.0441168	
						PAGE 1 OF 1 PAGE(S)	
						4. SHIPPER NAME NOAA NATIONAL OCEAN SERVICE	
						SHIPPER I.D. NUMBER	

DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					18. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL <input type="checkbox"/> (µSv/hr) <input checked="" type="checkbox"/> (mSv/hr)	10. SURFACE CONTAMINATION MBq/100cm ²		11. WASTE DESCRIPTOR (See Note 2)	12. PHYSICAL DESCRIPTION		13. SORBENT SOLIDIFICATION, STABILIZATION, MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION	15. RADIOLOGICAL DESCRIPTION			
					ALPHA	BETA-GAMMA		APPROXIMATE WASTE VOLUME(S) IN CONTAINER	WEIGHT % CHELATING AGENT IF > 0.1%				INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
UL-1 ALB-2	4	0.019	9	0.0002	3.3e-1	1.0e-5	39	0.0019 m ³	100	OX 100CS/NP	NA	U238 = 0.5359 L [0.041168 kg]	AU		
NO-1	3	0.019	2	0.0002	3.3e-1	1.0e-5	59 EXHAUST END	0.019	100	OX 100CS/NP	NA	C14 = 0.289 C14 = 0.74 I129 = 1.0064 TOTAL 2.0354	AU		
Box-1	11	0.13	1.18	0.0002	3.3e-1	1.0e-5	59 EXHAUST END	0.13	100	OX 100CS/NP	NA	C14 = 0.037 H3 = 0.037 TOTAL 0.074	AU		

Enclosure (2)

NOTE 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

1. Wooden Box or Crate	9. Demineralizer
2. Metal Box	10. Gas Cylinder
3. Plastic Drum or Pail	11. Bulk Unpackaged Waste
4. Metal Drum or Pail	12. Unpackaged Components
5. Metal Tank or Liner	13. High Integrity Container
6. Concrete Tank or Liner	19. Other. Describe in item 6, or additional page
7. Polyethylene Tank or Liner	
8. Fiberglass Tank or Liner	

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal	29. Demolition Rubble	38. Evaporator Bottoms/Sludges/Concentrates
21. Incinerator Ash	30. Cation Ion-exchange Media	39. Compactible Trash
22. Soil	31. Anion Ion-exchange Media	40. Noncompactible Trash
23. Gas	32. Mixed Bed Ion-exchange Media	41. Animal Carcass
24. Oil	33. Contaminated Equipment	42. Biological Material (except animal carcass)
25. Aqueous Liquid	34. Organic Liquid (except oil)	43. Activated Material
26. Filter Media	35. Glassware or Labware	59. Other. Describe in item 11, or additional page
27. Mechanical Filter	36. Sealed Source/Device	
28. EPA or State Hazardous	37. Paint or Plating	

NOTE 3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in item 13. Code 100-NONE REQUIRED.

Sorpton			Solidification		
60. Speedi Dri	64. Safe T Sorb	69. Chemsil 30	74. Petrosel	88. Other. Describe in item 13, or additional page	90. Cement
61. Celetom	65. Safe N Dri	70. Chemsil 50	75. Petrosel II		91. Concrete (encapsulation)
62. Floor Dry/ Superfine	66. Florco	71. Chemsil 3030	76. Aquaset		92. Bitumen
63. Hi Dri	67. Florco X	72. Dicapert HP200	77. Aquaset II		93. Vinyl Chloride
	68. Solid A Sorb	73. Dicapert HP500			94. Vinyl Ester Styrene
					99. Other. Describe in item 13, or additional page
					100. None Required

quired by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden DC 20555-0001, or by Internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0186), Office of 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.

1. MANIFEST TOTALS				2. MANIFEST NUMBER 10307	
SPECIAL NUCLEAR MATERIAL (grams)				3. PAGE <u>1</u> OF <u>1</u> PAGE(S)	
ASTE 3HT 1)	U-233	U-235	Pu	TOTAL	
8	NP	NP	NP	NP	
ACTIVITY (MBq)				SOURCE (kg)	
IUM	C-14	Tc-99	I-129	4. SHIPPER NAME NUAA - NATIONAL OCEAN SERV.	
7	0.777	NP	1.0064	SHIPPER I.D. NUMBER	
				0.0441168	

14. CHEMICAL DESCRIPTION			15. RADIOLOGICAL DESCRIPTION		16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
IDENTIFICATION, IIA (note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
	OX 1000 / NP	NA	U238 = 0.5357 L [0.0441168 kg]		A4
	OX 1000 / NP	NA	C14 = 0.289 C14 = 0.74 I129 = 1.0064	TOTAL 2.0354	A11
	OX 1000 / NP	NA	C14 = 0.037 I129 = 0.037	TOTAL 0.074	A4

Enclosure (2)

NOTE 3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in item 13. Code 100=NONE REQUIRED.

Sorption				Solidification			
60. Speedi Dri	64. Safe T Sorb	68. Chemsil 30	74. Petrosel	80. Other. Describe in item 13, or additional page	90. Cement	94. Vinyl Ester Styrene	
61. Celatom	65. Safe N Dri	70. Chemsil 50	75. Petrosel II		91. Concrete (encapsulation)	99. Other. Describe in item 13, or additional page	
62. Floor Dry/ Superfine	66. Florco	71. Chemsil 3030	76. Aquaset		92. Bitumen		
	67. Florco X	72. Dicapert HP200	77. Aquaset II		93. Vinyl Chloride	100. None Required	
63. Hi Dri	68. Solid A Sorb	73. Dicapert HP500					

NRC FORM 540 (6-2004)		U.S. NUCLEAR REGULATORY COMMISSION		5. SHIPPER - NAME AND FACILITY NOAA-NATIONAL OCEAN SERVICES 101 RIVERS ISLAND ROAD DENVER, CO 80202-1722		SHIPPER I.D. NUMBER COLLECTOR PROCESSOR GENERATOR TYPE (Specify)		7. NRC FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) NRC FORM 541 AND 541A 1 PAGE(S) NRC FORM 542 AND 542A 1 PAGE(S) ADDITIONAL INFORMATION 1 PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) 10307							
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		USER PERMIT NUMBER		SHIPMENT NUMBER		9. CONSIGNEE - Name and Facility Address Energy Solutions 1550 Bear Creek Road OAK RIDGE, TN 37831		CONTACT Fred Schultz TELEPHONE NUMBER (Include Area Code) (865) 491-0222		DATE							
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (865) 220-8520		CONTACT Joseph Bizzell		TELEPHONE NUMBER (Include Area Code) (252) 728-9718		EPA I.D. NUMBER IND982116493		SIGNATURE - Authorized consignee acknowledging waste receipt		DATE							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 3		6. CARRIER - Name and Address Biometrics Inc. 1550 Bear Creek Road OAK RIDGE, TN 37830		SHIPPING DATE 10-3-07		10. CERTIFICATION This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.		AUTHORIZED SIGNATURE							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		EPA MANIFEST NUMBER		CONTACT John McCormick		TELEPHONE NUMBER (Include Area Code) (865) 220-5501		DATE 10-3-07		TITLE							
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY IN SI UNITS		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
Radioactive Material, Excepted Package		NA		NA		SOLID/CAUSTIC		U238		0.53872 MBq		NA		0.019 m ³		UL-1	
limited quantity of material, 7, UN2910																	
Radioactive Material, Excepted Package		NA		NA		SOLID/CAUSTIC		C-137; C-14; I-129		2.0354 MBq		NA		0.019 m ³		NU-1	
limited quantity of material, 7, UN2910																	
Radioactive Material, Excepted Package		NA		NA		SOLID/CAUSTIC		C-14; H-3		0.074 MBq		NA		0.13 m ³		Box-1	
limited quantity of material, 7, UN2910																	
FOR CONSIGNEE USE ONLY																	
Enclosure (2)																	

SHIPPER I.D. NUMBER	7. NRC FORM 540 AND 540A PAGE 1 OF 1 PAGE(S)	8. MANIFEST NUMBER (Use this number on all continuations) 10307
	NRC FORM 541 AND 541A 1 PAGE(S)	
	NRC FORM 542 AND 542A 1 PAGE(S)	
	ADDITIONAL INFORMATION 2 PAGE(S)	
COLLECTOR	9. CONSIGNEE - Name and Facility Address Energy Solutions 1550 Bear Creek Road Oak Ridge, TN. 37831	CONTACT Fred Schult
PROCESSOR		TELEPHONE NUMBER (Include Area Code) (865) 451-0223
GENERATOR TYPE (Specify)	SIGNATURE - Authorized consignee acknowledging waste receipt	DATE
TELEPHONE NUMBER (include Area Code) (62) 728-9718		
PA I.D. NUMBER ND982116493		

SHIPPING DATE 10-3-07	10. CERTIFICATION		
TELEPHONE NUMBER (include Area Code) (65) 220-5501	This is to certify that the herein-named materials are properly classified, described, packaged, marked, and lab in proper condition for transportation according to the applicable regulations of the Department of Transportation certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transport disposal as described in accordance with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent regulations.		
DATE 10-3-07	AUTHORIZED SIGNATURE	TITLE	DATE

15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY IN SI UNITS	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER
	0.53872 MBq	NA	0.019 m ³	UL
Clu; I, 29	2.0354 MBq	NA	0.019 m ³	NU.
H3	0.074 MBq	NA	0.13 m ³	Box

Enclosure (2)

SHIPPER COPY



P.O. Box 817 @ Kingston, TN 37763 @ (865) 220-3501

August 24, 2007

Mr. Joseph Bizzell
NOAA
101 Pivers Island Rd.
Beaufort, NC 28516-9722

Dear Mr. Bizzell,

Bionomics is pleased to submit a quote for disposal of the radioactive waste detailed below. The pricing below includes assistance with packaging, manifesting, transportation and disposal.

The Cs 137, I 129, and Co 57 Standards / source \$800.00
These items require stabilization in structural grade concrete and disposal at Barnwell SC.

South Carolina DHEC permit \$200.00
This permit is listed at cost and is required for any material destined for the burial site in SC.

H3 and C 14 LSC Standards \$390.00
These items will be packaged for disposal at Perma-Fix of Florida.

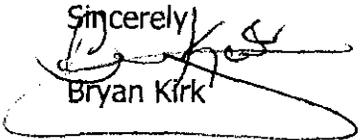
Uranyl Compounds \$600.00
These items will be solidified in concrete and will be disposed in Utah.

Remaining items, except DDT \$350.00
All of the remaining items, with the exception of the DDT material will be packaged for incineration at Energy Solutions.

We are still in search of an outlet for the material containing DDT. It is likely that it will require analysis prior to disposal.

If you have questions or require additional information please feel free to contact me at any time.

Sincerely,


Bryan Kirk

Page 1 of 21

Enclosure (3A)

Denny
Lab: General Engineering Lab
Charleston,
843-556-8171
Called 10-22/23

Jake Cook
843-769-7390
Brisson Kirk of Biomechanics
\$225.00
Packing + Shipping instructions.

Sample to send in for Analysis

Containing? ~~14~~ Carbon-14 ^{we w} to know how much Carbon 14 is in it.

Liquid

2.1 day turn around

Send in black cooler

Not Refrigerated

Chain of Custody

Wad up in Newspaper

Fedex or USPS Ground Service

10/25/2007 - Called GEL + spoke w/ Amanda + Amanda. Confirmed GEL accepts credit card by mtg. so that we could ship DDT via Fed Ex. Granted by Dorothy Smith + received shipping + packing instructions.

Water Samples for C-14 / Confirmation / Lab Verification

\$120 per sample

Plus

Shipping

Glass broken

2.1 day Turn-Around

If any is left ask for DDT analysis



P.O. Box 817 — Kingston, TN 37763 — (865) 220-8501

October 18, 2007

Mr. Joseph Bizzell
NOAA - National Ocean Services
101 Pivers Island Road
Beaufort, NC 28516-9722

Dear Mr. Joseph Bizzell,

As required by 10 CFR Part 20 (Appendix G), this letter is notification that Energy Solutions (formerly Duratek) has received the shipment recently picked up at your facility on **October 03, 2007**. Attached you will find a copy of your NRC Form 540, the only change from the original is in Item No. 9 "signature" which identifies that Energy Solutions is acknowledging receipt of waste from your facility.

Please keep this with your original, as well as future disposal certifications.

If you have any questions please feel free to contact me at (865) 220-8501.

Sincerely,

Rene Guy
Administrative Manager

Cc: File GTS-07-026

Page 2 of 21

Enclosure (3A)

APPROVED BY OMB: NO. 3150-0166
EXPIRES: 06/23/2007

Exempted from the general rule regarding the right of access to information, this information is exempt from release under 5 U.S.C. 552(b)(7)(C) and 5 U.S.C. 552(b)(7)(D). The information is exempt from release under 5 U.S.C. 552(b)(7)(C) and 5 U.S.C. 552(b)(7)(D) because it is information that is exempt from release under 5 U.S.C. 552(b)(7)(C) and 5 U.S.C. 552(b)(7)(D). The information is exempt from release under 5 U.S.C. 552(b)(7)(C) and 5 U.S.C. 552(b)(7)(D) because it is information that is exempt from release under 5 U.S.C. 552(b)(7)(C) and 5 U.S.C. 552(b)(7)(D).

NRC FORM 540 6-2004		U.S. NUCLEAR REGULATORY COMMISSION		SHIPPER ID NUMBER		NRC FORM 540 AND 542A		PAGE 31		MANIFEST NUMBER									
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER				NOAA-NATIONAL OCEANIC SERVICES 101 RIVERS ISLAND ROAD BEAUFORT, NC. 28516-9722		NRC FORM 541 AND 541A NRC FORM 542 AND 542A ADDITIONAL INFORMATION		PAGE 31 PAGE 32 PAGE 33 PAGE 34		10307									
EMERGENCY TELEPHONE NUMBER (Provide Area Code) (865) 220-8520				USER PERMIT NUMBER		COLLECTION PROCESSION GENERATOR TYPE (Specify)		6		CONTACT Fred Schultz TELEPHONE NUMBER (Include Area Code) (865) 481-0222									
ORGANIZATION Bionomics Inc.				CONTACT Joseph Bizzell		TELEPHONE NUMBER (Include Area Code) (865) 728-9718		6		DATE 10/03/07									
2. IS THIS AN "EXCLUSIVE" USE SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 3		EPA LICENSE NUMBER TND982116493		EPA LICENSE DATE 10-3-07		10. CERTIFICATION 10/03/07									
4. DOES EPA REGULATED WASTE REQUIRE A MANIFEST ACCOMPANY THIS SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				EPA MANIFEST NUMBER		CONTACT John McCormick		TELEPHONE NUMBER (Include Area Code) (865) 220-8501		DATE 10-3-07									
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number and any instructions for handling)				17. DOT LABEL RADIOACTIVE		12. TRANSPORT INDEX		13. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIOACTIVITY		16. EPA PACKAGE ACTIVITY IN BQ/LB		14. LEAKAGE CLASS		18. TOTAL WEIGHT OF VOLUMES (Use appropriate units)		19. CERTIFICATION NUMBER OF PACKAGE	
Radioactive Material, Excepted Package, Limited quantity of material, UN2910				NA		NA		Solid/Oxides		U238		0.53872 MBq		NA		0.019 m ³		UL-1	
Radioactive Material, Excepted Package, Limited quantity of material, UN2910				NA		NA		Solid/Oxides		Co57; C14; I129		2.0354 MBq		NA		0.019 m ³		NO-1	
Radioactive Material, Excepted Package, Limited quantity of material, UN2910				NA		NA		Solid/Oxides		C14; H3		0.074 MBq		NA		0.17 m ³		Box-1	
FOR CONSIGNEE USE ONLY																			

NRC FORM 540 (6-2004)

CONSIGNEE ORIGINAL COPY (MUST ACCOMPANY WASTE IN TR)



November 15, 2007

Mr. Joseph Bizzell
NOAA
101 Pivens Island Road
Beaufort, North Carolina 28516

Re: Carbon 14
Work Order: 196580

Dear Mr. Bizzell:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 29, 2007. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4297.

Sincerely,

Amanda Rasco
Project Manager

Enclosures

Page 3 of 21

Enclosure (3A)

COMPANY - WIDE NONCONFORMANCE REPORT

Mo. Day Yr.
06-NOV-07

Division:
Federal

Quality Criteria:
SOP

Type:
Process

Instrument Type:

Test / Method:
SW846 9056

Matrix Type:
Liquid

Client Code:
SNLS002

Batch ID:
697811

Sample Numbers:
all

Potentially affected work order(s)(SDG): 196471, 196569

Application Issues:

Failed Recovery for MS/PS

**Specification and Requirements
Nonconformance Description:**

1. Failed Recovery for PS:

QC 1201450728

NRG Disposition:

1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Virginia Winger 06-NOV-07

Data Validator/Group Leader:

Julia Hamilton 14-NOV-07

Quality Review:

Director:

GEL LABORATORIES LLC

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

QC Summary

Report Date: November 15, 2007
Page 1 of 2

NOAA
101 Pivens Island Road
Beaufort, North Carolina

Contact: Mr. Joseph Bizzell

Workorder: 196580

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch	699724										
QC1201454951	196580001	DUP									
Carbon-14											
			3.86E+07	4.01E+07	pCi/L	4		(0% - 20%)	ADD	11/09 07	17:26
			+/-7.51E+05	+/-7.85E+05							
QC1201454953	LCS										
Carbon-14	6.50E+05			6.66E+05	pCi/L		103	(75%-125%)		11/09 07	17:33
				+/-41100							
QC1201454950	MB										
Carbon-14			U	7350	pCi/L					11/09 07	17:10
				+/-21200							
QC1201454952	196580001	MS									
Carbon-14	6.50E+05		3.86E+07	4.10E+07	pCi/L		N/A	(75%-125%)		11/09 07	17:29
			+/-7.51E+05	+/-7.97E+05							

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
- M M if above MDC and less than LLD
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- 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. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

Page 6 of 21

ENCLOSURE (3A)

GEL LABORATORIES LLC

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

QC Summary

Workorder: 196580

Page 2 of 2

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

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.

* Indicates that a Quality Control parameter was not within specifications.

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.

Page 7 of 21

Enclosure (3A)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : NOAA
Address : 101 Pivens Island Road
Beaufort, North Carolina 28516

Contact: Mr. Joseph Bizzell
Project: **Carbon 14**

Report Date: November 15, 2007

Client Sample ID: Pip DDT 7-26-72
Sample ID: 196580001
Matrix: Misc Liquid
Collect Date: 25-OCT-07 15:00
Receive Date: 29-OCT-07
Collector: Client

Project: NOAA00107
Client ID: NOAA002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
High Rad Testing											
<i>Liquid Scint C14, Liquid</i>											
Carbon-14		3.86E+07	+/-7.51E+05	84700	50.0	pCi/L		ADD 11/09/07	1707	699724	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA EERF C-01 Modified	

Page 8 of 21

Enclosure (3A)

GEL LABORATORIES LLC

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

**Certificate of Analysis Report
for**

NOAA002 NOAA (GELP07-0886)

Client SDG: 196580 GEL Work Order: 196580

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- ND The analyte concentration is not detected above the detection limit.

The above sample is reported on an "as received" basis.

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 Certificate of Analysis.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Amanda Rasco.

Amanda Rasco

Reviewed by _____

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

QC Summary

Report Date: November 15, 2007
 Page 1 of 2

NOAA
 101 Pivens Island Road
 Beaufort, North Carolina
 Mr. Joseph Bizzell

Contact: Mr. Joseph Bizzell
 Workorder: 196580

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch	699724										
QC1201454951	196580001	DUP									
Carbon-14				3.86E+07	4.01E+07	pCi/L	4	(0% - 20%)	ADD	11/09/07	17:26
				+/-7.51E+05	+/-7.85E+05						
QC1201454953	LCS										
Carbon-14	6.50E+05			6.66E+05		pCi/L	103	(75%-125%)		11/09/07	17:33
				+/-41100							
QC1201454950	MB										
Carbon-14			U	7350		pCi/L				11/09/07	17:10
				+/-21200							
QC1201454952	196580001	MS									
Carbon-14	6.50E+05			3.86E+07	4.10E+07	pCi/L		N/A (75%-125%)		11/09/07	17:29
				+/-7.51E+05	+/-7.97E+05						

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
- M M if above MDC and less than LLD
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- 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. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

Page 10 of 21

Enclosure (3A)

GEL LABORATORIES LLC

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

QC Summary

Workorder: 196580

Page 2 of 2

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

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.

* Indicates that a Quality Control parameter was not within specifications.

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.

Page 11 of 21

Enclosure (3A)

List of current GEL Certifications as of 15 November 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-07-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

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Enclosure (3A)

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

NOAA002 NOAA (GELP07-0886)

Client SDG: 196580 GEL Work Order: 196580

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- ND The analyte concentration is not detected above the detection limit.

The above sample is reported on an "as received" basis.

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 Certificate of Analysis.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Amanda Rasco.

Amanda Rasco

Reviewed by

Page 13 of 21

Enclosure (3A)

Client: NOAA SDG/ARCOC/Work Order: 196580

Received By: Jason Pitts Date Received: 10/29/07

Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Maximum Counts Observed*: <u>200cpm</u>
Classified Radioactive II by RSO?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
COC/Samples marked containing PCBs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Shipped as a DOT Hazardous?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____
Samples identified as Foreign Soil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: damaged container leaking container other (describe) seals broken
2 Samples requiring cold preservation within (4 +/- 2 C)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Preservation Method: blue ice dry ice none other (describe) ice bags <u>20c</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Sample containers intact and sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Circle Applicable: <u>Qty 1</u> damaged container leaking container other (describe) seals broken
5 Samples requiring chemical preservation at proper pH?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's and containers affected:
7 Are Encore containers present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and lots affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's affected: <u>No time.</u>
11 Number of containers received match number indicated on COC?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sample ID's affected: <u>1 broken</u>
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Comments: FX-7924-4427-9260

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Enclosure (3A)

PM (or PMA) review: Initials APR Date 10/29/07

List of current GEL Certifications as of 15 November 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-07-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

GEL LABORATORIES LLC

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

Certificate of Analysis Report for

NOAA002 NOAA (GELP07-0886)

Client SDG: 196580 GEL Work Order: 196580

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
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- ND The analyte concentration is not detected above the detection limit.

The above sample is reported on an "as received" basis.

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 Certificate of Analysis.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Amanda Rasco.

Amanda Rasco

Reviewed by _____

Page 16 of 21

Enclosure (3A)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : NOAA
Address : 101 Pivens Island Road
Beaufort, North Carolina 28516

Contact: Mr. Joseph Bizzell
Project: **Carbon 14**

Report Date: November 15, 2007

Client Sample ID: Pip DDT 7-26-72
Sample ID: 196580001
Matrix: Misc Liquid
Collect Date: 25-OCT-07 15:00
Receive Date: 29-OCT-07
Collector: Client

Project: NOAA00107
Client ID: NOAA002

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
High Rad Testing											
<i>Liquid Scint C14, Liquid</i>											
Carbon-14		3.86E+07	+/-7.51E+05	84700	50.0	pCi/L	ADD	11/09/07	1707	699724	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA EERF C-01 Modified	

Page 17 of 21

Enclosure (3A)

GEL LABORATORIES LLC

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

QC Summary

Report Date: November 15, 2007
Page 1 of 2

NOAA
101 Pivens Island Road
Beaufort, North Carolina

Contact: Mr. Joseph Bizzell

Workorder: 196580

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch	699724										
QC1201454951	196580001	DUP									
Carbon-14		3.86E+07		4.01E+07	pCi/L	4		(0% - 20%)	ADD	11/09/07	17:26
		+/-7.51E+05		+/-7.85E+05							
QC1201454953	LCS										
Carbon-14	6.50E+05			6.66E+05	pCi/L		103	(75%-125%)		11/09/07	17:33
				+/-41100							
QC1201454950	MB										
Carbon-14			U	7350	pCi/L					11/09/07	17:10
				+/-21200							
QC1201454952	196580001	MS									
Carbon-14	6.50E+05	3.86E+07		4.10E+07	pCi/L		N/A	(75%-125%)		11/09/07	17:29
		+/-7.51E+05		+/-7.97E+05							

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
- M M if above MDC and less than LLD
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- 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. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

Page 18 of 21

Enclosure (3A)

GEL LABORATORIES LLC

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

QC Summary

Workorder: 196580

Page 2 of 2

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

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.

* Indicates that a Quality Control parameter was not within specifications.

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.

Page 19 of 21

Enclosure (3A)

List of current GEL Certifications as of 15 November 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas NELAP	T104704235-07-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.
06-NOV-07

Division:
Federal

Quality Criteria:
SOP

Type:
Process

Instrument Type:

Test / Method:
SW846 9056

Matrix Type:
Liquid

Client Code:
SNLS002

Batch ID:
697811

Sample Numbers:
all

Potentially affected work order(s)(SDG): 196471,196569

Application Issues:

Failed Recovery for MS/PS

**Specification and Requirements
Nonconformance Description:**

1. Failed Recovery for PS:

QC 1201450728

NRG Disposition:

1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Virginia Winger 06-NOV-07

Data Validator/Group Leader:

Julia Hamilton 14-NOV-07

Quality Review:

Director:



P.O. Box 817 — Kingston, TN 37763 — (865) 220-8501

February 11, 2008

Mr. Joseph Bizzell
NOAA - National Ocean Services
101 Pivers Island Road
Beaufort, NC 28516-9722

Dear Mr. Joseph Bizzell:

This is to certify that the radioactive material picked up at your facility on October 03, 2007 on manifest #10307, has been processed at Energy Solutions (formerly Duratek) in Oak Ridge, TN and disposed of at Energy Solutions (formerly Envirocare) in Clive, Utah.

Please reference the following table for detailed disposal information.

Manifest Number	Container Number	Disposal Volume (ft ³)	Disposal Shipment Number	Disposal Date
10307	UL-1	1.02183	T080174	01/17/2008

If you have any questions please feel free to contact me at (865) 220-8501.

Sincerely,

Rene Guy
Administrative Manager

Cc: File



P.O. Box 817 — Kingston, TN 37763 — (865) 220-8501

April 04, 2008

Mr. Joseph Bizzell
NOAA - National Ocean Services
101 Pivers Island Road
Beaufort, NC 28516-9722

Dear Mr. Joseph Bizzell:

This letter certifies that Duratek, Inc. (Energy Solutions) has processed the materials from your shipment as indicated below:

Please reference the following table for detailed disposal information.

Manifest Number	Shipment Date	Container Number	Incineration Date
10307	10/3/2007	NO-1	10/25/2007
10307	10/3/2007	Box-1	10/27/2007

Note: Any ash from the incineration process becomes Duratek's (Energy Solutions) waste.

If you have any questions please feel free to contact me at (865) 220-8501.

Sincerely,

Rene Guy
Administrative Manager

Cc: File

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

Certificate of Analysis

Company : NOAA
 Address : 101 Pivens Island Road
 Beaufort, North Carolina 28516

Report Date: November 15, 2007

Contact: Mr. Joseph Bizzell
 Project: **Carbon 14**

Client Sample ID:	Pip DDT 7-26-72	Project:	NOAA00107
Sample ID:	196580001	Client ID:	NOAA002
Matrix:	Misc Liquid		
Collect Date:	25-OCT-07 15:00		
Receive Date:	29-OCT-07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
High Rad Testing											
<i>Liquid Scint C14, Liquid</i>											
Carbon-14		3.86E+07	+/-7.51E+05	84700	50.0	pCi/L		ADD 11/09/07	1707	699724	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA EERF C-01 Modified	

Page 3 of 7

Enclosure (3B)

GEL LABORATORIES LLC

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

QC Summary

Report Date: November 15, 2007

Page 1 of 2

NOAA
101 Pivens Island Road
Beaufort, North Carolina
Mr. Joseph Bizzell

Contact:

Workorder: 196580

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch	699724										
QC1201454951	196580001	DUP									
Carbon-14			3.86E+07	4.01E+07	pCi/L	4		(0% - 20%)	ADD	11/09/07	17:26
			+/-7.51E+05	+/-7.85E+05							
QC1201454953	LCS										
Carbon-14	6.50E+05			6.66E+05	pCi/L		103	(75%-125%)		11/09/07	17:33
				+/-41100							
QC1201454950	MB										
Carbon-14			U	7350	pCi/L					11/09/07	17:10
				+/-21200							
QC1201454952	196580001	MS									
Carbon-14	6.50E+05		3.86E+07	4.10E+07	pCi/L		N/A	(75%-125%)		11/09/07	17:29
			+/-7.51E+05	+/-7.97E+05							

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
- M M if above MDC and less than LLD
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
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- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

Page 4 of 7

Enclosure (EB)



P.O. Box 817 — Kingston, TN 37763 — (865) 220-8501

April 04, 2008

Mr. Joseph Bizzell
NOAA - National Ocean Services
101 Pivers Island Road
Beaufort, NC 28516-9722

Dear Mr. Joseph Bizzell:

This letter certifies that Duratek, Inc. (Energy Solutions) has processed the materials from your shipment as indicated below:

Please reference the following table for detailed disposal information.

Manifest Number	Shipment Date	Container Number	Incineration Date
10307	10/3/2007	NO-1	10/25/2007
10307	10/3/2007	Box-1	10/27/2007

Note: Any ash from the incineration process becomes Duratek's (Energy Solutions) waste.

If you have any questions please feel free to contact me at (865) 220-8501.

Sincerely,

Rene Guy
Administrative Manager

Cc: File

Page 1 of 2

Enclosure (3C)

APPROVED BY ONE, NO 1750-01-04
 EXP RES 06/27/2007

FOR THE U.S. DEPARTMENT OF TRANSPORTATION, OFFICE OF REGULATORY AFFAIRS, DIVISION OF RADIOACTIVE WASTE MANAGEMENT, 1215 M STREET, N.W., WASHINGTON, D.C. 20590-0001
 U.S. NUCLEAR REGULATORY COMMISSION, 1615 NORTH CLAY STREET, WASHINGTON, D.C. 20545-0001

NRC FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		U.S. NUCLEAR REGULATORY COMMISSION		SHIPPER - NAME AND FACILITY NOAA-NATIONAL OCEAN SERVICE 101 PIVERS ISLAND ROAD BEAUFORT, NC. 28516-9722		EXPERTS NUMBER COLLECTOR PROCESSOR GENERATOR TYPE 6		7. NRC FORM 540 AND 541A PAGE 1 OF 1 NRC FORM 540 AND 541A NRC FORM 540 AND 541A ADDITIONAL INFORMATION		8. MANIFEST NUMBER (Use 8 as a check digit if a seven-digit number) 10307					
1. LICENSEE OR LICENSEE NUMBER (Print or Type Correctly) (305) 220-8520 Bionomics Inc.		2. USER PERMIT NUMBER CONTACT Joseph Bizzelli Bionomics Inc 1550 Bear Creek Road OAK RIDGE, TN. 37830		3. CARRIER - Name and Address CONTACT John McCormick 10-3-07		4. TELEPHONE NUMBER (Include Area Code) (252) 728-9716 5. EPA ID NUMBER TN0982116493 6. SHIPPING DATE 10-3-07		9. COMMENCE - Name and Facility Address Energy Solutions 1550 Bear Creek Road OAK RIDGE, TN. 37831 CONTACT Fred Schultz (615) 491-0222 DATE 10/01/07		10. CERTIFICATION This is to certify that the above named waste is properly described, described, packaged, marked and labeled and is in a proper condition for transportation according to the applicable regulations of the Department of Transportation. The condition of the materials and containers packaged, marked and labeled are to be proper and conform to the applicable requirements of 49 CFR Parts 173 and 174 of the Federal Motor Vehicle Regulations.					
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, and any other hazard information) RADIOACTIVE MATERIAL, EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL, 7 UN2910		12. HAZARD CLASS NA		13. TRANSPORT INDEX NA		14. SPECIAL INSTRUCTIONS SOLID/OXIDES U235		15. TOTAL PACKAGE ACTIVITY IN QUANTITY 0.57872 MBq		16. LEAKAGE CLASS NA		17. TOTAL VOLUME OR MASS (Use appropriate units) 0.019 m ³		18. IDENTIFICATION NUMBER OF PACKAGE U4-1	
RADIOACTIVE MATERIAL, EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL, 7 UN2910		NA		NA		SOLID/OXIDES CO2, Cl, I, U		2.0354 MBq		NA		0.019 m ³		NO-1	
RADIOACTIVE MATERIAL, EXCEPTED PACKAGE LIMITED QUANTITY OF MATERIAL, 7 UN2910		NA		NA		SOLID/OXIDES Cl, H3		0.074 MBq		NA		0.17 m ³		Box-1	

Page 2 of 2

Enclosure (3C)

CONSIGNEE ORIGINAL COPY (MUST ACCOMPANY WASTE IN TR)



CUSTOMER SUPPORT CALL

www.beckmancoulter.com

ACCOUNT U S DEPARTMENT OF COMMERCE 101 PIVERS ISLAND RD BEAUFORT NC 28516-9701	MODEL LS6500	SERIAL NUMBER 7070106
CUSTOMER CONTACT CHRIS HOLLAND 252-728-8799	ID NUMBER 441778	PROPERTY NUMBER
AGREEMENT TYPE Reimbursable	PURCHASE ORDER Credit Card	AGREEMENT NUMBER
FIELD SERVICE TASK NUMBER 2857326	REQUEST DATE 27-MAR-08	EFFECTIVE DATES
PERFORMED BY HARRIS, KERRY B ACCOUNT SPECIALIST	CALL COMPLETE DATE 28-APR-08	

DESCRIPTION OF WORK PERFORMED

PROBLEM: SOURCE REMOVAL & DECOMMISSION REPORT

SOLUTION: 4/28 Removed 30uCu 137Cs source lot#1612 dated 2/21/02. Shipped to BCI Fullerton for disposal on RMA#46829531, FEDX tracking# 859208790247.

28-APR-08	01-Repair Labor	TRAVEL	3.00	\$290.00	\$870.00	\$870.00
		LABOR	2.00	\$290.00	\$580.00	\$580.00
LABOR/TRAVEL TOTAL					\$1,450.00	\$1,450.00

599764	SHIPPING KIT, 137CS SOURCE	1.00	\$500.00	\$500.00	\$500.00	\$500.00
PARTS TOTAL					\$500.00	\$500.00

Customer signature

Total is an estimate only and does not include applicable sales tax and shipping charges.

[Handwritten Signature]

5/12/08

Enclosure (4)



FedEx Express
 Customer Support Trace
 3875 Airways Boulevard
 Module H, 4th Floor
 Memphis, TN 38116

U.S. Mail: PO Box 727
 Memphis, TN 38194-4643
 Telephone: 901-369-3600

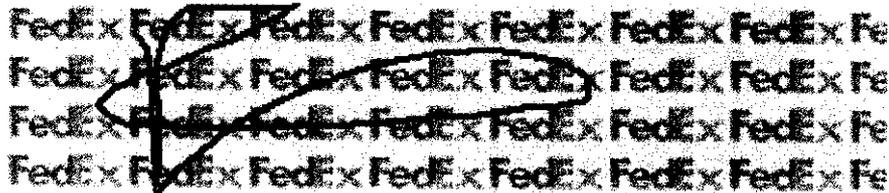
July 14, 2008

Dear Customer:

The following is the proof-of-delivery for tracking number **859208790247**.

Delivery Information:

Status:	Delivered	Delivery date:	Apr 30, 2008 09:01
Signed for by:	E.RAMIREZ		
Service type:	FedEx 2Day Service		



Shipping Information:

Tracking number:	859208790247	Ship date:	Apr 28, 2008
		Weight:	4.0 lbs.

Recipient:	Shipper:
US	BEA US

Reference	RMA 46829531
------------------	--------------

Thank you for choosing FedEx Express.

FedEx Worldwide Customer Service
 1.800.GoFedEx 1.800.463.3339

Note: Receipt of Beckman-Coulter source (Sealed)

Page 2 of 3

Enclosure (4)



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[Ship](#) ▶ [Track](#) ▶ [Manage](#) ▶ [Business Solutions](#) ▶

Track Shipments/FedEx Kinko's Orders
Detailed Results

[Printable Version](#) [Quick Help](#)

Tracking number	859208790247	Reference	RMA 46829531
Signed for by	E.RAMIREZ	Delivered to	Shipping/Receiving
Ship date	Apr 28, 2008	Service type	FedEx 2Day Service
Delivery date	Apr 30, 2008 9:01 AM	Weight	4.0 lbs.
Status	Delivered		
Signature image available	<u>Yes</u>		

Wrong Address?
 Reduce future mistakes.
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Tracking a FedEx Shipment?
[Go to shipper login](#)

Date/Time	Activity	Location	Details
Apr 30, 2008	9:01 AM	Delivered	
	7:32 AM	On FedEx vehicle for delivery	FULLERTON, CA
	7:10 AM	At local FedEx facility	FULLERTON, CA
Apr 29, 2008	4:24 PM	Departed FedEx location	MEMPHIS, TN
	10:27 AM	Arrived at FedEx location	MEMPHIS, TN
Apr 28, 2008	7:44 PM	Left FedEx origin facility	NEW BERN, NC
	3:55 PM	Picked up	NEW BERN, NC



[Signature proof](#) | [E-mail results](#) | [Track more shipments/orders](#)

Subscribe to tracking updates (optional)

Your name: Your e-mail address:

E-mail address	Language	Exception updates	Delivery updates
<input type="text"/>	English ▼	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	English ▼	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	English ▼	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	English ▼	<input type="checkbox"/>	<input type="checkbox"/>

Select format: HTML Text Wireless

Add personal message:
 Not available for Wireless or non-English characters.

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