APPENDIX G

USABILITY REPORTS

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50979

Analytical Fraction: H-3, Gross Alpha Analytical Method(s): EPA 906, 900

Sample Ids: 075-85, 065-39, 076-10

Sample ID	Data Usability Qualifier	Explanation for qualifier.
075-85	N2 H-3	The H-3 results were not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
065-39	N2 H-3	
076-10	N2 G. ~~Beta~~ Alpha	The Gross ~~Beta~~ Alpha results were not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Pietrzak — BNL Data Usability Reviewer — Date: 12/6/01

Reviewed by: W. Dorn — BNL Project Manager — Date: 12/7/01

Usability of radiochemistry results for SDG 50979

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10970-3	075-85	H-3	533	245	386	288	Not Distinguishable from background
10970-6	065-39	H-3	629	250	387	379	Not Distinguishable from background
10970-10	076-10	Gross Alpha	0.711	0.415	0.612	0.296	Not Distinguishable from background

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 51010

Analytical Fraction: Gross Beta Analytical Method(s): EPA 900

Sample Ids: 124-02

Sample ID	Data Usability Qualifier	Explanation for qualifier.
124-02	N2 G. Beta	The gross beta result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: [signature] 12/6/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 12/7/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 51010

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10973-2	124-02	Gross Beta	1.29	0.722	1.18	0.568	Not Distinguishable from background

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 46315

Analytical Fraction: Sr-90 Analytical Method(s): EPA 901.1

Sample Ids: 076-05 7/25/01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
076-05	U-N2	The result for Sr-90 is not distinguishable from background. The sum of the MDA and the 2-sigma error were greater than the reported activity.

Summary:

Completed by: Rich Pretzlik 10/6/01

BNL Data Usability Reviewer Date

Reviewed by: _____ _____

BNL Project Manager Date

Usability of radiochemistry results for SDG 46315

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10101-2	076-05	Sr-90	0.525	0.278	0.449	0.247	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50019

Analytical Fraction: Co-60, Sr-90 Analytical Method(s): EPA 901.1,6-905

Sample Ids: 097-17, 106-30

Sample ID	Data Usability Qualifier	Explanation for qualifier.
097-17	N2 Co-60	The Co-60 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
106-30	N2 Sr-90	The Sr-90 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: [signature] 1/16/02
BNL Data Usability Reviewer Date

Reviewed by: W. Dorl 2/4/02
BNL Project Manager Date

Usability of radiochemistry results for SDG 50019

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10931-2	097-17	Co-60	3.83	2.52	2.84	1.31	Not distinguishable from background
10931-4	106-30	Sr-90	0.679	0.284	0.513	0.395	Not distinguishable from background

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 53180

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: MW-D

Sample ID	Data Usability Qualifier	Explanation for qualifier.
MW-D	N2 H-3	The reported result could not be distinguished from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Putzyk 1/16/02
BNL Data Usability Reviewer Date

Reviewed by: W. Doerd 2/4/02
BNL Project Manager Date

Usability of radiochemistry results for SDG 53180

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
MW-D	H-3	453	243	388	210	Not Distinguishable from background

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 51834

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 088-20, 088-14, 088-13, 107-25, 107-24

Sample ID	Data Usability Qualifier	Explanation for qualifier.
088-20 088-14 088-13 107-25 107-24	N2 H-3 N2 H-3 N2 H-3 N2 H-3 N2 H-3	The H-3 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rich Pietrzak — BNL Data Usability Reviewer — Date: 1/18/02

Reviewed by: W. Dowd — BNL Project Manager — Date: 2/4/02

Usability of radiochemistry results for SDG 51834

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
11018-2	088-20	H-3	449	248	395	201	Not Distinguishable from background
11018-3	088-14	H-3	520	249	391	271	Not Distinguishable from background
11018-4	088-13	H-3	433	246	393	187	Not Distinguishable from background
11018-7	107-25	H-3	622	262	405	360	Not Distinguishable from background
11018-8	107-24	H-3	542	260	408	282	Not Distinguishable from background

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BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 46973

Analytical Fraction: VOCs Analytical Method(s): EPA 524.2

Sample Ids: 121-16 (sampled 7/10/01), 122-13 (sampled 7/10/01), 122-12 (sampled 8/6/01), 122-30 (sampled 8/6/01)

Sample ID	Data Usability Qualifier	Explanation for qualifier.
121-16 (Sample Key 123289) and 122-13 (Sample Key 123292)		A review of the historical data, and nearby monitoring wells indicate that the results from these two wells were inadvertantly switched with each other. It can not be determined if this switch occurred in the laboratory or the field but the results clearly indicate that they were switched. Therefore, the results in the database will be changed to indicate the correct sampling points.
122-12 (Sample Key 123558) and 122-30 (Sample Key 123559)		A review of the historical data, and nearby monitoring wells indicate that the results from these two wells were inadvertantly switched with each other. It can not be determined if this switch occurred in the laboratory or the field but the results clearly indicate that they were switched. Therefore, the results in the database will be changed to indicate the correct sampling points.

Summary:

Completed by: _____ BNL Data Usability Reviewer — Date: 2/25/02

Reviewed by: _____ BNL Project Manager — Date: 2/25/02

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: General Engineering Labs

Lab SDG No: Various

Analytical Fraction: Radionuclides

Analytical Method(s): Various

Sample Ids: See attached Table 1

Sample ID	Data Usability Qualifier	Explanation for qualifier.
See attached Table 1	U-N2	Sample result is not distinguishable from background. The value is less than the sum of the error and the MDA.

Summary:

Completed by: _____ 1/4/01
BNL Data Usability Reviewer — Date

Reviewed by: W. Dorsch 1/4/01
BNL Project Manager — Date

Table 1. Unqualified Sample Results

Site_ID	Sample Date	Analyte	Scr. Level	Value	Detlim	Error	Units	Depth	Lab Qual	Rev Qual	Method
075-226	5/2/01	Tritium	20000	231	561	332	PCI/L	58			EPA 906.0
075-89	2/1/01	Tritium	20000	526	520	322	PCI/L	107.5	J		EPA 906.0
075-208	7/6/01	Tritium	20000	689	611	378	PCI/L	58	J		EPA 906.0
075-226	2/6/01	Tritium	20000	721	628	391	PCI/L	58	J		EPA 906.0
076-174	1/12/01	Tritium	20000	539	512	319	PCI/L	112	J		EPA 906.0
107-24	1/9/01	Tritium	20000	519	496	307	PCI/L	78	J		EPA 906.0
065-01	1/12/01	Tritium	20000	553	512	319	PCI/L	52	J		EPA 906.0
116-05	4/16/01	Tritium	20000	523	492	306	PCI/L	105	J		EPA 906.0
076-265	2/8/01	Tritium	20000	529	494	307	PCI/L	75	J		EPA 906.0
075-40	2/22/01	Tritium	20000	490	468	290	PCI/L	122.5	J		EPA 906.0
095-47	4/18/01	Tritium	20000	491	468	291	PCI/L	197.5	J		EPA 906.0
107-23	1/9/01	Tritium	20000	551	499	311	PCI/L	120	J		EPA 906.0
115-30	4/24/01	Tritium	20000	532	482	301	PCI/L	163	J		EPA 906.0
075-245	4/4/01	Tritium	20000	428	417	259	PCI/L	50	J		EPA 906.0
085-41	7/11/01	Tritium	20000	410	404	251	PCI/L	189.5	J		EPA 906.0
075-211	7/12/01	Tritium	20000	409	403	250	PCI/L	97	J		EPA 906.0
075-88	8/13/01	Tritium	20000	464	437	271	PCI/L	67.5	J		EPA 906.0
075-245	6/1/01	Tritium	20000	493	452	282	PCI/L	50	J		EPA 906.0
075-89	1/2/01	Tritium	20000	529	465	290	PCI/L	107.5	J		EPA 906.0
075-234	7/10/01	Tritium	20000	448	414	257	PCI/L	50	J		EPA 906.0
065-39	7/24/01	Tritium	20000	491	439	274	PCI/L	87.4	J		EPA 906.0
075-240	5/2/01	Tritium	20000	687	558	350	PCI/L	50			EPA 906.0
105-42	7/18/01	Tritium	20000	431	401	251	PCI/L	147.5	J		EPA 906.0
105-23	7/18/01	Tritium	20000	432	401	251	PCI/L	180	J		EPA 906.0
107-25	7/11/01	Tritium	20000	379	368	229	PCI/L	118	J		EPA 906.0
096-84	7/13/01	Tritium	20000	384	368	229	PCI/L	133.5	J		EPA 906.0
085-71	7/11/01	Tritium	20000	369	358	222	PCI/L	197.5	J		EPA 906.0
061-04	3/13/01	Tritium	20000	625	512	321	PCI/L	95	J		EPA 906.0
075-11	4/30/01	Tritium	20000	660	532	334	PCI/L	61.5	J		EPA 906.0
083-01	8/9/01	Tritium	20000	354	343	214	PCI/L	85	J		EPA 906.0
075-237	8/2/01	Tritium	20000	544	450	283	PCI/L	50	J		EPA 906.0
095-54	7/18/01	Tritium	20000	466	402	253	PCI/L	121.5	J		EPA 906.0
075-40	7/24/01	Tritium	20000	550	451	284	PCI/L	122.5	J		EPA 906.0
095-47	1/23/01	Tritium	20000	417	371	231	PCI/L	197.5	J		EPA 906.0
000-124	4/25/01	Tritium	20000	598	477	301	PCI/L	120	J		EPA 906.0
072-04	8/9/01	Tritium	20000	385	341	214	PCI/L	168	J		EPA 906.0
086-42	6/27/01	Tritium	20000	721	545	345	PCI/L	70	J		EPA 906.0
075-48	7/16/01	Tritium	20000	486	395	249	PCI/L	68	J		EPA 906.0
077-10	1/12/01	Tritium	20000	685	514	327	PCI/L	99	J		EPA 906.0
077-11	2/6/01	Tritium	20000	492	398	250	PCI/L	120	J		EPA 906.0
098-21	1/4/01	Tritium	20000	492	393	248	PCI/L	33.8	J		EPA 906.0
105-22	7/18/01	Tritium	20000	508	399	253	PCI/L	105	J		EPA 906.0
076-172	3/30/01	Tritium	20000	521	406	257	PCI/L	120	J		EPA 906.0
077-10	3/30/01	Tritium	20000	518	404	256	PCI/L	104	J		EPA 906.0
087-27	1/24/01	Tritium	20000	516	398	251	PCI/L	7.5	J		EPA 906.0
116-06	4/16/01	Tritium	20000	763	542	345	PCI/L	135	J		EPA 906.0

Table 1. Unqualified Sample Results

Site_ID	Sample Date	Analyte	Scr. Level	Value	Detlim	Error	Units	Depth	Lab Qual	Rev Qual	Method
065-05	8/9/01	Tritium	20000	397	318	202	PCI/L	60	J		EPA 906.0
075-287	3/1/01	Tritium	20000	741	521	332	PCI/L	58	J		EPA 906.0
083-02	8/9/01	Tritium	20000	438	334	213	PCI/L	135	J		EPA 906.0
085-78	7/13/01	Tritium	20000	495	369	235	PCI/L	189.5	J		EPA 906.0
088-110	6/26/01	Tritium	20000	468	351	223	PCI/L	17.5	J		EPA 906.0
075-01	8/9/01	Tritium	20000	436	329	209	PCI/L	50	J		EPA 906.0
075-88	6/7/01	Tritium	20000	568	406	258	PCI/L	67.5	J		EPA 906.0
075-244	7/9/01	Tritium	20000	585	400	256	PCI/L	58	J		EPA 906.0
076-169	2/12/01	Americium-241	1.2	-13.4	33.8	20	PCI/L	46	DL		EPA 901.1
066-09	8/10/01	Tritium	20000	481	334	214	PCI/L	85	J		EPA 906.0
099-06	6/11/01	Tritium	20000	508	347	223	PCI/L	85	J		EPA 906.0
065-01	7/11/01	Tritium	20000	531	359	231	PCI/L	52	J		EPA 906.0
076-177	3/30/01	Tritium	20000	623	414	267	PCI/L	99	J		EPA 906.0
076-174	3/30/01	Tritium	20000	611	405	261	PCI/L	112	J		EPA 906.0
077-11	3/30/01	Tritium	20000	631	415	268	PCI/L	120	J		EPA 906.0
108-18	7/18/01	Tritium	20000	604	397	257	PCI/L	105	J		EPA 906.0
000-108	8/21/01	Americium-241	1.2	-13.1	20.2	12.7	PCI/L	220	DL		EPA 901.1
087-24	1/24/01	Tritium	20000	631	412	264	PCI/L	75	J		EPA 906.0
116-05	1/11/01	Tritium	20000	651	423	271	PCI/L	105	J		EPA 906.0
076-181	1/30/01	Americium-241	**1.2**	**4.84**	27.4	18.6	PCI/L	65	DL		EPA 901.1
076-169	2/12/01	Europium-154	573	-3.84	23.3	13.5	PCI/L	46	DL		EPA 901.1
075-229	6/4/01	Tritium	20000	683	441	282	PCI/L	58	J		EPA 906.0
600-18	3/15/01	Americium-241	1.2	-6.71	20	12.9	PCI/L	40	DL		EPA 901.1
087-21	7/12/01	Tritium	20000	544	352	227	PCI/L	130	J		EPA 906.0
087-27	6/26/01	Americium-241	1.2	-1.9	20.1	11.4	PCI/L	12.5	DL		EPA 901.1
087-110	6/26/01	Tritium	20000	551	355	229	PCI/L	16	J		EPA 906.0
116-06	1/11/01	Tritium	20000	683	435	280	PCI/L	135	J		EPA 906.0
076-169	2/12/01	Vanadium-48	800	0.736	19.3	13	PCI/L	46	DL		EPA 901.1
095-140	4/13/01	Tritium	20000	839	628	341	PCI/L	130	J		EPA 906.0
108-12	7/18/01	Tritium	20000	639	403	262	PCI/L	68	J		EPA 906.0
076-265	2/8/01	Americium-241	**1.2**	**8.21**	20.4	13.1	PCI/L	75	DL		EPA 901.1
076-169	2/12/01	Zinc-65	360	5.25	20.7	8.56	PCI/L	46	DL		EPA 901.1
105-07	4/2/01	Tritium	20000	592	373	242	PCI/L	109	J		EPA 906.0
800-43	5/24/01	Vanadium-48	800	-2.13	10.2	5.88	PCI/L	157	DL		EPA 901.1
088-21	1/24/01	Tritium	20000	614	384	248	PCI/L	12.5	J		EPA 906.0
800-44	5/24/01	Vanadium-48	800	-1.04	10.4	6.14	PCI/L	212	DL		EPA 901.1
800-52	5/24/01	Vanadium-48	800	1.98	10.6	5.72	PCI/L	150	DL		EPA 901.1
800-41	5/24/01	Vanadium-48	800	2.07	10.4	5.7	PCI/L	213	DL		EPA 901.1
076-263	1/31/01	Americium-241	**1.2**	**22.7**	19.1	16.4	PCI/L	75		N2	EPA 901.1
800-50	5/24/01	Vanadium-48	800	4.04	10	5.38	PCI/L	205	DL		EPA 901.1
105-05	8/10/01	Europium-154	573	9.95	8.31	12.2	PCI/L	25	J-I		EPA 901.1
076-13	2/12/01	Gross Alpha	15	2.22	7.13	4.12	PCI/L	41	DL		EPA 900.0
115-29	4/26/01	Tritium	20000	882	541	349	PCI/L	205	J		EPA 906.0
122-18	5/18/01	Europium-154	573	11.1	5.83	12.5	PCI/L	140	J-I		EPA 901.1
086-09	2/6/01	Tritium	20000	640	392	254	PCI/L	130	J		EPA 906.0
088-110	6/26/01	Gross Alpha	15	-0.479	2.36	0.838	PCI/L	17.5	DL		EPA 900.0

Table 1. Unqualified Sample Results

Site_ID	Sample Date	Analyte	Scr. Level	Value	Detlim	Error	Units	Depth	Lab Qual	Rev Qual	Method
105-05	8/10/01	Sodium-22	10000	3.59	2.88	4.38	PCI/L	25	J-I		EPA 901.1
115-14	4/18/01	Gross Alpha	15	-0.412	2.3	0.931	PCI/L	185	DL		EPA 900.0
800-50	5/24/01	Gross Alpha	15	-0.604	2.12	0.59	PCI/L	205	DL		EPA 900.0
087-24	6/26/01	Gross Alpha	15	-0.195	2.04	0.699	PCI/L	75	DL		EPA 900.0
087-26	6/26/01	Gross Alpha	15	-0.051	2.11	0.748	PCI/L	75	DL		EPA 900.0
106-30	4/12/01	Iodine-129	--	0.596	2.26	1.24	PCI/L	36.5	DL		LANL EM-9
105-05	8/10/01	Cesium-137	120	2.86	2.71	2.89	PCI/L	25	J-I		EPA 901.1
122-20	5/18/01	Gross Alpha	15	0.164	2.03	0.797	PCI/L	260	DL		EPA 900.0
122-18	5/18/01	Sodium-22	10000	3.99	2.15	4.48	PCI/L	140	J-I		EPA 901.1
122-33	5/18/01	Gross Alpha	15	0.427	2.09	0.869	PCI/L	190	DL		EPA 900.0
076-265	2/8/01	Cesium-137	120	2.35	2.15	2.66	PCI/L	75	J		EPA 901.1
050-02	3/13/01	Cesium-137	120	3.36	2.8	2.22	PCI/L	150	J-I		EPA 901.1
098-59	4/25/01	Gross Beta	1000	2.97	2.93	1.55	PCI/L	135	J		EPA 900.0
107-23	4/18/01	Strontium-90	8	-0.361	0.829	0.297	PCI/L	120	DL		EPA 905.0
115-13	1/10/01	Strontium-90	8	-0.204	0.837	0.367	PCI/L	145	DL		EPA 905.0
115-28	4/18/01	Strontium-90	8	-0.296	0.8	0.291	PCI/L	207	DL		EPA 905.0
076-07	7/26/01	Gross Beta	1000	2.73	2.66	1.32	PCI/L	60	J	J	EPA 900.0
600-19	3/16/01	Co-60	200	2.72	2.46	1.46	PCI/L	60	J-I		EPA 901.1
076-183	1/31/01	Cesium-137	120	3.49	2.22	2.44	PCI/L	25	J	N2	EPA 901.1
098-61	4/24/01	Strontium-90	8	0.112	0.806	0.36	PCI/L	125	DL		EPA 905.0
075-86	4/26/01	Strontium-90	8	0.174	0.836	0.378	PCI/L	107.5	DL		EPA 905.0
600-19	3/16/01	Zinc-65	360	4.71	2.54	3.18	PCI/L	60	J-I		EPA 901.1
105-06	8/10/01	Gross Beta	1000	3.22	2.78	1.43	PCI/L	75	J	J	EPA 900.0
121-14	5/16/01	Gross Beta	1000	3.33	2.83	1.5	PCI/L	195	J	J	EPA 900.0
000-176	6/8/01	Gross Beta	1000	1.97	1.96	0.925	PCI/L	60	J		EPA 900.0
107-24	4/18/01	Gross Beta	1000	3.85	3.06	1.66	PCI/L	78	J		EPA 900.0
076-183	1/31/01	Gross Beta	1000	2.54	2.31	1.3	PCI/L	25	J		EPA 900.0
097-17	1/25/01	Gross Beta	1000	1.64	1.63	0.867	PCI/L	34	J		EPA 900.0
097-64	4/11/01	Gross Beta	1000	3.67	2.72	1.74	PCI/L	36.5	J	J	EPA 900.0
097-277	6/27/01	Gross Beta	1000	2.53	2.17	1.05	PCI/L	47.5	J	J	EPA 900.0
076-09	1/30/01	Gross Beta	1000	2.92	2.19	1.36	PCI/L	60	J		EPA 900.0
600-23	3/16/01	Gross Alpha	15	0.971	0.947	0.618	PCI/L	160	J		EPA 900.0
600-20	3/16/01	Gross Beta	1000	4.09	3	1.65	PCI/L	160		J	EPA 900.0
076-22	1/31/01	Gross Beta	1000	2.51	1.89	1.18	PCI/L	57	J		EPA 900.0
076-09	7/25/01	Gross Beta	1000	2.12	1.79	0.885	PCI/L	60	J	J	EPA 900.0
600-22	3/16/01	Gross Alpha	15	1.27	1.06	0.716	PCI/L	70	J		EPA 900.0
050-02	3/13/01	Gross Alpha	15	1.44	1.15	0.766	PCI/L	150	J		EPA 900.0
076-184	1/31/01	Gross Alpha	15	0.923	0.811	0.562	PCI/L	65	J		EPA 900.0
087-23	6/26/01	Gross Beta	1000	3.46	2.54	1.34	PCI/L	32.5	J		EPA 900.0
066-17	2/12/01	Gross Beta	1000	1.2	1	0.618	PCI/L	43	J		EPA 900.0
088-22	1/24/01	Gross Beta	1000	1.25	1.02	0.629	PCI/L	75	J		EPA 900.0
107-25	4/18/01	Cesium-137	120	4.27	3.08	1.57	PCI/L	118	J-I		EPA 901.1
098-62	4/26/01	Strontium-90	8	0.508	0.503	0.268	PCI/L	110	J		EPA 905.0
061-03	3/13/01	Gross Beta	1000	2.87	2.01	1.11	PCI/L	11	J		EPA 900.0
050-02	8/30/01	Gross Alpha	15	0.804	0.611	0.429	PCI/L	150	J	J	EPA 900.0
000-124	4/25/01	Gross Beta	1000	2.18	1.53	0.859	PCI/L	120	J		EPA 900.0

Table 1. Unqualified Sample Results

Site_ID	Sample Date	Analyte	Scr. Level	Value	Detlim	Error	Units	Depth	Lab Qual	Rev Qual	Method
106-30	6/27/01	Radium-226	3	0.496	0.364	0.336	PCI/L	36.5	J		EPA 903.1
061-04	3/13/01	Gross Alpha	15	0.792	0.535	0.451	PCI/L	95	J		EPA 900.0
106-62	5/8/01	Strontium-90	8	0.442	0.401	0.222	PCI/L	72	J		EPA 905.0
088-21	1/24/01	Gross Alpha	15	0.591	0.446	0.317	PCI/L	12.5	J		EPA 900.0
088-109	1/24/01	Gross Alpha	15	0.713	0.511	0.36	PCI/L	13.5	J		EPA 900.0
075-01	8/9/01	Gross Beta	1000	1.26	0.908	0.509	PCI/L	50	J	J	EPA 900.0
600-27	3/16/01	Cesium-134	80	4.26	2.45	1.95	PCI/L	250	J-I		EPA 901.1
088-22	1/24/01	Strontium-90	8	0.292	0.259	0.161	PCI/L	75	J		EPA 905.0
124-02	8/16/01	Gross Beta	1000	1.33	0.905	0.549	PCI/L	195	J	J	EPA 900.0
121-10	5/17/01	Gross Beta	1000	3.12	2.15	1.09	PCI/L	165	J	J	EPA 900.0
087-27	6/26/01	Gross Beta	1000	3.94	2.63	1.43	PCI/L	12.5	J		EPA 900.0
106-30	6/27/01	Strontium-90	8	0.583	0.449	0.249	PCI/L	36.5	J		EPA 905.0
116-06	4/16/01	Strontium-90	8	1	0.713	0.399	PCI/L	135			EPA 905.0
087-11	6/26/01	Radium-226	3	0.593	0.376	0.328	PCI/L	16	J		EPA 903.1
087-09	1/24/01	Gross Beta	1000	1.55	1.02	0.64	PCI/L	29	J		EPA 900.0
077-02	1/4/01	Strontium-90	8	0.494	0.368	0.229	PCI/L	36	J	JN2	EPA 905.0
065-38	6/5/01	Strontium-90	8	0.417	0.336	0.183	PCI/L	63	J		EPA 905.0
088-109	1/24/01	Gross Beta	1000	1.73	1.12	0.703	PCI/L	13.5	J		EPA 900.0
076-262	7/31/01	Strontium-90	8	0.798	0.543	0.344	PCI/L	75	J	J-T	EPA 905.0
106-02	6/27/01	Radium-226	3	0.858	0.513	0.433	PCI/L	60	J		EPA 903.1
050-02	8/30/01	Gross Beta	1000	0.675	0.459	0.295	PCI/L	150	J	J	EPA 900.0
087-27	6/26/01	Strontium-90	8	0.476	0.339	0.211	PCI/L	12.5	J		EPA 905.0
097-17	6/27/01	Radium-226	3	0.838	0.476	0.432	PCI/L	34	J		EPA 903.1
087-23	4/12/01	Strontium-90	8	0.864	0.583	0.324	PCI/L	32.5		J	EPA 905.0
097-277	6/27/01	Radium-226	3	0.831	0.47	0.397	PCI/L	47.5	J		EPA 903.1
065-163	5/29/01	Strontium-90	8	0.565	0.377	0.221	PCI/L	75	J		EPA 905.0
076-317	7/25/01	Strontium-90	8	0.445	0.286	0.18	PCI/L	41	J		EPA 905.0
098-63	4/26/01	Gross Alpha	15	3.28	1.77	1.53	PCI/L	140		J	EPA 900.0
122-20	5/18/01	Gross Beta	1000	4.01	2.65	1.37	PCI/L	260			EPA 900.0

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50862

Analytical Fraction: H-3, Sr-90 Analytical Method(s): EPA 906, 905

Sample Ids: 075-48, BD-4, 075-87, 075-46

Sample ID	Data Usability Qualifier	Explanation for qualifier.
075-48 BD-4 075-87 075-46	N2 H-3 N2 H-3 N2 Sr-90 N2 H-3 N2 H-3	The results were not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Pretzak 10/5/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dowd 12/6/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 50862

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10967-6	075-48	H-3	536	245	385	291	Not Distinguishable from background
10967-7	BD-4	Sr-90	0.29	0.144	0.258	0.146	Not Distinguishable from background
		H-3	484	244	387	240	Not Distinguishable from background
10967-9	075-87	H-3	481	240	381	241	Not Distinguishable from background
10967-10	075-46	H-3	391	235	379	156	Not Distinguishable from background

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 52225

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 116-05, 115-36

Sample ID	Data Usability Qualifier	Explanation for qualifier.
116-05	N2 H-3	The H-3 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
115-36	N2 H-3	The H-3 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Putzak 1/16/02
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 1/22/02
BNL Project Manager Date

Usability of radiochemistry results for SDG 52225

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
116-05	H-3	743	294	455	449	Not Distinguishable from background
115-36	H-3	524	281	449	243	Not Distinguishable from background

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50402

Analytical Fraction: Tritium Analytical Method(s): EPA 906

Sample Ids: 065-01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
065-01	U-N2	The H-3 activity was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: _____ 1/10/02
BNL Data Usability Reviewer Date

Reviewed by: _____ _____
BNL Project Manager Date

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 53182

Analytical Fraction: Sr-90 Analytical Method(s): EPA 905

Sample Ids: 075-189

Sample ID	Data Usability Qualifier	Explanation for qualifier.
075-189	U-N2	The H-3 activity was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: _____ BNL Data Usability Reviewer 1/29/02 Date

Reviewed by: _____ BNL Project Manager 2/1/02 Date

Table 1. Data Verification Qualifications for SDG 53182

Sample ID	Date Sampled	COC #	Parameter	Previous Result ug/L	Qualified Result ug/L
075-189*	12/6/01	11036	Strontium 90	0.410 J	0.410 UJ-N2T
065-175	12/7/01	11036	Strontium 90	760	760 J-T

* Qualifiers are combination of Usability and verification results.

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 53182

Analytical Fraction: Sr-90 Analytical Method(s): EPA 905

Sample Ids: 075-189

Sample ID	Data Usability Qualifier	Explanation for qualifier.
075-189	U-N2	The ~~H-3~~ Sr-90 activity was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: [signature] 1/9/02
BNL Data Usability Reviewer Date

Reviewed by: W. Dowd 2/4/02
BNL Project Manager Date

Table 1. Data Verification Qualifications for SDG 53182

Sample ID	Date Sampled	COC #	Parameter	Previous Result ug/L	Qualified Result ug/L
075-189*	12/6/01	11036	Strontium 90	0.410 J	0.410 UJ-N2T
065-175	12/7/01	11036	Strontium 90	760	760 J-T

* Qualifiers are combination of Usability and verification results.

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Validation Performed by __John Burke_____

Data Usability Summary Report

Contract Laboratory:__GEL_____ **Lab SDG No:**___44827 and 44882_____

Analytical Fraction:__Pesticides_____ **Analytical Method(s):**__USEPA 608_

Sample IDs:___086-72 Sampled 6/26/2001_and 106-02 sampled 6/27/02_____

SAMPLE ID	*DATA USABILITY QUALIFIERS*	*EXPLANATION FOR QUALIFIERS*
086-72 and 106-02	U	All pesticide hits were declared non-detect. Laboratory informed BNL that there was contamination from the laboratory control sample (LCS) solution. BNL believes that both samples 086-72 and 106-02 were affected.
087-09		It is possible that the 13 poly-aromatic hydrocarbon hits in sample 087-09 were also caused by a contamination from an LCS solution but this can not be confirmed.

Summary:

Data are usable unless otherwise noted above.

Signed:_____ Dated: 2/1/02
Data Usability Reviewer

Signed:_____ Dated: 2/1/02
Project Manager

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 44827

Analytical Fraction: Ra-226 Analytical Method(s): EPA 903.1

Sample Ids: 087-22

Sample ID	Data Usability Qualifier	Explanation for qualifier.
087-22	A Ra-226	Acceptable Ra-226 result

Summary:

Completed by: Rick Pritzsch 10/15/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorl 10/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 44827

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	ctivity -Err pCi/L	Usability
10034-01	087-22	Ra-226	0.993	0.404	0.292	0.589	OK

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 44732

Analytical Fraction: Gross Beta, Sr-90, Am-241 Ra-226
Analytical Method(s): EPA 900, 905, 901.1, 903.1

Sample Ids: 087-09, 088-23, 088-22, 088-21

Sample ID	Data Usability Qualifier	Explanation for qualifier.
087-09	N2 G. Beta N2 Sr-90 N2 Ra-226	The result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater thane the reported activity.
088-23	N2 Am-241 A Ra-226	The Am-241 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater thane the reported activity. Acceptable Ra-226 result.
088-22	A Ra-226	Acceptable Ra-226 result
088-21	A Ra-226	Acceptable Ra-226 result

Summary:

Completed by: Rick Pietrzak 10/12/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doond 10/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 44732

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10029-2	087-09	Gross Beta	3.24	1.52	3.1	1.72	NotUsable
		Sr-90	0.516	0.304	0.501	0.212	NotUsable
		Ra-226	0.897	0.428	0.491	0.469	NotUsable
10029-3	088-23	Am-241	18.1	18.9	14.7	-0.8	NotUsable
		Ra-226	1.52	0.49	0.389	1.03	OK
10029-4	088-22	Ra-226	1.2	0.507	0.564	0.693	OK
10029-5	088-21	Ra-226	1.99	0.599	0.539	1.391	OK

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50324

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 105-22, 104-10, 095-55

Sample ID	Data Usability Qualifier	Explanation for qualifier.
105-22 104-10 095-55	N2 H-3 N2 H-3 N2 H-3	The H-3 activity was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Putzgle 12/19/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doord 1/4/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 50324

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10610-9	105-22	H-3	412	242	389	170	Not Distinguishable from background
10610-12	104-10	H-3	380	233	376	147	Not Distinguishable from background
10610-15	095-55	H-3	422	248	398	174	Not Distinguishable from background

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 52066

Analytical Fraction: Sr-90 Analytical Method(s): EPA 905

Sample Ids: 065-04

Sample ID	Data Usability Qualifier	Explanation for qualifier.
065-04	U-N2	Sr-90 GB 1/28/02 The ~~H-3~~ activity was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: _____ BNL Data Usability Reviewer — Date: 1/9/02

Reviewed by: W. Dowd BNL Project Manager — Date: 1/22/02

Brookhaven National Laboratory
Analytical Data Package Verification Checklist

Project:	Sitewide BGRR
Sampling Contractor:	Dvirka & Bartilucci
Analytical Laboratory:	General Engineering
Analytical Method:	EPA 524.2
Certification Document(s):	See Anna Bou.
Sample Delivery Group:	52066
COC No. / Sample IDs:	COC 11021 Samples 065-03, TB-2, 065-04, 065-06
Date Sampled:	11/14/2001
Parameter(s):	VOCs

	Satisfactory	Unsatisfactory	NA	Comment
Sample IDs	X			
Detection Limits (CRDL)	X			
Duplicates			X	
Matrix Spike (MS/MSD)	X			
MS/MSD Recoveries	X			
Trip Blanks	X			Methylene chloride was detected at up to 0.97 ug/L.
Field Blanks			X	
Equipment Blanks			X	
Method Blanks	X			Methylene chloride was detected at up to 2.2 ug/L.
Chain of Custody Forms	X			
Field Sampling Logs	X			
Holding Times	X			
Non-Conformance Summary	X			
Other			X	

Reviewed by: _____ Date: 1/9/02
Subject Matter Expert

Reviewed by: _____ Date: 1/22/02
Project Manager

Table 1. Data Verification Qualifications for SDG 52066

Sample ID	Date Sampled	COC #	Parameter	Previous Result ug/L	Qualified Result ug/L
065-03	11/14/01	11021	Methylene chloride	0.82 B	0.82 U
065-04	11/14/01	11021	Methylene chloride	1.5 B	1.5 U
065-06	11/14/01	11021	Methylene chloride	2.6 B	2.6 U
065-164	11/13/01	11021	Strontium 90	10.2	10.2 J
BD-1 (065-164)	11/13/01	11021	Strontium 90	7.35	7.35 J
065-04	11/14/01	11021	Strontium 90	0.593 J	0.593 U-N2
065-166	11/14/01	11021	Strontium 90	2.87	2.87 J-T
065-178	11/14/01	11021	Strontium 90	0.306 U	0.306 UJ-T
065-163	11/14/01	11021	Strontium 90	0.287 U	0.287 UJ-T

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50019

Analytical Fraction: Co-60 Analytical Method(s): EPA 901.1

Sample Ids: 097-17

Sample ID	Data Usability Qualifier	Explanation for qualifier.
097-17	N2 Co-60	The Co-60 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: [signature] 11/29/01
BNL Data Usability Reviewer Date

Reviewed by: [signature] 12/4/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 50019

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10931-2	097-17	Co-60	3.83	2.52	2.84	1.31	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50019

Analytical Fraction: Sr-90 Analytical Method(s): EPA 905

Sample Ids: 097-64

Sample ID	Data Usability Qualifier	Explanation for qualifier.
097-64	A Sr-90	Acceptable result

Summary:

Completed by: Rick Pretzak
BNL Data Usability Reviewer

Dec. 4, 2001
Date

Reviewed by: W. Dorrd
BNL Project Manager

12/5/01
Date

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 49579

Analytical Fraction: Gross Alpha & Beta Analytical Method(s): EPA 900

Sample Ids: 018-01, 018-02, 018-04, 034-03, 063-09, BD-1

Sample ID	Data Usability Qualifier	Explanation for qualifier.
018-01	N2 G. Alpha	The gross alpha result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the activity.
	A G. Beta	Acceptable result for gross Beta.
018-02	N2 G. Beta	The gross beta results are not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the activity.
018-04	N2 G. Beta	
034-03	N2 G. Beta	
063-09	N2 G. Beta	
BD-1	N2 G. Beta	

Summary:

Completed by: Rick Pietzsch — BNL Data Usability Reviewer — Date: 11/20/01

Reviewed by: W. Dorsch — BNL Project Manager — Date: 12/3/01

Usability of radiochemistry results for SDG 49579

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10828-2	018-01	Gross Alpha	0.968	0.575	0.854	0.393	NotUsable
		Gross Beta	1.86	0.507	0.704	1.353	OK
10828-3	018-02	Gross Beta	0.816	0.411	0.707	0.405	NotUsable
10828-4	018-04	Gross Beta	1.34	0.73	1.19	0.61	NotUsable
10828-5	034-03	Gross Beta	2.69	1.29	2.08	1.4	NotUsable
10828-7	063-09	Gross Beta	1.24	0.577	1.03	0.663	NotUsable
10828-8	BD-1	Gross Beta	1.89	0.588	0.927	1.302	OK

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50488

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 085-68, BD-2 (085-68)

Sample ID	Data Usability Qualifier	Explanation for qualifier.
085-68 BD-2	N2 H-3 N2 H-3	The H-3 results were not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Putnik 12/3/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doord 12/4/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 50488

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10912-3	085-68	H-3	702	285	443	417	NotUsable
10912-4	BD-2	H-3	514	286	459	228	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 50178

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 085-75, 085-74, 085-72, BD-1 (085-72), 095-91

Sample ID	Data Usability Qualifier	Explanation for qualifier.
085-75	N2 H-3	The H-3 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
085-74	N2 H-3	As above
085-72	N2 H-3	As above
BD-1	N2 H-3	As above
095-91	N2 H-3	As above

Summary:

Completed by: [signature] 11/26/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 12/4/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 50178

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10909-7	085-75	H-3	427	244	391	183	NotUsable
10909-8	085-74	H-3	407	249	402	158	NotUsable
10909-9	085-72	H-3	532	261	412	271	NotUsable
10909-10	BD-1	H-3	425	261	420	164	NotUsable
10909-16	095-91	H-3	463	265	424	198	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL

Lab SDG No: 49927

Analytical Fraction: Zn-65

Analytical Method(s): EPA 901.1

Sample Ids: 087-24 10/3/01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
087-24	N2 Zn-65	The Zn-65 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Putzek
BNL Data Usability Reviewer

11/8/01
Date

Reviewed by: W. Dorsch
BNL Project Manager

12/4/01
Date

Usability of radiochemistry results for SDG 49927

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10928-4	087-24	Zn-65	5.18	4.62	3.85	0.56	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 49696

Analytical Fraction: Sr-90, Gross Alpha/Beta

Analytical Method(s): EPA 905, EPA 900

Sample Ids: 000-120, 017-01, 017-03

Sample ID	Data Usability Qualifier	Explanation for qualifier.
000-120	N2 Sr-90	The Sr-90 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
017-01	N2 G. Alpha	The Gross Alpha result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
017-01	A G. Beta	Acceptable Gross beta result.
017-03	N2 G. Beta	The Gross Alpha result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: [signature] 11/26/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doorch 12/4/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 49696

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10833-5	000-120	Sr-90	0.353	0.199	0.323	0.154	NotUsable
10833-6	017-01	Gross Alpha	1.81	1.04	1.15	0.77	NotUsable
		Gross Beta	3.63	1.33	2.26	2.3	OK
10833-7	017-03	Gross Beta	1.99	1.01	1.95	0.98	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47353

Analytical Fraction: Eu-154, Na-22 Analytical Method(s): EPA 901.1

Sample Ids: ~~000-145~~ 600-21 3/1~~5~~6/01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
~~000-154~~ 600-21 JB 12/4/01	N2 Eu-154 N2 Na-22	Neither the Eu-154 or the Na-22 result were distinguishable from background. The sum of the MDA and the 2-sigma error were greater than the reported activity.

Summary:

Completed by: Rick Pretzyk 10/17/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 12/3/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 47353

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
8457-02	~~000~~-145	Eu-154	15.6	5.75	12.7	9.85	NotUsable
8457-02	000-145	Na-22	5.98	2.21	4.67	3.77	NotUsable

GOU-21

JB
2/4/01

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47360

Analytical Fraction: H-3, Gross Alpha, Gross Beta, Sr-90
Analytical Method(s): EPA 906, 900, 905

Sample Ids: 084-04, 096-07, 113-06, 106-19, 066-08

Sample ID	Data Usability Qualifier	Explanation for qualifier.
084-04	N2 H-3	The H-3 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
096-07	N2 G. Beta	The Gross Beta result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
113-06	A Sr-90	Acceptable Sr-90 result.
106-19	N2 G. Alpha N2 G Beta	The Gross Alpha and Gross Beta result were not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
066-08	N2 Sr-90	The Sr-90 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: [signature] 10/17/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 12/3/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 47360

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10161-2	084-04	H-3	389	206	327	183	NotUsable
10161-3	096-07	Gross Beta	3.88	1.67	3.3	2.21	NotUsable
10161-4	113-06	Sr-90	1.02	0.286	0.512	0.734	OK
10161-5	106-19	Gross Alpha	0.787	0.382	0.72	0.405	NotUsable
		Gross Beta	1.41	0.505	1.09	0.905	NotUsable
10161-7	066-08	Sr-90	0.465	0.214	0.392	0.251	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 46035

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 065-40, 085-171, 076-171, 075-85

Sample ID	Data Usability Qualifier	Explanation for qualifier.
065-40	N2 H-3	The H-3 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
085-171	N2 H-3	
076-171	N2 H-3	
075-85	N2 H-3	

Summary:

Completed by: Rick Pietrzak 10/16/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doord 12/3/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 46035

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10095-5	065-40	H-3	475	234	367	241	NotUsable
10095-9	085-171	H-3	469	268	430	201	NotUsable
10095-11	076-171	H-3	660	301	473	359	NotUsable
10095-18	075-85	H-3	637	300	471	337	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 51040

Analytical Fraction: Ra-226 Analytical Method(s): EPA 903.1

Sample Ids: 088-22, 088-23, 086-42, 097-64, 087-22, 087-24

Sample ID	Data Usability Qualifier	Explanation for qualifier.
088-22	N2 Ra-226	The Ra-226 results are not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
088-23	N2 Ra-226	
086-42	N2 Ra-226	
097-64	N2 Ra-226	
087-24	N2 Ra-226	
087-22	A Ra-226	Acceptable result.

Summary:

Completed by: [signature] 12/3/01
BNL Data Usability Reviewer Date

Reviewed by: [signature] 12/3/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 51040

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10029-4	088-22	Ra-226	0.501	0.322	0.335	0.179	NotUsable
10029-3	088-23	Ra-226	0.784	0.43	0.457	0.354	NotUsable
10031-3	086-42	Ra-226	0.493	0.341	0.443	0.152	NotUsable
10031-5	097-64	Ra-226	0.458	0.336	0.427	0.122	NotUsable
10034-1	087-22	Ra-226	0.977	0.437	0.342	0.54	OK
10033-5	087-24	Ra-226	0.629	0.432	0.591	0.197	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 48389

Analytical Fraction: Am-241, Eu-155, Mn-54, Be-7, Eu-154, Na-22
Analytical Method(s): EPA 901.1

Sample Ids: 000-123, 000-122, 050-02, BD-1 (050-01), FB-2

Sample ID	Data Usability Qualifier	Explanation for qualifier.
000-123	N2 Am-241	The Am-241 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
000-122	N5 Eu-155	Only one of two signature peaks had sufficient counts to identify isotope
050-02	N2 Mn-54	The Mn-54 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
BD-1	N2 Be-7 N2 Eu-154 N2-Na22	The result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
FB-2	N2 Eu-155	The Eu-155 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: Rick Putzik
BNL Data Usability Reviewer

10/15/01
Date

Reviewed by: W. Dowd
BNL Project Manager

10/16/01
Date

Usability of radiochemistry results for SDG 48389

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10794-2	000-123	Am-241	15.9	26.2	13.6	-10.3	NotUsable
10794-3	000-122	Eu-155	26.20	17.5	6.88	8.70	Not Usabl See A
10794-6	050-02	Mn-54	4.37	3.29	2.25	1.08	NotUsable
10794-8	BD-1	Be-7	78.80	179	32.6	-100.2	NotUsable
		Eu-154	12.80	9.99	9.42	2.81	NotUsable
		Na-22	4.60	3.58	3.14	1.02	NotUsable
10794-9	FB-2	Eu-155	9.58	10.5	9.3	-0.92	NotUsable

A - Only one of two signature lines reported sufficient counts to identify isotope.

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 44976

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 076-175, 076-174, 076-173, 077-10, 077-11, 076-172, 076-177, 086-09

Sample ID	Data Usability Qualifier	Explanation for qualifier.
076-175	N2	All H-3 results are not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activities See the attached spreadsheet.
076-174	N2	
076-173	N2	
077-10	N2	
077-11	N2	
076-172	N2	
077-177	N2	
086-09	N2	

Summary:

Completed by: Rich Pietryk 10/1/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dood 10/29/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 44976

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10045-1	076-175	H-3	723	343	541	380	NotUsable
10045-2	076-174	H-3	834	342	530	492	NotUsable
10045-3	076-173	H-3	661	337	535	324	NotUsable
10045-4	077-10	H-3	786	352	551	434	NotUsable
10045-5	077-11	H-3	928	356	547	572	OK
10045-6	076-172	H-3	762	348	546	414	NotUsable
10045-7	076-177	H-3	547	345	558	202	NotUsable
10045-8	086-09	H-3	593	345	554	248	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42502

Analytical Fraction: Cs-137 Analytical Method(s): EPA 901.1

Sample Ids: 114-07

Sample ID	Data Usability Qualifier	Explanation for qualifier.
114-07	N2 Cs-137	The Cs-137 activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported result.

Summary:

Completed by: Rick Pretzak 10/1/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doord 10/12/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 42502

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
114-07	Cs-137	7.39	4.13	3.45	3.26	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47889

Analytical Fraction: Cs-137, Eu-155, Am-241, Gross Beta
Analytical Method(s): EPA 901.1, 900

Sample Ids: 115-35, 086-70, 106-54, 800-59

Sample ID	Data Usability Qualifier	Explanation for qualifier.
115-35	N2 Cs-137	The Cs-137 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity.
086-70	A Cs-137 N2 Eu-15~~4~~5 N2 Gross Beta	Acceptable result The results for Eu-15~~4~~5 or gross beta were not distinguishable from background. The sum of the MDA and the two sigma error was greater than the observed activity for either result.
106-54	N2 Am-241 N2 Gross beta	The results for Am-241 or gross beta were not distinguishable from background. The sum of the MDA and the two sigma error was greater than the observed activity for either result.
800-59	N2 Gross Beta	The Gross Beta result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity.

Summary:

Completed by: [signature] 10/8/01
BNL Data Usability Reviewer Date

Reviewed by: [signature] 10/26/01
BNL Project Manager Date

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47889

Analytical Fraction: Eu-154, Mn-54, Na-22, Be-7, Sr-90, Gross Beta
Analytical Method(s): EPA 901.1, 905, 900

Sample Ids: BD-1 (800-59), 800-60, 106-56

Sample ID	Data Usability Qualifier	Explanation for qualifier.
BD-1(800-59)	A Eu-54	Acceptable result
	N2 Mn-54	The Mn-54 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity.
	A Na-22	Acceptable result
800-60	N2 Be-7 N2 Eu-154 N2 Na-22 N2 Sr-90	The results for Be-7, Eu-154, Na-22 and Sr-90 were not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity for respective results.
106-56	N2 Gross Beta	The Gross Beta result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity.

Summary:

Completed by: [signature] 10/15/01
BNL Data Usability Reviewer Date

Reviewed by: _____ _____
BNL Project Manager Date

Usability of radiochemistry results for SDG 47889

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10173-3	115-35	Cs-137	2.43	3.37	2.24	-0.94	NotUsable
10173-7	086-70	Cs-137	2.01	0.862	1.04	1.148	OK
		Eu-155	4.76	5.4	4.6	-0.64	NotUsable
		Gross Beta	1.14	0.517	0.855	0.623	NotUsable
10173-9	106-54	Am-241	6.67	7.32	6.48	-0.65	NotUsable
		Gross Beta	2.16	1.02	1.94	1.14	NotUsable
10173-10	800*59	Gross Beta	0.967	0.561	0.948	0.406	NotUsable
10173-11	Bd-1	Eu-154	19.1	14.7	3.07	4.4	OK
		Mn-54	1.23	1.31	1.15	-0.08	NotUsable
		Na-22	6.88	5.29	1.13	1.59	OK
10173-13	800-60	Be-7	17	17.9	15.3	-0.9	NotUsable
		Eu-154	6.08	4.51	4.23	1.57	NotUsable
		Na-22	1.77	1.68	1.53	0.09	NotUsable
		Sr-90	0.475	0.254	0.457	0.221	NotUsable
10173-17	106-56	Gross Beta	2.24	0.953	1.71	1.287	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 48225

Analytical Fraction: Am-241, Eu-154, Na-22, Zn-65
Analytical Method(s): EPA 901.1

Sample Ids: BD-1 (122-24), 122-25

Sample ID	Data Usability Qualifier	Explanation for qualifier.
BD-1(122-24)	N2 Zn-65	The Zn-65 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
122-25	N2 Am-241 N2 Eu-154 N2 Na-22	The isotope result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Pintych — BNL Data Usability Reviewer — Date: 10/15/01

Reviewed by: W. Dood — BNL Project Manager — Date: 10/26/01

Usability of radiochemistry results for SDG 48225

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10792-4	BD-1	Zn-65	4.5	5.06	2.14	-0.56	NotUsable
10792-6	122-25	Am-241	6.08	5.33	3.33	0.75	NotUsable
		Eu-154	5.63	5.71	5.56	-0.08	NotUsable
		Na-22	2.05	2.06	2.01	-0.01	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 48103

Analytical Fraction: Am-241, Be-7, Co-57 Analytical Method(s): EPA 901.1

Sample Ids: 000-144, 000-143

Sample ID	Data Usability Qualifier	Explanation for qualifier.
000-144	N2 Am-241 N2 Be-7	The isotope result was not distinguishable from background. The sum of the MDA and the 2-sigma error was less than the reported activity..
000-143	N2 Co-57	The Co-57 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was less than the reported activity..

Summary:

Completed by: Rick Pritzak 10/17/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doord 10/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 48103

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10789-2	000-144	Am-241	3.26	3.1	2.59	0.16	NotUsable
		Be-7	20.4	22.8	20	-2.4	NotUsable
10789-7	000-143	Co-57	2.18	1.47	1.19	0.71	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 46405

Analytical Fraction: Gross Beta, Mn-54, Sr-90
Analytical Method(s): EPA 900, 901.1, 905

Sample Ids: 076-167, 076-168, 076-27, 076-373

Sample ID	Data Usability Qualifier	Explanation for qualifier.
076-167	N2 G. Beta	The Gross beta result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
076-168	N2 Mn-54	The Mn-54 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity
076-27	N2 Sr-90	The Sr-90 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity
076-373	N2 G. Beta	The Gross beta result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rick Putrzak 10/12/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doord 10/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 46405

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10103-4	076-167	Gross Beta	2.96	1.33	2.58	1.63	NotUsable
10103-5	076-168	Mn-54	6.9	4.89	2.63	2.01	NotUsable
10103-6	076-27	Sr-90	0.759	0.384	0.746	0.375	NotUsable
10103-7	076-373	Gross Beta	0.947	0.525	0.924	0.422	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 46039

Analytical Fraction: H-3, Sr-90 Analytical Method(s): EPA 906, 905

Sample Ids: 107-24, 115-36, 077-02, 088-26, 098-22

Sample ID	Data Usability Qualifier	Explanation for qualifier.
107-24 115-36 088-26	N2 G-3 N2 H-3 N2 H-3	The H-3 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
077-02 098-22	N2 Sr-90 N2 Sr-90	The Sr-90 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: [signature] 10/12/01
BNL Data Usability Reviewer Date

Reviewed by: [signature] 10/26/01
BNL Project Manager Date

Rad Data Usability Evaluation for SDG 46039

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10094-3	107-24	H-3	624	296	466	328	NotUsable
10094-5	115-36	H-3	683	314	493	369	NotUsable
10094-6	077-02	Sr-90	0.608	0.285	0.528	0.323	NotUsable
10094-7	088-26	H-3	755	314	492	441	NotUsable
10094-9	098-22	Sr-90	0.699	0.218	0.339	0.481	OK

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47963

Analytical Fraction: Gross Alpha/Beta Analytical Method(s): EPA 900

Sample Ids: 600-20, 600-19, 600-21, 037-02, 037-03

Sample ID	Data Usability Qualifier	Explanation for qualifier.
600-20	A Gross Beta	Acceptable gross beta result..
600-19	A Gross Beta	Acceptable gross beta result..
600-21	N2 G. Alpha	The gross alpha result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
	A Gross Beta	Acceptable gross beta result..
037-02	N2 G. Alpha	The gross alpha result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
	A Gross Beta	Acceptable gross beta result..
037-03	N2 G. Beta	The gross Beta result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: Rick Putzgat 10/23/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dowd 10/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 47963

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10198-2	600-20	Co-60	2.41	2.8	1.5	-0.39	NotUsable
		Mn-54	2.79	1.97	1.25	0.82	NotUsable
		Gross Beta	2.99	0.588	0.855	2.402	OK
10198-3	600-19	Gross Beta	2.42	0.554	0.852	1.866	OK
10198-4	600-21	Zn-65	3.86	3.33	2.88	0.53	NotUsable
		Gross Alpha	0.889	0.424	0.602	0.465	NotUsable
		Gross Beta	2.52	0.54	0.813	1.98	OK
10198-5	037-02	Be-7	25.2	24	13.1	1.2	NotUsable
		Gross Alpha	0.463	0.251	0.365	0.212	NotUsable
		Gross Beta	1.51	0.517	0.838	0.993	OK
10198-6	037-03	Eu-155	5.62	5.17	4.27	0.45	NotUsable
		Gross Beta	1.04	0.472	0.779	0.568	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47963

Analytical Fraction: Co-60, Mn-54, Zn-65, Be-7, Eu-155 Analytical Method(s): EPA 901.1

Sample Ids: 600-20, 600-21, 037-02, 037-03

Sample ID	Data Usability Qualifier	Explanation for qualifier.
600-20	N2 Co-60	The activities were not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activities
600-20	N2 Mn-54	
600-21	N2 Zn-65	
037-02	N2 Be-7	
037-03	N2 Eu-155	

Summary:

Completed by: Rick Pietrzak 10/1/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doerd 10/15/01
BNL Project Manager Date

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Usability of radiochemistry results for SDG 47963

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10198-2	600-20	Co-60	2.41	2.8	1.5	-0.39	NotUsable
		Mn-54	2.79	1.97	1.25	0.82	NotUsable
10198-4	600-21	Zn-65	3.86	3.33	2.88	0.53	NotUsable
10198-5	037-02	Be-7	25.2	24	13.1	1.2	NotUsable
10198-6	037-03	Eu-155	5.62	5.17	4.27	0.45	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 48298

Analytical Fraction: Be-7, Na-22, Ei-152, Eu-155
Analytical Method(s): EPA 901.1

Sample Ids: 600-25, 600-18, 600-15

Sample ID	Data Usability Qualifier	Explanation for qualifier.
600-25	N2 Eu-155	The Eu-155 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
600-18	N2 Na-22	The Na-22 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
600-15	N2 Be-7 N2Ei-152	The Be-7 and Eu-125 results were not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: Rich Pritzke 10/18/01
BNL Data Usability Reviewer Date

Reviewed by: W. Doosch 10/26/01
BNL Project Manager Date

Data Verification Qualifications for SDG 48298

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10795-4	600-25	Eu-155	7.3	6.69	5.8	0.61	NotUsable
10795-5	600-18	Na-22	1.59	1.95	1.45	-0.36	NotUsable
10795-6	600-15	Be-7	32.1	26.3	23.7	5.8	NotUsable
		Eu-152	6.05	7.2	6.05	-1.15	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL

Lab SDG No: 46807

Analytical Fraction: Cs-137, H-3

Analytical Method(s): EPA 901.1, 906

Sample Ids: 076-265

Sample ID	Data Usability Qualifier	Explanation for qualifier.
076-265	N2 Cs-137	The Cs-137 result is not distinguishable from backgroun. The sum of the MDA and the 2-sigma error is greater than the activity.
076-265	A H-3	Acceptable result

Summary:

Completed by: Rich Putzak
BNL Data Usability Reviewer

10/10/01
Date

Reviewed by: W. Doord
BNL Project Manager

10/2-/01
Date

Rad Data Verification Qualifications for SDG 46807

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10133-6	076-265	Cs-137	5.9	3.3	3.65	2.6	NotUsable
		H-3	736	269	410	467	OK

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47326

Analytical Fraction: Sr-90, Eu-155 Analytical Method(s): EPA 905, 901.1

Sample Ids: 065-05, 083-02

Sample ID	Data Usability Qualifier	Explanation for qualifier.
065-05	N2 Sr-90	The Sr-90 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
083-02	N2 Eu-155	The Eu-155 result was not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.

Summary:

Completed by: [signature] 10/8/01
BNL Data Usability Reviewer Date

Reviewed by: [signature] 10/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 47326

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10144-2	065-05	Sr-90	0.528	0.24	0.433	0.288	NotUsable
10144-3	083-02	Eu-155	11.6	9.27	8.63	2.33	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL

Lab SDG No: 42946

Analytical Fraction: Co-60

Analytical Method(s): EPA 901.1

Sample Ids: 800-51

Sample ID	Data Usability Qualifier	Explanation for qualifier.
800-51	N2 Co-60	The Co-60 activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: Rick Pritzgate
BNL Data Usability Reviewer

10/1/01
Date

Reviewed by: W. Doord
BNL Project Manager

10/9/01
Date

Usability of radiochemistry results for SDG 42946

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
800-51	Co-60	5.62	3.63	3.9	1.99	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Validation Performed by __John Burke_____

Data Usability Summary Report

Contract Laboratory:__GEL_____ **Lab SDG No:**___44827_____

Analytical Fraction:__Pesticides_____ **Analytical Method(s):**__USEPA 608_

Sample IDs:___086-72 Sampled 6/26/2001_____

SAMPLE ID	*DATA USABILITY QUALIFIERS*	*EXPLANATION FOR QUALIFIERS*
086-72	U	All pesticide hits were declared non-detect. See attached email from analytical laboratory.

Summary:

Data are usable unless otherwise noted above.

Signed:_____ Dated: 10/23/01
Data Usability Reviewer

Signed:_____ Dated: 10/23/01
Project Manager

Burke, John

From: Jannie Shaw-Busby [jls@mail.gel.com]
Sent: Friday, September 28, 2001 2:28 PM
To: Burke, John
Subject: SDG 44827 Data Review

Mr. Burke,

This email is in response to your request to confirm pesticide detects in sample 44827002 (BNL ID 10034-002). After a review of the raw data, it was concluded that the peaks labeled as target compounds were indeed very well defined peaks above the baseline on both columns. All quality control criteria were met for this SDG. However, this sample contained hits of all spiking compounds used in the Laboratory Control Sample (LCS) and the matrix QC (MS/MSD). It is also highly unusual for the same environmental sample to contain hits of all these compounds. Based on these facts, it is the opinion of the laboratory that the sample was contaminated during preparation. Since every hit is well below the reporting limit, the data should be qualified as non-detects.

If you have additional questions concerning this response or any other issue, please call me at (843) 556-8171 Extension 4287.

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Jannie L. Shaw-Busby
Quality Assurance Officer
General Engineering Laboratories, Inc.
P.O. Box 30712 Charleston, South Carolina 29417
2040 Savage Road Charleston, South Carolina 29407
Phone: (843) 556-8171
Fax: (843) 766-1178
jls@gel.com

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 48290

Analytical Fraction: Mn-54, Cs-134 Analytical Method(s): EPA 901.1

Sample Ids: 041-01, 041-02, 061-04

Sample ID	Data Usability Qualifier	Explanation for qualifier.
041-01	N2 Mn-54	The Mn-64 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
041-02	N2 Mn-54	The Mn-64 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
061-04	N2 Cs-134	The Mn-64 result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: [signature] 10/11/01
BNL Data Usability Reviewer Date

Reviewed by: [signature] 10/16/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 48290

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10788-3	041-01	Mn-54	4.96	3.76	2.67	1.2	NotUsable
10788-4	041-02	Mn-54	2.26	2.07	1.27	0.19	NotUsable
10788-5	061-04	Cs-134	4.49	3.12	2.3	1.37	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 40955

Analytical Fraction: Bi-214, V-48, Mn-54, Gross Beta
Analytical Method(s): EPA 901.1, 900

Sample Ids: 088-13, 115-14, FB-1, 115-13, 107-23 4/17/01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
088-13	R-N4 Bi-214	Suspect radon daughter detector contamination. Not supported by detectable gross beta.
088-13	U-N2	Gross beta not distinguishable from background. The sum of the 2-sigma error and the MDA is greater than the reported activity.
115-14	R-N4 Bi214	Suspect radon daughter detector contamination. Not supported by detectable gross beta result.
FB-1	U-N2 V-48	V-48 activity not distinguishable from background. The sum of the 2-sigma error and the MDA is greater than the reported activity.
115-13	R-N4 Bi-214	Suspect radon daughter detector contamination. Not supported by detectable gross beta.
107-23	U-N2 Mn-54	Mn-54 activity not distinguishable from background. The sum of the 2-sigma error and the MDA is greater than the reported activity

Summary:

Completed by: Rick Pitryk — BNL Data Usability Reviewer — Date: 8/9/01

Reviewed by: W. Dorsch — BNL Project Manager — Date: 10/6/01

Usability of radiochemistry results for SDG 40955

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability	
088-13	Bi-214	26.6	8.47	5.11	18.13	OK	Suspect radon daughter Not detected in previous 2 samples
	Gross Beta	4.15	1.84	3.48	2.31	NotUsable	Low detect in previous sample
115-14	Bi-214	32.6	6.08	4.23	26.52	OK	Suspect radon daughter
	Gross Beta	1.91	1.96	2.91			No previous sample
FB-1	V-48	4.63	5.08	3.64	-0.45	NotUsable	Neither 1312 nor 944 kev peak were obse
115-13	Bi-214	16.5	6.19	4.23	10.31	OK	Suspect radon daughter Bi-214 not detected in previous sample
	Gross Beta	-0.506	1.3	3.03			No Beta in earlier sample
107-23	Mn-54	2.77	2.44	2.02	0.33	NotUsable	Interfering peak 2 kev below Mn peak cen

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 47961

Analytical Fraction: Co-57, Eu-155 Analytical Method(s): EPA 901.1

Sample Ids: FB-1

Sample ID	Data Usability Qualifier	Explanation for qualifier.
FB-1	N2 Co-57	The activity of Co-57 is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
FB-1	N2 Eu-155	The activity of Co-57 is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: Rich Pietzsch 10/3/01

BNL Data Usability Reviewer Date

Reviewed by: _____ _____

BNL Project Manager Date

Usability of radiochemistry results for SDG 47961

	Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
10175-6	FB-1	Co-57	1.47	1.68	1.43	-0.21	NotUsable
		Eu-155	7.71	8.3	5.64	-0.59	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42250

Analytical Fraction: Gross Alpha Analytical Method(s): EPA 900

Sample Ids: BD-2 (000-130) 5/11/01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
BD-2	N2	The gross alpha activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: Rick Pritzl 7/17/01
BNL Data Usability Reviewer Date

Reviewed by: _____ _____
BNL Project Manager Date

Usability of radiochemistry results for SDG 42250

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
BD-2	Gross Alpha	2.41	1.23	1.64	1.18	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42250

Analytical Fraction: Gross Alpha Analytical Method(s): EPA 900

Sample Ids: BD-2 (000-130)

Sample ID	Data Usability Qualifier	Explanation for qualifier.
BD-2 000-130	U-N2	The Gross Alpha result was not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: Rich Pintzuk 8/13/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorn 8/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 42250

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
BD-2	Gross Alpha	2.41	1.23	1.64	1.18	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 41319

Analytical Fraction: H-3, Cs-137, Gross Beta Analytical Method(s): EPA 906, 901.1, 900

Sample Ids: 115-31, 098-19

Sample ID	Data Usability Qualifier	Explanation for qualifier.
115-31 4/24/01	A	Acceptable tritium result.
098-19 4/24/01	R-N4	Cs-137 is a beta gamma emitter. The Cs-137 is not supported by the observed beta activity: the gross beta result was less than the MDA.
098-19 4/24/01	U-N2	The gross alpha activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is ~~less~~ greater than the reported activity. 9/20/01

Summary:

Completed by: Rick Pietrzak 8/7/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 8/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 41319

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
H-3	H-3	797	306	471	491	OK
098-19	Gross alpha	1.25	0.842	1.1	0.408	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42945

Analytical Fraction: Eu-152, Cs-137 Analytical Method(s): EPA 901.1

Sample Ids: 000-99 5/24/01, 000-98 5/24/01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
000-99 5/24/01	U-N2	The Eu-152 activity was not distinguishable from background. The sum of the 2-sigma error and the MDA was greater than the activity.
000-98 5/24/98	U-N2	The Cs-137 activity was not distinguishable from background. The sum of the 2-sigma error and the MDA was greater than the activity.

Summary:

Completed by: Rich Pitzyk 8/2/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsd 8/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 42945

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
000-99	Eu-152	8.9	7.35	7.99	1.55	NotUsable
000-98	Cs-137	4.45	2.91	2.88	1.54	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42803

Analytical Fraction: Gross Alpha, Cs-137 Analytical Method(s): EPA 900, 901.1

Sample Ids: 800-22, 800-23

Sample ID	Data Usability Qualifier	Explanation for qualifier.
800-22 5/23/01	UJ-N2 Gross Alpha	The gross alpha result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
800-23 5/23/01	R-N4 Cs-137	Cs-137 is both a beta and a gamma emitter. The Cs-137 result is not usable because the gross beta activity was less than an MDA of 2.42 pCi/L which in turn was much less than the gamma activity of the Cs-137 (11.0 pCi/L).

Summary:

Completed by: Rick Pietrzak 8/2/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dowd 8/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 42803

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
800-22	Sr-90	1.34	0.773	1.13	0.567	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 39330

Analytical Fraction: Cs-137, Bi-214, Gross Beta Analytical Method(s): EPA 901.1,900

Sample Ids: 000-146, 000-145, 000-144

Sample ID	Data Usability Qualifier	Explanation for qualifier.
000-146 3/15/01	R-N4	Cs-137 is a beta/gamma emitter. The Cs-137 activity is not supported by observed beta activity. The gross beta result was less than the MDA.
000-145 3/15/01	R-N4	Bi-214 is a beta gamma emitter. The Bi-214 activity is not supported by the observed beta activity. The gross beta result was less than the MDA.
000-144 3/15/01	U-N2	The gross beta activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.
000-144 3/15/01	R-N4	Bi-214 is a beta/gamma emitter. The Bi-214 activity is not supported by the observed beta activity. The gross beta result is not distinguishable from background.

Summary:

Completed by: Rich Putzig 8/7/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 8/30/01
BNL Project Manager Date

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 39356

Analytical Fraction: Bi-214, Co-60, Zn-65, Cs-137, Gross Beta
Analytical Method(s): EPA 901.1, 900

Sample Ids: 600-21, 600-20, 600-19, 600-25, 600-27 3/15/01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
600-21	R-N4 Bi-214	Suspect radon daughter contamination of detector. Bi-214 not supported by observable gross beta.
600-21	U-N2	Gross beta activity not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity.
600-20	U-N2 Co-60	The Co-60 activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity.
600-20	U-N2 Zn-65	The Zn-65 activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity.
600-25	R-N4 Bi-214	Suspect radon daughter contamination of detector. Bi-214 not supported by observable gross beta.
600-27	R-N4 Bi-214	Suspect radon daughter contamination of detector. Bi-214 not supported by observable gross beta.
600-27	U-N2 Cs-137	The Cs-137 activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the observed activity

Summary:

Completed by: Rich Putrzak 8/9/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsd 8/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 39356

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability	
600-21	Bi-214	9.17	5.85	4.79	3.32	NotUsable	
	Gross Beta	4.34	1.77	3.26	2.57	NotUsable	
600-20	Gross Beta	4.09	1.65	3	2.44	NotUsable	
600-19	Co-60	2.72	1.46	2.46	1.26	NotUsable	
	Zn-65	4.71	3.18	2.54	1.53	NotUsable	
600-25	Bi-214	12.3	6.18	4.32	6.12	OK	No Bi-214 in previous 4 samples
	Gross Beta	3.31	1.85	3.63			Suspect Radon daughter conamination of Detectable gross beta in previous 4 sampl
600-27	Bi-214	28.7	5.87	4.81	22.83	OK	No Bi-214 in previous 2 samples
	Gross beta	0.784	0.796	1.33			Suspect Radon daughter conamination of no gross beta in prevous 2 samples
	Cs-137	4.26	1.95	2.45	2.31	NotUsable	

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 39355

Analytical Fraction: Bi-214, Cs-137, Co-60, Gross Beta
Analytical Method(s): EPA 901.1, 900

Sample Ids: 600-23, 600-22, 000-122, 000-147

Sample ID	Data Usability Qualifier	Explanation for qualifier.
600-23	R-N4 Bi-214	Suspect contamination of sample or excessive sediment in sample. Bi-214 natural daughters and parent present in spectra.
600-22	R-N4 Bi-214	Suspect contamination of sample or excessive sediment in sample. Bi-214 natural daughters and parent present in spectra.
600-22	A Cs-137	Acceptable Cs-137 result.
600-22	U-N2 Co-60	The Co-60 result is not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
000-122	R-N4 Bi-214	Suspect contamination of sample or excessive sediment in sample. Bi-214 natural daughters and parent present in spectra.
000-147	R-N4 Bi-214	Suspect contamination of sample or excessive sediment in sample. Bi-214 natural daughters and parent present in spectra.
000-147	U-N2Eu-152	The Eu-152 result is not distinguishable from background. The sum of the MDA and the 2-sigma error was greater than the reported activity.
000-147	R-N4 Alpha	The gross alpha result was not seen in previous four samples. Suspect excessive sediment in sample.
000-147	R-N4 Beta	The gross beta result was not seen in previous four samples. Suspect excessive sediment in sample.

Completed by: [signature] 8/15/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 8/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 39355

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability	
600-23	Bi-214	26.4	6.98	5.32	19.42	OK	No Bi-214 in previous 4 samples
	Gross Beta	-0.308	1.03	2.22			No gross beta in previous 4 samples
600-22	Bi-214	13.6	5.45	4.04	8.15	OK	No Bi-214 in previous 4 samples
	Gross Beta	10.5	1.47	2.04			Beta positive in previous 4 samples
	Cs-137	4.75	1.56	2.99	3.19	OK	Cs-137 not in previous 4 samples
	Co-60	2.88	1.74	2.47	1.14	NotUsable	
000-122	Bi-214	26.1	6.21	4.19	19.89	OK	No Bi-214 in previous 4 samples
		1.49	1.06	2.07			No gross beta in previous 4 samples
000-147	Bi-214	13.3	7.05	4.3	6.25	OK	No Bi-214 in previous 4 samples
	Eu-152	9.09	5.55	6.93	3.54	NotUsable	No Eu-152 in previous 4 samples
	Gross Alpha	4.47	0.973	1.03	3.497	OK	No gross alpha in previous 4 samples
	Gross Beta	5.52	1.58	2.46	3.94	OK	No gross beta in previous 4 samples

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42580

Analytical Fraction: Co-60 Analytical Method(s): Epa 901.1

Sample Ids: 122-04

Sample ID	Data Usability Qualifier	Explanation for qualifier.
122-04 5/17/00	Co-60 UJIN2	The Co-60 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the activity. J-I The 2-sigma error was greater than the activity.

Summary:

Completed by: Rich Pitzke 7/11/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 7/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 42580

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
122-04	Co-60	3.08	3.22	2.94	-0.14	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 40808

Analytical Fraction: Sr-90 Analytical Method(s): EPA 905

Sample Ids: 108-12, 108-13, 108-14, 108-18, 108-30

Sample ID	Data Usability Qualifier	Explanation for qualifier.
108-12	A	Acceptable result
108-13	A	Acceptable result
108-14	A	Acceptable result
108-18	A	Acceptable result
108-30	A	Acceptable result

Summary:

Completed by: Rick Putzak 7/17/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 7/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 40808

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
108-12	Sr-90	2.84	0.35	0.44	2.49	OK
108-13	Sr-90	1.5	0.25	0.34	1.25	OK
108-14	Sr-90	1.9	0.61	0.96	1.29	OK
108-18	Sr-90	5.45	0.38	0.43	5.07	OK
108-30	Sr-90	5.06	0.35	0.36	4.71	OK

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 40553

Analytical Fraction: V-48, Sr-90 Analytical Method(s): EPA 901.1, 905

Sample Ids: 088-23, 087-09,

Sample ID	Data Usability Qualifier	Explanation for qualifier.
088-23 10-Apr-01	N2	V-48 activity is not distinguishable from background. The 2-sigma error plus the MDA is greater than the reported activity.
087-09 10-Apr-01	N2	Sr-90 activity is not distinguishable from background. The 2-sigma error plus the MDA is greater than the reported activity.

Summary:

Completed by: Richard Putzeh 6/26/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorn 6/27/01
BNL Project Manager Date

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42251

Analytical Fraction: Cs-137 Analytical Method(s): EPA 901.1

Sample Ids: 000-112

Sample ID	Data Usability Qualifier	Explanation for qualifier.
000-112 5/10/01	Cs-137 N2	The Cs-137 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the reported activity.

Summary:

Completed by: Rich Putrzyk 7/16/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dowd 7/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 42251

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
000-112	Cs-137	2.28	1.8	2.24	0.48	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 37696

Analytical Fraction: Gross Beta Analytical Method(s): EPA 900

Sample Ids: 076-169

Sample ID	Data Usability Qualifier	Explanation for qualifier.
076-~~169~~ 13 2/12/01 JB 7/26/01	R	Reanalysis for gross beta gave a preliminary result of 50 pCi/L.

Summary:

Completed by: Rich Pietrzak 4/4/01
BNL Data Usability Reviewer Date

Reviewed by: [signature] 7/26/01
BNL Project Manager Date

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42802

Analytical Fraction: Gross Alpha Analytical Method(s): EPA 900

Sample Ids: FB-2

Sample ID	Data Usability Qualifier	Explanation for qualifier.
FB-2 5/23/01	UJ-N2 Alpha	The gross alpha result is not distinguishable from background. The sum of the MDA and the 2-sigma error are greater than the reported activity.

Summary:

Completed by: [signature] 7/10/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dowd 7/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 42802

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	ctivity -Err pCi/L	Usability
FB-2	Gross Alpha	0.928	0.585	0.877	0.343	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL

Lab SDG No: 41795

Analytical Fraction: Sr-90

Analytical Method(s): EPA 905

Sample Ids: 088-26

Sample ID	Data Usability Qualifier	Explanation for qualifier.
088-26 5/3/01	A Sr-90	Acceptable result.
BD-3(088-26) 5/3/01	R-N4 Sr-90	Inconsistent with high beta result for this sample and Sr-90 result observed for the original sample (088-26).

Summary:

Completed by: Rick Pietrzak
BNL Data Usability Reviewer

7/10/01
Date

Reviewed by: W. Dowd
BNL Project Manager

7/26/01
Date

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 40633

Analytical Fraction: H-3 Analytical Method(s): EPA 906

Sample Ids: 086-42

Sample ID	Data Usability Qualifier	Explanation for qualifier.
086-42	N2 H-3	The H-3 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the activity.

Summary:

Completed by: Rich Pintzuk 7/9/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorch 7/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 40633

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
086-42	H-3	683	308	480	375	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 39952

Analytical Fraction: Sr-90, Gamma, Beta Analytical Method(s): EPA 905, 901.1, 900

Sample Ids: 018-12, 018-05, 018-01

Sample ID	Data Usability Qualifier	Explanation for qualifier.
018-02 3/29/01	N2JI Eu-155	Eu-155 Activity is not distinguishable from background. The sum of the 2-sigma error and the MDA is greater than the activity.
018-05 018-02 3/29/01	N2 Beta	The gross beta activity is not distinguishable from background. The sum of the 2-sigma error and the MDA is greater than the activity.
018-01 3/29/01	N2 Sr-90	The Sr-90 activity is not distinguishable from background. The sum of the 2-sigma error and the MDA is greater than the activity.
018-1	UN2 Cs-137	" " "

Summary:

Completed by: Rich Pietzyk 6/9/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 7/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 39952

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
018-02	Eu-155	12.6	7.5	8.46	5.1	NotUsable
018-05	Gross Beta	2.97	1.48	2.8	1.49	NotUsable
018-01	Sr-90	0.364	0.169	0.288	0.195	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 40634

Analytical Fraction: H-3, Sr-90 Analytical Method(s): EPA 906,905

Sample Ids: 087-27, 088-110

Sample ID	Data Usability Qualifier	Explanation for qualifier.
087-27 4/11/01	Sr-90 A	Acceptable result.
087-27 4/11/01	H-3uN2	The H-3 activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is less than the reported result.
088-110 4/11/01	H-3 uN2 JB 7/30/01	The H-3 activity is not distinguishable from background. The sum of the MDA and the 2-sigma error is less than the reported result.

Summary:

Completed by: Rick Pittzik 7/9/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 7/30/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 40634

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
087-27	Sr-90	0.641	0.158	0.238	0.483	OK
	H-3	635	307	483	328	NotUsable
088-110	H-3	646	310	487	336	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 41907

Analytical Fraction: Sr-90 Analytical Method(s): EPA 905

Sample Ids: 106-23, BD-1 (106-23), 106-24

Sample ID	Data Usability Qualifier	Explanation for qualifier.
106-23 5/4 01	A Sr-90	Acceptable result.
BD-1 5/4/01	A Sr-90	Acceptable result
106-24	U-N2 Sr-90	The Sr-90 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is greater than the activity.

Summary:

Completed by: Rick Pintych 7/11/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dowd 7/26/01
BNL Project Manager Date

Usability of radiochemistry results for SDG 41907

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	Activity -Error pCi/L	Usability
BD-1	Sr-90	3.83	0.358	0.421	3.472	OK
106-24	Sr-90	0.435	0.213	0.394	0.222	NotUsable

Attachment 1

BROOKHAVEN NATIONAL LABORATORY

Data Usability Summary Report

Contract Laboratory: GEL Lab SDG No: 42004

Analytical Fraction: Sr-90 Analytical Method(s): EPA 905

Sample Ids: FB-2

Sample ID	Data Usability Qualifier	Explanation for qualifier.
FB-2 5/8 01	Sr-90 U-N2	The Sr-90 result is not distinguishable from background. The sum of the MDA and the 2-sigma error is less than the reported activity.

Summary:

Completed by: Rich Pietryk 7/10/01
BNL Data Usability Reviewer Date

Reviewed by: W. Dorsch 7/26/01
BNL Project Manager Date

Rad Data Verification Qualifications for SDG 42004

Sample ID	Date Sampled	COC #	Parameter	Sr Carrier Yield %	Previous Result pCi/L		Qualified Result pCi/L	
106-14	5/8/2001	8802	Sr-90	63	1.16		1.16	J-T
106-17	5/8/2001	8802	Sr-90	69	2.07		2.07	J-T
106-15	5/8/2001	8802	Sr-90	58	0.142	U	0.142	UJ-T
106-64	5/8/2001	8802	Sr-90	45	11.1		11.1	J-T
106-49	5/8/2001	8802	Sr-90	66	98.4		98.4	J-T
106-13	5/8/2001	8802	Sr-90	70	4.47		4.47	J-T
106-16	5/8/2001	8802	Sr-90	72	629		629	J-T
BD-2	5/8/2001	8802	Sr-90	62	634		634	J-T
106-50	5/8/2001	8802	Sr-90	72	9.06		9.06	J-T
FB-2	5/8/2001	8802	Sr-90	62	0.349	J	0.349	J-T

Usability of radiochemistry results for SDG 42004

Sample ID	Species	Activity pCi/L	2-sigma Error pCi/L	MDA pCi/L	ctivity -Err pCi/L	Usability
FB-2	Sr-90	0.349	0.185	0.331	0.164	NotUsable