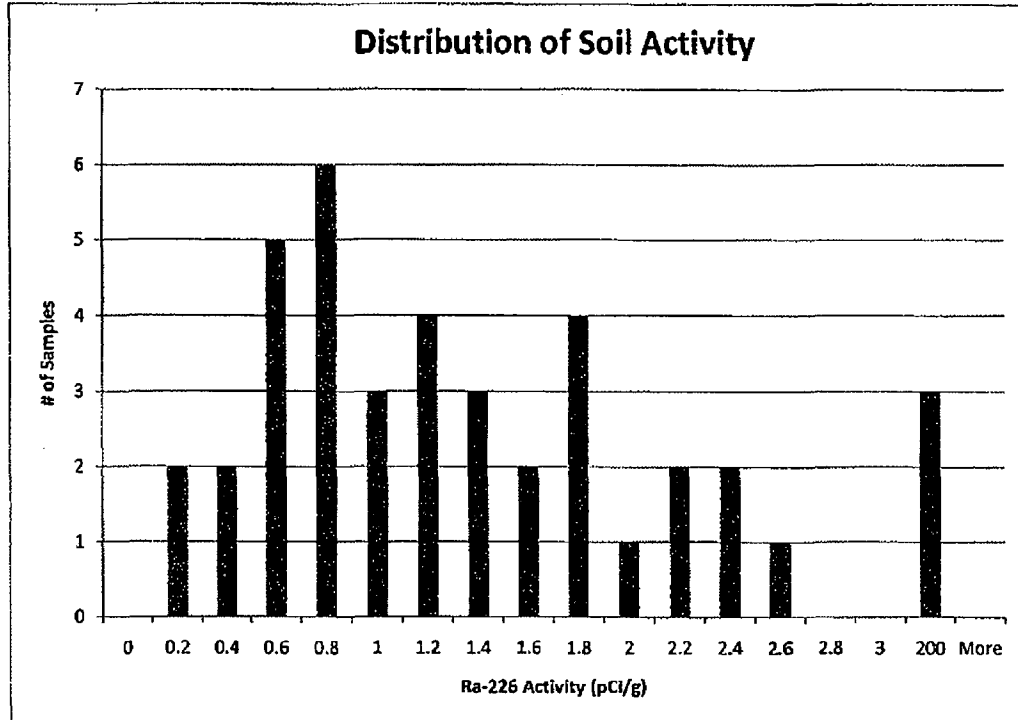


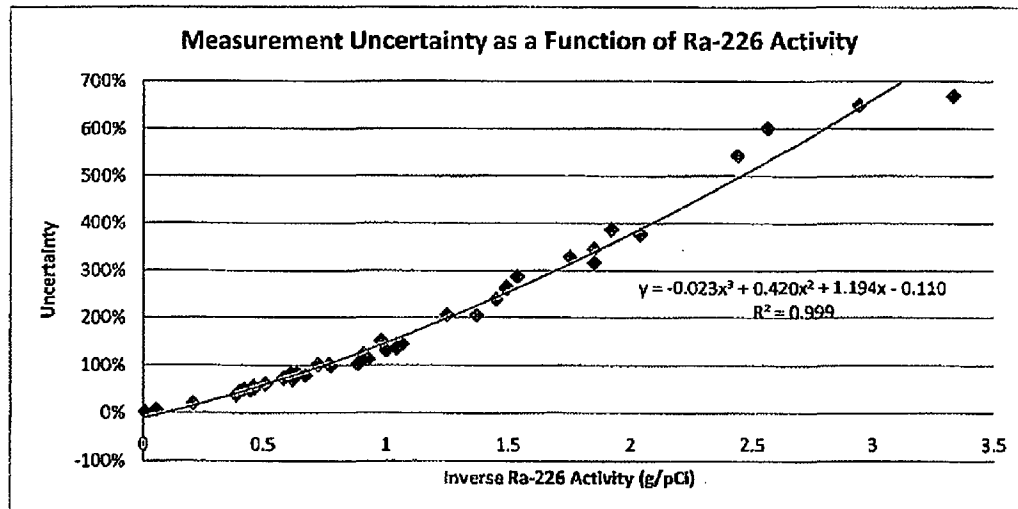
# APPENDIX C

## LAND AREA INFORMATION

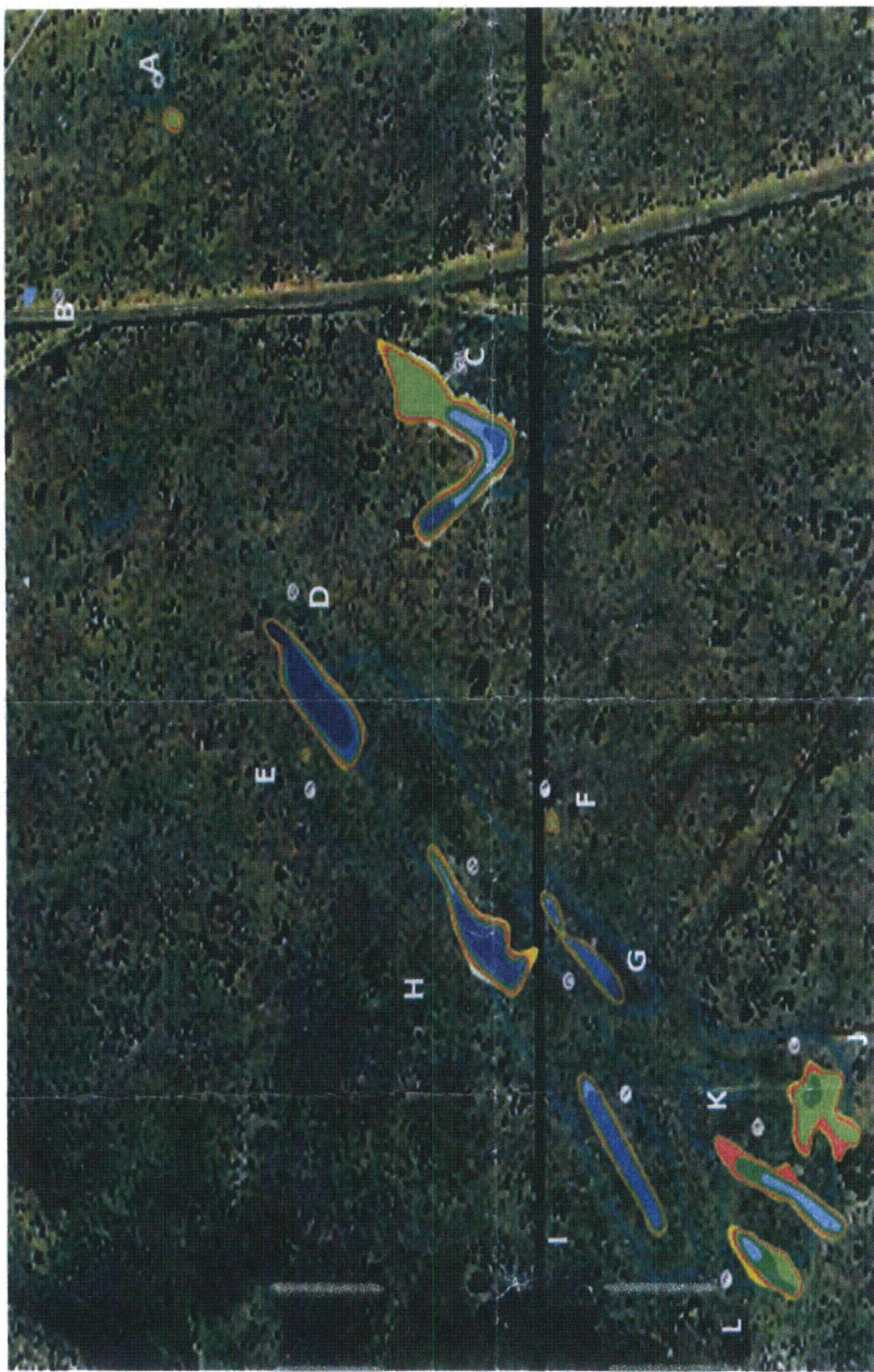
# MARSSIM Survey Results

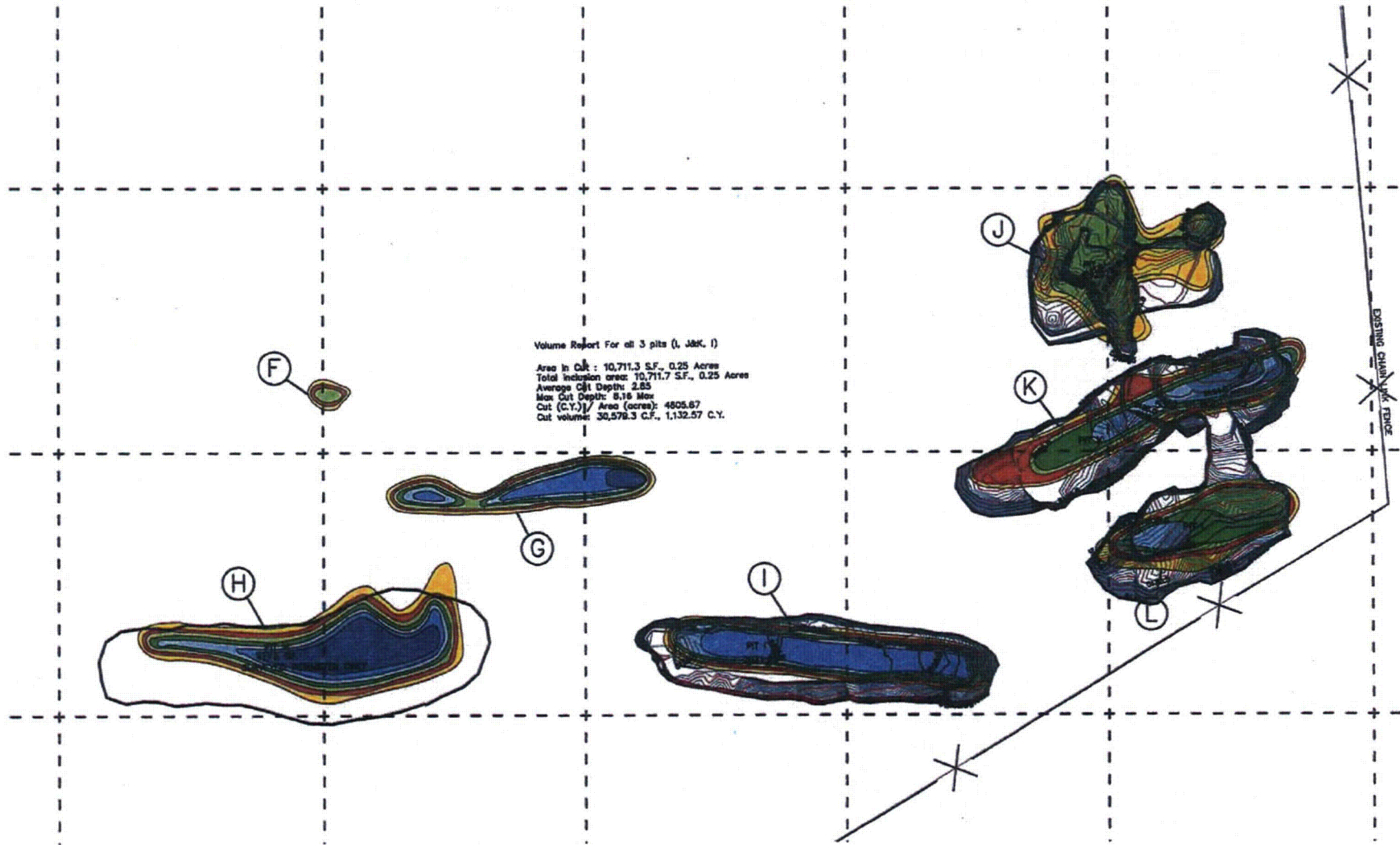


Graph 1 (Above): MARSSIM survey shows that the distribution of Ra-226 activity in the soil is skewed away from the concentration limit of 2.8 pCi/g. Failed surveys are included in the graph for completeness and those survey units have been remediated and cleared for release.



Graph 2 (Above): Measurement uncertainty as a function of sample activity is plotted to show that it follows a known relationship. The high measurement uncertainties seen in low activity samples are a direct result of poor counting statistics. This can be corrected by counting the samples for longer periods, however the limited capacity of the laboratory prohibits this time consuming correction.





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EXISTING CHAIN LINK FENCE

Project Site:	Highway 160	Instrumentation			
Location:	Hole JKL	Model #	Serial #	Efficiencies	Background
		GMX45P4-ST	46-TN22200A	2.2 keV FWHM	0.07 pCi/g
Collection Date	8/4/2011 - 8/11/2011	2350 (3x3)	-	-	320 C/s
		2929	143876	41.6% $\alpha$   25.6% $\beta$	0.5 $\alpha$   66.7 $\beta$
Analysis Date:	8/4/2011 - 8/12/2011	Surveyor:	B. Swayze T. Hunter	Lab Tech:	Ryan Penney
Purpose:	MARSSIM release of remediated area before back filling.	LRSO/PRSO Review:			

### MARSSIM Survey Results

Survey Unit*	Sample Type	Sample Dimensions (8oz. Jar)		Ra-226 Activity (pCi/g)			Highest Walkover Count Rate	Secondary Remedial Action Date	Highest Count Rate After Remediation	Release Date
		Mass	Density	Measured	Uncertainty	Maximum				
A1	Random #1	426	1.80	0.73	205%	5.25	330	-	-	
A2	Na	-	-	-	-	-	345	-	-	
A3	Na	-	-	-	-	-	350	-	-	
A4	Na	-	-	-	-	-	345	-	-	
A5	Systematic #2	446	1.89	1.61	70%	4.99	500	8/10/11	360	
	Bias #1	402	1.70	2.16	52%	5.53				
A6	Systematic #1	400	1.69	0.57	329%	6.15	335	-	-	
A7	Na	-	-	-	-	-	310	-	-	
A8	Na	-	-	-	-	-	312	-	-	
A9	Na	-	-	-	-	-	300	-	-	
B1	Na	-	-	-	-	-	360	-	-	
B2	Na	-	-	-	-	-	365	-	-	
B3	Bias #2	432	1.83	4.89	20%	7.81	1000	8/10/11	330	
	Remediated Area 2	332	1.40	2.50	45%	5.89				
B4	Na	-	-	-	-	-	330	-	-	
B5	Na	-	-	-	-	-	320	-	-	
B6	Na	-	-	-	-	-	340	-	-	
B7	Na	-	-	-	-	-	360	-	-	
B8	Na	-	-	-	-	-	300	-	-	
B9	Na	-	-	-	-	-	315	-	-	
C1	Systematic #11	396	1.67	0.94	145%	5.04	375	-	-	
C2	Systematic #10	406	1.72	0.08	3485%	8.57	370	-	-	
	QC Systematic #10	420	1.78	0.65	288%	6.31				
C3	Systematic #9	386	1.63	2.58	38%	5.53	367	-	-	
C4	Systematic #8	332	1.40	1.70	74%	5.48	300	-	-	
C5	Systematic #7	394	1.67	1.63	84%	5.72	360	-	-	
C6	Systematic #6	380	1.61	1.00	132%	4.93	410	-	-	

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### MARSSIM Survey Results

Survey Unit*	Sample Type	Sample Dimensions (8oz. Jar)		Ra-226 Activity (pCi/g)			Highest Walkover Count Rate	Secondary Remedial Action Date	Highest Count Rate After Remediation	Release Date
		Mass	Density	Measured	Uncertainty	Maximum				
C7	Systematic #5	430	1.82	1.49	79%	5.04	560	-	-	
	Bias #7	446	1.89	1.30	102%	5.29				
	QC Systematic #5	410	1.73	0.67	261%	5.91				
C8	Systematic #4	420	1.78	2.24	48%	5.49	295	-	-	
C9	Systematic #3	342	1.45	1.10	124%	5.21	310	-	-	
D1	Systematic #12	362	1.53	0.30	670%	6.32	360	-	-	
D2	Systematic #13	426	1.80	0.96	136%	4.89	381	-	-	
D3	Systematic #14	386	1.63	0.09	3313%	8.58	348	-	-	
D4	Systematic #15	376	1.59	0.49	376%	6.00	407	-	-	
D5	Systematic #16	444	1.88	0.67	266%	6.00	403	-	-	
D6	Systematic #17	430	1.82	1.57	85%	5.55	410	-	-	
D7	Systematic #18	434	1.83	1.38	102%	5.58	378	-	-	
D8	Systematic #19	426	1.80	0.52	387%	6.55	360	-	-	
D9	Systematic #20	314	1.33	1.08	113%	4.77	305	-	-	
	QC Systematic #20	300	1.27	0.41	544%	7.15				
E1	Na	-	-	-	-	-	340	-	-	
E2	Na	-	-	-	-	-	360	-	-	
E3	Na	-	-	-	-	-	340	-	-	
E4	Random #2	426	1.80	1.13	104%	4.66	410	-	-	
E5	Na	-	-	-	-	-	400	-	-	
E6	Systematic #21	370	1.56	0.39	602%	7.52	418	-	-	
E7	Systematic #22	430	1.82	0.69	239%	5.63	392	-	-	
E8	Na	-	-	-	-	-	318	-	-	
E9	Bias #6	434	1.83	144.06	2%	153.82	1200	8/10/11	420	
F1	Na	-	-	-	-	-	351	-	-	
F2	Na	-	-	-	-	-	360	-	-	
F3	Na	-	-	-	-	-	360	-	-	
F4	Na	-	-	-	-	-	280	-	-	
F5	Na	-	-	-	-	-	298	-	-	
F6	Systematic #23	402	1.70	1.02	152%	5.66	325	-	-	
F7	Systematic #24	370	1.56	0.80	206%	5.75	500	-	-	
F8	Bias #5	434	1.83	2.17	56%	5.83	800	8/11/11	310	
	Remediated Area 3	338	1.43	0.34	650%	6.93				
F9	Na	-	-	-	-	-	600	8/10/11	333	
G1	Random #3	440	1.86	0.54	346%	6.13	320	-	-	

### MARSSIM Survey Results

Survey Unit*	Sample Type	Sample Dimensions (8oz. Jar)		Ra-226 Activity (pCi/g)			Highest Walkover Count Rate	Secondary Remedial Action Date	Highest Count Rate After Remediation	Release Date
		Mass	Density	Measured	Uncertainty	Maximum				
G2	Na	-	-	-	-	-	371	-	-	
G3	Na	-	-	-	-	-	353	-	-	
G4	Na	-	-	-	-	-	360	-	-	
G5	Na	-	-	-	-	-	410	-	-	
G6	Systematic #25	440	1.86	1.96	61%	5.54	356	-	-	
G7	Systematic #26	404	1.71	1.29	100%	5.17	391	-	-	
G8	Bias #4	410	1.73	18.20	6%	21.24	450	-	-	
G9	Random #4	404	1.71	1.71	73%	5.45	307	-	-	
H1	Na	-	-	-	-	-	370	-	-	
H2	Na	-	-	-	-	-	363	-	-	
H3	Na	-	-	-	-	-	371	-	-	
H4	Bias #2	444	1.88	2.38	49%	5.86	1000	8/10/11	380	
H5	Na	-	-	-	-	-	950	8/10/11	478	
H6	Na	-	-	-	-	-	700	8/11/11	420	
H7	Remediated Area 1	354	1.50	0.54	317%	5.64	800	8/11/11	350	
H8	Na	-	-	-	-	-	800	8/11/11	391	
H9	Na	-	-	-	-	-	290	-	-	

Notes: Release Limit of 2.83 pCi/g Ra-226  
 Count time 10 minutes per sample.  
 Maximum expected activity to 95% confidence by counting statistics and 2% systematic error.  
 Calibration source simulates 1.7 g/cc soil density  
 \*Survey unit size 6.5m x 6.5m \ See Map

Hole Letter = Grid-systematic/QC/Bias/Random

1A-21-I	1A-1A-1A-2	1B-21-G
2A-20-I	1C	2B-20-G
3A-19-I	2C	3B-19-G
A-A1 1A-1A-1A-1	B-A2	<del>C1-B1</del> 1A-20-G
A-A2 1A-1A-1A-2	B-A2-QC	2A-20-G
A-B1 2A-1A-1A-1	B-A2-B1	F-B1-S1 1A-1A-1A-1
A-B2 1A-1A-1A-2	B-B2	F-B2-S2 1A-1A-1A-2
A-A2-QC 1A-1A-1A-2	B-B3	2A-1A-1A-2
A-A2-B1 1A-1A-1A-1	B-B3	2A-1A-1A-1
2A-2A-I	2C	2B-2A-G
C-D4-S11 2A-1A-1A-1	G-A4-SB	H-A1-S1 0A-1A-1A-1
C-D2-S10 1A-1A-1A-1	<del>G-A2-S6</del>	H-A2-S2 1A-1A-1A-1
C-C6-S7 1A-1A-1A-1	G-A3-S1	H-A3-S3 1A-1A-1A-1
C-C3-S4 2A-1A-1A-1	G-A3-S2	H-A4-S4 1A-1A-1A-1
C-C7-S8 1A-1A-1A-1	G-A4-S3	H-A5-S5 1A-1A-1A-1
C-C2-B4 2A-1A-1A-1	G-A5-S4	H-A6-S6 1A-1A-1A-1
C-D8-S12 2A-1A-1A-1	G-A6-S5	H-A7-S7 1A-1A-1A-1
C-E7-S13 2A-1A-1A-1	G-A7-S6	H-A8-S8 1A-1A-1A-1
C-B8-S3 0A-1A-1A-1	G-B2-S7	H-B1-S9 1A-1A-1A-1
C-D2-QC3 1A-1A-1A-1	G-B3-S8	H-B2-S10 1A-1A-1A-1
C-B6-QC1 2A-1A-1A-1	G-B4-S9	H-B3-S11 1A-1A-1A-1
C-F7-B3 1A-1A-1A-1	G-B5-S10	H-B4-S12 1A-1A-1A-1
C-B6-S1 2A-1A-1A-1	G-B6-S11	H-B5-S13
C-B7-S2 1A-1A-1A-1	G-B7-S12	H-B6-S14
C-C5-S6 2A-1A-1A-1	QC2	H-B7-S15
C-C4-S5 1A-1A-1A-1	QC2	H-B8-S16
<del>C-F2-R2</del> 2A-1A-1A-1	QC2	
C-A3-R1 0A-1A-1A-1	P-1A	
C-C4-QC2 2A-1A-1A-1	4-1A	
C-E5-R3 1A-1A-1A-1	1A-1A-1A-1	



C-D2-S10  
C-C6-S7  
C-C3-S4  
C-C7-S8  
C-C2-B4  
L-D8-S12  
C-E7-S13  
C-B8-S3  
C-D2-~~3~~<sup>QC</sup>3  
C-B6-QC1  
C-F7-B3  
C-B6-S1  
C-B7-S2  
C-C5-S6  
C-C4-S5  
~~C~~ C-F2-R2  
C-A3-R1  
C-C4-QC2  
C-E5-R3  
C-D3-B1  
C-C8-S9  
C-D7-B2

~~G-A7-S6~~  
2  
G-A5-S1  
G-A3-S2  
G-A4-S3  
G-A5-S4  
G-A6-S5  
G-A7-S6  
G-B2-S7  
G-B3-S8  
G-B4-S9  
G-B5-S10  
G-B6-S11  
G-B7-S12

H-A2-S2  
H-A3-S3  
H-A4-S4  
H-A5-S5  
H-A6-S6  
H-A7-S7  
H-A8-S8  
H-B1-S9  
H-B2-S10  
H-B3-S11  
H-B4-S12  
H-B5-S13  
H-B6-S14  
H-B7-S15  
H-B8-S16

Handwritten header text at the top of the page, possibly a date or reference number.

D-C2-51	JKL-A1-R1	I-C5-517
D-C3-52	51	I-C3-515
D-C4-53	52	I-B1-B5
D-C5-54	53	I- <del>RM</del> <sup>B5-</sup> RM1 1A-A
D-C6-55	54	I-C7-519 2A-A
D-C7-56	55	I- <del>B</del> <sup>B3</sup> -B3 1A-A
D-C8-57	56	I-B5-OC1 6B-A
D-C9-58	57	I-SMB2-570 2A-A
D-D7-58	58	I-B7-RM23-CA-A
D-D8-59	59	I-B5-B5
D-D4-510	510	I-B7-512 1A-A
D-D6-511	511	I- <del>B</del> <sup>SMB4-</sup> B4 012-510-2
D-B5-B1	512	I-A5-55 1A-55-2
D-B7-B2	513	I-SMB8 1A-55-2
D-A7-R4	514	I-C8-B1 1A-55-2
D-C2-OC1	515	I-B3-58 1A-55-2
D-D3-R1	516	I-A2-52 1A-55-2
D-D4-OC3	517	I-B4-59 1A-55-2
D-E7-R2	518	I-C8-520 1A-55-2
D-E7-B4	519	I-SMB1-B1 1A-55-2
D-E2-R3	520	I-A3-53 1A-55-2
<del>D-E</del>	521	I- <del>B</del> <sup>SM</sup> B6-51 1A-55-2
	522	I-B2-B2 1A-55-2
	523	I-B7-OC1 1A-55-2
	524	I-B7-B2 1A-55-2
	525	I-A1-54 1A-55-2
	526	I- <del>B</del> <sup>SM</sup> B6-51 1A-55-2
	B1-7	I-C8-OC20 1A-55-2
	R1-4	I-B5-OC10 1A-55-2
		I- <del>B</del> <sup>B5</sup> - <del>B</del> <sup>5</sup> 1A-55-2

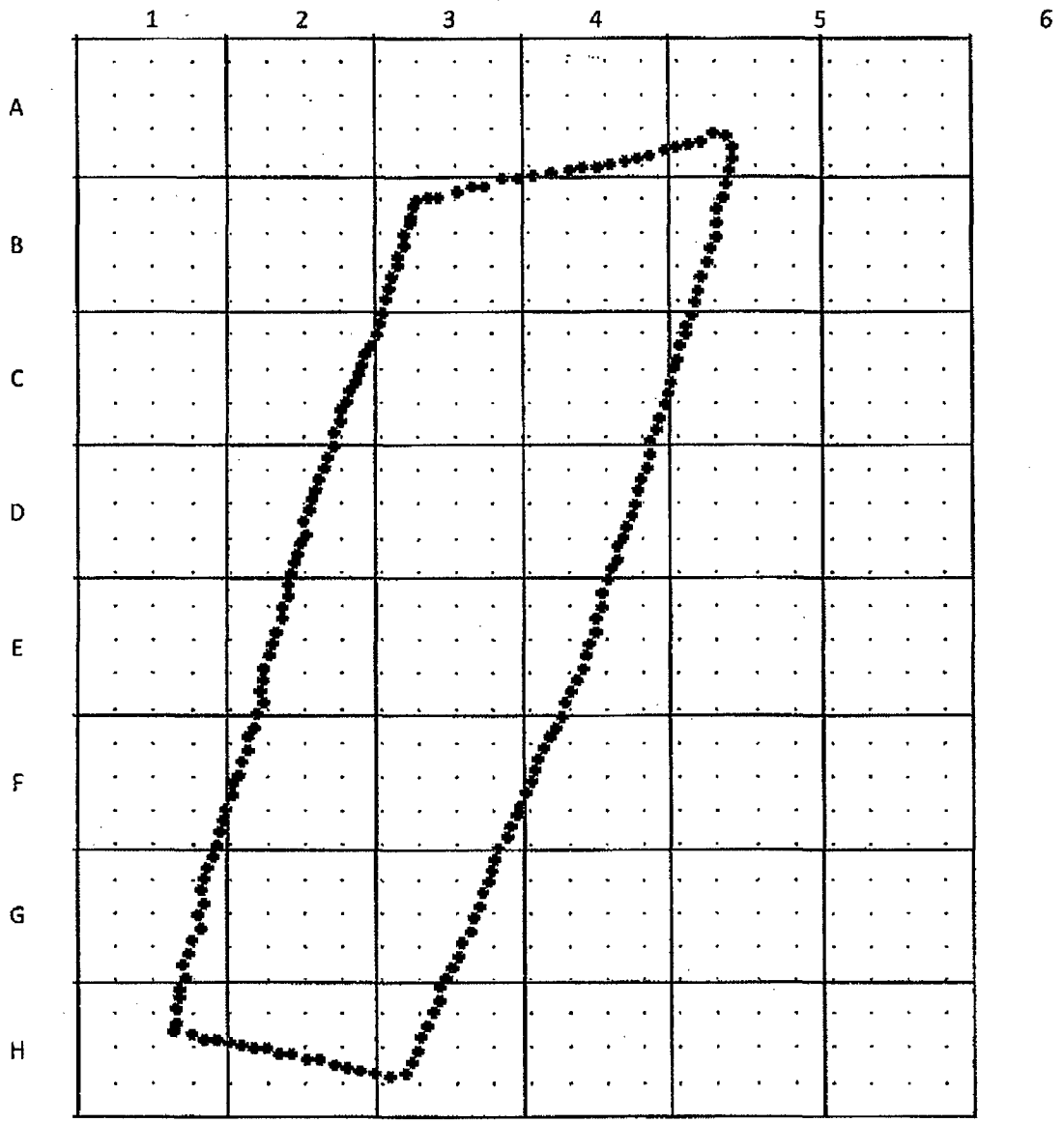
Reminded RM1

D-D7-S8	88	I-B7-RM23-BP-W
D-D8-S9	S9	I-B5-B5
D-D4-S10	S10	I-B7-S12
D-D6-S11	S11	I-SMB4-B4
D-B5-B1	S12	I-A5-S5
D-B7-B2	S13	I-SMB8
D-A7-R4	S14	I-C8-B1
D-C2-QC1	S15	I-B3-S8
D-D3-R1	S16	I-A3-S2
D-D4-QC3	S17	I-B4-S9
D-E7-R2	S18	I-C8-S20
D-E7-B4	S19	I-SMB1-B1
D-E2-R3	S20	I-A3-S3
<del>D-E</del>	S21	I-SMB6-S11
	S22	I-B2-B2
	S23	I-B7-QC7
	S24	I-B7-B2
	S25	I-A1-S4
	S26	I-C2-S14
	BI-7	I-C8-AC20
	RI-4	I-B5-QC10
Remediated=RM1		I-B5-Q10
	RM2	I-C6-S18
	RM3	I-B1-S6
	QC5	I-C4-S16
	QC10	I-A1-S1
	QC20	

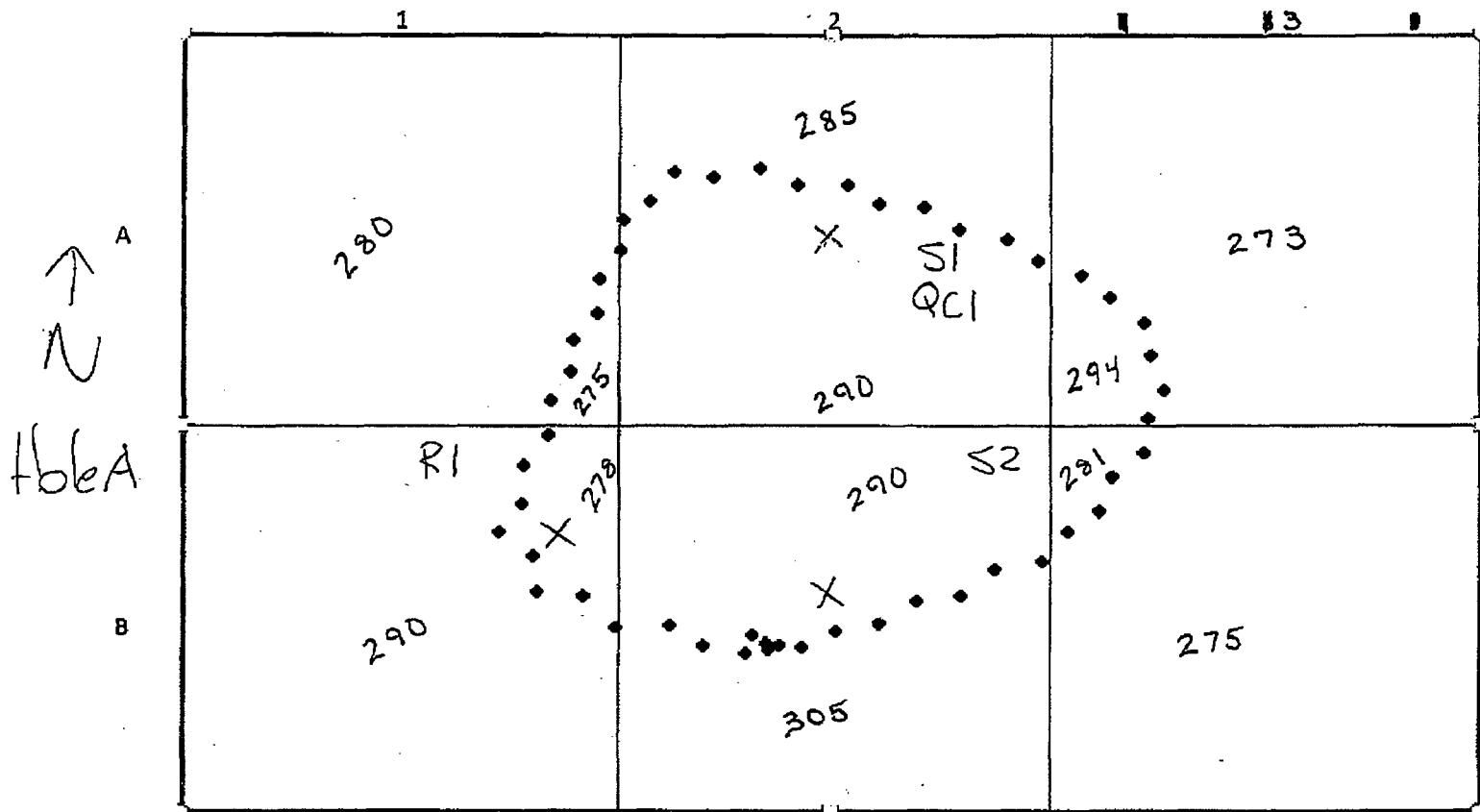
**Appendix C. Laboratory Analytical Concentrations at Exterior Locations (continued)**

Sample Number	Northing (feet)	Easting (feet)	Depth in inches	Ra-226 pCi/g	Th-230 pCi/g	Total Uranium mg/kg
1 - N. Off-site Background	1,880,483.81	923,309.93	0 - 6	0.11	<0.25	0.049
2 - N. Off-site Background	1,880,486.05	923,312.37	0 - 6	0.27	<0.25	0.063
3 - S. Off-site Background	1,868,794.90	923,996.56	0 - 6	0.21	<0.25	0.049
3 - S. Off-site Background	1,868,799.08	924,004.15	0 - 6	0.17	<0.25	0.052
5 - E. Off-site Background	1,881,009.05	931,498.78	0 - 6	0.37	0.36	0.110
6 - E. Off-site Background	1,881,004.93	931,498.75	0 - 6	0.46	0.44	0.086
7 - W. Off-site Background	1,875,890.57	923,738.97	0 - 6	0.22	<0.25	0.061
8 - W. Off-site Background	1,875,887.96	923,734.53	0 - 6	0.06	<0.25	0.065
A3-18			0 - 6	1.43	1.25	0.460
B1-3			0 - 6	0.36	0.49	0.330
VP005 - I0001			0 - 6	0.38	0.38	0.180

< Indicates the result is below the method detection limit.

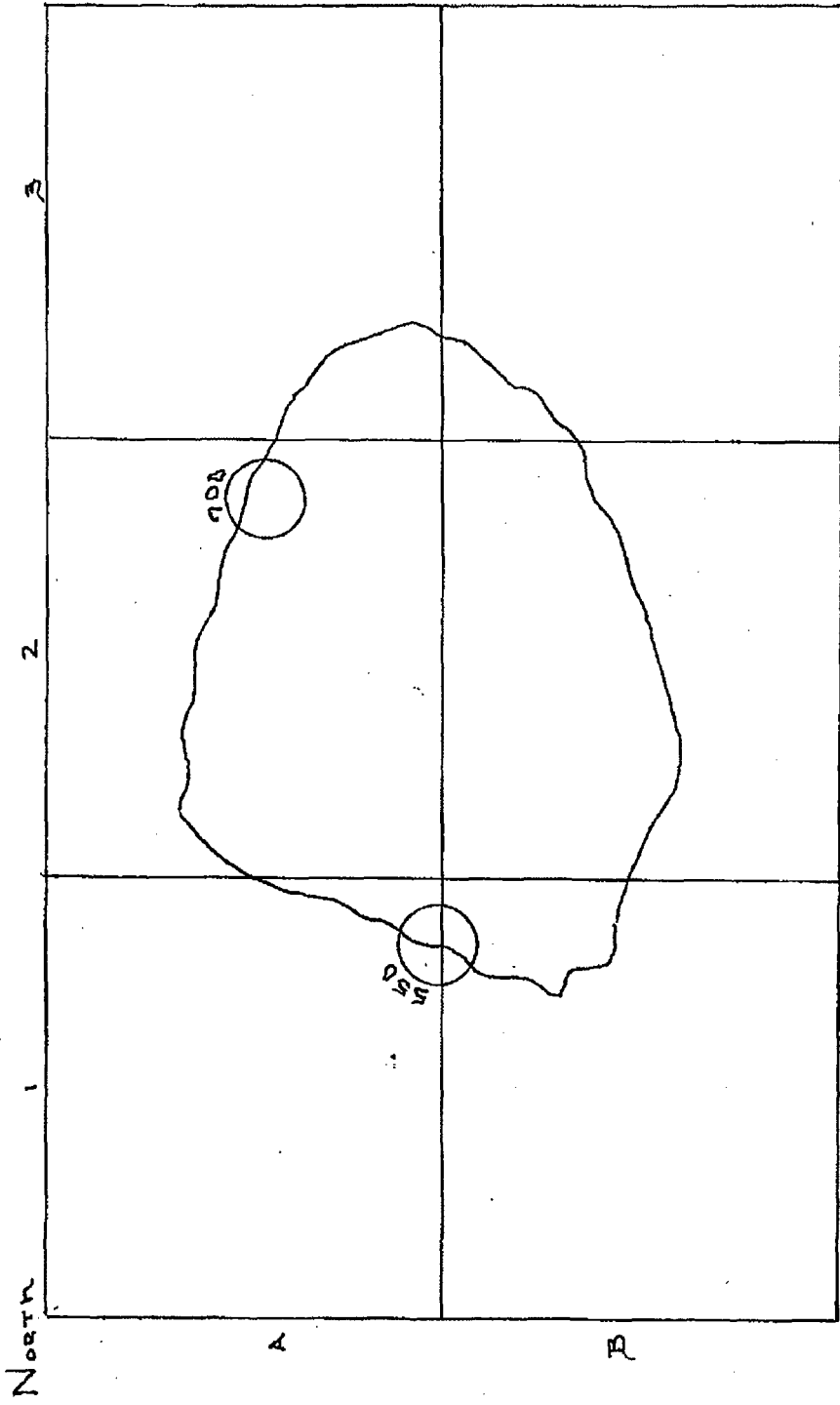


Z



~~scanned~~ scanned/sampled on AUG 19~~th~~, 2011

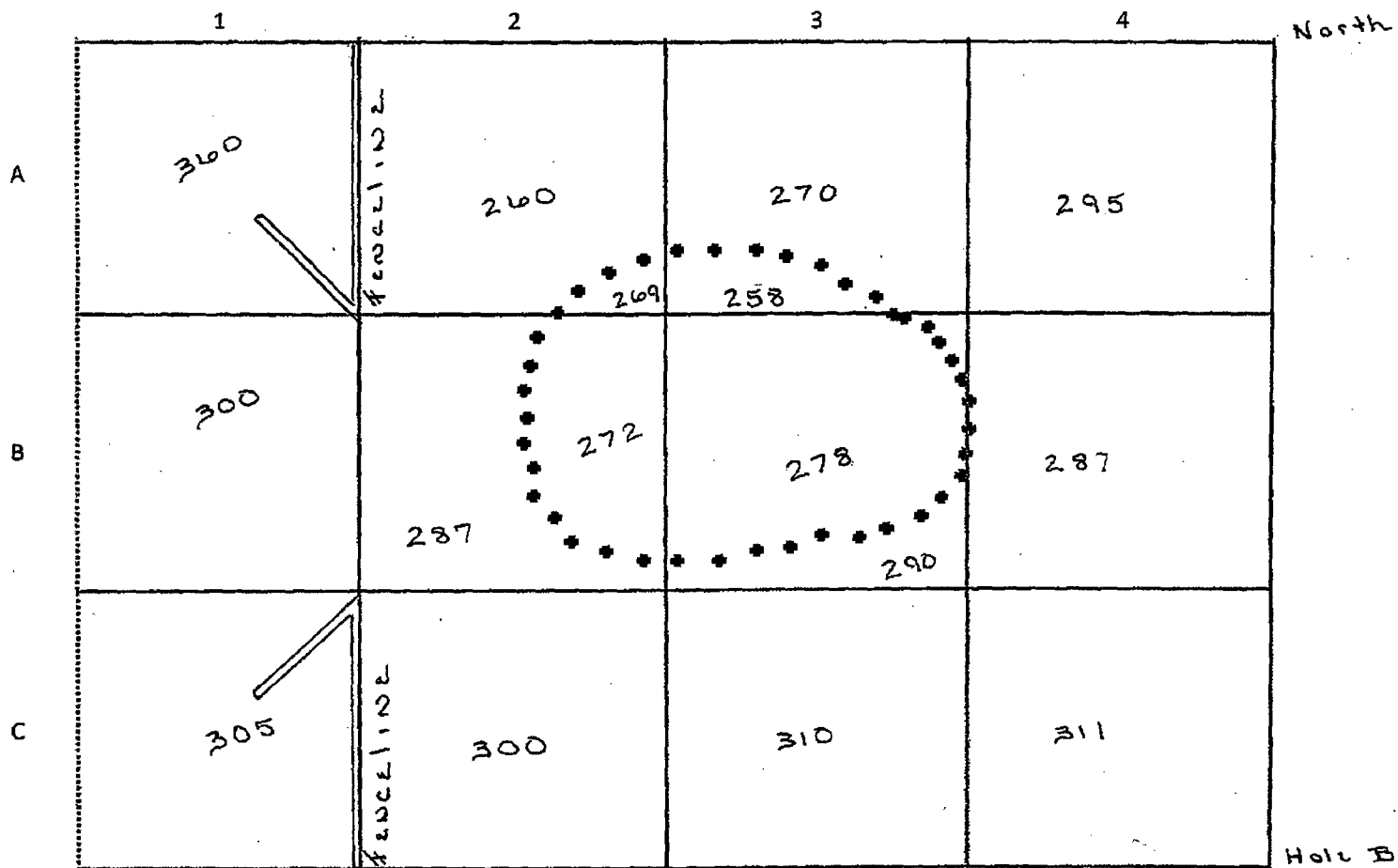
Need 2 Bias Samples



Hole A

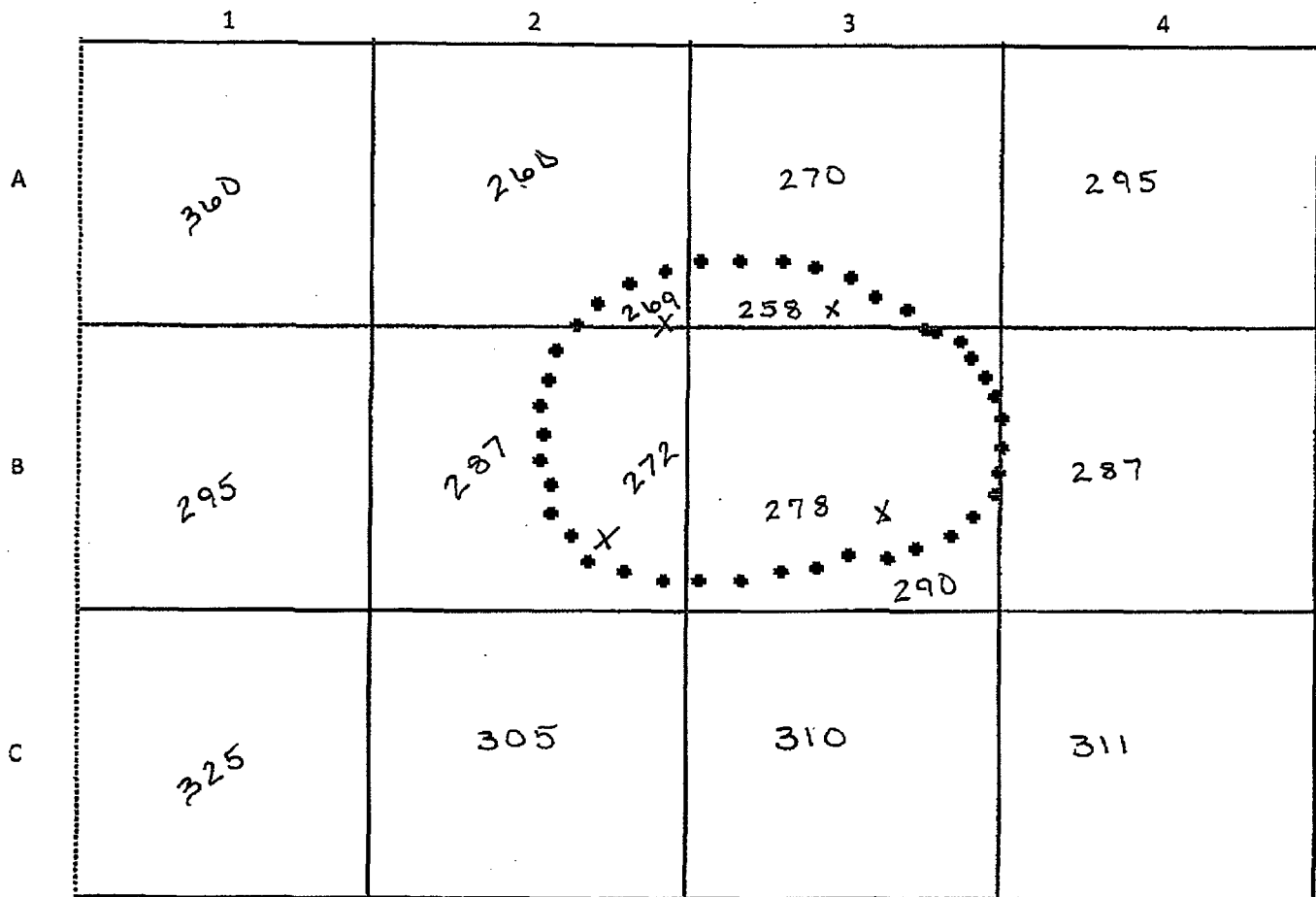
Horseto on Aug 18<sup>th</sup>, 2011

O = Horseto



Scanned on AUG 22nd, 2011 (PM) 14:30  
 Hot Spots Removed



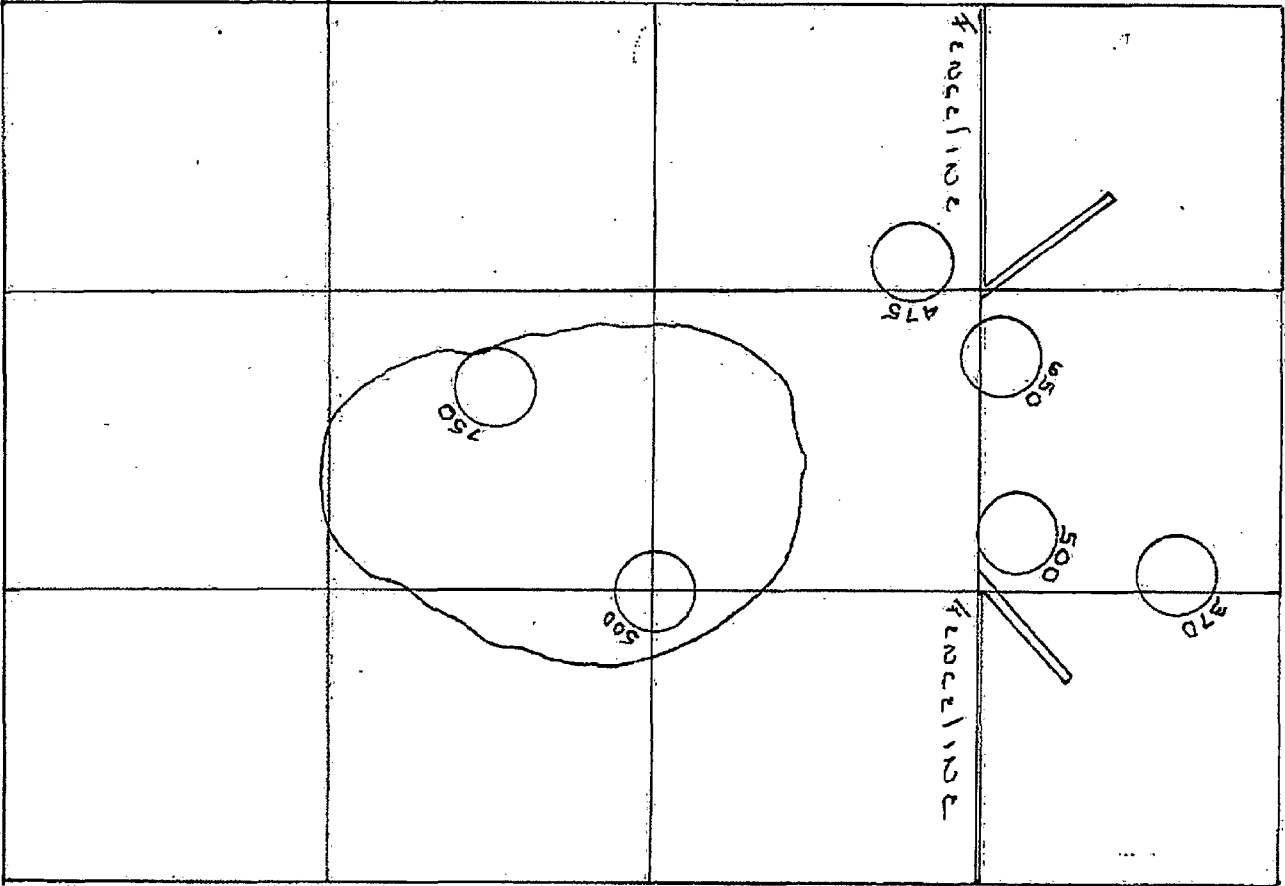


Hole B

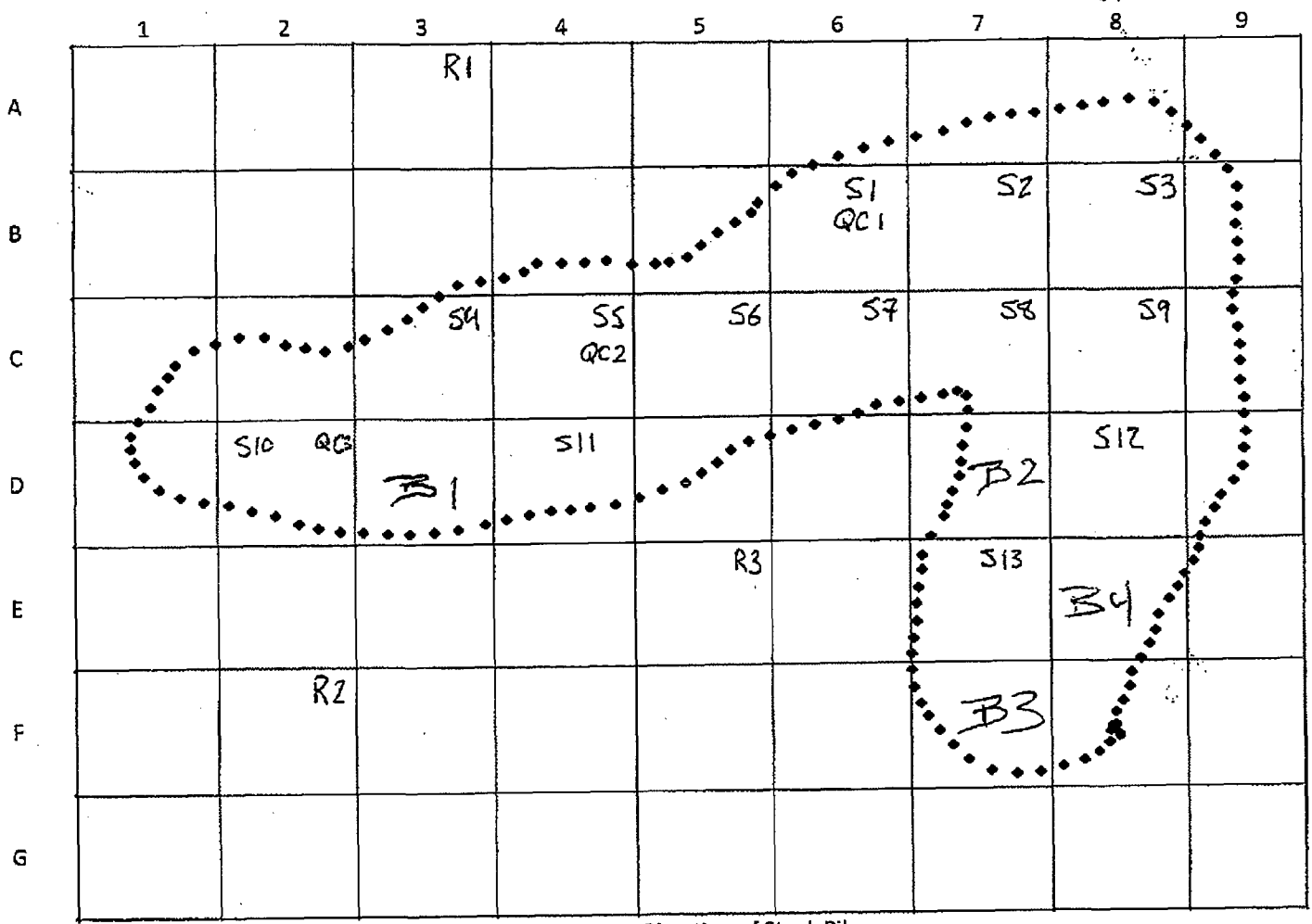
X = samples  
 scanned/samples on Aug ~~19~~ <sup>22</sup> ~~2011~~ <sup>2008</sup>, 2011 (AM) 10:00

○ = Hot Spot 02 Aug 1979 " 2011 16:00

Hot Spot



North



4Bias

Direction of Stock Pile

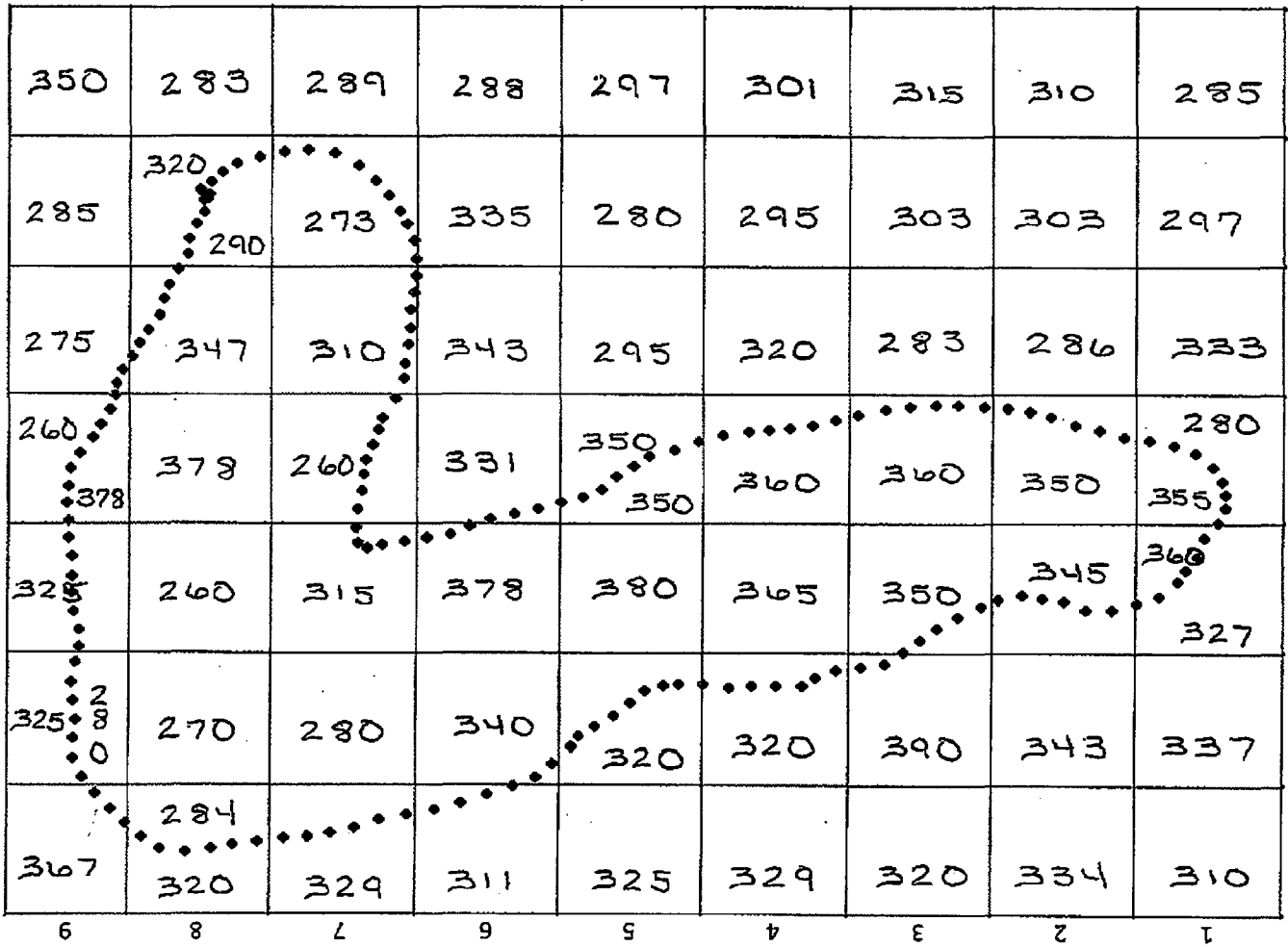
R - RANDOM

B - BIAS

SCANNED/SAMPLED ON AUG 19<sup>TH</sup> 2011

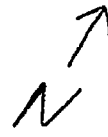
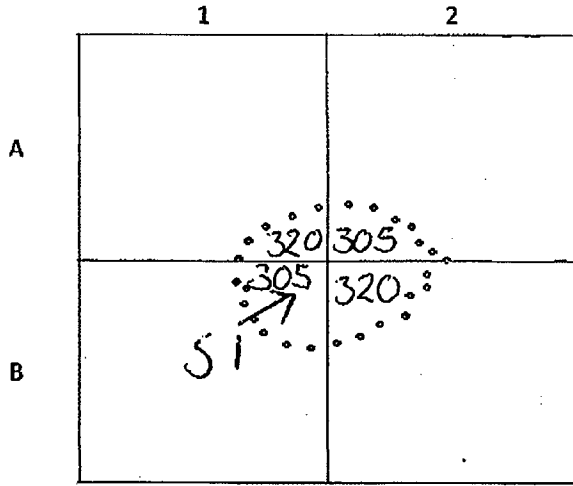
Scanned & Surveyed on 8-18-11

Direction of Stock Pile



G  
F  
E  
D  
C  
B  
A

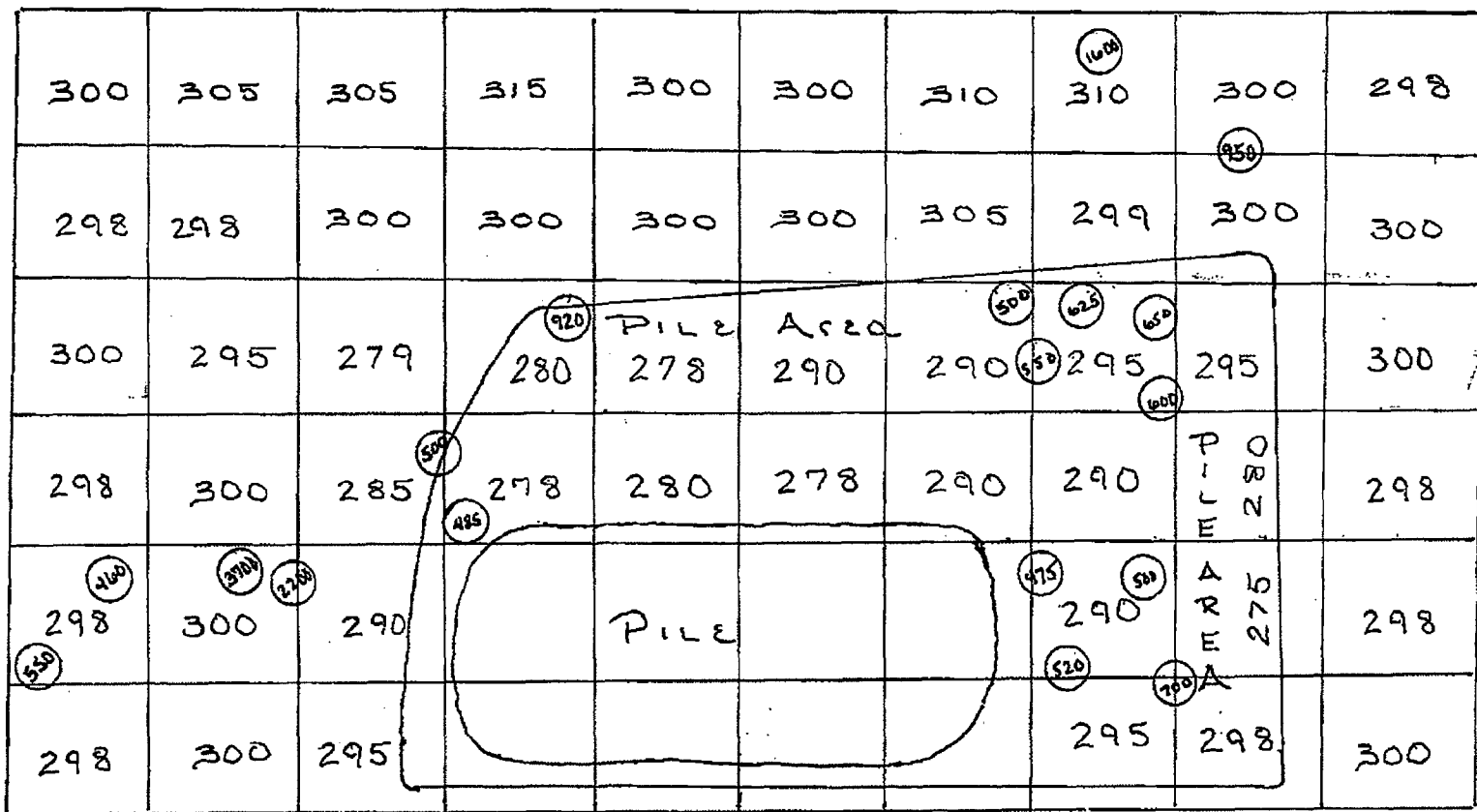




Hole C-1

Hole D

Stock Pile

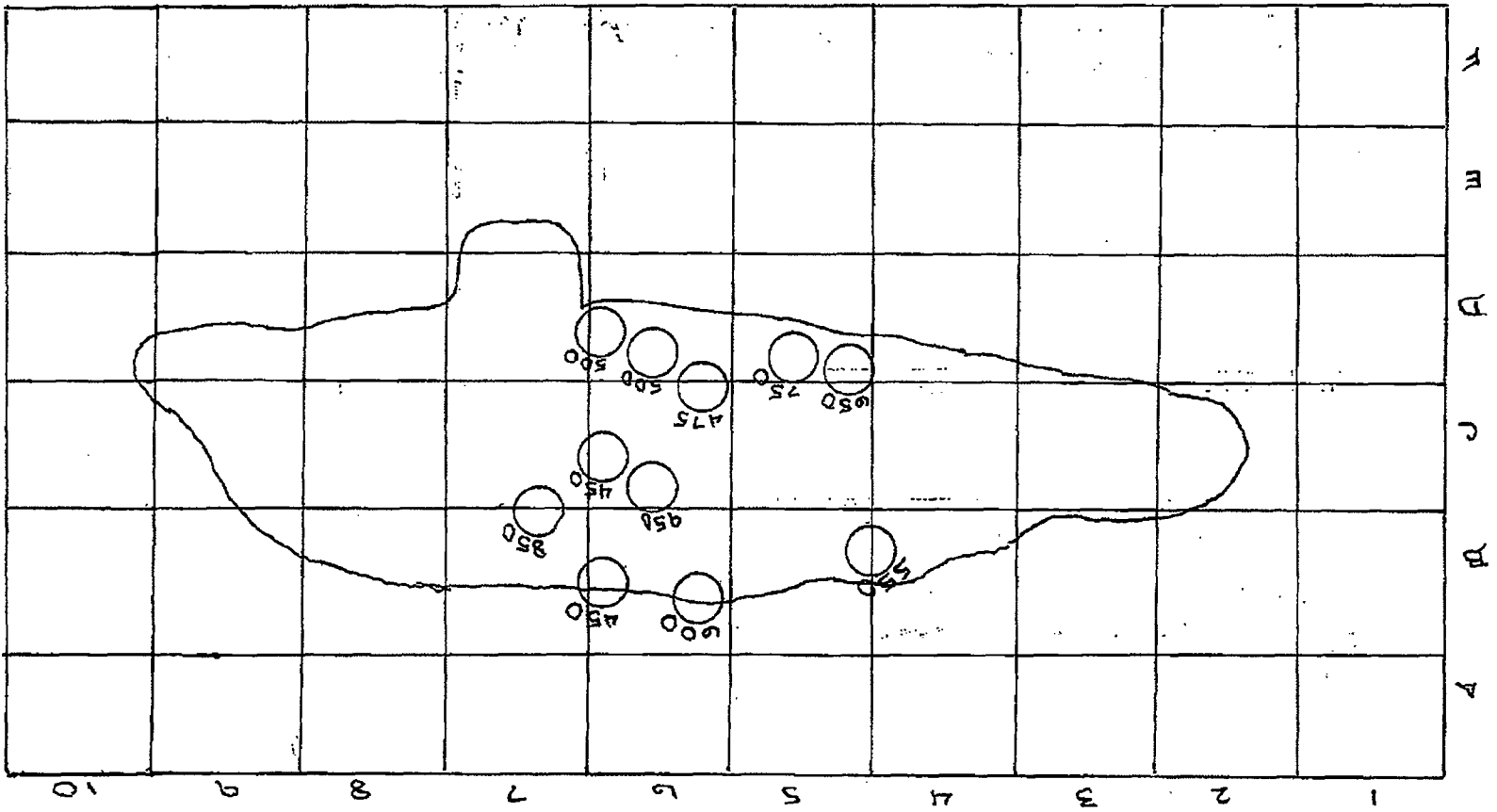


PILE Area as of AUG 26, 2011 (13:30) PM (After Hot Spot Removal)

○ = Hot Spots Located on AUG 26<sup>th</sup>, 2011 (09:30) AM

North

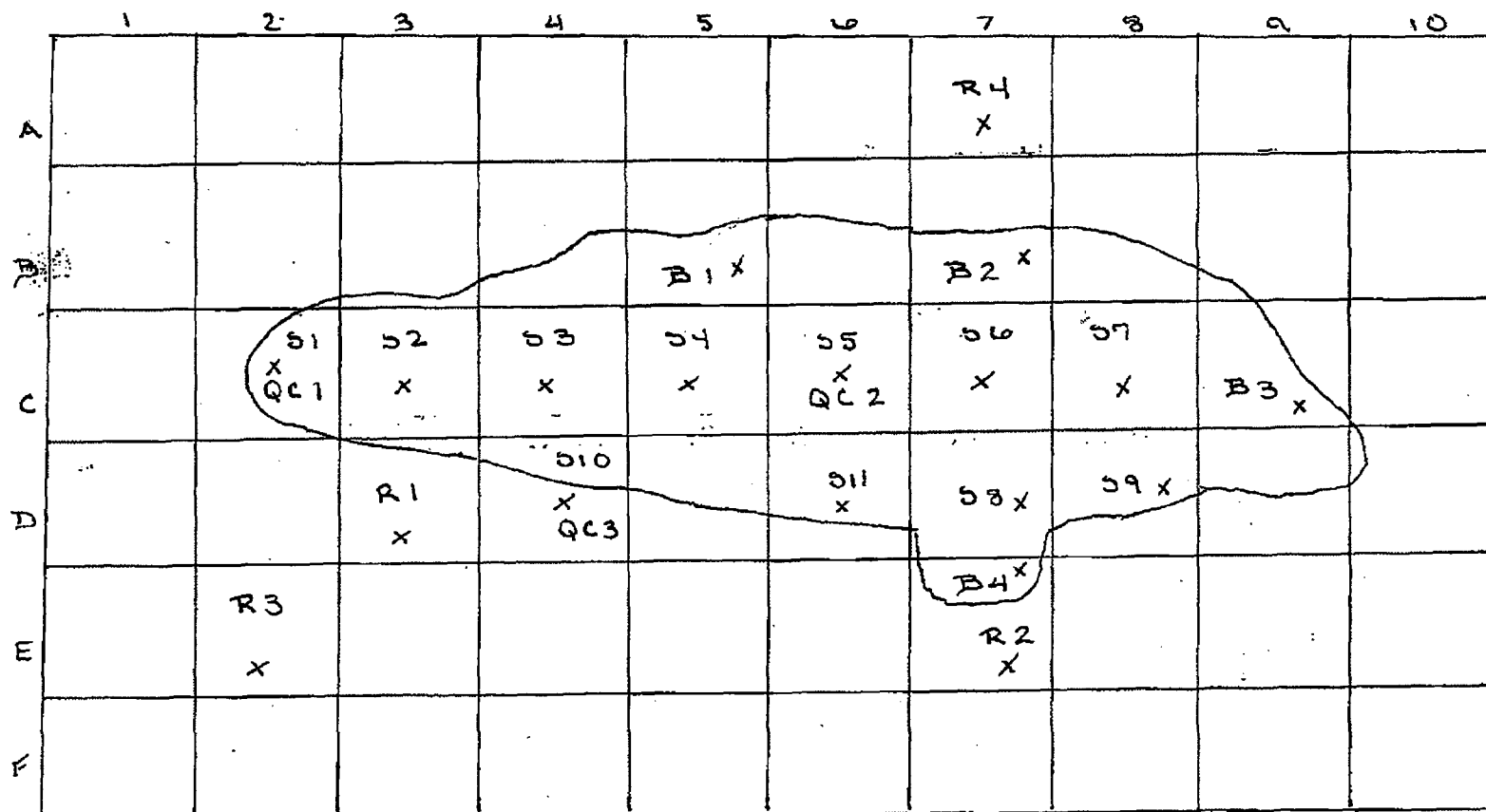
○ = HOT SPOTS ON AUG 24<sup>TH</sup>, 2011 (16:00) P.M.



North



North



x = Sample Locations on Aug 25th, 2011

North

	1	2	3	4	5	6	7	8	9	10
A										
B				275	295	305	305	310		
C	265	280 270	260	265	275	290	295	310	325	
D	273	285	310	310 340	305 330	305 330	355 350	325 360	320 330	320
E	305	305	310	345	330	297	327	365	340	315
F	300	300	310	325	310	298	300	300	320	315

Scanned / Survey on Aug , 2011

Holz D

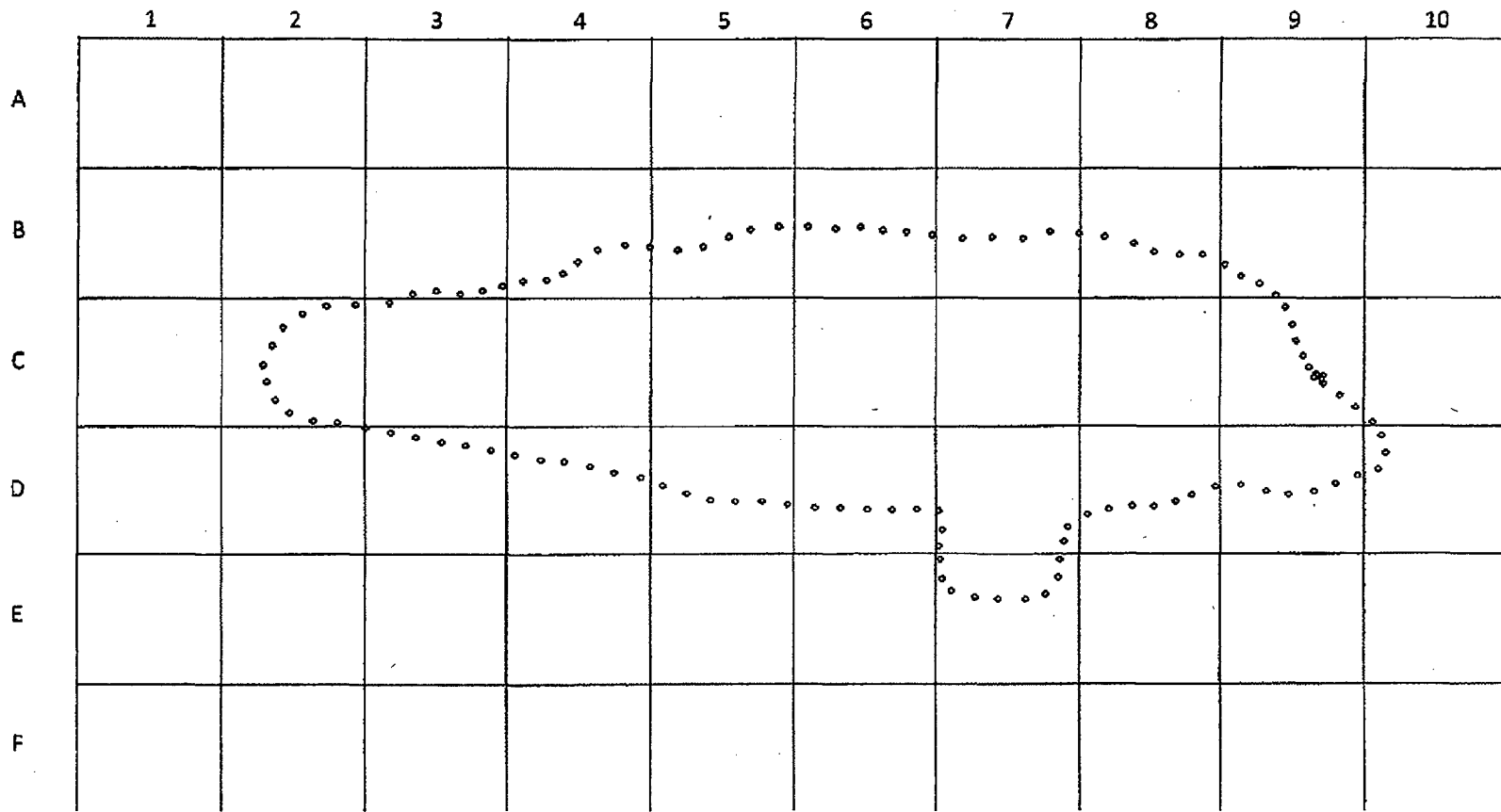
Direction of Stock Pile

North

	1	2	3	4	5	6	7	8	9	10
A	300	320 (450)	(1800) 320	320	315	310 (550) (475)	320	310	320	298
B	300 (450)	(490) 320 (585) (690)	(560) 310 (450)	(470) 330 ..... 290	(490) 315 ..... 305	(475) 320 ..... 310	315 ..... 305	335 ..... 310	335	340
C	265	..... 280	..... 290	..... 295	..... 350	..... 345	..... 345	..... 340	..... 325	..... 330
D	273	290	..... 310	..... 350	..... 305 ..... 330	..... 305 ..... 335	..... 355	..... 353 ..... 360	..... 320 ..... 330	..... 320
E	305	305	310	345	330	297	..... 327	370	350	315
F	300	300	310	325	310	290	300	300	320	315

○ = Hotspots located on Aug 26<sup>th</sup>, 2011 (09:00) AM  
 Scanned / Survey on Aug 26<sup>th</sup>, 2011 (13:00) PM  
 (After Hotspot Removal)

Direction of Stock Pile

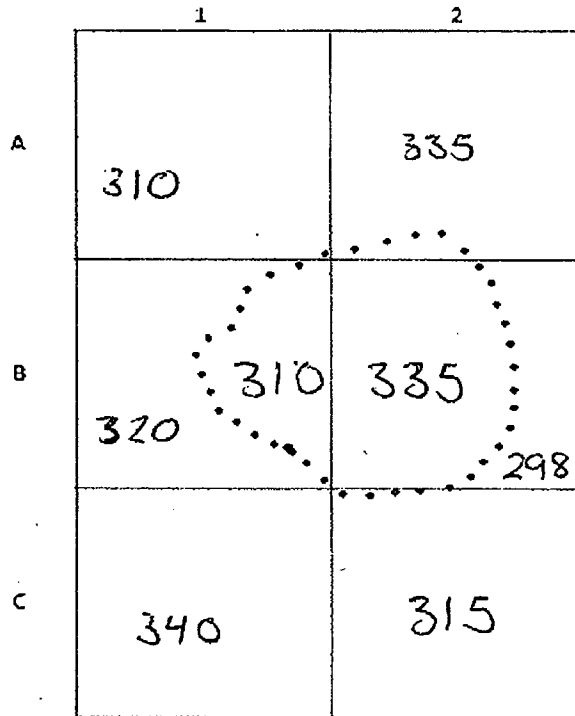




# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation			
Location: Hole F	Model #	Serial #	Efficiencies	Background
	GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time:	2350 (3x3)		-	~40kC/m
	2929	143876	41.6% α   25.6%βγ	0.5 α   66.7 βγ
Analysis Date/Time:	Surveyor:		Lab Tech:	Ryan Penney
Purpose: MARSSIM release of remediated area before back filling.			LRSO/PRSO Review:	

## Survey Results



Notes: Grid Size 6.5m x 6.5m

# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation			
Location: Hole G	Model #	Serial #	Efficiencies	Background
	GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time:	2350 (3x3)		-	~40kC/m
	2929	143876	41.6% α   25.6%βγ	0.5 α   66.7 βγ
Analysis Date/Time:	Surveyor:		Lab Tech:	Ryan Penney
Purpose: MARSSIM release of remediated area before back filling.			LRSO/PRSO Review:	

## Survey Results

	1	2	3	4	5	6	7	8
A	325	325	315	330	335	325	315	320
B	315	372	285	320	304	320	300	344
C	343	315	290	333	338	320	315	345

Notes: Grid Size 6.5m x 6.5m

# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation			
Location: Hole G	Model #	Serial #	Efficiencies	Background
	GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time:	2350 (3x3)		-	~40kC/m
	2929	143876	41.6% α   25.6% βγ	0.5 α   66.7 βγ
Analysis Date/Time:	Surveyor:		Lab Tech:	Ryan Penney
Purpose: MARSSIM release of remediated area before back filling.			LRSO/PRSO Review:	

## Survey Results

	1	2	3	4	5	6	7	8
A	325	325	315	330	335	325	315	320
		313	310	287	325	275	310	
B	315	372	285	320	304	320	300	344
C	343	315	290	333	338	320	315	345

Notes: Grid Size 6.5m x 6.5m



# Gate

	1	2	3	4	5	6	7	8	9
A	302	311	317	333	344	340 320	347 360	339 290	327 
B	335 300	340	302	280	290	250	220	210	300 300
C	340	300 333	290 327	280 330	260 335	260 315	300 320	315 342	329
D	333	326	332	331	327	322	321	330	315

H

# Gate

	1	2	3	4	5	6	7	8	9
A	302	311	317	333	344	340 320	347 300	339 290	327
B	335 320	340	302	280	290	250	220	210	300 310
C	340	300 333	290 327	280 330	270 335	260 315	300 320	315 342	329
D	333	326	332	331	327	322	321	330	315

H

# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation		
Location: Hole I	Model #	Serial #	Efficiencies
	GMX45P4-ST	45-TN22200A	2.2 keV FWHM
Collection Date/Time:	2350 (3x3)		Background
	2929	143876	7.93 Bq
Analysis Date/Time:	Surveyor:	Lab Tech:	Ryan Penney
Purpose:	MARSSIM release of remediated area before back filling.		LRSO/PRSO Review:

## Survey Results

	1	2	3	4	5	6	7	8
A	338	341	360	340	430	360	351	330
B	325	275	290	360	330	320	325	340
C	348	336	320	325	320	334	340	350

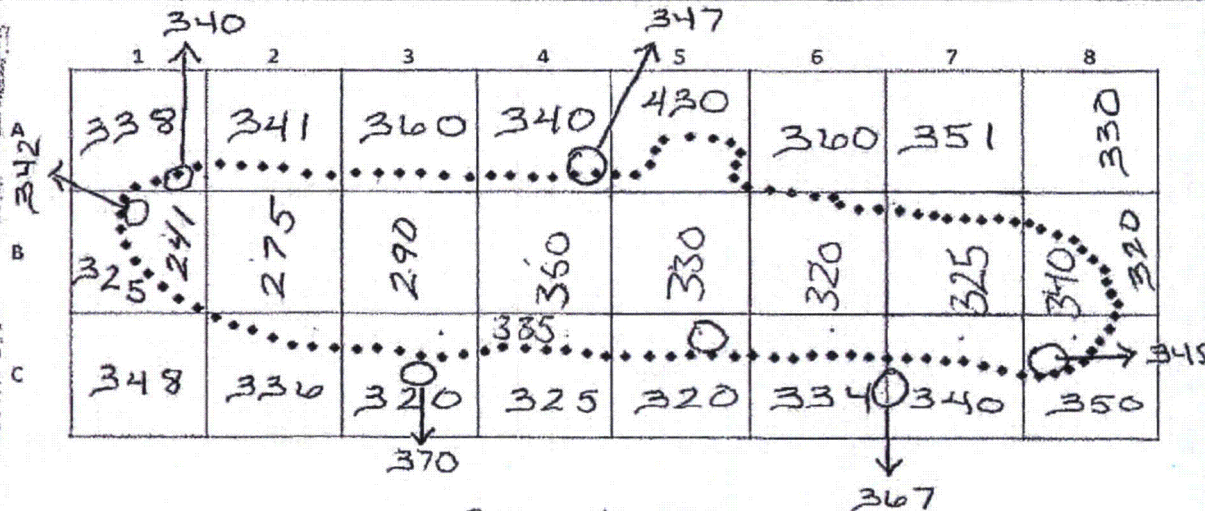
Notes: Grid Size 6.5m x 6.5m

A1 500      A4 550  
 B1 550  
 B5 600  
 C5 600  
 B7 650

# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation			
Location: Hole 1	Model #	Serial #	Efficiencies	Background
	GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time:	2350 (3x3)			~40kC/m
	2929	143876	41.6% α   25.6% βγ	0.5 α   66.7 βγ
Analysis Date/Time:	Surveyor:		Lab Tech:	Ryan Penney
Purpose:	MARSSIM release of remediated area before back filling.			LRSO/PRSO Review:

## Survey Results



Notes: Grid Size 6.5m x 6.5m

3 Sample each

○ = Hotspots  
Removed

1 QC  
1 Bias  
1 systematic

○ = New Counts

# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation			
Location: Hole 1	Model #	Serial #	Efficiencies	Background
	GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time:	2350 (3x3)		-	~40kC/m
	2929	143876	41.6% α   25.6%βγ	0.5 α   66.7 βγ
Analysis Date/Time:	Surveyor:		Lab Tech:	Ryan Penney
Purpose: MARSSIM release of remediated area before back filling.	LRSO/PRSO Review:			

## Survey Results

	1	2	3	4	5	6	7	8
A	338	341	360	340	430	360	351	330
B	325	275	290	360	330	320	325	340
C	348	336	320	325	320	334	340	350

Notes: Grid Size 6.5m x 6.5m

Project Site:	Highway 160	Instrumentation			
Location:	Hole JKL	Model #	Serial #	Efficiencies	Background
		GMX45P4-ST	46-TN22200A	2.2 keV FWHM	0.07 pCi/g
Collection Date	8/4/2011 - 8/11/2011	2350 (3x3)	-	-	320 C/s
		2929	143876	41.6% $\alpha$   25.6% $\beta$	0.5 $\alpha$   66.7 $\beta$
Analysis Date:	8/4/2011 - 8/12/2011	Surveyor:	B. Swayze T. Hunter	Lab Tech:	Ryan Penney
Purpose:	MARSSIM release of remediated area before back filling.	LRSO/PRSO Review:			

### MARSSIM Survey Results

Survey Unit*	Sample Type	Sample Dimensions (8oz. Jar)		Ra-226 Activity (pCi/g)			Highest Walkover Count Rate	Secondary Remedial Action Date	Highest Count Rate After Remediation	Release Date
		Mass	Density	Measured	Uncertainty	Maximum				
A1	Random #1	426	1.80	0.73	205%	5.25	330	-	-	
A2	Na	-	-	-	-	-	345	-	-	
A3	Na	-	-	-	-	-	350	-	-	
A4	Na	-	-	-	-	-	345	-	-	
A5	Systematic #2	446	1.89	1.61	70%	4.99	500	8/10/11	360	
	Bias #1	402	1.70	2.16	52%	5.53				
A6	Systematic #1	400	1.69	0.57	329%	6.15	335	-	-	
A7	Na	-	-	-	-	-	310	-	-	
A8	Na	-	-	-	-	-	312	-	-	
A9	Na	-	-	-	-	-	300	-	-	
B1	Na	-	-	-	-	-	360	-	-	
B2	Na	-	-	-	-	-	365	-	-	
B3	Bias #2	432	1.83	4.89	20%	7.81	1000	8/10/11	330	
	Remediated Area 2	332	1.40	2.50	45%	5.89				
B4	Na	-	-	-	-	-	330	-	-	
B5	Na	-	-	-	-	-	320	-	-	
B6	Na	-	-	-	-	-	340	-	-	
B7	Na	-	-	-	-	-	360	-	-	
B8	Na	-	-	-	-	-	300	-	-	
B9	Na	-	-	-	-	-	315	-	-	
C1	Systematic #11	396	1.67	0.94	145%	5.04	375	-	-	
C2	Systematic #10	406	1.72	0.08	3485%	8.57	370	-	-	
	QC Systematic #10	420	1.78	0.65	288%	6.31				
C3	Systematic #9	386	1.63	2.58	38%	5.53	367	-	-	
C4	Systematic #8	332	1.40	1.70	74%	5.48	300	-	-	
C5	Systematic #7	394	1.67	1.63	84%	5.72	360	-	-	
C6	Systematic #6	380	1.61	1.00	132%	4.93	410	-	-	

### MARSSIM Survey Results

Survey Unit*	Sample Type	Sample Dimensions (8oz. Jar)		Ra-226 Activity (pCi/g)			Highest Walkover Count Rate	Secondary Remedial Action Date	Highest Count Rate After Remediation	Release Date
		Mass	Density	Measured	Uncertainty	Maximum				
C7	Systematic #5	430	1.82	1.49	79%	5.04	560	-	-	
	Bias #7	446	1.89	1.30	102%	5.29				
	QC Systematic #5	410	1.73	0.67	261%	5.91				
C8	Systematic #4	420	1.78	2.24	48%	5.49	295	-	-	
C9	Systematic #3	342	1.45	1.10	124%	5.21	310	-	-	
D1	Systematic #12	362	1.53	0.30	670%	6.32	360	-	-	
D2	Systematic #13	426	1.80	0.96	136%	4.89	381	-	-	
D3	Systematic #14	386	1.63	0.09	3313%	8.58	348	-	-	
D4	Systematic #15	376	1.59	0.49	376%	6.00	407	-	-	
D5	Systematic #16	444	1.88	0.67	266%	6.00	403	-	-	
D6	Systematic #17	430	1.82	1.57	85%	5.55	410	-	-	
D7	Systematic #18	434	1.83	1.38	102%	5.58	378	-	-	
D8	Systematic #19	426	1.80	0.52	387%	6.55	360	-	-	
D9	Systematic #20	314	1.33	1.08	113%	4.77	305	-	-	
	QC Systematic #20	300	1.27	0.41	544%	7.15				
E1	Na	-	-	-	-	-	340	-	-	
E2	Na	-	-	-	-	-	360	-	-	
E3	Na	-	-	-	-	-	340	-	-	
E4	Random #2	426	1.80	1.13	104%	4.66	410	-	-	
E5	Na	-	-	-	-	-	400	-	-	
E6	Systematic #21	370	1.56	0.39	602%	7.52	418	-	-	
E7	Systematic #22	430	1.82	0.69	239%	5.63	392	-	-	
E8	Na	-	-	-	-	-	318	-	-	
E9	Bias #6	434	1.83	144.06	2%	153.82	1200	8/10/11	420	
F1	Na	-	-	-	-	-	351	-	-	
F2	Na	-	-	-	-	-	360	-	-	
F3	Na	-	-	-	-	-	360	-	-	
F4	Na	-	-	-	-	-	280	-	-	
F5	Na	-	-	-	-	-	298	-	-	
F6	Systematic #23	402	1.70	1.02	152%	5.66	325	-	-	
F7	Systematic #24	370	1.56	0.80	206%	5.75	500	-	-	
F8	Bias #5	434	1.83	2.17	56%	5.83	800	8/11/11	310	
	Remediated Area 3	338	1.43	0.34	650%	6.93				
F9	Na	-	-	-	-	-	600	8/10/11	333	
G1	Random #3	440	1.86	0.54	346%	6.13	320	-	-	

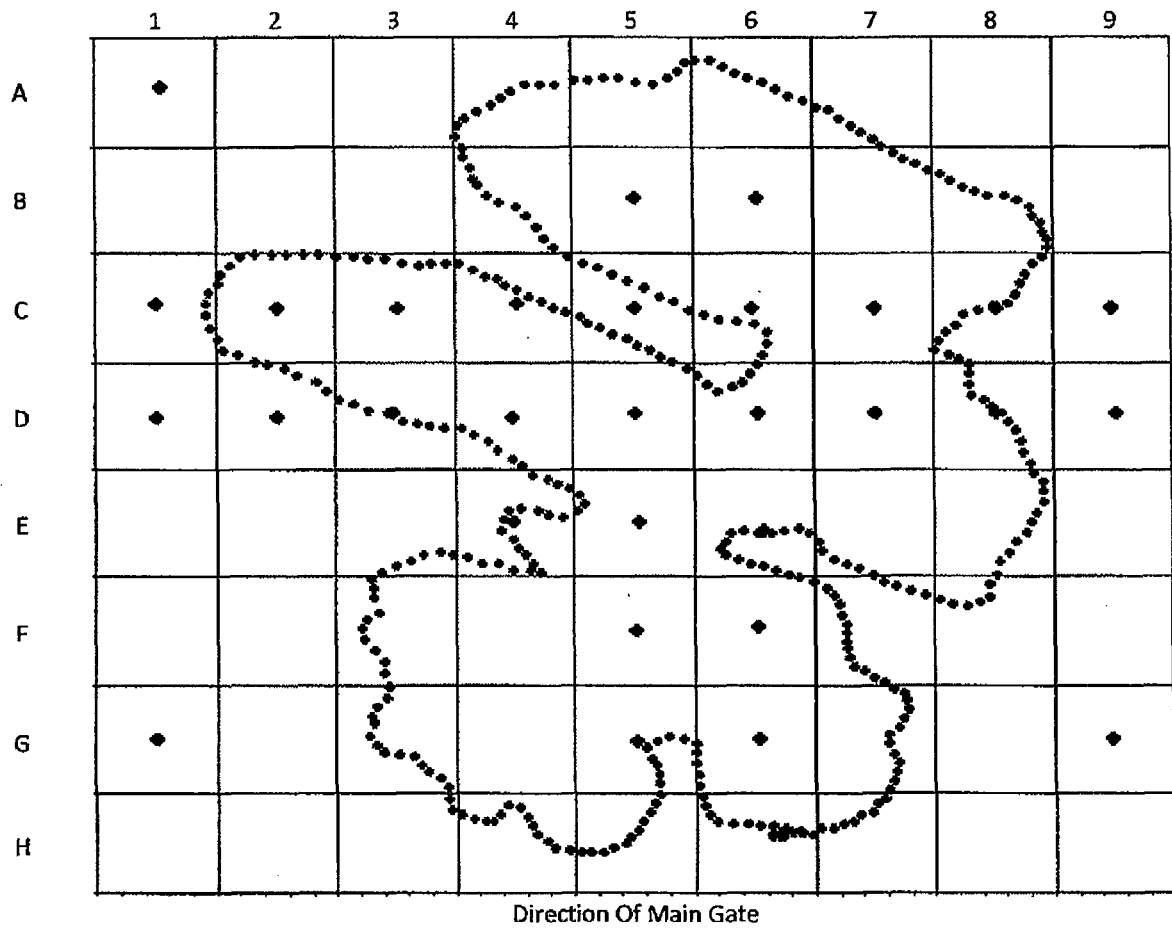
### MARSSIM Survey Results

Survey Unit*	Sample Type	Sample Dimensions (8oz. Jar)		Ra-226 Activity (pCi/g)			Highest Walkover Count Rate	Secondary Remedial Action Date	Highest Count Rate After Remediation	Release Date
		Mass	Density	Measured	Uncertainty	Maximum				
G2	Na	-	-	-	-	-	371	-	-	
G3	Na	-	-	-	-	-	353	-	-	
G4	Na	-	-	-	-	-	360	-	-	
G5	Na	-	-	-	-	-	410	-	-	
G6	Systematic #25	440	1.86	1.96	61%	5.54	356	-	-	
G7	Systematic #26	404	1.71	1.29	100%	5.17	391	-	-	
G8	Bias #4	410	1.73	18.20	6%	21.24	450	-	-	
G9	Random #4	404	1.71	1.71	73%	5.45	307	-	-	
H1	Na	-	-	-	-	-	370	-	-	
H2	Na	-	-	-	-	-	363	-	-	
H3	Na	-	-	-	-	-	371	-	-	
H4	Bias #3	444	1.88	2.38	49%	5.86	1000	8/10/11	380	
H5	Na	-	-	-	-	-	950	8/10/11	478	
H6	Na	-	-	-	-	-	700	8/11/11	420	
H7	Remediated Area 1	354	1.50	0.54	317%	5.64	800	8/11/11	350	
H8	Na	-	-	-	-	-	800	8/11/11	391	
H9	Na	-	-	-	-	-	290	-	-	

Notes: Release Limit of 2.83 pCi/g Ra-226  
 Count time 10 minutes per sample.  
 Maximum expected activity to 95% confidence by counting statistics and 2% systematic error.  
 Calibration source simulates 1.7 g/cc soil density  
 \*Survey unit size 6.5m x 6.5m \ See Map



# Map of JKL



# RADIOLOGICAL REPORT

Project Site:	Highway 160	Instrumentation			
Location:	Hole JKL	Model #	Serial #	Efficiencies	Background
		GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time:		WPC 9550	615068	33.38% α   56.52% βγ	1.8 α   31.9 βγ
		2929	143876	41.6% α   25.6% βγ	0.5 α   66.7 βγ
Analysis Date/Time:		Surveyor:	R.Penney	Lab Tech:	Ryan Penney
Purpose:	MARSSIM release of remediated area before back filling.			LRSO/PRSO Review:	

## Soil Analysis

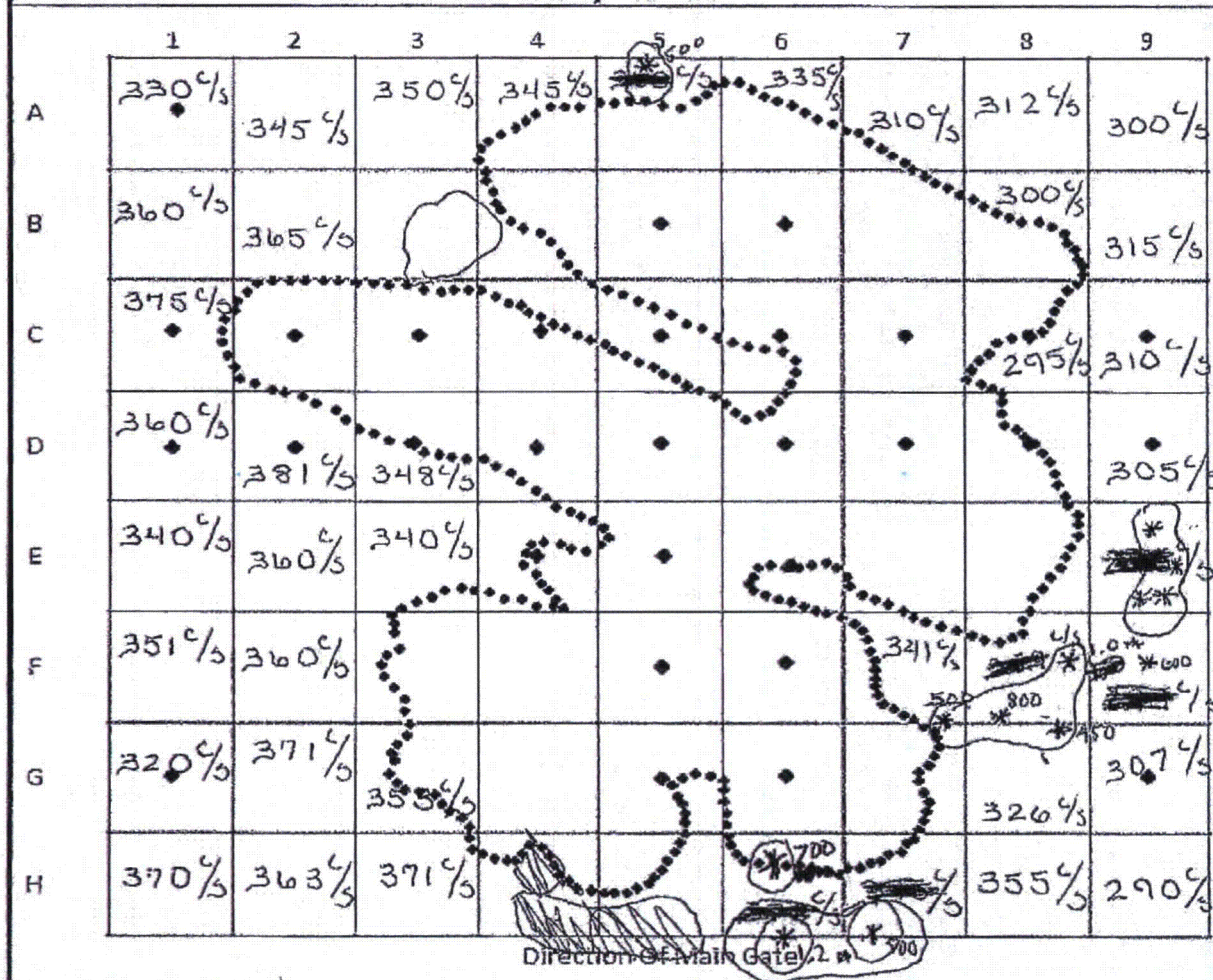
Sample Type	Location		Dimensions (8oz. Jar)		Ra-226 Activity (pCi/g)	
	Latitude	Longitude	Density	Mass	Measured	Maximum
Systematic #1	<del>36.1510523</del>	<del>-111.137564</del>				
Systematic #2	<del>36.1510523</del>	<del>-111.1375074</del>				
Systematic #3	<del>36.15110688</del>	<del>-111.1377914</del>				
Systematic #4	<del>36.15110688</del>	<del>-111.1377938</del>				
Systematic #5	<del>36.15110688</del>	<del>-111.1376768</del>				
Systematic #6	<del>36.15110688</del>	<del>-111.1376196</del>				
Systematic #7	<del>36.15110688</del>	<del>-111.137565</del>				
Systematic #8	<del>36.15110688</del>	<del>-111.1375104</del>				
Systematic #9	<del>36.15110688</del>	<del>-111.1374538</del>				
Systematic #10	<del>36.15110688</del>	<del>-111.1373972</del>				
Systematic #11	<del>36.15110688</del>	<del>-111.1373406</del>				
Systematic #12	<del>36.15110688</del>	<del>-111.1372840</del>				
Systematic #13	<del>36.15110688</del>	<del>-111.1372274</del>				
Systematic #14	<del>36.15110688</del>	<del>-111.1371708</del>				
Systematic #15	<del>36.15110688</del>	<del>-111.1371142</del>				
Systematic #16	<del>36.15110688</del>	<del>-111.1370576</del>				
Systematic #17	<del>36.15110688</del>	<del>-111.1370010</del>				
Systematic #18	<del>36.15110688</del>	<del>-111.1369444</del>				
Systematic #19	<del>36.15110688</del>	<del>-111.1368878</del>				
Systematic #20	<del>36.15110688</del>	<del>-111.1368312</del>				
Systematic #21	<del>36.15110688</del>	<del>-111.1367746</del>				
Systematic #22	<del>36.15110688</del>	<del>-111.1367180</del>				
Systematic #23	<del>36.15110688</del>	<del>-111.1366614</del>				
Systematic #24	<del>36.15110688</del>	<del>-111.1366048</del>				
Systematic #25	<del>36.15110688</del>	<del>-111.1365482</del>				
Systematic #26	<del>36.15110688</del>	<del>-111.1364916</del>				
Random #1	36.15099571	-111.1377634		111.137387		
Random #2	36.15133225	-111.1377914		36.1513774	111.1373155	
Random #3	36.15122107	-111.1376216				
Random #4	36.15111525	-111.1374518		36.151394	111.137472	
Bias #1	36.15116034	-111.1373745				
Bias #2	36.15123425	-111.13751121				
Bias #3	36.15138440	-111.13755990				
Bias #4	36.15139576	-111.13763110				
Bias #5	36.15125247	-111.13770768				
Bias #6	36.15119206	-111.13775864				
QC Systematic #5	36.1510523	-111.137564				
QC Systematic #10	36.15110688	-111.1373952				
QC Systematic #20	36.15116448	-111.1377914				



# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation			
Location: Hole JKL	Model #	Serial #	Efficiencies	Background
	GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time: 8/4 - 8/5 AM	2350 (3x3)		-	~40kC/m
	2929	143876	41.6% α   25.6% βγ	0.5 α   66.7 βγ
Analysis Date/Time:	Surveyor: B. Swayze	Lab Tech:	Ryan Penney	
Purpose: MARSSIM release of remediated area before back filling.			LRSO/PRSO Review:	

## Survey Results

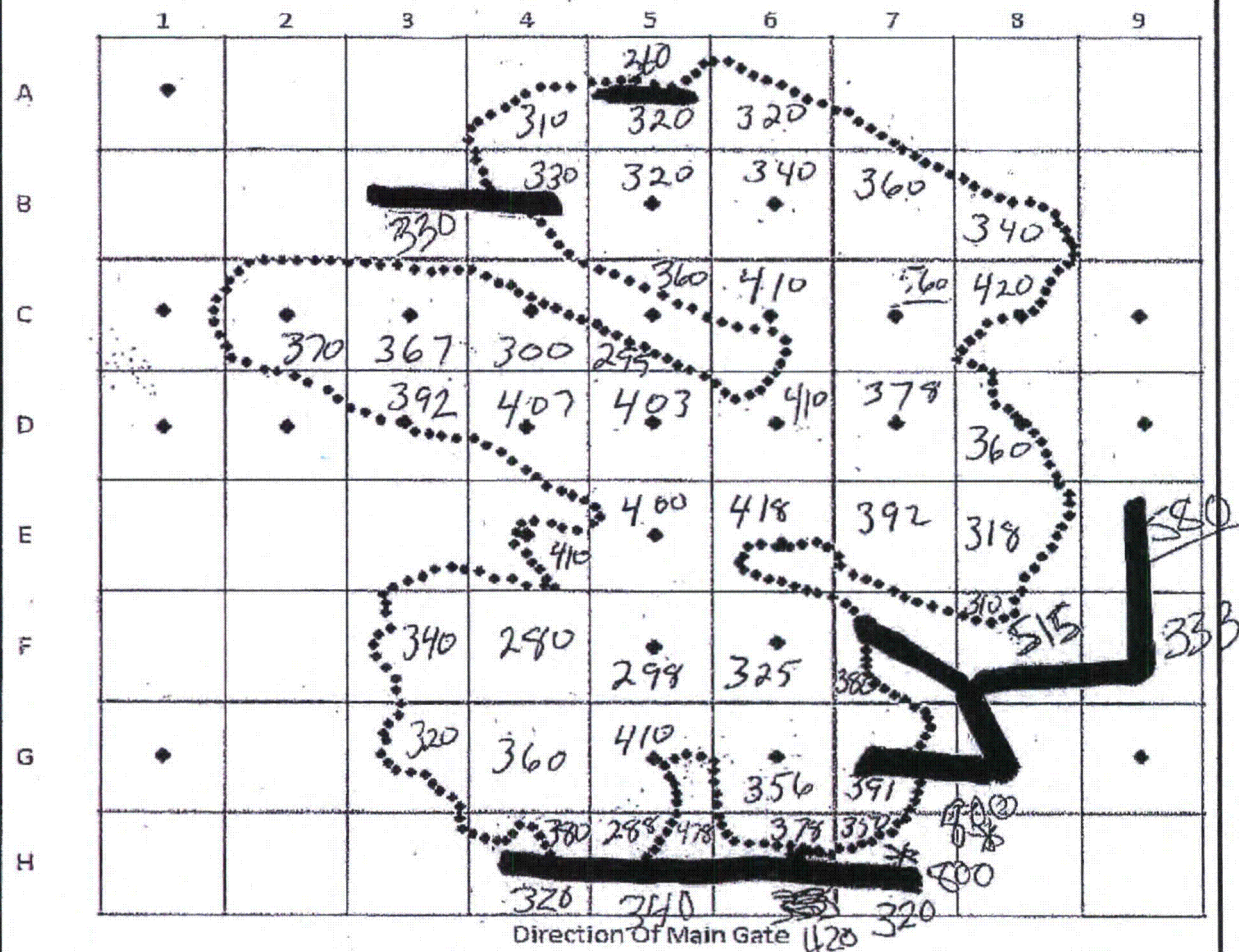


Notes: Grid Size 6.5m x 6.5m

# RADIOLOGICAL REPORT

Project Site: Highway 160	Instrumentation			
Location: Hole JKL	Model #	Serial #	Efficiencies	Background
	GMX45P4-ST	46-TN22200A	2.2 keV FWHM	7.93 Bq
Collection Date/Time:	2350 (3x3)			~40kC/m
	2929	143876	41.6% α   25.6%βγ	0.5 α   66.7 βγ
Analysis Date/Time:	Surveyor: <del>Blaine Swartz</del> In Hunter		Lab Tech:	Ryan Penney
Purpose:	MARSSIM release of remediated area before back filling			LRSO/PRSO Review:

## Survey Results



Notes: Grid Size 6.5m x 6.5m

# APPENDIX D

## FINAL STATUS SURVEY DETAILS FOR SURVEY UNITS

## Appendix D Soil Sample Data

This appendix presents the survey unit data for the Survey Units (SUs) at the Navajo Nation Environmental Protection Agency's Highway 160 Remediation Project. This data has then been tabulated with the reference areas, and the Wilcoxon Rank Sum test has been performed. The outline of this appendix is listed in the following paragraphs.

Appendix D.1 is titled "Hard Copy of the Soil Sample Data for Highway 160 Remediation Project as analyzed by TestAmerica." It contains the hard copies of the confirmatory soil data as analyzed by Test America.

Appendix D.2 is titled "Tabulated Data for Highway 160 Remediation Project Samples." It contains the tabulated data of all of the Final Status Survey samples of the NNEPA Highway 160 Project Remediation as analyzed by NWE's on-site laboratory. The data points have been transferred into a spreadsheet for ease with calculations and presentation.

The following items should be noted about the presented data.

- the Ra-226 activity concentration data has been presented for all of the samples.
- Ra-226 is the only radionuclide of concern for this project.
- The Derived Concentration Guideline Level (DCGL) for Ra-226 on this project is 2 pCi/g.
- In some cases, samples data that are presented were not used in the Wilcoxon Rank Sum (WRS) tests.
- The Field Duplicate samples were not included in the WRS tests.
- Samples with results significantly higher than the DCGL were further remediated. The original samples are marked with gray highlight. The associated "as-left" sample is listed in the Notes column. The original results were not used in the WRS tests. The as-left sample results were used in the WRS tests.
- Samples that were sent for confirmatory analysis to TestAmerica are listed in bold italics and have "Laboratory Comparison Sample" listed in the Notes column.

Appendix D.3 is titled "Wilcoxon Rank Sum Tests for the Survey Units." It contains the Highway 160 Remediation Project Survey Unit (SU) soil samples compared with the Reference Area (RA) soil samples and the results of the WRS tests. The SU passes the WRS test if the sum of the ranks of the RA is greater than the Critical Value (CV) of the SU. The CV is a function of the amount of RA samples,  $m$ , the amount of SU samples,  $n$ , and a parameter based upon the amount Type I errors. The calculated CV does not account for tied ranks (see notes for calculating the CV in section 4.3). A flag of the SU passing or failing the test is placed near the sum of the RA ranks. Note that the WRS test is calculated for all SUs as well as all samples collectively, the only WRS tests that are official are the ones for each SU. In other words, each SU passes or fails the WRS test independently.

After the samples have been analyzed, it is instructive to calculate the retrospective relative shift. The relative shift is the difference between the DCGL and the Lower Bound of the Gray Region (LBGR), divided by the standard deviation (SD). When the relative shift is first calculated, it is used to determine the amount of samples that are required in each SU. When no characterization data is available, MARSSIM recommended values may be used:  $LBGR = 0.5 DCGL$  and  $SD = 0.3$ . When using these values, the relative shift is calculated as 3.33. After the analyses are completed, the actual value of the SD for the SU samples is used to calculate the retrospective relative shift. A value greater than 3.33 indicates that enough samples were taken to meet the requirements of the WRS test. Note that the retrospective relative shift was calculated for each SU, as well as for the collective samples for all SUs. The retrospective relative shift values that are official are listed for each SU.

Appendix D.3: *cont'd*

As indicated earlier, there are several subsections that were used for the WRS and the calculation of the relative shift. However, the official tests and the official indication of whether the SU passes is based upon all the WRS test for each of the samples for the as-left surfaces in each SU. Therefore, the first subsection listed below is for illustrative purposes alone and cannot be used for determining compliance with the Final Status Survey release. The other subsections have been provided for demonstrating compliance and, in the case of the off-site laboratory data, so that comparisons with the data generated by the on-site laboratory can be performed.

Appendix D.3.a: Wilcoxon Rank Sum Test for all FSS Samples

Appendix D.3.b: Wilcoxon Rank Sum Test for SU-01

Appendix D.3.c: Wilcoxon Rank Sum Test for SU-02

Appendix D.3.d: Wilcoxon Rank Sum Test for SU-03

Appendix D.3.e: Wilcoxon Rank Sum Test for All SUs -- Offsite Data



Appendix D.1 Hard Copy of the Soil Sample Data for Highway 160 Remediation Project as analyzed by TestAmerica

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-1  
 Client Sample ID: A\_S4\_A1  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/19/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNP11AA		Report DB ID: 9MMNP110					
CS-137	6.35E-02	U	4.9E-02	4.9E-02	1.02E-01	pCi/g		0.62 (2.6)	9/23/11 05:34 p		348.2 g	GER10\$1
K-40	9.54E+00		1.9E+00	1.9E+00	6.55E-01	pCi/g	2.00E-01	(14.6) (10.1)	9/23/11 05:34 p		348.2 g	GER10\$1
PB-212	1.49E-01		9.5E-02	9.5E-02	1.48E-01	pCi/g		(1.) (3.1)	9/23/11 05:34 p		348.2 g	GER10\$1
6 R-226 PB-214	8.63E-01		2.2E-01	2.2E-01	1.32E-01	pCi/g	7.43E-02	(6.5) (7.8)	9/23/11 05:34 p		348.2 g	GER10\$1
U-234	8.37E-01		2.7E-01	2.7E-01	2.97E-01	pCi/g	6.66E-02	(2.8) (6.1)	9/23/11 05:34 p		348.2 g	GER10\$1
U-238	8.63E-01		2.2E-01	2.2E-01	1.32E-01	pCi/g		(6.5) (7.8)	9/23/11 05:34 p		348.2 g	GER10\$1

Ratio U-234/238 = 1.0

No. of Results: 6      Comments:

TestAmerica MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rpt|STL|Rch|Sample U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-2  
 Client Sample ID: B\_B1\_A2  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/19/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC/MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNP21AA		Report DB ID: 9MMNP210					
CS-137	-1.84E-03	U	6.7E-02	6.7E-02	1.24E-01	pCi/g	2.00E-01	-0.01 -0.06	9/23/11 05:34 p		303.1 g	GER7S1
K-40	1.01E+01		2.5E+00	2.5E+00	8.30E-01	pCi/g		(12.2) (8.2)	9/23/11 05:34 p		303.1 g	GER7S1
PB-212	2.62E-01		1.4E-01	1.4E-01	1.68E-01	pCi/g		(1.6) (3.8)	9/23/11 05:34 p		303.1 g	GER7S1
10 <i>R<sub>a</sub>-226</i> PB-214	4.12E-01		1.9E-01	1.9E-01	2.09E-01	pCi/g		(2.) (4.4)	9/23/11 05:34 p		303.1 g	GER7S1
RA-224	2.72E-01		1.4E-01	1.4E-01	1.74E-01	pCi/g	8.46E-02	(1.6) (3.8)	9/23/11 05:34 p		303.1 g	GER7S1
TH-228	4.78E-01		2.4E-01	2.4E-01	2.57E-01	pCi/g	1.26E-01	(1.9) (4.)	9/23/11 05:34 p		303.1 g	GER7S1
U-234	3.90E-01		3.0E-01	3.0E-01	3.42E-01	pCi/g	1.73E-01	(1.1) (2.6)	9/23/11 05:34 p		303.1 g	GER7S1
U-238	4.12E-01		1.9E-01	1.9E-01	2.09E-01	pCi/g	1.05E-01	(2.) (4.4)	9/23/11 05:34 p		303.1 g	GER7S1

*Ratio U-234/238 = 0.9*

No. of Results: 8      Comments:

TestAmerica      MDC/MDA,Lc - Detection, Decision Level based on Instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

**FORM I  
SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-3  
 Client Sample ID: C\_S3\_B8  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/19/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst MDC, Rst TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNP31AA		Report DB ID: 9MMNP310					
CS-137	1.47E-03	U	5.7E-02	5.7E-02	1.08E-01	pCi/g		0.01	9/23/11 06:42 p	344.3	g	GER7\$1
							2.00E-01	0.05				
K-40	9.33E+00		2.4E+00	2.4E+00	7.12E-01	pCi/g		(13.1)	9/23/11 06:42 p	344.3	g	GER7\$1
								(7.8)				
PB-212	2.64E-01		1.2E-01	1.2E-01	2.15E-01	pCi/g		(1.2)	9/23/11 06:42 p	344.3	g	GER7\$1
								(4.6)				
11 Ra-226 PB-214	1.42E+00		3.4E-01	3.4E-01	2.11E-01	pCi/g		(6.7)	9/23/11 06:42 p	344.3	g	GER7\$1
								(8.3)				
RA-224	2.74E-01		1.2E-01	1.2E-01	2.23E-01	pCi/g		(1.2)	9/23/11 06:42 p	344.3	g	GER7\$1
						1.08E-01		(4.6)				
TH-228	2.29E-01		2.5E-01	2.5E-01	2.15E-01	pCi/g		(1.1)	9/23/11 06:42 p	344.3	g	GER7\$1
						1.06E-01		(1.8)				
U-234	1.54E+00		4.5E-01	4.5E-01	3.74E-01	pCi/g		(4.1)	9/23/11 06:42 p	344.3	g	GER7\$1
						1.88E-01		(6.8)				
U-238	1.42E+00		3.4E-01	3.4E-01	2.11E-01	pCi/g		(6.7)	9/23/11 06:42 p	344.3	g	GER7\$1
						1.06E-01		(8.3)				

Ratio U-234/238 = 1.1

No. of Results: 8      Comments:

TestAmerica      MDC|MDA, Lc - Detection, Decision Level based on Instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRechSample      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

FORM I  
SAMPLE RESULTS

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-4  
 Client Sample ID: C\_QC1\_6  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No. : 48522  
 COC No. :

Collection Date: 8/19/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1268077	RL-GAM-001				Work Order: MMNP41AA		Report DB ID: 9MMNP410					
CS-137	-2.61E-02	U	5.1E-02	5.1E-02	8.86E-02	pCi/g	2.00E-01	-0.29 -(1.)	9/23/11 05:39 p		334.1 g	GER14\$1
K-40	7.20E+00		2.1E+00	2.1E+00	7.18E-01	pCi/g		(10.) (7.)	9/23/11 05:39 p		334.1 g	GER14\$1
PB-212	2.76E-01		1.8E-01	1.8E-01	1.76E-01	pCi/g		(1.8) (3.1)	9/23/11 05:39 p		334.1 g	GER14\$1

12 No. of Results: 3 Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica

SDG: 43789

Collection Date: 8/19/2011

Lot-Sample No.: J11230424-5

Report No.: 48522

Received Date: 9/22/2011 10:30:00 AM

Client Sample ID: C\_QC3\_D2  
HIGHWAY 106 PROJECT\_TUBA CITY

COC No.:

Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNP61AA		Report DB ID: 9MMNP610					
CS-137	1.94E-02	U	4.1E-02	4.1E-02	8.15E-02	pCi/g		0.24	9/23/11 06:43 p		349.1	GER10S1
							2.00E-01	0.95			g	
K-40	1.09E+01		2.1E+00	2.1E+00	5.83E-01	pCi/g		(18.6)	9/23/11 06:43 p		349.1	GER10S1
								(10.1)			g	
PB-212	4.49E-01		1.5E-01	1.5E-01	1.13E-01	pCi/g		(4.)	9/23/11 06:43 p		349.1	GER10S1
								(5.8)			g	

13

No. of Results: 3      Comments:

TestAmerica MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-6  
 Client Sample ID: D-S3\_C4  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/25/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst MDC, Rst/Tot Ucert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1268077	RL-GAM-001				Work Order: MMNP71AA		Report DB ID: 9MMNP710					
CS-137	<b>2.02E-02</b>	U	5.1E-02	5.1E-02	9.63E-02	pCi/g		0.21 2.00E-01 0.8	9/23/11 07:21 p		356.5 g	GER10\$1
K-40	<b>7.30E+00</b>		1.6E+00	1.6E+00	6.70E-01	pCi/g		(10.9) (9.)	9/23/11 07:21 p		356.5 g	GER10\$1
PB-214	<b>1.28E+00</b>		2.5E-01	2.5E-01	1.49E-01	pCi/g		(8.6) (10.2)	9/23/11 07:21 p		356.5 g	GER10\$1
14 RA-226	<b>1.22E+00</b>		2.7E-01	2.7E-01	1.49E-01	pCi/g		(8.2) (9.1) 7.50E-02	9/23/11 07:21 p		356.5 g	GER10\$1
U-234	<b>1.39E+00</b>		3.7E-01	3.7E-01	3.71E-01	pCi/g		(3.7) (7.5) 1.86E-01	9/23/11 07:21 p		356.5 g	GER10\$1
U-238	<b>1.28E+00</b>		2.5E-01	2.5E-01	1.49E-01	pCi/g		(8.6) (10.2) 7.48E-02	9/23/11 07:21 p		356.5 g	GER10\$1

Ratio U-234/238 = 1.1

No. of Results: 8      Comments:

TestAmerica MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTL RchSample U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

**FORM I  
SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-7  
 Client Sample ID: D-S4\_C5  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/25/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNP81AA		Report DB ID: 9MMNP810					
CS-137	2.19E-02	U	5.8E-02	5.8E-02	1.15E-01	pCi/g	2.00E-01	0.19 0.75	9/23/11 07:22 p	348.1	g	GER7\$1
K-40	2.82E+00	U	1.3E+00	1.3E+00	3.03E+00	pCi/g		0.93 (4.4)	9/23/11 07:22 p	348.1	g	GER7\$1
PB-212	1.42E-01	U	1.8E-01	1.8E-01	1.71E-01	pCi/g		0.83 (1.6)	9/23/11 07:22 p	348.1	g	GER7\$1
PB-214	1.88E+00		3.8E-01	3.8E-01	2.06E-01	pCi/g		(9.1) (9.9)	9/23/11 07:22 p	348.1	g	GER7\$1
RA-226	1.88E+00		3.7E-01	3.7E-01	1.61E-01	pCi/g	8.17E-02	(11.7) (10.2)	9/23/11 07:22 p	348.1	g	GER7\$1
U-234	2.33E+00		5.7E-01	5.7E-01	3.70E-01	pCi/g	1.86E-01	(6.3) (8.2)	9/23/11 07:22 p	348.1	g	GER7\$1
U-238	1.88E+00		3.8E-01	3.8E-01	2.06E-01	pCi/g	1.04E-01	(9.1) (9.9)	9/23/11 07:22 p	348.1	g	GER7\$1

Ratio U-234/238 = 1.2

No. of Results: 7      Comments:



**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-8  
 Client Sample ID: F\_S1\_B1  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/10/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNP91AA		Report DB ID: 9MMNP910					
CS-137	1.83E-02	U	5.1E-02	5.1E-02	1.04E-01	pCi/g	2.00E-01	0.18 0.71	9/23/11 07:22 p	350.4	g	GER14\$1
K-40	9.97E+00		2.4E+00	2.4E+00	7.04E-01	pCi/g		(14.2) (8.3)	9/23/11 07:22 p	350.4	g	GER14\$1
PB-212	3.17E-01		1.4E-01	1.4E-01	1.76E-01	pCi/g		(1.8) (4.6)	9/23/11 07:22 p	350.4	g	GER14\$1
<i>Ra-226</i> PB-214	4.14E-01		1.9E-01	1.9E-01	1.72E-01	pCi/g		(2.4) (4.3)	9/23/11 07:22 p	350.4	g	GER14\$1
RA-224	3.31E-01		1.4E-01	1.4E-01	1.84E-01	pCi/g	8.84E-02	(1.8) (4.6)	9/23/11 07:22 p	350.4	g	GER14\$1
TH-228	2.81E-01	U	2.1E-01	2.1E-01	2.89E-01	pCi/g	1.40E-01	0.97 (2.6)	9/23/11 07:22 p	350.4	g	GER14\$1
U-234	5.64E-01		3.2E-01	3.2E-01	3.42E-01	pCi/g	1.72E-01	(1.7) (3.5)	9/23/11 07:22 p	350.4	g	GER14\$1
U-238	4.14E-01		1.9E-01	1.9E-01	1.72E-01	pCi/g	8.65E-02	(2.4) (4.3)	9/23/11 07:22 p	350.4	g	GER14\$1

Ratio U-234/238 = 1.4

No. of Results: 8      Comments:

TestAmerica      MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

TestAmerica Laboratories, Inc.

**FORM I  
SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-9  
 Client Sample ID: G\_S12\_B7  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/10/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev.	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/Tot Ucert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQC1AA		Report DB ID: 9MMNQC10					
CS-137	2.66E-02	U	3.6E-02	3.6E-02	7.57E-02	pCi/g	2.00E-01	0.35 (1.5)	9/23/11 07:57 p		354.7 g	GER10\$1
K-40	8.20E+00		1.7E+00	1.7E+00	8.97E-01	pCi/g		(9.1) (9.6)	9/23/11 07:57 p		354.7 g	GER10\$1
RB-212	4.85E-01		1.6E-01	1.6E-01	1.26E-01	pCi/g		(3.8) (6.2)	9/23/11 07:57 p		354.7 g	GER10\$1
17 Ra-226 PB-214	5.17E-01		1.7E-01	1.7E-01	1.60E-01	pCi/g		(3.2) (6.)	9/23/11 07:57 p		354.7 g	GER10\$1

No. of Results: 4      Comments:

TestAmerica      MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTL:RchSample      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15.A2002

**FORM I  
SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J1I230424-10  
 Client Sample ID: H\_S4\_A4  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/10/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC/MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/Tot/Ucert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQE1AA		Report DB ID: 9MMNQE10					
CS-137	3.86E-02	U	4.8E-02	4.8E-02	1.03E-01	pCi/g	2.00E-01	0.37 (1.6)	9/23/11 07:57 p		373.6 g	GER7\$1
K-40	6.56E+00		1.9E+00	1.9E+00	8.46E-01	pCi/g		(7.8) (7.)	9/23/11 07:57 p		373.6 g	GER7\$1
PB-212	2.79E-01		1.3E-01	1.3E-01	1.47E-01	pCi/g		(1.9) (4.3)	9/23/11 07:57 p		373.6 g	GER7\$1
<i>Ra-226</i> PB-214	5.13E-01		1.9E-01	1.9E-01	1.85E-01	pCi/g		(2.8) (5.5)	9/23/11 07:57 p		373.6 g	GER7\$1
U-234	9.26E-01		2.7E-01	2.7E-01	3.00E-01	pCi/g		(3.1) (6.8)	9/23/11 07:57 p		373.6 g	GER7\$1
U-238	5.19E-01		1.9E-01	1.9E-01	1.85E-01	pCi/g	1.51E-01 9.30E-02	(2.8) (5.5)	9/23/11 07:57 p		373.6 g	GER7\$1

Ratio U-234/238 = 1.8

No. of Results: 6      Comments:

TestAmerica      MDC/MDA,Lc - Detection, Decision Level based on Instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-11  
 Client Sample ID: H\_S12\_B4  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/10/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQF1AA		Report DB ID: SMMNQF10					
CS-137	1.61E-02	U	5.3E-02	5.3E-02	1.06E-01	pCi/g	2.00E-01	0.15 0.61	9/23/11 07:58 p	346.1	g	GER14\$1
K-40	6.60E+00		1.9E+00	1.9E+00	1.05E+00	pCi/g		(6.3) (6.9)	9/23/11 07:58 p	346.1	g	GER14\$1
PB-212	1.88E-01		1.3E-01	1.3E-01	1.48E-01	pCi/g		(1.3) (2.9)	9/23/11 07:58 p	346.1	g	GER14\$1

19 No. of Results: 3      Comments:

TestAmerica      MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdi, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-13  
 Client Sample ID: I\_S9\_B4  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No. : 48522  
 COC No. :

Collection Date: 8/10/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQL1AA		Report DB ID: 9MMNQL10					
CS-137	8.14E-03	U	4.4E-02	4.4E-02	8.90E-02	pCi/g		0.09	9/23/11 08:34 p		350.0	GER7\$1
							2.00E-01	0.37			g	
K-40	8.95E+00		2.2E+00	2.2E+00	7.00E-01	pCi/g		(12.8)	9/23/11 08:34 p		350.0	GER7\$1
								(8.2)			g	
U-238-TH	5.31E+00		2.3E+00	2.3E+00	2.10E+00	pCi/g		(2.5)	9/23/11 08:34 p		350.0	GER7\$1
							1.05E+00	(4.7)			g	

No. of Results: 3      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-12  
 Client Sample ID: I\_B2\_B2  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/10/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Allquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQJ1AA		Report DB ID: 9MMNQJ10					
CS-137	2.21E-02	U	3.6E-02	3.6E-02	7.45E-02	pCi/g	2.00E-01	0.3 (1.2)	9/23/11 08:34 p		367.5 g	GER10\$1
K-40	6.76E+00		1.5E+00	1.5E+00	7.51E-01	pCi/g		(9.) (8.8)	9/23/11 08:34 p		367.5 g	GER10\$1
PB-214	1.13E+00		2.2E-01	2.2E-01	1.50E-01	pCi/g		(7.5) (10.5)	9/23/11 08:34 p		367.5 g	GER10\$1
RA-226	8.99E-01		2.0E-01	2.0E-01	1.54E-01	pCi/g	7.75E-02	(5.8) (8.8)	9/23/11 08:34 p		367.5 g	GER10\$1
U-234	1.28E+00		3.1E-01	3.1E-01	2.96E-01	pCi/g	1.49E-01	(4.3) (8.2)	9/23/11 08:34 p		367.5 g	GER10\$1
U-238	1.13E+00		2.2E-01	2.2E-01	1.50E-01	pCi/g	7.53E-02	(7.5) (10.5)	9/23/11 08:34 p		367.5 g	GER10\$1

Ratio U-234/238 = 1.1

No. of Results: 6      Comments:

20

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-14  
 Client Sample ID: I\_QC\_RM2\_B7  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/17/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error( 2 s)	Total Uncert( 2 s)	MDC/MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQ1AA		Report DB ID: 9MMNQ10					
CS-137	-8.93E-03	U	6.6E-02	6.6E-02	1.20E-01	pCi/g		-0.07	9/23/11 08:35 p		344.1	GER14\$1
							2.00E-01	-0.27			g	
K-40	6.65E+00		2.1E+00	2.1E+00	1.06E+00	pCi/g		(6.3)	9/23/11 08:35 p		344.1	GER14\$1
								(6.4)			g	
<i>Ra-226</i> PB-214	<u>2.30E+00</u>		4.1E-01	4.1E-01	2.29E-01	pCi/g		(10.1)	9/23/11 08:35 p		344.1	GER14\$1
								(11.1)			g	
U-234	1.88E+00		5.4E-01	5.4E-01	4.75E-01	pCi/g		(4.)	9/23/11 08:35 p		344.1	GER14\$1
						2.38E-01		(6.9)			g	
U-235	1.28E+00		7.5E-01	7.5E-01	6.95E-01	pCi/g		(1.8)	9/23/11 08:35 p		344.1	GER14\$1
						3.48E-01		(3.4)			g	
U-238-TH	1.14E+01		2.8E+00	2.8E+00	2.33E+00	pCi/g		(4.9)	9/23/11 08:35 p		344.1	GER14\$1
						1.17E+00		(8.1)			g	

Ratio U-234/238 = 0.2

No. of Results: 6      Comments:

TestAmerica MDC/MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

TestAmerica Laboratories, Inc.

FORM I  
SAMPLE RESULTS

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-15  
 Client Sample ID: JKL S4  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/4/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Allquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQQ1AA		Report DB ID: 9MMNQQ10					
CS-137	1.66E-02	U	4.4E-02	4.4E-02	8.48E-02	pCi/g	2.00E-01	0.2 0.76	9/23/11 09:09 p	350.2	g	GER10\$1
K-40	8.99E+00		1.8E+00	1.8E+00	4.61E-01	pCi/g		(19.5) (10.1)	9/23/11 09:09 p	350.2	g	GER10\$1
TL-208	8.91E-02		6.1E-02	6.1E-02	8.21E-02	pCi/g	4.14E-02	(1.1) (2.9)	9/23/11 09:09 p	350.2	g	GER10\$1

No. of Results: 3      Comments:

23

TestAmerica MDC|MDA,Lc - Detection, Decision Level based on Instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002



**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-16  
 Client Sample ID: JKL S9  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/4/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(FL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQT1AA		Report DB ID: 9MMNQT10					
CS-137	-3.92E-02	U	6.1E-02	6.1E-02	9.98E-02	pCi/g		-0.39	9/23/11 09:09 p	343.1	g	GER7\$1
							2.00E-01	-(1.3)			g	
K-40	1.02E+01		2.3E+00	2.3E+00	2.16E-01	pCi/g		(47.2)	9/23/11 09:09 p	343.1	g	GER7\$1
<i>Ra-226</i> PB-214	1.56E+00		3.5E-01	3.5E-01	2.18E-01	pCi/g		(8.9)	9/23/11 09:09 p	343.1	g	GER7\$1
								(7.2)			g	
U-234	1.62E+00		4.3E-01	4.3E-01	2.91E-01	pCi/g		(9.)	9/23/11 09:09 p	343.1	g	GER7\$1
						1.47E-01		(5.6)			g	
U-238-TH	6.32E+00		2.8E+00	2.8E+00	2.34E+00	pCi/g		(7.5)	9/23/11 09:09 p	343.1	g	GER7\$1
						1.17E+00		(2.7)			g	
								(4.5)			g	

Ratio U-234/238 = 0.3

No. of Results: 5      Comments:

24

TestAmerica      MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchSample      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

FORM I  
SAMPLE RESULTS

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-17  
 Client Sample ID: JKL B1  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/4/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQV1AA		Report DB ID: 9MMNQV10					
CS-137	6.11E-02	U	7.4E-02	7.4E-02	1.51E-01	pCi/g	2.00E-01	0.41 (1.6)	9/23/11 09:10 p	324.4	g	GER14\$1
K-40	9.08E+00		2.6E+00	2.6E+00	1.23E+00	pCi/g		(7.4) (7.1)	9/23/11 09:10 p	324.4	g	GER14\$1
PB-214	9.59E-01		3.4E-01	3.4E-01	2.30E-01	pCi/g		(4.2) (5.7)	9/23/11 09:10 p	324.4	g	GER14\$1
U-234	1.00E+00		4.2E-01	4.2E-01	5.21E-01	pCi/g		(1.9) (4.7)	9/23/11 09:10 p	324.4	g	GER14\$1
U-238	9.59E-01		3.4E-01	3.4E-01	2.30E-01	pCi/g	1.16E-01	(4.2) (5.7)	9/23/11 09:10 p	324.4	g	GER14\$1

Ratio U-234/238 = 1.0

No. of Results: 5      Comments:

25

**FORM I**  
**SAMPLE RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-18  
 Client Sample ID: JKL RM2  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/11/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNQW1AA		Report DB ID: 9MMNQW10					
CS-137	6.97E-03	U	4.9E-02	4.9E-02	9.16E-02	pCi/g		0.08 2.00E-01 0.29	9/23/11 09:47 p		329.9 g	GER10\$1
K-40	1.14E+01		2.1E+00	2.1E+00	1.25E+00	pCi/g		(9.1) (10.7)	9/23/11 09:47 p		329.9 g	GER10\$1
<i>Re-226</i> PB-214	9.82E-01		2.1E-01	2.1E-01	1.71E-01	pCi/g		(5.8) (9.1)	9/23/11 09:47 p		329.9 g	GER10\$1
U-234	8.74E-01		2.9E-01	2.9E-01	3.11E-01	pCi/g		(2.8) 1.56E-01 (6.)	9/23/11 09:47 p		329.9 g	GER10\$1
U-238	9.82E-01		2.1E-01	2.1E-01	1.71E-01	pCi/g		(5.8) 8.57E-02 (9.1)	9/23/11 09:47 p		329.9 g	GER10\$1

Ratio U-234/238 = 0.9

No. of Results: 5      Comments:

26

FORM I  
SAMPLE RESULTS

Date: 26-Sep-11

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-19  
 Client Sample ID: C\_S8\_C7  
 HIGHWAY 106 PROJECT\_TUBA CITY

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/19/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2s)	Total Uncert( 2 s)	MDC/MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Allquot Size	Primary Detector
Batch: 1266077	FL-GAM-001				Work Order: MMNQ11AA		Report DB ID: 9MMNQ110					
CS-137	-2.27E-02	U	4.9E-02	4.9E-02	8.72E-02	pCi/g		-0.26	9/23/11 09:48 p		346.7	GER14\$1
							2.00E-01	-0.92			g	

No. of Results: 1      Comments:

FORM II

Date: 26-Sep-11

DUPLICATE RESULTS

Lab Name: TestAmerica  
 Lot-Sample No.: J11230424-1  
 Client Sample ID: A\_S4\_A1 DUP

SDG: 43789  
 Report No.: 48522  
 COC No.:

Collection Date: 8/19/2011  
 Received Date: 9/22/2011 10:30:00 AM  
 Matrix: SOIL

Parameter	Result, Orig Rst	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC/MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Allquot Size	Primary Detector
Batch: 1266077	RL-GAM-001				Work Order: MMNP11AC	Report DB ID: MMNP11CR			Orig Sa DB ID: 9MMNP110			
CS-137	6.69E-09	U	5.8E-02	5.8E-02	1.11E-01	pCi/g		0.06	9/23/11 06:42 p	348.2	9	GER14\$1
	8.35E-02	U	RER2 1.5			2.00E-01		0.23			9	
K-40	7.01E+00		2.1E+00	2.1E+00	9.18E-01	pCi/g		(7.6)	9/23/11 06:42 p	348.2	9	GER14\$1
	9.54E+00		RER2 1.8					(6.8)			9	
PB-212	3.03E-01		1.4E-01	1.4E-01	2.27E-01	pCi/g		(1.3)	9/23/11 08:42 p	348.2	9	GER14\$1
	1.49E-01		RER2 1.9					(4.5)			9	
PB-214	9.61E-01		2.6E-01	2.6E-01	1.95E-01	pCi/g		(4.9)	9/23/11 06:42 p	348.2	9	GER14\$1
	8.63E-01		RER2 0.6					(7.4)			9	
U-234	7.68E-01		3.9E-01	3.9E-01	3.73E-01	pCi/g		(2.1)	9/23/11 06:42 p	348.2	9	GER14\$1
	8.37E-01		RER2 0.3					(3.9)			9	
U-238-TH	4.88E+00		2.2E+00	2.2E+00	1.47E+00	pCi/g		(3.3)	9/23/11 06:42 p	348.2	9	GER14\$1
			RER2					(4.4)			9	

Ratio U-234/238 = 0.2

No. of Results: 6    Comments:

TestAmerica    RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPD))] as defined by ICPT BOA.  
 rptSTLRchDupV5.2    MDC/MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 .15 A2002    U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

**FORM II  
BLANK RESULTS**

Date: 26-Sep-11

Lab Name: TestAmerica  
Matrix: SOIL

SDG: 43789  
Report No. : 48522

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/ToiUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1268077		RL-GAM-001		Work Order: MMNTJ1AA		Report DB ID: MMNTJ1AB						
CS-137	1.38E-02	U	3.1E-02	3.1E-02	7.16E-02	pCi/g		0.19	9/23/11 09:49 p		348.0	GER7\$1
								2.00E-01			g	
K-40	5.70E-02	U	8.0E-01	8.0E-01	1.97E+00	pCi/g		0.03	9/23/11 09:49 p		348.0	GER7\$1
								0.14			g	
PB-212	6.48E-02	U	6.5E-02	6.5E-02	1.41E-01	pCi/g		0.46	9/23/11 09:49 p		348.0	GER7\$1
								(2.)			g	
PB-214	1.29E-01	U	9.8E-02	9.8E-02	2.16E-01	pCi/g		0.6	9/23/11 09:49 p		348.0	GER7\$1
								(2.6)			g	

29

No. of Results: 4      Comments:

TestAmerica      MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchBlank      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.  
 V5.2.15 A2002

FORM II  
LCS RESULTS

Date: 26-Sep-11

Lab Name: TestAmerica  
Matrix: SOIL

SDG: 43789  
Report No.: 48522

Parameter	Result	Qual	Count Error (2s)	Total Uncert(2s)	MDC MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 1286077		RL-GAM-001		Work Order: MMNTJ1AC		Report ID: MMNTJ1CS							
CS-137	1.15E+00		2.3E-01	2.3E-01	1.47E-01	pCi/g		1.07E+00	1.1E-02	108%	9/23/11 10:24 p	350.1	GER14\$1
							Rec Limits:	70	130	0.1		g	
RA-226	1.19E+00	U	3.0E-01	3.0E-01	5.37E-01	pCi/g		1.14E+00	1.2E-02	105%	9/23/11 10:24 p	350.1	GER14\$1
							Rec Limits:	70	130	0.0		g	
RA-228	7.81E-01	U	3.9E-01	3.9E-01	7.72E-01	pCi/g		8.88E-01	9.2E-03	88%	9/23/11 10:24 p	350.1	GER14\$1
							Rec Limits:	70	130	-0.1		g	
U-238	1.16E+00		2.7E-01	2.7E-01	1.95E-01	pCi/g		1.20E+00	1.2E-02	96%	9/23/11 10:24 p	350.1	GER14\$1
							Rec Limits:	70	130	0.0		g	

No. of Results: 4      Comments:

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17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

New World Technology  
448 Commerce Way  
Livermore, CA 94551  
Attention: Angel Reyes

Project ID: Tuba City Remediation  
Highway 160 Project  
Report Number: IUH2741

Sampled: 06/18/11-08/24/11  
Received: 08/26/11

## TCLP METALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	TCLP Limit	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IUH2741-01 (SO-201108-01 - Soil)			Sampled: 08/24/11							
Reporting Units: mg/l										
Mercury	EPA 7470A	11I1725	0.0020	ND	1	0.2	9/15/2011	9/15/2011		
Arsenic	EPA 6010B	11I1676	0.20	ND	1	5.0	9/15/2011	9/15/2011		
Barium	EPA 6010B	11I1676	0.20	1.4	1	100.0	9/15/2011	9/15/2011		
Cadmium	EPA 6010B	11I1676	0.10	ND	1	1.0	9/15/2011	9/15/2011		
Chromium	EPA 6010B	11I1676	0.10	ND	1	5.0	9/15/2011	9/15/2011		
Lead	EPA 6010B	11I1676	0.10	ND	1	5.0	9/15/2011	9/15/2011		
Selenium	EPA 6010B	11I1676	0.10	ND	1	1.0	9/15/2011	9/15/2011		
Silver	EPA 6010B	11I1676	0.20	ND	1	5.0	9/15/2011	9/15/2011		
Sample ID: IUH2741-11 (SO-201108-11 - Soil)			Sampled: 08/24/11							
Reporting Units: mg/l										
Mercury	EPA 7470A	11I1725	0.0020	ND	1	0.2	9/15/2011	9/15/2011		
Arsenic	EPA 6010B	11I1676	0.20	ND	1	5.0	9/15/2011	9/15/2011		
Barium	EPA 6010B	11I1676	0.20	1.0	1	100.0	9/15/2011	9/15/2011		
Cadmium	EPA 6010B	11I1676	0.10	ND	1	1.0	9/15/2011	9/15/2011		
Chromium	EPA 6010B	11I1676	0.10	ND	1	5.0	9/15/2011	9/15/2011		
Lead	EPA 6010B	11I1676	0.10	ND	1	5.0	9/15/2011	9/15/2011		
Selenium	EPA 6010B	11I1676	0.10	ND	1	1.0	9/15/2011	9/15/2011		
Silver	EPA 6010B	11I1676	0.20	ND	1	5.0	9/15/2011	9/15/2011		
Sample ID: IUH2741-12 (MH-01-2011 - Soil)			Sampled: 06/18/11							H-1
Reporting Units: mg/l										
Mercury	EPA 7470A	11I1725	0.0020	ND	1	0.2	9/15/2011	9/15/2011		
Arsenic	EPA 6010B	11I1674	0.20	ND	1	5.0	9/15/2011	9/15/2011		
Barium	EPA 6010B	11I1674	0.20	0.24	1	100.0	9/15/2011	9/15/2011		
Cadmium	EPA 6010B	11I1674	0.10	ND	1	1.0	9/15/2011	9/15/2011		
Chromium	EPA 6010B	11I1674	0.10	ND	1	5.0	9/15/2011	9/15/2011		
Lead	EPA 6010B	11I1674	0.10	ND	1	5.0	9/15/2011	9/15/2011		
Selenium	EPA 6010B	11I1674	0.10	0.11	1	1.0	9/15/2011	9/15/2011		
Silver	EPA 6010B	11I1674	0.20	ND	1	5.0	9/15/2011	9/15/2011		

TestAmerica Irvine  
Sushmitha Reddy  
Project Manager

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QC Results Summary

Date: 26-Sep-11

TestAmerica

Ordered by Method, Batch No, QC Type,.

Report No. : 48522

SDG No.: 43789

Batch	Work Order	Parameter	Result +/- Uncertainty ( 2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC MDA
RL-GAM-001									
1266077 BLANK QC,									
	MMNTJ1AA	CS-137	1.38E-02 + 3.1E-02	U	pCi/g				7.16E-02
		K-40	5.70E-02 + 8.0E-01	U	pCi/g				1.97E+00
		PB-212	6.48E-02 + 6.5E-02	U	pCi/g				1.41E-01
		PB-214	1.29E-01 + 9.8E-02	U	pCi/g				2.16E-01
1266077 LCS,									
	MMNTJ1AC	CS-137	1.16E+00 + 2.3E-01		pCi/g		108%	0.1	1.47E-01
		RA-226	1.19E+00 + 3.0E-01	U	pCi/g		105%	0.0	5.37E-01
		RA-228	7.81E-01 + 3.9E-01	U	pCi/g		88%	-0.1	7.72E-01
		U-238	1.16E+00 + 2.7E-01		pCi/g		96%	0.0	1.95E-01

No. of Results: 8

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Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Appendix D.2: Tabulated Data for Highway 160 Remediation Project Samples

	Sample ID	Ra-226 pCi/g	Notes
Reference Area (RA) Samples	Background #1-1	0.144	NWE chosen background sample
	Background #1-2	1.020	NWE chosen background sample
	Background #1-3	0.936	NWE chosen background sample
	Background #2-1	0.048	NWE chosen background sample
	Background #2-2	0.743	NWE chosen background sample
	Background #2-3	0.021	NWE chosen background sample
	Background #3-1	0.143	NWE chosen background sample
	Background #3-2	0.822	NWE chosen background sample
	Background #3-3	0.009	NWE chosen background sample
	SKBkg-1	0.11	S&K chosen background sample
	SKBkg-2	0.27	S&K chosen background sample
	SKBkg-3	0.21	S&K chosen background sample
	SKBkg-4	0.17	S&K chosen background sample
	SKBkg-5	0.37	S&K chosen background sample
	SKBkg-6	0.46	S&K chosen background sample
	SKBkg-7	0.22	S&K chosen background sample
	SKBkg-8	0.06	S&K chosen background sample
	A3-18	1.43	S&K chosen background sample
	B1-3	0.36	S&K chosen background sample
	VP005-10001	0.38	S&K chosen background sample

Sample ID	Ra-226 pCi/g	Notes
A_S1_A2	0.047	
A_S2_B2	0.404	
A_S3_B1	0.848	
<b>A_S4_A1</b>	<b>2.163</b>	Laboratory Comparison Sample
B_S1_B3	0.177	
B_S2_A3	0.000	
B_S3_A2	0.334	
B_S4_B2	4.433	
C_S1_B6	0.928	
C_S2_B7	0.683	
<b>C_S3_B8</b>	<b>1.794</b>	Laboratory Comparison Sample
C_S4_C3	0.129	
C_S5_C4	0.647	
C_S6_C5	0.568	
C_S7_C6	0.551	
C_S9_C8	1.250	
C_S10_D2	0.262	
C_S11_D4	0.180	
C_S12_D8	0.495	
C_S13_E7	0.680	
C-1_S1_B1	0.686	
D_RM1_A7	0.499	
D_S1	0.863	
D_S2	0.891	
<b>D_S3_C4</b>	<b>1.921</b>	Laboratory Comparison Sample
<b>D_S4_C5</b>	<b>2.805</b>	Laboratory Comparison Sample
D_S5	0.000	
D_S6	0.000	
D_S7	0.654	
D_S8	0.691	
D_S9	1.062	
D_S10	0.882	
D_S11	1.343	
<b>F_S1_B1</b>	<b>2.191</b>	Laboratory Comparison Sample
F_S2_B2	0.342	
G_S1_A2	0.885	
G_S2_A3	0.992	
G_S3_A4	0.628	
G_S4_A5	1.534	
G_S5_A6	0.757	
G_S6_A7	2.127	
G_S7_B2	0.507	
G_S8_B3	0.528	
G_S9_B4	0.694	
G_S10_B5	0.526	
G_S11_B6	1.031	

Systematic Samples and Post-remediation Samples

<i>G_S12_B7</i>	<b>2.344</b>	Laboratory Comparison Sample
H_S2_A2	0.634	
H_S3_A3	1.014	
<i>H_S4_A4</i>	<b>1.556</b>	Laboratory Comparison Sample
H_S5_A5	1.183	
H_S6_A6	1.296	
H_S7_A7	0.942	
H_S8_A8	0.701	
H_S9_B1	0.336	
H_S10_B2	0.857	
H_S11_B3	1.147	
<i>H_S12_B4</i>	<b>1.764</b>	Laboratory Comparison Sample
H_S13_B5	0.771	
H_S14_B6	1.541	
H_S15_B7	0.951	
H_S16_B8	1.383	
I_S1_A1	0.068	
I_S2_A2	0.124	
I_S3_A3	0.034	
I_S4_A4	0.619	
I_S5_A5	0.086	
I_S6_B1	0.122	
I_S7_B2	1.277	
I_S8_B3	0.161	
<del><i>I_S9_B4</i></del>	<del><b>3.170</b></del>	<del>I_B4/B4 is the as-let sample that was taken in this area. Original sample is not included in the AURS test. Laboratory comparison sample.</del>
I_S10_B5	0.313	
I_S11_B6	0.122	
I_S12_B7	1.530	
I_S13_B8	1.717	
I_S14_C2	0.032	
I_S15_C3	0.297	
I_S16_C4	0.073	
I_S17_C5	0.916	
I_S18_C6	0.468	
I_S19_C7	1.932	
I_S20_C8	1.300	
I_SM_RM2_B7	0.256	
I_SM_RM1_B5	0.378	
I_B1_RM1_B5	1.432	
JKL S1	0.721	
JKL S2	0.112	
JKL S3	1.326	
<i>JKL S4</i>	<b>2.551</b>	Laboratory Comparison Sample
JKL S5	1.725	
JKL S6	1.301	
JKL S7	1.882	
JKL S8	1.986	
<i>JKL S9</i>	<b>2.936</b>	Laboratory Comparison Sample
JKL S10	0.203	

JKL S11	1.145	
JKL S12	0.455	
JKL S13	1.160	
JKL S14	0.213	
JKL S15	0.658	
JKL S16	0.050	
JKL S17	1.821	
JKL S18	0.098	
JKL S19	0.677	
JKL S20	1.444	
JKL S21	0.034	
JKL S22	0.052	
JKL S23	0.075	
JKL S24	1.002	
JKL S25	2.248	
JKL S26	1.530	
JKL RM1	0.050	
<b>JKL RM2</b>	<b>2.979</b>	Laboratory Comparison Sample
JKL RM3	0.037	

	Sample ID	Ra-226 pCi/g	Notes
Field Duplicates	A_QC1_A2	0.447	
	B_QC1_A2	0.563	
	C_QC1_6	1.076	Laboratory Comparison Sample
	C_QC2_C4	0.452	
	C_QC3_D2	1.172	Laboratory Comparison Sample
	D_QC1	0.747	
	D_QC2	0.381	
	I_QC10_B5	4.025	I_QC10_B5 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.
	I_QC20_C8	0.960	
	I_QC_RM2_B7	0.160	Laboratory Comparison Sample
	I_QC_RM1_B5	0.058	
	JKL QS5	0.804	
	JKL QS10	0.785	
	JKL QS20	0.549	

	Sample ID	Ra-226 pCi/g	Notes
Random Samples	C_R1_A3	0.808	
	C_R2_F2	0.640	
	C_R3_E5	0.544	
	D_R1	0.790	
	D_R2	0.967	
	D_R3	1.164	
	D_R4 (File)	4.064	D_R4 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.
	JKL R1	0.870	
	JKL R2	1.428	
	JKL R4	1.938	

	Sample ID	Ra-226 pCi/g	Notes
Biased Samples	A_B1_A2	0.453	
	<b>B_B1_A2</b>	<b>1.166</b>	Laboratory Comparison Sample
	C_B1_D3	0.554	
	C_B2_D7	0.302	
	C_B3_F7	0.995	
	C_B4_C2	0.222	
	D_B1	0.670	
	D_B2	0.911	
	D_B3	0.082	
	D_B4	1.443	
	I_B1_B1	0.044	
	<b>I_B2_B2</b>	<b>0.201</b>	Laboratory Comparison Sample
	I_B3_B3	0.074	
	I_B4_B4	2.184	
	I_B5_B5	21.928	I_SM_RM1_B5 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.
	I_B6_C8	3.822	I_S20_C8 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.
	I_B2_RM2_B7	5.710	I_SM_RM2_B7 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.
	I_B1_RM1_B5	1.432	
	<b>JKL B1</b>	<b>0.149</b>	Laboratory Comparison Sample
	JKL B2	54.97	JKL_RM2 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.
JKL B3	2.691		
JKL B4	20.000	JKL_RM1 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.	
JKL B5	0.150		
JKL B6	157.604	JKL_RM3 is the as-left sample that was taken in this area. Original sample is not included in the WRS test.	
JKL B7	1.524		

	Sample ID	Ra-226 pCi/g	Notes
Off-site Laboratory Sample Data	A_S4_A1	0.863	Ra-226 quantified from Pb-214 peak(s).
	B_B1_A2	0.412	Ra-226 quantified from Pb-214 peak(s).
	C_S3_B8	1.420	Ra-226 quantified from Pb-214 peak(s).
	C_QC1_6	0.230	Ra-226 not detected. Treat as "less than" result. MDA taken to be equal to 0.23 pCi/g. See text in Section 8.3.
	C_QC3_D2	0.230	Ra-226 not detected. Treat as "less than" result. MDA taken to be equal to 0.23 pCi/g. See text in Section 8.3.
	D_S3_C4	1.220	Ra-226 quantified from Ra-226 peak(s).
	D_S4_C5	1.880	Ra-226 quantified from Ra-226 peak(s).
	F_S1_B1	0.414	Ra-226 quantified from Pb-214 peak(s).
	G_S12_B7	0.517	Ra-226 quantified from Pb-214 peak(s).
	H_S4_A4	0.513	Ra-226 quantified from Pb-214 peak(s).
	H_S12_B4	0.230	Ra-226 not detected. Treat as "less than" result. MDA taken to be equal to 0.23 pCi/g. See text in Section 8.3.
	I_B2_B2	0.899	Ra-226 quantified from Ra-226 peak(s).
	I_S9_B4	0.230	Ra-226 not detected. Treat as "less than" result. MDA taken to be equal to 0.23 pCi/g. See text in Section 8.3.
	I_QC_RM2_B7	2.300	Ra-226 quantified from Pb-214 peak(s).
	JKL S4	0.230	Ra-226 not detected. Treat as "less than" result. MDA taken to be equal to 0.23 pCi/g. See text in Section 8.3.
	JKL S9	1.560	Ra-226 quantified from Pb-214 peak(s).
	JKL B1	0.959	Ra-226 quantified from Pb-214 peak(s).
JKL RM2	0.982	Ra-226 quantified from Pb-214 peak(s).	

Sample ID	Activity	Area Type	Adj Act.	Ranks	Ref Area Ranks
Background #1-1	0.144	RA	2.144	137	137
Background #1-2	1.020	RA	3.020	159	159
Background #1-3	0.936	RA	2.936	157	157
Background #2-1	0.048	RA	2.048	132	132
Background #2-2	0.743	RA	2.743	153	153
Background #2-3	0.021	RA	2.021	131	131
Background #3-1	0.143	RA	2.143	136	136
Background #3-2	0.822	RA	2.822	155	155
Background #3-3	0.009	RA	2.009	130	130
SKBkg-1	0.110	RA	2.110	134	134
SKBkg-2	0.270	RA	2.270	145	145
SKBkg-3	0.210	RA	2.210	142	142
SKBkg-4	0.170	RA	2.170	139	139
SKBkg-5	0.370	RA	2.370	148	148
SKBkg-6	0.460	RA	2.460	150	150
SKBkg-7	0.220	RA	2.220	143	143
SKBkg-8	0.060	RA	2.060	133	133
A3-18	1.430	RA	3.430	160	160
B1-3	0.360	RA	2.360	147	147
VP005-I0001	0.380	RA	2.380	149	149
A_S1_A2	0.047	SU	0.047	9	0
A_S2_B2	0.404	SU	0.404	43	0
A_S3_B1	0.848	SU	0.848	77	0
A_S4_A1	2.163	SU	2.163	138	0
B_S1_B3	0.177	SU	0.177	28	0
B_S2_A3	0.000	SU	0.000	2	0
B_S3_A2	0.334	SU	0.334	39	0
B_S4_B2	4.433	SU	4.433	161	0
C_S1_B6	0.928	SU	0.928	86	0
C_S2_B7	0.683	SU	0.683	67	0
C_S3_B8	1.794	SU	1.794	123	0
C_S4_C3	0.129	SU	0.129	24	0
C_S5_C4	0.647	SU	0.647	60	0
C_S6_C5	0.568	SU	0.568	55	0
C_S7_C6	0.551	SU	0.551	53	0
C_S9_C8	1.250	SU	1.250	102	0
C_S10_D2	0.262	SU	0.262	35	0
C_S11_D4	0.180	SU	0.180	29	0
C_S12_D8	0.495	SU	0.495	47	0
C_S13_E7	0.680	SU	0.680	66	0
C-1_S1_B1	0.686	SU	0.686	68	0
D_RMI_A7	0.499	SU	0.499	48	0



## All Survey Units

D_S1	0.863	SU	0.863	79	0
D_S2	0.891	SU	0.891	83	0
D_S3_C4	1.921	SU	1.921	126	0
D_S4_C5	2.805	SU	2.805	154	0
D_S5	0.000	SU	0.000	2	0
D_S6	0.000	SU	0.000	2	0
D_S7	0.654	SU	0.654	61	0
D_S8	0.691	SU	0.691	69	0
D_S9	1.062	SU	1.062	95	0
D_S10	0.882	SU	0.882	81	0
D_S11	1.343	SU	1.343	108	0
F_S1_B1	2.191	SU	2.191	141	0
F_S2_B2	0.342	SU	0.342	41	0
G_S1_A2	0.885	SU	0.885	82	0
G_S2_A3	0.992	SU	0.992	90	0
G_S3_A4	0.628	SU	0.628	57	0
G_S4_A5	1.534	SU	1.534	117	0
G_S5_A6	0.757	SU	0.757	73	0
G_S6_A7	2.127	SU	2.127	135	0
G_S7_B2	0.507	SU	0.507	49	0
G_S8_B3	0.528	SU	0.528	51	0
G_S9_B4	0.694	SU	0.694	70	0
G_S10_B5	0.526	SU	0.526	50	0
G_S11_B6	1.031	SU	1.031	94	0
G_S12_B7	2.344	SU	2.344	146	0
H_S2_A2	0.634	SU	0.634	58	0
H_S3_A3	1.014	SU	1.014	93	0
H_S4_A4	1.556	SU	1.556	119	0
H_S5_A5	1.183	SU	1.183	101	0
H_S6_A6	1.296	SU	1.296	104	0
H_S7_A7	0.942	SU	0.942	87	0
H_S8_A8	0.701	SU	0.701	71	0
H_S9_B1	0.336	SU	0.336	40	0
H_S10_B2	0.857	SU	0.857	78	0
H_S11_B3	1.147	SU	1.147	97	0
H_S12_B4	1.764	SU	1.764	122	0
H_S13_B5	0.771	SU	0.771	74	0
H_S14_B6	1.541	SU	1.541	118	0
H_S15_B7	0.951	SU	0.951	88	0
H_S16_B8	1.383	SU	1.383	109	0
I_S1_A1	0.068	SU	0.068	13	0
I_S2_A2	0.124	SU	0.124	23	0
I_S3_A3	0.034	SU	0.034	6	0
I_S4_A4	0.619	SU	0.619	56	0
I_S5_A5	0.086	SU	0.086	18	0
I_S6_B1	0.122	SU	0.122	22	0
I_S7_B2	1.277	SU	1.277	103	0
I_S8_B3	0.161	SU	0.161	27	0
I_S10_B5	0.313	SU	0.313	38	0

I_S11_B6	0.122	SU	0.122	21	0
I_S12_B7	1.530	SU	1.530	116	0
I_S13_B8	1.717	SU	1.717	120	0
I_S14_C2	0.032	SU	0.032	4	0
I_S15_C3	0.297	SU	0.297	36	0
I_S16_C4	0.073	SU	0.073	14	0
I_S17_C5	0.916	SU	0.916	85	0
I_S18_C6	0.468	SU	0.468	46	0
I_S19_C7	1.932	SU	1.932	127	0
I_S20_C8	1.300	SU	1.300	105	0
I_SM_RM2_B7	0.256	SU	0.256	34	0
I_SM_RM1_B5	0.378	SU	0.378	42	0
JKL S1	0.721	SU	0.721	72	0
JKL S2	0.112	SU	0.112	20	0
JKL S3	1.326	SU	1.326	107	0
JKL S4	2.551	SU	2.551	151	0
JKL S5	1.725	SU	1.725	121	0
JKL S6	1.301	SU	1.301	106	0
JKL S7	1.882	SU	1.882	125	0
JKL S8	1.986	SU	1.986	129	0
JKL S9	2.936	SU	2.936	156	0
JKL S10	0.203	SU	0.203	31	0
JKL S11	1.145	SU	1.145	96	0
JKL S12	0.455	SU	0.455	45	0
JKL S13	1.160	SU	1.160	98	0
JKL S14	0.213	SU	0.213	32	0
JKL S15	0.658	SU	0.658	63	0
JKL S16	0.050	SU	0.050	11	0
JKL S17	1.821	SU	1.821	124	0
JKL S18	0.098	SU	0.098	19	0
JKL S19	0.677	SU	0.677	65	0
JKL S20	1.444	SU	1.444	113	0
JKL S21	0.034	SU	0.034	5	0
JKL S22	0.052	SU	0.052	12	0
JKL S23	0.075	SU	0.075	16	0
JKL S24	1.002	SU	1.002	92	0
JKL S25	2.248	SU	2.248	144	0
JKL S26	1.530	SU	1.530	115	0
JKL RM1	0.050	SU	0.050	10	0
JKL RM2	2.979	SU	2.979	158	0
JKL RM3	0.037	SU	0.037	7	0
C_R1_A3	0.808	SU	0.808	76	0
C_R2_F2	0.640	SU	0.640	59	0
C_R3_E5	0.544	SU	0.544	52	0
D_R1	0.790	SU	0.790	75	0
D_R2	0.967	SU	0.967	89	0
D_R3	1.164	SU	1.164	99	0
JKL R1	0.870	SU	0.870	80	0
JKL R2	1.428	SU	1.428	110	0

JKL R3	0.655	SU	0.655	62	0
JKL R4	1.938	SU	1.938	128	0
A_B1_A2	0.453	SU	0.453	44	0
B_B1_A2	1.166	SU	1.166	100	0
C_B1_D3	0.554	SU	0.554	54	0
C_B2_D7	0.302	SU	0.302	37	0
C_B3_F7	0.995	SU	0.995	91	0
C_B4_C2	0.222	SU	0.222	33	0
D_B1	0.670	SU	0.670	64	0
D_B2	0.911	SU	0.911	84	0
D_B3	0.082	SU	0.082	17	0
D_B4	1.443	SU	1.443	112	0
I_B1_B1	0.044	SU	0.044	8	0
I_B2_B2	0.201	SU	0.201	30	0
I_B3_B3	0.074	SU	0.074	15	0
I_B4_B4	2.184	SU	2.184	140	0
I_B1_RM1_B5	1.432	SU	1.432	111	0
JKL B1	0.149	SU	0.149	25	0
JKL B3	2.691	SU	2.691	152	0
JKL B5	0.150	SU	0.150	26	0
JKL B7	1.524	SU	1.524	114	0
Sum		161	175.299	13041	2880
			<u>RA</u>	<u>SU</u>	
Mean			2.40	0.90	
St Dev			0.39	0.77	
Number of samples (m, n)			20	141	

Survey Unit passes

CV = 1940.96

Retrospective Calculation of Relative Shift

$$\Delta/\sigma = 1.30$$

	Sample ID	Activity	Area Type	Adj Act.	Ranks	Ref Area Ranks
	Background #1-1	0.144	RA	2.144	57	57
	Background #1-2	1.020	RA	3.020	71	71
	Background #1-3	0.936	RA	2.936	70	70
	Background #2-1	0.048	RA	2.048	53	53
	Background #2-2	0.743	RA	2.743	67	67
	Background #2-3	0.021	RA	2.021	52	52
	Background #3-1	0.143	RA	2.143	56	56
	Background #3-2	0.822	RA	2.822	69	69
	Background #3-3	0.009	RA	2.009	51	51
	SKBkg-1	0.110	RA	2.110	55	55
	SKBkg-2	0.270	RA	2.270	62	62
	SKBkg-3	0.210	RA	2.210	60	60
	SKBkg-4	0.170	RA	2.170	59	59
	SKBkg-5	0.370	RA	2.370	64	64
	SKBkg-6	0.460	RA	2.460	66	66
	SKBkg-7	0.220	RA	2.220	61	61
	SKBkg-8	0.060	RA	2.060	54	54
	A3-18	1.430	RA	3.430	72	72
	B1-3	0.360	RA	2.360	63	63
	VP005-10001	0.380	RA	2.380	65	65
	A_S1_A2	0.047	SU	0.047	4	0
	A_S2_B2	0.404	SU	0.404	13	0
	A_S3_B1	0.848	SU	0.848	32	0
	A_S4_A1	2.163	SU	2.163	58	0
	B_S1_B3	0.177	SU	0.177	7	0
	B_S2_A3	0.000	SU	0.000	2	0
	B_S3_A2	0.334	SU	0.334	12	0
	B_S4_B2	4.433	SU	4.433	73	0
	C_S1_B6	0.928	SU	0.928	38	0
	C_S2_B7	0.683	SU	0.683	27	0
	C_S3_B8	1.794	SU	1.794	48	0
	C_S4_C3	0.129	SU	0.129	6	0
	C_S5_C4	0.647	SU	0.647	22	0
	C_S6_C5	0.568	SU	0.568	20	0
	C_S7_C6	0.551	SU	0.551	18	0
	C_S9_C8	1.250	SU	1.250	44	0
	C_S10_D2	0.262	SU	0.262	10	0
	C_S11_D4	0.180	SU	0.180	8	0
	C_S12_D8	0.495	SU	0.495	15	0
	C_S13_E7	0.680	SU	0.680	26	0
	C-1_S1_B1	0.686	SU	0.686	28	0
	D_RM1_A7	0.499	SU	0.499	16	0
	D_S1	0.863	SU	0.863	33	0

Survey Unit 01 (SU-01)

D_S2	0.891	SU	0.891	36	0
D_S3_C4	1.921	SU	1.921	49	0
D_S4_C5	2.805	SU	2.805	68	0
D_S5	0.000	SU	0.000	2	0
D_S6	0.000	SU	0.000	2	0
D_S7	0.654	SU	0.654	23	0
D_S8	0.691	SU	0.691	29	0
D_S9	1.062	SU	1.062	41	0
D_S10	0.882	SU	0.882	35	0
D_S11	1.343	SU	1.343	45	0
C_R1_A3	0.808	SU	0.808	31	0
C_R2_F2	0.640	SU	0.640	21	0
C_R3_E5	0.544	SU	0.544	17	0
D_R1	0.790	SU	0.790	30	0
D_R2	0.967	SU	0.967	39	0
D_R3	1.164	SU	1.164	42	0
JKL R1	0.870	SU	0.870	34	0
JKL R2	1.428	SU	1.428	46	0
JKL R3	0.655	SU	0.655	24	0
JKL R4	1.938	SU	1.938	50	0
A_B1_A2	0.453	SU	0.453	14	0
B_B1_A2	1.166	SU	1.166	43	0
C_B1_D3	0.554	SU	0.554	19	0
C_B2_D7	0.302	SU	0.302	11	0
C_B3_F7	0.995	SU	0.995	40	0
C_B4_C2	0.222	SU	0.222	9	0
D_B1	0.670	SU	0.670	25	0
D_B2	0.911	SU	0.911	37	0
D_B3	0.082	SU	0.082	5	0
D_B4	1.443	SU	1.443	47	0

Sum	73	93.399	2701	1227
Mean		<u>RA</u>	<u>SU</u>	
St Dev		2.40	0.86	
Number of samples (m, n)		0.39	0.76	
		20	53	

Survey Unit passes

CV = 873.00

Retrospective Calculation of Relative Shift

$$\Delta/\sigma = 1.31$$

Sample ID	Activity	Area Type	Adj Act.	Ranks	Ref Area Ranks
Background #1-1	0.144	RA	2.144	59	59
Background #1-2	1.020	RA	3.020	74	74
Background #1-3	0.936	RA	2.936	73	73
Background #2-1	0.048	RA	2.048	54	54
Background #2-2	0.743	RA	2.743	71	71
Background #2-3	0.021	RA	2.021	53	53
Background #3-1	0.143	RA	2.143	58	58
Background #3-2	0.822	RA	2.822	72	72
Background #3-3	0.009	RA	2.009	52	52
SKBkg-1	0.110	RA	2.110	56	56
SKBkg-2	0.270	RA	2.270	65	65
SKBkg-3	0.210	RA	2.210	63	63
SKBkg-4	0.170	RA	2.170	60	60
SKBkg-5	0.370	RA	2.370	68	68
SKBkg-6	0.460	RA	2.460	70	70
SKBkg-7	0.220	RA	2.220	64	64
SKBkg-8	0.060	RA	2.060	55	55
A3-18	1.430	RA	3.430	75	75
B1-3	0.360	RA	2.360	67	67
VP005-10001	0.380	RA	2.380	69	69
F_S1_B1	2.191	SU	2.191	62	0
F_S2_B2	0.342	SU	0.342	17	0
G_S1_A2	0.885	SU	0.885	31	0
G_S2_A3	0.992	SU	0.992	35	0
G_S3_A4	0.628	SU	0.628	24	0
G_S4_A5	1.534	SU	1.534	46	0
G_S5_A6	0.757	SU	0.757	28	0
G_S6_A7	2.127	SU	2.127	57	0
G_S7_B2	0.507	SU	0.507	20	0
G_S8_B3	0.528	SU	0.528	22	0
G_S9_B4	0.694	SU	0.694	26	0
G_S10_B5	0.526	SU	0.526	21	0
G_S11_B6	1.031	SU	1.031	37	0
G_S12_B7	2.344	SU	2.344	66	0
H_S2_A2	0.634	SU	0.634	25	0
H_S3_A3	1.014	SU	1.014	36	0
H_S4_A4	1.556	SU	1.556	48	0
H_S5_A5	1.183	SU	1.183	39	0
H_S6_A6	1.296	SU	1.296	41	0
H_S7_A7	0.942	SU	0.942	33	0
H_S8_A8	0.701	SU	0.701	27	0
H_S9_B1	0.336	SU	0.336	16	0
H_S10_B2	0.857	SU	0.857	30	0

Survey Unit 02 (SU-02)

H_S11_B3	1.147	SU	1.147	38	0
H_S12_B4	1.764	SU	1.764	50	0
H_S13_B5	0.771	SU	0.771	29	0
H_S14_B6	1.541	SU	1.541	47	0
H_S15_B7	0.951	SU	0.951	34	0
H_S16_B8	1.383	SU	1.383	43	0
I_S1_A1	0.068	SU	0.068	4	0
I_S2_A2	0.124	SU	0.124	10	0
I_S3_A3	0.034	SU	0.034	2	0
I_S4_A4	0.619	SU	0.619	23	0
I_S5_A5	0.086	SU	0.086	7	0
I_S6_B1	0.122	SU	0.122	9	0
I_S7_B2	1.277	SU	1.277	40	0
I_S8_B3	0.161	SU	0.161	11	0
I_S10_B5	0.313	SU	0.313	15	0
I_S11_B6	0.122	SU	0.122	8	0
I_S12_B7	1.530	SU	1.530	45	0
I_S13_B8	1.717	SU	1.717	49	0
I_S14_C2	0.032	SU	0.032	1	0
I_S15_C3	0.297	SU	0.297	14	0
I_S16_C4	0.073	SU	0.073	5	0
I_S17_C5	0.916	SU	0.916	32	0
I_S18_C6	0.468	SU	0.468	19	0
I_S19_C7	1.932	SU	1.932	51	0
I_S20_C8	1.300	SU	1.300	42	0
I_SM_RM2_B7	0.256	SU	0.256	13	0
I_SM_RM1_B5	0.378	SU	0.378	18	0
I_B1_B1	0.044	SU	0.044	3	0
I_B2_B2	0.201	SU	0.201	12	0
I_B3_B3	0.074	SU	0.074	6	0
I_B4_B4	2.184	SU	2.184	61	0
I_B1_RM1_B5	1.432	SU	1.432	44	0
Sum		70	90.909	2850	1278
		Check Ranks	<u>RA</u>	<u>SU</u>	
Mean			2.40	0.85	
St Dev			0.39	0.65	
Number of samples (m, n)			20	55	

Survey Unit passes

CV = 897.30

Retrospective Calculation of Relative Shift

$$\Delta/\sigma = 1.54$$

	Sample ID	Activity	Area Type	Adj Act.	Ranks	Ref Area Ranks
	Background #1-1	0.144	RA	2.144	35	35
	Background #1-2	1.020	RA	3.020	52	52
	Background #1-3	0.936	RA	2.936	50	50
	Background #2-1	0.048	RA	2.048	31	31
	Background #2-2	0.743	RA	2.743	47	47
	Background #2-3	0.021	RA	2.021	30	30
	Background #3-1	0.143	RA	2.143	34	34
	Background #3-2	0.822	RA	2.822	48	48
	Background #3-3	0.009	RA	2.009	29	29
	SKBkg-1	0.110	RA	2.110	33	33
	SKBkg-2	0.270	RA	2.270	40	40
	SKBkg-3	0.210	RA	2.210	37	37
	SKBkg-4	0.170	RA	2.170	36	36
	SKBkg-5	0.370	RA	2.370	42	42
	SKBkg-6	0.460	RA	2.460	44	44
	SKBkg-7	0.220	RA	2.220	38	38
	SKBkg-8	0.060	RA	2.060	32	32
	A3-18	1.430	RA	3.430	53	53
	B1-3	0.360	RA	2.360	41	41
	VP005-I0001	0.380	RA	2.380	43	43
	JKL S1	0.721	SU	0.721	16	0
	JKL S2	0.112	SU	0.112	8	0
	JKL S3	1.326	SU	1.326	21	0
	JKL S4	2.551	SU	2.551	45	0
	JKL S5	1.725	SU	1.725	25	0
	JKL S6	1.301	SU	1.301	20	0
	JKL S7	1.882	SU	1.882	27	0
	JKL S8	1.986	SU	1.986	28	0
	JKL S9	2.936	SU	2.936	49	0
	JKL S10	0.203	SU	0.203	11	0
	JKL S11	1.145	SU	1.145	18	0
	JKL S12	0.455	SU	0.455	13	0
	JKL S13	1.160	SU	1.160	19	0
	JKL S14	0.213	SU	0.213	12	0
	JKL S15	0.658	SU	0.658	14	0
	JKL S16	0.050	SU	0.050	4	0
	JKL S17	1.821	SU	1.821	26	0
	JKL S18	0.098	SU	0.098	7	0
	JKL S19	0.677	SU	0.677	15	0
	JKL S20	1.444	SU	1.444	22	0
	JKL S21	0.034	SU	0.034	1	0
	JKL S22	0.052	SU	0.052	5	0
	JKL S23	0.075	SU	0.075	6	0

Survey Unit 03 (SU-03)



JKL S24	1.002	SU	1.002	17	0
JKL S25	2.248	SU	2.248	39	0
JKL S26	1.530	SU	1.530	24	0
JKL RM1	0.050	SU	0.050	3	0
JKL RM2	2.979	SU	2.979	51	0
JKL RM3	0.037	SU	0.037	2	0
JKL B1	0.149	SU	0.149	9	0
JKL B3	2.691	SU	2.691	46	0
JKL B5	0.150	SU	0.150	10	0
JKL B7	1.524	SU	1.524	23	0

Sum	53	82.909	1431	795
		<u>RA</u>	<u>SU</u>	
Mean		2.40	1.06	
St Dev		0.39	0.95	
Number of samples (m, n)		20	33	

Survey Unit passes

CV = 629.65

Retrospective Calculation of Relative Shift

$\Delta/\sigma = 1.06$

Sample ID	Activity	Area Type	Adj Act.	Ranks	Ref Area Ranks
Background #1-1	0.694	RA	2.694	23	23
Background #1-2	0.526	RA	2.526	21	21
Background #1-3	1.031	RA	3.031	30	30
Background #2-1	2.344	RA	4.344	38	38
Background #2-2	0.634	RA	2.634	22	22
Background #2-3	1.014	RA	3.014	29	29
Background #3-1	1.556	RA	3.556	36	36
Background #3-2	1.183	RA	3.183	32	32
Background #3-3	1.296	RA	3.296	33	33
SKBkg-1	0.942	RA	2.942	27	27
SKBkg-2	0.701	RA	2.701	24	24
SKBkg-3	0.336	RA	2.336	20	20
SKBkg-4	0.857	RA	2.857	26	26
SKBkg-5	1.147	RA	3.147	31	31
SKBkg-6	1.764	RA	3.764	37	37
SKBkg-7	0.771	RA	2.771	25	25
SKBkg-8	1.541	RA	3.541	35	35
A3-18	0.951	RA	2.951	28	28
B1-3	1.383	RA	3.383	34	34
VP005-10001	0.068	RA	2.068	18	18
A_S4_A1	0.863	SU	0.863	10	0
B_B1_A2	0.412	SU	0.412	6	0
C_S3_B8	1.420	SU	1.420	15	0
C_QC1_6	0.230	SU	0.230	3	0
C_QC3_D2	0.230	SU	0.230	3	0
D_S3_C4	1.220	SU	1.220	14	0
D_S4_C5	1.880	SU	1.880	17	0
F_S1_B1	0.414	SU	0.414	7	0
G_S12_B7	0.517	SU	0.517	9	0
H_S4_A4	0.513	SU	0.513	8	0
H_S12_B4	0.230	SU	0.230	3	0
I_B2_B2	0.899	SU	0.899	11	0
I_S9_B4	0.230	SU	0.230	3	0
I_QC_RM2_B7	2.300	SU	2.300	19	0
JKL S4	0.230	SU	0.230	3	0
JKL S9	1.560	SU	1.560	16	0
JKL B1	0.959	SU	0.959	12	0
JKL RM2	0.982	SU	0.982	13	0
Sum		38	75.826	741	569
Mean			<u>RA</u> 3.04	<u>SU</u> 0.84	
St Dev			0.52	0.63	
Number of samples (m, n)			20	18	

Off-site Laboratory Data for All SUs

Survey Unit passes

Retrospective Calculation of Relative Shift

$$\Delta/\sigma = 1.59$$

APPENDIX E

QUALITY ASSURANCE/QUALITY  
CONTROL DATA

Appendix E.1

Assessment of Field Duplicate Samples

Original Sample					QC Sample					NAD	OrigDup Ratio
Sample ID	Lab ID	Act Conc	Unc	CL	Sample ID	Lab ID	Act Conc	Unc	CL		
A_B1_A2	20110822-02	0.453	0.418	0.019	A_QC1_A2	20110822-03	0.447	0.404	0.018	0.012	1.02
B_B1_A2	20110822-07	1.166	0.466	0.019	B_QC1_A2	20110822-08	0.563	0.407	0.018	0.974	2.07
C_S1_B6	20110823-03	0.928	0.393	0.016	C_QC1_6	20110825-03	1.076	0.415	0.017	0.258	0.86
C_S5_C4	20110823-07	0.647	0.393	0.017	C_QC2_C4	20110825-04	0.452	0.389	0.017	0.353	1.43
C_S10_D2	20110824-03	0.262	0.366	0.017	C_QC3_D2	20110825-05	1.172	0.402	0.016	1.675	0.22
D_B1	20110825-06	0.670	0.411	0.018	D_QC1	20110824-12	0.747	0.331	0.014	0.147	0.90
D_B2	20110825-07	0.911	0.410	0.017	D_QC2	20110825-10	0.381	0.331	0.015	1.006	2.39
I_S10_B5	20110816-04	0.313	0.053	0.002	I_QC10_B5	20110816-05	4.025	0.952	0.041	3.894	0.08
I_S20_C8	201108017-07	1.300	0.884	0.042	I_QC20_C8	201108017-08	0.960	0.751	0.038	0.292	1.35
I_SM_RM2_B7	20110818-03	0.256	0.083	0.005	I_QC_RM2_B7	20110818-02	0.160	0.084	0.006	0.809	1.60
I_SM_RM1_B5	20110818-06	0.378	0.681	0.051	I_QC_RM1_B5	20110818-05	0.058	0.044	0.003	0.469	6.53
JKL S5	20110804-05	1.725	0.620	0.030	JKL QS5	20110808-04	0.804	0.699	0.045	0.986	2.15
JKL S10	20110805-02	0.203	0.546	0.041	JKL QS10	20110808-05	0.785	0.834	0.055	0.584	0.26
JKL S20	20110805-12	1.444	0.649	0.026	JKL QS20	20110808-06	0.549	0.914	0.061	0.798	2.63

Appendix E.2

Assessment of Laboratory Comparison Samples

SampleID	On-site Laboratory Data				Off-site Laboratory Data				NAD	OrigDup Ratio	
	ID	Act Conc	Unc	CL	ID	Act Conc	Unc	CL			
A_S4_A1	20110823-02	2.163	0.637	0.026	MMNP11AA	0.863	0.220	0.181	1.928	2.51	
B_B1_A2	20110822-07	1.166	0.466	0.019	MMNP21AA	0.412	0.190	0.153	1.498	2.83	
C_S3_B8	20110823-05	1.794	0.623	0.026	MMNP31AA	1.420	0.340	0.281	0.528	1.26	
C_QC1_6	20110825-03	1.076	0.415	0.017	MMNP41AA	#N/A	#N/A	#N/A	#N/A	#N/A	Pb-212 only
C_QC3_D2	20110825-05	1.172	0.402	0.016	MMNP61AA	#N/A	#N/A	#N/A	#N/A	#N/A	Pb-212 only
D_S3_C4	20110826-02	1.921	0.522	0.021	MMNP71AA	1.220	0.270	0.221	1.193	1.57	
D_S4_C5	20110826-03	2.805	0.631	0.025	MMNP81AA	1.880	0.370	0.304	1.265	1.49	
F_S1_B1	20110815-01	2.191	0.646	0.028	MMNP91AA	0.414	0.190	0.160	2.639	5.29	
G_S12_B7	20110815-10	2.344	0.721	0.038	MMNQC1AA	0.517	0.170	0.142	2.466	4.53	
H_S4_A4	20110812-07	1.556	0.723	0.040	MMNQE1AA	0.513	0.190	0.152	1.395	3.03	
H_S12_B4	20110812-15	1.764	0.636	0.031	MMNQF1AA	#N/A	#N/A	#N/A	#N/A	#N/A	Pb-212 only
I_B2_B2	20110815-18	0.201	0.051	0.002	MMNQJ1AA	0.899	0.200	0.168	3.383	0.22	
I_S9_B4	20110816-01	3.170	0.847	0.034	MMNQL1AA	#N/A	#N/A	#N/A	#N/A	#N/A	U-238-th only
I_QC_RM2_B7	20110818-02	0.160	0.084	0.006	MMNQN1AA	2.300	0.410	0.340	5.113	0.07	
JKL S4	20110804-04	2.551	0.693	0.031	MMNQQ1AA	#N/A	#N/A	#N/A	#N/A	#N/A	Tl-208 only
JKL S9	20110805-01	2.936	0.827	0.036	MMNQT1AA	1.560	0.350	0.286	1.532	1.88	
JKL B1	20110804-08	0.149	0.045	0.002	MMNQV1AA	0.959	0.340	0.277	2.362	0.16	
JKL RM2	20110811-05	2.979	0.896	0.043	MMNQW1AA	0.982	0.210	0.177	2.169	3.03	

# APPENDIX F

## SHIPPING INFORMATION FOR THE NNEPA HIGHWAY 160 PROJECT

**NEW WORLD ENVIRONMENTAL, INC.**

**Highway 160 Shipping Manifest**

**Lift Bag Shipments**

June	323
July	570
Total	893

**End Dump Bulk Shipments**

July	47
August	174
Total	221



NEW WORLD ENVIRONMENTAL, INC.  
 Highway 160 Shipping Manifest

Manifest Number	Date	Type Shipment	Bag Number	Load Quantity (Bags)	Sample Mass	Sample Density	Measured Activity	Max Activity
61411001	6/14/2011	Bag	51	1 of 5	1016	1.56	17.3	19.92
61411001	6/14/2011	Bag	57	2 of 5	876	1.35	13.83	16.35
61411001	6/14/2011	Bag	65	3 of 5	882	1.36	7.05	9.71
61411001	6/14/2011	Bag	69	4 of 5	850	1.31	18.42	21.17
61411001	6/14/2011	Bag	74	5 of 5	930	1.43	17.35	19.96
61411002	6/14/2011	Bag	6	1 of 4	858	1.32	16.94	19.67
61411002	6/14/2011	Bag	9	2 of 4	932	1.43	15.65	18.33
61411002	6/14/2011	Bag	11	3 of 4	972	1.495	2.74	5.91
61411002	6/14/2011	Bag	37	4 of 4	858	1.32	17.05	19.68
61411003	6/14/2011	Bag	25	1 of 5	926	1.42	6.11	8.65
61411003	6/14/2011	Bag	27	2 of 5	854	1.31	14.22	16.81
61411003	6/14/2011	Bag	28	3 of 5	824	1.27	4.8	7.7
61411003	6/14/2011	Bag	29	4 of 5	856	1.31	8.38	10.92
61411003	6/14/2011	Bag	32	5 of 5	838	1.29	2.4	5.49
61611001	6/16/2011	Bag	89	1 of 5	948	1.46	6.29	8.84
61611001	6/16/2011	Bag	62	2 of 5	806	1.24	8.32	11.03
61611001	6/16/2011	Bag	79	3 of 5	870	1.34	21.89	24.74
61611001	6/16/2011	Bag	82	4 of 5	914	1.41	13.77	16.34
61611001	6/16/2011	Bag	81	5 of 5	878	1.35	11.72	14.3
61611002	6/16/2011	Bag	73	1 of 5	900	1.38	17.36	19.96
61611002	6/16/2011	Bag	50	2 of 5	976	1.5	8.06	10.59
61611002	6/16/2011	Bag	71	3 of 5	806	1.24	9.86	12.58
61611002	6/16/2011	Bag	78	4 of 5	828	1.27	21.93	24.49
61611002	6/16/2011	Bag	90	5 of 5	980	1.51	5.04	7.59
61611003	6/16/2011	Bag	12	1 of 5	928	1.43	1.27	5.2
61611003	6/16/2011	Bag	13	2 of 5	1052	1.62	4.26	6.94
61611003	6/16/2011	Bag	14	3 of 5	984	1.51	5.07	7.75
61611003	6/16/2011	Bag	30	4 of 5	940	1.45	2.37	5.22
61611003	6/16/2011	Bag	45	5 of 5	874	1.34	1.89	21.64
61611004	6/16/2011	Bag	101	1 of 5	930	1.43	1.83	4.94
61611004	6/16/2011	Bag	102	2 of 5	876	1.35	2.06	5.21
61611004	6/16/2011	Bag	103	3 of 5	1058	1.63	0.97	4.49
61611004	6/16/2011	Bag	100	4 of 5	960	1.48	0.78	4.79
61611004	6/16/2011	Bag	95	5 of 5	1016	1.56	0.47	4.94
61611005	6/16/2011	Bag	49	1 of 5	1070	1.65	6.93	9.3
61611005	6/16/2011	Bag	20	2 of 5	880	1.35	23.85	26.81
61611005	6/16/2011	Bag	59	3 of 5	892	1.37	19.88	22.66
61611005	6/16/2011	Bag	7	4 of 5	968	1.49	12.44	14.36
61611005	6/16/2011	Bag	44	5 of 5	916	1.41	21.96	24.76
61611006	6/16/2011	Bag	88	1 of 5	1048	1.61	2.03	5.15
61611006	6/16/2011	Bag	87	2 of 5	856	1.32	10.6	13.19

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
61611006	6/16/2011	Bag	83	3 of 5	866	1.33	19.94	22.71
61611006	6/16/2011	Bag	63	4 of 5	896	1.3	17.86	20.62
61611006	6/16/2011	Bag	86	5 of 5	990	1.52	5.51	7.98
61611007	6/16/2011	Bag	96	1 of 5	916	1.41	1.13	4.67
61611007	6/16/2011	Bag	97	2 of 5	950	1.46	1	4.46
61611007	6/16/2011	Bag	99	3 of 5	844	1.3	0.05	7.99
61611007	6/16/2011	Bag	98	4 of 5	834	1.28	0.62	5.05
61611007	6/16/2011	Bag	84	5 of 5	908	1.4	2.23	5.52
61611008	6/16/2011	Bag	70	1 of 5	950	1.46	23.76	26.61
61611008	6/16/2011	Bag	8	2 of 5	856	1.32	15.27	18
61611008	6/16/2011	Bag	67	3 of 5	900	1.38	16.58	19.24
61611008	6/16/2011	Bag	68	4 of 5	1002	1.54	10.96	13.54
61611008	6/16/2011	Bag	66	5 of 5	934	1.44	22.32	25.05
61611009	6/16/2011	Bag	92	1 of 5	1004	1.54	1.03	4.56
61611009	6/16/2011	Bag	94	2 of 5	974	1.5	0.75	4.59
61611009	6/16/2011	Bag	91	3 of 5	1028	1.58	0.8	4.47
61611009	6/16/2011	Bag	93	4 of 5	926	1.42	1.03	4.69
61611009	6/16/2011	Bag	85	5 of 5	972	1.5	7.08	9.49
61611010	6/16/2011	Bag	104	1 of 4	898	1.38	5.53	7.99
61611010	6/16/2011	Bag	105	2 of 4	876	1.35	5.76	8.34
61611010	6/16/2011	Bag	106	3 of 4	934	1.44	6.3	8.81
61611010	6/16/2011	Bag	110	4 of 4	874	1.34	14.19	6.78
62011001	6/20/2011	Bag	117	1 of 5	1074	1.65	5.83	8.25
62011001	6/20/2011	Bag	119	2 of 5	916	1.41	8.23	10.65
62011001	6/20/2011	Bag	112	3 of 5	1050	1.62	11.81	14.2
62011001	6/20/2011	Bag	111	4 of 5	964	1.48	6.56	8.95
62011001	6/20/2011	Bag	118	5 of 5	980	1.51	17.95	20.57
62011002	6/20/2011	Bag	114	1 of 5	944	1.45	10.07	12.59
62011002	6/20/2011	Bag	115	2 of 5	918	1.41	6.41	8.87
62011002	6/20/2011	Bag	113	3 of 5	898	1.38	7.01	9.49
62011002	6/20/2011	Bag	125	4 of 5	1028	1.58	3.11	4.94
62011002	6/20/2011	Bag	116	5 of 5	988	1.52	9.08	11.43
62011003	6/20/2011	Bag	120	1 of 5	1044	1.61	6.13	8.49
62011003	6/20/2011	Bag	121	2 of 5	1018	1.57	2.15	4.94
62011003	6/20/2011	Bag	122	3 of 5	982	1.51	1.92	4.89
62011003	6/20/2011	Bag	123	4 of 5	1028	1.58	2.98	5.51
62011003	6/20/2011	Bag	124	5 of 5	970	1.49	2.73	4.53
62011004	6/20/2011	Bag	131	1 of 5	1012	1.56	9.65	11.5
62011004	6/20/2011	Bag	130	2 of 5	862	1.33	7.97	9.8
62011004	6/20/2011	Bag	129	3 of 5	994	1.53	7.05	8.87
62011004	6/20/2011	Bag	128	4 of 5	930	1.43	17.48	19.59
62011004	6/20/2011	Bag	127	5 of 5	1026	1.58	9.26	11.06
62011005	6/20/2011	Bag	133	1 of 5	926	1.42	6.58	8.37
62011005	6/20/2011	Bag	135	2 of 5	892	1.37	7.53	9.44

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
62011005	6/20/2011	Bag	126	3 of 5	974	1.5	1.82	3.68
62011005	6/20/2011	Bag	137	4 of 5	798	1.23	18.57	21.28
62011005	6/20/2011	Bag	136	5 of 5	924	1.42	5.19	7.66
62011006	6/20/2011	Bag	107	1 of 5	984	1.51	22.05	24.87
62011006	6/20/2011	Bag	108	2 of 5	932	1.43	8.06	10.47
62011006	6/20/2011	Bag	134	3 of 5	11.06	1.7	5.31	7.06
62011006	6/20/2011	Bag	132	4 of 5	892	1.37	6.71	8.51
62011006	6/20/2011	Bag	109	5 of 5	934	1.43	11.92	14.54
62011007	6/20/2011	Bag	140	1 of 5	832	1.28	16.39	19
62011007	6/20/2011	Bag	141	2 of 5	936	1.44	5.01	7.49
62011007	6/20/2011	Bag	142	3 of 5	1060	1.63	6.92	9.24
62011007	6/20/2011	Bag	143	4 of 5	862	1.33	11.36	13.82
62011007	6/20/2011	Bag	148	5 of 5	1276	1.96	5.83	8.17
62011008	6/20/2011	Bag	146	1 of 5	11.16	1.72	8.12	10.53
62011008	6/20/2011	Bag	145	2 of 5	900	1.38	2.62	5.55
62011008	6/20/2011	Bag	150	3 of 5	1124	1.73	15.04	17.54
62011008	6/20/2011	Bag	144	4 of 5	1050	1.6	7.27	9.71
62011008	6/20/2011	Bag	147	5 of 5				
62211001	6/22/2011	Bag	165	1 of 5	640	0.98	6.27	8.39
62211001	6/22/2011	Bag	164	2 of 5	880	1.35	9.29	11.18
62211001	6/22/2011	Bag	163	3 of 5	854	1.31	7.54	9.53
62211001	6/22/2011	Bag	167	4 of 5	944	1.45	4.91	6.85
62211001	6/22/2011	Bag	161	5 of 5	950	1.46	17.49	19.47
62211002	6/22/2011	Bag	166	1 of 5	872	1.34	10.05	11.97
62211002	6/22/2011	Bag	155	2 of 5	950	1.46	21.38	23.4
62211002	6/22/2011	Bag	154	3 of 5	1026	1.58	6.94	9.34
62211002	6/22/2011	Bag	153	4 of 5	1154	1.78	8.84	11.22
62211002	6/22/2011	Bag	152	5 of 5	1120	1.72	8.84	11.17
62211003	6/22/2011	Bag	171	1 of 5	902	1.39	6.1	8.06
62211003	6/22/2011	Bag	180	2 of 5	838	1.29	2.89	5.03
62211003	6/22/2011	Bag	181	3 of 5	988	1.52	1.82	4.33
62211003	6/22/2011	Bag	182	4 of 5	960	1.48	1.48	4.5
62211003	6/22/2011	Bag	183	5 of 5	1090	1.68	2.77	4.81
62211004	6/22/2011	Bag	178	1 of 5	880	1.35	1.28	4
62211004	6/22/2011	Bag	179	2 of 5	954	1.47	0.78	3.95
62211004	6/22/2011	Bag	187	3 of 5	1012	1.56	1.73	4.01
62211004	6/22/2011	Bag	188	4 of 5	900	1.38	0.95	3.82
62211004	6/22/2011	Bag	189	5 of 5	934	1.44	0.89	3.95
62211005	6/22/2011	Bag	185	1 of 5	858	1.32	3.77	6.05
62211005	6/22/2011	Bag	186	2 of 5	914	1.41	5.93	7.84
62211005	6/22/2011	Bag	184	3 of 5	996	1.53	1.75	4.18
62211005	6/22/2011	Bag	192	4 of 5	964	1.48	12.75	14.61
62211005	6/22/2011	Bag	193	5 of 5	1012	1.56	4.24	6.19
62211006	6/22/2011	Bag	190	1 of 5	808	1.24	1.49	3.98

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
62211006	6/22/2011	Bag	191	2 of 5	934	1.44	0.08	4.98
62211006	6/22/2011	Bag	198	3 of 5	876	1.35	11.19	13.11
62211006	6/22/2011	Bag	201	4 of 5	792	1.22	2.21	4.51
62211006	6/22/2011	Bag	200	5 of 5	8.56	1.32	3.52	5.86
62211007	6/22/2011	Bag	158	1 of 5	984	1.51	19.26	21.24
62211007	6/22/2011	Bag	160	2 of 5	1076	1.66	11.09	12.94
62211007	6/22/2011	Bag	168	3 of 5	882	1.36	4.25	6.24
62211007	6/22/2011	Bag	169	4 of 5	920	1.42	2.63	4.88
62211007	6/22/2011	Bag	173	5 of 5	926	1.42	3.02	5.15
62211008	6/22/2011	Bag	196	1 of 5	800	1.23	20.73	22.82
62211008	6/22/2011	Bag	202	2 of 5	1012	1.56	1.57	3.79
62211008	6/22/2011	Bag	203	3 of 5	930	1.43	8.77	10.59
62211008	6/22/2011	Bag	204	4 of 5	856	1.32	6.68	8.57
62211008	6/22/2011	Bag	205	5 of 5	886	1.36	1.27	3.82
62211009	6/22/2011	Bag	206	1 of 5	966	1.49	0.24	4.57
62211009	6/22/2011	Bag	207	2 of 5	926	1.42	10.64	12.57
62211009	6/22/2011	Bag	208	3 of 5	952	1.46	1.44	4.11
62211009	6/22/2011	Bag	209	4 of 5	1002	1.54	8.57	10.43
62211009	6/22/2011	Bag	213	5 of 5	1022	1.57	23.45	25.52
62211010	6/22/2011	Bag	210	1 of 5	922	1.42	18.49	20.47
62211010	6/22/2011	Bag	211	2 of 5	890	1.37	14.57	16.55
62211010	6/22/2011	Bag	212	3 of 5	978	1.51	18.89	20.87
62211010	6/22/2011	Bag	217	4 of 5	978	1.51	4.71	6.73
62211010	6/22/2011	Bag	218	5 of 5	842	1.3	10.38	12.36
62311001	6/23/2011	Bag	170	1 of 5	778	1.2	18.5	20.56
62311001	6/23/2011	Bag	172	2 of 5	916	1.41	5.51	7.38
62311001	6/23/2011	Bag	175	3 of 5	1032	1.59	5.99	7.91
62311001	6/23/2011	Bag	176	4 of 5	948	1.46	3.5	5.66
62311001	6/23/2011	Bag	177	5 of 5	950	1.46	3.8	6.05
62411001	6/24/2011	Bag	174	1 of 5	948	1.46	1.9	4.28
62411001	6/24/2011	Bag	214	2 of 5	816	1.26	13.76	15.73
62411001	6/24/2011	Bag	216	3 of 5	1008	1.55	1.73	4.11
62411001	6/24/2011	Bag	219	4 of 5	856	1.32	9.26	11.21
62411001	6/24/2011	Bag	223	5 of 5	804	1.24	7.78	9.72
62411002	6/24/2011	Bag	215	1 of 5	992	1.52	1.92	4.21
62411002	6/24/2011	Bag	220	2 of 5	1006	1.55	6.46	8.32
62411002	6/24/2011	Bag	221	3 of 5	798	1.23	9.23	11.21
62411002	6/24/2011	Bag	222	4 of 5	774	1.19	14.71	16.68
62411002	6/24/2011	Bag	231	5 of 5	828	1.27	3.38	5.46
62411003	6/24/2011	Bag	226	1 of 5	1182	1.82	12.49	14.27
62411003	6/24/2011	Bag	227	2 of 5	1020	1.57	5.71	7.5
62411003	6/24/2011	Bag	229	3 of 5	662	1.02	2.3	4.7
62411003	6/24/2011	Bag	230	4 of 5	894	1.38	1.77	4.25
62411003	6/24/2011	Bag	236	5 of 5	918	1.41	1	3.68

Manifest Number	Date	Type Shipment	Bag Number	Load Quantity (Bags)	Sample Mass	Sample Density	Measured Activity	Max Activity
62411004	6/24/2011	Bag	228	1 of 5	778	1.21	3.55	5.63
62411004	6/24/2011	Bag	232	2 of 5	960	1.48	2.69	5.14
62411004	6/24/2011	Bag	233	3 of 5	1024	1.58	3	5.1
62411004	6/24/2011	Bag	234	4 of 5	950	1.46	0.31	4.06
62411004	6/24/2011	Bag	235	5 of 5	968	1.49	1.17	3.64
62411005	6/24/2011	Bag	239	1 of 5	1038	1.6	1.17	3.58
62411005	6/24/2011	Bag	240	2 of 5	896	1.38	0.42	3.96
62411005	6/24/2011	Bag	241	3 of 5	950	1.46	0.25	3.96
62411005	6/24/2011	Bag	242	4 of 5	1022	1.57	0.37	3.91
62411005	6/24/2011	Bag	243	5 of 5	1034	1.59	0.81	3.57
62411006	6/24/2011	Bag	238	1 of 5	1068	1.64	0.7	3.76
62411006	6/24/2011	Bag	244	2 of 5	1032	1.59	0.52	3.49
62411006	6/24/2011	Bag	245	3 of 5	900	1.38	1.5	3.81
62411006	6/24/2011	Bag	251	4 of 5	1044	1.61	22.6	24.69
62411006	6/24/2011	Bag	252	5 of 5	978	1.5	4.78	6.81
62411007	6/24/2011	Bag	247	1 of 5	1038	1.6	2.18	4.21
62411007	6/24/2011	Bag	248	2 of 5	888	1.37	11.8	13.81
62411007	6/24/2011	Bag	249	3 of 5	1000	1.54	6.56	8.45
62411007	6/24/2011	Bag	254	4 of 5	984	1.51	8.04	9.94
62411007	6/24/2011	Bag	255	5 of 5	1012	1.56	6.41	8.35
62411008	6/24/2011	Bag	237	1 of 5	1020	1.57	0.58	3.66
62411008	6/24/2011	Bag	246	2 of 5	876	1.35	0.92	3.52
62411008	6/24/2011	Bag	256	3 of 5	990	1.52	4.88	6.83
62411008	6/24/2011	Bag	264	4 of 5	974	1.5	4.02	6.11
62411008	6/24/2011	Bag	262	5 of 5	1026	1.58	3.81	5.09
62411009	6/24/2011	Bag	253	1 of 5	1046	1.61	18.65	20.7
62411009	6/24/2011	Bag	257	2 of 5	994	1.53	4.32	6.27
62411009	6/24/2011	Bag	258	3 of 5	996	1.53	1.3	3.82
62411009	6/24/2011	Bag	261	4 of 5	1014	1.56	3.11	5.28
62411009	6/24/2011	Bag	263	5 of 5	980	1.51	3.91	5.86
62411010	6/24/2011	Bag	259	1 of 5	960	1.48	2.236	4.51
62411010	6/24/2011	Bag	260	2 of 5	922	1.42	0.82	3.49
62411010	6/24/2011	Bag	268	3 of 5	1078	1.66	1.55	3.97
62411010	6/24/2011	Bag	269	4 of 5	1024	1.58	0.97	3.89
62411010	6/24/2011	Bag	270	5 of 5	1028	1.58	5.44	7.22
62711001	6/27/2011	Bag	277	1 of 5	1080	1.66	0.85	3.53
62711001	6/27/2011	Bag	278	2 of 5	800	1.23	1.59	5.74
62711001	6/27/2011	Bag	279	3 of 5	1054	1.62	4.72	6.55
62711001	6/27/2011	Bag	280	4 of 5	908	1.54	0.65	3.4
62711001	6/27/2011	Bag	281	5 of 5	886	1.36	0.24	4
62711002	6/27/2011	Bag	271	1 of 5	1002	1.54	3.72	1.43
62711002	6/27/2011	Bag	272	2 of 5	1038	1.6	1.66	4.04
62711002	6/27/2011	Bag	274	3 of 5	982	1.51	2.83	5.02
62711002	6/27/2011	Bag	275	4 of 5	994	1.53	1.68	4.1

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
62711002	6/27/2011	Bag	283	5 of 5	914	1.41	1.74	3.89
62711003	6/27/2011	Bag	265	1 of 5	984	1.51	3.29	5.36
62711003	6/27/2011	Bag	266	2 of 5	1072	1.65	10.11	11.98
62711003	6/27/2011	Bag	267	3 of 5	950	1.46	5.32	7.24
62711003	6/27/2011	Bag	273	4 of 5	950	1.46	1.76	4.31
62711003	6/27/2011	Bag	276	5 of 5	1022	1.57	1.98	4.09
62711004	6/27/2011	Bag	282	1 of 5	914	1.41	1.74	3.89
62711004	6/27/2011	Bag	284	2 of 5	914	1.41	1.45	3.69
62711004	6/27/2011	Bag	323	3 of 5	914	1.41	0.08	4.7
62711004	6/27/2011	Bag	328	4 of 5	914	1.41	1.16	3.96
62711004	6/27/2011	Bag	330	5 of 5	914	1.41	3.79	6.1
62811001	6/28/2011	Bag	285	1 of 5	956	1.47	0.25	4.64
62811001	6/28/2011	Bag	286	2 of 5	1116	1.72	0.63	3.84
62811001	6/28/2011	Bag	287	3 of 5	1026	1.58	1.18	3.9
62811001	6/28/2011	Bag	288	4 of 5	1056	1.62	0.59	3.96
62811001	6/28/2011	Bag	329	5 of 5	984	1.51	0.01	5.67
62811002	6/28/2011	Bag	291	1 of 5	982	1.51	0.63	3.75
62811002	6/28/2011	Bag	293	2 of 5	1062	1.63	0.94	3.71
62811002	6/28/2011	Bag	294	3 of 5	1018	1.57	0.4	4.11
62811002	6/28/2011	Bag	325	4 of 5	982	1.51	0.33	3.99
62811002	6/28/2011	Bag	326	5 of 5	1096	1.69	3.87	5.92
62811003	6/28/2011	Bag	304	1 of 5	1028	1.58	0.6	3.72
62811003	6/28/2011	Bag	320	2 of 5	1024	1.58	0.52	4.07
62811003	6/28/2011	Bag	321	3 of 5	1122	1.73	0.08	5.74
62811003	6/28/2011	Bag	324	4 of 5	1080	1.66	0.5	3.5
62811003	6/28/2011	Bag	327	5 of 5	938	1.44	0.49	3.67
62811004	6/28/2011	Bag	296	1 of 5	1030	1.58	1.1	4.05
62811004	6/28/2011	Bag	314	2 of 5	960	1.48	0	9.73
62811004	6/28/2011	Bag	315	3 of 5	954	1.47	0.01	6.34
62811004	6/28/2011	Bag	316	4 of 5	922	1.42	0.91	3.42
62811004	6/28/2011	Bag	317	5 of 5	1134	1.74	0.47	3.76
62811005	6/28/2011	Bag	309	1 of 5	1152	1.77	0.98	3.77
62811005	6/28/2011	Bag	310	2 of 5	1130	1.74	5.88	7.91
62811005	6/28/2011	Bag	311	3 of 5	1080	1.66	1.12	4.15
62811005	6/28/2011	Bag	312	4 of 5	1006	1.55	2.63	5.11
62811005	6/28/2011	Bag	313	5 of 5	898	1.38	15.71	17.67
62811006	6/28/2011	Bag	305	1 of 5	1000	1.54	6.19	8.18
62811006	6/28/2011	Bag	306	2 of 5	1276	1.96	0.19	4.2
62811006	6/28/2011	Bag	307	3 of 5	900	1.38	3.36	5.63
62811006	6/28/2011	Bag	308	4 of 5	1116	1.72	3.46	5.8
62811006	6/28/2011	Bag	322	5 of 5	982	1.51	0.02	5.68
62811007	6/28/2011	Bag	301	1 of 5	1002	1.54	0.46	3.94
62811007	6/28/2011	Bag	302	2 of 5	964	1.48	0.09	4.1
62811007	6/28/2011	Bag	303	3 of 5	1048	1.61	2.68	5.1

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
62811007	6/28/2011	Bag	318	4 of 5	1036	1.59	68	3.66
62811007	6/28/2011	Bag	319	5 of 5	970	1.49	0.94	3.6
62911001	6/29/2011	Bag	224	1 of 5	766	1.18	16.91	18.92
62911001	6/29/2011	Bag	289	2 of 5	962	1.48	1.57	4.5
62911001	6/29/2011	Bag	290	3 of 5	986	1.52	0.33	3.99
62911001	6/29/2011	Bag	292	4 of 5	1032	1.59	1.1	3.71
62911001	6/29/2011	Bag	298	5 of 5	918	1.41	1.41	3.71
62911002	6/29/2011	Bag	35	1 of 5	918	1.41	2.25	5.3
62911002	6/29/2011	Bag	225	2 of 5	694	1.07	20.11	22.26
62911002	6/29/2011	Bag	297	3 of 5	812	1.5	1.33	3.83
62911002	6/29/2011	Bag	333	4 of 5	846	1.3	11.78	13.72
62911002	6/29/2011	Bag	334	5 of 5	907	1.4	1.01	3.44
62911003	6/29/2011	Bag	336	1 of 5	774	1.19	18.8	20.93
62911003	6/29/2011	Bag	342	2 of 5	1008	1.55	11.51	13.37
62911003	6/29/2011	Bag	344	3 of 5	998	1.54	24.48	26.63
62911003	6/29/2011	Bag	345	4 of 5	972	1.5	18.71	20.79
62911003	6/29/2011	Bag	366	5 of 5	1022	1.57	21.46	23.53
62911004	6/29/2011	Bag	380	1 of 5	902	1.39	23.98	26.14
62911004	6/29/2011	Bag	385	2 of 5	896	1.38	4.81	6.81
62911004	6/29/2011	Bag	386	3 of 5	868	1.34	2.1	4.66
62911004	6/29/2011	Bag	390	4 of 5	1168	1.8	4.59	6.53
62911004	6/29/2011	Bag	391	5 of 5	898	1.38	17.53	19.55
62911005	6/29/2011	Bag	299	1 of 5	996	1.53	1.3	3.6
62911005	6/29/2011	Bag	375	2 of 5	938	1.44	22.89	25.03
62911005	6/29/2011	Bag	376	3 of 5	934	1.44	7.68	9.66
62911005	6/29/2011	Bag	377	4 of 5	988	1.52	18.45	20.44
62911005	6/29/2011	Bag	389	5 of 5	1140	1.75	20.28	22.3
62911006	6/29/2011	Bag	156	1 of 5	1088	1.67	20.23	21.87
62911006	6/29/2011	Bag	295	2 of 5	1048	1.67	2.17	4.45
62911006	6/29/2011	Bag	387	3 of 5	758	1.17	2.08	4.8
62911006	6/29/2011	Bag	396	4 of 5	1038	1.6	23.82	25.87
62911006	6/29/2011	Bag	397	5 of 5	1032	1.59	18.17	20.16
62911007	6/29/2011	Bag	24	1 of 5	1028	1.58	24.36	26.38
62911007	6/29/2011	Bag	36	2 of 5	970	1.49	24.39	26.4
62911007	6/29/2011	Bag	43	3 of 5	920	1.42	24.89	26.92
62911007	6/29/2011	Bag	408	4 of 5	1028	1.58	19.95	21.93
62911007	6/29/2011	Bag	409	5 of 5	1002	1.54	23.46	25.57
62911008	6/29/2011	Bag	412	1 of 5	1012	1.56	22.11	24.17
62911008	6/29/2011	Bag	413	2 of 5	910	1.4	4.96	6.96
62911008	6/29/2011	Bag	438	3 of 5	898	1.38	1.35	4.09
62911008	6/29/2011	Bag	440	4 of 5	1012	1.56	16.02	17.9
62911008	6/29/2011	Bag	449	5 of 5	910	1.4	4.96	6.96
63011001	6/30/2011	Bag	353	1 of 5	972	1.5	18.71	20.79
63011001	6/30/2011	Bag	423	2 of 5	890	1.37	23.71	25.82

Manifest Number	Date	Type Shipment	Bag Number	Load Quantity (Bags)	Sample Mass	Sample Density	Measured Activity	Max Activity
63011001	6/30/2011	Bag	426	3 of 5	1100	1.69	17.34	19.23
63011001	6/30/2011	Bag	429	4 of 5	738	1.13	10.72	12.69
63011001	6/30/2011	Bag	435	5 of 5	910	1.4	12.02	13.93
63011002	6/30/2011	Bag	395	1 of 5	1098	1.69	9.82	11.61
63011002	6/30/2011	Bag	421	2 of 5	902	1.39	9.82	11.61
63011002	6/30/2011	Bag	424	3 of 5	864	1.33	19.11	21.13
63011002	6/30/2011	Bag	425	4 of 5	960	1.48	19.11	21.13
63011002	6/30/2011	Bag	444	5 of 5	1102	1.7	24.15	26.22
63011003	6/30/2011	Bag	531	1 of 5	996	1.53	6.14	8.11
63011003	6/30/2011	Bag	529	2 of 5	920	1.42	18.6	20.61
63011003	6/30/2011	Bag	457	3 of 5	858	1.32	6.14	8.11
63011003	6/30/2011	Bag	543	4 of 5	1184	1.62	14.95	16.83
63011003	6/30/2011	Bag	538	5 of 5	1116	1.72	20.39	22.42
63011004	6/30/2011	Bag	464	1 of 5	1040	1.6	18.04	20.02
63011004	6/30/2011	Bag	467	2 of 5	968	1.49	3.49	5.61
63011004	6/30/2011	Bag	479	3 of 5	770	1.18	15.37	17.45
63011004	6/30/2011	Bag	481	4 of 5	644	0.99	3.15	5.83
63011004	6/30/2011	Bag	537	5 of 5	1148	1.77	15.37	17.45
<b>TOTAL</b>		<b>323 Bags</b>						



NEW WORLD ENVIRONMENTAL, INC.  
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Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
7111001	7/1/2011	Bag	460	1 of 5	968	1.49	83.98	88.33
7111001	7/1/2011	Bag	463	2 of 5	1058	1.63	55.47	58.57
7111001	7/1/2011	Bag	465	3 of 5	1084	1.67	46.18	48.97
7111001	7/1/2011	Bag	466	4 of 5	1042	1.6	35.66	38.13
7111001	7/1/2011	Bag	470	5 of 5	696	1.07	76.14	80.24
7111002	7/1/2011	Bag	4	1 of 5	878	1.35	63.97	68.99
7111002	7/1/2011	Bag	21	2 of 5	886	1.36	48.48	52.69
7111002	7/1/2011	Bag	47	3 of 5	842	1.3	31.05	34.28
7111002	7/1/2011	Bag	54	4 of 5	886	1.36	25.45	28.45
7111002	7/1/2011	Bag	61	5 of 5	842	1.3	35.35	38.77
7111003	7/1/2011	Bag	38	1 of 5	872	1.34	55.08	59.56
7111003	7/1/2011	Bag	39	2 of 5	934	1.44	53.97	58.35
7111003	7/1/2011	Bag	40	3 of 5	936	1.44	64.63	69.6
7111003	7/1/2011	Bag	46	4 of 5	874	1.34	45.18	49.16
7111003	7/1/2011	Bag	48	5 of 5	898	1.38	84.28	90.35
7111004	7/1/2011	Bag	23	1 of 5	978	1.5	32.01	35.35
7111004	7/1/2011	Bag	31	2 of 5	858	1.32	25.46	28.61
7111004	7/1/2011	Bag	34	3 of 5	824	1.27	25.96	29.08
7111004	7/1/2011	Bag	41	4 of 5	936	1.44	41.38	45.11
7111004	7/1/2011	Bag	250	5 of 5	982	1.51	32.77	35.26
7111005	7/1/2011	Bag	138	1 of 5	774	1.19	48.06	52.28
7111005	7/1/2011	Bag	139	2 of 5	836	1.21	24.78	27.75
7111005	7/1/2011	Bag	151	3 of 5	1046	1.61	27.37	30.44
7111005	7/1/2011	Bag	195	4 of 5	864	1.33	29.92	32.28
7111005	7/1/2011	Bag	197	5 of 5	788	1.21	48.69	51.65
7111006	7/1/2011	Bag	76	1 of 5	988	1.52	29.35	32.42
7111006	7/1/2011	Bag	80	2 of 5	832	1.28	25.69	28.75
7111006	7/1/2011	Bag	149	3 of 5	1040	1.6	29.92	33.15
7111006	7/1/2011	Bag	157	4 of 5	966	1.49	37.87	40.45
7111006	7/1/2011	Bag	199	5 of 5	870	1.34	48.61	51.52
7111007	7/1/2011	Bag	53	1 of 5	890	1.37	28.76	31.88
7111007	7/1/2011	Bag	60	2 of 5	864	1.33	37.42	40.97
7111007	7/1/2011	Bag	64	3 of 5	886	1.36	27.98	31.11
7111007	7/1/2011	Bag	72	4 of 5	954	1.47	31.79	35.07
7111007	7/1/2011	Bag	77	5 of 5	864	1.33	27.25	30.35
7111008	7/1/2011	Bag	75	1 of 5	842	1.3	54.82	59.24
7111008	7/1/2011	Bag	332	2 of 5	836	1.29	29.77	32.14
7111008	7/1/2011	Bag	335	3 of 5	924	1.42	62.23	65.66
7111008	7/1/2011	Bag	398	4 of 5	930	1.43	65.96	69.48

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
7111008	7/1/2011	Bag	399	5 of 5	1106	1.7	32.79	35.13
7111009	7/1/2011	Bag	337	1 of 5	978	1.5	29.36	31.67
7111009	7/1/2011	Bag	400	2 of 5	1012	1.56	40.51	43.34
7111009	7/1/2011	Bag	401	3 of 5	1218	1.87	25.49	27.55
7111009	7/1/2011	Bag	402	4 of 5	1032	1.59	34.41	36.88
7111009	7/1/2011	Bag	403	5 of 5	716	1.1	49.59	52.58
7111010	7/1/2011	Bag	338	1 of 5	1018	1.57	56.72	59.89
7111010	7/1/2011	Bag	340	2 of 5	906	1.39	89.27	93.66
7111010	7/1/2011	Bag	341	3 of 5	1030	1.58	84.82	89.02
7111010	7/1/2011	Bag	404	4 of 5	1112	1.71	47.48	50.6
7111010	7/1/2011	Bag	405	5 of 5	758	1.17	54.48	57.62
7111011	7/1/2011	Bag	343	1 of 5	1080	1.66	87.45	91.73
7111011	7/1/2011	Bag	346	2 of 5	916	1.41	33.5	35.92
7111011	7/1/2011	Bag	348	3 of 5	1002	1.54	52.29	55.31
7111011	7/1/2011	Bag	349	4 of 5	1096	1.69	31.28	33.59
7111011	7/1/2011	Bag	354	5 of 5	866	1.33	81.47	85.58
7511001	7/5/2011	Bag	17	1 of 5	894	1.38	69.3	74.6
7511001	7/5/2011	Bag	56	2 of 5	940	1.45	31.35	34.62
7511001	7/5/2011	Bag	162	3 of 5	1004	1.54	27.95	30.17
7511001	7/5/2011	Bag	350	4 of 5	1060	1.63	48.28	51.15
7511001	7/5/2011	Bag	355	5 of 5	1090	1.68	39.34	41.9
7511002	7/5/2011	Bag	351	1 of 5	850	1.31	48.28	51.15
7511002	7/5/2011	Bag	352	2 of 5	964	1.48	42.85	45.56
7511002	7/5/2011	Bag	356	3 of 5	1028	1.58	65.19	68.67
7511002	7/5/2011	Bag	357	4 of 5	918	1.41	52.12	55.15
7511002	7/5/2011	Bag	361	5 of 5	1000	1.54	33.998	36.39
7511003	7/5/2011	Bag	362	1 of 5	1052	1.62	72	75.72
7511003	7/5/2011	Bag	368	2 of 5	794	1.22	86.37	90.7
7511003	7/5/2011	Bag	369	3 of 5	988	1.52	68.73	72.37
7511003	7/5/2011	Bag	364	4 of 5	1198	1.84	81.65	85.71
7511003	7/5/2011	Bag	365	5 of 5	918	1.41	70.32	74.02
7511004	7/5/2011	Bag	370	1 of 5	1018	1.57	48.41	51.3
7511004	7/5/2011	Bag	371	2 of 5	892	1.37	87.97	92.33
7511004	7/5/2011	Bag	372	3 of 5	1096	1.69	51.3	54.28
7511004	7/5/2011	Bag	373	4 of 5	930	1.43	30.88	33.19
7511004	7/5/2011	Bag	374	5 of 5	1078	1.66	35.39	37.82
7511005	7/5/2011	Bag	378	1 of 5	1030	1.58	27.06	29.28
7511005	7/5/2011	Bag	379	2 of 5	978	1.5	51.72	54.72
7511005	7/5/2011	Bag	381	3 of 5	1082	1.66	53.49	56.54
7511005	7/5/2011	Bag	382	4 of 5	1012	1.56	61.44	64.78
7511005	7/5/2011	Bag	383	5 of 5	1126	1.73	39.83	42.41
7511006	7/5/2011	Bag	384	1 of 5	1036	1.59	27.27	29.47
7511006	7/5/2011	Bag	394	2 of 5	1060	1.63	48.7	51.57
7511006	7/5/2011	Bag	452	3 of 5	854	1.31	29.38	31.62

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
7511006	7/5/2011	Bag	453	4 of 5	1070	1.65	29.38	31.62
7511006	7/5/2011	Bag	468	5 of 5	764	1.18	62.54	66.01
7511007	7/5/2011	Bag	418	1 of 5	984	1.51	38.15	40.69
7511007	7/5/2011	Bag	419	2 of 5	952	1.46	30.4	32.71
7511007	7/5/2011	Bag	420	3 of 5	932	1.43	32.62	45.31
7511007	7/5/2011	Bag	451	4 of 5	1044	1.61	26.43	28.25
7511007	7/5/2011	Bag	458	5 of 5	990	1.52	49.71	52.64
7511008	7/5/2011	Bag	410	1 of 5	914	1.41	44.94	47.73
7511008	7/5/2011	Bag	411	2 of 5	944	1.45	37.36	39.89
7511008	7/5/2011	Bag	414	3 of 5	886	1.36	25.44	27.63
7511008	7/5/2011	Bag	415	4 of 5	940	1.45	47.47	50.33
7511008	7/5/2011	Bag	416	5 of 5	870	1.34	38.45	41.04
7511009	7/5/2011	Bag	422	1 of 5	846	1.3	40.28	42.92
7511009	7/5/2011	Bag	428	2 of 5	1028	1.58	28.23	30.42
7511009	7/5/2011	Bag	430	3 of 5	1188	1.83	26.45	28.62
7511009	7/5/2011	Bag	431	4 of 5	1178	1.81	51.76	54.7
7511009	7/5/2011	Bag	472	5 of 5	998	1.54	32.25	34.6
7511010	7/5/2011	Bag	427	1 of 5	1012	1.56	37.38	39.87
7511010	7/5/2011	Bag	432	2 of 5	984	1.51	118.79	124.28
7511010	7/5/2011	Bag	436	3 of 5	1038	1.6	26.42	28.56
7511010	7/5/2011	Bag	439	4 of 5	966	1.49	41.66	44.31
7511010	7/5/2011	Bag	478	5 of 5	880	1.35	52.86	56.03
7511011	7/5/2011	Bag	441	1 of 5	1128	1.74	36.34	38.78
7511011	7/5/2011	Bag	446	2 of 5	1036	1.59	47.06	49.87
7511011	7/5/2011	Bag	447	3 of 5	1048	1.61	27.46	29.64
7511011	7/5/2011	Bag	450	4 of 5	1110	1.71	28.92	31.12
7511011	7/5/2011	Bag	456	5 of 5	1032	1.59	57.62	60.82
7511012	7/5/2011	Bag	462	1 of 5	768	1.18	56.02	59.24
7511012	7/5/2011	Bag	521	2 of 5	1070	1.65	30.99	33.31
7511012	7/5/2011	Bag	524	3 of 5	886	1.36	29.25	31.64
7511012	7/5/2011	Bag	533	4 of 5	886	1.36	29.62	31.68
7511012	7/5/2011	Bag	542	5 of 5	1032	1.59	51.78	54.77
7511013	7/5/2011	Bag	433	1 of 5	964	1.48	88.59	92.93
7511013	7/5/2011	Bag	541	2 of 5	1100	1.69	50.96	53.92
7511013	7/5/2011	Bag	545	3 of 5	976	1.5	46.33	49.19
7511013	7/5/2011	Bag	546	4 of 5	1052	1.62	31	33.96
7511013	7/5/2011	Bag	591	5 of 5	982	1.51	86.25	90.56
7611001	7/6/2011	Bag	358	1 of 5	1016	1.56	117.72	123.2
7611001	7/6/2011	Bag	367	2 of 5	994	1.53	108.31	113.42
7611001	7/6/2011	Bag	392	3 of 5	762	1.17	109.2	114.4
7611001	7/6/2011	Bag	393	4 of 5	1096	1.69	116.37	121.73
7611001	7/6/2011	Bag	406	5 of 5	848	1.3	99.37	104.16
7611002	7/6/2011	Bag	19	1 of 5	982	1.51	102.42	109.64
7611002	7/6/2011	Bag	42	2 of 5	1038	1.6	95.41	102.08

Manifest Number	Date	Type Shipment	Bag Number	Load Quantity (Bags)	Sample Mass	Sample Density	Measured Activity	Max Activity
7611002	7/6/2011	Bag	194	3 of 5	730	1.12	142.79	149.29
7611002	7/6/2011	Bag	339	4 of 5	998	1.54	98.86	103.6
7611002	7/6/2011	Bag	359	5 of 5	1060	1.63	134.38	140.49
7611003	7/6/2011	Bag	22	1 of 5	974	1.5	108.45	115.97
7611003	7/6/2011	Bag	455	2 of 5	1012	1.57	99.37	104.16
7611003	7/6/2011	Bag	566	3 of 5	952	1.46	115.57	120.96
7611003	7/6/2011	Bag	567	4 of 5	974	1.5	109.24	114.38
7611003	7/6/2011	Bag	598	5 of 5	1144	1.76	118.43	123.88
7611004	7/6/2011	Bag	603	1 of 5	784	1.21	2.92	5.2
7611004	7/6/2011	Bag	532	2 of 5	1002	1.54	8.12	10.03
7611004	7/6/2011	Bag	601	3 of 5	896	1.38	5.63	7.58
7611004	7/6/2011	Bag	656	4 of 5	948	1.49	5.63	7.58
7611004	7/6/2011	Bag	536	5 of 5	888	1.37	23.25	25.39
7611005	7/6/2011	Bag	600	1 of 5	984	1.51	75.64	79.5
7611005	7/6/2011	Bag	599	2 of 5	896	1.38	109.58	114.75
7611005	7/6/2011	Bag	589	3 of 5	786	1.21	121.37	127.02
7611005	7/6/2011	Bag	587	4 of 5	992	1.53	41.16	43.87
7611005	7/6/2011	Bag	580	5 of 5	906	1.39	138.74	145
7611006	7/6/2011	Bag	469	1 of 5	892	1.37	67.01	70.59
7611006	7/6/2011	Bag	486	2 of 5	758	1.17	67.01	70.59
7611006	7/6/2011	Bag	489	3 of 5	836	1.29	51.55	54.62
7611006	7/6/2011	Bag	499	4 of 5	1052	1.62	38.33	40.89
7611006	7/6/2011	Bag	498	5 of 5	816	1.26	45.59	46.39
7611007	7/6/2011	Bag	643	1 of 5	1038	1.6	37.46	40
7611007	7/6/2011	Bag	646	2 of 5	634	0.98	0.45	3.85
7611007	7/6/2011	Bag	559	3 of 5	966	1.49	55.3	58.46
7611007	7/6/2011	Bag	554	4 of 5	1012	1.56	70.82	74.5
7611007	7/6/2011	Bag	571	5 of 5	780	1.2	93.72	98.32
7611008	7/6/2011	Bag	471	1 of 5	806	1.24	86.98	91.31
7611008	7/6/2011	Bag	473	2 of 5	844	1.3	28.04	30.28
7611008	7/6/2011	Bag	475	3 of 5	920	1.42	26.13	28.36
7611008	7/6/2011	Bag	476	4 of 5	830	1.28	15.62	17.6
7611008	7/6/2011	Bag	575	5 of 5	1016	1.56	47.47	50.36
7711001	7/7/2011	Bag	488	1 of 5	1180	1.82	118.52	124.01
7711001	7/7/2011	Bag	491	2 of 5	866	1.33	101.17	106.11
7711001	7/7/2011	Bag	494	3 of 5	1080	1.66	96.74	101.42
7711001	7/7/2011	Bag	496	4 of 5	878	1.35	84.77	89.03
7711001	7/7/2011	Bag	500	5 of 5	1006	1.55	140.34	146.7
7711002	7/7/2011	Bag	360	1 of 5	1066	1.64	106.7	111.74
7711002	7/7/2011	Bag	477	2 of 5	788	1.21	195.56	204.09
7711002	7/7/2011	Bag	483	3 of 5	676	1.04	259.75	270.82
7711002	7/7/2011	Bag	487	4 of 5	1008	1.55	180.47	188.36
7711002	7/7/2011	Bag	497	5 of 5	990	1.52	26.25	28.48
7711003	7/7/2011	Bag	502	1 of 5	1156	1.78	258.37	269.3

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
7711003	7/7/2011	Bag	503	2 of 5	992	1.53	225.56	235.22
7711003	7/7/2011	Bag	507	3 of 5	1028	1.58	33.35	35.73
7711003	7/7/2011	Bag	508	4 of 5	1002	1.54	27.96	30.21
7711003	7/7/2011	Bag	509	5 of 5	736	1.13	226.89	236.66
7711004	7/7/2011	Bag	347	1 of 5	842	1.3	188.79	197.02
7711004	7/7/2011	Bag	363	2 of 5	872	1.34	146	152.61
7711004	7/7/2011	Bag	388	3 of 5	970	1.49	147.18	153.77
7711004	7/7/2011	Bag	510	4 of 5	1030	1.58	35.91	38.37
7711004	7/7/2011	Bag	518	5 of 5	994	1.53	26.07	28.24
7711005	7/7/2011	Bag	2	1 of 5	676	1.04	266.62	283.5
7711005	7/7/2011	Bag	5	2 of 5	908	1.4	174.24	185.64
7711005	7/7/2011	Bag	15	3 of 5	944	1.45	228.28	242.86
7711005	7/7/2011	Bag	16	4 of 5	1010	1.55	196.4	209.1
7711005	7/7/2011	Bag	511	5 of 5	920	1.42	99.55	104.36
7711006	7/7/2011	Bag	549	1 of 5	910	1.4	85.05	89.3
7711006	7/7/2011	Bag	550	2 of 5	932	1.43	82.9	87.06
7711006	7/7/2011	Bag	551	3 of 5	806	1.24	65.17	68.74
7711006	7/7/2011	Bag	553	4 of 5	966	1.49	55.3	58.46
7711006	7/7/2011	Bag	560	5 of 5	1000	1.54	171.75	179.3
7711006	7/7/2011	Bag	555	1 of 5	800	1.23	171.58	179.18
7711007	7/7/2011	Bag	556	2 of 5	900	1.38	73.77	77.6
7711007	7/7/2011	Bag	557	3 of 5	892	1.37	77.04	80.99
7711007	7/7/2011	Bag	563	4 of 5	1038	1.6	94.15	98.69
7711007	7/7/2011	Bag	564	5 of 5	998	1.54	147.1	153.67
7811001	7/8/2011	Bag	474	1 of 5	794	1.22	40.53	43.19
7811001	7/8/2011	Bag	519	2 of 5	1102	1.7	35.36	37.81
7811001	7/8/2011	Bag	561	3 of 5	1168	1.8	61.99	65.38
7811001	7/8/2011	Bag	578	4 of 5	978	1.5	111.72	116.97
7811001	7/8/2011	Bag	584	5 of 5	1080	1.66	147.39	153.99
7811002	7/8/2011	Bag	520	1 of 5	956	1.47	38.95	41.54
7811002	7/8/2011	Bag	527	2 of 5	1244	1.91	32.06	34.37
7811002	7/8/2011	Bag	528	3 of 5	1124	1.73	46.45	49.24
7811002	7/8/2011	Bag	530	4 of 5	1080	1.66	44.66	47.43
7811002	7/8/2011	Bag	534	5 of 5	1018	1.57	39.52	42.12
7811003	7/8/2011	Bag	539	1 of 5	1124	1.73	35.07	37.49
7811003	7/8/2011	Bag	573	2 of 5	1148	1.77	61.18	64.5
7811003	7/8/2011	Bag	581	3 of 5	856	1.32	200.99	209.7
7811003	7/8/2011	Bag	582	4 of 5	1144	1.76	108.12	113.21
7811003	7/8/2011	Bag	583	5 of 5	1008	1.55	83.59	87.79
7811004	7/8/2011	Bag	570	1 of 5	924	1.42	115.76	121.18
7811004	7/8/2011	Bag	592	2 of 5	816	1.26	52.75	55.83
7811004	7/8/2011	Bag	593	3 of 5	940	1.45	59.74	63.07
7811004	7/8/2011	Bag	596	4 of 5	1148	1.77	41.03	43.64
7811004	7/8/2011	Bag	632	5 of 5	1066	1.64	52.75	55.83

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
7811005	7/8/2011	Bag	484	1 of 5	880	1.35	313.2	326.35
7811005	7/8/2011	Bag	512	2 of 5	806	1.24	39.25	41.96
7811005	7/8/2011	Bag	526	3 of 5	1000	1.54	59.15	62.41
7811005	7/8/2011	Bag	683	4 of 5	1028	1.58	78.52	82.53
7811005	7/8/2011	Bag	688	5 of 5	888	1.367	70.84	74.56
7811006	7/8/2011	Bag	677	1 of 5	870	1.34	56.03	59.24
7811006	7/8/2011	Bag	686	2 of 5	910	1.4	36.43	38.96
7811006	7/8/2011	Bag	690	3 of 5	880	1.35	91.36	95.84
7811006	7/8/2011	Bag	691	4 of 5	852	1.31	90.21	94.68
7811006	7/8/2011	Bag	697	5 of 5	1052	1.62	46.49	49.33
71111001	7/11/2011	Bag	513	1 of 5	744	1.14	42.63	45.44
71111001	7/11/2011	Bag	515	2 of 5	890	1.37	83.65	87.84
71111001	7/11/2011	Bag	516	3 of 5	1068	1.64	68.24	71.85
71111001	7/11/2011	Bag	517	4 of 5	876	1.35	45.87	48.69
71111001	7/11/2011	Bag	552	5 of 5	950	1.46	65.37	68.86
71111002	7/11/2011	Bag	535	1 of 5	922	1.42	53.78	56.88
71111002	7/11/2011	Bag	540	2 of 5	1088	1.67	38.57	41.14
71111002	7/11/2011	Bag	544	3 of 5	891	1.37	72.64	76.43
71111002	7/11/2011	Bag	569	4 of 5	1078	1.66	55.3	58.41
71111002	7/11/2011	Bag	572	5 of 5	954	1.47	63.7	67.14
71111003	7/11/2011	Bag	547	1 of 5	1184	1.82	55.69	58.82
71111003	7/11/2011	Bag	588	2 of 5	882	1.36	75	78.89
71111003	7/11/2011	Bag	590	3 of 5	1010	1.55	46.93	49.8
71111003	7/11/2011	Bag	595	4 of 5	1066	1.64	40.86	43.5
71111003	7/11/2011	Bag	597	5 of 5	1148	1.77	43.31	46.04
71111004	7/11/2011	Bag	574	1 of 5	930	1.43	91.98	96.7
71111004	7/11/2011	Bag	576	2 of 5	1020	1.57	49.31	52.62
71111004	7/11/2011	Bag	579	3 of 5	920	1.42	52.36	55.62
71111004	7/11/2011	Bag	594	4 of 5	836	1.29	69.09	73
71111004	7/11/2011	Bag	604	5 of 5	872	1.34	25.08	27.56
71111005	7/11/2011	Bag	605	1 of 5	842	1.3	36.77	39.37
71111005	7/11/2011	Bag	615	2 of 5	844	1.3	36.43	38.98
71111005	7/11/2011	Bag	622	3 of 5	966	1.49	27.91	30.18
71111005	7/11/2011	Bag	638	4 of 5	956	1.47	55.49	58.67
71111005	7/11/2011	Bag	639	5 of 5	992	1.53	45.11	47.91
71111006	7/11/2011	Bag	612	1 of 5	920	1.42	58.7	62.23
71111006	7/11/2011	Bag	614	2 of 5	980	1.51	30.01	32.56
71111006	7/11/2011	Bag	617	3 of 5	888	1.37	27.49	30.03
71111006	7/11/2011	Bag	618	4 of 5	950	1.46	29.28	31.76
71111006	7/11/2011	Bag	647	5 of 5	1018	1.57	43.12	46.15
71111007	7/11/2011	Bag	485	1 of 5	1018	1.57	323.6	337.14
71111007	7/11/2011	Bag	645	2 of 5	1086	1.67	51.56	54.56
71111007	7/11/2011	Bag	648	3 of 5	1074	1.65	68.06	71.66
71111007	7/11/2011	Bag	658	4 of 5	1012	1.57	31.64	33.98

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
71111007	7/11/2011	Bag	674	5 of 5	1040	1.6	37.31	39.83
71111008	7/11/2011	Bag	652	1 of 5	788	1.2	35.3	38.1
71111008	7/11/2011	Bag	657	2 of 5	842	1.3	71.07	75.06
71111008	7/11/2011	Bag	662	3 of 5	800	1.23	66.8	70.61
71111008	7/11/2011	Bag	693	4 of 5	872	1.34	95.44	100.3
71111008	7/11/2011	Bag	770	5 of 5	940	1.45	98.74	103.66
71111009	7/11/2011	Bag	745	1 of 5	836	1.29	35.31	38.07
71111009	7/11/2011	Bag	792	2 of 5	668	1.03	93.55	98.39
71111009	7/11/2011	Bag	794	3 of 5	770	1.8	106.12	111.41
71111009	7/11/2011	Bag	795	4 of 5	650	1	72.65	76.74
71111009	7/11/2011	Bag	797	5 of 5	882	1.36	92.43	97.14
71111010	7/11/2011	Bag	608	1 of 5	900	1.38	37.27	40.03
71111010	7/11/2011	Bag	694	2 of 5	978	1.5	191.05	199.48
71111010	7/11/2011	Bag	774	3 of 5	900	1.38	153.16	160.2
71111010	7/11/2011	Bag	781	4 of 5	1242	1.91	166.98	174.46
71111010	7/11/2011	Bag	793	5 of 5	996	1.49	131.98	138.16
71211001	7/12/2011	Bag	616	1 of 5	914	1.41	30.02	32.58
71211001	7/12/2011	Bag	641	2 of 5	696	1.1	77.87	82.18
71211001	7/12/2011	Bag	653	3 of 5	932	1.43	48.84	52.03
71211001	7/12/2011	Bag	663	4 of 5	876	1.35	47.24	50.42
71211001	7/12/2011	Bag	687	5 of 5	870	1.45	140.49	147.01
71211002	7/12/2011	Bag	664	1 of 5	1088	1.67	58.53	62
71211002	7/12/2011	Bag	689	2 of 5	1042	1.6	188.73	197.08
71211002	7/12/2011	Bag	695	3 of 5	868	1.34	140.49	147.01
71211002	7/12/2011	Bag	696	4 of 5	944	1.45	46.22	49.27
71211002	7/12/2011	Bag	698	5 of 5	806	1.24	110.73	116.15
71211003	7/12/2011	Bag	671	1 of 5	1002	1.54	25.97	28.63
71211003	7/12/2011	Bag	744	2 of 5	1120	1.72	80.45	84.7
71211003	7/12/2011	Bag	749	3 of 5	892	1.37	25.17	27.64
71211003	7/12/2011	Bag	758	4 of 5	894	1.38	32.49	35.15
71211003	7/12/2011	Bag	773	5 of 5	1026	1.58	114.42	119.93
71211004	7/12/2011	Bag	506	1 of 5	828	1.27	201.86	210.8
71211004	7/12/2011	Bag	730	2 of 5	820	1.26	36.89	39.77
71211004	7/12/2011	Bag	738	3 of 5	820	1.26	35.42	38.2
71211004	7/12/2011	Bag	750	4 of 5	974	1.5	83.7	88.04
71211004	7/12/2011	Bag	760	5 of 5	872	1.34	129.13	135.23
71311001	7/13/2011	Bag	480	1 of 5	842	1.3	17.45	19.48
71311001	7/13/2011	Bag	522	2 of 5	822	1.26	6.55	8.88
71311001	7/13/2011	Bag	609	3 of 5	734	1.13	19.77	22.22
71311001	7/13/2011	Bag	610	4 of 5	1028	1.58	13.2	15.48
71311001	7/13/2011	Bag	661	5 of 5	860	1.32	2.79	4.9
71311002	7/13/2011	Bag	654	1 of 5	978	1.5	2.44	4.93
71311002	7/13/2011	Bag	655	2 of 5	908	1.4	2.21	5.56
71311002	7/13/2011	Bag	651	3 of 5	774	1.19	6.71	9.08

Manifest Number	Date	Type Shipment	Bag Number	Load Quantity (Bags)	Sample Mass	Sample Density	Measured Activity	Max Activity
71311002	7/13/2011	Bag	659	4 of 5	886	1.36	10.35	12.64
71311002	7/13/2011	Bag	660	5 of 5	928	1.43	4.21	6.38
71311003	7/13/2011	Bag	640	1 of 5	1018	1.57	2.71	5.27
71311003	7/13/2011	Bag	642	2 of 5	932	1.43	0.61	5.11
71311003	7/13/2011	Bag	644	3 of 5	916	1.41	2.27	5.19
71311003	7/13/2011	Bag	649	4 of 5	766	1.18	1.73	5.26
71311003	7/13/2011	Bag	650	5 of 5	828	1.27	8.19	10.49
71311004	7/13/2011	Bag	633	1 of 5	890	1.37	4.01	7
71311004	7/13/2011	Bag	634	2 of 5	1106	1.7	9.36	11.51
71311004	7/13/2011	Bag	635	3 of 5	914	1.41	2.28	4.95
71311004	7/13/2011	Bag	636	4 of 5	928	1.43	2.44	4.62
71311004	7/13/2011	Bag	637	5 of 5	832	1.28	0.9	3.65
71311005	7/13/2011	Bag	627	1 of 5	1096	1.69	0.34	3.81
71311005	7/13/2011	Bag	628	2 of 5	1072	1.65	16.1	18.03
71311005	7/13/2011	Bag	629	3 of 5	886	1.36	1.5	5.02
71311005	7/13/2011	Bag	630	4 of 5	950	1.46	1.99	4.77
71311005	7/13/2011	Bag	631	5 of 5	914	1.41	0	8.86
71311006	7/13/2011	Bag	621	1 of 5	736	1.13	6.55	8.98
71311006	7/13/2011	Bag	623	2 of 5	798	1.23	8.01	10.04
71311006	7/13/2011	Bag	624	3 of 5	924	1.42	10.84	12.77
71311006	7/13/2011	Bag	625	4 of 5	968	1.49	0.2	6.53
71311006	7/13/2011	Bag	626	5 of 5	842	1.3	14.32	16.61
71311007	7/13/2011	Bag	619	1 of 5	792	1.22	29.28	31.76
71311007	7/13/2011	Bag	620	2 of 5	1044	1.61	2.54	5.74
71311007	7/13/2011	Bag	763	3 of 5	1158	1.78	3.83	6.89
71311007	7/13/2011	Bag	769	4 of 5	964	1.48	8.14	10.58
71311007	7/13/2011	Bag	775	5 of 5	980	1.51	4.14	6.67
71311008	7/13/2011	Bag	751	1 of 5	970	1.49	11.76	14
71311008	7/13/2011	Bag	757	2 of 5	984	1.51	22.05	24.51
71311008	7/13/2011	Bag	759	3 of 5	1116	1.72	10.73	12.88
71311008	7/13/2011	Bag	771	4 of 5	1042	1.6	6.26	8.82
71311008	7/13/2011	Bag	776	5 of 5	1016	1.56	13.65	15.86
71311009	7/13/2011	Bag	665	1 of 5	884	1.36	4.09	6.09
71311009	7/13/2011	Bag	672	2 of 5	882	1.36	0.94	3.51
71311009	7/13/2011	Bag	673	3 of 5	876	1.35	2.07	4.57
71311009	7/13/2011	Bag	723	4 of 5	1030	1.58	27.28	29.68
71311009	7/13/2011	Bag	746	5 of 5	794	1.22	168.76	176.44
71311010	7/13/2011	Bag	724	1 of 5	866	1.33	2.86	5.37
71311010	7/13/2011	Bag	725	2 of 5	896	1.38	2.13	5.17
71311010	7/13/2011	Bag	726	3 of 5	964	1.48	1.79	4.96
71311010	7/13/2011	Bag	786	4 of 5	926	1.42	5	7.42
71311010	7/13/2011	Bag	787	5 of 5	954	1.47	4.85	7.65
71411001	7/14/2011	Bag	482	1 of 5	814	1.25	173.94	181.64
71411001	7/14/2011	Bag	490	2 of 5	910	1.4	153.3	160.19



Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
71411001	7/14/2011	Bag	525	3 of 5	784	1.21	47.78	50.69
71411001	7/14/2011	Bag	668	4 of 5	870	1.34	0.92	3.49
71411001	7/14/2011	Bag	755	5 of 5	1024	1.58	8.58	10.84
71411002	7/14/2011	Bag	459	1 of 5	998	1.54	710.83	739.94
71411002	7/14/2011	Bag	568	2 of 5	804	1.24	116.23	121.68
71411002	7/14/2011	Bag	585	3 of 5	934	1.44	42.12	44.82
71411002	7/14/2011	Bag	666	4 of 5	912	1.4	0.73	3.48
71411002	7/14/2011	Bag	667	5 of 5	692	1.06	0.3	3.69
71411003	7/14/2011	Bag	611	1 of 5	894	1.38	5.6	7.96
71411003	7/14/2011	Bag	586	2 of 5	1032	1.59	94.43	99.01
71411003	7/14/2011	Bag	678	3 of 5	940	1.45	102.57	107.7
71411003	7/14/2011	Bag	762	4 of 5	1052	1.62	7.28	9.71
71411003	7/14/2011	Bag	785	5 of 5	1052	1.62	6.56	8.77
71411004	7/14/2011	Bag	743	1 of 5	988	1.52	7.08	9.61
71411004	7/14/2011	Bag	747	2 of 5	1050	1.62	16.07	18.28
71411004	7/14/2011	Bag	752	3 of 5	976	1.5	9.39	11.65
71411004	7/14/2011	Bag	753	4 of 5	974	1.5	12.01	14.3
71411004	7/14/2011	Bag	765	5 of 5	1032	1.59	17.45	19.77
71411005	7/14/2011	Bag	159	1 of 5	1056	1.62	5.59	7.43
71411005	7/14/2011	Bag	602	2 of 5	994	1.53	9.69	11.91
71411005	7/14/2011	Bag	606	3 of 5	744	1.14	14.32	16.71
71411005	7/14/2011	Bag	607	4 of 5	826	1.27	0.83	5.24
71411005	7/14/2011	Bag	613	5 of 5	976	1.5	21.82	24.19
71411006	7/14/2011	Bag	493	1 of 5	856	1.32	11.61	13.53
71411006	7/14/2011	Bag	669	2 of 5	1046	1.61	0.56	3.41
71411006	7/14/2011	Bag	670	3 of 5	924	1.42	1.89	4.25
71411006	7/14/2011	Bag	682	4 of 5	944	1.45	5.5	7.95
71411006	7/14/2011	Bag	761	5 of 5	838	1.29	5.75	8.53
71511001	7/15/2011	Bag	766	1 of 5	970	1.49	7.11	9.45
71511001	7/15/2011	Bag	778	2 of 5	868	1.36	1.22	4.97
71511001	7/15/2011	Bag	779	3 of 5	962	1.48	2.68	5.31
71511001	7/15/2011	Bag	780	4 of 5	876	1.35	5.72	7.94
71511001	7/15/2011	Bag	790	5 of 5	898	1.38	7.05	9.24
71611002	7/15/2011	Bag	417	1 of 5	984	1.51	36.5	39.3
71611002	7/15/2011	Bag	434	2 of 5	1256	1.93	72.39	76.15
71611002	7/15/2011	Bag	501	3 of 5	1105	1.7	27.97	30.19
71611002	7/15/2011	Bag	505	4 of 5	899	1.38	129.84	135.83
71611002	7/15/2011	Bag	514	5 of 5	935	1.48	69.16	72.86
71811001	7/18/2011	Bag	437	1 of 5	1164	1.79	41.63	44.32
71811001	7/18/2011	Bag	442	2 of 5	936	1.44	41.12	43.83
71811001	7/18/2011	Bag	448	3 of 5	1086	1.67	26.6	28.79
71811001	7/18/2011	Bag	495	4 of 5	1006	1.55	108.8	113.95
71811001	7/18/2011	Bag	523	5 of 5	846	1.3	49.44	52.45
71811002	7/18/2011	Bag	805	1 of 5	832	1.28	37.31	40.09

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
71811002	7/18/2011	Bag	807	2 of 5	918	1.41	111.38	116.74
71811002	7/18/2011	Bag	808	3 of 5	976	1.5	26.8	29.26
71811002	7/18/2011	Bag	812	4 of 5	1032	1.59	96.92	101.76
71811002	7/18/2011	Bag	819	5 of 5	1042	1.6	44.2	47.25
71811003	7/18/2011	Bag	709	1 of 5	944	1.45	84.31	88.75
71811003	7/18/2011	Bag	712	2 of 5	834	1.28	51.3	54.65
71811003	7/18/2011	Bag	721	3 of 5	1056	1.62	30.64	33.32
71811003	7/18/2011	Bag	803	4 of 5	1014	1.56	83.2	87.53
71811003	7/18/2011	Bag	809	5 of 5	886	1.36	31.91	34.62
71811004	7/18/2011	Bag	733	1 of 5	1096	1.69	89.18	93.78
71811004	7/18/2011	Bag	740	2 of 5	774	1.19	32.47	35.39
71811004	7/18/2011	Bag	754	3 of 5	770	1.18	71.42	45.42
71811004	7/18/2011	Bag	764	4 of 5	768	1.18	128.34	134.52
71811004	7/18/2011	Bag	767	5 of 5	1066	1.64	80.92	85.2
71811005	7/18/2011	Bag	454	1 of 5	1038	1.6	74.6	78.47
71811005	7/18/2011	Bag	461	2 of 5	1110	1.71	96.91	101.62
71811005	7/18/2011	Bag	548	3 of 5	906	1.39	31.7	34.14
71811005	7/18/2011	Bag	558	4 of 5	948	1.46	78.88	82.91
71811005	7/18/2011	Bag	562	5 of 5	1105	1.7	109.94	115.13
71811006	7/18/2011	Bag	699	1 of 5	978	1.5	36.64	39.53
71811006	7/18/2011	Bag	700	2 of 5	930	1.43	98.05	103.09
71811006	7/18/2011	Bag	701	3 of 5	908	1.4	123.62	129.58
71811006	7/18/2011	Bag	703	4 of 5	974	1.5	29.69	32.38
71811006	7/18/2011	Bag	728	5 of 5	926	1.42	45.76	48.96
71811007	7/18/2011	Bag	684	1 of 5	1110	1.71	0.67	3.72
71811007	7/18/2011	Bag	722	2 of 5	914	1.41	10.34	12.53
71811007	7/18/2011	Bag	788	3 of 5	836	1.29	3.53	6.42
71811007	7/18/2011	Bag	789	4 of 5	882	1.36	3.35	6.05
71811007	7/18/2011	Bag	791	5 of 5	692	1.06	11.61	13.88
71911001	7/19/2011	Bag	784	1 of 5	954	1.47	3.14	5.92
71911001	7/19/2011	Bag	783	2 of 5	1036	1.59	1.98	4.76
71911001	7/19/2011	Bag	782	3 of 5	920	1.42	0.44	7.94
71911001	7/19/2011	Bag	777	4 of 5	1002	1.54	7.42	9.82
71911001	7/19/2011	Bag	772	5 of 5	1120	1.73	3.74	6.36
71911002	7/19/2011	Bag	768	1 of 5	924	1.42	12.99	12.56
71911002	7/19/2011	Bag	819	2 of 5	1042	1.6	44.2	47.25
71911002	7/19/2011	Bag	742	3 of 5	952	1.46	9.17	11.76
71911002	7/19/2011	Bag	818	4 of 5	634	0.98	116.15	121.81
71911002	7/19/2011	Bag	829	5 of 5	770	1.18	18.55	21
71911003	7/19/2011	Bag	734	1 of 5	844	1.3	17.06	19.51
71911003	7/19/2011	Bag	735	2 of 5	784	1.21	8.62	11.05
71911003	7/19/2011	Bag	729	3 of 5	848	1.3	17.21	19.76
71911003	7/19/2011	Bag	732	4 of 5	848	1.3	2.32	5.82
71911003	7/19/2011	Bag	704	5 of 5	1046	1.61	15.94	18.27

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
71911004	7/19/2011	Bag	825	1 of 5	798	1.23	126.5	132.62
71911004	7/19/2011	Bag	831	2 of 5	962	1.48	45.4	48.47
71911004	7/19/2011	Bag	832	3 of 5	704	1.08	50.01	23.25
71911004	7/19/2011	Bag	685	4 of 5	946	1.46	19.06	21.44
71911004	7/19/2011	Bag	676	5 of 5	1098	1.69	3.79	6.41
71911005	7/19/2011	Bag	679	1 of 5	886	1.36	2.71	5.76
71911005	7/19/2011	Bag	824	2 of 5	866	1.33	16.28	18.59
71911005	7/19/2011	Bag	833	3 of 5	960	1.48	154.63	161.7
71911005	7/19/2011	Bag	731	4 of 5	844	1.3	193.44	202.08
71911005	7/19/2011	Bag	741	5 of 5	862	1.33	255.82	266.91
71911006	7/19/2011	Bag	800	1 of 5	856	1.32	10.53	12.76
71911006	7/19/2011	Bag	801	2 of 5	998	1.54	21.37	23.72
71911006	7/19/2011	Bag	802	3 of 5	998	1.54	0.91	4.6
71911006	7/19/2011	Bag	804	4 of 5	964	1.48	10.68	12.85
71911006	7/19/2011	Bag	810	5 of 5	940	1.45	14.38	16.75
72011003	7/20/2011	Bag	813	1 of 5	996	1.53	8.48	10.69
72011003	7/20/2011	Bag	814	2 of 5	1062	1.63	22.52	24.94
72011003	7/20/2011	Bag	815	3 of 5	898	1.38	8.99	11.25
72011003	7/20/2011	Bag	821	4 of 5	968	1.49	8.92	11.22
72011003	7/20/2011	Bag	806	5 of 5	910	1.4	20.87	23.18
72011005	7/20/2011	Bag	822	1 of 5	740	1.14	54.19	57.61
72011005	7/20/2011	Bag	826	2 of 5	776	1.19	209.52	218.79
72011005	7/20/2011	Bag	820	3 of 5	870	1.34	14.29	16.67
72011005	7/20/2011	Bag	827	4 of 5	896	1.38	21.19	23.58
72011005	7/20/2011	Bag	830	5 of 5	970	1.49	16.88	19.16
72011006	7/20/2011	Bag	876	1 of 5	672	1.03	42.31	45.3
72011006	7/20/2011	Bag	878	2 of 5	924	1.42	29.22	31.95
72011006	7/20/2011	Bag	879	3 of 5	746	1.15	44.31	47.49
72011006	7/20/2011	Bag	880	4 of 5	720	1.11	55.26	58.85
72011006	7/20/2011	Bag	881	5 of 5	882	1.36	39.71	42.68
72011007	7/20/2011	Bag	877	1 of 5	852	1.31	53.96	57.41
72011007	7/20/2011	Bag	885	2 of 5	830	1.28	52.39	55.81
72011007	7/20/2011	Bag	886	3 of 5	788	1.21	52	55.41
72011007	7/20/2011	Bag	892	4 of 5	952	1.46	36.57	39.42
72011007	7/20/2011	Bag	893	5 of 5	798	1.23	46.87	50.24
72011008	7/20/2011	Bag	867	1 of 5	924	1.42	30.36	32.93
72011008	7/20/2011	Bag	868	2 of 5	726	1.12	29.86	32.65
72011008	7/20/2011	Bag	869	3 of 5	720	1.11	33.86	36.72
72011008	7/20/2011	Bag	872	4 of 5	946	1.46	132.22	138.54
72011008	7/20/2011	Bag	889	5 of 5	766	1.18	31.26	34.12
72011009	7/20/2011	Bag	866	1 of 5	1022	1.57	34.09	36.77
72011009	7/20/2011	Bag	874	2 of 5	948	1.46	31.39	33.99
72011009	7/20/2011	Bag	875	3 of 5	808	1.24	42.01	45.12
72011009	7/20/2011	Bag	882	4 of 5	746	1.15	37.5	40.53

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
72011009	7/20/2011	Bag	899	5 of 5	940	1.45	67.25	71.13
72011010	7/20/2011	Bag	895	1 of 5	950	1.46	21.59	23.99
72011010	7/20/2011	Bag	896	2 of 5	748	1.15	11.85	14.2
72011010	7/20/2011	Bag	897	3 of 5	784	1.21	12.55	15.01
72011010	7/20/2011	Bag	891	4 of 5	796	1.22	14.02	16.8
72011010	7/20/2011	Bag	888	5 of 5	1046	1.61	7.54	9.8
72111002	7/21/2011	Bag	799	1 of 5	1028	1.58	7.44	9.82
72111002	7/21/2011	Bag	890	2 of 5	936	1.44	47.27	50.33
72111002	7/21/2011	Bag	894	3 of 5	804	1.24	32.22	35.1
72111002	7/21/2011	Bag	898	4 of 5	974	1.5	46.87	50.03
72111002	7/21/2011	Bag	900	5 of 5	816	1.26	13.68	16.23
72111003	7/21/2011	Bag	871	1 of 5	922	1.42	21.22	23.83
72111003	7/21/2011	Bag	873	2 of 5	1022	1.57	24.5	26.89
72111003	7/21/2011	Bag	883	3 of 5	934	1.44	9.06	12.02
72111003	7/21/2011	Bag	884	4 of 5	658	1.01	18.57	21.03
72111003	7/21/2011	Bag	887	5 of 5	814	1.25	17.43	19.9
72111004	7/21/2011	Bag	841	1 of 5	720	1.11	107.51	112.81
72111004	7/21/2011	Bag	839	2 of 5	952	1.46	42.87	45.94
72111004	7/21/2011	Bag	727	3 of 5	578	0.89	551.04	532.28
72111004	7/21/2011	Bag	331	4 of 5	1004	1.54	68.48	72.11
72111004	7/21/2011	Bag	816	5 of 5	724	1.11	4.13	6.86
72111007	7/21/2011	Bag	850	1 of 5	876	1.35	72.07	76.15
72111007	7/21/2011	Bag	851	2 of 5	814	1.25	17.07	19.45
72111007	7/21/2011	Bag	856	3 of 5	750	1.15	149.95	156.88
72111007	7/21/2011	Bag	857	4 of 5	716	1.1	98.48	103.57
72111007	7/21/2011	Bag	859	5 of 5	940	1.45	1.18	5.23
72111008	7/21/2011	Bag	739	1 of 5	848	1.3	17.52	19.77
72111008	7/21/2011	Bag	748	2 of 5	910	1.4	21.77	24.19
72111008	7/21/2011	Bag	796	3 of 5	1020	1.57	151.51	158.49
72111008	7/21/2011	Bag	848	4 of 5	910	1.4	7.4	10
72111008	7/21/2011	Bag	860	5 of 5	900	1.38	28.05	30.74
72111009	7/21/2011	Bag	504	1 of 5	926	1.42	406.63	423.46
72111009	7/21/2011	Bag	845	2 of 5	854	1.31	112.95	118.45
72111009	7/21/2011	Bag	861	3 of 5	862	1.33	52.21	55.62
72111009	7/21/2011	Bag	862	4 of 5	910	1.4	11.14	13.55
72111009	7/21/2011	Bag	863	5 of 5	1002	1.54	34.2	36.9
72211001	7/22/2011	Bag	387	1 of 5	758	1.17	2.08	4.8
72211001	7/22/2011	Bag	706	2 of 5	870	1.34	11.36	13.64
72211001	7/22/2011	Bag	707	3 of 5	992	1.53	12.42	14.69
72211001	7/22/2011	Bag	804	4 of 5	964	1.48	10.68	12.85
72211001	7/22/2011	Bag	844	5 of 5	928	1.43	70.01	73.89
72211002	7/22/2011	Bags	680	1 of 5	882	1.36	3.46	6.25
72211002	7/22/2011	Bags	756	2 of 5	1042	1.6	23.65	26.03
72211002	7/22/2011	Bag	705	3 of 5	926	1.42	5.98	8.28

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
72211002	7/22/2011	Bag	811	4 of 5	848	1.3	150.59	157.5
72211002	7/22/2011	Bag	847	5 of 5	762	1.17	79.17	83.53
72511001	7/25/2011	Bag	8	1 of 5	856	1.32	15.27	18
72511001	7/25/2011	Bag	55	2 of 5	954	1.47	37.4	40.96
72511001	7/25/2011	Bag	492	3 of 5	872	1.34	19.24	21.35
72511001	7/25/2011	Bag	840	4 of 5	940	1.45	41.66	44.51
72511001	7/25/2011	Bag	858	5 of 5	830	1.28	2.62	5.99
72511002	7/25/2011	Bag	719	1 of 5	728	1.12	8.38	10.69
72511002	7/25/2011	Bag	720	2 of 5	882	1.36	7.42	9.71
72511002	7/25/2011	Bag	736	3 of 5	820	1.26	157.51	164.82
72511002	7/25/2011	Bag	737	4 of 5	1058	1.63	8.17	10.43
72511002	7/25/2011	Bag	836	5 of 5	900	1.38	13.03	15.41
72511003	7/25/2011	Bag	835	1 of 5	720	1.11	24.02	26.37
72511003	7/25/2011	Bag	849	2 of 5	1138	1.75	42.87	45.8
72511003	7/25/2011	Bag	853	3 of 5	684	1.05	6.84	9.23
72511003	7/25/2011	Bag	854	4 of 5	746	1.15	22.97	25.55
72511003	7/25/2011	Bag	865	5 of 5	938	1.44	34.46	37.3
72611001	7/26/2011	Bag	708	1 of 5	1076	1.66	4.26	6.83
72611001	7/26/2011	Bag	711	2 of 5	848	1.3	22.53	24.8
72611001	7/26/2011	Bag	713	3 of 5	812	1.25	9.39	11.94
72611001	7/26/2011	Bag	715	4 of 5	984	1.51	4.01	6.85
72611001	7/26/2011	Bag	718	5 of 5	882	1.36	9.71	12.22
72611002	7/26/2011	Bag	710	1 of 5	742	1.14	8.99	11.11
72611002	7/26/2011	Bag	714	2 of 5	808	1.24	9.97	12.39
72611002	7/26/2011	Bag	716	3 of 5	818	1.26	1.62	5.15
72611002	7/26/2011	Bag	717	4 of 5	778	1.2	0.58	6.72
72611002	7/26/2011	Bag	828	5 of 5	650	1.14	10.65	13.01
72611003	7/26/2011	Bag	445	1 of 5	874	1.34	143.76	150.4
72611003	7/26/2011	Bag	870	2 of 5	1060	1.63	35.34	38.05
72611003	7/26/2011	Bag	18	3 of 5	982	1.51	98.29	105.25
72611003	7/26/2011	Bag	843	4 of 5	988	1.52	65.02	68.78
72611003	7/26/2011	Bag	577	5 of 5	1001	1.54	144.2	150.72
72611005	7/26/2011	Bag	798	1 of 5	1018	1.57	9.76	11.87
72611005	7/26/2011	Bag	841	2 of 5	720	1.11	107.51	112.81
72611005	7/26/2011	Bag	846	3 of 5	1060	1.63	57.75	61.21
72611005	7/26/2011	Bag	852	4 of 5	804	1.24	4.07	7.14
72611005	7/26/2011	Bag	855	5 of 5	812	1.25	2.98	6.61
72611009	7/26/2011	Bag	901	1 of 5	832	1.28	15.5	18.05
72611009	7/26/2011	Bag	902	2 of 5	812	1.25	24.73	27.22
72611009	7/26/2011	Bag	903	3 of 5	1008	1.55	722.79	752.29
72611009	7/26/2011	Bag	904	4 of 5	920	1.42	10.14	12.5
72611009	7/26/2011	Bag	905	5 of 5	960	1.48	82.71	87.09
72611012	7/26/2011	Bag	3	1 of 5	842	1.3	496.81	527.33
72611012	7/26/2011	Bag	823	2 of 5	818	1.26	17	19.35

Manifest Number	Date	Type Shipment	Bag Number	Load	Sample Mass	Sample Density	Measured Activity	Max Activity
				Quantity (Bags)				
72611012	7/26/2011	Bag	906	3 of 5	950	1.46	16.56	18.91
72611012	7/26/2011	Bag	907	4 of 5	964	1.48	6.22	8.59
72611012	7/26/2011	Bag	908	5 of 5	Sample	Disposal		
<b>TOTAL</b>			<b>570</b>	<b>Bags</b>				

NEW WORLD ENVIRONMENTAL, INC.  
Highway 160 Shipping Manifest

MDA 83 440

Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
71811008	7/18/2011	Bulk	1	774	199.59	208.51			
71811008	7/18/2011	Bulk	2	770	129.91	136.05			
71811008	7/18/2011	Bulk	3	784	116.76	122.53			
71811008	7/18/2011	Bulk	4	828	166.11	173.63	1.21	153.0925	160.18
71811009	7/18/2011	Bulk	1	778	75.56	79.82			
71811009	7/18/2011	Bulk	2	716	87.35	91.89			
71811009	7/18/2011	Bulk	3	736	77.81	82.16			
71811009	7/18/2011	Bulk	4	730	85.67	90.15	1.14	81.5975	86.005
71811010	7/18/2011	Bulk	1	778	75.56	79.82			
71811010	7/18/2011	Bulk	2	716	87.35	91.89			
71811010	7/18/2011	Bulk	3	736	77.81	82.16			
71811010	7/18/2011	Bulk	4	730	85.67	90.15	1.14	81.5975	86.005
71911007	7/19/2011	Bulk	1	952	18.55	21.15			
71911007	7/19/2011	Bulk	2	972	27.36	29.67			
71911007	7/19/2011	Bulk	3	996	23.5	26.06			
71911007	7/19/2011	Bulk	4	940	23.49	26.05	1.48	23.23	25.73
71911008	7/19/2011	Bulk	1	1058	99.73	104.84			
71911008	7/19/2011	Bulk	2	960	75.03	19.22			
71911008	7/19/2011	Bulk	3	988	74.58	78.77			
71911008	7/19/2011	Bulk	4	960	91.15	95.9	1.53	85.12	89.68
72011001	7/20/2011	Bulk	1	968	59.35	62.98			
72011001	7/20/2011	Bulk	2	984	61.33	65			
72011001	7/20/2011	Bulk	3	1006	46.3	49.51			
72011001	7/20/2011	Bulk	4	1028	41.5	44.44	1.53	52.12	55.48
72011002	7/20/2011	Bulk	1	1008	29.46	32.21			
72011002	7/20/2011	Bulk	2	1092	31.45	34.03			
72011002	7/20/2011	Bulk	3	1072	36.63	39.49			
72011002	7/20/2011	Bulk	4	1022	36.97	39.88	1.61	33.63	36.4
72011004	7/20/2011	Bulk	1	912	41.7	44.68			
72011004	7/20/2011	Bulk	2	924	78.51	82.76			
72011004	7/20/2011	Bulk	3	912	95.01	99.89			
72011004	7/20/2011	Bulk	4	942	68.03	71.91	1.42	70.81	74.81
72111001	7/21/2011	Bulk	1	868	20.38	22.9			
72111001	7/21/2011	Bulk	2	944	52.54	55.93			
72111001	7/21/2011	Bulk	3	936	180.48	188.59			
72111001	7/21/2011	Bulk	4	922	136.86	143.32	1.41	97.57	102.69
72111005	7/21/2011	Bulk	1	820	1.19	5.24			
72111005	7/21/2011	Bulk	2	932	1.99	5.15			
72111005	7/21/2011	Bulk	3	884	<MDA	<MDA			

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
72111005	7/21/2011	Bulk	4	904	3.32	5.9	1.36	2.17	5.44
72111006	7/21/2011	Bulk	1	892	0.12	8.13			
72111006	7/21/2011	Bulk	2	936	4.2	6.84			
72111006	7/21/2011	Bulk	3	896	1.33	5.04			
72111006	7/21/2011	Bulk	4	822	2.72	5.65	1.36	2.09	6.42
72211003	7/22/2011	Bulk	1	920	1.39	5.9			
72211003	7/22/2011	Bulk	2	850	10.17	12.44			
72211003	7/22/2011	Bulk	3	812	1.3	6.09			
72211003	7/22/2011	Bulk	4	944	5.76	8.22	1.36	4.66	8.16
72211004	7/22/2011	Bulk	1	1016	29.23	81.93			
72211004	7/22/2011	Bulk	2	1016	26.91	29.46			
72211004	7/22/2011	Bulk	3	930	22.58	25.13			
72211004	7/22/2011	Bulk	4	832	21.24	23.74	1.42	24.99	27.57
72211005	7/22/2011	Bulk	1	960	15.12	17.62			
72211005	7/22/2011	Bulk	2	958	30.86	33.45			
72211005	7/22/2011	Bulk	3	970	23.46	26.09			
72211005	7/22/2011	Bulk	4	970	36	38.88	1.48	26.36	29.01
72511004	7/25/2011	Bulk	1	834	<MDA	<MDA			
72511004	7/25/2011	Bulk	2	770	<MDA	<MDA			
72511004	7/25/2011	Bulk	3	828	1.28	5.71			
72511004	7/25/2011	Bulk	4	818	<MDA	<MDA	1.25	1.28	5.71
72511005	7/25/2011	Bulk	1	866	3.98	6.97			
72511005	7/25/2011	Bulk	2	876	12.43	14.67			
72511005	7/25/2011	Bulk	3	848	3.04	6.22			
72511005	7/25/2011	Bulk	4	856	2.61	5.77	1.33	5.52	8.41
72511006	7/25/2011	Bulk	1	892	0.46	7.4			
72511006	7/25/2011	Bulk	2	822	3.85	6.6			
72511006	7/25/2011	Bulk	3	930	2.07	5.42			
72511006	7/25/2011	Bulk	4	926	0.58	6.26	1.41	1.74	6.42
72511007	7/25/2011	Bulk	1	964	67.74	71.57			
72511007	7/25/2011	Bulk	2	856	113.76	119.29			
72511007	7/25/2011	Bulk	3	900	145.11	151.89			
72511007	7/25/2011	Bulk	4	864	86.34	90.83	1.38	103.24	108.4
72611004	7/26/2011	Bulk	1	1068	4.71	7.26			
72611004	7/26/2011	Bulk	2	1030	1.45	5.83			
72611004	7/26/2011	Bulk	3	994	2.03	5.85			
72611004	7/26/2011	Bulk	4	1070	2.81	6.91	1.6	2.75	6.46
72611006	7/26/2011	Bulk	1	866	4.71	7.26			
72611006	7/26/2011	Bulk	2	858	5.28	7.96			
72611006	7/26/2011	Bulk	3	948	0.89	6.58			
72611006	7/26/2011	Bulk	4	826	2.84	7.58	1.35	2.84	7.58
72611007	7/26/2011	Bulk	1	796	<MDA	<MDA			
72611007	7/26/2011	Bulk	2	866	5.23	8.06			
72611007	7/26/2011	Bulk	3	828	7.31	9.6			
72611007	7/26/2011	Bulk	4	788	<MDA	<MDA	1.26	6.27	8.83



Manifest		Type	Sample	Measured	Maximum	Average	Average	Average	
Number	Date	Shipment	Sample	Mass	Activity	Activity	Density	Measured	Max
								Activity	Activity
72611008	7/26/2011	Bulk	1	770	2.22	5.77			
72611008	7/26/2011	Bulk	2	876	1.21	5.64			
72611008	7/26/2011	Bulk	3	886	1.68	5.75			
72611008	7/26/2011	Bulk	4	830	3.89	6.78	1.29	2.25	5.99
72611010	7/26/2011	Bulk	1	892	2.16	5.77			
72611010	7/26/2011	Bulk	2	786	3.8	6.4			
72611010	7/26/2011	Bulk	3	834	3.35	6.2			
72611010	7/26/2011	Bulk	4	854	2.4	5.45	1.29	2.93	5.96
72611011	7/26/2011	Bulk	1	836	<MDA	<MDA			
72611011	7/26/2011	Bulk	2	882	3.81	6.63			
72611011	7/26/2011	Bulk	3	886	2.42	5.86			
72611011	7/26/2011	Bulk	4	876	2.55	5.23	1.34	2.93	5.91
72711001	7/27/2011	Bulk	1	850	46.17	49.34			
72711001	7/27/2011	Bulk	2	886	30.17	32.95			
72711001	7/27/2011	Bulk	3	870	27.65	30.32			
72711001	7/27/2011	Bulk	4	848	39.74	42.74	1.33	35.93	38.81
72711002	7/27/2011	Bulk	1	840	6.4	7.33			
72711002	7/27/2011	Bulk	2	844	16.04	18.32			
72711002	7/27/2011	Bulk	3	960	9.68	11.9			
72711002	7/27/2011	Bulk	4	872	19.84	22.13	1.35	12.99	14.92
72711003	7/27/2011	Bulk	1	844	7.43	9.95			
72711003	7/27/2011	Bulk	2	900	5.62	8.02			
72711003	7/27/2011	Bulk	3	842	6.68	9.16			
72711003	7/27/2011	Bulk	4	900	7.09	9.54	1.34	6.71	9.17
72711004	7/27/2011	Bulk	1	888	5.84	8.53			
72711004	7/27/2011	Bulk	2	894	10.94	13.22			
72711004	7/27/2011	Bulk	3	862	8.53	11.14			
72711004	7/27/2011	Bulk	4	842	12.49	14.84	1.34	9.45	11.93
72711005	7/27/2011	Bulk	1	850	19.62	22.11			
72711005	7/27/2011	Bulk	2	882	15.35	17.67			
72711005	7/27/2011	Bulk	3	866	17.26	19.69			
72711005	7/27/2011	Bulk	4	828	14.75	17.27	1.32	16.75	19.19
72711006	7/27/2011	Bulk	1	870	24.91	27.51			
72711006	7/27/2011	Bulk	2	892	21.3	23.59			
72711006	7/27/2011	Bulk	3	944	12.86	15.22			
72711006	7/27/2011	Bulk	4	864	15.23	17.5	1.37	18.58	20.96
72711007	7/27/2011	Bulk	1	762	38.13	41.08			
72711007	7/27/2011	Bulk	2	764	29.08	31.76			
72711007	7/27/2011	Bulk	3	850	33.67	36.5			
72711007	7/27/2011	Bulk	4	816	34.38	37.09	1.23	33.82	36.61
72711008	7/27/2011	Bulk	1	882	33.43	36.14			
72711008	7/27/2011	Bulk	2	884	24.28	26.74			
72711008	7/27/2011	Bulk	3	838	17.58	20.16			
72711008	7/27/2011	Bulk	4	852	17.89	20.27	1.33	23.3	25.83
72711009	7/27/2011	Bulk	1	910	8.32	10.99			

Manifest Number	Date	Type		Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
		Shipment	Sample					Measured	Max
								Activity	Activity
72711009	7/27/2011	Bulk	2	770	21.97	24.37			
72711009	7/27/2011	Bulk	3	862	20.1	22.58			
72711009	7/27/2011	Bulk	4	892	16.24	18.47	1.32	16.66	19.1
72811001	7/28/2011	Bulk	1	914	1.87	6.19			
72811001	7/28/2011	Bulk	2	882	7.02	9.27			
72811001	7/28/2011	Bulk	3	924	6.08	8.81			
72811001	7/28/2011	Bulk	4	854	2.18	5.85	1.37	4.29	7.53
72811002	7/28/2011	Bulk	1	882	25.07	27.7			
72811002	7/28/2011	Bulk	2	862	36.46	39.24			
72811002	7/28/2011	Bulk	3	866	19.76	22.4			
72811002	7/28/2011	Bulk	4	902	33.41	31.37	1.35	26.68	31.37
72811003	7/28/2011	Bulk	1	860	20.14	22.62			
72811003	7/28/2011	Bulk	2	920	22.71	25.09			
72811003	7/28/2011	Bulk	3	866	19.01	21.48			
72811003	7/28/2011	Bulk	4	808	33.55	36.18	1.33	23.85	26.34
72811004	7/28/2011	Bulk	1	966	15.25	17.74			
72811004	7/28/2011	Bulk	2	950	10.87	13.17			
72811004	7/28/2011	Bulk	3	868	11.71	14.36			
72811004	7/28/2011	Bulk	4	900	19.64	21.97	1.42	14.37	16.81
72811005	7/28/2011	Bulk	1	838	33.64	36.51			
72811005	7/28/2011	Bulk	2	866	48.72	51.86			
72811005	7/28/2011	Bulk	3	854	30.46	33.14			
72811005	7/28/2011	Bulk	4	842	34.89	37.68	1.31	36.93	39.8
72811006	7/28/2011	Bulk	1	758	24	26.65			
72811006	7/28/2011	Bulk	2	828	26.6	29.15			
72811006	7/28/2011	Bulk	3	796	25.87	28.5			
72811006	7/28/2011	Bulk	4	820	39.02	41.89	1.23	28.87	31.55
72811007	7/28/2011	Bulk	1	902	25.71	28.28			
72811007	7/28/2011	Bulk	2	862	28.38	30.91			
72811007	7/28/2011	Bulk	3	878	33.58	36.42			
72811007	7/28/2011	Bulk	4	838	29.87	32.45	1.34	29.39	32.02
72811008	7/28/2011	Bulk	1	856	9.6	12.03			
72811008	7/28/2011	Bulk	2	822	9.6	11.94			
72811008	7/28/2011	Bulk	3	846	7.41	9.67			
72811008	7/28/2011	Bulk	4	792	13.75	15.96	1.28	10.09	12.4
72811009	7/28/2011	Bulk	1	854	11.39	14			
72811009	7/28/2011	Bulk	2	818	14.7	17.02			
72811009	7/28/2011	Bulk	3	836	11.9	14.42			
72811009	7/28/2011	Bulk	4	814	21.71	24.13	1.28	14.93	17.39
72911001	7/29/2011	Bulk	1	850	3.03	6.21			
72911001	7/29/2011	Bulk	2	868	1.27	4.97			
72911001	7/29/2011	Bulk	3	900	3.59	6.46			
72911001	7/29/2011	Bulk	4	896	4.39	6.7	1.35	3.07	6.09
72911002	7/29/2011	Bulk	1	848	26.07	28.79			
72911002	7/29/2011	Bulk	2	900	23	25.5			

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
72911002	7/29/2011	Bulk	3	862	32.95	35.67			
72911002	7/29/2011	Bulk	4	864	36.6	39.37	1.34	29.66	32.33
72911003	7/29/2011	Bulk	1	896	10.14	12.85			
72911003	7/29/2011	Bulk	2	856	16.04	18.49			
72911003	7/29/2011	Bulk	3	808	21.44	24.03			
72911003	7/29/2011	Bulk	4	844	15.59	17.87	1.31	15.8	18.31
72911004	7/29/2011	Bulk	1	872	9.6	12.03			
72911004	7/29/2011	Bulk	2	896	9.6	11.94			
72911004	7/29/2011	Bulk	3	818	14.31	16.76			
72911004	7/29/2011	Bulk	4	848	16.19	18.46	1.32	12.43	14.8
72911005	7/29/2011	Bulk	1	836	12.67	15.32			
72911005	7/29/2011	Bulk	2	884	27.88	30.44			
72911005	7/29/2011	Bulk	3	782	21.32	24.06			
72911005	7/29/2011	Bulk	4	946	14.51	16.85	1.33	19.1	21.67
<b>TOTAL</b>		<b>47 Loads</b>							

NEW WORLD ENVIRONMENTAL, INC.  
Highway 160 Shipping Manifest

MDA

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Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
8111001	8/1/2011	Bulk	1	856	21	23.42			
8111001	8/1/2011	Bulk	2	716	27.33	29.89			
8111001	8/1/2011	Bulk	3	862	27.15	29.83			
8111001	8/1/2011	Bulk	4	784	21.58	24.02	1.24	24.27	26.79
8111002	8/1/2011	Bulk	1	728	34.71	37.56			
8111002	8/1/2011	Bulk	2	854	22.69	25.07			
8111002	8/1/2011	Bulk	3	790	33.77	36.6			
8111002	8/1/2011	Bulk	4	778	21.99	24.44	1.21	28.29	30.92
8111003	8/1/2011	Bulk	1	806	31.19	33.87			
8111003	8/1/2011	Bulk	2	874	22.17	24.59			
8111003	8/1/2011	Bulk	3	876	32.92	35.71			
8111003	8/1/2011	Bulk	4	898	28.08	30.59	1.33	28.59	31.19
8111004	8/1/2011	Bulk	1	882	26.78	29.39			
8111004	8/1/2011	Bulk	2	882	18.75	21.16			
8111004	8/1/2011	Bulk	3	832	15.59	18.02			
8111004	8/1/2011	Bulk	4	808	21.41	23.88	1.31	20.63	23.11
8111005	8/1/2011	Bulk	1	886	9.27	11.89			
8111005	8/1/2011	Bulk	2	882	16	18.24			
8111005	8/1/2011	Bulk	3	808	12.58	15.18			
8111005	8/1/2011	Bulk	4	882	9.59	11.95	1.33	11.86	14.32
8111006	8/1/2011	Bulk	1	782	8.57	11.19			
8111006	8/1/2011	Bulk	2	762	13.55	15.96			
8111006	8/1/2011	Bulk	3	852	7.61	10.11			
8111006	8/1/2011	Bulk	4	938	13.23	15.46	1.28	10.74	13.18
8111007	8/1/2011	Bulk	1	774	23.5	26.07			
8111007	8/1/2011	Bulk	2	834	11.96	14.26			
8111007	8/1/2011	Bulk	3	838	12.9	15.29			
8111007	8/1/2011	Bulk	4	868	5.17	7.68	1.27	13.38	15.83
8111008	8/1/2011	Bulk	1	862	15.08	17.47			
8111008	8/1/2011	Bulk	2	872	7.1	9.69			
8111008	8/1/2011	Bulk	3	832	15.63	17.96			
8111008	8/1/2011	Bulk	4	836	11.02	13.36	1.31	12.21	14.62
8111009	8/1/2011	Bulk	1	906	6.2	8.52			
8111009	8/1/2011	Bulk	2	772	1.44	5.14			
8111009	8/1/2011	Bulk	3	866	1.93	5.99			
8111009	8/1/2011	Bulk	4	976	6.54	8.97	1.35	4.03	6.91
8211001	8/2/2011	Bulk	1	770	11.23	13.68			
8211001	8/2/2011	Bulk	2	874	32.31	34.99			
8211001	8/2/2011	Bulk	3	806	25.82	28.49			

Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
8211001	8/2/2011	Bulk	4	806	12.57	14.96	1.25	20.48	23.03
8211002	8/2/2011	Bulk	1	900	21.92	24.37			
8211002	8/2/2011	Bulk	2	780	4.09	7			
8211002	8/2/2011	Bulk	3	774	5.03	7.9			
8211002	8/2/2011	Bulk	4	830	5.86	8.45	1.26	9.23	11.93
8211003	8/2/2011	Bulk	1	848	16.61	18.99			
8211003	8/2/2011	Bulk	2	750	51.96	55.29			
8211003	8/2/2011	Bulk	3	804	22.09	24.62			
8211003	8/2/2011	Bulk	4	808	37.3	40.2	1.23	31.99	34.78
8211004	8/2/2011	Bulk	1	944	12.86	15.22			
8211004	8/2/2011	Bulk	2	900	8.56	10.88			
8211004	8/2/2011	Bulk	3	934	137.74	144.26			
8211004	8/2/2011	Bulk	4	870	6.9	9.17	1.4	41.52	44.88
8211005	8/2/2011	Bulk	1	882	12.5	14.94			
8211005	8/2/2011	Bulk	2	866	14.76	17.03			
8211005	8/2/2011	Bulk	3	838	8	10.47			
8211005	8/2/2011	Bulk	4	828	6.79	8.99	1.31	10.51	12.86
8211006	8/2/2011	Bulk	1	822	13.15	15.55			
8211006	8/2/2011	Bulk	2	876	10.52	12.75			
8211006	8/2/2011	Bulk	3	804	11.03	13.63			
8211006	8/2/2011	Bulk	4	854	15.19	17.4	1.29	12.47	14.83
8211007	8/2/2011	Bulk	1	876	16.81	19.17			
8211007	8/2/2011	Bulk	2	880	20.73	23.02			
8211007	8/2/2011	Bulk	3	872	12.92	15.28			
8211007	8/2/2011	Bulk	4	892	7.79	10.18	1.35	14.56	16.91
8211008	8/2/2011	Bulk	1	912	14.97	17.38			
8211008	8/2/2011	Bulk	2	830	16.31	18.6			
8211008	8/2/2011	Bulk	3	918	12.75	15.14			
8211008	8/2/2011	Bulk	4	888	12.69	14.91	1.36	14.18	16.51
8211009	8/2/2011	Bulk	1	778	16.99	19.37			
8211009	8/2/2011	Bulk	2	678	8.13	10.5			
8211009	8/2/2011	Bulk	3	936	12.04	14.6			
8211009	8/2/2011	Bulk	4	776	10.9	13.13	1.3	12.02	14.4
8311001	8/3/2011	Bulk	1	874	12.99	15.33			
8311001	8/3/2011	Bulk	2	868	13.86	16.14			
8311001	8/3/2011	Bulk	3	842	8.31	10.96			
8311001	8/3/2011	Bulk	4	848	14.41	16.77	1.32	12.39	14.8
8311002	8/3/2011	Bulk	1	760	16.07	18.39			
8311002	8/3/2011	Bulk	2	780	6.96	9.47			
8311002	8/3/2011	Bulk	3	758	9.81	12.44			
8311002	8/3/2011	Bulk	4	770	11.93	14.13	1.18	11.19	13.61
8311003	8/3/2011	Bulk	1	912	9.33	11.81			
8311003	8/3/2011	Bulk	2	848	9.75	11.95			

Manifest Number	Date	Type		Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
		Shipment	Sample					Measured	Max
								Activity	Activity
8311003	8/3/2011	Bulk	3	878	3.76	7.22			
8311003	8/3/2011	Bulk	4	866	11.33	13.5	1.35	8.54	11.12
8311004	8/3/2011	Bulk	1	852	11.77	14.34			
8311004	8/3/2011	Bulk	2	920	14.1	16.4			
8311004	8/3/2011	Bulk	3	906	9.87	12.41			
8311004	8/3/2011	Bulk	4	828	14.53	16.91	1.35	12.57	15.02
8311005	8/3/2011	Bulk	1	888	19.6	22.11			
8311005	8/3/2011	Bulk	2	858	18.87	21.24			
8311005	8/3/2011	Bulk	3	900	20.81	23.3			
8311005	8/3/2011	Bulk	4	856	19.77	22.02	1.35	19.76	22.17
8311006	8/3/2011	Bulk	1	906	13.25	15.63			
8311006	8/3/2011	Bulk	2	886	12.29	14.53			
8311006	8/3/2011	Bulk	3	898	8.52	11.17			
8311006	8/3/2011	Bulk	4	886	7.41	9.85	1.38	10.37	12.8
8311007	8/3/2011	Bulk	1	926	15.53	17.84			
8311007	8/3/2011	Bulk	2	908	12.2	14.42			
8311007	8/3/2011	Bulk	3	854	12.75	15.12			
8311007	8/3/2011	Bulk	4	920	6.93	9.27	1.39	11.85	14.16
8311008	8/3/2011	Bulk	1	872	52.07	55.45			
8311008	8/3/2011	Bulk	2	912	9.28	11.71			
8311008	8/3/2011	Bulk	3	858	11.18	13.78			
8311008	8/3/2011	Bulk	4	846	9.78	12.07	1.34	20.58	23.25
8311009	8/3/2011	Bulk	1	868	10.31	12.86			
8311009	8/3/2011	Bulk	2	906	9.96	12.19			
8311009	8/3/2011	Bulk	3	892	7.61	10.25			
8311009	8/3/2011	Bulk	4	904	13.09	15.29	1.37	10.24	12.65
8311010	8/3/2011	Bulk	1	882	16.55	19.02			
8311010	8/3/2011	Bulk	2	900	8.35	10.58			
8311010	8/3/2011	Bulk	3	914	21.67	24.21			
8311010	8/3/2011	Bulk	4	910	15.09	17.24	1.39	15.42	17.76
8411001	8/4/2011	Bulk	1	818	5.09	7.66			
8411001	8/4/2011	Bulk	2	802	1.15	6.25			
8411001	8/4/2011	Bulk	3	828	<MDA	<MDA			
8411001	8/4/2011	Bulk	4	798	3.29	6.04	1.25	3.18	6.65
8411002	8/4/2011	Bulk	1	768	7.95	10.5			
8411002	8/4/2011	Bulk	2	822	6.64	9.26			
8411002	8/4/2011	Bulk	3	710	7.08	9.81			
8411002	8/4/2011	Bulk	4	806	3.52	7.04	1.19	6.3	9.15
8411003	8/4/2011	Bulk	1	832	32.13	34.89			
8411003	8/4/2011	Bulk	2	696	34.95	37.89			
8411003	8/4/2011	Bulk	3	786	46.15	49.3			
8411003	8/4/2011	Bulk	4	786	31.5	34.29	1.19	36.18	39.09
8411004	8/4/2011	Bulk	1	876	19.84	22.29			

Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
8411004	8/4/2011	Bulk	2	768	4.54	7.94			
8411004	8/4/2011	Bulk	3	756	9.51	12.06			
8411004	8/4/2011	Bulk	4	702	20.45	27.16	1.19	14.59	17.36
8411005	8/4/2011	Bulk	1	530	24.63	27.39			
8411005	8/4/2011	Bulk	2	658	9.94	12.61			
8411005	8/4/2011	Bulk	3	668	11.09	13.56			
8411005	8/4/2011	Bulk	4	702	7.47	10.42	0.98	13.28	16
8411006	8/4/2011	Bulk	1	822	4.54	7.39			
8411006	8/4/2011	Bulk	2	780	6.69	9.35			
8411006	8/4/2011	Bulk	3	596	17.5	20.18			
8411006	8/4/2011	Bulk	4	744	8.21	10.77	1.13	9.24	11.92
8411007	8/4/2011	Bulk	1	776	6.62	9.41			
8411007	8/4/2011	Bulk	2	652	4.3	7.12			
8411007	8/4/2011	Bulk	3	670	19.52	21.83			
8411007	8/4/2011	Bulk	4	744	17.29	19.54	1.09	11.93	14.48
8411008	8/4/2011	Bulk	1	636	22.23	24.89			
8411008	8/4/2011	Bulk	2	516	38.34	41.49			
8411008	8/4/2011	Bulk	3	700	12.74	15.3			
8411008	8/4/2011	Bulk	4	774	22.17	24.67	1.01	23.87	26.59
8411009	8/4/2011	Bulk	1	776	11.49	14			
8411009	8/4/2011	Bulk	2	652	12.2	14.42			
8411009	8/4/2011	Bulk	3	670	15.57	18.17			
8411009	8/4/2011	Bulk	4	744	12.13	14.44	1.09	12.85	15.26
8511001	8/5/2011	Bulk	1	832	23.7	26.32			
8511001	8/5/2011	Bulk	2	842	20.75	23.24			
8511001	8/5/2011	Bulk	3	770	39.12	42.12			
8511001	8/5/2011	Bulk	4	832	14.89	17.26	1.26	24.62	27.24
8511002	8/5/2011	Bulk	1	688	17.93	20.4			
8511002	8/5/2011	Bulk	2	686	9.55	12.28			
8511002	8/5/2011	Bulk	3	746	15.57	18.17			
8511002	8/5/2011	Bulk	4	668	12.13	14.44	1.07	13.8	16.32
8511003	8/5/2011	Bulk	1	892	6.04	8.55			
8511003	8/5/2011	Bulk	2	904	6.2	8.52			
8511003	8/5/2011	Bulk	3	842	9.58	11.69			
8511003	8/5/2011	Bulk	4	906	6.19	8.79	1.36	7	9.39
8511004	8/5/2011	Bulk	1	800	24.64	27.2			
8511004	8/5/2011	Bulk	2	832	9.01	11.5			
8511004	8/5/2011	Bulk	3	868	19.44	22.03			
8511004	8/5/2011	Bulk	4	866	15.4	17.79	1.29	17.12	19.65
8511005	8/5/2011	Bulk	1	856	12.61	15.16			
8511005	8/5/2011	Bulk	2	766	10.28	12.92			
8511005	8/5/2011	Bulk	3	778	10.54	13.21			
8511005	8/5/2011	Bulk	4	774	10.42	12.77	1.22	10.96	13.52

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
8511006	8/5/2011	Bulk	1	798	9.46	11.98			
8511006	8/5/2011	Bulk	2	800	13.83	16.26			
8511006	8/5/2011	Bulk	3	842	12.31	14.8			
8511006	8/5/2011	Bulk	4	828	10.39	12.94	1.26	11.5	14
8511007	8/5/2011	Bulk	1	784	19.32	21.82			
8511007	8/5/2011	Bulk	2	780	7.43	10.22			
8511007	8/5/2011	Bulk	3	782	11.32	13.84			
8511007	8/5/2011	Bulk	4	820	10.3	12.78	1.22	12.09	14.67
8511008	8/5/2011	Bulk	1	838	13.43	15.89			
8511008	8/5/2011	Bulk	2	852	5.91	8.58			
8511008	8/5/2011	Bulk	3	820	7.1	9.82			
8511008	8/5/2011	Bulk	4	550	7.79	10.6	1.18	8.56	11.22
8511009	8/5/2011	Bulk	1	824	13.66	15.96			
8511009	8/5/2011	Bulk	2	774	5.78	8.59			
8511009	8/5/2011	Bulk	3	814	30.86	33.63			
8511009	8/5/2011	Bulk	4	828	17.48	19.88	1.25	16.95	19.52
8811001	8/8/2011	Bulk	1	792	2.71	6.39			
8811001	8/8/2011	Bulk	2	762	1.1	6.05			
8811001	8/8/2011	Bulk	3	848	0.22	10.03			
8811001	8/8/2011	Bulk	4	844	5.12	7.69	1.25	2.29	7.54
8811002	8/8/2011	Bulk	1	886	3.39	6.55			
8811002	8/8/2011	Bulk	2	808	3.38	6.54			
8811002	8/8/2011	Bulk	3	848	8.67	11.19			
8811002	8/8/2011	Bulk	4	838	3.13	6.28	1.3	4.67	7.64
8811003	8/8/2011	Bulk	1	852	8.63	11.03			
8811003	8/8/2011	Bulk	2	868	1.49	5.26			
8811003	8/8/2011	Bulk	3	856	5.56	8.34			
8811003	8/8/2011	Bulk	4	850	3.08	6.04	1.32	4.69	7.67
8811004	8/8/2011	Bulk	1	820	4.75	7.76			
8811004	8/8/2011	Bulk	2	820	5.24	7.81			
8811004	8/8/2011	Bulk	3	836	5.95	8.82			
8811004	8/8/2011	Bulk	4	864	3.91	6.73	1.28	4.96	7.78
8811005	8/8/2011	Bulk	1	854	4.81	7.9			
8811005	8/8/2011	Bulk	2	800	2.57	5.62			
8811005	8/8/2011	Bulk	3	828	9.4	11.99			
8811005	8/8/2011	Bulk	4	780	8.51	10.82	1.25	6.32	9.08
8811006	8/8/2011	Bulk	1	838	8.51	10.82			
8811006	8/8/2011	Bulk	2	850	0.86	5.79			
8811006	8/8/2011	Bulk	3	848	3.03	7.15			
8811006	8/8/2011	Bulk	4	838	1.77	5.31	1.3	3.54	7.27
8811007	8/8/2011	Bulk	1	764	10.47	13.35			
8811007	8/8/2011	Bulk	2	816	0.43	7.38			
8811007	8/8/2011	Bulk	3	812	41.11	43.91			



Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
8811007	8/8/2011	Bulk	4	816	3.21	6.17	1.23	13.81	17.7
8811008	8/8/2011	Bulk	1	798	0.78	6.47			
8811008	8/8/2011	Bulk	2	802	0.91	5.85			
8811008	8/8/2011	Bulk	3	794	3.78	6.95			
8811008	8/8/2011	Bulk	4	812	4.83	7.49	1.23	2.58	6.69
8811009	8/8/2011	Bulk	1	808	11.51	14.14			
8811009	8/8/2011	Bulk	2	844	5.09	7.8			
8811009	8/8/2011	Bulk	3	856	4.26	7.34			
8811009	8/8/2011	Bulk	4	848	0.86	5.37	1.29	5.43	8.66
8811010	8/8/2011	Bulk	1	800	2.94	6.25			
8811010	8/8/2011	Bulk	2	804	3.26	6.22			
8811010	8/8/2011	Bulk	3	828	3.1	7.05			
8811010	8/8/2011	Bulk	4	856	5.02	7.58	1.26	3.58	6.78
8811011	8/8/2011	Bulk	1	818	10.04	12.5			
8811011	8/8/2011	Bulk	2	814	5.28	7.7			
8811011	8/8/2011	Bulk	3	858	13.36	15.63			
8811011	8/8/2011	Bulk	4	818	5.02	7.78	1.27	8.43	10.9
8911001	8/9/2011	Bulk	1	774	13.13	15.5			
8911001	8/9/2011	Bulk	2	750	8.5	10.9			
8911001	8/9/2011	Bulk	3	682	13.63	16.2			
8911001	8/9/2011	Bulk	4	760	3.2	6.26	1.14	9.62	12.22
8911002	8/9/2011	Bulk	1	930	1.14	5.56			
8911002	8/9/2011	Bulk	2	936	0.98	4.59			
8911002	8/9/2011	Bulk	3	936	2.06	5.12			
8911002	8/9/2011	Bulk	4	950	0.57	4.59	1.44	1.19	4.97
8911003	8/9/2011	Bulk	1	894	1.91	5.15			
8911003	8/9/2011	Bulk	2	852	<MDA	<MDA			
8911003	8/9/2011	Bulk	3	936	1.68	6.28			
8911003	8/9/2011	Bulk	4	938	<MDA	<MDA	1.39	2.8	5.72
8911004	8/9/2011	Bulk	1	838	1.26	6.05			
8911004	8/9/2011	Bulk	2	808	4.16	6.83			
8911004	8/9/2011	Bulk	3	852	2.77	5.83			
8911004	8/9/2011	Bulk	4	866	1.06	5.48	1.29	2.31	6.05
8911005	8/9/2011	Bulk	1	700	2.13	5.92			
8911005	8/9/2011	Bulk	2	726	<MDA	<MDA			
8911005	8/9/2011	Bulk	3	730	3.23	6.06			
8911005	8/9/2011	Bulk	4	746	0.47	6.14	1.12	1.94	6.04
8911006	8/9/2011	Bulk	1	816	7.41	9.98			
8911006	8/9/2011	Bulk	2	754	2.96	5.91			
8911006	8/9/2011	Bulk	3	646	3.32	6.55			
8911006	8/9/2011	Bulk	4	826	2.02	5.08	1.17	3.93	6.88
8911007	8/9/2011	Bulk	1	896	1.91	5.45			
8911007	8/9/2011	Bulk	2	856	0.19	9.14			

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
8911007	8/9/2011	Bulk	3	838	4.63	7.31			
8911007	8/9/2011	Bulk	4	790	3.07	5.91	1.3	2.45	6.95
8911008	8/9/2011	Bulk	1	788	1.07	6.4			
8911008	8/9/2011	Bulk	2	864	2.15	5.33			
8911008	8/9/2011	Bulk	3	768	13.36	15.63			
8911008	8/9/2011	Bulk	4	706	5.02	7.78	1.2	5.4	8.79
8911009	8/9/2011	Bulk	1	950	2.94	5.54			
8911009	8/9/2011	Bulk	2	870	1.48	4.92			
8911009	8/9/2011	Bulk	3	1004	1.47	4.7			
8911009	8/9/2011	Bulk	4	950	4.08	6.74	1.45	2.49	5.48
81011001	8/10/2011	Bulk	1	720	18.32	20.96			
81011001	8/10/2011	Bulk	2	746	28.95	31.54			
81011001	8/10/2011	Bulk	3	716	14.18	16.83			
81011001	8/10/2011	Bulk	4	724	41.28	44.23	1.12	25.68	28.39
81011002	8/10/2011	Bulk	1	810	1.02	6.12			
81011002	8/10/2011	Bulk	2	722	10.34	12.62			
81011002	8/10/2011	Bulk	3	702	5.5	8.48			
81011002	8/10/2011	Bulk	4	708	7.32	9.85	1.13	6.05	9.27
81011003	8/10/2011	Bulk	1	698	13.62	16.55			
81011003	8/10/2011	Bulk	2	658	8.19	10.83			
81011003	8/10/2011	Bulk	3	744	<MDA	<MDA			
81011003	8/10/2011	Bulk	4	690	8.08	10.68	1.07	9.96	12.69
81011004	8/10/2011	Bulk	1	746	2.27	6.36			
81011004	8/10/2011	Bulk	2	700	12.01	14.77			
81011004	8/10/2011	Bulk	3	692	<MDA	<MDA			
81011004	8/10/2011	Bulk	4	676	5.74	8.23	1.08	6.67	9.79
81011005	8/10/2011	Bulk	1	786	17.61	20.11			
81011005	8/10/2011	Bulk	2	642	4.87	7.38			
81011005	8/10/2011	Bulk	3	718	5.98	8.69			
81011005	8/10/2011	Bulk	4	714	7.55	9.92	1.1	9	11.53
81011006	8/10/2011	Bulk	1	754	12.89	15.37			
81011006	8/10/2011	Bulk	2	716	7.79	10.13			
81011006	8/10/2011	Bulk	3	770	2.48	6.16			
81011006	8/10/2011	Bulk	4	724	29.83	32.55	1.14	13.25	16.05
81011007	8/10/2011	Bulk	1	742	48.78	52.31			
81011007	8/10/2011	Bulk	2	768	5.05	7.67			
81011007	8/10/2011	Bulk	3	748	10.1	12.61			
81011007	8/10/2011	Bulk	4	760	8.08	10.58	1.16	18	20.79
81011008	8/10/2011	Bulk	1	756	0.8	6.49			
81011008	8/10/2011	Bulk	2	760	6.59	9.13			
81011008	8/10/2011	Bulk	3	744	2.28	6.14			
81011008	8/10/2011	Bulk	4	748	7.2	9.68	1.16	4.22	7.86
81011009	8/10/2011	Bulk	1	740	16.95	19.64			

Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
81011009	8/10/2011	Bulk	2	754	16.39	18.81			
81011009	8/10/2011	Bulk	3	726	13.69	16.26			
81011009	8/10/2011	Bulk	4	736	24.99	27.6	1.14	18.01	20.58
81111001	8/11/2011	Bulk	1	862	3.74	6.82			
81111001	8/11/2011	Bulk	2	892	6.47	8.76			
81111001	8/11/2011	Bulk	3	884	2.18	6.04			
81111001	8/11/2011	Bulk	4	848	1.24	6.02	1.34	3.41	6.91
81111002	8/11/2011	Bulk	1	852	1.24	6.02			
81111002	8/11/2011	Bulk	2	858	3.43	6.01			
81111002	8/11/2011	Bulk	3	896	3.59	6.65			
81111002	8/11/2011	Bulk	4	878	3.12	5.97	1.34	2.85	6.16
81111003	8/11/2011	Bulk	1	732	3.8	6.67			
81111003	8/11/2011	Bulk	2	854	8.3	10.47			
81111003	8/11/2011	Bulk	3	740	3.76	7.24			
81111003	8/11/2011	Bulk	4	702	3.94	6.62	1.16	4.95	7.75
81111004	8/11/2011	Bulk	1	900	6.97	9.47			
81111004	8/11/2011	Bulk	2	848	11.04	13.27			
81111004	8/11/2011	Bulk	3	826	8.38	10.83			
81111004	8/11/2011	Bulk	4	856	4.3	7	1.32	7.67	10.14
81111005	8/11/2011	Bulk	1	858	0.98	6.31			
81111005	8/11/2011	Bulk	2	750	7.43	10.04			
81111005	8/11/2011	Bulk	3	806	3.99	7.58			
81111005	8/11/2011	Bulk	4	750	0.91	5.85	1.22	3.33	7.45
81111006	8/11/2011	Bulk	1	746	6.36	14.66			
81111006	8/11/2011	Bulk	2	734	5.02	7.41			
81111006	8/11/2011	Bulk	3	836	2.3	5.65			
81111006	8/11/2011	Bulk	4	882	7.61	9.8	1.23	5.32	9.38
81211001	8/12/2011	Bulk	1	836	1.72	6.06			
81211001	8/12/2011	Bulk	2	864	4.66	6.93			
81211001	8/12/2011	Bulk	3	916	4.16	7.31			
81211001	8/12/2011	Bulk	4	940	7.3	7.56	1.37	4.46	7.47
81211002	8/12/2011	Bulk	1	852	17.22	19.52			
81211002	8/12/2011	Bulk	2	828	0.78	6.1			
81211002	8/12/2011	Bulk	3	732	13.81	16.11			
81211002	8/12/2011	Bulk	4	800	5.74	8.5	1.24	9.39	12.56
81211003	8/12/2011	Bulk	1	794	11.37	13.68			
81211003	8/12/2011	Bulk	2	864	5.75	8.16			
81211003	8/12/2011	Bulk	3	648	4.55	7.35			
81211003	8/12/2011	Bulk	4	842	5.68	7.98	1.21	6.84	9.29
81211004	8/12/2011	Bulk	1	672	9.89	12.56			
81211004	8/12/2011	Bulk	2	802	8.55	10.87			
81211004	8/12/2011	Bulk	3	766	7.55	9.89			
81211004	8/12/2011	Bulk	4	786	5.12	7.73	1.16	7.78	10.26

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
81211005	8/12/2011	Bulk	1	770	10.04	12.55			
81211005	8/12/2011	Bulk	2	720	9.53	11.88			
81211005	8/12/2011	Bulk	3	720	9.83	12.43			
81211005	8/12/2011	Bulk	4	766	5.99	8.63	1.14	8.85	11.37
81211006	8/12/2011	Bulk	1	872	8.37	10.98			
81211006	8/12/2011	Bulk	2	848	6.53	8.72			
81211006	8/12/2011	Bulk	3	820	9.16	11.67			
81211006	8/12/2011	Bulk	4	852	8.72	11.07	1.3	8.2	10.61
81211007	8/12/2011	Bulk	1	836	16.26	18.66			
81211007	8/12/2011	Bulk	2	824	11.77	13.99			
81211007	8/12/2011	Bulk	3	824	13.05	15.45			
81211007	8/12/2011	Bulk	4	832	8.02	10.45	1.28	12.28	14.64
81211008	8/12/2011	Bulk	1	722	9.51	12.01			
81211008	8/12/2011	Bulk	2	756	8.32	10.6			
81211008	8/12/2011	Bulk	3	732	12.04	14.86			
81211008	8/12/2011	Bulk	4	686	7.52	9.96	1.11	9.35	11.86
81211009	8/12/2011	Bulk	1	898	8.61	10.95			
81211009	8/12/2011	Bulk	2	804	4.53	7.24			
81211009	8/12/2011	Bulk	3	890	0.64	7.97			
81211009	8/12/2011	Bulk	4	848	3.21	6.07	1.32	4.25	8.06
81511001	8/15/2011	Bulk	1	740	10.78	13.27			
81511001	8/15/2011	Bulk	2	884	7.72	10.3			
81511001	8/15/2011	Bulk	3	744	7.9	10.66			
81511001	8/15/2011	Bulk	4	828	7.14	9.65	1.23	8.39	10.97
81511002	8/15/2011	Bulk	1	828	8.33	10.75			
81511002	8/15/2011	Bulk	2	720	4.48	7.16			
81511002	8/15/2011	Bulk	3	750	9.77	12.41			
81511002	8/15/2011	Bulk	4	798	5.47	7.85	1.19	7.01	9.54
81511003	8/15/2011	Bulk	1	824	7.85	10.54			
81511003	8/15/2011	Bulk	2	900	7.37	9.66			
81511003	8/15/2011	Bulk	3	896	8.91	11.21			
81511003	8/15/2011	Bulk	4	886	9.62	11.78	1.35	8.44	10.8
81511004	8/15/2011	Bulk	1	710	7.28	10.46			
81511004	8/15/2011	Bulk	2	774	10.04	12.48			
81511004	8/15/2011	Bulk	3	760	13.91	16.35			
81511004	8/15/2011	Bulk	4	854	8.87	11.1	1.19	10.03	12.6
81511005	8/15/2011	Bulk	1	774	3.85	6.74			
81511005	8/15/2011	Bulk	2	850	5.36	7.69			
81511005	8/15/2011	Bulk	3	804	6.16	8.72			
81511005	8/15/2011	Bulk	4	828	3.7	6.59	1.25	4.77	7.44
81511006	8/15/2011	Bulk	1	852	28.72	31.27			
81511006	8/15/2011	Bulk	2	744	10.7	13.05			
81511006	8/15/2011	Bulk	3	882	16.92	19.36			

Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
81511006	8/15/2011	Bulk	4	750	13.13	15.4	1.24	17.37	19.77
81511007	8/15/2011	Bulk	1	852	8.1	10.62			
81511007	8/15/2011	Bulk	2	862	9.67	11.94			
81511007	8/15/2011	Bulk	3	832	5.69	8.28			
81511007	8/15/2011	Bulk	4	862	8.79	10.91	1.31	8.06	10.44
81511008	8/15/2011	Bulk	1	766	6.47	9.17			
81511008	8/15/2011	Bulk	2	802	4.29	7.06			
81511008	8/15/2011	Bulk	3	772	5.29	8.04			
81511008	8/15/2011	Bulk	4	820	4.63	7.28	1.22	5.17	7.89
81611001	8/16/2011	Bulk	1	832	5.81	8.68			
81611001	8/16/2011	Bulk	2	764	10.71	13.23			
81611001	8/16/2011	Bulk	3	826	7.43	9.95			
81611001	8/16/2011	Bulk	4	730	6.81	9.74	1.21	7.69	10.4
81611002	8/16/2011	Bulk	1	796	7.71	10.24			
81611002	8/16/2011	Bulk	2	804	5.71	8.2			
81611002	8/16/2011	Bulk	3	686	19.38	21.77			
81611002	8/16/2011	Bulk	4	802	6.43	8.83	1.19	9.81	12.26
81611003	8/16/2011	Bulk	1	822	22.49	25			
81611003	8/16/2011	Bulk	2	828	16.25	18.53			
81611003	8/16/2011	Bulk	3	842	23.27	25.77			
81611003	8/16/2011	Bulk	4	870	16.77	19.01	1.29	19.7	22.08
81611004	8/16/2011	Bulk	1	822	5.89	8.76			
81611004	8/16/2011	Bulk	2	814	5.87	8.59			
81611004	8/16/2011	Bulk	3	812	8.62	11.17			
81611004	8/16/2011	Bulk	4	824	9.01	11.27	1.26	7.35	9.95
81611005	8/16/2011	Bulk	1	872	8.28	10.78			
81611005	8/16/2011	Bulk	2	798	9.31	11.47			
81611005	8/16/2011	Bulk	3	844	18.83	21.38			
81611005	8/16/2011	Bulk	4	794	5.3	8.15	1.27	10.43	12.95
81611006	8/16/2011	Bulk	1	788	11.35	13.76			
81611006	8/16/2011	Bulk	2	658	10.43	12.82			
81611006	8/16/2011	Bulk	3	802	8.46	11.14			
81611006	8/16/2011	Bulk	4	686	10.55	12.19	1.13	10.2	12.66
81611007	8/16/2011	Bulk	1	826	13.19	15.57			
81611007	8/16/2011	Bulk	2	916	9.14	11.3			
81611007	8/16/2011	Bulk	3	816	10.17	12.7			
81611007	8/16/2011	Bulk	4	812	6.82	9.4	1.3	9.83	12.24
81611008	8/16/2011	Bulk	1	850	4.93	7.66			
81611008	8/16/2011	Bulk	2	836	5.49	8.11			
81611008	8/16/2011	Bulk	3	834	4.5	7.51			
81611008	8/16/2011	Bulk	4	890	4.31	6.79	1.31	4.81	7.52
81611009	8/16/2011	Bulk	1	792	10.48	13.02			
81611009	8/16/2011	Bulk	2	788	18.27	20.52			

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
81611009	8/16/2011	Bulk	3	866	14.86	17.24			
81611009	8/16/2011	Bulk	4	886	15.4	17.57	1.28	14.75	17.09
81611010	8/16/2011	Bulk	1	952	5.76	8.6			
81611010	8/16/2011	Bulk	2	816	8.18	10.61			
81611010	8/16/2011	Bulk	3	838	12.74	15.29			
81611010	8/16/2011	Bulk	4	912	11.02	13.35	1.35	9.43	11.96
81611011	8/16/2011	Bulk	1	858	3.09	6.54			
81611011	8/16/2011	Bulk	2	876	6.32	8.64			
81611011	8/16/2011	Bulk	3	910	1.97	6.05			
81611011	8/16/2011	Bulk	4	872	5.26	7.87	1.35	4.16	7.28
81711001	8/17/2011	Bulk	1	852	3.05	6.5			
81711001	8/17/2011	Bulk	2	774	4.72	7.44			
81711001	8/17/2011	Bulk	3	800	7.33	9.89			
81711001	8/17/2011	Bulk	4	808	10.84	13.12	1.24	6.49	9.24
81711002	8/17/2011	Bulk	1	820	2.11	6.81			
81711002	8/17/2011	Bulk	2	806	7.82	10.41			
81711002	8/17/2011	Bulk	3	816	16.23	18.85			
81711002	8/17/2011	Bulk	4	834	3.93	7.21	1.26	7.52	10.82
81711003	8/17/2011	Bulk	1	722	5.73	8.49			
81711003	8/17/2011	Bulk	2	818	4.23	6.83			
81711003	8/17/2011	Bulk	3	828	6.56	9.04			
81711003	8/17/2011	Bulk	4	766	7.98	10.34	1.21	6.13	8.69
81711004	8/17/2011	Bulk	1	800	7.6	10.26			
81711004	8/17/2011	Bulk	2	772	5.22	7.99			
81711004	8/17/2011	Bulk	3	760	4.55	7.48			
81711004	8/17/2011	Bulk	4	824	9.94	12.15	1.21	6.83	9.45
81711005	8/17/2011	Bulk	1	884	5.9	8.54			
81711005	8/17/2011	Bulk	2	852	6.51	8.96			
81711005	8/17/2011	Bulk	3	804	8.1	10.81			
81711005	8/17/2011	Bulk	4	862	7.75	10.17	1.31	7.07	9.62
81711006	8/17/2011	Bulk	1	758	98.77	103.82			
81711006	8/17/2011	Bulk	2	798	32.69	35.35			
81711006	8/17/2011	Bulk	3	860	49.22	52.49			
81711006	8/17/2011	Bulk	4	742	43.02	46.01	1.21	55.93	59.42
81711007	8/17/2011	Bulk	1	808	13.42	15.89			
81711007	8/17/2011	Bulk	2	798	16.16	18.47			
81711007	8/17/2011	Bulk	3	856	11.15	13.74			
81711007	8/17/2011	Bulk	4	866	15.76	18.15	1.28	14.12	16.56
81711008	8/17/2011	Bulk	1	876	24.78	27.31			
81711008	8/17/2011	Bulk	2	848	27.64	30.17			
81711008	8/17/2011	Bulk	3	810	14.75	17.19			
81711008	8/17/2011	Bulk	4	842	27.64	30.23	1.3	23.7	26.23
81711009	8/17/2011	Bulk	1	898	12.07	14.41			

Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
81711009	8/17/2011	Bulk	2	878	10.62	13.17			
81711009	8/17/2011	Bulk	3	868	8.75	11.41			
81711009	8/17/2011	Bulk	4	848	15.65	17.99	1.34	11.77	14.25
81811001	8/18/2011	Bulk	1	966	18.13	20.67			
81811001	8/18/2011	Bulk	2	886	11.23	14.02			
81811001	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811001	8/18/2011	Bulk	4	N/A	N/A	N/A	1.42	14.68	17.35
81811002	8/18/2011	Bulk	1	1036	5.65	8.23			
81811002	8/18/2011	Bulk	2	956	4.89	7.72			
81811002	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811002	8/18/2011	Bulk	4	N/A	N/A	N/A	1.53	5.26	7.98
81811003	8/18/2011	Bulk	1	1076	<MDA	<MDA			
81811003	8/18/2011	Bulk	2	1048	1.21	5.64			
81811003	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811003	8/18/2011	Bulk	4	N/A	N/A	N/A	1.63	1.21	5.64
81811004	8/18/2011	Bulk	1	1066	14.01	16.52			
81811004	8/18/2011	Bulk	2	1018	18.04	20.46			
81811004	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811004	8/18/2011	Bulk	4	N/A	N/A	N/A	1.6	16.03	18.49
81811005	8/18/2011	Bulk	1	1016	12.81	15.42			
81811005	8/18/2011	Bulk	2	1014	9.31	12.06			
81811005	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811005	8/18/2011	Bulk	4	N/A	11.02	N/A	1.56	11.05	13.74
81811006	8/18/2011	Bulk	1	1076	5.4	8.26			
81811006	8/18/2011	Bulk	2	1088	5.1	7.86			
81811006	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811006	8/18/2011	Bulk	4	N/A	N/A	N/A	1.66	5.25	8.06
81811007	8/18/2011	Bulk	1	1004	4.84	7.93			
81811007	8/18/2011	Bulk	2	1120	2.47	5.98			
81811007	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811007	8/18/2011	Bulk	4	N/A	N/A	N/A	1.63	3.66	6.96
81811008	8/18/2011	Bulk	1	964	26.72	29.49			
81811008	8/18/2011	Bulk	2	990	15.8	18.48			
81811008	8/18/2011	Bulk	3	N/A	N/A	N/A			
81811008	8/18/2011	Bulk	4	N/A	N/A	N/A	1.5	21.26	23.99
81911001	8/19/2011	Bulk	1	588	<MDA	<MDA			
81911001	8/19/2011	Bulk	2	582	<MDA	<MDA			
81911001	8/19/2011	Bulk	3	N/A	N/A	N/A			
81911001	8/19/2011	Bulk	4	N/A	N/A	N/A	2.48	N/A	N/A
81911002	8/19/2011	Bulk	1	554	0.47	10.29			
81911002	8/19/2011	Bulk	2	556	4.6	7.31			
81911002	8/19/2011	Bulk	3	N/A	N/A	N/A			
81911002	8/19/2011	Bulk	4	N/A	N/A	N/A	2.35	2.54	8.8

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
81911003	8/19/2011	Bulk	1	366	15.95	18.77			
81911003	8/19/2011	Bulk	2	386	11.11	13.91			
81911003	8/19/2011	Bulk	3	382	26.08	28.77			
81911003	8/19/2011	Bulk	4	N/A	N/A	N/A	1.6	17.71	20.48
81911004	8/19/2011	Bulk	1	344	8.75	11.93			
81911004	8/19/2011	Bulk	2	320	7.54	10.56			
81911004	8/19/2011	Bulk	3	348	1.52	7.23			
81911004	8/19/2011	Bulk	4	N/A	N/A	N/A	1.43	5.94	9.91
81911005	8/19/2011	Bulk	1	418	17.59	20.35			
81911005	8/19/2011	Bulk	2	410	16.92	19.45			
81911005	8/19/2011	Bulk	3	330	37.56	40.62			
81911005	8/19/2011	Bulk	4	N/A	N/A	N/A	1.64	24.02	26.81
81911006	8/19/2011	Bulk	1	430	32.75	35.7			
81911006	8/19/2011	Bulk	2	426	25.99	28.75			
81911006	8/19/2011	Bulk	3	442	13.55	16.44			
81911006	8/19/2011	Bulk	4	N/A	N/A	N/A	1.83	24.1	26.96
81911007	8/19/2011	Bulk	1	414	0.98	7.95			
81911007	8/19/2011	Bulk	2	428	7.81	10.23			
81911007	8/19/2011	Bulk	3	398	<MDA	<MDA			
81911007	8/19/2011	Bulk	4	11.02	N/A	N/A	1.75	6.6	9.09
81911008	8/19/2011	Bulk	1	412	4.15	7.78			
81911008	8/19/2011	Bulk	2	420	17.86	20.48			
81911008	8/19/2011	Bulk	3	420	3.05	6.55			
81911008	8/19/2011	Bulk	4	N/A	N/A	N/A	1.77	8.35	11.6
81911009	8/19/2011	Bulk	1	396	1.58	6.26			
81911009	8/19/2011	Bulk	2	386	2.71	6.4			
81911009	8/19/2011	Bulk	3	386	<MDA	<MDA			
81911009	8/19/2011	Bulk	4	N/A	N/A	N/A	1.65	2.15	6.33
82211001	8/22/2011	Bulk	1	932	5.27	18.17			
82211001	8/22/2011	Bulk	2	66	<MDA	<MDA			
82211001	8/22/2011	Bulk	3	936	4.39	8.18			
82211001	8/22/2011	Bulk	4	986	<MDA	<MDA	1.47	9.83	13.18
82211002	8/22/2011	Bulk	1	960	30.31	33.29			
82211002	8/22/2011	Bulk	2	910	<MDA	<MDA			
82211002	8/22/2011	Bulk	3	908	16.33	19.1			
82211002	8/22/2011	Bulk	4	922	<MDA	<MDA	1.42	23.32	26.2
82211003	8/22/2011	Bulk	1	98	18.37	20.86			
82211003	8/22/2011	Bulk	2	926	14	16.55			
82211003	8/22/2011	Bulk	3	884	10.2	12.74			
82211003	8/22/2011	Bulk	4	930	19.36	21.92	1.42	15.52	8.2
82211004	8/22/2011	Bulk	1	898	7.97	10.68			
82211004	8/22/2011	Bulk	2	902	11.4	13.86			
82211004	8/22/2011	Bulk	3	958	12.49	14.93			



Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
								Measured Activity	Max Activity
82211004	8/22/2011	Bulk	4	980	9.02	11.51	1.44	10.22	12.75
82211005	8/22/2011	Bulk	1	1034	5.76	8.3			
82211005	8/22/2011	Bulk	2	1112	9.13	11.47			
82211005	8/22/2011	Bulk	3	1096	3.08	6.41			
82211005	8/22/2011	Bulk	4	1086	4.74	7.4	1.66	5.68	8.4
82211006	8/22/2011	Bulk	1	1020	8.85	11.31			
82211006	8/22/2011	Bulk	2	1008	2.64	6.36			
82211006	8/22/2011	Bulk	3	984	6.36	9.02			
82211006	8/22/2011	Bulk	4	1062	6.77	9.27	1.57	6.16	8.99
82211007	8/22/2011	Bulk	1	1072	6.46	8.99			
82211007	8/22/2011	Bulk	2	1028	6.04	8.94			
82211007	8/22/2011	Bulk	3	980	5.61	8.39			
82211007	8/22/2011	Bulk	4	956	7.67	10.2	1.55	6.45	9.13
82211008	8/22/2011	Bulk	1	930	5.97	8.77			
82211008	8/22/2011	Bulk	2	926	12.17	14.74			
82211008	8/22/2011	Bulk	3	912	3.54	6.82			
82211008	8/22/2011	Bulk	4	970	13.1	15.51	1.44	8.7	11.46
82211009	8/22/2011	Bulk	1	986	2.97	5.91			
82211009	8/22/2011	Bulk	2	1026	0.84	5.78			
82211009	8/22/2011	Bulk	3	994	17.63	20.07			
82211009	8/22/2011	Bulk	4	956	3.62	6.59	1.52	6.27	9.59
82211010	8/22/2011	Bulk	1	1006	0.36	7.85			
82211010	8/22/2011	Bulk	2	946	6.67	9.05			
82211010	8/22/2011	Bulk	3	974	4.33	7.07			
82211010	8/22/2011	Bulk	4	956	1.19	5.97	1.49	3.14	7.49
82311001	8/23/2011	Bulk	1	1102	7.86	10.38			
82311001	8/23/2011	Bulk	2	1032	2.56	6.13			
82311001	8/23/2011	Bulk	3	1096	<MDA	<MDA			
82311001	8/23/2011	Bulk	4	1064	1.05	5.99	1.65	3.82	7.5
82311002	8/23/2011	Bulk	1	1076	7.61	10.08			
82311002	8/23/2011	Bulk	2	1048	13.17	15.77			
82311002	8/23/2011	Bulk	3	1066	9.35	11.7			
82311002	8/23/2011	Bulk	4	1076	2.68	6.29	1.64	8.2	10.96
82311003	8/23/2011	Bulk	1	944	0	11.14			
82311003	8/23/2011	Bulk	2	898	3.9	6.97			
82311003	8/23/2011	Bulk	3	878	5.8	8.34			
82311003	8/23/2011	Bulk	4	922	5.47	8	1.4	3.79	8.61
82311004	8/23/2011	Bulk	1	904	6.75	9.79			
82311004	8/23/2011	Bulk	2	928	17.73	20.42			
82311004	8/23/2011	Bulk	3	922	16.46	19.05			
82311004	8/23/2011	Bulk	4	930	7.36	10.28	1.42	12.08	14.89
82311005	8/23/2011	Bulk	1	940	10.85	13.54			
82311005	8/23/2011	Bulk	2	962	10.56	13.14			

Manifest Number	Date	Type		Sample Mass	Measured Activity	Maximum Activity	Average Density	Average	Average
		Shipment	Sample					Measured	Max
								Activity	Activity
82311005	8/23/2011	Bulk	3	930	13.22	15.81			
82311005	8/23/2011	Bulk	4	932	14.58	17.12	1.45	12.3	14.9
82311006	8/23/2011	Bulk	1	960	4.4	7.85			
82311006	8/23/2011	Bulk	2	972	8.31	10.84			
82311006	8/23/2011	Bulk	3	974	11.98	14.8			
82311006	8/23/2011	Bulk	4	930	3.18	7.15	1.48	6.97	10.16
82311007	8/23/2011	Bulk	1	928	2.63	6.73			
82311007	8/23/2011	Bulk	2	902	1.85	6.62			
82311007	8/23/2011	Bulk	3	896	16.45	18.93			
82311007	8/23/2011	Bulk	4	900	0.99	6.96	1.39	5.48	9.81
82311008	8/23/2011	Bulk	1	930	24.94	27.76			
82311008	8/23/2011	Bulk	2	922	15.89	18.56			
82311008	8/23/2011	Bulk	3	942	19.61	22.38			
82311008	8/23/2011	Bulk	4	932	17.92	20.6	1.43	19.59	22.33
82311009	8/23/2011	Bulk	1	910	32.75	35.72			
82311009	8/23/2011	Bulk	2	956	18.19	20.9			
82311009	8/23/2011	Bulk	3	960	24.28	27.07			
82311009	8/23/2011	Bulk	4	928	18.29	21.09	1.44	23.38	26.2
82311010	8/23/2011	Bulk	1	966	33.16	36.12			
82311010	8/23/2011	Bulk	2	930	13.5	16.37			
82311010	8/23/2011	Bulk	3	898	19.31	22.09			
82311010	8/23/2011	Bulk	4	932	19.59	22.25	1.43	21.39	24.21
82311011	8/23/2011	Bulk	1	1140	0.53	5.45			
82311011	8/23/2011	Bulk	2	1102	2.83	5.77			
82311011	8/23/2011	Bulk	3	1066	<MDA	<MDA			
82311011	8/23/2011	Bulk	4	1136	1.85	4.75	1.71	1.74	5.32
82411001	8/24/2011	Bulk	1	1102	<MDA	<MDA			
82411001	8/24/2011	Bulk	2	1032	0.64	5.83			
82411001	8/24/2011	Bulk	3	1096	0.6	8.24			
82411001	8/24/2011	Bulk	4	1064	0.86	4.89	1.65	0.7	5.32
82411002	8/24/2011	Bulk	1	1056	<MDA	<MDA			
82411002	8/24/2011	Bulk	2	1076	<MDA	<MDA			
82411002	8/24/2011	Bulk	3	1098	<MDA	<MDA			
82411002	8/24/2011	Bulk	4	1072	0.61	5.26	1.65	0.61	5.26
82411003	8/24/2011	Bulk	1	1092	<MDA	<MDA			
82411003	8/24/2011	Bulk	2	994	<MDA	<MDA			
82411003	8/24/2011	Bulk	3	1052	0.87	4.9			
82411003	8/24/2011	Bulk	4	1100	<MDA	<MDA	1.63	0.87	4.9
82411004	8/24/2011	Bulk	1	986	0.16	8.16			
82411004	8/24/2011	Bulk	2	860	0.49	6.17			
82411004	8/24/2011	Bulk	3	892	<MDA	<MDA			
82411004	8/24/2011	Bulk	4	946	<MDA	<MDA	1.42	0.33	7.17
82411005	8/24/2011	Bulk	1	940	<MDA	<MDA			

Manifest Number	Date	Type Shipment	Sample Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
82411005	8/24/2011	Bulk	2	962	1.29	5.34			
82411005	8/24/2011	Bulk	3	930	<MDA	<MDA			
82411005	8/24/2011	Bulk	4	932	<MDA	<MDA	1.45	1.29	5.34
82411006	8/24/2011	Bulk	1	952	2.33	5.41			
82411006	8/24/2011	Bulk	2	920	<MDA	<MDA			
82411006	8/24/2011	Bulk	3	990	0.41	6.76			
82411006	8/24/2011	Bulk	4	996	0.41	6.75	1.48	1.05	6.31
82411007	8/24/2011	Bulk	1	1016	1.66	5.1			
82411007	8/24/2011	Bulk	2	1006	<MDA	<MDA			
82411007	8/24/2011	Bulk	3	926	0.73	5.38			
82411007	8/24/2011	Bulk	4	930	1.84	5.3	1.49	1.41	5.26
82411008	8/24/2011	Bulk	1	1010	1.16	5.21			
82411008	8/24/2011	Bulk	2	974	0.95	5.89			
82411008	8/24/2011	Bulk	3	1092	<MDA	<MDA			
82411008	8/24/2011	Bulk	4	984	<MDA	<MDA	1.56	1.06	5.55
82411009	8/24/2011	Bulk	1	1170	2.05	4.96			
82411009	8/24/2011	Bulk	2	872	0.48	6.83			
82411009	8/24/2011	Bulk	3	1058	<MDA	<MDA			
82411009	8/24/2011	Bulk	4	1052	<MDA	<MDA	1.6	1.27	5.9
82411010	8/24/2011	Bulk	1	990	1.45	5.16			
82411010	8/24/2011	Bulk	2	980	0.68	6.37			
82411010	8/24/2011	Bulk	3	970	1.49	5.87			
82411010	8/24/2011	Bulk	4	1046	2.09	5.15	1.53	1.43	5.64
82511001	8/25/2011	Bulk	1	472	<MDA	<MDA			
82511001	8/25/2011	Bulk	2	430	0.77	7.33			
82511001	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511001	8/25/2011	Bulk	4	N/A	N/A	N/A	1.91	0.77	7.33
82511002	8/25/2011	Bulk	1	482	<MDA	<MDA			
82511002	8/25/2011	Bulk	2	430	8.44	11.34			
82511002	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511002	8/25/2011	Bulk	4	N/A	N/A	N/A	1.93	8.44	11.34
82511003	8/25/2011	Bulk	1	454	25.01	28.05			
82511003	8/25/2011	Bulk	2	430	15.01	18.08			
82511003	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511003	8/25/2011	Bulk	4	N/A	N/A	N/A	1.87	20.01	23.07
82511004	8/25/2011	Bulk	1	506	<MDA	<MDA			
82511004	8/25/2011	Bulk	2	504	0.65	5.84			
82511004	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511004	8/25/2011	Bulk	4	N/A	N/A	N/A	2.14	0.65	5.84
82511005	8/25/2011	Bulk	1	462	0.3	9.48			
82511005	8/25/2011	Bulk	2	478	0.68	6.82			
82511005	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511005	8/25/2011	Bulk	4	N/A	N/A	N/A	1.99	0.49	8.15

Manifest Number	Date	Type Shipment	Sample	Sample Mass	Measured Activity	Maximum Activity	Average Density	Average Measured Activity	Average Max Activity
82511006	8/25/2011	Bulk	1	448	<MDA	<MDA			
82511006	8/25/2011	Bulk	2	478	<MDA	<MDA			
82511006	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511006	8/25/2011	Bulk	4	N/A	N/A	N/A	1.96	N/A	N/A
82511007	8/25/2011	Bulk	1	454	<MDA	<MDA			
82511007	8/25/2011	Bulk	2	476	<MDA	<MDA			
82511007	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511007	8/25/2011	Bulk	4	N/A	N/A	N/A	1.97	N/A	N/A
82511008	8/25/2011	Bulk	1	448	48.86	50.36			
82511008	8/25/2011	Bulk	2	446	1.79	6.24			
82511008	8/25/2011	Bulk	3	N/A	N/A	N/A			
82511008	8/25/2011	Bulk	4	N/A	N/A	N/A	1.89	24.33	28.3
<b>TOTAL</b>		<b>174 Loads</b>							

# APPENDIX G

## NNEPA FINAL RECLAMATION PLAN

**Reclamation Plan****Highway 160 Project Site, Tuba City, Arizona**

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**1.0 Current Ownership and Land Use**

Public Law 111-8 is attached at the end of this plan showing this site was recognized for remediation. The Highway 160 Project Site is on land that is within a Navajo families' customary use area – administered by the Bureau of Indian Affairs customary land-use permitting system. One family has resided in the area prior to the milling facility being situated as the Rare Metals Uranium Mill Processing Site. The milling facility is now referred to as the Uranium Mill Tailings Radiation Control Action site or Tuba City Disposal Site is under the U. S. Department of Energy for groundwater remediation. The site was identified in 2003 as an illegal disposal and burial site thereby, it has undergone three (3) non-intrusive investigations, and one (1) intrusive investigation to determine the site consists of uranium mill processing materials. The Site has debris including asphalt, concrete, metal objects, glass ware, processing tools (i.e., mill balls), uranium processed materials and contaminated soils. The period of disposal and burial occurred in the late 1950s into the early 1960s.

El Paso Natural Gas Company entered into a cooperative agreement with the Navajo Nation in 2008 to assist in restricting access to the Highway 160 Project Site with a metal chain-linked fence with two (2) gates enclosing 7.6-acres, and placing a palliative cover for soil treatment and stabilization throughout the acreage.

In 2010, the U. S. Department of Energy and their contractor S&K Aerospace LLC provided an intrusive characterization sampling throughout the 7.6-acres, and determined that 12 Areas existed – A through L, holding radioactivity and uranium mill materials. Surface disturbance for these areas is estimated to be less than three (3) acres total, once excavated uranium mill materials are removed with contaminated soils.

Current land use reflects a mixture of ranching, wildlife habitat, and recreational use. The recreational use occurs east of the Highway 160 Project Site during October to November for horse racing.

The Navajo Nation Historic Preservation has determined no existence of historic or cultural resources exist in the area as of 2004.

### 1.1 PROPOSED POST-EXCAVATION USE OF THE LAND

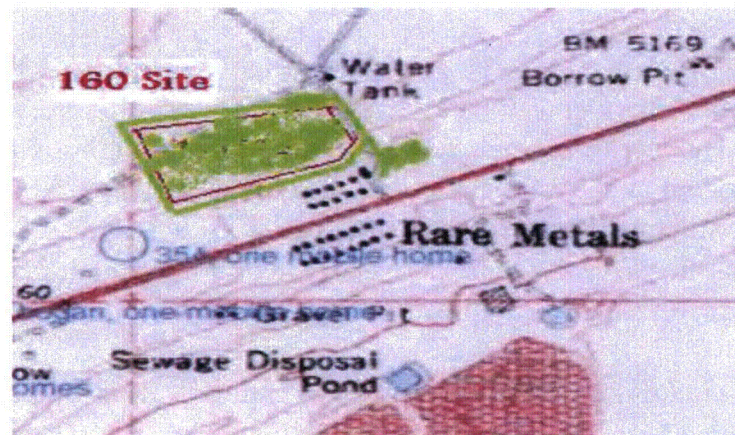
Current and proposed post-excitation recreational activities include gathering up wild horses that are competing for area vegetation with current livestock owners in the customary land-use area. This project site will also continue ranching and wildlife habitat activities after the removal of the wild horses.

Reclamation will be suitable for continual livestock grazing as so determined by the area residents.

### 1.2 DESCRIPTION OF THE PROJECT SITE UNIT AND THE PROPOSED SURFACE DISTURBANCE

In general, the Project site will retain the existing fenced area with gates as pre-arranged with the El Paso Natural Gas Company at the request by area residents.

The total project disturbance footprint of the operation including utility corridors, access roads, and buffer areas is approximately five (5) acres. A description of the footprints is contained in the topography map as shown below with the green markings.



### 1.3 EXISTING AND PROPOSED FINAL TOPOGRAPHY

The Highway 160 Project Site is approximately five (5) miles from the

communities of Tuba City municipality and the villages of the Hopi Tribe, and is between 5,000 to 5,700 feet in elevation. Moenkopi Wash is the major drainage system lying directly south of the Project Site. Surface drainage depends on elevation grade and has a higher elevation gradient from East to West. Another draining system lies west, called Pasture Canyon that results from a permanent impoundment reservoir where other recreational activities occur. Vegetative communities consist of semi-desert grasslands.

The Project will reclaim areas disturbed during excavation within the fenced area by contour furrowing the areas of disturbance across the slopes of these areas. Traffic areas outside the fenced area will be disked to minimize windblown dispersal for erosion purposes as these areas will not be treated because of continued local residential traffic. Other rural access roads will be left as is for residential access to other areas previously established prior to the project development. The approach will be completed after the excavated areas are backfilled with compacted soils, generally each foot of material should be compacted in between lifts used as backfill, that were retained locally with imported topsoil to cover approximately six (6) inches of those 12 areas of disturbance for beneficial growth of suitable seed mix appropriate for the area as determined by the Navajo Nation Department of Agriculture and the U. S. Department of Agriculture, Natural Resources Conservation Service for appropriate recommendations for this area. The reclamation methods will conform to existing terrain, and insure that finished slopes do not exceed 5:1 percent slope which would lend to future erosion problems.

The Project Site did receive a Storm Water Discharge permit, AZR10HBBI, whereby, the mulched filled buoys will be utilized for mulch to areas seeded.

#### **1.4 NARRATIVE DESCRIPTION OF AREA ROADS**

Access to the site is through four (4) rural roadways. Each road comes from north, east, south, and west as utilized by the area residents, as well as a service roadway by the Arizona Public Service for electrical transmission lines, Navajo Tribal Utility Authority for the Tuba City municipal water well, and other area residents bypassing the site to

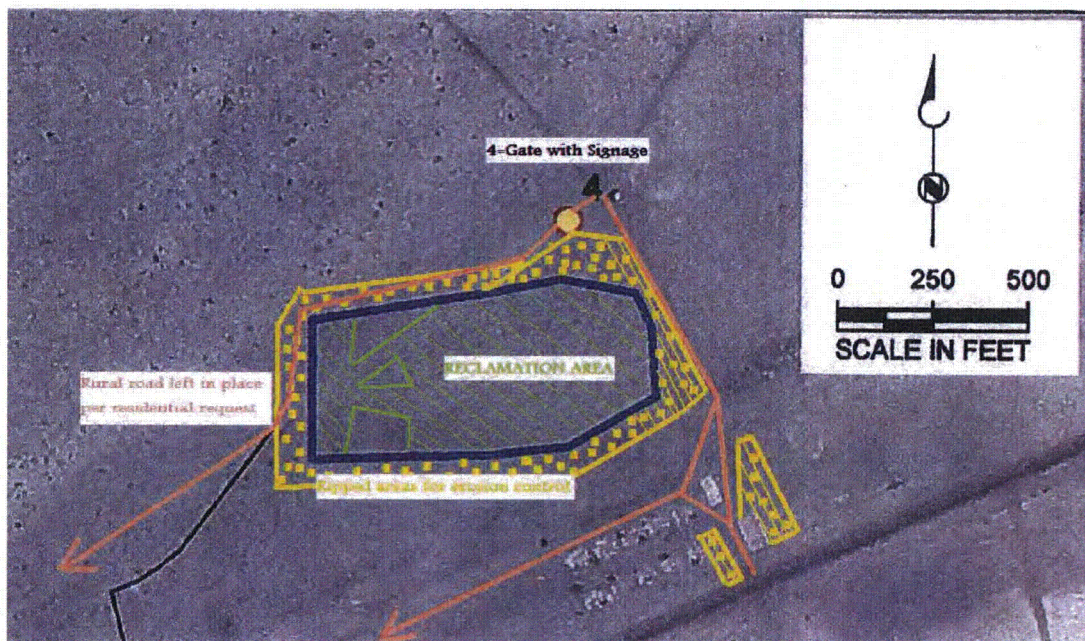


access the watering livestock points lying to the northeast. The southern access roadway intersects with Arizona Highway 160.

**1.5 ACREAGE AFFECTED BY EACH TYPE OF SURFACE DISTURBANCE**

The following table depicts the acreages that will be disturbed at the site.

Affected Areas	Disturbed Acreage	Total Customary Land-Use Acreage
Site including access roads and reclaimed excavated areas within the Project Site. Other roadways on the perimeter of the fenced area will not be affected as rural residents and service contractors continue to utilize those roadway systems. A small area on the northeast portion of the fenced area will be disked to stabilize for erosion prevention.	(~3,000 cubic yards per January 2011 DOE report but land survey results to 3,919 cubic yards of actual excavation. ) Surface disturbance yields 6.2 acres. (See Figure 1)	6.4 acres
Total	6.4 acres	6.4 acres



[Figure 1 – Reclamation area and disk areas for erosion control.]

## 2.0 DESCRIPTION OF WILDLIFE HABITAT THAT WILL BE DISTURBED

The Navajo Nation Fish & Wildlife has continued to assist at the Project site to identify any Endangered Species Act ("ESA") listed species, or remove animals or reptiles that may pose a hazard to personnel working within the site area; and have removed a nest of prairie rattlesnakes (i.e., *Crotalus viridis*) in 2008 with more of the same species in 2010. They have never determined the site had any ESA species. Prior to removal of the snakes in 2008, a dead badger (i.e., *Taxidea taxus*) was identified near the site. Sighting of a red fox (i.e., *Vulpes vulpes*), and one possible burrowing owl (i.e., *Speotyto cunicularia hypugaea*) have not been seen in recent years, and have not returned. Several lizards [i.e., *Phrynosomatinae* (subfamily)] have been seen on the site as well as desert scorpions (i.e., order *Scorpiones* within the class *Arachnida*).

The recommendations of the NEPA provisions provided by Navajo Nation Historic Preservation and the Fish & Wildlife is to be alert of any potential historic or cultural resources including animals or other living species that may halt the remediation of the Highway 160 project site.

## 3.0 MEASURES THAT WILL BE TAKEN TO RESTRICT PUBLIC ACCESS TO THE PROJECT

The Highway 160 Project Site has a eight (8) foot chain linked fence with two double gate access areas that are locked at all times and restricted access during construction for the excavation period. After reclamation, the site will be closed off through the winter period and a change-over to the area residents will then be allowed after vegetation has re-established with the site area.

## 4.0 RECLAMATION PLAN FOR THE HIGHWAY 160 PROJECT SITE

### 4.1 SCOPE

The work shall consist of all site preparation, planting and treatments as required for critical area planting. The selected seed mix is consistent with grasses found to be growing within the Site. Other shrubs will self seed.

### 4.2 GENERAL REQUIREMENTS

#### A. Seeding grasses and legumes.

*Site Preparation* – Install needed erosion control practices such as

diversion, grade stabilization structures, berms, dikes, terraces, contour ripping and pitting.

Topsoil may be salvaged from the project area or it may be furnished from sources outside the area to be treated. Excavate the top six inches of soil plating material. Include plant parts such as stems, leaves, etc., to aid in re-vegetation. Compost can be utilized from area corrals to be mixed into the topsoil for more organic based matter as much of area soils are sandy.

When fill is complete on the structure, spread the stockpiled material over the desired area by front-end loader or other equipment. Surfaces to be covered shall be lightly scarified (2-3 inches) just prior to the spreading operation to permit bonding of topsoil to the subsoil or fill material.

The seed mixture annotated in Table 1 will be used for this project. Use certified noxious weed free seed.

*Seedbed Preparation* – On sites where equipment can operate and seedbed preparation is needed, prepare a seedbed as for pasture planting. Seedbed is clean and firm (man's footprint no deeper than ¼-½ inch).

On sites where equipment cannot operate, remove debris, if any, and smooth.

*Seeding* – Broadcasting of seed either by ground operation may be used when competing vegetation has been eliminated either by fire, mechanical or chemical methods. It is limited to situations where the terrain or obstructions prohibit the use of a drill. Ground operations may be by hand, whirlwind-type seeder or drill without a seed placement mechanism (e.g., furrow openers, depth control devices). Broadcasting, without covering or packing, requires no less than 1½ times the amount of seed used for drilling. A seed dribbler on a track-tractor may be used in broadcast seeding.

Broadcast uniformly and cover seed by drag, harrow, or cultipacker (or in some cases, livestock may be driven through the area) so that as many seeds as possible will be covered.

*Fertilizer* – If the area consists mostly of infertile subsoil, apply 20 lbs. of nitrogen and 10 lbs. of phosphate per acre.

*Mulching* – Required on all sites with an erosion hazard unless a preparatory crop like small grain is used.

Apply native grass hay or straw mulch, 2 tons per acre, immediately after

seeding. Anchor the mulch to a soil depth of 2-3 inches with a mulch-anchoring disk. On sites not permitting a mulch tucker, use asphalt emulsion at a rate of 200 gallons per acre, or anchor by hand with a square point spade. Push mulch into soil two inches deep about every 12 inches. Use certified noxious weed free straw or native grass hay to reduce the rest of introducing noxious weeds to the site.

Frequent light irrigation will enhance establishment. Apply available water with a sprinkler system after seeding and rolling. Avoid excessive application to prevent erosion and runoff.

#### **B. Maintenance of Seedings and Plantings**

Livestock must be excluded from plantings until established or a minimum of two grazing seasons. Established plantings may then be grazed cautiously and moderately.

Fence as necessary to accomplish this part of this practice. Any gaps left by poor stand establishment or poor survival should be treated again to provide complete protection to the area.

Control weeds until new plantings are established.

#### **4.3 SPECIAL REQUIREMENTS**

Installation shall be in accordance with the following drawings, specifications and special requirements.

**NO CHANGES ARE TO BE MADE IN THE DRAWINGS OR SPECIFICATIONS WITHOUT PRIOR APPROVAL OF NAVAJO NATION EPA.**

#### **5.0 OPERATION AND MAINTENANCE**

This conservation practice is an asset to the project for continuation for ranching purposes. This practice will need periodic operation and maintenance to maintain satisfactory performance. The life of this practice or system is at least 10 years. The life of this practice can be assured or extended by thorough and timely operation and maintenance. Here are some recommendations to help you develop a good operation and maintenance program.

#### **GENERAL RECOMMENDATIONS**

- Maintain the roadway surface in a good condition, which includes periodic grading or repair of the surface.

- Prevent surface ponding by grading to remove depressions.
- Limit livestock usage to periods that permit use without damage.
- If fences are installed, they shall be maintained to provide warning and/or prevent unauthorized human or livestock entry.
- Remove debris to prevent blockage of stream crossings, culverts or bridges.
- Control all rodents or burrowing animals. Immediately repair any damage caused by their activity.
- Immediately repair any damage from vandalism, vehicles, or livestock.

#### Specific Recommendations For Your Installation

Table 1  
Seeding Worksheet

Species	% of Mix	Depth (in)	Species PLS per acre	Acres	Species Total Lbs PLS	Seeding Method	Seeding Date
<i>Indian ricegrass, Oryzopsis hymenoides</i> Varieties 'Nezpar', 'Paloma'	45	1.0	4.0	5	20	Broadcast	August - September
Sand Dropseed, <i>Sporobolus cryptandrus</i> ,	45	0.25	1.0	5	5	Broadcast	August - September
Yellow sweetclover, <i>Melilotus officinalis</i> variety 'Madrid'	10	0.5	0.5	5	2.5	Broadcast	August - September

References: Range Planting Specifications from Section IV of NRCS Technical Guide, Arizona  
<http://efotg.sc.egov.usda.gov/treemenuFS.aspx>



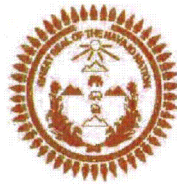
123 STAT. 618 PUBLIC LAW 111-8—MAR. 11, 2009

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**TITLE III**  
**DEPARTMENT OF ENERGY**  
**ENERGY PROGRAMS**

**NON-DEFENSE ENVIRONMENTAL CLEANUP**

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses necessary for non-defense environmental cleanup activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$261,819,000, to remain available until expended: *Provided*, That the appropriation includes funds for environmental remediation activities associated with the Energy Technology and Engineering Center (ETEC) at the Santa Susana Field Laboratory (SSFL), subject to the following: (1) the Department shall use a portion of this funding to enter into an interagency agreement with the Environmental Protection Agency (EPA) regarding a comprehensive radioactive site characterization of Area IV of the SSFL and (2) the Department shall provide the amount required by EPA for the radioactive site characterization in fiscal year 2009 from within the available funds: *Provided further*, That of the amounts provided, \$5,000,000 is available for necessary expenses for the purpose of carrying out remedial actions under this title at real property in the vicinity of the Tuba City processing site designated in section 102(a)(1), of the Uranium Mill Tailings Radiation Control Act of 1978 (Public Law 95-604, as amended; 42 U.S.C. 7901, et seq.), notwithstanding section 112 of that Act, at a dump site immediately adjacent to the north-northwest section of the Tuba City processing site, and on the north side of Highway 160: *Provided further*, That, of the amount appropriated in this paragraph, \$4,757,500 shall be used for projects specified in the table that appears under the heading "Congressionally Directed Non-Defense Environmental Cleanup Projects" in the text and table under this heading in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act).



PHOTOS OF RECLAMATION

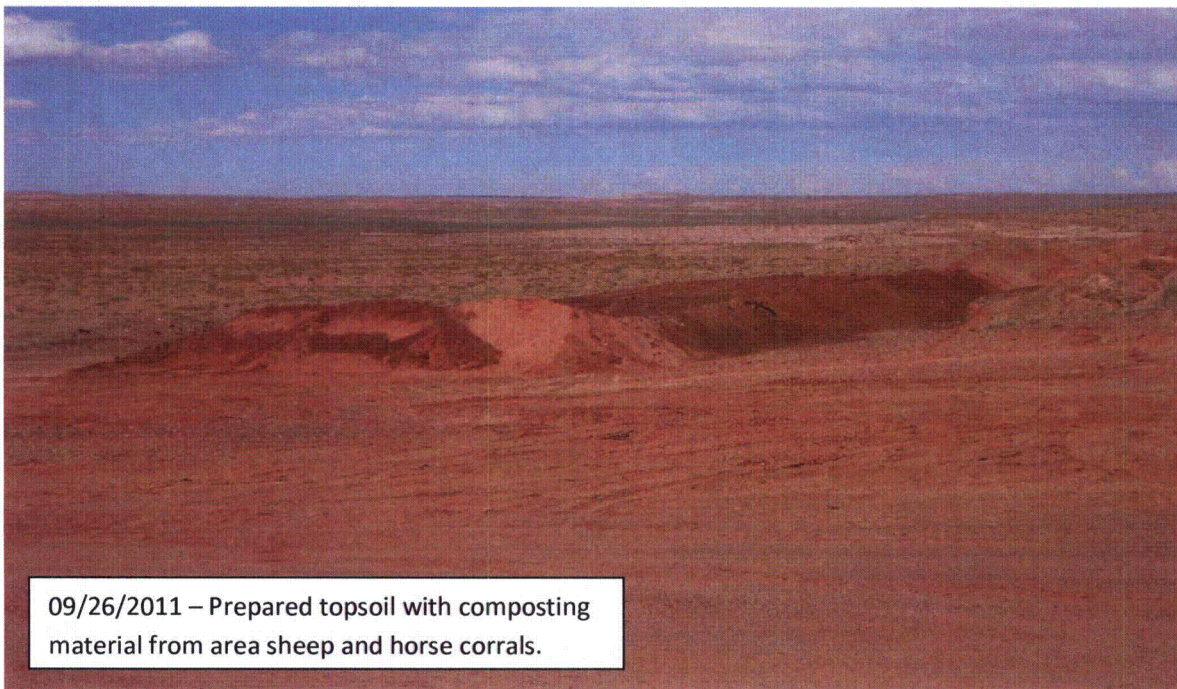


[Machinery preparing to replace clean backfill soils within excavated areas in both photographs.]





RECLAMATION PHOTOGRAPHS CONTINUED



09/26/2011 – Prepared topsoil with composting material from area sheep and horse corrals.



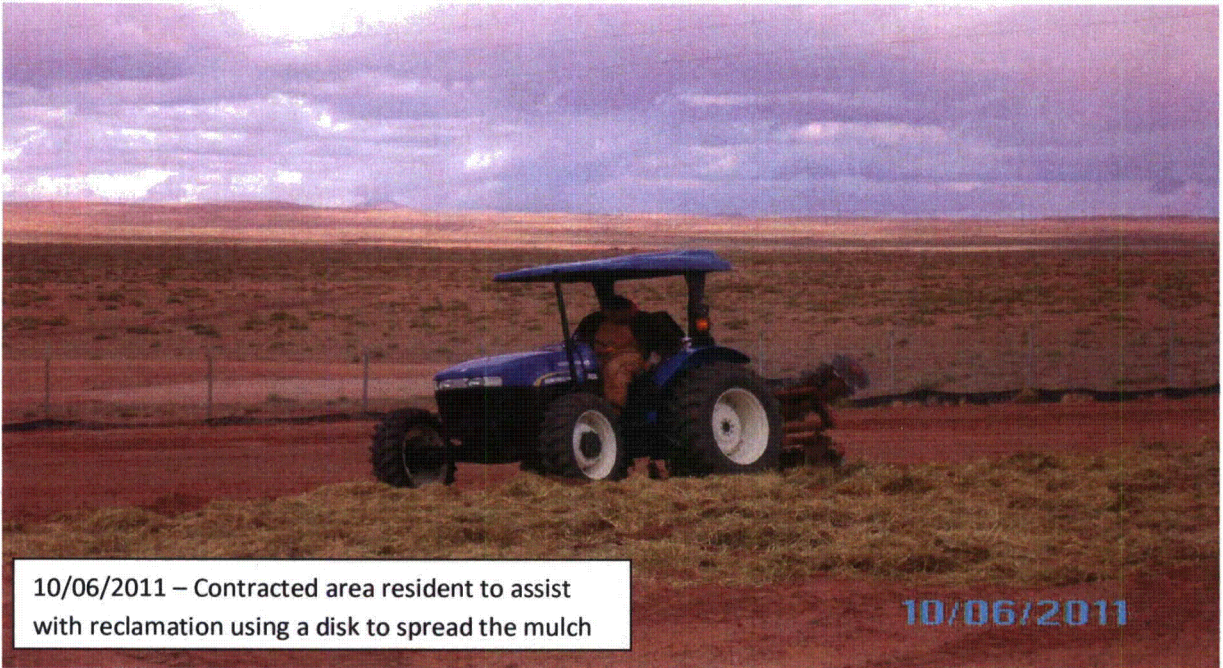


RECLAMATION PHOTOGRAPHS



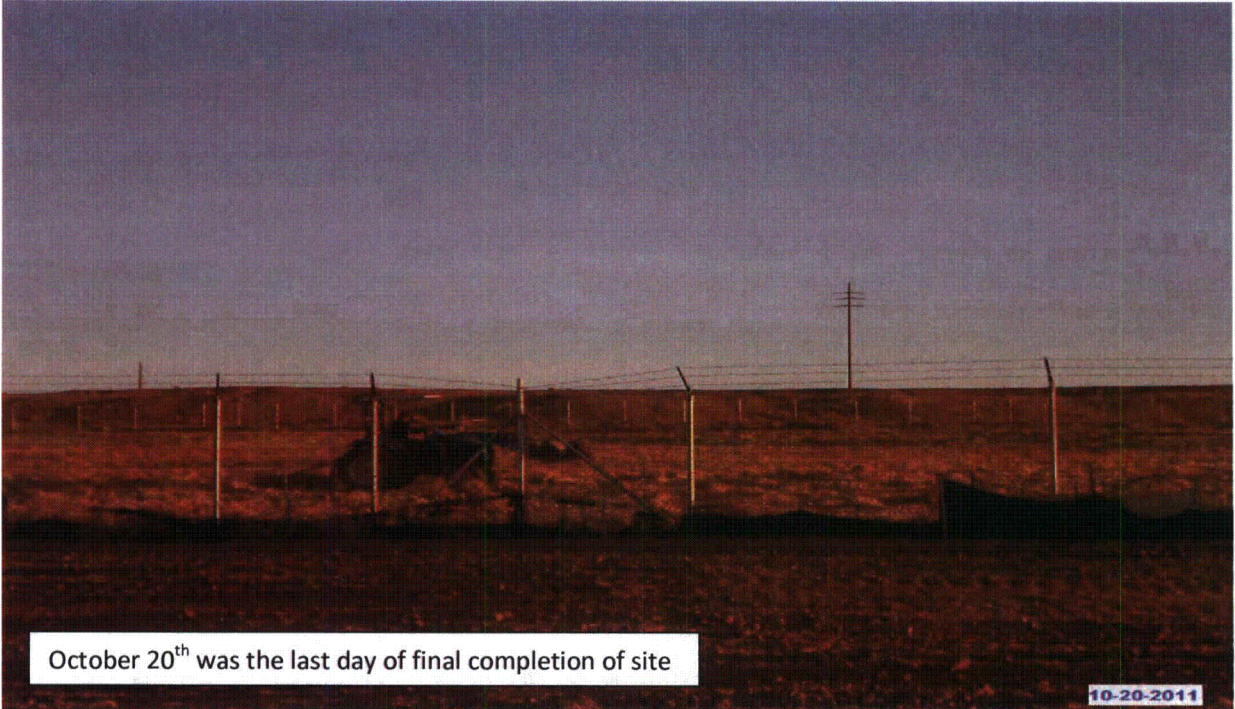


RECLAMATION PHOTOGRAPHS CONTINUED



10/06/2011 – Contracted area resident to assist with reclamation using a disk to spread the mulch

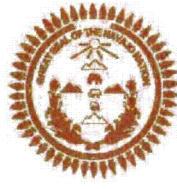
10/06/2011



October 20<sup>th</sup> was the last day of final completion of site

10-20-2011

THE NAVAJO NATION



BEN SHELLY PRESIDENT  
REX LEE JIM VICE PRESIDENT

FINAL SITE PHOTOGRAPHS





[NOTE: Navajo Nation EPA staff will continue to monitor the site, and if additional work is necessary it will be completed in 2012. Some plant shoots were present, so seeding has begun and a start for a successful reclamation. Letters have been posted to all customary land-use permit holders to not use the area through 2012, and until the land is re-established with vegetation will it be determined for continued use for livestock or as intended by the residents.]