Attachment #3

Technical Descriptions
&
Summary Characterization Reports

Technical Description and Characterization Summary
LOT # 15B

Lot 15B {Normal Metal}								
Note: No Data Available Transuranic and Fission Product Activity								
{No analytical data available}								
	Uranium Products & Services Catalog				Data from LPP-0051			
Chemical_Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Bismuth								
Equiv. Boron Content								
Bromine								
Carbon								
Cadmium								
Calcium & Mg								
Calcium								
Cesium								
Chlorine								
Chromium								
Cobalt								
Copper								
Fluorine								
Hydrogen								
Iron								
Lead								
Lithium								
Magnesium								
Manganese								
Mercury								
Molybdenum								
Neptunium								
Nickel								
Niobium								
Nitrogen								
Phosphorous								
Plutonium (Total)								
Plutonium-238								
Plutonium-239/240								

Lot 15B {Normal Metal}								
Note: No Data Available Transuranic and Fission Product Activity								
{No analytical data available}								
	Uranium Products & Services Catalog				Data from LPP-0051			
Chemical_Name	Average	Low	High	Units	Units	Average	Low	High
Plutonium-241								
Plutonium-242								
Plutonium-244								
Potassium								
Ruthenium								
Samarium								
Selenium								
Silicon								
Silver								
Sodium								
Strontium								
Sulfur								
Tantalum								
Technetium-99								
Thorium								
Thorium-228								
Thorium-230								
Thorium-232								
Tin								
Titanium								
Tungsten								
TOC								
Total Uranium								
Uranium-232								
Uranium-233/234								
Uranium-233								
Uranium-234								
Uranium-235								
Uranium-235								
Uranium-236								
Uranium-238								
Vanadium								
Zinc								
Zirconium								

Technical Description and Characterization Summary
LOT # 15B

Lot 15B {Normal Metal}								
Note: No Data Available Transuranic and Fission Product Activity								
{No analytical data available}								
	Uranium Products & Services Catalog				Data from LPP-0051			
Chemical_Name	Average	Low	High	Units	Units	Average	Low	High
Total Impurities								
Plutonium (ppbU)								
Neptunium (ppbU)								
Pu + Np (Bq/g)								
Alpha Activity								
Moisture								
ZrNb95								
Gamma								
Trans Alpha								
Americium-241								

Units	
ug/g U	1ugram = 1e-6gram so it is 1 part per million
pCi/g U	
mg/kg U	1mgram = 1e-6 kilogram so it is 1 part per million
mg/kg	1mgram = 1e-6 kilogram so it is 1 part per million
ug/kg	1ugram = 1e-9 kilogram so it is 1 part per billion

Data from Reusable Uranium Products & Services Catalog October 2002

Data from LPP-0051

Converdyn Data Needed for UF6 processing

Technical Description and Characterization Summary
LOT # 15C

Lot 15C {Low Enriched UO2}								
Note: <42 nCi/g Transuranic and Fission Product Activity								
{No analytical data available}								
	Uranium Products & Services Catalog					Data from LPP-0051		
Chemical_Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Bismuth								
Equiv. Boron Content								
Bromine								
Carbon								
Cadmium								
Calcium & Mg								
Calcium								
Cesium								
Chlorine								
Chromium								
Cobalt								
Copper								
Fluorine								
Hydrogen								
Iron								
Lead								
Lithium								
Magnesium								
Manganese								
Mercury								
Molybdenum								
Neptunium								
Nickel								
Niobium								
Nitrogen								
Phosphorous								
Plutonium (Total)								
Plutonium-238								
Plutonium-239/240								

Lot 15C {Low Enriched UO2}								
Note: <42 nCi/g Transuranic and Fission Product Activity								
{No analytical data available}								
	Uranium Products & Services Catalog					Data from LPP-0051		
Chemical_Name	Average	Low	High	Units	Units	Average	Low	High
Plutonium-241								
Plutonium-242								
Plutonium-244								
Potassium								
Ruthenium								
Samarium								
Selenium								
Silicon								
Silver								
Sodium								
Strontium								
Sulfur								
Tantalum								
Technetium-99								
Thorium								
Thorium-228								
Thorium-230								
Thorium-232								
Tin								
Titanium								
Tungsten								
TOC								
Total Uranium								
Uranium-232								
Uranium-233/234								
Uranium-233								
Uranium-234								
Uranium-235								
Uranium-235								
Uranium-236								
Uranium-238								
Vanadium								
Zinc								
Zirconium								

Technical Description and Characterization Summary
LOT # 15C

Lot 15C {Low Enriched UO2}								
Note: <42 nCi/g Transuranic and Fission Product Activity								
{No analytical data available}								
	Uranium Products & Services Catalog					Data from LPP-0051		
Chemical_Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Total Impurities								
Plutonium (ppbU)								
Neptunium (ppbU)								
Pu + Np (Bq/g)								
Alpha Activity								
Moisture								
ZrNb95								
Gamma								
Trans Alpha								
Americium-241								

Units	
ug/g U	1ugram = 1e-6gram so it is 1 part per million
pCi/g U	
mg/kg U	1mgram = 1e-6 kilogram so it is 1 part per million
mg/kg	1mgram = 1e-6 kilogram so it is 1 part per million
ug/kg	1ugram = 1e-9 kilogram so it is 1 part per billion

Data from Reusable Uranium Products & Services Catalog October 2002

Data from LPP-0051

Converdyn Data Needed for UF6 processing

Lot 15D {Low Enriched Metal, Seattle University}								
Note: <0.1 nCi/g Transuranic and Fission Product Activity								
{No analytical data available} May be similar to billets in Lot #1								
	Uranium Products & Services Catalog					Data from LPP-0051		
Chemical Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Bismuth								
Equiv. Boron Content								
Bromine								
Carbon								
Cadmium								
Calcium & Mg								
Calcium								
Cesium								
Chlorine								
Chromium								
Cobalt								
Copper								
Fluorine								
Hydrogen								
Iron								
Lead								
Lithium								
Magnesium								
Manganese								
Mercury								
Molybdenum								
Neptunium								
Nickel								
Niobium								
Nitrogen								
Phosphorous								
Plutonium (Total)								
Plutonium-238								
Plutonium-239/240								

Lot 15D {Low Enriched Metal, Seattle University}

Note: <0.1 nCi/g Transuranic and Fission Product Activity

{No analytical data available} May be similar to billets in Lot #1

	Uranium Products & Services Catalog					Data from LPP-0051		
Chemical Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Plutonium-241								
Plutonium-242								
Plutonium-244								
Potassium								
Ruthenium								
Samarium								
Selenium								
Silicon								
Silver								
Sodium								
Strontium								
Sulfur								
Tantalum								
Technetium-99								
Thorium								
Thorium-228								
Thorium-230								
Thorium-232								
Tin								
Titanium								
Tungsten								
TOC								
Total Uranium								
Uranium-232								
Uranium-233/234								
Uranium-233								
Uranium-234								
Uranium-235								
Uranium-235								
Uranium-236								
Uranium-238								
Vanadium								
Zinc								
Zirconium								

Technical Description and Characterization Summary
LOT # 15D

Lot 15D {Low Enriched Metal, Seattle University}								
Note: <0.1 nCi/g Transuranic and Fission Product Activity								
{No analytical data available} May be similar to billets in Lot #1								
	Uranium Products & Services Catalog					Data from LPP-0051		
Chemical Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Total Impurities								
Plutonium (ppbU)								
Neptunium (ppbU)								
Pu + Np (Bq/g)								
Alpha Activity								
Moisture								
ZrNb95								
Gamma								
Trans Alpha								
Americium-241								

Units	
ug/g U	1ugram = 1e-6gram so it is 1 part per million
pCi/g U	
mg/kg U	1mgram = 1e-6 kilogram so it is 1 part per million
mg/kg	1mgram = 1e-6 kilogram so it is 1 part per million
ug/kg	1ugram = 1e-9 kilogram so it is 1 part per billion

Data from Reusable Uranium Products & Services Catalog October 2002

Data from LPP-0051
{No analytical data available} May be similar to billets in Lot #1

Converdyn Data Needed for UF6 processing

Lot 16 {Low Enriched <1% Miscellaneous Compounds}

Note: No actual analytical data available on Lot 14 at Portsmouth. Data should be viewed as representative of UO3 material identified in Lot 16.

	Uranium Products & Services Catalog				LPP 551 GT1UF4.xls			
Chemical_Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Bismuth								
Equiv. Boron Content								
Bromine								
Carbon								
Cadmium								
Calcium & Mg								
Calcium								
Cesium								
Chlorine								
Chromium					**ppmU**	6	5	19.6
Cobalt								
Copper					**ppmU**	107	5	859
Fluorine								
Hydrogen								
Iron					**ppmU**	31.4	10	122
Lead								
Lithium								
Magnesium								
Manganese								
Mercury								
Molybdenum								
Neptunium								
Nickel					**ppmU**	23.8	5	100
Niobium								
Nitrogen								
Phosphorous								
Plutonium (Total)					**ug/g U235**	0	0	0.7
Plutonium-238					**pCi/g U**	1.4	0	16

Lot 16 {Low Enriched <1% Miscellaneous Compounds}

Note: No actual analytical data available on Lot 14 at Portsmouth. Data should be viewed as representative of UO3 material identified in Lot 16.

	Uranium Products & Services Catalog				LPP 551 GT1UF4.xls			
Chemical_Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Plutonium-239/240					**pCi/g U**	13.5	0	140
Plutonium-241								
Plutonium-242								
Plutonium-244								
Potassium								
Ruthenium								
Samarium								
Selenium								
Silicon								
Silver								
Sodium								
Strontium								
Sulfur								
Tantalum								
Technetium-99					**ug/g U235**	11	0.1	110
Thorium								
Thorium-228								
Thorium-230								
Thorium-232								
Tin								
Titanium								
Tungsten								
TOC								
Total Uranium								
Uranium-232					**ug/g U235**	1,228.7	261	2,170
Uranium-233/234								
Uranium-233					**ug/g U235**	1,256.8	261	2,220
Uranium-234					**ug/g U235**	8,136.7	6,900	8,860
Uranium-235								
Uranium-235					**g/100g U**	1.6	1.2	2
Uranium-236	660	480	800	ug/g U	**ug/g U235**	3,072	272	25,400
Uranium-238								
Vanadium								

Lot 16 {Low Enriched <1% Miscellaneous Compounds}

Note: No actual analytical data available on Lot 14 at Portsmouth. Data should be viewed as representative of UO3 material identified in Lot 16.

	Uranium Products & Services Catalog				LPP 551 GT1UF4.xls			
Chemical_Name	**Average**	**Low**	**High**	**Units**	**Units**	**Average**	**Low**	**High**
Zinc								
Zirconium								
Total Impurities								
Plutonium (ppbU)								
Neptunium (ppbU)								
Pu + Np (Bq/g)								
Alpha Activity								
Moisture					% bt wt.	0.1	0.1	0.1
ZrNb95								
Gamma					**mCi/ug U235**	1.80E-06	4.E-07	2.56E-06
Trans Alpha								
Americium-241								

Units	
ug/g U	**1ugram = 1e-6gram so it is 1 part per million**
pCi/g U	
mg/kg U	**1mgram = 1e-6 kilogram so it is 1 part per million**
mg/kg	**1mgram = 1e-6 kilogram so it is 1 part per million**
ug/kg	**1ugram = 1e-9 kilogram so it is 1 part per billion**

Data from Reusable Uranium Products & Services Catalog October 2002

Data from LPP-0051 Analytical Data Drafts and working Papers 3/23/06

Converdyn Data Needed for UF6 processing

Lot 18 {Z-cans Uranium Oxides O_3U_8}

LPP sampling and analysis plan LPP-0094/R1 (June 16, 2006) and analytical results (9/22/2006)

	LPP-0094/R1 and analytical results				ASTM C 1334-96		ASTM C 996-04	
Chemical_Name	**Average**	**Low**	**High**	**Units**	**Levels**	**Units**	**Levels**	**Units**
Aluminum	8,612	43.6	55,600	ug/g U	150	**ug/g U**		
Antimony								
Arsenic								
Barium	115	1.2	857	ug/g U	5	**ug/g U**		
Beryllium								
Bismuth	15	1.8	69.2	ug/g U	3	**ug/g U**		
Equiv. Boron Content					2	**ug/g U**	4	**ug/g U**
Bromine								
Carbon								
Cadmium								
Calcium & Mg	9221	87	82400	ug/g U	150	**ug/g U**		
Calcium	6,042	43.6	70000	ug/g U				
Cesium								
Chlorine	49	22.5	221	ug/g U	100	**ug/g U**		
Chromium	720	4.73	3940	ug/g U	100	**ug/g U**		
Cobalt	11	1	47.6	ug/g U	80	**ug/g U**		
Copper	355	13	3050	ug/g U	100	**ug/g U**		
Fluorine	2384.5	22.4	20100	ug/g U	100	**ug/g U**		
Hydrogen								
Iron	5729.8	45.9	48500	ug/g U	150	**ug/g U**		
Lead	327	1.9	5220	ug/g U	40	**ug/g U**		
Lithium								
Magnesium	3178	43.6	12400	ug/g U				
Manganese	193	4.36	1390	ug/g U	50	**ug/g U**		
Mercury								
Molybdenum	54	4.9	324	ug/g U	200	**ug/g U**		
Neptunium	1371	72.8	5970	pCi/g U				
Nickel	677	8.72	3620	ug/g U	80	**ug/g U**		
Niobium								
Nitrogen								
Phosphorous	1008	43.6	9000	ug/g U	100	**ug/g U**		
Plutonium (Total)	0.09	0.0227	0.11	ug/g U				
Plutonium-238	186	0.0206	1510	pCi/g U				
Plutonium-239/240	1,957	282	10700	pCi/g U				

Lot 18 {Z-cans Uranium Oxides O_3U_8}

LPP sampling and analysis plan LPP-0094/R1 (June 16, 2006) and analytical results (9/22/2006)

	LPP-0094/R1 and analytical results				ASTM C 1334-96		ASTM C 996-04	
Chemical_Name	Average	Low	High	Units	Levels	Units	Levels	Units
Plutonium-241	1,200	One	Sample	pCi/g				
Plutonium-242	7.28	0.27	87.8	pCi/g U				
Plutonium-244	0.98	0.138	5.05	pCi/g U				
Potassium								
Ruthenium								
Samarium								
Selenium								
Silicon	907	17.4	6130	ug/g U	200	**ug/g U**	**250**	**ug/g U**
Silver								
Sodium	9,373	174	86800	ug/g U	20	**ug/g U**		
Strontium								
Sulfur								
Tantalum	1.28	1.1	1.8	ug/g U	200	**ug/g U**		
Technetium-99	1,211,583	1280	11,500,000	pCi/g U	**ppm**		**5**	**ug/g U**
Thorium	32.03	0.543	239	mg/kg U	10	**ug/g U**		
Thorium-228	279	71.7	768	pCi/g U				
Thorium-230	9,179	752	26,800	pCi/g U				
Thorium-232	13	0.783	65.3	pCi/g U				
Tin	44	2.1	253	ug/g U	50	**ug/g U**		
Titanium	145	2.8	1540	ug/g U	50	**ug/g U**		
Tungsten	7.29	1.1	21.1	ug/g U	100	**ug/g U**		
TOC								
Total Uranium								
Uranium-232	286	One	Sample	pCi/g U			**0.05**	**ug/g U**
Uranium-233/234								
Uranium-233	71	0.752	554	ug/kg				
Uranium-234	814	224	1860	mg/kg			**2,000**	**ug/g U-235**
Uranium-235	76,033	26561	205000	mg/kg				
Uranium-235								
Uranium-236	75	23.4	265	mg/kg			**250**	**ug/g U**
Uranium-238	816,435	421,841	975,000	mg/kg				
Vanadium	7	0.89	48.8	ug/g U	10	**ug/g U**		
Zinc	874	6.4	7770	ug/g U	20	**ug/g U**		
Zirconium								

Lot 18 {Z-cans Uranium Oxides O_3U_8}

LPP sampling and analysis plan LPP-0094/R1 (June 16, 2006) and analytical results (9/22/2006)

	LPP-0094/R1 and analytical results				ASTM C 1334-96		ASTM C 996-04	
Chemical_Name	Average	Low	High	Units	Levels	Units	Levels	Units
Total Impurities								
Plutonium (ppbU)								
Neptunium (ppbU)								
Pu + Np (Bq/g)								
Alpha Activity								
Moisture				% bt wt.	1	% bt wt.		
ZrNb95								
Gamma								
Trans Alpha								
Americium-241								

Units	
ug/g U	1ugram = 1e-6gram so it is 1 part per million
pCi/g U	
mg/kg U	1mgram = 1e-6 kilogram so it is 1 part per million
mg/kg	1mgram = 1e-6 kilogram so it is 1 part per million
ug/kg	1ugram = 1e-9 kilogram so it is 1 part per billion

Values are from LPP sampling and analysis plan LPP-0094/R1 (June 16, 2006) and analytical results (9/22/2006) on actual samples from Lot#18 A&B material. A final report was not generated but the results given in spreadsheet are from the raw data.

Chemical per ASTM C 1334-96 "Standard Specification for Uranium Oxides with a U-235 Content of Less than 5% Dissolution Prior to Conversion to Nuclear-Grade Uranium Dioxide"

Chemical per ASTM C 996-04 "Standard Specification for Uranium Hexafluoride Enriched to Less than 5% U-235

Converdyn Data Needed for UF6 processing