GDP-0557

RR

7/24

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 04-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175165
Cylinder Number: DU 800

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight percent
Uranium		67.60	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	17.0	uG/G U-normal
Chromium	1500	<510.0	uG/G U-235
Molybdenum	200	60.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.12 **	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of
Fission product beta	10	6.5	aged natural U
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.018	Weight Percent
Uranium-235		0.9788	Weight Percent
Uranium-236		.39	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

Reported by:

OR0014855

RR

5184

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 30-MAY-1984

Report Date: 2-JUL-1984
Sample Number: 175160
Cylinder Number: DV 701

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight Percent
Uranium		67.60	Weight Percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	20.0	uG/G U-normal
Chromium	1500	<520.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<100	uG/G U-235
Uranium-232	0.110	0.065	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.22	aged natural U
Transuranic alpha	1500	2.0	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.015	Weight Percent
Uranium-235		0.9680	Weight Percent
Uranium-236		.28	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175152, 175153, 175155, 175156, 175157
175158, 175159, 175160, 175161, 175162
This report has been printed 1 times.

K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 20-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175180
Cylinder Number: SAE-2581

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.99	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	7.0	uG/G U-normal
Chromium	1500	<520.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.033	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of
Fission product beta	10	3.1	ased natural U
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		0.013	Weight Percent
Uranium-235		0.9592	Weight Percent
Uranium-236		0.21	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 19-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175175
Cylinder Number: SAE 2588

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	NONE DET	uG/G U-normal
Chromium	1500	<520.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.044	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of aged natural U
Fission product beta	10	3.1	
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.013	Weight Percent
Uranium-235		0.9593	Weight Percent
Uranium-236		0.20	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182

Reported by:

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 19-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175177
Cylinder Number: SAE-2592

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.99	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	10.0	uG/G U-normal
Chromium	1500	<520.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.029	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of
Fission product beta	10	3.1	ased natural U
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.9584	Weight Percent
Uranium-236		.21	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 20-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175179
Cylinder Number: SAE-2594

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.63	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	14.0	uG/G U-normal
Chromium	1500	<520.0	uG/G U-235
Molybdenum	200	50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.028	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of aged natural U
Fission product beta	10	3.1	
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.9596	Weight Percent
Uranium-236		0.20	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 19-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175176
Cylinder Number: SAE-2596

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	NONE DET	uG/G U-normal
Chromium	1500	<520.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.030	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of
Fission product beta	10	3.1	ased natural U
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.9596	Weight Percent
Uranium-236		0.20	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182

Reported by:

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 25-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175181
Cylinder Number: SAE-2598

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.99	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	3.0	uG/G U-normal
Chromium	1500	<520.0	uG/G U-235
Molybdenum	200	<50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<400	uG/G U-235
Uranium-232	0.110	0.056	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of
Fission product beta	10	3.1	ased natural U
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.010	Weight Percent
Uranium-235		0.9591	Weight Percent
Uranium-236		0.20	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182

Producer: COGEMA
Date received in laboratory: 25-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175182
Cylinder Number: SAE-2583

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	16.0	uG/G U-normal
Chromium	1500	<570.0	uG/G U-235
Molybdenum	200	<60.0	uG/G U-235
Tungsten	200	<60.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.072	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of
Fission product beta	10	3.1	ased natural U
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.8833	Weight Percent
Uranium-236		.28	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182
This report has been printed 1 times.

Recator Return

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 25-JUN-1984

Report Date: 2-AUG-1984
Sample Number: 175183
Cylinder Number: SAE-2584

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.63	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	---	uG/G U-normal
Chlorine	100	---	uG/G U-normal
Niobium	1	---	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	---	uG/G U-normal
Silicon	100	12	uG/G U-normal
Tantalum	1	---	uG/G U-normal
Titanium	1	---	uG/G U-normal
Elements forming non-volatile fluorides	300	10.0	uG/G U-normal
Chromium	1500	<570.0	uG/G U-235
Molybdenum	200	<60.0	uG/G U-235
Tungsten	200	---	uG/G U-235
Vanadium	200	---	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.058	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of
Fission product beta	10	0.35	aged natural U
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.8835	Weight Percent
Uranium-236		0.28	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175183, 175184, 175185, 175186, 175187
175188, 175189, 175190, 175191, 175192
This report has been printed 1 times.

Reported by:

Reactor Return

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 27-JUN-1984

Report Date: 2-AUG-1984
Sample Number: 175184
Cylinder Number: SAE 2586

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	---	uG/G U-normal
Chlorine	100	---	uG/G U-normal
Niobium	1	---	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	---	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	---	uG/G U-normal
Titanium	1	---	uG/G U-normal
Elements forming non-volatile fluorides	300	10.0	uG/G U-normal
Chromium	1500	<570.0	uG/G U-235
Molybdenum	200	<60.0	uG/G U-235
Tungsten	200	---	uG/G U-235
Vanadium	200	---	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.066	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	<5	Percent of aged natural U
Fission product beta	10	0.35	
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.012	Weight Percent
Uranium-235		0.8835	Weight Percent
Uranium-236		.28	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175183, 175184, 175185, 175186, 175187
175188, 175189, 175190, 175191, 175192
This report has been printed 1 times.

Reported by:

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 07-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175166
Cylinder Number: COG 240

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	NONE DET	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.024	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of aged natural U
Fission product beta	10	6.5	
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.018	Weight Percent
Uranium-235		1.512	Weight Percent
Uranium-236		.22	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 07-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175167
Cylinder Number: COG 853

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.99	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	17.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.029	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of
Fission product beta	10	6.5	aged natural U
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.018	Weight Percent
Uranium-235		1.509	Weight Percent
Uranium-236		.22	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

Reported by:

Bo RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 12-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175168
Cylinder Number: COG 858

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight percent
Uranium		67.60	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	5.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	.0273	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of aged natural U
Fission product beta	10	6.5	
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.512	Weight Percent
Uranium-236		.22	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

Reported by:

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 12-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175169
Cylinder Number: COG-843

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	19.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<100	uG/G U-235
Uranium-232	0.110	.0361	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of
Fission product beta	10	6.5	ased natural U
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.511	Weight Percent
Uranium-236		.22	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

Reported by:

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 12-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175170
Cylinder Number: COG 860

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	15.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.028	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of aged natural U
Fission product beta	10	6.5	
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.018	Weight Percent
Uranium-235		1.501	Weight Percent
Uranium-236		.22	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 12-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175171
Cylinder Number: COG 849

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	10.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.031	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of
Fission product beta	10	6.5	aged natural U
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.016	Weight Percent
Uranium-235		1.509	Weight Percent
Uranium-236		.22	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 14-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175172
Cylinder Number: COG 823

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.97	Weight percent
Uranium		67.60	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	10.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<100	uG/G U-235
Uranium-232	0.110	0.022	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	12.1	Percent of aged natural U
Fission product beta	10	6.5	
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.013	Weight Percent
Uranium-235		1.511	Weight Percent
Uranium-236		.016	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.

Reported by:

S. Macklin

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 19-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175178
Cylinder Number: COG-859

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.62	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	10.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.024	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of
Fission product beta	10	3.1	aged natural U
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.017	Weight Percent
Uranium-235		1.511	Weight Percent
Uranium-236		0.22	Weight Percent

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182
This report has been printed 2 times.

Reported by:

Producer: COGEMA
Date received in laboratory: 15-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175174
Cylinder Number: COG 325

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	100.00	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	NONE DET	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<200	uG/G U-235
Uranium-232	0.110	0.019	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of aged natural U
Fission product beta	10	3.1	
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.018	Weight Percent
Uranium-235		1.506	Weight Percent
Uranium-236		0.22	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182
This report has been printed 1 times.

Producer: COGEMA
Date received in laboratory: 15-JUN-1984

Report Date: 24-JUL-1984
Sample Number: 175173
Cylinder Number: COG 312

	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight Percent
Uranium		67.60	Weight Percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	<0.01	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	17	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	6	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	26.0	uG/G U-normal
Chromium	1500	<330.0	uG/G U-235
Molybdenum	200	<30.0	uG/G U-235
Tungsten	200	<30.0	uG/G U-235
Vanadium	200	<20.0	uG/G U-235
Uranium-233	500	<400	uG/G U-235
Uranium-232	0.110	0.020	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	11.8	Percent of aged natural U
Fission product beta	10	3.1	
Transuranic alpha	1500	NONE DET	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.013	Weight Percent
Uranium-235		1.511	Weight Percent
Uranium-236		.18	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175173, 175174, 175175, 175176, 175177
175178, 175179, 175180, 175181, 175182
This report has been printed 3 times.

UF6 SUPPLEMENTAL ANALYSIS REPORT

Sample Number: 175129

Customer: COGEMA

Cylinder Numbers	Chemical and Isotopic Analyses (Wt. %)	
	UF6	99.93
	U-234	.015
	U-235	1.035
	U-236	0.32
	U (Total)	67.57

Spectrographic Analyses (Micrograms element per gram Uranium)

Element	µg/gU	Element	µg/gU
Al	<2	Mg	3
B	<0.1	Mn	<2
Ba	<1	Mo	<2
Be	<0.1	Na	<2
Bi	<1	Ni	15
Ca	7	P	<40
Cd	<0.1	Pb	<2
Co	<1	Sb	<5
Cr	<2	Si	<2
Cu	15	Sn	<2
Fe	<5	U	<2
Li	<2	Zn	<20

R Revised Result

Reported by: SB Woodfin

Date: 11-2-83

Analyses contained hereon are furnished as a courtesy and should not be construed as a certification or warranty that the material will so conform.

RR

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Producer: COGEMA
Date received in laboratory: 04-JUN-1984

Report Date: 19-JUL-1984
Sample Number: 175164
Cylinder Number: NU 747

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.98	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	---	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	<10	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	---	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	31.0	uG/G U-normal
Chromium	1500	<510.0	uG/G U-235
Molybdenum	200	50.0	uG/G U-235
Tungsten	200	<50.0	uG/G U-235
Vanadium	200	<30.0	uG/G U-235
Uranium-233	500	<300	uG/G U-235
Uranium-232	0.110	0.030	uG/G U-235
Boron equivalent cross section	8	3.1	uG/G U-normal
Fission product gamma	20	12.1	Percent of aged natural U
Fission product beta	10	6.5	
Transuranic alpha	1500	1.4	DPM alpha/G U
Technetium		<0.005	uG/G U-normal
Uranium-234		.010	Weight Percent
Uranium-235		0.9777	Weight Percent
Uranium-236		.17	Weight Percent

Reported by:

** Exceeds Specifications
R Revised Result
The following samples have been composited:
175163, 175164, 175165, 175166, 175167
175168, 175169, 175170, 175171, 175172
This report has been printed 1 times.