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Wp
3/6/06

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August 30, 1945

49 INTERIM PROCESSING PROGRAM No. 24

Present: Baker, Covert, Duffy, Garner, Hammel, Jette, Litz, Schnettler, Schoonover, Wahl

First composite sphere. Owing to slight difficulty with the pressing of one of the hemispheres and to the declaration of Monday as a holiday, delivery of the active assembly will probably be delayed until Saturday, September 8. Marshall probably will not receive final dimensions of the Pu hemisphere until September 5. The following schedule is anticipated:

	<u>HS-7</u>	<u>HS-8</u>	<u>R-3</u>
Pu casting ready:	(complete)	Fri., 8-31	(complete)
Pu pressing complete:	Wed., 9-5	Sat., 9-1	Fri., 8-31
Ni coating complete:	Thurs., 9-6	Wed., 9-5	Sat., 9-1

Sound velocity bar. Final coating in progress. Ready for delivery by Saturday, September 1.

Shut-down of Building D production. Since HS-5, HS-6 and R-2 were found to have undergone no dimensional changes within the precision of measurement as a result of the Omega accident, plans for the shut-down were put into effect. Purification and dry chemistry have processed the last lot (Lot 705P) and are engaged in preparing processing facilities for stand-by use. Recovery will continue recovering for about a week and will then shut down for a thorough overhauling of the laboratories; it is not planned to do any further recovery until after DP site has begun processing. It seems unlikely that processing will begin at DP site before October 1.

A. Processing runs of the past week. See Table I. Nine runs were successfully completed, with an output of 1.310 kg Pu (average of 0.146 kg per H lot purified). An additional twelve runs were completed through purification and dry conversion.

B. Pu supply. The results of a physical inventory taken as of 4:30 p.m., Wednesday, August 29, are given in the table below.

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<u>Phase</u>	<u>Total Pu, kg.</u>	<u>"Usable" Pu, kg.</u>	<u>"Non-usable" Pu, kg.</u>
Recovery	~1.4	~1.1	~0.3
Purification	0.176	0.170	0.006
Dry Chemistry	0.558	0.558	--
Reduction	--	--	--
Remelting	1.856	1.776	0.080
Fabrication and Physical Meas.	1.824	1.695 (incl. HS-7, R-3)	0.129
Corrosion and Protection	0.058	0.029	0.029
G-1, G eng.	0.091	0.091	--
QC	7.436	7.436 (incl. HS-5, G; R-2)	--
U.S. Army	12.292	--	12.292 (HS-1,2,3,4; R-1)
All others	0.335	0.105	0.230
Total	~26.0 kg.	~13.0 kg.	~13.0 kg.

(Total Hanford Pu rec'd. to date, through Lot 185H, W assay:	27.512 kg.)
" " " " " " " " " , est. Y assay:	26.136 kg.
" Clinton " " " " " , Y assay:	0.282 kg.
Total	26.418 kg.

C. Runs scheduled for August 31 - September 6. See Table II. These runs are expected to be the last until DP site starts operations, which will probably not be before October 1.

C. S. Garner

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Distribution

Allison, Anderson, Bacher, Baker, Brown, Burke, Duffield, Garner, Hammel, Jette, Kennedy, Kirby, Lowe, Oppenheimer, Petrata, Schnettler, Schoonover, Smith, Wahl, Weissman, Wolfe

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Table I
Runs Completed August 23-30

<u>Schedule #</u>	<u>Lot #</u>	<u>From</u>	<u>Amt. (g)*</u>	<u>Purification</u>	<u>Dry Chemistry</u>	<u>Reduction</u>	<u>Reduced Metal to Storage or Remelt (g)</u>
22j	685P	166H	141	B-2	A, D-2, HF-3; 95.4% conv. in 10 hrs HF	Combined with #22k, #22l	--
22k	686P	167H	147	"	Ditto; 96.4% conv. in 10 hrs HF	Combined with #22j, #22l	--
22l	637P	183H	135	"	Ditto; 99.8% conv. in 10 hrs HF	A; 99.05% yield	419.3
23a	688P	169H	151	"	Ditto; 96.7% conv. in 9 hrs HF	Combined with #23b, #23c	--
23b	689P	168H	151	"	Ditto; 94.9% conv. in 10 hrs HF	Combined with #23a, #23c	--
23c	690P	170H	147	"	Ditto; 100% conv. in 9 hrs HF	A; 99.29% yield	445.7
23d	691P	273R	148	"	Ditto; 99% conv. in 10 hrs HF	Combined with #23e, #23f	--
23e	692P	171H	152	"	Ditto; 96.8% conv. in 11 hrs HF	Combined with #23d, #23f	--
23f	693P	172H	151	"	Ditto; 99.0% conv. in 11 hrs HF	A; 98.70% yield	444.6

Total reduced metal to storage or remelt for period: 1309.6 grams
Total element returned by metallurgy to recovery for period (estimated receipts): 36 grams

* Amount to reduction, based on oxide weight.

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Table II

Runs Scheduled for August 31-September 6~~SECRET~~
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<u>Schedule #</u>	<u>Date Purif. Starts</u>	<u>Amt. (g)</u>	<u>Lot #</u>	<u>From</u>	<u>Purification</u>	<u>Dry Chemistry</u>	<u>Reduction*</u>
23g	--	149	694P	173H	B-2 (completed)	A, D-2, HF-3 (completed)	A
23h	--	147	695P	174H	"	"	"
23i	--	144	696P	175H	"	"	"
23j	--	153	697P	176H	"	"	"
23k	--	150	698P	177H	"	"	"
23l	--	145	699P	179H	"	"	"
23m	--	141	700P	178H	"	"	"
23n	--	147	701P	180H	"	"	"
23o	--	149	702P	181H	"	"	"
23p	--	116	703P	272R	"	"	"
23q	--	145	704P	182H	"	"	"
23r	--	150	705P	184H	"	"	"

* On 450-g scale in general.

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