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For Month Ending 7/31 1943

Monthly Report

ENGINEERINGCenter GRANADA

CONSTRUCTION: Buildings, Irrigation, Drainage, Roads.

Name or Type of Project	Date Started	Per Cent Completed	Est. Date of Completion	MATERIALS		Ave. No. Evacuees Employed
				Per Cent Ordered	Per Cent Delivered	
Admin. Quarters	10/1/42	60%	10/1/43	100%	100%	30
Fish Refrigerator	5/1/43	80%	8/15/43	100%	100%	10
Root Cellar	7/1/43	90%	8/6/43	100%	100%	30
Comm. Stores	6/15/43	60%	9/15/43	100%	100%	20
Center Drainage*	7/1/43	20%	10/30/43	-	-	8
Center Irrigation system	5/15/43	40%	9/15/43	100%	60%	12
Access Road	2/15/43	100%	4/25/43	-	-	20
Manvel Canal Check	6/1/43	100%	6/30/43	100%	100%	8
Manvel Canal Cleaning*	4/7/43	100%	5/30/43	-	-	4
	6/12/43	100%	7/3/43			
X-Y Canal Cleaning*	7/6/43	20%	9/30/43	-	-	4
Lamar Canal Cleaning*	7/6/43	100%	7/22/43	-	-	2
* Maintenance and Reconstruction						
Land Development; None as yet						

AGRICULTURAL LAND DEVELOPMENT: Clearing, Levelling, etc.

Type of Project	Date Started	% Done	Est. Date of Completion	Ave. No. Evacuees Employed	ACREAGE DEVELOPED	
					This Month	Total To Date

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	158	11	500.00
On Utilities	131	14	1500.00*

* Includes replacement of 2 damaged transformers
OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 4 Electrical -

Est. Value Materials Used: Water Supply 125.00* Sewage Disposal - Electrical 2350.00**

Gallons Water Used This Month 22,000,000(Esti) Per Capita Water Consumption 100

* Not including Electric Power costs

** Purchased Power

REFRIGERATION:

Number of Service Calls 81 Number Repair Jobs 12 Ave. Total Number Employees 2

Number of Units Inspected and Serviced This Month 30

Units Not Operating: (give number and size) 1 3/4 HP

Explain why units not operating, how long idle, etc. Replacement of Crankshaft broken in November, 1942, received in July, 1943, and unit reassembled, being held for spare.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

The limiting of "C" ratings allowed after August 1st in proportion to number of employees, as ordered by Washington instructions, has made necessary almost complete reductions to "B" ratings of skilled laborers---carpenters, electricians, plumbers, tractor operators, etc.--, whether the effect on number of these employees and the amount of work they do, will be only temporary is not yet known.

The number of employees on new construction work has been interpreted to be included in total number of employees allowed in the project operations. Since maintenance must have preference, this results in definite limitation of new construction employees, regardless of construction work approved, and consequent slowing up of such construction.

ENGINEERING COMMENTS CONTINUED-----

Frequent lightning storms during the month required numerous emergency calls on personnel and some damages to electrical and other equipment.

The dry winter and year, and constant use of water has resulted in lowering of the water table of the Center Wells. The occasional artesian flow of these wells when drilled, has stopped, and the static level lowered from 50 to 80 feet. Use of water requires practically continuous operation during hours of water use, and the capacity of the wells has been reduced due to lack of recharge.

Materials for the extension of the settings of two of the four wells have been ordered. Probably due to the electrical power disturbances from the lightning storms, the oil lubricating housing in Well #1 was broken, and repairs are under way.

The hot weather of the past few months has overloaded the refrigeration equipment, due to inadequate ventilation for the units. Considerable work has been done to provide better ventilation, including several changes in location. Repair parts are difficult to obtain, due to the materials necessary, and deliveries are uncertain.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	292	10	\$ 750.00
On Utilities	122	12	1400.00*

*Includes Materials used for repair #1 Well-Center Water Supply

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 5 Sewage Disposal 6 Electrical

Est. Value Materials Used: Water Supply 125.00* Sewage Disposal Electrical 2165.00**

Gallons Water Used This Month 18,000,000 (Est) Per Capita Water Consumption

*Not including Electric Power Costs

**Purchased Power

REFRIGERATION:

Number of Service Calls 98 Number Repair Jobs 16 Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month 14

Units Not Operating: (give number and size) one 3/4 HP

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Due to seasonal leaves and relocation, there was a continuing loss of employees in the section, with slowing down of construction.

Lightning storms were frequent during the month, requiring emergency work to restore service.

The repairs to Well #1--~~Q~~ Center Domestic Water Supply--were completed including the addition of 40' extension. Indications are that this extension will provide the additional water expected.

Well #2 suffered a break down--due to a broken oil housing, and repairs are under way--Replacement of all shaft bearings and half of the shaft sections is necessary. An extension of 40' will be made to this pump, as the repairs are made.

Difficulties with refrigeration equipment continue, but changes in location and other means of providing better ventilation are being made as rapidly as possible.

For Month Ending Sept. 30 1943

Monthly Report

ENGINEERING

Center Granada

CONSTRUCTION: Buildings, Irrigation, Drainage, Roads.

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AGRICULTURAL LAND DEVELOPMENT: Clearing, Levelling, etc.

Type of Project	Date Started	% Done	Est. Date of Completion	Ave. No. Evacuees Employed	ACREAGE DEVELOPED This Month	DEVELOPED Total To Date

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	125	12	\$ 500.00
On Utilities	181	11	\$1800.00*

*including repairs to Center Well #2

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 5 Sewage Disposal 6 Electrical 6

Est. Value Materials Used: Water Supply \$125 Sewage Disposal \$50 Electrical \$2196⁰⁰

Gallons Water Used This Month 21,000.000 Per Capita Water Consumption 3,000

REFRIGERATION:

Number of Service Calls 48 Number Repair Jobs 32 Ave. Total Number Employees 4

Number of Units Inspected and Serviced This Month 12

Units Not Operating: (give number and size) One 3/4 H. P.

Explain why units not operating, how long idle, etc.

Delay in receiving motor bearings.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Work in all sections was hampered by shortage of labor due to both seasonal and indefinite leaves; in addition to "volunteer" or "draft" labor for farm work and for hauling coal was taken from regularly employed crews with the result that such crews were reduced. Non-delivery of minor items of materials occasionally interfered with progress, but the major delays were due to labor conditions.

Repairs to Center Well #2 of the Center Water Supply System were completed and all wells are now in operation which, together with cooler weather has relieved the temporary water supply shortage.

The work of drilling three shallow wells for emergency irrigation water supply was completed with the development of two fairly satisfactory wells and one which is not as satisfactory. This well provide irrigation water in emergencies for several farm areas; the location of the wells was selected in conjunction with the Agricultural Division. During the month a special attention was given to fly and sanitary conditions and extra efforts were made to eliminate all possible sources of fly breeding contamination.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	85	17	350.00
On Utilities	112	8 Elec. 6 Plumb.	750.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 6 Sewage Disposal 6 Electrical 6

Est. Value Materials Used: Water Supply 125 Sewage Disposal 50 Electrical 2328.*

Gallons Water Used This Month 18,000,000 Per Capita Water Consumption 2570

*Purchased Power

REFRIGERATION:

Number of Service Calls 34 Number Repair Jobs 8 Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month 14

Units Not Operating: (give number and size) One 3/4 HP

Explain why units not operating, how long idle, etc.

Delay in receiving Motor Bearings.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Construction and maintenance work is still handicapped by insufficient crews, but progress is being made and increase labor will probably be able in the near future from persons returning from seasonal employment.

Difficulties in obtaining materials are still current and considerable delays are considered in repairs to equipment and installations because necessary parts cannot be obtained.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	74	20	450.00
On Utilities	68	6 Elec. 6 Plumb.	250.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 6 Sewage Disposal 8 Electrical ---
 Est. Value Materials Used: Water Supply 125 Sewage Disposal 75 Electrical 3447.00*
 Gallons Water Used This Month 18,000,000 Per Capita Water Consumption 2570

* Purchased Power

REFRIGERATION:

Number of Service Calls 42 Number Repair Jobs 10 Ave. Total Number Employees 4
 Number of Units Inspected and Serviced This Month 12
 Units Not Operating: (give number and size) One 3/4 HP
 Explain why units not operating, how long idle, etc.

Delay in receiving Motor Bearings.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Maintenance of heaters for hot water continues to be a problem due to difficulty of obtaining repair parts. Some new hot water heaters are being received and are being installed and it is hoped to salvage enough parts from old heaters being replaced to assemble enough units to have duplicate installations in each lavatory.

Breaks in both water and sewer lines were more serious requiring considerable time during the month.

Other maintenance work was somewhat lighter but the individual jobs were more extensive.

Deliveries of repair parts and materials are still subject to delays and both maintenance and repair work is delayed on this account.

Labor conditions have been improved slightly but not enough to effect much increased progress on new construction work.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	65	20	400.00
On Utilities	125	4 Elect. 6 Plumb.	250.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 7 Sewage Disposal 8 Electrical ---

Est. Value Materials Used: Water Supply 135 Sewage Disposal 75 Electrical 3665*

Gallons Water Used This Month 18,000,000 Per Capita Water Consumption 2285

REFRIGERATION:

* Purchased Power

Number of Service Calls 30 Number Repair Jobs 6 Ave. Total Number Employees 4

Number of Units Inspected and Serviced This Month 6

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Maintenance for heaters for hot water continues to be a problem but repairs and replacements are being made as fast as materials are received.

Breaks in both water and sewer lines are continuing to be serious requiring considerable work during the past month.

Project Well No. 1 pump has been out of service since the middle of the month due to a broken shaft. Inspection of the equipment after removing from the well, shows that the impeller unit is badly worn and will require factory repairs. Due to this well being out of service, water conditions were more serious as the capacity of the three remaining wells ~~are~~ ^{is} very little over the present use of water in the Center.

Weather conditions hampered outside construction work during the month.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	85	20	350
On Utilities	123	4 Elec. 10 Plumbers	65.87

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 9 Sewage Disposal 8 Electrical —
 Est. Value Materials Used: Water Supply 125 Sewage Disposal 85 Electrical 3892*
 Gallons Water Used This Month 19,400,000 Per Capita Water Consumption 2860

* Purchased Power

REFRIGERATION:

Number of Service Calls 16 Number Repair Jobs 8 Ave. Total Number Employees 4
 Number of Units Inspected and Serviced This Month 8
 Units Not Operating: (give number and size) _____
 Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Hot water heaters are still giving trouble due to breakage and replacement is slow due to difficulties of obtaining necessary materials. We are having made new analysis of the water in view of determining suitable treatment; the materials which we have been using have not given satisfactory results from the evidence in the deposits in the heaters.

The pump for Project Well #1 has been repaired and preparations are being made to replace it in this Well. Investigation and inquiry from all possible sources revealed the fact that the casing of this Well (and of Well No.2) had not been perforated. This work has now been done and as soon as the pump is re-installed, tests of capacity will be made which determine the results of the perforation and to decide whether Well #2 should be perforated or an additional Well for Project domestic water supply be drilled.

The reduction in Project employment in the Engineering Section has resulted in the greatest reduction being in the construction crews because the forces engaged in maintenance and operating services are necessary for the operations of the Center. As a result, construction work will of necessity be slower in progress.

Weather for the past month has been unusually good and outside construction was possible during nearly of the month.

MAINTENANCE:

	Number of Jobs Done	Ave: Total Number Employees	Est. Value of Materials Used
On Buildings	75	17	400
On Utilities	137	4 Elect. 8 Plumbers	96

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 9 Sewage Disposal 8 Electrical 0
 Est. Value Materials Used: Water Supply 125 Sewage Disposal 90 Electrical 3630
 Gallons Water Used This Month 18,000,000 Per Capita Water Consumption 2,300

* Purchased power

REFRIGERATION:

Number of Service Calls 16 Number Repair Jobs 9 Ave. Total Number Employees 4
 Number of Units Inspected and Serviced This Month 9
 Units Not Operating: (give number and size) _____
 Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

The hot water heaters are still continuing to be a source of trouble and replacements are slow in coming thru.

Project Well # 1 is still out of service.

Water main breaks in the distribution lines continue to give a lot of trouble and considerable amount of the distribution system will have to be replaced as soon as new pipe can be obtained and labor made available.

The progress of work has slowed down considerably due to the reduction in the forces and also to losing the present labor due to induction into the army.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	90	16	375
On Utilities	216	4 Elect. 6 Plumbers	150

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 8 Electrical 0
 Est. Value Materials Used: Water Supply 140 Sewage Disposal 90 Electrical 3798. *
 Gallons Water Used This Month 18,000,000 Per Capita Water Consumption 2,300
 * Purchased Power

REFRIGERATION:

Number of Service Calls 18 Number Repair Jobs 10 Ave. Total Number Employees 3
 Number of Units Inspected and Serviced This Month 12
 Units Not Operating: (give number and size) _____
 Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

The progress of the construction work has been slowed down considerably this past month due to shortage of help. The men employed at present are kept busy with maintenance work mostly and does not allow them much time to do much construction work.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	140	16	500
On Utilities	222	4 Elect. 6 Plumbers	250

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 8 Electrical 0

Est. Value Materials Used: Water Supply 100 Sewage Disposal 100 Electrical 3730*

Gallons Water Used This Month 18,000,000 Per Capita Water Consumption 2,300

* Purchased Power

REFRIGERATION:

Number of Service Calls 20 Number Repair Jobs 8 Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month 8

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Maintenance and repair work on buildings increased considerably this past month, due to the high winds and storms we have been having.



MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	120	12	750.00
On Utilities	182	4 Elect. 4 Plumbers	275.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 6 Electrical 0

Est. Value Materials Used: Water Supply 250 Sewage Disposal 100 Electrical 3590*

Gallons Water Used This Month 20,000,000 Per Capita Water Consumption 3200

*Purchased Power

REFRIGERATION:

Number of Service Calls 23 Number Repair Jobs 6 Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month 6

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

The shortage of labor due partly to indefinite leaves and mostly to seasonal leaves, has reduced all maintenance and construction crews, and created serious reduction in work progress. A fire in 7E Mess Hall requiring replacement of roof and roof trusses, ceiling, etc., for the linear feet of building occupied by the kitchen, and reconditioning and refinishing of kitchen and equipment, required approximately 40% of time of Maintenance crews during the month. Some progress has been made in Center roof repairs of damage due to high winds and storms with this work approximately 50% completed.

Repairs and maintenance to Center Evacuee living quarters in preparation for transfer from Jerome and the 7E Mess Hall Fire, with the losses in maintenance crews due to leaves, necessitated the transfer of construction crews to this work.

Equipment and materials for lengthening the setting of pump in Project Well #1 was received and this work is nearly completed and this well should be in operation by June 15th.

WAR RELOCATION AUTHORITY

Budget Bureau No. 13-R035
Approval Expires: 6/30/44

Monthly Report

ENGINEERING

For Month Ending June 30 1944Center Granada

CONSTRUCTION: Buildings, Irrigation, Drainage, Roads.

Name or Type of Project	Date Started	Per Cent Completed	Est. Date of Completion	MATERIALS		Ave. No. Evacuees Employed
				Per Cent Ordered	Per Cent Delivered	
Auto Repair Shop	11/15/43	80	7/25/44	100	95	12
Administ. Dormitories	11/25/43	10		80	60	0
Center Irrigation	5/15/43	70	8/15/44	100	100	6
Canning Plant	4/1/44	60	9/1/44	90	80	0
Poultry Plant	4/1/44	50		80	70	0
Bldg. Administ. Office	3/1/44	90		100	100	0
Slaughter House	3/1/44	80		90	85	4
Note: Dates of completion are directly related to labor supply and modified by contingencies and emergencies. Available labor is so uncertain that no estimates of completion have been made except for immediate work.						

AGRICULTURAL LAND DEVELOPMENT: Clearing, Levelling, etc.

Type of Project	Date Started	% Done	Est. Date of Completion	Ave. No. Evacuees Employed	ACREAGE DEVELOPED	
					This Month	Total To Date

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	140	14	825.00
On Utilities	302	10	978.63

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 6 Electrical

Est. Value Materials Used: Water Supply 225 Sewage Disposal 100 Electrical 3590*

Gallons Water Used This Month 20,000,000 Per Capita Water Consumption 3

*Purchased Power

REFRIGERATION:

Number of Service Calls 26 Number Repair Jobs 4 Ave. Total Number Employees 4

Number of Units Inspected and Serviced This Month 3

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Shortage of Labor continued to slow down both maintenance and construction work, and all crews are below the numbers needed. Relocation and seasonal leaves continue to take the best qualified men from all crews; suitable operators for the CenterWater Supply pumps were obtained with difficulty in spite of the practice of having two men on each shift.

The extension of the pump in Center Well #1 was completed and has improved the water supply.

Installation of new heaters in the Mess Halls has been completed, and hot water installations are in satisfactory condition for the present.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	125	17	750.00
On Utilities	151	10	150.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 6 Electrical

Est. Value Materials Used: Water Supply 275 Sewage Disposal 100 Electrical 3102*

Gallons Water Used This Month 21,000,000 Per Capita Water Consumption

*Purchased Power

REFRIGERATION:

Number of Service Calls 31 Number Repair Jobs 2 Ave. Total Number Employees

Number of Units Inspected and Serviced This Month 8

Units Not Operating: (give number and size) 1 - 3/4 H.P.

Explain why units not operating, how long idle, etc.

1 Unit in Military Police Mess Hall - transferred to WRA will be used as Staff Mess when plan of operation is completed.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Labor shortage continues to hamper all work, both construction and maintenance, and new recruitments are insufficient to replace losses from seasonal and indefinite leaves.



MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	110	15	650.00
On Utilities	186	8	250.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 6 Sewage Disposal 4 Electrical

Est. Value Materials Used: Water Supply Sewage Disposal Electrical 3279*

Gallons Water Used This Month Per Capita Water Consumption

*Purchased Power

REFRIGERATION:

Number of Service Calls 42 Number Repair Jobs 32 Ave. Total Number Employees 2

Number of Units Inspected and Serviced This Month 6

Units Not Operating: (give number and size) 1- $\frac{3}{4}$ HP-in former M.P. Mess Hall to be used by WRA Mess

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Seasonal Leaves have reduced all crews, and practically stopped construction progress, as available labor is applied to operations-water garbage disposal-and maintenance.

Center Irrigation System is held up while dragline is building silos for ear crops.

Heating Systems in Staff Quarters are being installed by voluntary labor Staff Personnel.

For Month Ending Sept. 30 1944

Monthly Report

ENGINEERINGCenter Granada

CONSTRUCTION: Buildings, Irrigation, Drainage, Roads.

Name or Type of Project	Date Started	Per Cent Completed	Est. Date of Completion	MATERIALS		Ave. No. Evacuees Employed
				Per Cent Ordered	Per Cent Delivered	
M.P. Barracks	7/20/44	70	11/1/44	100	90	6
Junior High School	7/25/44	50	11/1/44	100	50	4
Adm. Quarters (Amend)	8/15/44	40	11/15/44	100	40	3
(Heating System)						
(1) Adm. Office Bldg.	3/1/44	95	10/10/44	100	100	3
Slaughter House	7/25/44	100				
Center Irrigation	80			100	100	
Adm. Dormitories	10			90	90	
(1) Heating System being installed.						

AGRICULTURAL LAND DEVELOPMENT: Clearing, Levelling, etc.

Type of Project	Date Started	% Done	Est. Date of Completion	Ave. No. Evacuees Employed	ACREAGE DEVELOPED	
					This Month	Total To Date

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	142	14	860
On Utilities	155	7	275

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 4 Electrical

Est. Value Materials Used: Water Supply 225 Sewage Disposal 100 Electrical 3399*

Gallons Water Used This Month 17,000,000 Per Capita Water Consumption 3000

*Purchased Power

REFRIGERATION:

Number of Service Calls 12 Number Repair Jobs 6 Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month 8

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Shortage of labor is the major problem, as seasonal leaves have reduced all crews so that the few remaining in construction crews are required at least part time on maintenance.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	114	13	950
On Utilities	134	7	175

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 9 Sewage Disposal 4 Electrical
Est. Value Materials Used: Water Supply 175 Sewage Disposal 100 Electrical \$3648
Gallons Water Used This Month 16,000,000 Per Capita Water Consumption 2750

*Purchased Power

REFRIGERATION:

Number of Service Calls 51 Number Repair Jobs 8 Ave. Total Number Employees 2
Number of Units Inspected and Serviced This Month 6
Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Shortage of labor continues to handicap maintenance work and to delay progress of construction.



MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	190	20	800
On Utilities	145	10	650

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 9 Sewage Disposal 4 Electrical -

Est. Value Materials Used: Water Supply 175 Sewage Disposal 100 Electrical \$3768.*

Gallons Water Used This Month 16,000,000 Per Capita Water Consumption 2750

*Purchased Power

REFRIGERATION:

Number of Service Calls 25 Number Repair Jobs 10 Ave. Total Number Employees 2

Number of Units Inspected and Serviced This Month 12

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Evacuees are now coming back from seasonal leave which should relieve the labor shortage.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	150	18	1125
On Utilities	135	10	1250

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 10 Sewage Disposal 4 Electrical --

Est. Value Materials Used: Water Supply 175 Sewage Disposal 100 Electrical ---

Gallons Water Used This Month 18,000,000 Per Capita Water Consumption 2850

REFRIGERATION:

Number of Service Calls 16 Number Repair Jobs 8 Ave. Total Number Employees 2

Number of Units Inspected and Serviced This Month 10

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Construction work in progress is being completed. Labor crews are still short, as rescinding of exclusion order changed the attitude of evacuees returning from leave, and very few returned to their previous jobs.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	135	20	975
On Utilities	119	10	650

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 10 Sewage Disposal 4 Electrical --

Est. Value Materials Used: Water Supply 175 Sewage Disposal 100 Electrical 5046*

Gallons Water Used This Month 16,000,000 Per Capita Water Consumption 2620

***Purchased Power**

REFRIGERATION:

Number of Service Calls 20 Number Repair Jobs 4 Ave. Total Number Employees 2

Number of Units Inspected and Serviced This Month 8

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Construction work planned, has been completed-Balance of Staff Quarters Heating Systems (for 4 Buildings-16 Apartments) will not be done although equipment and materials are on hand.

Construction Crews are salvaging used and scrap lumber and building boxes for relocation, and in maintenance work.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	95	19	625
On Utilities	80	9	425

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 9 Sewage Disposal 4 Electrical --

Est. Value Materials Used: Water Supply 150 Sewage Disposal 75 Electrical \$3377*

Gallons Water Used This Month 14,000,000 Per Capita Water Consumption 2330

*Purchased Power

REFRIGERATION:

Number of Service Calls 30 Number Repair Jobs 3 Ave. Total Number Employees 2

Number of Units Inspected and Serviced This Month 6

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Work of salvaging used and scrap lumber and construction of boxes continues, with approximately 900 boxes completed.

Two power outages, of 3 and 6 hours, occurred due to transmission line trouble. WRA personnel assisted REA crews in locating and eliminating trouble. These power outages resulted in low water supply both in reserve storage and pressure storage.

Weather conditions are improving and it is planned to start work approved, of deepening settings on Project Wells during the month of March, unless weather prevents.

All Crews have been affected by relocation of employees and satisfactory replacements are difficult.

Two appointed personnel left during the month.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	115	21	850.00
On Utilities	130	9	500.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 9 Sewage Disposal 4 Electrical 1
 Est. Value Materials Used: Water Supply \$125 Sewage Disposal 75 Electrical \$1424.00
 Gallons Water Used This Month 14,000,000 Per Capita Water Consumption 2330

* Purchased Power

REFRIGERATION:

Number of Service Calls 18 Number Repair Jobs 11 Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month 6

Units Not Operating: (give number and size) _____

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Water System Operation has been hampered by the loss on March 23rd. of 6 Power Transformers, Supplying Power to Wells #1 and #4. Partial Service from Well #4 was resumed in 12 hours with temporary use of 2 Transformers which were reserve, and the damaged transformers are being repaired. Full Service at #4 should be available by April 7th and Service at #1 about April 15th if the repairs are completed as promised. Damage to the Transformers was short circuit in the primary winding.



MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	130	16	950.00
On Utilities	92	7	520.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 4 Electrical -

Est. Value Materials Used: Water Supply 100 Sewage Disposal 80 Electrical 511**

Gallons Water Used This Month 13,000,000 Per Capita Water Consumption 2,400

** Purchased Power

REFRIGERATION:

Number of Service Calls 15 Number Repair Jobs Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month

Units Not Operating: (give number and size)

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Repairs were completed to the Power Transformers damaged in March, and the equipment replaced in service on the Center Well Pumps. With all water service equipment in operation, water conditions are normal. Reduction in Population has reduced water consumption, and it is possible that the extension of well settings authorized, will not be necessary on Wells # 3 and 4. This work is being held up to determine the effect of Relocation in the months of May and June, and the effect on water consumption and hours of operation of equipment.

Relocation continues to reduce operation and maintenance forces, and skilled replacements cannot be obtained. Replacement of any kind is difficult to obtain, and training is necessary before they can be used on regular work.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	110	16	\$ 900.00
On Utilities	113	Plumbers 3; Elect. 4	300.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 4 Electrical 0
 Est. Value Materials Used: Water Supply \$80 Sewage Disposal \$70 Electrical \$264.8
 Gallons Water Used This Month 14,800,000 Per Capita Water Consumption 2900
 • Purchased Power

REFRIGERATION:

Number of Service Calls 32 Number Repair Jobs 4 Ave. Total Number Employees 3
 Number of Units Inspected and Serviced This Month 4
 Units Not Operating: (give number and size) None
 Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Continued reduction of employees due to relocation is reducing services possible, and increasing difficulties in operations due to the natural condition that the better class of employees are relocating and leaving the poorer and unsatisfactory employees still on the jobs, and the factor that employables left in the Center are types which are less suitable. Reduction in working forces (due to time spent by relocatees in packing, making arrangements for departure, etc.) has been faster than reductions in maintenance and other work due to reductions in population.



MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	80	12	\$2500
On Utilities	140	Plumbers 2; Elect. 4	850

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 8 Sewage Disposal 4 Electrical 4

Est. Value Materials Used: Water Supply 75 Sewage Disposal 60 Electrical \$3537

Gallons Water Used This Month 14,000,000 Per Capita Water Consumption 3000

***Purchased Power**

REFRIGERATION:

Number of Service Calls 17 Number Repair Jobs 2 Ave. Total Number Employees 3

Number of Units Inspected and Serviced This Month 4

Units Not Operating: (give number and size) 4- $\frac{1}{2}$ H. P. Mess Halls
1- $\frac{1}{2}$ H. P. Morgue

Explain why units not operating, how long idle, etc.

Mess Hall units not operating due to closing of mess halls.

Morgue unit not operating due to facilities not being used.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Relocation continues to reduce crews, and hamper those operations and work, which require experienced men, - such as pump operation, etc. Miscellaneous labor (unskilled) conditions have been improved by the employment of school boys, since closing of schools.-

Repair of damage from a severe storm on June 24th have been completed, except for the replacement of the roof of the Motor Repair Shop. This work is in progress and should be completed by July 15th.

Breaks in water system lines continue to occur frequently, and apparently will require increasing repairs.

Four Mess Halls have been closed, but other facilities in these blocks are in service, so that no appreciable decrease in maintenance has as yet resulted.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	65	9	575.00
On Utilities	112	Plumber 1 Electr. 4	450.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 6 Sewage Disposal 2 Electrical

Est. Value Materials Used: Water Supply 75 Sewage Disposal 75 Electrical \$2270*

Gallons Water Used This Month 15,000,000 Per Capita Water Consumption 3,750

***Purchased Power**

REFRIGERATION:

Number of Service Calls 23 Number Repair Jobs 4 Ave. Total Number Employees 2

Number of Units Inspected and Serviced This Month 8

Units Not Operating: (give number and size) 11- $\frac{1}{2}$ HP Units - Mess Halls
1-1 $\frac{1}{2}$ HP Units - Morgue

Explain why units not operating, how long idle, etc.

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COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Relocation continues to reduce crews and the recruiting of experienced men for pump operation, plumbers, is almost impossible. Miscellaneous labor (unskilled) conditions continue fair, but these crews are also being reduced steadily by relocation.

Breaks in water mains and block service lines and piping continue to occur frequently.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	45	9	450.00
On Utilities	114	Elect. 3	300.00

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 5 Sewage Disposal 1 Electrical -
 Est. Value Materials Used: Water Supply 60 Sewage Disposal 50 Electrical \$ 3592.*
 Gallons Water Used This Month 11,000,000 Per Capita Water Consumption 4,000

* Purchased Power

REFRIGERATION:

Number of Service Calls 18 Number Repair Jobs 6 Ave. Total Number Employees 2
 Number of Units Inspected and Serviced This Month 6
14 - 1/2 HP Units - Mess Halls
 Units Not Operating: (give number and size) 1-1 1/2 HP " - Morgue

Explain why units not operating, how long idle, etc.

14 Mess Halls closed down
 Hospital Morgue not operating

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Relocation continues to reduce crews, and no new labor (evacue) is available; Miscellaneous labor crews are reducing and replacements are not available while the work of delivering (and making) boxes and crating for evacue ~~employees~~ is increasing. Recruitment of appointed employees to carry on work is under way, but suitable skilled men (Pump Operators, Carpenters, etc.) are not yet available in this area, and unskilled labor is still employed on farms. Water main breaks, and breaks in block service line continue- 10 this month- but service has been maintained.

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	25	5	\$ 750.00 *
On Utilities	64	1 Ele et.- 0 Plumb.	175.00 *

* Includes Fire Damage
Staff Quarters

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply 2 Sewage Disposal 0 Electrical

Est. Value Materials Used: Water Supply \$ 50 Sewage Disposal \$ 50 Electrical \$2786**

Gallons Water Used This Month 12,000,000 Per Capita Water Consumption 5,200

** Purchased Power

REFRIGERATION:

Number of Service Calls 12 Number Repair Jobs 4 Ave. Total Number Employees

Number of Units Inspected and Serviced This Month 6

Units Not Operating: (give number and size) 19 Mess Halls Shut down- 1 1/2 HP Units
1 Hospital Morgue- 1 1/2 HP Unit

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

Practically all evacuee personnel of the Engineering Section were terminated by relocation by the 18th of the month; Shift Operators for the Water System pumps were obtained by the 16th to enable 24-hour operation. Recruiting of Carpenters for miscellaneous work- boxes and crating of government and evacuee property, maintenance, etc.- was slow and the termination of the evacuee box crew slowed up preparation of materials for evacuee crating. In the emergency, 35 of the Staff appointed personnel from 7 sections of the Staff, worked 81 1/2 hours overtime and Saturdays and Sundays, making boxes and resawing lumber for crating, and delivering materials,- with the result that delivery of practically all material for shipment of evacuee property was completed by September 20th, (with the exception of a small number who have not requested such material). This extra effort produced sufficient boxes and crating material for the small number not yet supplied and a stock of this material for government property. A fire in the Staff Quarters,- Building B-2- damaged the roof of the central heating room, and scorched roof sheathing and trusses, and water damage was done to the ceilings of two apartments, and electrical wiring; cost of repairs will not exceed \$ 500.00

Block

A fire in Evacue Quarters-11B-11A and B- destroyed the end of the building and these two apartments, and damaged the next apartment; Damage was estimated at 1/3 the original cost of the building, and repairs at \$ 1200.00; A wall will be put in at the remaining partition, to protect the wall and shut off the attic at a cost of \$ 75.00

MAINTENANCE:

	Number of Jobs Done	Ave. Total Number Employees	Est. Value of Materials Used
On Buildings	1*	0	75*
On Utilities	4 **	0 Elect- 0 Plumb.	30 **

* Temporary Repairs to Evacue Barrack damage d in September by Apptd. Personnel

** Repairs to Electric Line s in Blocks-

OPERATION OF UTILITIES:

Average Number of Employees: Water Supply Sewage Disposal Electrical

Est. Value Materials Used: Water Supply \$ 25 Sewage Disposal # 20 Electrical 726

Gallons Water Used This Month 4,000,000 Per Capita Water Consumption 1

* Purchased Power- ~~Estimated~~

REFRIGERATION:

Number of Service Calls 4 Number Repair Jobs 2 Ave. Total Number Employees 1

Number of Units Inspected and Serviced This Month 4

Units Not Operating: (give number and size) 29 29 HP Units- Messhalls shut down

1-1 1/2 HP Unit- Hospital Morgue Shut down

Explain why units not operating, how long idle, etc.

COMMENTS: (Discuss here any unusual or significant developments this month in construction, land development, maintenance, operation of utilities and refrigeration; problems, or difficulties encountered in getting materials, labor or equipment; etc. Use additional sheet if necessary.)

All Evacue Employees left by October 12th.

All Operations being carried out by Appointed Personnel, chiefly laying by Equipment, preparing Government Property for shipment, and clean-up in the Evacue Area and balance of Center to reduce fire hazards.