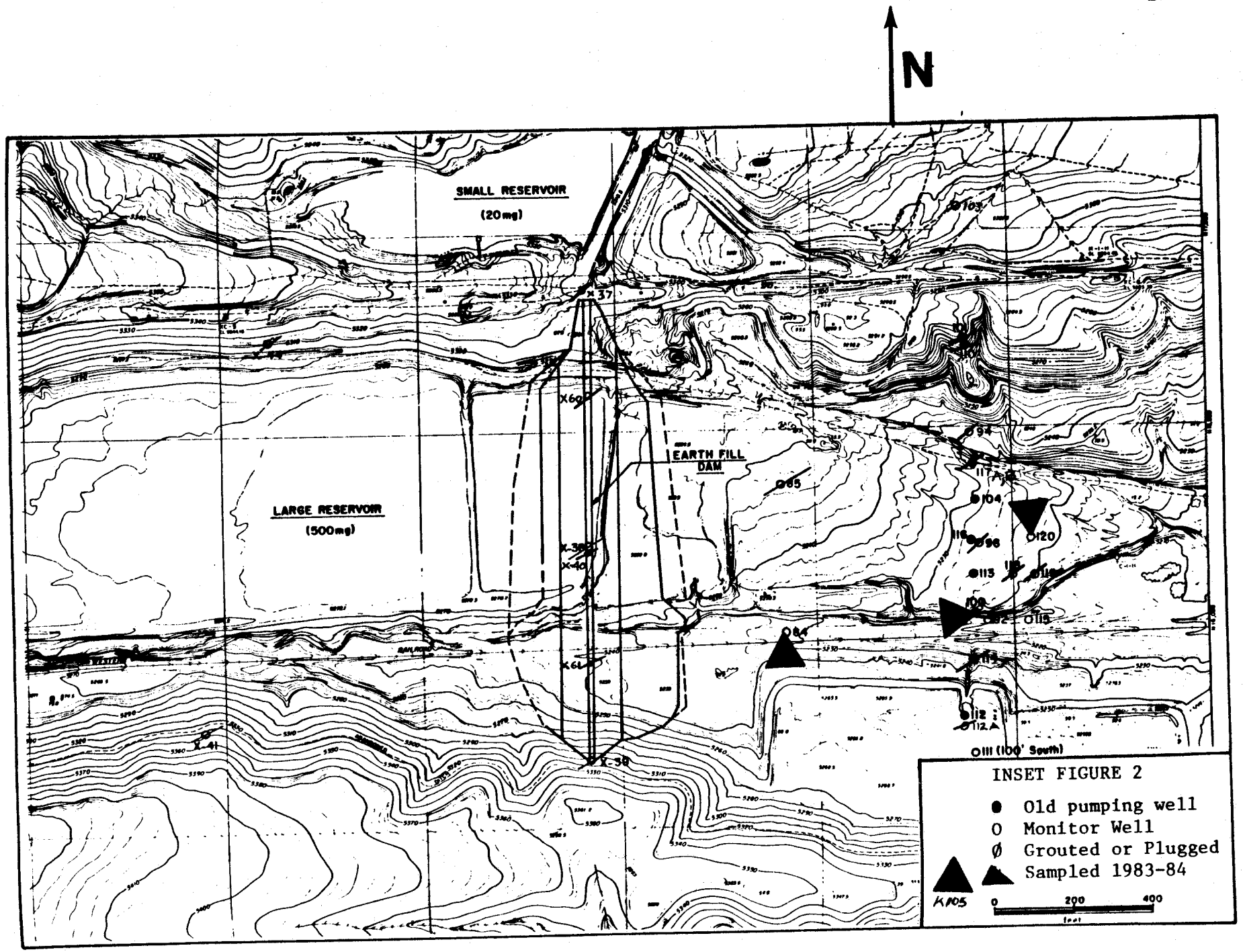
APPENDIX A

SUMMARY OF AQUIFER TEST DATA

WITH RESULTS FROM PREVIOUS U.C.D. INVESTIGATIONS


N
SMALL RESERVOIR
(20mg)
LARGE RESERVOIR
(500mg)
EARTH FILL
DAM
X37
X60
X-38
X-40
X61
X-39
X-41
103
94
117
104
120
116
96
113
109
115
84
112
112A
111 (100' South)
INSET FIGURE 2
Old pumping well
Monitor Well
Grouted or Plugged
Sampled 1983-84
K105
0
200
400
feet

APPENDIX A. SUMMARY OF AQUIFER PUMP TESTING CONDUCTED AT UCD

Well No.	Location	Pumping Rate (gpm)	Duration (Mins)	Drawdown (Feet)	Radius (Feet)	Open Zones (Feet)	Units Tested	Project Engineers & Dates Tested	Analytical Results(1) T gpd/ft	K ft/day	S
K-100	900 feet E. of the reservoir	500	2,880	22	1.5	40-60	Clean sandy gravel with cobbles and boulders	Legette, Brashears & Graham and Kennecott 1970	75,000 - 110,000	200 - 300	.04
K-104	900 feet E. of the reservoir	400	1,440	21	1.5	45-75	Upper gravels, clays, sands in Bingham Creek channel near the reservoir	Same 1970	30,000 - 35,000	90 - 100	.02-.06
K-112	900 feet E.-S.E. of the reservoir	60	2,880	-	1.7	84-94	Same	Same 1970	20,000	60	.03
K-113	900 feet E. of the reservoir	110	2,880	13.5	.7	52-72	Same	Same 1970	25,000 35,000	75 - 100	.04
K-114	900 feet E.-S.E. of the reservoir	100	2,880	8	.7	58-88	Same	Same 1970	32,000 - 88,000	95 - 260	.06
K-117	900 feet E-N.E. of the reservoir	20	480	51	.7	95-110	Same	Same 1970	3,500	10	.0002
K-94	900 feet E. of the reservoir	20	25		.4	200-220	Sand, Silt, gravel, clay, volcanics	Aug. 1970			
OW-K117	Same				80	95-110			3,530	-	.0002
K-104	900 feet E. of the reservoir	450	75	9.3	1.7	45-75	Gravel, clay, sand	Aug. 1970	34,400	-	-

Well No.	Location	Pumping Rate (gpm)	Duration (Mins)	Drawdown (Feet)	Radius (Feet)	Open Zones (Feet)	Units Tested	Project Engineers & Dates Tested	Analytical Results(1) T gpd/ft	K ft/day	S
K-100	900 feet E. of the reservoir	600	14,400	4.6	1.5	40-60	Silt, sand, clay, gravel, coarse, sandy gravel	Erskine 1968	143,000	-	.09
OW-K92	S.E. of K-100	-	14,400	4	33	50-115		Erskine 1968	117,000	-	.04
OW-K96	N. of K-100	-	14,400	.58	170	?-146		Erskine 1968	119,000	-	.1
OW-K84	W. of K-100	-	14,400	.75	480	0-157		Erskine 1968	240,000	-	.09
K-110	900 Ft. E-N.E. reservoir	19	270	25	.4	155-175	Upper gravels, silts, clays in Bingham Creek channel near the reservoir	Sep. 1969	1,350	-	.003
OW-K103		-		.5	370	145-213		Sep. 1969	2,720	-	.004
OW-K101				7.5	6.6	150-240			1,360	-	.008
K-112	900 Ft. E. S.E. reservoir	107	480		1.7	84-94	Upper gravels, silts, clays and tailings along the south part of Bingham Creek channel near the reservoir	Aug. 1969	No analyses completed to date		
OW-K-113				.19	370	52-72					
OW-K-114				.72	150	58-88					
OW-K-84				-	500	0-157					
OW-K-92				-	250	50-115					
OW-K112A				1.2	10	84-94					
OW-K115				-	280	30-80					

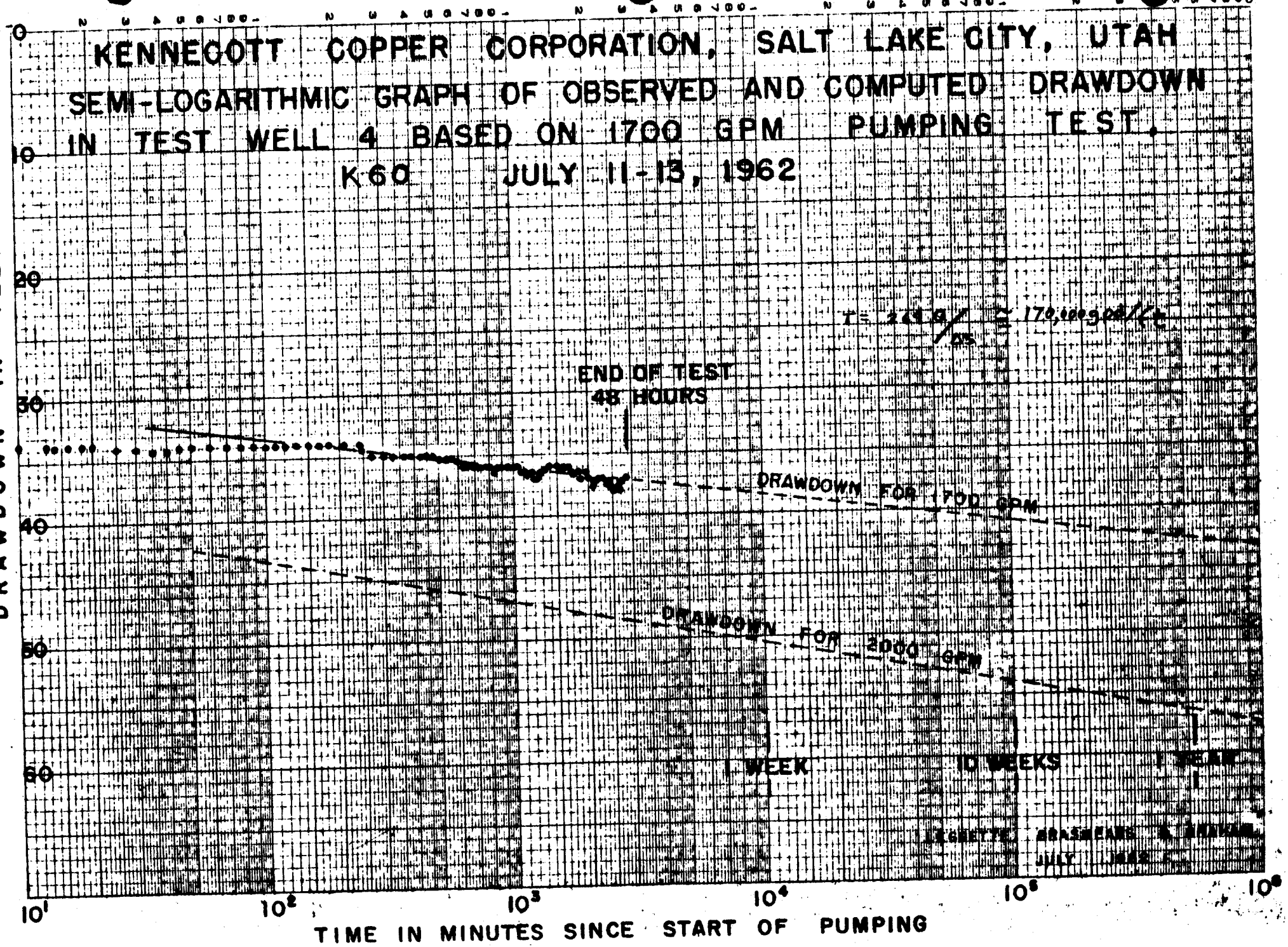
Well No.	Location	Pumping Rate (gpm)	Duration (Mins)	Drawdown (Feet)	Radius (Feet)	Open Zones (Feet)	Units Tested	Project Engineers & Dates Tested	Analytical Results(1) T gpd/ft	K ft/day	S
K-113	900 Ft. E. reservoir	167	480	11	.7	52-72	Upper gravels, silts, clays along Bingham Creek channel near the reservoir	Aug. 1970			
OW-K104					180	45-78					
OW-K115					180	30-80					
OW-K118				2.4	100				37,000	-	.03
OW-K96				.57	80				123,000	-	.04
K-114	900 Ft. E-S.E. reservoir	250	480	.5	.7	58-88	Same as above	1969-1970			
OW-K84				.2	485	0-157			481,000	-	.01
OW-K112A				.6	125	84-94			127,000	-	.06
OW-K92				.71	100	50-115			112,000	-	.01
OW-K115				.5	175	30-80			179,000	-	.03
K-116	900 Ft. E. reservoir	162	480	15.5		50-65	Same as above	1969-1970			
OW-K92				.8	200	50-115			260,000	-	.06
OW-K94				.23	270	200-220			221,000	-	.03
OW-K96				.78	10	-146			186,000	-	.09
OW-K115				.21	250	30-80			198,000	-	.05
OW-K119				.15	180	85-101			186,000	-	.01

Well No.	Location	Pumping Rate (gpm)	Duration (Mins)	Drawdown (Feet)	Radius (Feet)	Open Zones (Feet)	Units Tested	Project Engineers & Dates Tested	Analytical Results(1) T gpd/ft	K ft/day	S
K-116 pumping test continued											
OW-K118				.12	130	35-110			668,000	-	.07
OW-K120				.17	150	45-105			149,000	-	.1
K-60	2.25 miles East reservoir	1,700	2,880	37	1	430-645 drilled to 1000 feet	Deep aquifer coarse gravel and sand	Legette, Brashears & Graham July, 1962	170,000	40,000	-
K-109	2.53 miles East of the reservoir	3,000	5,760	25	1.7	403-540 drilled to 650 feet	Deep aquifer coarse gravel and sand	Legette, Brashears & Graham June, 1968	170,000	60,000	-
	Bingham Creek reservoir						Shallow aquifer 20 feet thick	Kennecott and Intera Dec. 1975 -No Testing- Map Data Summary Only from USGS Data and Kennecott Data	30,000	200	-
	Bingham Creek channel 1 mile downstream from reservoir						Deep and shallow aquifers 50 feet thick	Same as above	30,000	80	-
	Bingham Creek channel 2 miles downstream from reservoir						Deep and shallow aquifers 200 feet thick	Same as above	45,000	30	-

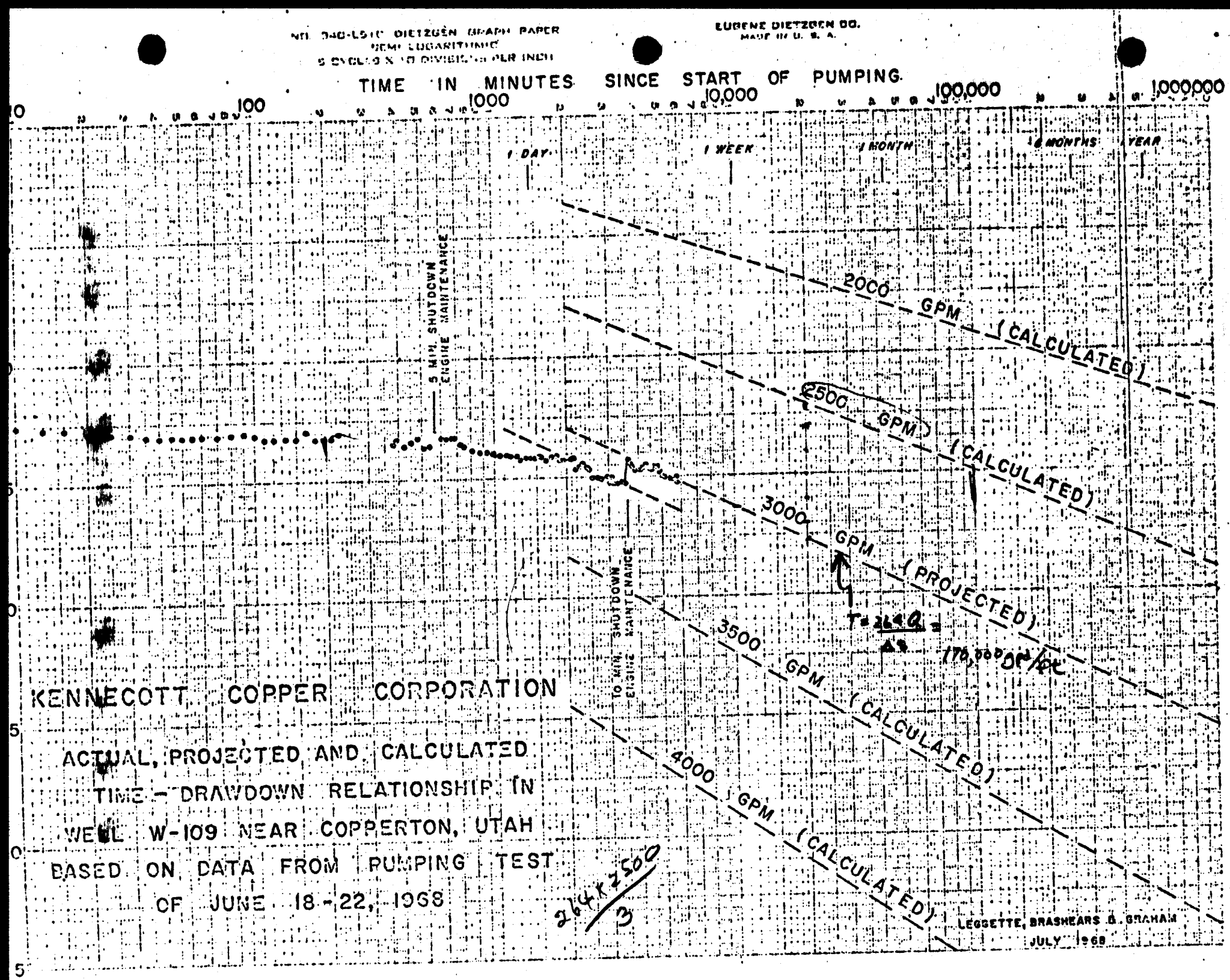
Well No.	Location	Pumping Rate (gpm)	Duration (Mins)	Drawdown (Feet)	Radius (Feet)	Open Zones (Feet)	Units Tested	Project Engineers & Dates Tested	Analytical Results(1) T gpd/ft	K ft/day	S
	Bingham Creek 1 mile north of the evaporation ponds						Deep and shallow aquifers 110 feet thick	Same as above	10,000	11	-
	1 mile north of the reservoir						Shallow aquifer 10 feet thick	Same as above	5,000	5	-
	1 mile south of the reservoir						Shallow aquifer 30 feet thick	Same as above	10,000	3	-
	1 mile east of the evaporation ponds						Shallow and deep aquifers 100 feet thick	Same as above	10,000	10	-
	2 miles east of the evaporation ponds						Shallow and deep aquifers 200 feet thick	Same as above	75,000	50	-
	1 mile south of the evaporation ponds						Shallow aquifer 40 feet thick	Same as above	6,000	20	-

NOTE: There are some specific capacity data on private wells W-1 through W-300 and other private wells based on State Engineer drillers' logs "pump" tests.(1)

(1) Data analyses were performed by the engineers who were recorded as conducting the tests. Analyses verifications have not been finalized since specific capacity data and analyses verifications and additional aquifer pump testing will be completed as part of the 5.25 year hydrologic study. The purpose for including these records is for preliminary review and compilation of the testing that has been conducted to date.


KENNECOTT COPPER CORPORATION, SALT LAKE CITY, UTAH
SEMI-LOGARITHMIC GRAPH OF OBSERVED AND COMPUTED DRAWDOWN
IN TEST WELL 4 BASED ON 1700 GPM PUMPING TEST.
K60 JULY 11-13, 1962
END OF TEST
48 HOURS
DRAWDOWN FOR 1700 GPM
DRAWDOWN FOR 2000 GPM
1 WEEK
10 WEEKS
1 YEAR
DRAWDOWN IN FEET
TIME IN MINUTES SINCE START OF PUMPING
0
10
20
30
40
50
60
10^1
10^2
10^3
10^4
10^5
10^6

NO. 340-L51C DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
5 CYCLES X 10 DIVISIONS PER INCH
EUGENE DIETZGEN CO.
MADE IN U. S. A.



KENNECOTT COPPER CORPORATION

ACTUAL, PROJECTED AND CALCULATED
TIME - DRAWDOWN RELATIONSHIP IN
WELL W-109 NEAR COPPERTON, UTAH
BASED ON DATA FROM PUMPING TEST
OF JUNE 18-22, 1968