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SUMMARY

OF

PRELIMINARY DRILLING PROGRAM

IN

COPPER BASIN

SEC. 2, 3, 10 AND 11, T9N, R1W

YAVAPAI COUNTY, ARIZONA

FOR

COLEMAN MORTON

WILLIAM D. WITTER

KELSEY L. BOLTZ

CONSULTING ENGINEER & GEOLOGIST

PHOENIX, ARIZONA

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KELSEY L. BOLTZ
CONSULTING ENGINEER
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2402 W. DEVONSHIRE
PHOENIX, ARIZONA 85015

October 24, 1966

Messrs. Coleman Morton
William D. Witter
Fourteenth Floor
900 Wilshire Boulevard
Los Angeles, California

Gentlemen:

Transmitted herewith is a copy of my report, "Summary of Preliminary Drilling Program in Copper Basin."

This report presents only a brief summary of the pertinent facts regarding the program; it is not economically justified at this time to compile a detailed analysis of the project in view of the results obtained.

The advice and assistance of Mr. Max Kofford and Dr. Willard Lacy was very helpful in the execution of this program.

Respectfully submitted,

Kelsey L. Boltz
Consulting Engineer and Geologist

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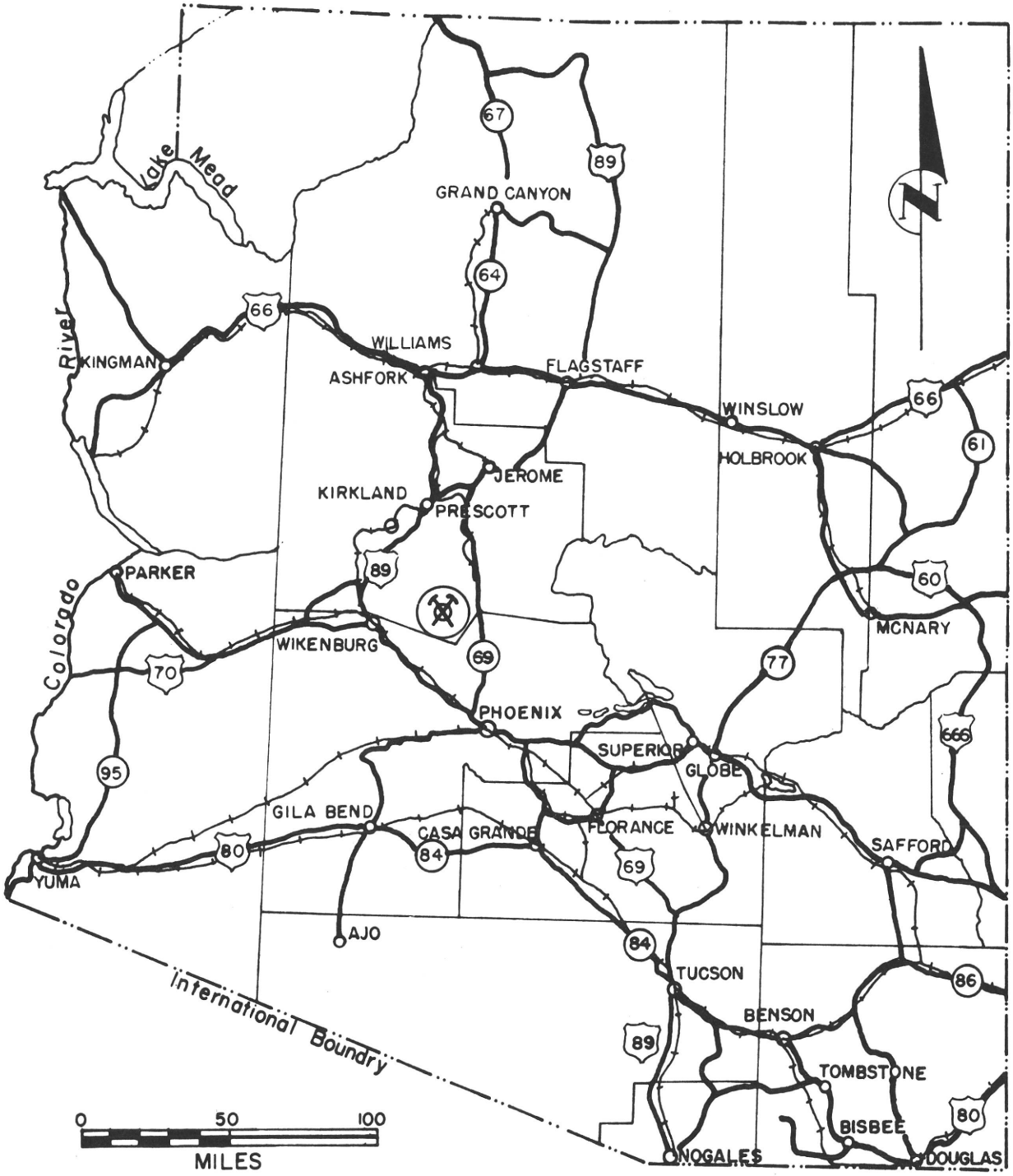


LOCATION MAP

COPPER BASIN

SEC. 2, 3, 10 AND 11, T9N, R1W

YAVAPAI COUNTY, ARIZONA

KELSEY L. BOLTZ

CONSULTING ENGINEER & GEOLOGIST

PHOENIX, ARIZONA

FIG. 1

SUMMARY

of

PRELIMINARY DRILLING PROGRAM

in

COPPER BASIN

Yavapai County, Arizona

INTRODUCTION

Copper Basin is the name given to an amphitheater-shaped canyon situated on the west slope of the Bradshaw Mountains approximately thirty miles south of Prescott, Arizona, (Figure 1) and covering an area of nearly four square miles, the center of which lies near the E 1/4 corner of Section 10, T 9 N, R 1 W, in Yavapai County, Arizona. The exposed rocks show disseminated copper and molybdenum mineralization over a large portion of the Basin.

By virtue of an exploration permit and option agreement from Robert Ford and Associates, Inc., Coleman Morton of Los Angeles and William D. Witter of New York conducted a preliminary mapping and drilling program designed to determine as quickly and inexpensively as feasible the economic possibilities of the deposit.

The program began July 1, 1966, was completed October 12, 1966, and was supervised by the writer.

The material presented in this report represents a brief summary of the data collected during the said exploration program.

SUMMARY

The subject drilling program was commenced on July 15, 1966. A total of twelve holes were drilled: seven by diamond core drilling and five by air plug-bit drilling. The average results were:

Hole No.	Total Depth	Av. Cu%	Av. Mo%	Drill Method
1	426	0.102	0.024	Core
2	366	0.123	0.016	Core
3	410	0.155	0.021	Core
4	230	0.070	0.004	Core
5	291	0.098	0.022	Core
6	171	0.144	0.028	Core
7A	221	0.228	0.010	Core
101	95	0.15	0.015	Plug bit
102A	107	0.30	0.011	Plug bit
103	108	0.02	0.011	Plug bit
104	100	0.01	0.010	Plug bit
105	100	nil	nil	Plug bit

The total average results for holes 1 through 7A inclusive and 101 and 102A are: Copper 0.137%, Molybdenum 0.017%.

Holes 103, 104, and 105 were drilled for the purpose of claim validation and were located somewhat outside the area of principal mineralization.

The locations of the holes are shown on Plates 1 and 2.

Geologic mapping was conducted in advance of and for the purpose of directing the drilling.

The interpretations of the results of the geologic mapping are displayed on Plate 2.

During the program, 73 lode mining claims were located and validated in order to cover completely the mineralized area and to insure adequate operating space in the event of the discovery of an economic deposit. The locations of these claims are shown on Plate 1.

Total cost of the program was approximately $53, 000. 00.

CONCLUSION

Data obtained from the project indicates the possibility of the existence of approximately 500, 000, 000 tons of rock containing 0. 14% Copper and 0. 017% Molybdenum.

The low metal content of the deposit renders it economically unfeasible at this time.

PROCEDURES

Drilling

Core drilling was done by Boyles Brothers, with a Joy Manufacturing Co. screw-feed, skid mounted, wire line rig. Two shifts per day were run.

Plug bit drilling was accomplished by Annesley using an air-track mounted down-hole air rig, manufactured by Halcotrak.

Sampling

Cores were pulled and placed in 10-ft. 200-lb. test cardboard core boxes, transported to Phoenix, logged, then split. One half was retained for future reference, the other half was crushed, split and three pulps were taken. One pulp was retained for future reference and the other two sent to Hawley and Hawley in Tucson and Arizona Assay Office in Phoenix for copper and molybdenum determinations, and the results tabulated. All rejects were retained and stored for future reference.

Sludge samples were taken each shift and assayed as a check and for reference in the event of low core recovery. Core recovery, however, remained substantially 100%.

Two splits were taken of the air-blown cuttings from the down-hole rig. One split was taken to the Zonia Mine of McAlester Fuel Company for copper and molybdenum determination by X-ray spectrograph and the other split was stored for future reference.

All assay results are tabulated in the Appendix.

Geologic Mapping

Surface geology was mapped to a scale of 1" = 200' using an enlarged U. S. Forest Service aerial photo as position reference and a U. S. G. S. topography sheet as elevation reference. The interpreted results of the mapping program are displayed on Plate 2.

GEOLOGIC SUMMARY

The principal host rock of the Basin is a phase of the rock commonly known as the Bradshaw granite.

In the subject area, this rock is megascopically quartz monzonitic in composition and exhibits a flow structure or foliation in the parallel orientation of the biotite crystals. In the approximate center of the Basin the quartz monzonite has been intruded by a diorite porphyry. The surface exposure of this intrusive is elongate having approximate east - west and north-south dimensions of 2000 feet and 800 feet respectively. Mineralization is localized primarily in the intensely fractured quartz monzonite in a 600 to 800-ft. wide zone around the periphery of the diorite porphyry. The diorite porphyry is occasionally mineralized near its contact with the quartz monzonite. Hydrothermal alteration and supergene alteration extend from the diorite porphyry as much as 3000 feet distant.

The principal metallization occurs as pyrite, chalcopyrite and molybdenite, the pyrite occurring in fractures and commonly as replacements of the biotite. The chalcopyrite and molybdenite occur primarily along quartz-filled fractures.

Potassic alteration and silicification are those which occur commonly with the metallization. Quartz-sericite alteration, chloritization, and weak pyritization extend considerably beyond the metallized zone. Only the intense metallization and potassic alteration are shown on Plate 2.

The breccia zone in the area of 102,000 N, 100,800 E received special attention because the first shallow hole in this zone obtained results which were significantly higher than the previous average. (Hole 102A). However, a subsequent deeper core hole failed to substantiate any extension of higher metal content of significance.

The drilling program was designed to check the metal content of areas within the metallized zone which exhibited the most intense surface expression of mineralization.

Drilling disclosed the absence of any significant supergene enrichment and showed the "protore" metal content to be singularly consistent in the range of from 0.07% to 0.23% Copper and from 0.01% to 0.03% Molybdenum.

No evidence found was interpreted to indicate any increase in metal content with depth.

FISCAL CONSIDERATIONS

A summary of the expenditures for the project is as follows:

Direct Costs:	
Labor and Taxes	$ 4,803.34
Supervision	2,525.00
Operating Supplies	167.76
Contract Drilling	25,975.91
Assaying and Sampling	3,575.48
Roads and Site Preparation	6,398.75
Camp Expense	1,155.40
Travel Expense	7.28
Mapping and Engineering Supplies	251.80
Gas, Oil, Repairs and Other Transportation Costs	2,289.72
Equipment Rental	583.05
Claim Location and Validation	427.81
Consultant Fees	394.92
Overhead and Support:	
Office Labor and Fees	223.40
Office Supplies	13.53
Telephone Expense	153.60
Legal and Auditing	50.00
Engineering	2,525.00
TOTAL	$51,521.75
Estimated additional expenditures beyond date of this report:	
Payroll Taxes	$ 500.00
Road Repair	300.00
Engineering, final	600.00
TOTAL	$52,921.75

APPENDIX

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2101	1	4	10	x		0.11	0.002			0.095	0.009	0.03	0.56
2102	1	10	20	x		0.12	0.012						
2103	1	20	30	x		0.07	0.008						
2104	1	30	41	x		0.08	0.010			0.105	0.013	0.01	0.38
2105	1	41	50	x		0.07	0.009						
2106	1	50	60	x		0.08	0.007						
2107	1	60	70	x		0.08	0.008						
2108	1	70	80	x		0.06	0.014			0.075	0.021	0.005	0.24
2109	1	80	90	x		0.09	0.020						
2110	1	90	100	x		0.08	0.017						
2111	1	100	110	x		0.14	0.027						
2112	1	110	120	x		0.08	0.012			0.075	0.017	0.01	0.20
2113	1	120	130	x		0.05	0.008						
Comp													
2101-05	1	4	50	x				nil	0.06				
06-10	1	50	100	x				nil	nil				
11-13	1	100	130	x				nil	nil				
2114	1	4	51		x	0.10	0.014						
2115	1	51	101		x	0.09	0.012						
2116	1	101	156		x	0.12	0.018						
2117	1	156	196		x	0.09	0.019						
2118	1	227	244		x	0.09	0.024						
2119	1	130	140	x		0.10	0.033			0.102		0.03	0.30
2120	1	140	150	x		0.12	0.036						
2121	1	150	160	x		0.11	0.006						
2122	1	160	170	x		0.09	0.020			0.070		tr.	0.12
2123	1	170	180	x		0.06	0.032						
2124	1	180	188	x		0.14	0.011						

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
Comp:													
2119-24	1	130	188	x				nil	tr				
2125	1	197	227		x	0.15	0.022			0.110		0.005	0.24
2126	1	243	273		x	0.09	0.014						
2127	1	273	303		x	0.10	0.006						
2128	1	303	346		x	0.10	0.011			0.080		0.010	0.29
2129	1	346	386		x	0.09	0.008						
2130	1	188	198	x		0.08	0.010						
2131	1	198	208	x		0.23	0.036			0.125		0.010	0.40
2132	1	208	218	x		0.12	0.033						
2133	1	218	228	x		0.10	0.059						
2134	1	228	238	x		0.09	0.015			0.085		0.005	0.40
2135	1	238	248	x		0.08	0.015						
2136	1	248	258	x		0.07	0.007						
2137	1	258	270	x		0.08	0.011			0.110		tr	0.30
2138	1	270	280	x		0.15	0.014						
2139	1	280	290	x		0.29	0.011						
2140	1	290	300	x		0.12	0.008			0.110		nil	0.30
Comp													
2130-34	1	188	238	x				nil	nil				
Comp													
2135-40	1	238	300	x				nil	nil				
2141	1	300	310	x		0.16	0.015						
2142	1	310	320	x		0.09	0.008						
2143	1	320	330	x		0.10	0.110			0.080		nil	0.30
2144	1	330	340	x		0.11	0.008						
2145	1	340	350	x		0.14	0.010						
2146	1	350	360	x		0.20	0.015						
2147	1	360	370	x		0.09	0.015			0.095		nil	0.26
2148	1	370	380	x		0.06	0.005						
2149	1	380	390	x		0.11	0.006						

Sample No.	Hole No.	Depth Interval from	Depth Interval to	Material Core	Material Sludge	Hawley & Hawley Cu%	Hawley & Hawley Mo%	Hawley & Hawley Au	Hawley & Hawley Ag	Ariz. Assay Office Cu%	Ariz. Assay Office Mo%	Ariz. Assay Office Au	Ariz. Assay Office Ag
2150	1	390	400	x		0.08	0.005						
2151	1	400	410	x		0.07	0.015			0.095		nil	0.30
2152	1	410	420	x		0.09	0.009						
2153	1	420	426	x		0.18	0.007						
2154	2	20	96		x					0.190	0.027		
2155	2	96	146		x					0.100	0.015	tr	0.30
2156	2	146	196		x					0.095	0.017		
2157	2	10	20	x						0.090	0.009		
2158	2	20	30	x						0.100	0.011		
2159	2	30	40	x		0.38	0.025			0.310	0.025	nil	0.30
2160	2	40	50	x						0.175	0.021		
2161	2	50	60	x						0.335	0.018		
2162	2	60	70	x		0.38	0.017			0.255	0.018		
2163	2	70	80	x						0.105	0.013		
2164	2	80	90	x						0.100	0.009	tr	0.30
2165	2	90	100	x						0.115	0.012		
2166	2	100	110	x						0.105	0.011		
2167	2	110	120	x		0.13	0.007			0.105	0.010		
2168	2	120	130	x						0.070	0.015		
2169	2	130	140	x						0.075	0.014		
2170	2	140	150	x						0.125	0.023	tr	0.36
2171	2	150	160	x						0.120	0.020		
2172	2	160	170	x		0.08	0.008			0.055	0.013		
2173	2	170	180	x						0.045	0.013		
2174	2	180	190	x						0.125	0.044	0.01	0.32
2175	2	190	200	x						0.105	0.028		
2176	2	200	210	x		0.08	0.015			0.095	0.024		
2177	2	210	220	x						0.085	0.017		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2178	2	220	230	x						0.125	0.023	tr	0.54
2179	2	230	235	x		0.13	0.009			0.155	0.016		
Comp 2141-2145	1	300	350	x				tr	0.16				
Comp 2146-2150	1	350	400	x				tr	tr				
2151-2153	1	400	426	x				tr	tr				
2180	2	235	245	x						0.045	0.031		
2181	2	245	255	x		0.07	0.005			0.065	0.012		
2182	2	255	265	x						0.030	0.031		
2183	2	265	275	x						0.175	0.013		
2184	2	275	285	x						0.170	0.010		
2185	2	285	295	x		0.15	0.008			0.145	0.016		
2186	2	295	305	x						0.065	0.008		
2187	2	305	315	x						0.095	0.015		
2188	2	315	325	x						0.100	0.009		
2189	2	325	335	x		0.04	0.007			0.070	0.010		
2190	2	335	345	x						0.070	0.002		
2191	2	345	356	x						0.245	0.002		
2192	2	356	366	x						0.145	0.018		
2193	3	0	10	x		0.15	0.010			0.075	0.020	tr	0.30
2194	3	10	20	x						0.075	0.008		
2195	3	20	30	x						0.115	0.010		
2196	3	30	40	x						0.060	0.035		
2197	3	40	50	x		0.08	0.008			0.060	0.013	tr	0.30
2198	3	50	60	x						0.075	0.015		
2199	3	60	70	x						0.070	0.010		
2200	3	70	80	x						0.095	0.020		
2201	3	80	90	x		0.09	0.010			0.070	0.015	tr	0.30
2202	3	90	100	x						0.070	0.027		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2203	3	100	110	x						0.145	0.035		
2204	3	110	117.5	x						0.145	0.011		
2205	3	117.5	127.5	x		0.15	0.013			0.120	0.014	tr	0.30
2206	3	127.5	138.25	x						0.105	0.016		
2207	3	138.25	148.5	x						0.205	0.008		
2208	3	148.5	157	x						0.205	0.009		
2209	3	157	167	x		0.30	0.010			0.195	0.013		
2210	3	167	174	x						0.195	0.010		
2211	3	174	182	x						0.125	0.014		
2212	3	0	39		x					0.125	0.017		
2213	3	39	79		x					0.080	0.012		
2214	3	79	110		x					0.105	0.012		
2215	3	110	190		x					0.195	0.013		
2216	3	190	240		x					0.165	0.070		
2217	3	240	290		x					0.175	0.039		
2218	3									0.285	0.112		
2219	3	182	190	x		0.29	0.021			0.265	0.018		
2220	4	10	60		x					0.065	0.004		
2221	4	60	110		x					0.065	0.004		
2222	4	110	170		x					0.050	0.003		
2223	4	170	230		x					0.055	0.003		
2224	3	276	311		x					0.115	0.020		
2225	3	311	341		x					0.085	0.034		
2226	3	326	346		x					0.115	0.020		
2227	3	346	376		x					0.110	0.020		
2228	3	190	200	x						0.215	0.018		
2229	3	200	210	x						0.145	0.025		
2230	3	210	220	x						0.195	0.044		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2231	3	220	230	x						0.185	0.030		
2232	3	230	240	x		0.18	0.027			0.065	0.024		
2233	3	240	250	x						0.045	0.018		
2234	3	250	260	x						0.130	0.018		
2235	3	260	270	x						0.220	0.017		
2236	3	270	280	x						0.310	0.025		
2237	3	280	290	x		0.21	0.032			0.170	0.034		
2238	3	290	300	x						0.185	0.026		
2239	3	300	310	x						0.115	0.018		
2240	3	310	320	x						0.165	0.021		
2241	3	320	330	x						0.205	0.029		
2242	3	330	340	x		0.17	0.014			0.155	0.017		
2243	3	340	350	x		0.21	0.015			0.255	0.023		
2244	3	350	360	x						0.265	0.019		
2245	3	360	370	x						0.225	0.013		
2246	3	370	380	x						0.205	0.038		
2247	3	380	390	x		0.24	0.041			0.230	0.044		
2248	3	390	400	x						0.150	0.038		
2249	3	400	410	x						0.225	0.029		
2250	4	10	20	x						0.050	0.002		
2251	4	20	30	x						0.050	0.004		
2252	4	30	40	x		0.02	0.002			0.090	0.004		
2253	4	40	50	x						0.090	0.003		
2254	4	50	60	x						0.045	0.002		
2255	4	60	70	x						0.060	0.003		
2256	4	70	80	x						0.105	0.002		
2257	4	80	90	x		0.07	none			0.075	tr		
2258	4	90	100	x						0.055	0.004		

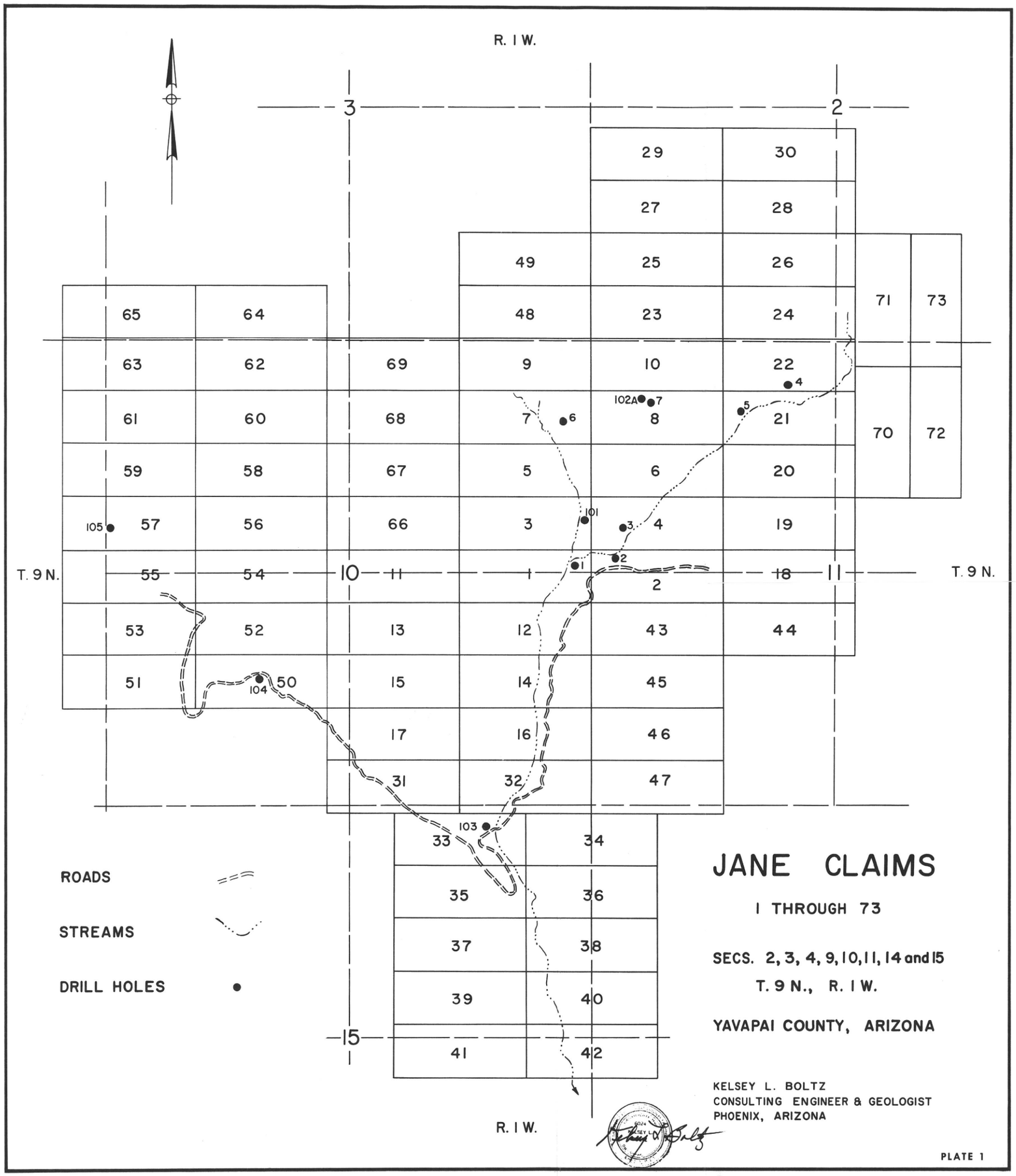
Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2259	4	100	110	x						0.070	0.001		
2260	4	110	120	x						0.095	0.002		
2261	4	120	130	x						0.045	0.003		
2262	4	130	140	x		0.04	0.001			0.050	0.004		
2263	4	140	150	x						0.050	0.002		
2264	4	150	160	x						0.050	0.006		
2265	4	160	170	x						0.050	0.010		
2266	4	170	180	x		0.03	0.001			0.055	0.004		
2267	4	180	190	x						0.065	0.004		
2268	4	190	200	x						0.065	0.005		
2269	4	200	210	x						0.070	0.026		
2270	4	210	220	x		0.04	0.002			0.105	0.002		
2271	4	220	230	x		0.04	0.001			0.150	0.001		
2272	5	10	20	x						0.065	0.013		
2273	5	20	30	x						0.225	0.077		
2274	5	30	40	x		0.06	0.005			0.085	0.007		
2275	5	40	50	x						0.075	0.005		
2276	5	50	60	x		0.06	0.007			0.090	0.007		
2277	5	60	70							0.060	0.012		
2278	5	70	80							0.120	0.017		
2279	5	80	90			0.11	0.008			0.105	0.011		
2280	5	90	100							0.075	0.008		
2281	5	100	106 1/2							0.075	0.021		
2282	5	106 1/2	116							0.045	0.011		
2283	5	116	126							0.055	0.005		
2284	5	126	136			0.08	0.006			0.060	0.010		
2285	5	136	146							0.065	0.036		
2286	5	146	151							0.095	0.042		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Ariz. Assay Office Cu%	Mo%
2287	5	151	161	x				0.065	0.016
2288	5	161	172	x				0.060	0.024
2289	5	172	182	x		0.06	0.019	0.060	0.024
2290	5	182	191	x				0.090	0.024
2291	5	191	201	x				0.040	0.006
2292	5	201	208	x				0.045	0.011
2293	5	208	218	x				0.295	0.031
2294	5	218	228	x		0.13	0.027	0.105	0.034
2295	5	228	238	x				0.055	0.024
2296	5	238	248	x				0.075	0.045
2297	5	248	258	x				0.395	0.026
2298	5	258	268	x				0.080	0.028
2299	5	268	278	x		0.10	0.015	0.095	0.021
2300	5	278	287	x				0.105	0.026
2301	5	287	291 Bot	x				0.075	0.024
2302	6	10	20	x		0.16	0.002	0.175	0.006
2303	6	20	30	x				0.125	0.010
2304	6	30	40	x				0.115	0.012
2305	6	40	50	x				0.115	0.038
2306	6	50	60	x				0.085	0.020
2307	6	60	70	x		0.22	0.037	0.190	0.032
2308	6	70	80	x				0.825	0.073
2309	6	80	90	x				0.115	0.036
2310	6	90	100	x				0.070	0.027
2311	6	100	110	x				0.060	0.030
2312	6	110	119	x		0.11	0.047	0.120	0.036
2313	6	119	129	x				0.065	0.018
2314	6	129	139	x				0.070	0.018

Sample No.	Hole No.	Depth Interval from	to	Material Cuttings	Ariz. Assay Office Cu%	Mo%	Zonia X-Ray Spec. Cu%	Mo%
3101	101	0	9	x		0.007	0.06	0.014
3102	101	9	18	x		0.008	0.09	0.013
3103	101	18	27	x		0.007	0.15	0.013
3104	101	27	36	x		0.007	0.19	0.013
3105	101	36	45	x		0.019	0.27	0.024
3106	101	45	54	x		0.010	0.20	0.017
3107	101	54	63	x		0.014	0.22	0.018
3108	101	63	72	x		0.010	0.16	0.013
3109	101	72	81	x		0.014	0.13	0.013
3110	101	81	90	x		0.011	0.08	0.014
3111	101	90	95	x		0.014	0.12	0.014
3112	102	0	9	x		0.011		
3113	102	9	18	x		0.019		
3114	102A	0	9	x			0.10	0.010
3115	102A	9	18	x			0.47	0.016
3116	102A	18	27	x			0.35	0.021
3117	102A	27	36	x			0.40	0.018
3118	102A	36	45	x			0.23	0.009
3119	102A	45	54	x			0.25	0.005
3120	102A	54	63	x			0.29	0.007
3121	102A	63	72	x			0.34	0.013
3122	102A	72	81	x				
3123	102A	81	90	x				
3124	102A	90	99	x	0.245			
3125	102A	99	107	x	0.405			
3114	102A	0	9	x	0.060	0.009		
3115	102A	9	18	x	0.245	0.023		
3116	102A	18	27	x	0.165	0.024		
3117	102A	27	36	x	0.175	0.018		
3118	102A	36	45	x	0.115	0.011		
3119	102A	45	54	x	0.150	0.010		
3120	102A	54	63	x	0.185	0.008		
3121	102A	63	72	x	0.185	0.015		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu %	Mo%	Ariz. Assay Office Cu %	Mo %
2315	6	139	149	x				0.065	0.041
2316	6	149	158	x				0.085	0.023
2317	6	158	167	x		0.10	0.036	0.065	0.034
2318	6	167	171 Bot	x				0.105	0.023
2319	6	0	91		x			0.175	0.030
2320	6	91	131		x			0.115	0.028
2321	7A	0	10	x		0.10	0.006	0.065	0.008
2322	7A	10	20	x				0.125	0.011
2323	7A	20	30	x				0.105	0.015
2324	7A	30	40	x				0.175	0.028
2325	7A	40	50	x				0.170	0.033
2326	7A	50	60	x		0.22	0.013	0.100	0.010
2327	7A	60	70	x				0.245	0.011
2328	7A	70	80	x				0.125	0.009
2329	7A	80	90	x				0.185	0.012
2330	7A	90	100	x		0.24	0.003	0.170	0.006
2331	7A	100	105	x				0.230	0.008
2332	7A	10	20		x			0.185	0.010
2333	7A	20	30		x			0.210	0.014
2334	7A	30	40		x			0.375	0.021
2335	7A	40	50		x	0.50	0.022	0.330	0.022
2336	7A	50	60		x			0.390	0.019
2337	7A	60	70		x			0.385	0.014
2338	7A	70	80		x			0.290	0.016
2339	7A	80	90		x			0.360	0.013
2340	7A	90	100		x	0.42	0.010	0.325	0.013
2341	7A	105	115	x				0.175	0.007
2342	7A	115	125	x				0.120	0.004

Sample No.	Hole No.	Dept. Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Ariz. Assay Office Cu%	Mo%
2343	7A	125	135	x				0.215	0.002
2344	7A	135	145	x				0.225	tr
2345	7A	145	155	x				0.125	0.003
2346	7A	155	165	x				0.195	0.005
2347	7A	165	175	x				0.105	0.012
2348	7A	175	185	x				0.225	0.003
2349	7A	185	195	x				0.205	0.010
2350	7A	195	205	x				0.120	0.003
2351	7A	205	213 1/2	x				0.135	tr
2352	7A	213 1/2	221	x				0.195	0.022


R. 1 W.
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22
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102A
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60
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70
72
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67
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105
57
56
66
3
101
3
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T. 9 N.
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10
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2
18
11
T. 9 N.
53
52
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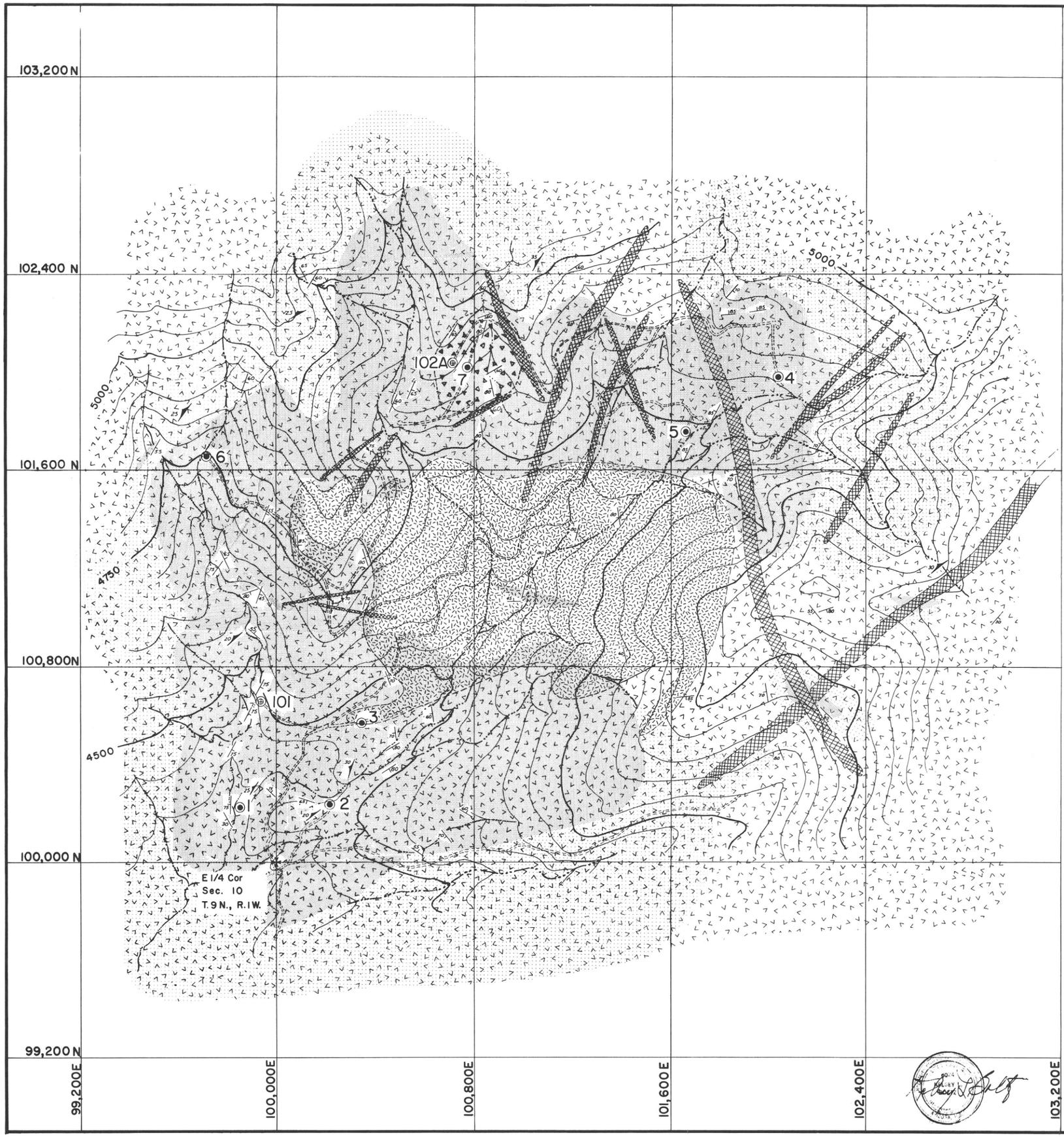
R. 1 W.
ROADS
STREAMS
DRILL HOLES
JANE CLAIMS
1 THROUGH 73
SECS. 2, 3, 4, 9, 10, 11, 14 and 15
T. 9 N., R. 1 W.
YAVAPAI COUNTY, ARIZONA
KELSEY L. BOLTZ
CONSULTING ENGINEER & GEOLOGIST
PHOENIX, ARIZONA
PLATE 1



EXPLANATION

ROCK TYPES

DIORITE PORPHYRY

BRADSHAW GRANITE

BRECCIA ZONE

PRE-MINERAL DIORITE AND ANDESITE DIKES

STRUCTURAL

PROMINENT FRACTURE ORIENTATION 70

DIKE ORIENTATION 60

FLOW STRUCTURE 25

CONTACT
WHERE OBSERVED
WHERE INFERRED

ALTERATION

INTENSE METALLIZATION

POTASSIC (K-FELD, BIOTITE SERICITE)

CULTURAL

SURFACE CONTOUR 4750

ROADS

CORE DRILL HOLE

AIR RIG HOLE

STREAM

COPPER BASIN

SECTIONS 10 & 11,
T. 9 N., R. 1 W.
YAVAPAI COUNTY, ARIZONA

SURFACE GEOLOGY

0 200 400 600
FEET

CONTOUR INTERVAL 50 FEET

KELSEY L. BOLTZ
CONSULTING ENGINEER & GEOLOGIST
PHOENIX, ARIZONA

PLATE 2

34-35 112-113

SUMMARY

OF

PRELIMINARY DRILLING PROGRAM

IN

COPPER BASIN

SEC. 2, 3, 10 AND 11, T9N, R1W

YAVAPAI COUNTY, ARIZONA

FOR

COLEMAN MORTON

WILLIAM D. WITTER

KELSEY L. BOLTZ

CONSULTING ENGINEER & GEOLOGIST

PHOENIX, ARIZONA

14563

PHONE
277-2586

KELSEY L. BOLTZ
CONSULTING ENGINEER
MINING GEOLOGY GEOPHYSICS GEOCHEMISTRY

2402 W. DEVONSHIRE
PHOENIX, ARIZONA 85015

October 24, 1966

Messrs. Coleman Morton
William D. Witter
Fourteenth Floor
900 Wilshire Boulevard
Los Angeles, California

Gentlemen:

Transmitted herewith is a copy of my report, "Summary of Preliminary Drilling Program in Copper Basin."

This report presents only a brief summary of the pertinent facts regarding the program; it is not economically justified at this time to compile a detailed analysis of the project in view of the results obtained.

The advice and assistance of Mr. Max Kofford and Dr. Willard Lacy was very helpful in the execution of this program.

Respectfully submitted,

Kelsey L. Boltz
Consulting Engineer and Geologist

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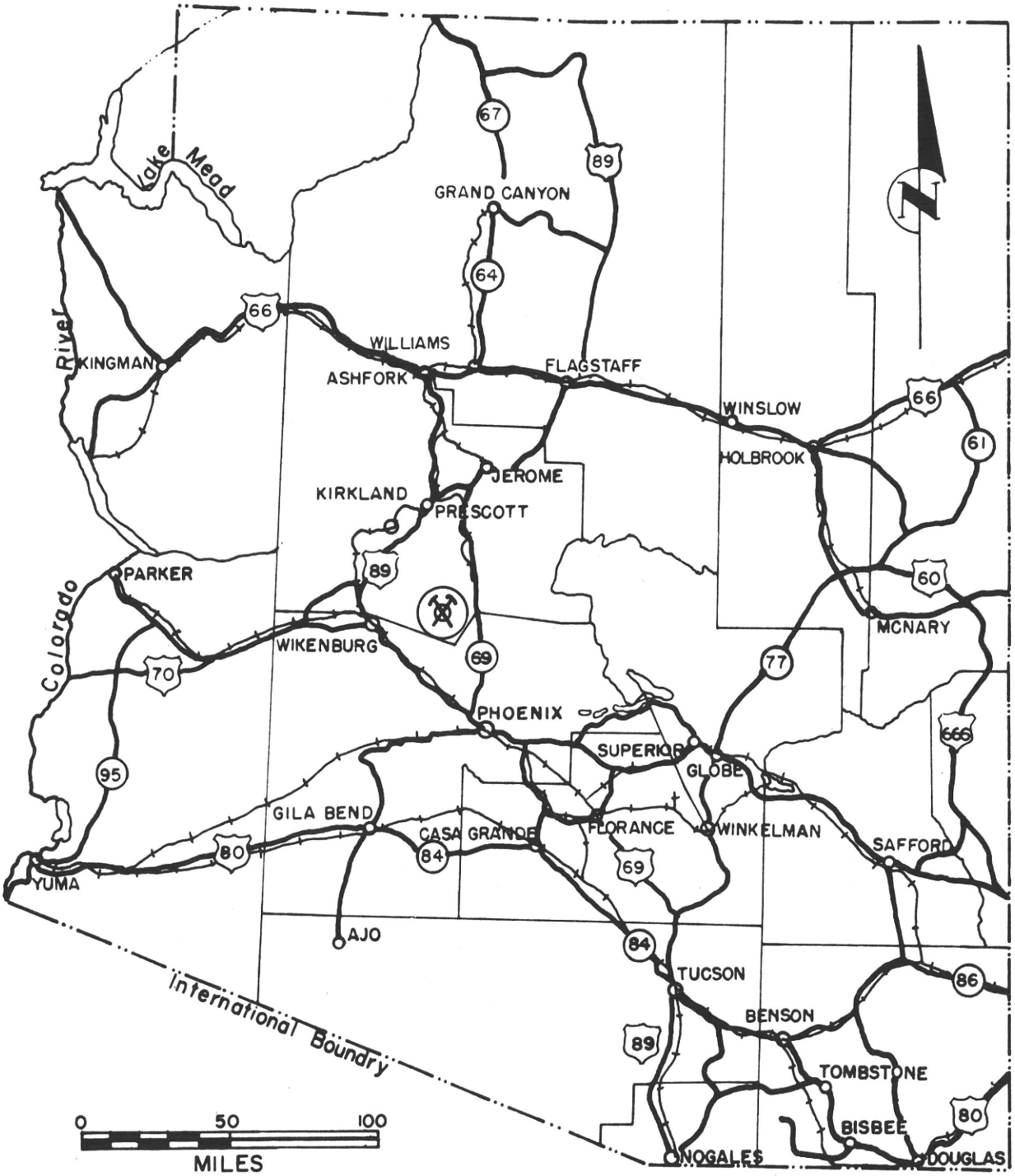


LOCATION MAP

COPPER BASIN

SEC. 2, 3, 10 AND 11, T9N, R1W

YAVAPAI COUNTY, ARIZONA

KELSEY L. BOLTZ

CONSULTING ENGINEER & GEOLOGIST

PHOENIX, ARIZONA

FIG. 1

SUMMARY

of

PRELIMINARY DRILLING PROGRAM

in

COPPER BASIN

Yavapai County, Arizona

INTRODUCTION

Copper Basin is the name given to an amphitheater-shaped canyon situated on the west slope of the Bradshaw Mountains approximately thirty miles south of Prescott, Arizona, (Figure 1) and covering an area of nearly four square miles, the center of which lies near the E 1/4 corner of Section 10, T 9 N, R 1 W, in Yavapai County, Arizona. The exposed rocks show disseminated copper and molybdenum mineralization over a large portion of the Basin.

By virtue of an exploration permit and option agreement from Robert Ford and Associates, Inc., Coleman Morton of Los Angeles and William D. Witter of New York conducted a preliminary mapping and drilling program designed to determine as quickly and inexpensively as feasible the economic possibilities of the deposit.

The program began July 1, 1966, was completed October 12, 1966, and was supervised by the writer.

The material presented in this report represents a brief summary of the data collected during the said exploration program.

SUMMARY

The subject drilling program was commenced on July 15, 1966. A total of twelve holes were drilled: seven by diamond core drilling and five by air plug-bit drilling. The average results were:

Hole No.	Total Depth	Av. Cu%	Av. Mo%	Drill Method
1	426	0.102	0.024	Core
2	366	0.123	0.016	Core
3	410	0.155	0.021	Core
4	230	0.070	0.004	Core
5	291	0.098	0.022	Core
6	171	0.144	0.028	Core
7A	221	0.228	0.010	Core
101	95	0.15	0.015	Plug bit
102A	107	0.30	0.011	Plug bit
103	108	0.02	0.011	Plug bit
104	100	0.01	0.010	Plug bit
105	100	nil	nil	Plug bit

The total average results for holes 1 through 7A inclusive and 101 and 102A are: Copper 0.137%, Molybdenum 0.017%.

Holes 103, 104, and 105 were drilled for the purpose of claim validation and were located somewhat outside the area of principal mineralization.

The locations of the holes are shown on Plates 1 and 2.

Geologic mapping was conducted in advance of and for the purpose of directing the drilling.

The interpretations of the results of the geologic mapping are displayed on Plate 2.

During the program, 73 lode mining claims were located and validated in order to cover completely the mineralized area and to insure adequate operating space in the event of the discovery of an economic deposit. The locations of these claims are shown on Plate 1.

Total cost of the program was approximately $53,000.00.

CONCLUSION

Data obtained from the project indicates the possibility of the existence of approximately 500,000,000 tons of rock containing 0.14% Copper and 0.017% Molybdenum.

The low metal content of the deposit renders it economically unfeasible at this time.

PROCEDURES

Drilling

Core drilling was done by Boyles Brothers, with a Joy Manufacturing Co. screw-feed, skid mounted, wire line rig. Two shifts per day were run.

Plug bit drilling was accomplished by Annesley using an air-track mounted down-hole air rig, manufactured by Halcotrak.

Sampling

Cores were pulled and placed in 10-ft. 200-lb. test cardboard core boxes, transported to Phoenix, logged, then split. One half was retained for future reference, the other half was crushed, split and three pulps were taken. One pulp was retained for future reference and the other two sent to Hawley and Hawley in Tucson and Arizona Assay Office in Phoenix for copper and molybdenum determinations, and the results tabulated. All rejects were retained and stored for future reference.

Sludge samples were taken each shift and assayed as a check and for reference in the event of low core recovery. Core recovery, however, remained substantially 100%.

Two splits were taken of the air-blown cuttings from the down-hole rig. One split was taken to the Zonia Mine of McAlester Fuel Company for copper and molybdenum determination by X-ray spectrograph and the other split was stored for future reference.

All assay results are tabulated in the Appendix.

Geologic Mapping

Surface geology was mapped to a scale of 1" = 200' using an enlarged U. S. Forest Service aerial photo as position reference and a U. S. G. S. topography sheet as elevation reference. The interpreted results of the mapping program are displayed on Plate 2.

GEOLOGIC SUMMARY

The principal host rock of the Basin is a phase of the rock commonly known as the Bradshaw granite.

In the subject area, this rock is megascopically quartz monzonitic in composition and exhibits a flow structure or foliation in the parallel orientation of the biotite crystals. In the approximate center of the Basin the quartz monzonite has been intruded by a diorite porphyry. The surface exposure of this intrusive is elongate having approximate east - west and north-south dimensions of 2000 feet and 800 feet respectively. Mineralization is localized primarily in the intensely fractured quartz monzonite in a 600 to 800-ft. wide zone around the periphery of the diorite porphyry. The diorite porphyry is occasionally mineralized near its contact with the quartz monzonite. Hydrothermal alteration and supergene alteration extend from the diorite porphyry as much as 3000 feet distant.

The principal metallization occurs as pyrite, chalcopyrite and molybdenite, the pyrite occurring in fractures and commonly as replacements of the biotite. The chalcopyrite and molybdenite occur primarily along quartz-filled fractures.

Potassic alteration and silicification are those which occur commonly with the metallization. Quartz-sericite alteration, chloritization, and weak pyritization extend considerably beyond the metallized zone. Only the intense metallization and potassic alteration are shown on Plate 2.

The breccia zone in the area of 102,000 N, 100,800 E received special attention because the first shallow hole in this zone obtained results which were significantly higher than the previous average. (Hole 102A). However, a subsequent deeper core hole failed to substantiate any extension of higher metal content of significance.

The drilling program was designed to check the metal content of areas within the metallized zone which exhibited the most intense surface expression of mineralization.

Drilling disclosed the absence of any significant supergene enrichment and showed the "protore" metal content to be singularly consistent in the range of from 0.07% to 0.23% Copper and from 0.01% to 0.03% Molybdenum.

No evidence found was interpreted to indicate any increase in metal content with depth.

FISCAL CONSIDERATIONS

A summary of the expenditures for the project is as follows:

Direct Costs:	
Labor and Taxes	$ 4,803.34
Supervision	2,525.00
Operating Supplies	167.76
Contract Drilling	25,975.91
Assaying and Sampling	3,575.48
Roads and Site Preparation	6,398.75
Camp Expense	1,155.40
Travel Expense	7.28
Mapping and Engineering Supplies	251.80
Gas, Oil, Repairs and Other Transportation Costs	2,289.72
Equipment Rental	583.05
Claim Location and Validation	427.81
Consultant Fees	394.92
Overhead and Support:	
Office Labor and Fees	223.40
Office Supplies	13.53
Telephone Expense	153.60
Legal and Auditing	50.00
Engineering	2,525.00
TOTAL	$51,521.75
Estimated additional expenditures beyond date of this report:	
Payroll Taxes	$ 500.00
Road Repair	300.00
Engineering, final	600.00
TOTAL	$52,921.75

APPENDIX

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2101	1	4	10	x		0.11	0.002			0.095	0.009	0.03	0.56
2102	1	10	20	x		0.12	0.012						
2103	1	20	30	x		0.07	0.008						
2104	1	30	41	x		0.08	0.010			0.105	0.013	0.01	0.38
2105	1	41	50	x		0.07	0.009						
2106	1	50	60	x		0.08	0.007						
2107	1	60	70	x		0.08	0.008						
2108	1	70	80	x		0.06	0.014			0.075	0.021	0.005	0.24
2109	1	80	90	x		0.09	0.020						
2110	1	90	100	x		0.08	0.017						
2111	1	100	110	x		0.14	0.027						
2112	1	110	120	x		0.08	0.012			0.075	0.017	0.01	0.20
2113	1	120	130	x		0.05	0.008						
Comp													
2101-05	1	4	50	x				nil	0.06				
06-10	1	50	100	x				nil	nil				
11-13	1	100	130	x				nil	nil				
2114	1	4	51		x	0.10	0.014						
2115	1	51	101		x	0.09	0.012						
2116	1	101	156		x	0.12	0.018						
2117	1	156	196		x	0.09	0.019						
2118	1	227	244		x	0.09	0.024						
2119	1	130	140	x		0.10	0.033			0.102		0.03	0.30
2120	1	140	150	x		0.12	0.036						
2121	1	150	160	x		0.11	0.006						
2122	1	160	170	x		0.09	0.020			0.070		tr.	0.12
2123	1	170	180	x		0.06	0.032						
2124	1	180	188	x		0.14	0.011						

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
Comp:													
2119-24	1	130	188	x				nil	tr				
2125	1	197	227		x	0.15	0.022			0.110		0.005	0.24
2126	1	243	273		x	0.09	0.014						
2127	1	273	303		x	0.10	0.006						
2128	1	303	346		x	0.10	0.011			0.080		0.010	0.29
2129	1	346	386		x	0.09	0.008						
2130	1	188	198	x		0.08	0.010						
2131	1	198	208	x		0.23	0.036			0.125		0.010	0.40
2132	1	208	218	x		0.12	0.033						
2133	1	218	228	x		0.10	0.059						
2134	1	228	238	x		0.09	0.015			0.085		0.005	0.40
2135	1	238	248	x		0.08	0.015						
2136	1	248	258	x		0.07	0.007						
2137	1	258	270	x		0.08	0.011			0.110		tr	0.30
2138	1	270	280	x		0.15	0.014						
2139	1	280	290	x		0.29	0.011						
2140	1	290	300	x		0.12	0.008			0.110		nil	0.30
Comp													
2130-34	1	188	238	x				nil	nil				
Comp													
2135-40	1	238	300	x				nil	nil				
2141	1	300	310	x		0.16	0.015						
2142	1	310	320	x		0.09	0.008						
2143	1	320	330	x		0.10	0.110			0.080		nil	0.30
2144	1	330	340	x		0.11	0.008						
2145	1	340	350	x		0.14	0.010						
2146	1	350	360	x		0.20	0.015						
2147	1	360	370	x		0.09	0.015			0.095		nil	0.26
2148	1	370	380	x		0.06	0.005						
2149	1	380	390	x		0.11	0.006						

Sample No.	Hole No.	Depth Interval from	Depth Interval to	Material Core	Material Sludge	Hawley & Hawley Cu%	Hawley & Hawley Mo%	Hawley & Hawley Au	Hawley & Hawley Ag	Ariz. Assay Office Cu%	Ariz. Assay Office Mo%	Ariz. Assay Office Au	Ariz. Assay Office Ag
2150	1	390	400	x		0.08	0.005						
2151	1	400	410	x		0.07	0.015			0.095		nil	0.30
2152	1	410	420	x		0.09	0.009						
2153	1	420	426	x		0.18	0.007						
2154	2	20	96		x					0.190	0.027		
2155	2	96	146		x					0.100	0.015	tr	0.30
2156	2	146	196		x					0.095	0.017		
2157	2	10	20	x						0.090	0.009		
2158	2	20	30	x						0.100	0.011		
2159	2	30	40	x		0.38	0.025			0.310	0.025	nil	0.30
2160	2	40	50	x						0.175	0.021		
2161	2	50	60	x						0.335	0.018		
2162	2	60	70	x		0.38	0.017			0.255	0.018		
2163	2	70	80	x						0.105	0.013		
2164	2	80	90	x						0.100	0.009	tr	0.30
2165	2	90	100	x						0.115	0.012		
2166	2	100	110	x						0.105	0.011		
2167	2	110	120	x		0.13	0.007			0.105	0.010		
2168	2	120	130	x						0.070	0.015		
2169	2	130	140	x						0.075	0.014		
2170	2	140	150	x						0.125	0.023	tr	0.36
2171	2	150	160	x						0.120	0.020		
2172	2	160	170	x		0.08	0.008			0.055	0.013		
2173	2	170	180	x						0.045	0.013		
2174	2	180	190	x						0.125	0.044	0.01	0.32
2175	2	190	200	x						0.105	0.028		
2176	2	200	210	x		0.08	0.015			0.095	0.024		
2177	2	210	220	x						0.085	0.017		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2178	2	220	230	x						0.125	0.023	tr	0.54
2179	2	230	235	x		0.13	0.009			0.155	0.016		
Comp 2141-2145	1	300	350	x				tr	0.16				
Comp 2146-2150	1	350	400	x				tr	tr				
2151-2153	1	400	426	x				tr	tr				
2180	2	235	245	x						0.045	0.031		
2181	2	245	255	x		0.07	0.005			0.065	0.012		
2182	2	255	265	x						0.030	0.031		
2183	2	265	275	x						0.175	0.013		
2184	2	275	285	x						0.170	0.010		
2185	2	285	295	x		0.15	0.008			0.145	0.016		
2186	2	295	305	x						0.065	0.008		
2187	2	305	315	x						0.095	0.015		
2188	2	315	325	x						0.100	0.009		
2189	2	325	335	x		0.04	0.007			0.070	0.010		
2190	2	335	345	x						0.070	0.002		
2191	2	345	356	x						0.245	0.002		
2192	2	356	366	x						0.145	0.018		
2193	3	0	10	x		0.15	0.010			0.075	0.020	tr	0.30
2194	3	10	20	x						0.075	0.008		
2195	3	20	30	x						0.115	0.010		
2196	3	30	40	x						0.060	0.035		
2197	3	40	50	x		0.08	0.008			0.060	0.013	tr	0.30
2198	3	50	60	x						0.075	0.015		
2199	3	60	70	x						0.070	0.010		
2200	3	70	80	x						0.095	0.020		
2201	3	80	90	x		0.09	0.010			0.070	0.015	tr	0.30
2202	3	90	100	x						0.070	0.027		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2203	3	100	110	x						0.145	0.035		
2204	3	110	117.5	x						0.145	0.011		
2205	3	117.5	127.5	x		0.15	0.013			0.120	0.014	tr	0.30
2206	3	127.5	138.25	x						0.105	0.016		
2207	3	138.25	148.5	x						0.205	0.008		
2208	3	148.5	157	x						0.205	0.009		
2209	3	157	167	x		0.30	0.010			0.195	0.013		
2210	3	167	174	x						0.195	0.010		
2211	3	174	182	x						0.125	0.014		
2212	3	0	39		x					0.125	0.017		
2213	3	39	79		x					0.080	0.012		
2214	3	79	110		x					0.105	0.012		
2215	3	110	190		x					0.195	0.013		
2216	3	190	240		x					0.165	0.070		
2217	3	240	290		x					0.175	0.039		
2218	3									0.285	0.112		
2219	3	182	190	x		0.29	0.021			0.265	0.018		
2220	4	10	60		x					0.065	0.004		
2221	4	60	110		x					0.065	0.004		
2222	4	110	170		x					0.050	0.003		
2223	4	170	230		x					0.055	0.003		
2224	3	276	311		x					0.115	0.020		
2225	3	311	341		x					0.085	0.034		
2226	3	326	346		x					0.115	0.020		
2227	3	346	376		x					0.110	0.020		
2228	3	190	200	x						0.215	0.018		
2229	3	200	210	x						0.145	0.025		
2230	3	210	220	x						0.195	0.044		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2231	3	220	230	x						0.185	0.030		
2232	3	230	240	x		0.18	0.027			0.065	0.024		
2233	3	240	250	x						0.045	0.018		
2234	3	250	260	x						0.130	0.018		
2235	3	260	270	x						0.220	0.017		
2236	3	270	280	x						0.310	0.025		
2237	3	280	290	x		0.21	0.032			0.170	0.034		
2238	3	290	300	x						0.185	0.026		
2239	3	300	310	x						0.115	0.018		
2240	3	310	320	x						0.165	0.021		
2241	3	320	330	x						0.205	0.029		
2242	3	330	340	x		0.17	0.014			0.155	0.017		
2243	3	340	350	x		0.21	0.015			0.255	0.023		
2244	3	350	360	x						0.265	0.019		
2245	3	360	370	x						0.225	0.013		
2246	3	370	380	x						0.205	0.038		
2247	3	380	390	x		0.24	0.041			0.230	0.044		
2248	3	390	400	x						0.150	0.038		
2249	3	400	410	x						0.225	0.029		
2250	4	10	20	x						0.050	0.002		
2251	4	20	30	x						0.050	0.004		
2252	4	30	40	x		0.02	0.002			0.090	0.004		
2253	4	40	50	x						0.090	0.003		
2254	4	50	60	x						0.045	0.002		
2255	4	60	70	x						0.060	0.003		
2256	4	70	80	x						0.105	0.002		
2257	4	80	90	x		0.07	none			0.075	tr		
2258	4	90	100	x						0.055	0.004		

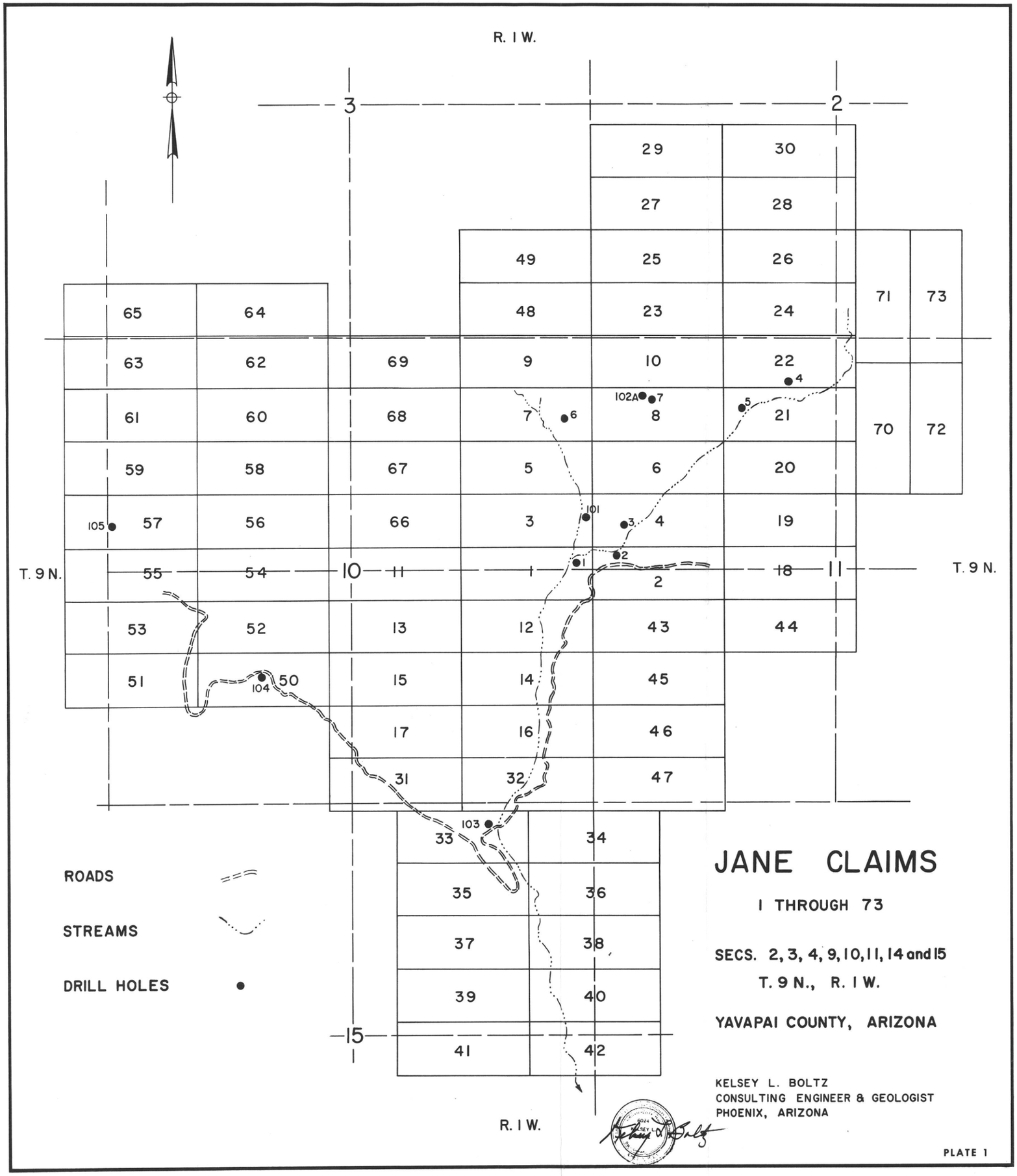
Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Au	Ag	Ariz. Assay Office Cu%	Mo%	Au	Ag
2259	4	100	110	x						0.070	0.001		
2260	4	110	120	x						0.095	0.002		
2261	4	120	130	x						0.045	0.003		
2262	4	130	140	x		0.04	0.001			0.050	0.004		
2263	4	140	150	x						0.050	0.002		
2264	4	150	160	x						0.050	0.006		
2265	4	160	170	x						0.050	0.010		
2266	4	170	180	x		0.03	0.001			0.055	0.004		
2267	4	180	190	x						0.065	0.004		
2268	4	190	200	x						0.065	0.005		
2269	4	200	210	x						0.070	0.026		
2270	4	210	220	x		0.04	0.002			0.105	0.002		
2271	4	220	230	x		0.04	0.001			0.150	0.001		
2272	5	10	20	x						0.065	0.013		
2273	5	20	30	x						0.225	0.077		
2274	5	30	40	x		0.06	0.005			0.085	0.007		
2275	5	40	50	x						0.075	0.005		
2276	5	50	60	x		0.06	0.007			0.090	0.007		
2277	5	60	70							0.060	0.012		
2278	5	70	80							0.120	0.017		
2279	5	80	90			0.11	0.008			0.105	0.011		
2280	5	90	100							0.075	0.008		
2281	5	100	106 1/2							0.075	0.021		
2282	5	106 1/2	116							0.045	0.011		
2283	5	116	126							0.055	0.005		
2284	5	126	136			0.08	0.006			0.060	0.010		
2285	5	136	146							0.065	0.036		
2286	5	146	151							0.095	0.042		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Ariz. Assay Office Cu%	Mo%
2287	5	151	161	x				0.065	0.016
2288	5	161	172	x				0.060	0.024
2289	5	172	182	x		0.06	0.019	0.060	0.024
2290	5	182	191	x				0.090	0.024
2291	5	191	201	x				0.040	0.006
2292	5	201	208	x				0.045	0.011
2293	5	208	218	x				0.295	0.031
2294	5	218	228	x		0.13	0.027	0.105	0.034
2295	5	228	238	x				0.055	0.024
2296	5	238	248	x				0.075	0.045
2297	5	248	258	x				0.395	0.026
2298	5	258	268	x				0.080	0.028
2299	5	268	278	x		0.10	0.015	0.095	0.021
2300	5	278	287	x				0.105	0.026
2301	5	287	291 Bot	x				0.075	0.024
2302	6	10	20	x		0.16	0.002	0.175	0.006
2303	6	20	30	x				0.125	0.010
2304	6	30	40	x				0.115	0.012
2305	6	40	50	x				0.115	0.038
2306	6	50	60	x				0.085	0.020
2307	6	60	70	x		0.22	0.037	0.190	0.032
2308	6	70	80	x				0.825	0.073
2309	6	80	90	x				0.115	0.036
2310	6	90	100	x				0.070	0.027
2311	6	100	110	x				0.060	0.030
2312	6	110	119	x		0.11	0.047	0.120	0.036
2313	6	119	129	x				0.065	0.018
2314	6	129	139	x				0.070	0.018

Sample No.	Hole No.	Depth Interval from	to	Material Cuttings	Ariz. Assay Office Cu%	Mo%	Zonia X-Ray Spec. Cu%	Mo%
3101	101	0	9	x		0.007	0.06	0.014
3102	101	9	18	x		0.008	0.09	0.013
3103	101	18	27	x		0.007	0.15	0.013
3104	101	27	36	x		0.007	0.19	0.013
3105	101	36	45	x		0.019	0.27	0.024
3106	101	45	54	x		0.010	0.20	0.017
3107	101	54	63	x		0.014	0.22	0.018
3108	101	63	72	x		0.010	0.16	0.013
3109	101	72	81	x		0.014	0.13	0.013
3110	101	81	90	x		0.011	0.08	0.014
3111	101	90	95	x		0.014	0.12	0.014
3112	102	0	9	x		0.011		
3113	102	9	18	x		0.019		
3114	102A	0	9	x			0.10	0.010
3115	102A	9	18	x			0.47	0.016
3116	102A	18	27	x			0.35	0.021
3117	102A	27	36	x			0.40	0.018
3118	102A	36	45	x			0.23	0.009
3119	102A	45	54	x			0.25	0.005
3120	102A	54	63	x			0.29	0.007
3121	102A	63	72	x			0.34	0.013
3122	102A	72	81	x				
3123	102A	81	90	x				
3124	102A	90	99	x	0.245			
3125	102A	99	107	x	0.405			
3114	102A	0	9	x	0.060	0.009		
3115	102A	9	18	x	0.245	0.023		
3116	102A	18	27	x	0.165	0.024		
3117	102A	27	36	x	0.175	0.018		
3118	102A	36	45	x	0.115	0.011		
3119	102A	45	54	x	0.150	0.010		
3120	102A	54	63	x	0.185	0.008		
3121	102A	63	72	x	0.185	0.015		

Sample No.	Hole No.	Depth Interval from	to	Material Core	Sludge	Hawley & Hawley Cu %	Mo%	Ariz. Assay Office Cu %	Mo %
2315	6	139	149	x				0.065	0.041
2316	6	149	158	x				0.085	0.023
2317	6	158	167	x		0.10	0.036	0.065	0.034
2318	6	167	171 Bot	x				0.105	0.023
2319	6	0	91		x			0.175	0.030
2320	6	91	131		x			0.115	0.028
2321	7A	0	10	x		0.10	0.006	0.065	0.008
2322	7A	10	20	x				0.125	0.011
2323	7A	20	30	x				0.105	0.015
2324	7A	30	40	x				0.175	0.028
2325	7A	40	50	x				0.170	0.033
2326	7A	50	60	x		0.22	0.013	0.100	0.010
2327	7A	60	70	x				0.245	0.011
2328	7A	70	80	x				0.125	0.009
2329	7A	80	90	x				0.185	0.012
2330	7A	90	100	x		0.24	0.003	0.170	0.006
2331	7A	100	105	x				0.230	0.008
2332	7A	10	20		x			0.185	0.010
2333	7A	20	30		x			0.210	0.014
2334	7A	30	40		x			0.375	0.021
2335	7A	40	50		x	0.50	0.022	0.330	0.022
2336	7A	50	60		x			0.390	0.019
2337	7A	60	70		x			0.385	0.014
2338	7A	70	80		x			0.290	0.016
2339	7A	80	90		x			0.360	0.013
2340	7A	90	100		x	0.42	0.010	0.325	0.013
2341	7A	105	115	x				0.175	0.007
2342	7A	115	125	x				0.120	0.004

Sample No.	Hole No.	Dept. Interval from	to	Material Core	Sludge	Hawley & Hawley Cu%	Mo%	Ariz. Assay Office Cu%	Mo%
2343	7A	125	135	x				0.215	0.002
2344	7A	135	145	x				0.225	tr
2345	7A	145	155	x				0.125	0.003
2346	7A	155	165	x				0.195	0.005
2347	7A	165	175	x				0.105	0.012
2348	7A	175	185	x				0.225	0.003
2349	7A	185	195	x				0.205	0.010
2350	7A	195	205	x				0.120	0.003
2351	7A	205	213 1/2	x				0.135	tr
2352	7A	213 1/2	221	x				0.195	0.022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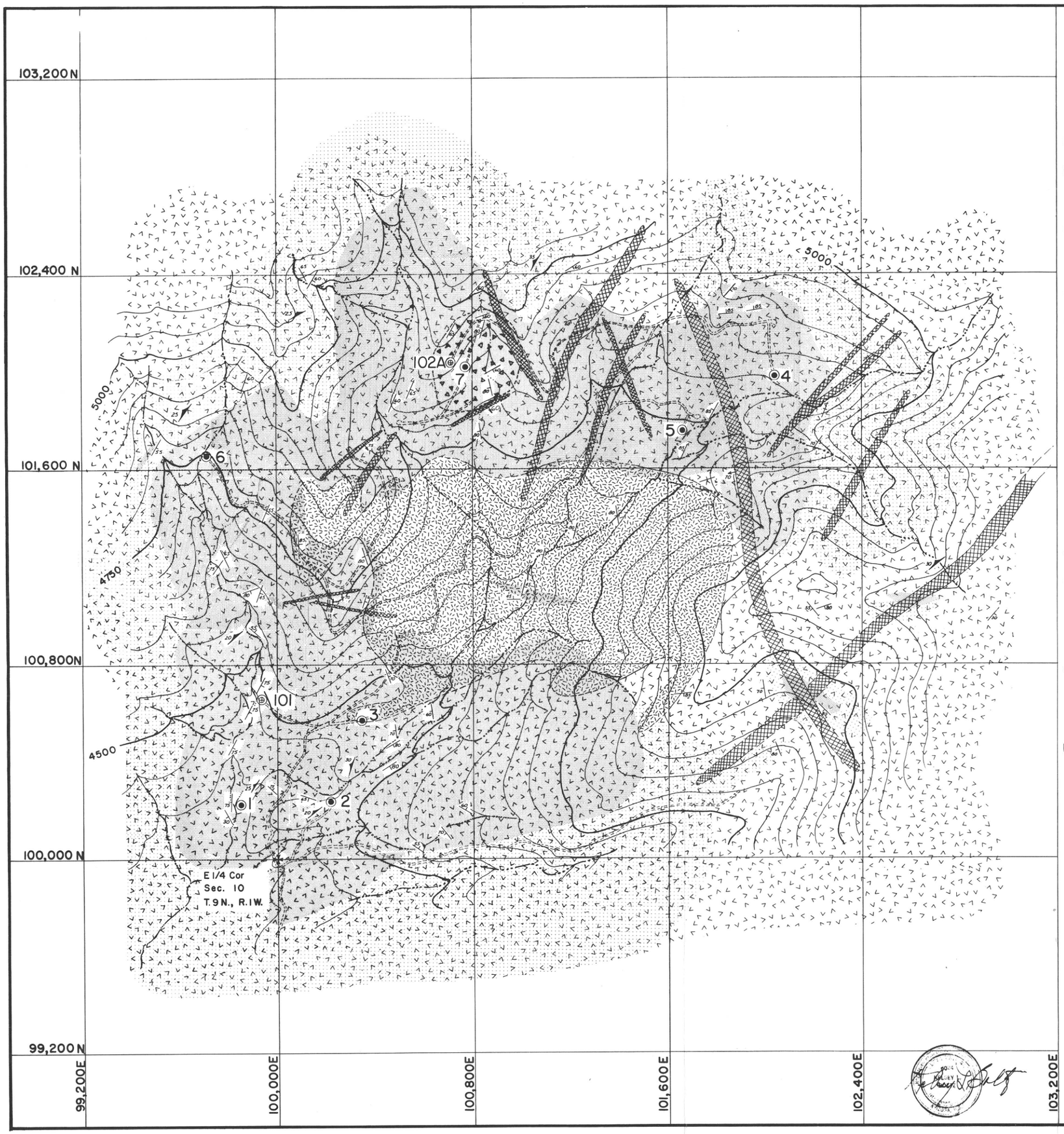
R. 1 W.
ROADS
STREAMS
DRILL HOLES
JANE CLAIMS
1 THROUGH 73
SECS. 2, 3, 4, 9, 10, 11, 14 and 15
T. 9 N., R. 1 W.
YAVAPAI COUNTY, ARIZONA
KELSEY L. BOLTZ
CONSULTING ENGINEER & GEOLOGIST
PHOENIX, ARIZONA
PLATE 1

1½"



EXPLANATION

ROCK TYPES

DIORITE PORPHYRY

BRADSHAW GRANITE

BRECCIA ZONE

PRE-MINERAL DIORITE AND ANDESITE DIKES

STRUCTURAL

PROMINENT FRACTURE ORIENTATION

DIKE ORIENTATION

FLOW STRUCTURE

CONTACT
WHERE OBSERVED
WHERE INFERRED

ALTERATION

INTENSE METALLIZATION

POTASSIC (K-FELD, BIOTITE SERICITE)

CULTURAL

SURFACE CONTOUR

ROADS

CORE DRILL HOLE

AIR RIG HOLE

STREAM

COPPER BASIN

SECTIONS 10 & 11,
T. 9 N., R. 1 W.
YAVAPAI COUNTY, ARIZONA

SURFACE GEOLOGY

0 200 400 600
FEET

CONTOUR INTERVAL 50 FEET

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PLATE 2