CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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11-18-63

Explosives acct up to date - paid in full.

1-18-63 - $200.30

Seismic project
Nogales, Ariz.

pr L. M. White Co.
7900 E. Speedway
Tucson.

Never paid

16 November 1963

Mr. Dale C. Brittain, Engineer
891 East Alta Vista Street
Tucson, Arizona

Re: Proposal for geophysics to explore vicinity of sections 14 & 23, T18S, R12E, Pima County, Arizona.

Dear Dale:

At your request, we have looked over the magnetic and geological data by Dirk Den Baars of the area which you left with us earlier this week. In our opinion, these data are too local to bear much significance alone and in an absolute sense. However, in relation to the larger surrounding area, they are of interest and could relate to some potential worth exploring. Type of mineralization most likely to be found would seem to be more like Duval's Esperanza because of it's nearness and similar surface rocks exposed. However, of course, most anything could exist at depth.

Based on our experience in the area and knowledge of results obtained by others, induced polarization work has been quite helpful in mapping the presence or absence of metallic lustred sulfides, and such work done nearby by Bear Creek Mining Company did result in drilling out some copper mineralization as you know. Apparently it was too small or marginal for them and we understand that Superior Oil Company now has the ground.

Minimum IP coverage in your area would be 3- 1000' dipole setups giving about 4 profile miles of subsurface data to about 1500' deep, and would cost about $2000.00.

However, this conceivably could miss something important, and therefore we would strongly recommend being prepared to do a little more than this, and to be on the safe side, suggest contemplating a minimum expenditure of around $3000.00. This will allow some variation in dipole length and spread orientation, which sometimes is essential for the most useful and practical interpretation and compromise between penetration and detail.

Sincerely yours,

HEINRICHS GEOEXPLORATION COMPANY

Walter E. Heinrichs, Jr.
President & General Manager

WEH:vh

encl. (Brochures)

January 18, 1963

Mr. Dale C. Brittain, Mining Engineer
891 E. Alta Viata
Tucson, Arizona

Dear Dale:

Enclosed are (nothing fancy as per agreement) my tonnage estimates (probably quite accurate) topog sketch map, work sheets used in tonnage calculations, three rough sections and a copy of the seismic profile that we were able to get,(but not to my satisfaction).

Walt and I kicked the rippability thing around quite a bit and come up with this feeling--there is at least a 2 to 1 chance that 60% will rip. Intuitively and from observation around the area that there is a fair chance you may take it all with a D-9 properly equipped, but it is a chance that ought to be covered with some powder money. Seismically, on the one short line run, the indications are not too favorable (velocities possibly as high as 7,000 ft per second) near the center of the spread that corresponds in plan to that highest outcrop in the center of the area which is obviously somewhat more resistant than the rest. Certainly 5,000 yards will definitely rip and my guess is that it will come closer to at least 30,000 yards or some 60%. I am sure that if time had permitted we could have gotten a darn good answer with the seismic work and I am disappointed I wasn't abot to do more. Maybe I will still get a decent crack at it before you tear her down.

Costs so far to date are, as discussed:

Services	½ day field services	$50.00	
	2 days office	$160.00	
		$210.00	
	Less 20% professional courtesy	42.00	
		$168.00	$168.00
Expenses:	Vehicle	$22.50	
	Laborer	6.00	
	Meal	3.80	
		$32.30	32.30
		TOTAL:	$200.30

Registered Professional Engineer (Mining) CERTIFICATE EXPIRES WALTER E. HENRICKS, JR. DEC. 31, 19 63 ARIZONA, U.S.A.

Hope this serves the purpose.

Sincerely,

F.A.S.

Franklin A. Seward, Jr.

bcc: D. C. Brittain

January 18, 1963

Mr. Leo Fitzpatrick
c/o L. M. White Contracting Co.
7900 E. Speedway
Tucson, Arizona

Dear Leo:

As per authorization from Dale Brittain and our telephone conversation you will find enclosed the information described in my letter to Dale, also enclosed.

Hope this will serve your purpose.

Very truly yours,

HEINRICHS GEOEXPLORATION CO.

F.A.S.

Franklin A. Seward, Jr.
Exploration Engineer

FAS:jh

Enclosures

COPY

Registered Professional Engineer (Mining)
CERTIFICATE EXPIRES
WALTER E. HEINRICHS JR.
DEC. 31, 1963
ARIZONA, U.S.A.

Mr Leo Fitzpatrick
L.M White Constr Co,
"
"

Dear Leo:

As per authorization from Dale Brittain and our telephone conversation you will find enclosed the information described in my letter to Dale, also enclosed.

Hope this will serve you purpose.

VTY
Leo ex
FAS, Jr.

Mr Dale C. Brittain
Mining Engineer

Dear Dale

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210
42
168

permitted we could have gotten a darn good answer with the seismic work and I'm disappointed I wasn't able, to do more. Maybe I'll still get a decent crack at it before you tear her down

Costs so far to date are, as discussed

Services 1/2 day field services	50.00	
1 2 days office	160.00	
Total	210.00	
Less 20% Professional courtesy	42.00	
	168.00	$168.00
Expenses:		
Vehicle	22.50	
Laborer	6.00	
Meal	3.80	
Total	32.30	$32.30

Total ~~[illegible]~~ $200.30

Hope this serves the purpose.

Sincerely

George

PAST

Gp#

(Please sign)

bcc Dale Brittain
891 E Alta Vista

Seal WEH

South Side
Block A

19,615
+1939
21,634 if taken to 0.0 elev (at NE Cor.)
-1762 if sidewalk slope is maintained
19,872 " " " " "

Work Sheet - Yardage Computations

	110.65	107.31	103.64	97.64	92.64	84.99	73.97	66.99	62.99		
213	13.33 16	13.33	13.33	13.33	13.33	13.33	13.0	13.0	13.0	13.0 26	
187	13.33 14	13.33	13.33	13.33	13.00	13.00	12.66	12.00	11.00	12.33	91
117	13.0 9	13.0	13.0	13.0	12.00	12.00	11.66	11.0	10.00	10.0	13.0 13 156
101	12.66 8	12.66	12.33	12.00	11.00	10.66	10.33	9.33	8.33	7.66	8.0 18 144
72	12.00 6	11.33	10.66	10.00	9.33	9.0	8.0	6.66	5.66	5.0 23	115
37	11.33	10.66	9.66	9.0	8.33	7.66	6.66	5.00	3.66	3.00	2.5 26
	11.00	10.00	9.00	8.33	7.66	6.33	5.00	3.66	2.66	2.33	1.33 16
247	10.33 24	10.00	9.33	8.00	7.00	5.00	3.66	2.66	2.66	2.33	13 2.33 30
187	9.33 20	9.33	9.0	7.66	6.33	4.66	2.66	2.66	2.33	2.33	14 2.33 42
102	5.66 18	5.00	5.00	5.00	5.00	3.66	2.66	2.66	2.33	2.33	23 2.33 54

12.42

North side
Block B

34,603
+1509
137
36,249 Total yards to 0.0 elev.
− 5000 if sidewalk slope is maintained
31,249 Total yards " " "

Work Sheet Yardage Computations

13 13	13 13	12 12.66	10 12.66	10 12.66	10 12.66	9 12.66	9 12.66	8 12.66	8 11.33	7 9.66	5 8.33	5 7.0	5 5.66	4 4.0	4 2.0	3	2	2	1.5
	12.66			12.66		12.66	11.67	12.0	11.0	9.33	8.33	7.33	6.0	4.66	4.0	3.33	2.66	1.66	.33
				12.67		12.33	11.67	11.33	10.66	10.33	9.66	9.33	8.00	6.66	5.66	5.00	4.00	2.66	1.00
11.66	11.66	11.33	11.33	11.00	10.66	10.33	10.00	10.00	10.66	11.66	11.00	10.33	9.33	8.33	7.66	6.33	5.66	3.66	1.0
7.0	7.33	7.66	8.0	8.66	8.66	8.66	8.66	9.0	10.66	12.0	12.33	11.33	10.66	10.0	9.0	7.66	6.0	3.66	1.0
4.0	4.66	5.0	5.66	6.0	6.66	7.0	7.66	9.0	10.33	11.66	12.33	12.0	11.33	10.66	10.33	9.0	7.0	3.66	1.0
2.66	2.66	3.0	3.66	4.66	5.33	6.0	7.0	8.33	10.33	11.0	11.66	12.0	11.33	11.0	10.66	10.0	7.33	3.66	1.0
2.33	2.33	2.0	2.0	3.0	4.66	5.66	6.33	7.33	9.33	10.33	10.66	11.0	11.0	10.66	10.33	9.66	7.33	3.66	1.0
2.0	2.0	2.0	1.66	2.0	4.0	4.66	5.66	6.33	7.33	8.66	9.66	10.0	10.0	9.66	9.33	8.66	6.66	3.66	1.0
2.0	2.0	1.66	1.66	1.66	2.33	3.66	4.66	5.66	6.0	6.33	7.0	7.33	7.66	8.0	8.0	8.0	6.0	3.66	1.33
10 1.66	11 1.66	14 1.66	16 1.66	19 1.33	20 1.33	2.0	2.33	2.33	2.33	2.33	2.66	2.33	2.66	2.66	3.33	4.0	4.0	3.0	1.33
17	18	23	27	25	27														

171.9
150.97
183.9
167.93
154.74
143.27
130.60
114.93
94.60
37.29
0.0

1384.11

Northside
Block B

34,603
+1509
137
36,249 Total yards to 0.0 elev.
− 5000 if sidewalk slope is maintained
31,249 Total yards " " "

Work Sheet Yardage Computations

13	13	12	10	10	10	9	9	8	8	7	5	3	5	5	4	3	2	1	0	
											9.33	8.33	7.33	6.0	4.66	4.0	3.33	2.66	1.66	.33	171.[illegible]
																					[illegible]
11.66	11.66	11.33	11.33	11.00	10.66	10.33	10.00	10.00	10.66	11.66	11.00	10.33	9.33	5.33	7.66	6.33	5.66	3.66	1.0	183.9
7.0	7.33	7.66	8.0	8.66	8.66	8.66	8.66	9.0	10.66	12.0	12.33	11.33	10.66	10.0	9.0	7.66	6.0	3.66	1.0	167.93
4.0	4.66	5.0	5.66	6.0	6.66	7.0	7.66	9.0	10.33	11.66	12.33	12.0	11.33	10.66	10.33	7.0	7.0	3.66	1.0	154.70
2.66	2.66	3.0	3.66	4.66	5.33	6.0	7.0	8.33	10.33	11.0	11.66	12.0	11.33	11.0	10.66	10.0	7.33	3.66	1.0	143.27
2.33	2.33	2.0	2.0	3.0	4.66	5.66	6.33	7.33	9.33	10.33	10.66	11.0	11.0	10.66	10.33	9.66	7.33	3.66	1.0	130.60
2.0	2.0	2.0	1.66	2.0	4.0	4.66	5.66	6.33	7.33	8.66	9.66	10.0	10.0	9.66	9.33	8.66	6.66	3.66	1.0	114.93
2.0	2.0	1.66	1.66	1.66	2.33	3.66	4.66	5.66	6.0	6.33	7.0	7.33	7.66	8.0	8.0	4.0	6.0	3.66	1.33	94.60
10 1.66	11 1.66	14 1.66	16 1.66	19 1.33	20 1.33	2.0	2.33	2.33	2.33	2.33	2.66	2.33	2.66	2.66	3.33	4.0	4.0	3.0	1.33	37.29
17	19	23	27	25	27															0.0

1354.11

K+E 10 X 10 TO THE INCH 359-5DG
KEUFFEL & ESSER CO. MADE IN U. S. A.

330

3150 yards

4180 yds

1668

134 x 9 x 36 ÷ 27

1314 x 9 x 31 ÷ 27

1357

203 x 9 x 25 ÷ 27

135

392 x 9 x 24 ÷ 27 = 1136

1586 x 9 x 10 ÷ 27 = 4620

22 x 9 x 2 ÷ 27 = 44

South Side
Block A

19695
+1939
21,634 if taken to 0.0 elev (at NE Cor)
-1762 if sidewalk slope is maintained
19,872 " " " " "

Work Sheet - Yardage Computations

HEINRICHS GEOEXPLORATION COMPANY
P. O. BOX 5671 TUCSON, ARIZONA

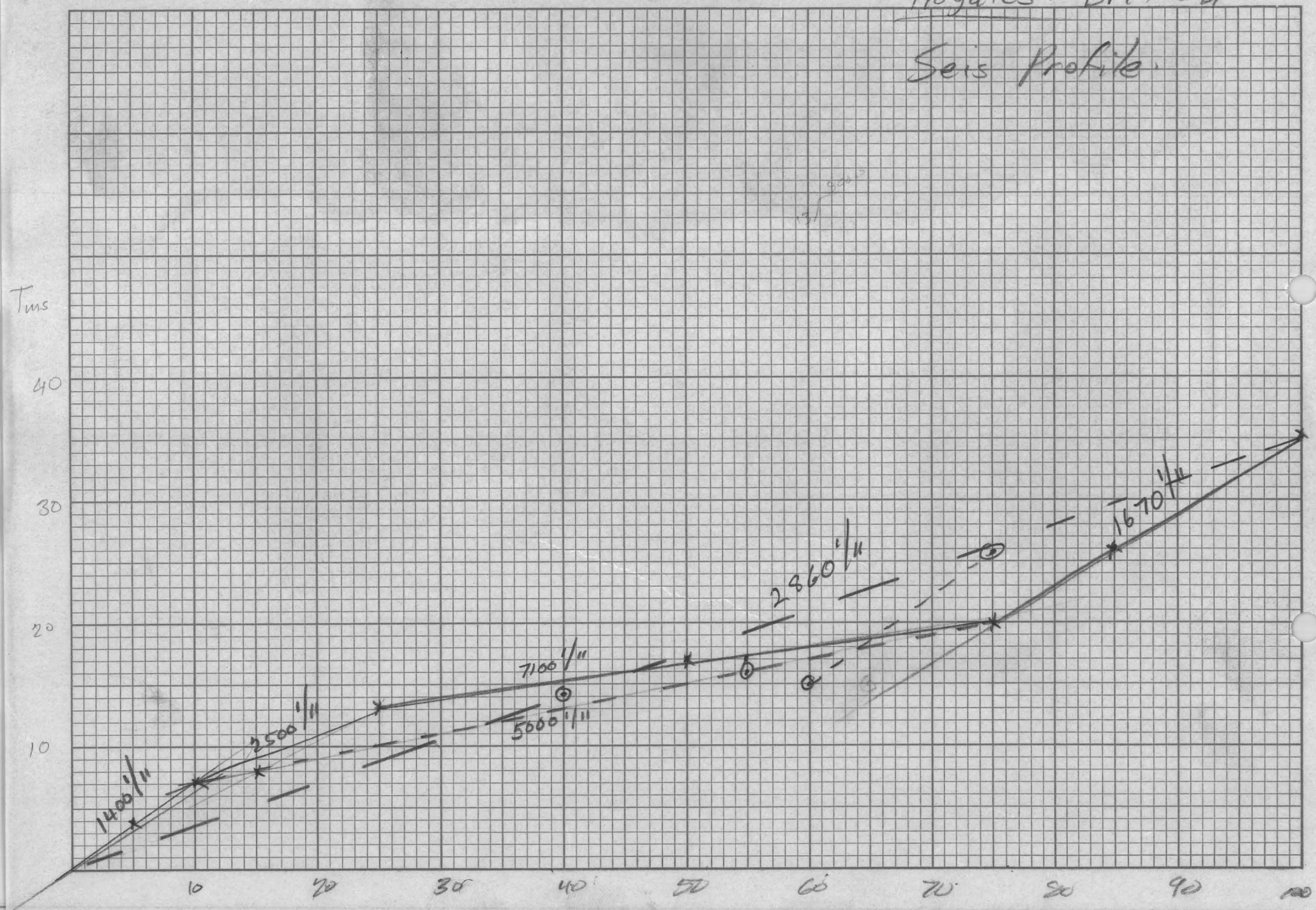
		96.65	107.31	103.64	99.44	92.44	84.29	73.97	66.27	62.29		
213	13.33 16	13.33	13.33	13.33	13.33	13.33	13.33	13.0	13.0	13.0	13.0 26	
187	13.33 14	13.33	13.33	13.33	13.00	13.00	12.66	12.0	11.66	12.33	13.0 91	
117	13.0 9	13.0	13.0	13.0	12.66	12.0	11.66	11.0	10.0	10.0	12.0 156	
101	12.66 8	12.66	12.33	12.0	11.66	10.66	10.33	9.33	8.33	7.66	8.0 144	
72	12.0 10	12.0	11.33	10.66	10.0	9.33	9.0	8.0	6.66	5.66	5.0 115	
34	11.33	11.33	10.66	9.66	9.0	8.33	7.66	6.66	5.00	3.66	3.00	2.66 5.33
		11.00	10.0	9.66	8.33	7.66	6.33	5.00	3.66	2.66	2.33	2.33 16
247		10.33 24	10.00	9.00	8.00	7.00	5.00	3.66	2.66	2.66	2.33	2.33 13 30
187		9.33 20	8.33	8.0	7.66	6.33	4.66	2.66	2.66	2.33	2.33	2.33 18 42
102		5.66 19	5.00	5.00	5.00	5.00	3.66	2.66	2.66	2.33	2.33	2.33 23 54

12.32

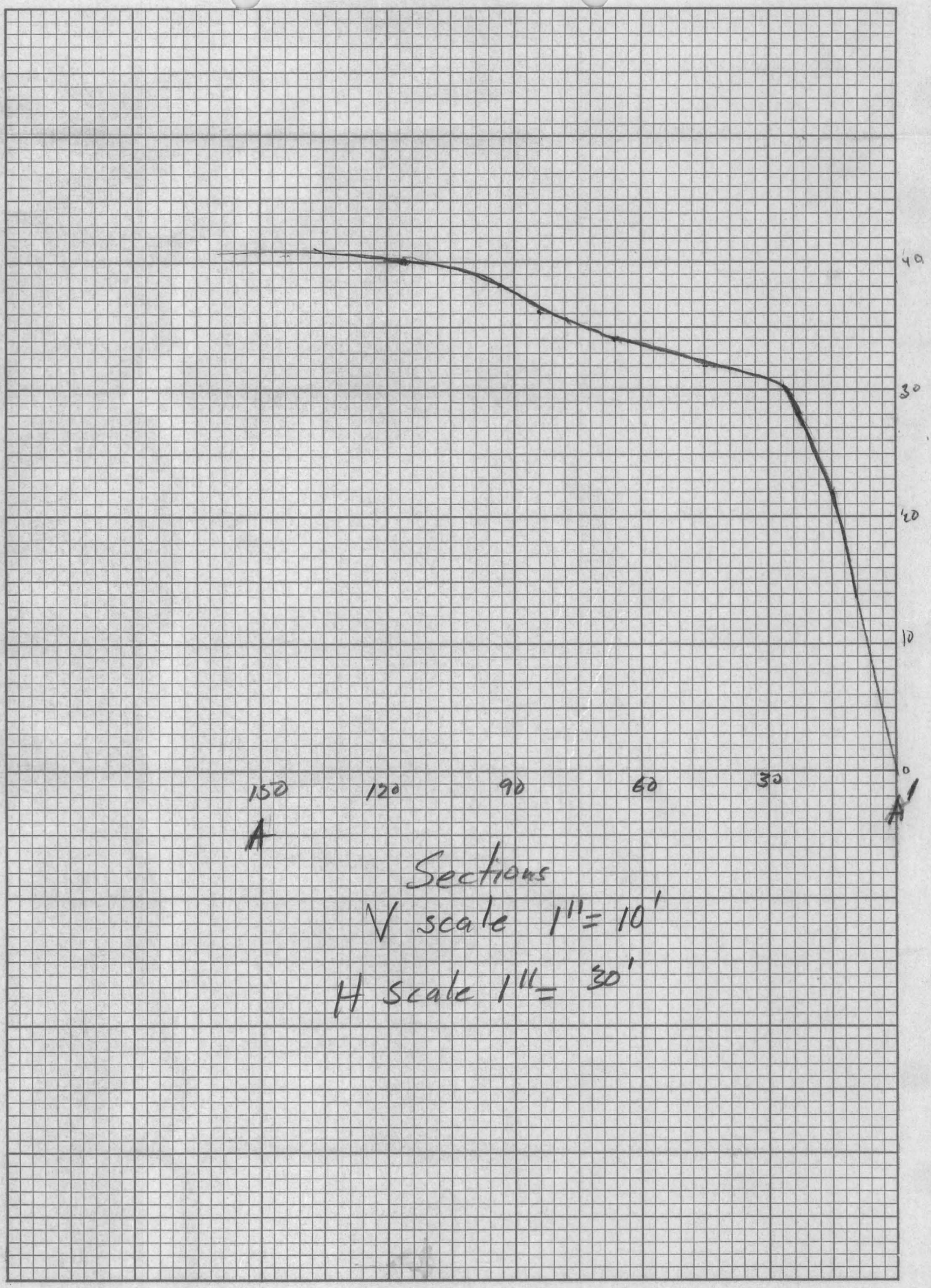
K+E 10 X 10 TO THE INCH 359-5DG
KEUFFEL & ESSER CO. MADE IN U.S.A.

Nogales - Brittain

Seis Profile



K+E 10 X 10 TO THE INCH 359-5DG
KEUFFEL & ESSER CO. MADE IN U.S.A.

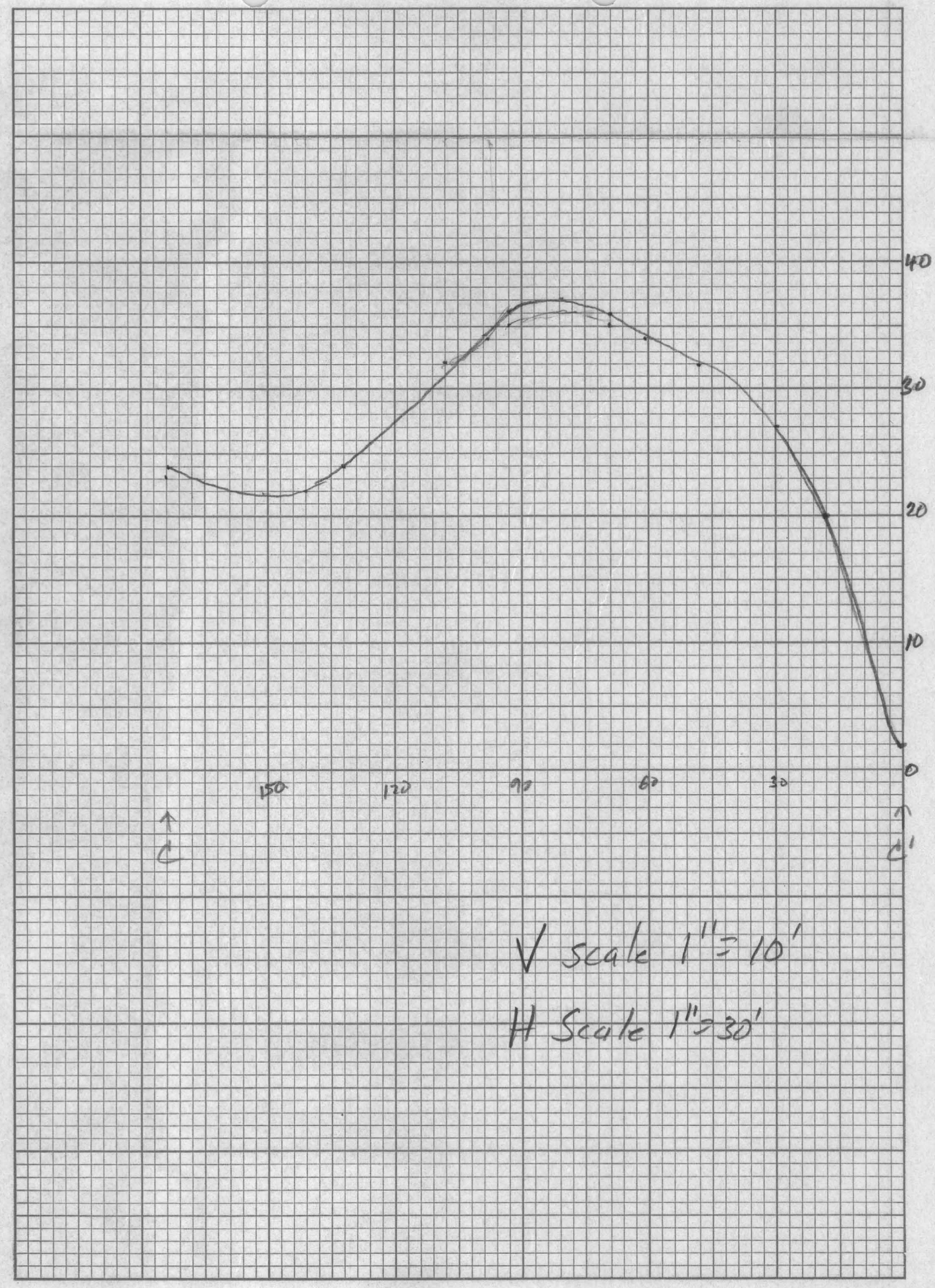


Sections

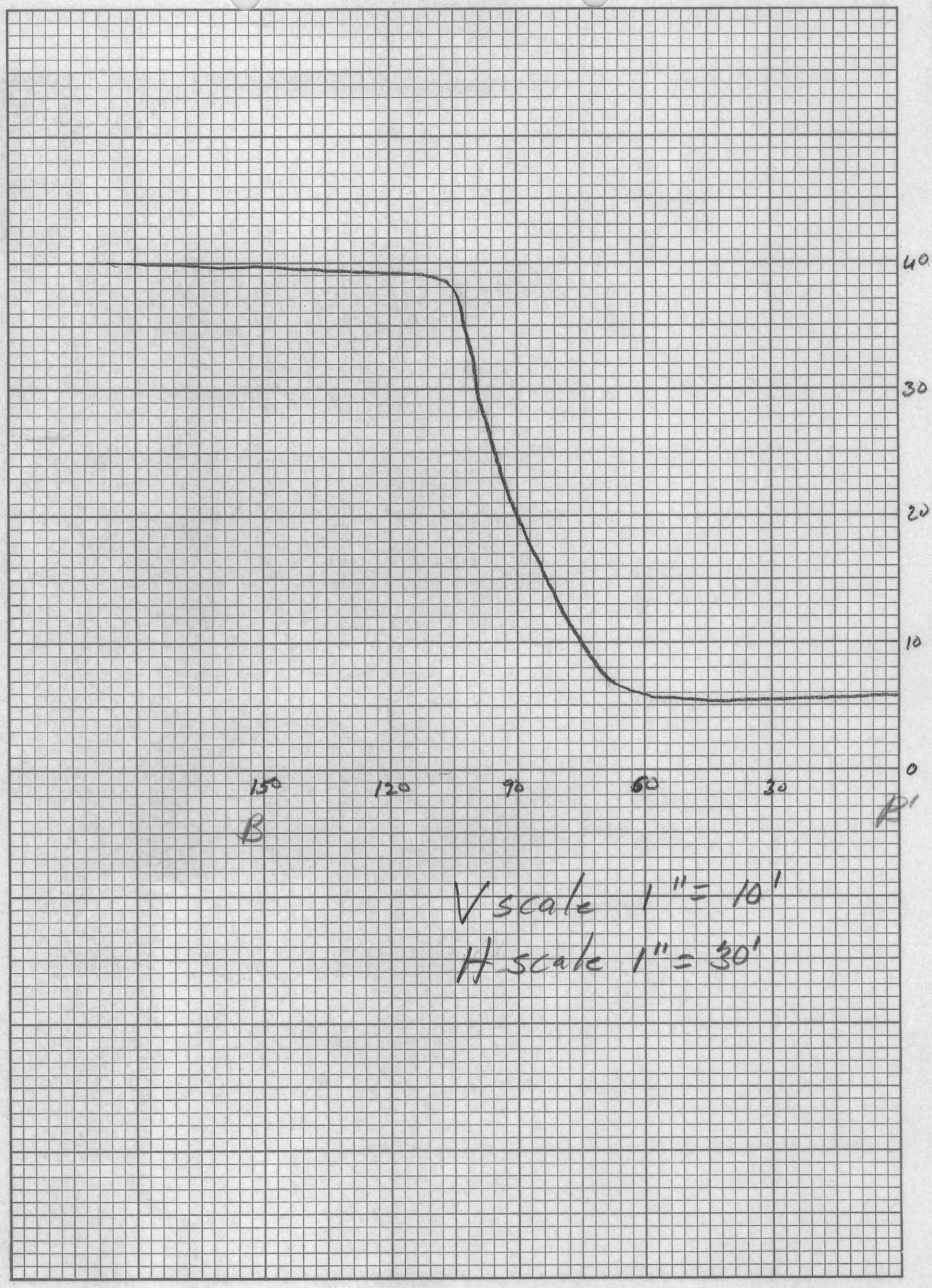
V scale 1" = 10'

H scale 1" = 30'

K+E 10 X 10 TO THE INCH 359-5DG
KEUFFEL & ESSER CO. MADE IN U.S.A.



K&E 10 X 10 TO THE INCH 359-5DG
KEUFFEL & ESSER CO. MADE IN U.S.A.



K+E 10 X 10 TO THE INCH 359-5DG
KEUFFEL & ESSER CO. MADE IN U.S.A.

North side
Block B

HEINRICHS GEOEXPLORATION COMPANY
P. O. BOX 5671 TUCSON, ARIZONA

Work Sheet Yardage Computations

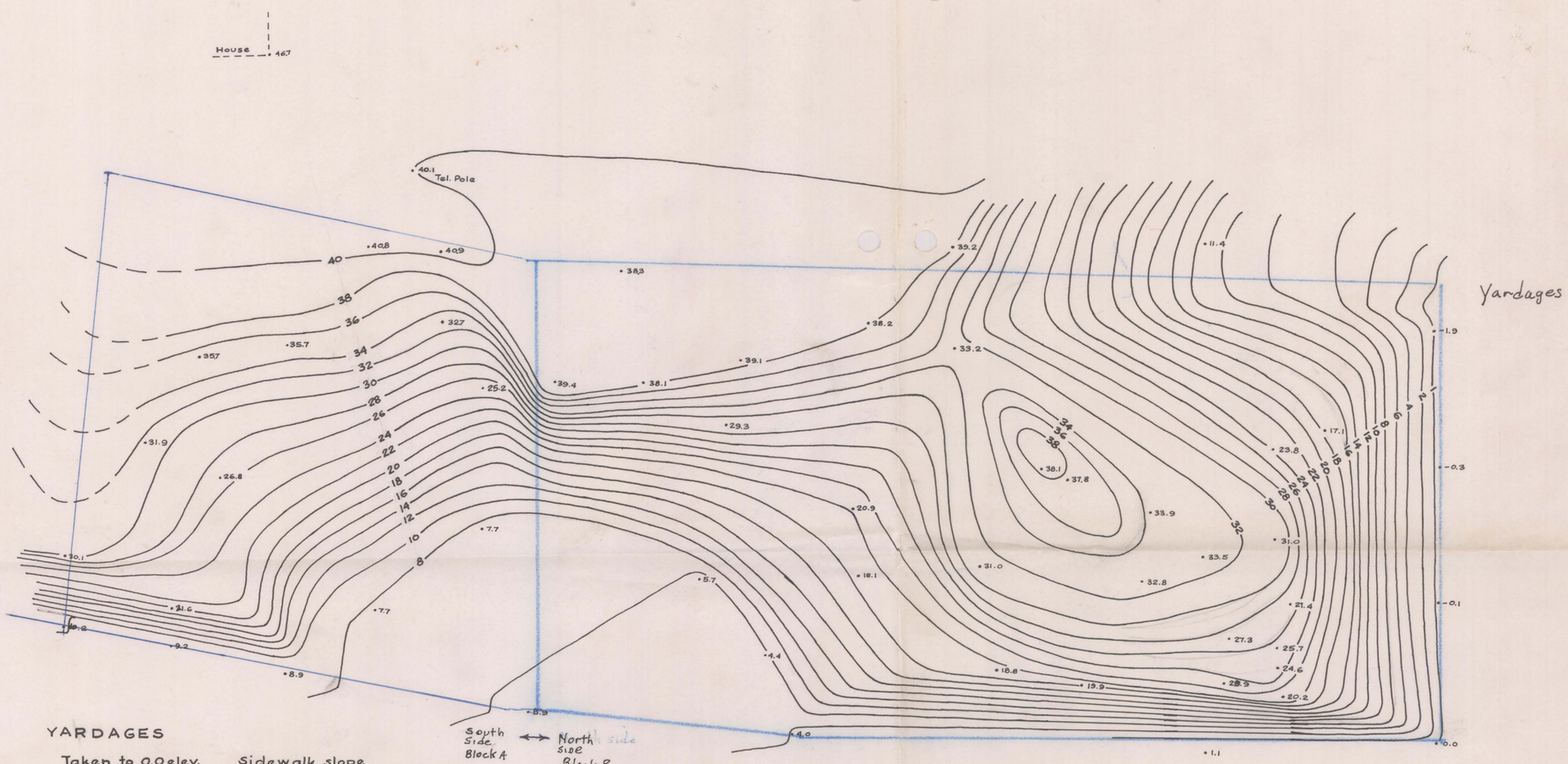
34,603.
+1509
137
36249 Total yards to 0.0 elev.
5000 if sidewalk slope is maintained
31,249 Total yards " " "

13	13	12	10	10	10	9	8	8	8	7	5	5	5	4	3	2	2	1	0
13	13	12.66	12.66	12.66	12.66	12.66	12.66	12.66	11.33	9.66	8.33	7.0	5.66	4.0	3.0	2.66	2.0	1.33	0
12.67	12.67	12.67	12.67	12.67	12.67	12.67	12.67	12.0	11.0	9.33	8.33	7.33	6.0	4.66	4.0	3.33	2.66	1.66	.33
12.67	12.67	12.67	12.67	12.67	12.67	12.33	11.67	11.33	10.66	10.33	9.66	9.33	8.00	6.66	5.66	5.00	4.00	2.66	1.66
11.66	11.66	11.33	11.33	11.00	10.66	10.33	10.00	10.00	10.66	11.66	11.00	10.33	9.33	8.33	7.66	6.33	5.66	3.66	1.0
7.0	7.33	7.66	8.0	8.66	8.66	8.66	8.66	9.0	10.66	12.0	12.33	11.33	10.66	10.0	9.0	7.66	6.0	3.66	1.0
4.0	4.66	5.0	5.66	6.0	6.66	7.0	7.66	9.0	10.33	11.66	12.33	12.0	11.33	10.66	10.33	9.0	7.0	3.66	1.0
2.66	2.66	3.0	3.66	4.66	5.33	6.0	7.0	8.33	10.33	11.0	11.66	12.0	11.33	11.0	10.66	10.0	7.33	3.66	1.0
2.33	2.35	2.0	2.0	3.0	4.66	5.66	6.33	7.33	9.33	10.33	10.66	11.0	11.0	10.66	10.33	9.66	7.33	3.66	1.0
2.0	2.0	2.0	1.66	2.0	4.0	4.66	5.66	6.33	7.33	8.66	9.66	10.0	10.0	9.66	9.33	8.66	6.66	3.66	1.0
2.0	2.0	1.66	1.66	1.66	2.33	3.66	4.66	5.66	6.0	6.33	7.0	7.33	7.66	8.0	8.0	8.0	6.0	3.66	1.33
1.66	1.66	1.66	1.66	1.33	1.33	2.0	2.33	2.33	2.33	2.33	2.66	2.33	2.66	2.66	3.33	4.0	4.0	3.0	1.33

171.99
194.97
183.91
167.93
154.74
143.27
130.60
114.93
94.60
3729
0.0
1354.11

K+E 10 X 10 TO THE INCH 359-5DG KEUFFEL & ESSER CO. MADE IN U.S.A.

Mag North



YARDAGES

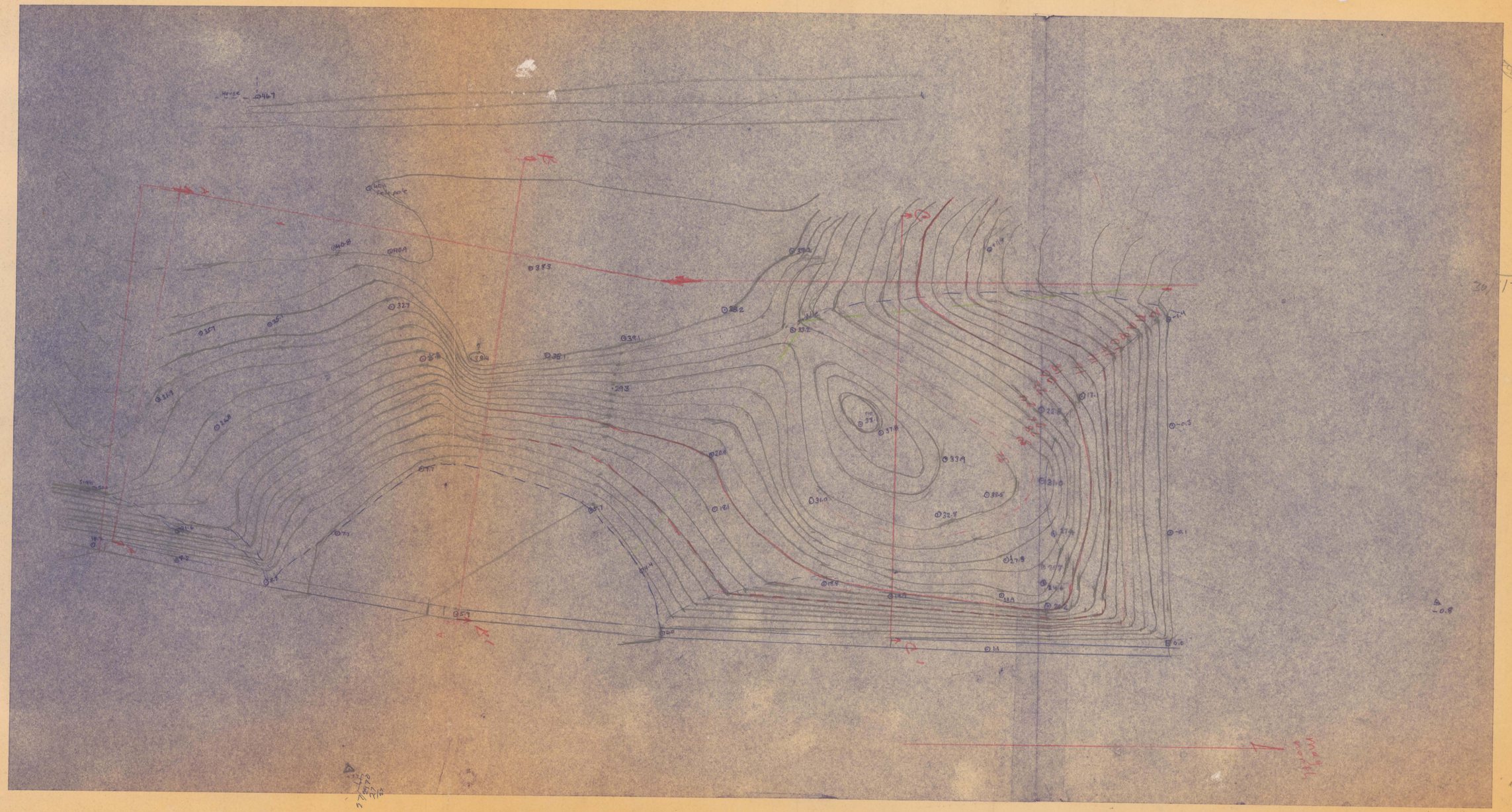
	Taken to 0.0 elev.	Sidewalk slope maintained
BLOCK A	21,634	19,872
BLOCK B	36,249	31,249
TOTAL	57,883	51,121

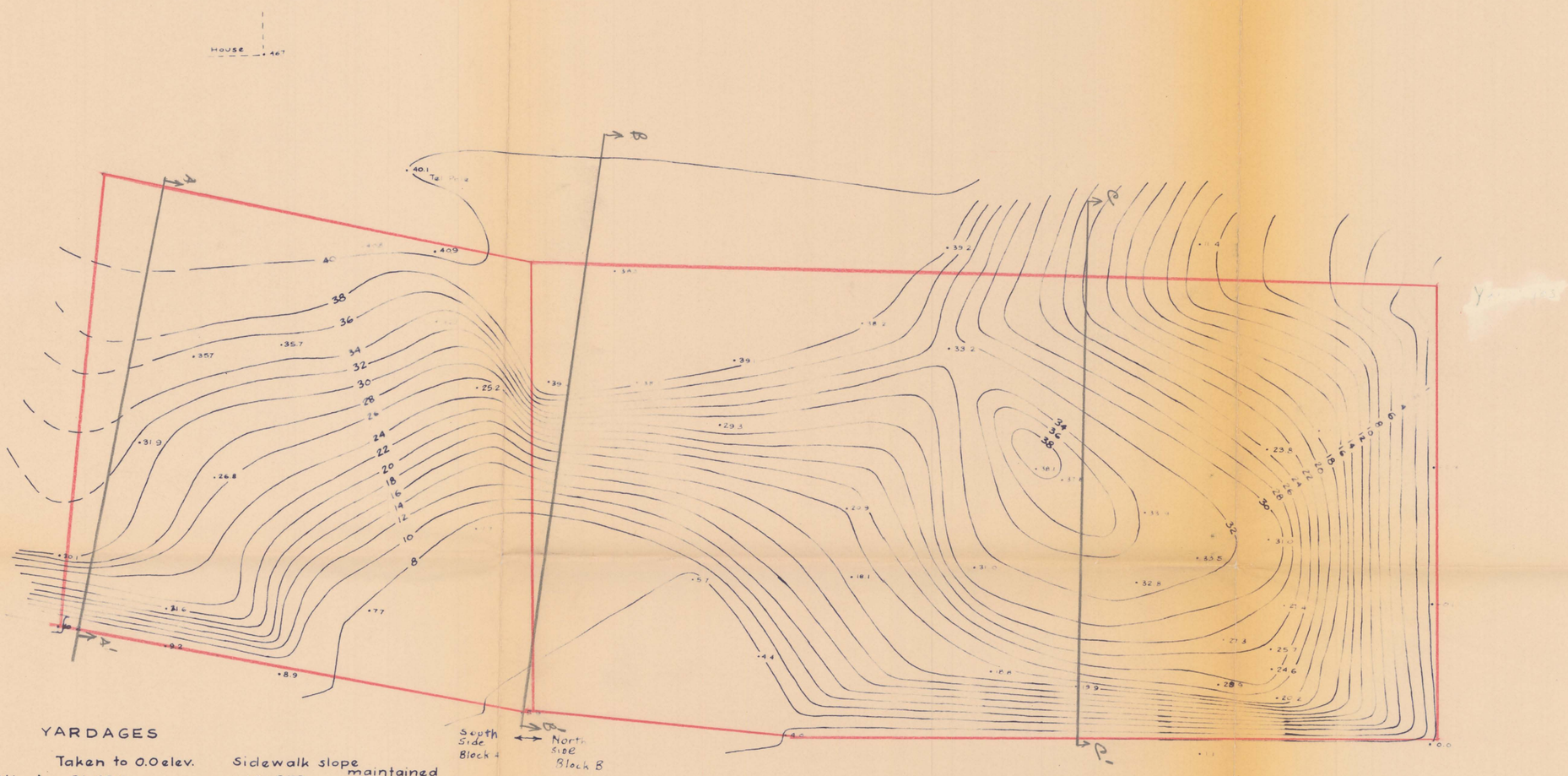
Sketch Map
Plane Table Survey
Nogales, Arizona

HEINRICHS GEOEXPLORATION COMPANY
P. O. BOX 5671 TUCSON, ARIZONA

property of Dale C. Brittain

Contour Int = 2'
Scale 1" = 30'





YARDAGES

	Taken to 0.0 elev.	Sidewalk slope maintained
BLOCK A	21,634	19,872
BLOCK B	36,249	31,249
TOTAL	57,883	51,121

Sketch Map
Plane Table Survey
Nogales, Arizona

HEINRICHS GEOEXPLORATION COMPANY
P. O. BOX 5671 TUCSON, ARIZONA

property of Dale C. Brittain
Contour Int = 2'
Scale: 1" = 30'

House 46.7

40.1
Tele pole

40.8 40.9

38.3

39.2

-1.4

32.7

38.2

saddle
33.2

-1.4

35.7 35.7

39.1

25.2 ? 39.4

38.1

29.3

31.9

26.8

TOP
28.1

37.8

17.1

22.8

-0.3

20.9

33.9

7.7

Sign
Post 30.1

31.0

33.5

31.0

5.7

18.1

32.8

27.4

-0.1

10.2

21.6

7.7

27.8

25.7

9.2

4.4

24.6

18.8

8.7

19.9

23.9

20.2

-0.8

5.9

4.0

1.1

0.0