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HEINRICHS GEOEXPLORATION COMPANY

806 WEST GRANT ROAD, TUCSON, ARIZONA, 85703. P.O. BOX 5671. PHONE: (AREA CODE 602) 623-0578

November 30, 1966

Mr. Woodrow Mullin
Box 455
Turkey, Texas

Dear Mr. Mullin:

As per your request in our discussions in our office between John Langs and E. Grover Heinrichs and Mr. Molloy on November 16, 1966, the following proposals are suggested to best evaluate the water potential on your property on the Pierce Area, Arizona.

From the well data given on wells 1 through 4 drilled in Section 15, T17S, R25E, the apparent subsurface structure is a generally north trending trough, as shown on the enclosed cross section. However, the strike of this trough may be concordant with major northwest trending structure in the area. The water table dips to the north indicating subsurface flow in this direction. The maximum production out of well #1 shows the relationship between increased depth of alluvium and corresponding thickness of water zone and increased rate of production.

Improved water production is related to locating increased depth to bedrock and corresponding head.

The following methods of exploration are recommended and presented for consideration. Proposed lines are shown on the enclosed plan view of Section 15.

1. Gravity is the first choice and would give the most accurate picture of the subsurface bedrock topography. A minimum of 9 line miles, at $150.00/mile with a $1,000.00 minimum fee, is recommended if this method is used.

2. Resistivity is second choice, and should give a good indication of bedrock topography and possible depth to

water table. Three line miles, at $500.00/mile is recommended if this method is used.

3. Magnetics is third and would give a general indication of the shape of the trough. This method will not give as good information as gravity or probably resistivity, but it may show the location of thickest alluvium. Nine miles at $50.00/mile is recommended if this method is used.

For increased effectiveness, a combination of two or all three of the above methods should be considered.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

John McDonnell

John McDonnell
Geologist

APPROVED: _____
Walter E. Heinrichs, Jr.

Registered Professional Engineer (Mining) CERTIFICATE EXPIRES WALTER E. HEINRICHS JR. DEC. 31, 1966 ARIZONA, U.S.A.

Gravity Survey for Mullen + Molloy

12/15/66

P6

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STA.	TIME	READ.		LOOP DRIFT	O.A DRIFT	
S31	—	1416.1	+4	0	-5.9	1409.7
S32	—	1416.6	+4	0		1410.2
S33	—	1416.7	+4	0		1410.3
S34	—	1416.8	+4	0		1410.4
S35	11:27	1416.1	+4	0		1409.7
S30	11:32	1416.3	+4	0		1409.9
S-1	11:46	1365.7	+4	0		1358.7
S108	11:49	1364.4	+5	0		1357.0
S109	—	1360.6	+5	+0.1		1353.7
S110	—	1357.3	+5	+0.1		1350.4
S111	—	1354.8	+5	+0.2		1347.5
S112	—	1352.3	+5	+0.2	-6.0	1345.5
S113	12:00	1350.7	+5	+0.3		1344.0
S-1	12:04	1365.4	+5	+0.3		1358.7
S113	12:08	1350.7	+5	0		1344.0
S114	—	1349.7	+6	0		1343.1
S115	—	1348.9	+6	0		1342.3
S116	—	1348.5	+6	+0.1		1341.9
S117	—	1348.5	+6	+0.1		1341.9
S118	—	1349.1	+6	+0.1		1342.6
S119	12:22	1348.7	+6	+0.2		1342.2
S113	12:26	1350.5	+7	+0.2		1344.0
S119	12:30	1348.7	+7	0		1342.2
S120	—	1348.4	+7	0		1341.9
S121	—	1347.4	+7	0		1340.9
S122	—	1346.5	+7	-0.1		1339.9
S123	—	1345.7	+7	-0.1		1339.1
124	12:40	1344.1	+7	-0.2		1337.4
119	12:44	1348.9	+7	-0.2		1342.2
BASE	12:51	1407.8		—	-6.0	1401.8

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12/14/66
P.4

Gravity Survey For Mullen + Molloy

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Sta	Time	Read	Loop Drift	O.A Drift	
S89	1:52	1417.3	+0.2 -2.1	-2.9	1415.2
S84	1:55	1412.9	0 1.6	-2.9	1410.3
S83	-58	1411.8	0 1.6	-3.0	1410.2
S82	-02	1410.9	-0.1 1.6	-3.1	1409.3
S81	-05	1410.5	-0.1 1.6	-3.1	1408.9
S80	-10	1409.5	-0.2 1.6	-3.2	1407.9
S79	2:15	1410.0	-0.2 1.5	-3.3	1409.5
S78	2:19	1409.7	-0.3 1.5	-3.3	1408.2
S84	2:28	1412.7	-0.3 1.4	-3.4	1410.3
S78	—	1410.0	0 (-1.8)	-3.5	1408.2
S77	—	1409.1	-0.1 1.1	-3.5	1407.3
76	—	1408.3	-0.2 1.9	-3.6	1406.4
75	—	1406.8	-0.2 1.0	-3.7	1405.8
74	—	1405.4	-0.3 1.0	-3.7	1404.4
73	—	1403.3	-0.3 1.1	-3.8	1402.2
72	—	1400.4	-0.4 1.1	-3.9	1397.3
S78	3:15	1410.4	-0.4 2.2	-3.9	1408.2
BASE	3:30	1405.8	-4.0	-4.0	1401.8
S1	3:35	1362.7	0 -4	-4.0	1358.7
S2	—	1365.6	0 .1	-4.0	1361.6
S3	—	1371.0	0 .1	-4.1	1367.0
S4	—	1374.7	0 .1	-4.1	1370.6
S5	—	1379.0	-0.1 .1	-4.1	1373.9
S6	3:48	1381.8	-0.1 .1	-4.2	1377.7
S1	3:52	1362.8	-0.1 4.2	-4.2	1358.7
S6	3:55	1381.9	0 4.2	-4.2	1377.7
S7	—	1386.0	-0.1 4.2	-4.3	1381.8
S8	—	1389.0	-0.2 4.2	-4.3	1384.6
S9	—	1390.9	-0.3 4.4	-4.3	1386.5
S10	—	1393.5	-0.4 4.5	-4.4	1388.9

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Gravity Survey For Mullen & Molloy

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STA.	TIME	READ	LOOP DRIFT	O.A. DRIFT	
S-11	4.07	1395.7	-0.5	-4.4	1391.1
S-6	4.10	1382.4	-0.5	-4.5	1377.7
BASE	4:18	1406.3	-4.5	-4.5	1401.8
BASE	9:20	1407.6	-5.8	-5.8	1401.8
S11	9:27	1397.5	0	5.8	1391.7
S12	—	1399.6	0	5.8	1393.8
S13	—	1400.3	0	5.9	1394.4
S14	—	1401.8	-0.5	5.9	1395.9
S15	—	1402.6	-0.1	5.9	1396.7
S16	9:40	1403.5	-0.1	6.0	1397.5
S17	—	1404.9	-0.2	6.0	1398.5
S18	9:46	1405.0	-0.2	6.0	1399.0
S11	9:50	1397.7	-0.2	6.0	1391.7
S18	9:55	1405.1	0	6.1	1399.0
S19	—	1405.3	0	6.1	1399.2
S20	—	1406.4	0	6.1	1400.3
S21	—	1406.4	0	6.1	1400.3
S22	—	1406.6	+0.1	6.2	1400.4
S23	—	1408.1	-0.1	6.2	1401.9
S24	10:12	1409.5	-0.1	6.2	1403.3
S18	10:24	1405.2	0	6.2	1399.0
S24		1409.5	0	6.2	1403.3
S25		1410.0	0	6.2	1403.8
S26		1411.6	0	6.2	1405.4
S27		1413.2	0	6.2 5.9	1407.0
S28		1414.2	+0.1	6.2	1408
S29		1414.2	+0.1	6.1	1408.1
S30		1416.0	+0.1	6.1	1409.9
S24	11:06	1409.4	+0.1	6.1	1403.3
S30	11:13	1416.3	0	6.4	1409.9

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Gravity Survey For Mullen + Molloy

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			Loop Drift	O.A. Drift	
S104	2.34	1418.4	-0.2	-1.2	1417.6
BASE	3.00	1403.0	-1.2	-1.2	1401.8
BASE	9.00	1405.4	-3.6	-3.6	1401.8
S 54	—	1389.5	-3.6	-3.6	1385.9
S 55	—	1392.4	+0.1 -3.5	-3.6	1388.9
S 56	—	1395.6	+0.2 -3.5	-3.5	1392.1
S 57	—	1397.8	+0.2 -3.4	-3.5	1394.4
S 58	9.10	1400.8	+0.3 -3.4	-3.5	1397.4
S 54	9.15	1389.2	+0.3 -3.3	-3.5	1385.9
S 58	9.20	1400.8	0 -3.4	-3.4	1397.4
59	—	1401.7	+0.1 -3.3	-3.4	1398.4
60	—	missing	+0.2 -3.2	-3.4	—
61	—	1404.9	+0.3 -3.1	-3.4	1401.8
62	—	1406.1	+0.4 -3.0	-3.3	1403.1
63	9.33	1407.2	+0.5 -2.8	-3.3	1404.3
58	9.38	1400.1	+0.7 -2.7	-3.3	1397.4
63	9.43	1407.3	0 -3.0	-3.3	1404.3
64	46	Missing	0 -3.0	-3.2	—
65	49	1408.5	0 -3.0	-3.2	1405.5
66	52	1408.4	0 -3.0	-3.2	1405.4
67	54	1409.0	+0.1 -2.9	-3.2	1406.1
68	9.56	1409.6	+0.1 -2.9	-3.1	1406.7
63	10.01	1407.2	+0.1 -2.9	-3.1	1404.3
68	10.07	1409.2	0 -2.5	-3.1	1406.7
69	14	1410.3	0 -2.5	-3.1	1407.8
70	20	1411.0	0 -2.5	-3.0	1408.5
71	27	1411.4	-0.1 -2.6	-3.0	1408.8
53	33	1407.9	-0.1 -2.6	-3.0	1405.3
68	10.39	1409.3	+0.1 -2.6	-3.0	1406.7
53	10.52	1407.6	0 -2.3	-2.9	1405.3

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Gravity Survey for Mullin & Molloy

Starting at NW corner of Sec 15 heading East.

Sta	Time	Read		LOOP DRIFT	O.A. DRIFT	
Base	12.15	1401.8		0	0	1401.8
S90	12.20	1403.7		0	0	1403.7
S91	12.23	1405.5		0	-0.1	1405.5
S92	12.26	1407.4		+0.1	-0.1	1407.5
S93	12.31	1408.6		+0.1	-0.2	1408.7
S94	12.36	1409.2		+0.2	-0.2	1409.4*
Base	12.40	1401.6		+0.2	-0.3	1401.8
S94	12.50	1409.1	1409.4	+0.3	-0.3	1409.4*
S95		1410.0		0 +0.3	-0.4	1410.3
S96		1410.5		0 +0.2	-0.4	1410.7
S97		1411.7		-0.1 +0.2	-0.5	1411.9
98		1412.5		-0.2 +0.1	-0.5	1412.6
99	1.09	1413.5		-0.2 +0.1	-0.6	1413.6*
94	1.17	1409.4		-0.3 0.0	-0.6	1409.4*
99	1.27	1413.5		0 +0.1	-0.7	1413.6*
100		1414.0		-0.1 +0.1	-0.7	1414.1
101		1414.2		-0.1 0.0	-0.8	1414.2
102		1414.7		-0.1 0.0	-0.8	1414.7
103		1416.3		-0.2 0.0	-0.9	1416.3
104	1.45	1417.6		-0.2 0.0	-0.9	1417.6*
99	1.54	1413.7		-0.2 -0.1	-0.9	1413.6*
104	2.02	1418.2		0 -0.6	-1.0	1417.6*
105	2.06	1417.3		0 -0.6	-1.0	1416.7
106	2.10	1419.3		-0.1 -0.7	-1.1	1418.6
107	2.15	1419.4		+0.1 -0.7	-1.1	1418.7
42 S89	2.29	1414.8		-0.2 -0.8	-1.2	1414.0
S104	2.34	1418.4		-0.8		1417.6*

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Gravity Survey for Mullen & Malloy

STA.	TIME	READ	LOOP DRIFT	O.A DRIFT	
S52	—	1406.5	0 -2.3	-2.9	1404.2
S51		1405.9	0 -2.3	-2.9	1403.6
S50	11:02	1405.3	0 -2.3	-2.9	1403.0
S49		1404.2	0 -2.3	-2.8	1402.9
S48		1403.9	-0.1 -2.4	-2.8	1401.5
S47		1402.9	-0.1 -2.4	-2.8	1400.5
S46		1402.0	-0.1 -2.4	-2.8	1399.7
S53	11.25	1407.7	-0.1 -2.4	-2.7	1405.3
S46	11.35	1401.8	0 -2.2	-2.7	1399.6
S45	-42	1400.6	+0.1 -2.1	-2.7	1398.5
S44	-.66	1398.8	+0.2 -2.0	-2.7	1396.8
S43	-.67	1397.2	+0.3 -2.6	-2.6	1395.2
S42	-.51	1395.3	+0.3 +1.9	-2.6	1393.4
S46	11.55	1401.4	+0.4 +4.8	-2.6	1399.6
42	11.58	1395.3	0 -1.9	-2.6	1393.4
41	-.60	1392.1	0 -1.9	-2.5	1390.2
40	-.73	1389.0	+0.1 -1.8	-2.5	1387.2
39	-.95	1385.7	+0.1 -1.8	-2.5	1383.9
38	-.8	1382.5	+0.2 -1.7	-2.5	1380.8
37	-.71	1378.4	+0.2 -1.7	-2.4	1376.7
36	12.15	1373.6	+0.3 -1.6	-2.4	1372.0
42	12.20	1395.0	+0.3 -1.6	-2.4	1393.4
BASE	12.28	1404.2	—2.4	-2.4	1401.8
BASE	1.09	1404.2	—2.4	-2.4	1401.8
S89	1.22	1417.5	0 -2.3	-2.5	1415.2
S88	—	1415.5	0 -2.3	-2.5	1413.2
S87	—	1414.8	+0.1 -2.2	-2.6	1412.4
S86		1413.9	+0.1 -2.2	-2.7	1411.7
S85		1413.5	+0.1 -2.2	-2.7	1411.3
S84		1412.4	+0.2 -2.1	-2.8	1410.3

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GRAVITY SURVEY

IN THE

PEARCE AREA, COCHISE COUNTY, ARIZONA

For

Mr. Woodrow Mullin

December 1966

By

Heinrichs Geoexploration Company
P.O. Box 5671 Tucson, Arizona 85703
Phone: 623-0578 Area Code: 602

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IN MAP POCKET: (1 Piece)	
Bouguer Gravity Contour Plan	

INTRODUCTION

As a result of a letter to Mr. Mullin dated November 30, 1966 from Heinrichs Geoexploration Company which outlined methods of exploration to evaluate water potential in Section 15, T17S, R25E, in Cochise County, near Pearce, Arizona, a telephone conversation was held December 6, 1966 between Mr. Woodrow Mullin and John W. Langs of Geoex. It was decided that Geoex would conduct a preliminary semi reconnaissance-semi detailed gravity survey consisting of five lines totaling seven line miles. Mr. Roy Molloy of Cochise, Arizona would conduct the level survey and locate stations as directed by Geoex.

Other Geoex personnel involved were R. E. Palmer, field party chief, and M. J. Fraker, field assistant, interpretation by Chris S. Ludwig, senior geophysicist, and report by John McDonnell, geologist.

A gravity contour and interpretation plan at a scale of one inch to 500 feet with a contour interval of 0.25 milligals is included in the report.

PROCEDURE

The topographic level survey conducted by Roy Molloy consisted of 124 stations with a 300 foot station spacing on five E-W lines. Of these lines the southern-most was three miles in length, and the other four were one mile in length. Lines were located 1/4 mile apart.

A Texas Instruments gravity meter with a scale constant of 0.09640 milligals per scale division was used. Maximum observed instrumental drift was 0.67 milligals and all drifts were loop corrected. The combined Bouguer and free air correction factor was 0.06854 milligals per foot with an inferred alluvial density of 2.0 g/cc. The latitude correction factor was 1.175 milligals per mile.

INTERPRETATION, CONCLUSIONS, AND RECOMMENDATIONS

Gravity values in the area increase to the east from the west boundary of Section 15 showing a decrease in depth to bedrock to the east. The least gravity value (and therefore, approximate location of probable thickest alluvium) in the entire survey is on the south boundary of Section 16 at Station 113. A channel trending NW across Section 15 from the SW quarter is indicated.

If Section 16 is available, the most favorable location according to the entire survey, is in the vicinity of Station 113, with an inferred depth of about 740 feet to bedrock. The depth increase over well #1 is about 110 feet giving a probable head of approximately 410 feet. This location is marked on the map as proposed well site #1.

The most favorable water well location in Section 15, from the standpoint of the gravity results is in the SW corner of the section. Inferred depth to bedrock here is about 690 feet with an increase of about 60 feet over depth to bedrock in your well #1. Probable head should be around 330 feet. This location is marked on the map as proposed well site #2. Another low point is noted in the NW corner of Section 15. Inferred depth to bedrock there is approximately 550 feet. Assuming relatively uniform character of the alluvial sediments, a well in this location would probably give less production than well #1 because of less head. This location is marked on the map as proposed well site 3.

Should Section 16 be available, two additional line miles of gravity survey are recommended to define the suggested trough-like feature between Stations 112 and 114. The two lines should be run E-W with 300 foot spacings between stations. One line should be run 1/2 mile north of the south boundary of the section and the other across the north boundary of the section.

Because of the proximity of existing well #1 to this proposed well site, cost of drilling versus increased production should be considered. A 50% increase over well #1 would give

about 1700 gallons per minute. This increase is calculated on the basis of increased depth alone with no consideration of lateral feed from the deeper area to the west. Dual production from the proposed well and well #1 versus shutdown of well #1 should be considered. Drawdown from the proposed well could decrease production from well #1 to make its shut-down necessary.

From the data presently available, 2,000 gallons per minute does not appear likely from a single well in Section 15. A combined production from the proposed well and other wells on the section could give equivalent production.

The NW-SE trending buried bedrock stream channel through Section 15 could be water bearing, but with a limited head, and is not recommended for testing at this time.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

John McDonnell

John McDonnell
Geologist

APPROVED: _____
Walter E. Heinrichs, Jr.

Registered Professional Engineer (Mining) CERTIFICATE EXPIRES WALTER E. HEINRICHS JR. DEC. 31, 19 67 ARIZONA, U.S.A.

Tucson, Arizona
January 4, 1966

SECTION 16

SECTION 15

SECTION 14

SECTION 21

SECTION 22

SECTION 23

T 17 S

R 25 E

POSSIBLE BEST WATER PRODUCTION ZONE (BURIED BEDROCK STREAM CHANNEL ABOUT 700' BELOW SURFACE)

BURIED BEDROCK STREAM CHANNEL ?

1 @ (740' ± 50')

2 @ (690' ± 50')

3 @ (550' ± 75')

1 @ (740' ± 50') PROPOSED WELL SITE (AND PROBABLE DEPTH TO BEDROCK)

① EXISTING WELLS

S 48 • GRAVITY STATION

• 40.66 GRAVITY VALUE IN MILLIGALS

SECTION CORNER

PEARCE AREA
COCHISE COUNTY, ARIZONA

CONTOUR INTERVAL = 0.25 MILLIGALS

HEINRICHS GEOEXPLORATION CO.
POST OFFICE BOX 5671 TUCSON, ARIZONA 85703

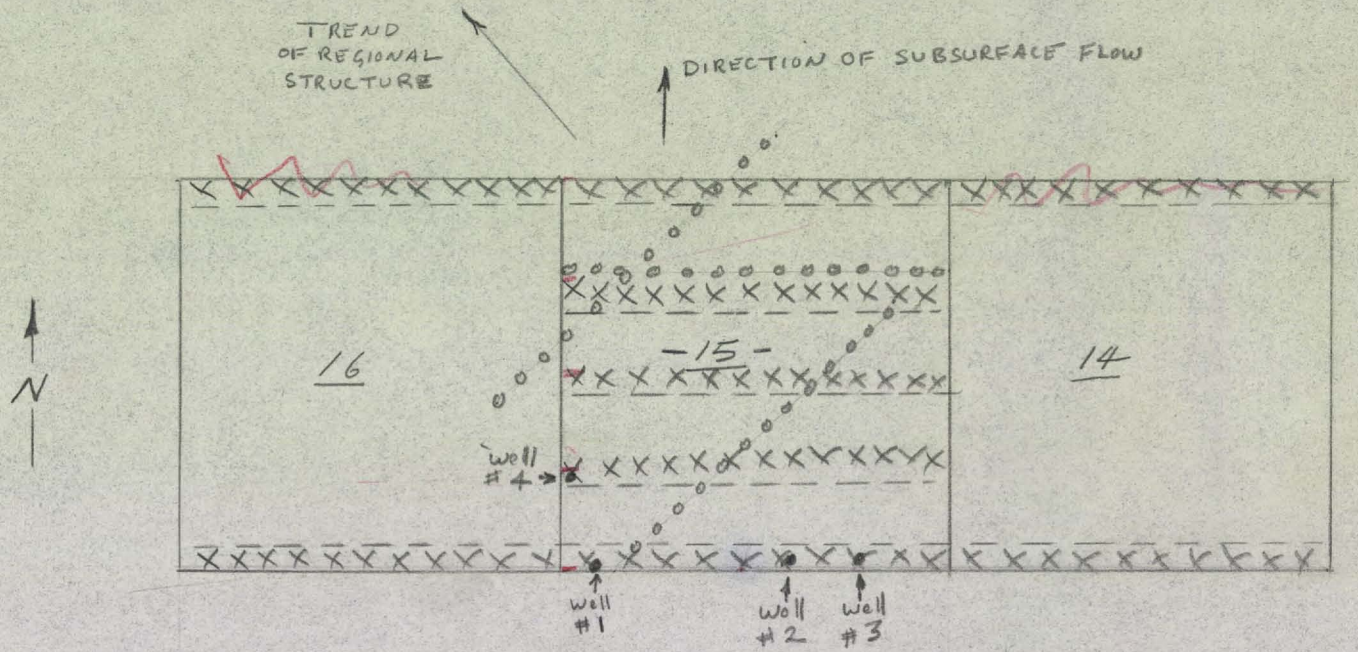
BOUGUER GRAVITY
CONTOUR PLAN
FOR
MULLIN & MOLLOY

Scale 1" = 500' | Date DEC. 1966

T17S, R25E

LOCATIONS OF RECOMMENDED LINES

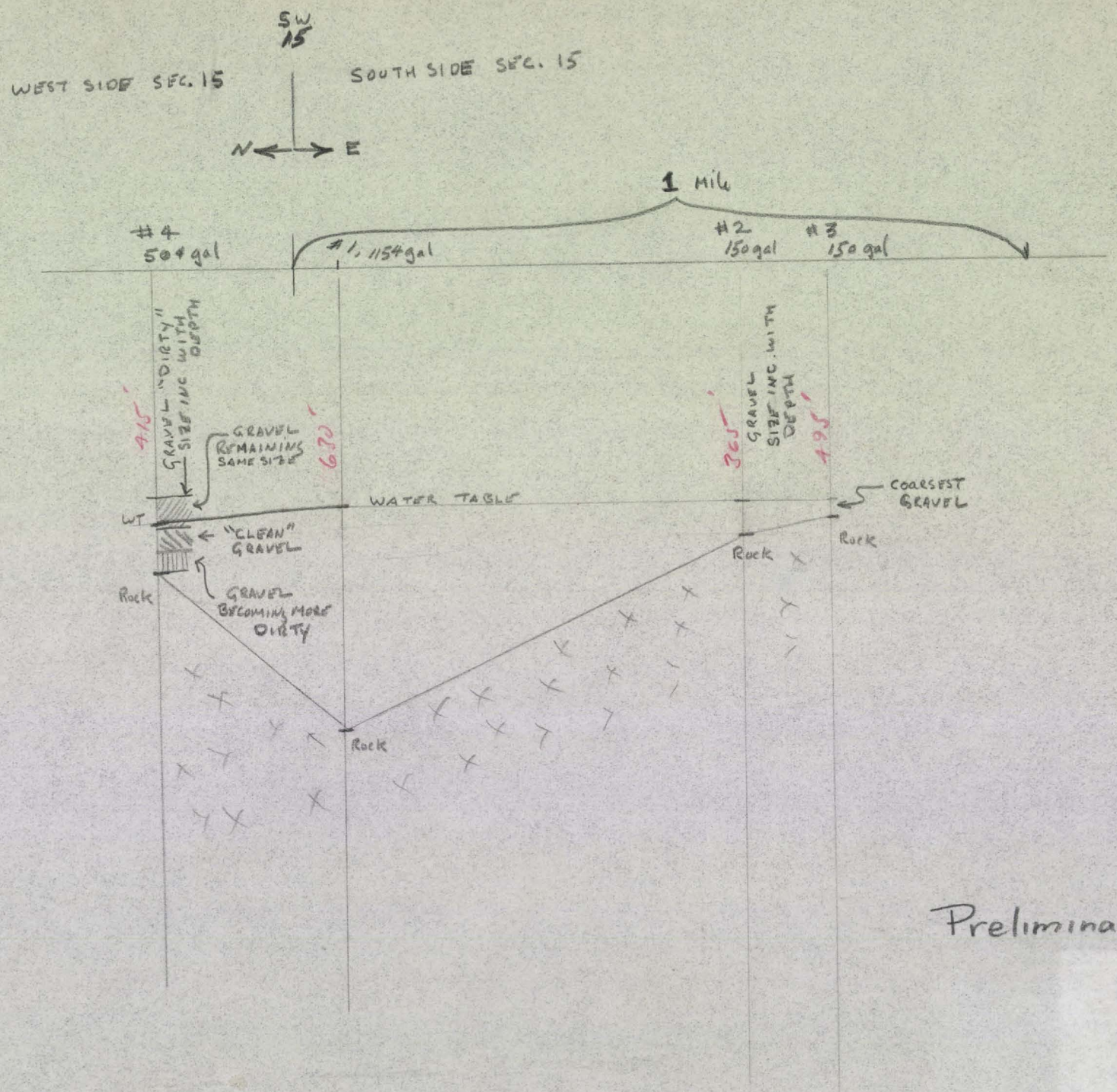
1) GRAVITY ××××
2) RESISTIVITY o o o o
3) MAGNETICS — — — —



DATE: 11-30-66

Preliminary SKETCH

T17S, R25E



Preliminary Sketch

DATE: 11-30-66
VERTICAL SCALE 1" = ~~50'~~ 200'
HORIZONTAL SCALE 5" = 1 MILE

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Sta	① Corrected Reading (mgal)	② Correction (1) × 0.0964 (mmgal)	③ Mile N. corrist = Mile × 1.175 (Mile) (mmgal)	④ Elevations	⑤ Combined free air, Bouguer correction (4) × 0.06854	⑥ Bouguer gravity (2) − (3) + (5)
1	13587	13098	0 0	100 -	685	13783
2	13616	13126		9972	683	13809
3	13670	13178		9858	676	13854
4	13706	13213		9732	667	13880
5	13739	13244		9671	663	13907
6	13727	13281		9732	667	13948
7	13818	13321		9431	646	13967
8	13846	13347		9391	644	13991
9	13855	13356		9333	640	13996
10	13889	13388		9254	634	14022
11	13917	13416	↓	9212	631	14047
12	13938	13436	0	9132	626	14062
13	13944	13442		9070	621	14063
14	13959	13456		8964	614	14070
15	13967	13464		9000	617	14081
16	13975	13472		8967	615	14087
17	13985	13482		8902	610	14092
18	13990	13486		8984	615	14101
19	13992	13488		8898	610	14098
20	14003	13498	↓	8785	602	14100

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Sta	Corrected ① Reading	Correct mgal ② ① x 0.09764	③ Mi. N. corr. mi. N. x 1.75 (mgal)	Elevations	Ambient Bureau Gravity correction (A) X 0.06854	⑥ Bouguer gravity
21	14003	13498	0	8782	602	14100
22	14004	13498	↓	8771	601	14099
23	14019	13514		8649	593	14107
24	14033	13528		8679	595	14123
25	14038	13533		855	586	14119
26	14054	13548		856	587	14135
27	14070	13563		847	581	14144
28	14080	13573		8498	582	14155
29	14081	13574		8511	583	14157
30	14099	13591		8327	571	14162
31	14097	13590		840	576	14166
32	14102	13594		8465	580	14174
33	14103	13595		8549	586	14181
34	14104	13596	↓	8614	590	14186
35	14097	13590	0	8817	604	14194
36	13720	13226	.25	9547	654	13851
37	13767	13271	29	9402	644	13886
38	13808	13311	29	9291	637	13919
39	13839	13341	29	9209	631	13943
40	13872	13373	↓	9137	626	13970

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Sta	correct Rod (1)	(2) Rod at mean = -(1)x0.0964	(3) mile N. correct = mile x 6.175 (mile)	Elevations	(5) Cumulative Curvature correction (4) x 0.06854	(6) Gravity
41	13902	13402	.25	9086	623	139.96
42	13934	13432		8920	611	140 14
43	13952	13450		8869	608	140 29
44	13968	13465		8848	606	140 42
45	13985	13482		8749	600	140 53
46	13996	13492		8741	599	140 62
47	14005	13501		8828	605	140 77
48	14015	13510	.25	8673	594	140 75
49	14047	13524		8649	593	140 78
50	14030	13525		8602	590	140 86
51	14036	13531		8668	594	140 96
52	14042	13536		8638	592	140 99
53	14053	13547		8553	586	141 04
54	13859	13360	.50	8764	601	139 02
55	13889	13389		~~8711~~ 8711	597	139 27
56	13921	13420		8803	603	139 64
57	13944	13442		8736	599	139 82
58	13974	13471		8686	595	140 07
59	13984	13481		8628	591	140 13
60	—	—		8593	589	—

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Sta.	① corrected reading	Correct. reading ① × 0.0964	⑤ mils N. correct = M.6N × 6175 (M.6)	Elevations	⑧ combined sea & Bouguer correction ⑨ × 0.06854	⑥ Bouguer gravity
C1	14018	13513.5	59	8407	576	140.3
C2	14031	13526	59	8306	569	140 36
C3	14043	13537	59	8288	568	140 46
C4	———	———	———	8250	565	———
C5	14055	13549	59	8209	563	140 53
C6	14054	13548	59	824	565	140 54
C7	14061	13555	59	8205	562	140 58
C8	14067	13561	59	8150	559	140.61
C9	14078	13571	59	8076	554	140 66
D0	14085	13578	59	7977	547	140 66
D1	14088	13581	59	7944	544	140 66
D2	13993	13489 .75	88	8149	559	139 60
D3	14022	13517	88	8035	551	139 80
D4	14044	13538	88	8011	549	139 99
D5	14058	13552	88	7952	545	140 09
D6	14064	13558	88	7897	540	140 1
D7	14073	13566	88	7875	540	140 18
D8	14082	13575	88	7870	539	140 26
D9	14095	13588	88	7863	540	140.4
E0	14079	13572	88	7851	538	140 22

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Sta	(1) correct Reading	(2) correct mgal = (1) × 0.0964	(3) M.G.N correct = M.G. + 1.175 (M.G.)	Elevations	(5) Combined free air, Bouguer correction (6) × 0.06854	(6) Bouguer gravity
81	14089	13582	88	7747	531	14025
82	14093	13586	88	7742	531	14029
83	14102	13594	88	7723	529	14035
84	14103	13595	88	7683	527	14034
85	14113	13605	88	7625	523	14040
86	14117	13609	88	7687	527	14048
87	14126	13617	88	7616	522	14051
88	14132	13623	88	7481	513	14048
89	14152	13643	88	7304	501	14056
90	14037	13532	1175	7472	512	13926
91	14055	13549	1175	7417	508	13939
92	14075	13568	1175	7452	511	13961
93	14087	13580	1175	7472	512	13974
94	14094	13587	1175	7448	510	13977
95	14103	13595	1175	7427	509	13986
96	14107	13599	1175	7445	510	13991
97	14119	13611	1175	7451	511	14004
98	14126	13617	1175	7375	505	14009
99	14136	13627	1175	7347	504	14013
100	14141	13632	1175	7328	502	14016

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Sta.	Observed Reading	Corrected angle = (1) + 0.0964	(3) M.L.N. correction = M.L. × 1.175 (M.L.)	(4) Elevations	(5) combined factor and Bouguer correction (4) × 0.06854	(6) Bouguer gravity
101	14142	13633	10 | 1175	7319	502	14017
102	14147	13638	1175	7328	502	14022
103	14163	13653	1175	7102	487	14022
104	14176	13666	1175	6965	477	14025
105	14167	13657	1175	7089	486	14025
106	14186	13675	1175	6937	475	14032
107	14187	13676 ↓	1175	6939	476	14034
108	13570	13081	0	1004	688	13769
109	13537	13050		10287	705	13755
110	13504	13018		10514	721	13739
111	13495	12990		10894	747	13737
112	13455	12971		10972	752	13723
113	13440	12956		11173	766	13722
114	13430	12947		11323	776	13723
115	13423	12940		11542	791	13731
116	13419	12936		11749	805	13741
117	13419	12936		11799	809	13745
118	13426	12943		11843	812	13755
119	13422	12939		11875	814	13753
120	13419	12936 ↓		12101	829	13755

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Sta	Vertical Read	Correction Dec 0964	(3) Mi. GN correction mile); M x 1.125	Elevations	(5) Correction sea alt. Bouguer correction @ 10.66854	(6) Bouguer gravity
121	13409	12926	0	12189	835	13761
122	13389	12917		12325	845	13762
123	13391	12909		12467	854	13763
124	13374	12893	↓	12719	871	13764