

SUMMARY REPORT
ON
DRILLING PROGRAM
ON PROPERTY OF
AMCA INDUSTRIES LTD.
LINCOLN COUNTY, NEVADA.

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INTRODUCTION

The initial program carried out in March, 1978 on the Lincoln County, Nevada property consisted of a gamma ray spectrometer survey, radon gas detection survey and geological mapping. This program was successful in outlining several uranium-bearing zones that warranted further investigation and a program of percussion drilling was recommended as the next stage of exploration.

A program of percussion drilling has recently been completed on the property consisting of 3,876 feet which tested five separate zones indicated in Stage I. The following report and accompanying maps describe the results of this program and make recommendations for the further exploration of the property.

PROCEDURE

A pattern of drill holes was laid out to investigate the various zones referred to as "A", "B", "D", "E" & "F" in our report of April 19, 1978 and which are shown on the maps accompanying that report. As the drilling progressed, some changes were made in the pattern of drilling, based on the results being obtained.

The holes were planned to depths of 100 to 150 feet but in some cases this depth was not reached due to cave material which necessitated stopping the hole. Samples were collected of all the cuttings at regular 10 foot intervals and these were quartered and bagged. Immediately following the completion of each hole it was logged by Century Geophysical Corp. using a Scint. XL instrument with a probe that detected the gamma ray count in counts per second. This was recorded on a chart with a scale of 50 c.p.s. per inch.

The samples from each 10 foot section were tested using a portable gamma ray spectrometer similar to that used in the original survey. The uranium count was recorded for these samples in counts per second. Samples from the best sections of the holes have been sent for uranium oxide determinations.

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All holes were capped after the logging and were later read for radon gas using an EDA Radon Detector Model RD200. The readings were taken both in the hole and the free air (background) and recorded in counts per minute.

DISCUSSION OF RESULTS

The initial drilling was carried out on "A" Zone as this had provided the best results in Stage I of the exploration and there were two earlier holes that were reported to have encountered good uranium values. Other zones tested in the program include "B", "D", "E" and "F" zones. The list of holes drilled on each zone with depths is found in Appendix A. The gamma ray logs of each hole are included in Appendix B.

Also accompanying this report are maps of each zone showing the location of the holes and the radon gas readings.

"A" ZONE

A total of 19 holes were drilled on this zone as shown on Map 1 accompanying this report. The holes are the P series with two previous holes shown as D-1 and D-2. The holes are drilled in the vicinity of the trenches and the uranium anomaly as shown on Map 3 of our report of April 19.

All of the holes encountered radioactive zones with multiple zones in many holes as shown on the gamma ray logs. The thickness of the individual uranium-bearing sections ranged from 3 to 7 feet but continuous anomalous values were noted over as much as 60 feet (holes P-8 & P-9). In almost all instances, the spectrometer readings taken of the 10 foot dust samples correlated quite well with the highs on the drill log. The highest values encountered in the drilling were in holes P-18, P-8 and P-9 that were drilled in a northeast-southwest line covering a length of 125 feet. It is particularly interesting to note that hole P-9, the most westerly one, encountered a peak reading of 900 c.p.s. from 93 to 97 feet and continuous anomalous values from 65 to 130 feet. The spectrometer readings on the dust samples were also anomalous from 70 to 140 feet.

Holes P-8 and P-18 which are located on either side of a uranium-bearing zone exposed in a trench obtained their highest values near the top of the hole. However, the holes were only logged to 81 and 54 feet respectively

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and may not have reached the deeper uranium-bearing zone.

Holes P 21 and P-2 close to hole P-9 also obtained radioactive zones around 90 feet but the values were not as high as in hole P-9. Hole P-22 further west had its best readings at the bottom of the hole but it was only probed to 47 feet due to caving. The best values from the spectrometer readings in this hole were from 70 to 80 feet. The same experience was encountered in hole P-10 another 50 feet to the west where the probe was only able to go to 54 feet and the spectrometer readings gave anomalous values from 60 to 80 feet in the hole.

The gamma ray count as taken from the drill logs for holes P-8, P-18 and P-9 are shown below with the footage. The peak readings are shown in c.p.s. and the background is approximately 50 c.p.s.

<u>Hole P-8</u>		<u>Hole P-18</u>		<u>Hole P-9</u>	
<u>Footage</u>	<u>Peak value c.p.s.</u>	<u>Footage</u>	<u>Peak Value</u>	<u>Footage</u>	<u>Peak Value</u>
0 - 7	625	9 - 12	900		
7 - 10	325	14 - 17	600		
10 - 14	475	17 - 21	800		
14 - 20	800	22 - 24	750		
20 - 23	400	24 - 26	900	24 - 28	250
23 - 30	175	29 - 32	450	28 - 41	125 to
30 - 34	270	32 - 35	375		160
34 - 39	325	36 - 40	350	41 - 44	250
39 - 45	300			44 - 50	70
45 - 49	200			50 - 55	100
49 - 53	420				
53 - 57	650			55 - 64	50
57 - 59	250				
59 - 61	220				
61 - 66	130			64 - 68	750
66 - 75	50			68 - 71	250
75 - 80	120			71 - 75	100-200
				75-80	130
				80 - 83	150
				83 - 86	275
				86 - 88	200
				88 - 90	250
				90 - 93	350
				93 - 97	900
				97-102	325
				102-110	525
				110-130	200-400

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It would appear from these holes that there are good uranium-bearing zones near surface and also at depths below 100 feet. The water table is estimated to be about 300 feet and there could be an enrichment in this area. The multiple zones encountered in these holes suggest the possibility of a large tonnage low grade deposit.

The radon gas readings taken from each hole were quite high as shown on Map 1. The best readings were obtained in holes P-8, P-7, P-9 & P-2 and these correspond to the highest radioactivity in the holes.

"B" & "E" ZONES

These zones cover a length of approximately 1,000 feet in a northeast direction as shown in the original spectrometer survey. Holes B-4 to B-15 inclusive were drilled on this zone as shown on Map No. 3. Holes B-5 and B-8, the most northerly holes, were abandoned at shallow depths due to clay.

Although the gamma ray logs did not show as high readings as "A" zone, there are anomalous values in the holes and rather amazing continuity. It is also quite noticeable in this zone that the radioactive horizons are wider and the better values are at depth. There would also appear to be a dip or rake to the southwest as the holes in this direction did not obtain any significant values above 40 feet. Holes B-10, B-11, B-13, B-4 and B-12 all intersected uranium-bearing horizons from 40 to 80 feet in the hole.

A significant hole is B-14, the most easterly hole which would be the closest to the granite contact. This hole encountered significant radioactive zones below 100 feet as shown below.

Footage	Gamma ray count (c.p.s.)
50-60	125
62-65	225
71-74	175
113-118	300
123-126	190
134-138	200
148-150	150 (Bottom of hole)

The bottom of this hole could be close to the granite contact and it seems quite possible that there may be a concentration of uranium mineralization near the contact. Hole B-15 which was drilled southwest of B-14 had to be abandoned at 85 feet and was not logged. However,

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the best spectrometer readings on the samples recovered were near the bottom of the hole.

"D" ZONE

This is near the southwest corner of the surveyed area and there are exposures of uranium-bearing material in trenches at the southwest end of the zone. Three holes were drilled to test the zone as shown on Map No. 3.

All holes drilled on this zone had to be abandoned at shallow depths and the deeper horizons were not tested. Hole B-3 was abandoned in clay and the other two holes intersected anomalous values near surface.

"F" ZONE

Two holes F-1 & F-2 were drilled to test this zone but nothing of significance was obtained in the holes.

SAMPLING

It was found that the spectrometer readings of the samples collected from the cuttings correlated quite well with the gamma ray logs but the values generally were not high. Assays from one hole P-8 have been received and these have indicated only low values ranging from 0.011% to 0.016% U₃O₈. Since surface sampling of the zones indicates a much better grade than this, it is believed that this is probably due to a combination of excessive dilution in the 10 foot sample and poor recovery in the sampling. The latter was particularly noticeable in the first 10 feet of sample recovered as casing was drilled to this depth and only a small percentage of the cuttings was recovered. It was also noticeable that the recovery was poor in the vicinity of the horizon where cave material was found which was quite common in "A" zone.

Although the assay results are only available from one hole it seems likely that it will not be possible at this time to accurately correlate the results of the sampling with the gamma ray logs to determine the grade of the uranium-bearing horizons.

CONCLUSIONS

The results of this initial program of drilling have been successful in providing valuable data and conclusions for a more advanced program of exploration.

1. "A" zone consists of multiple uranium-bearing zones from surface to depths below 100 feet.

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Only limited testing below 100 feet was possible in the present program but some of the best values were encountered around the 100 foot horizon. This was also indicated by the reported values in an earlier hole which as yet has not been successfully checked.

2. Drilling of "B" and "E" zones indicates that these represent continuous uranium-bearing horizons for over 1,000 feet which are still open in all directions. Although the grade is apparently not as high as "A" zone, the thickness and extent of the uranium-bearing horizons suggest a large tonnage potential.
3. The drilling results at the deeper horizons suggest the possibility of uranium enrichment in two areas. One near the water table, estimated to be at a depth of approximately 300 feet and the other near the granite contact ("B" & "E" zones).
4. The multiple zones encountered in most holes and the continuity of values suggest the possibility of a large tonnage potential on the property. The economics of this tonnage will depend on an accurate determination of the grade of the known uranium-bearing horizons and the investigation for possible zones of enrichment.
5. Although the results from the sampling of only one hole are available at this time it seems likely that the program has not been successful in accurately determining the grade of the uranium-bearing horizons.

RECOMMENDATIONS

Based on the above conclusions, the next stage of exploration should be designed to further explore the known uranium-bearing horizons both laterally and at depth and at the same time explore for zones of enrichment. The program must also be designed to determine the grade of the uranium-bearing zones for future economic studies of the property.

The following program with estimated costs is recommended in two stages. All cost estimates are preliminary until firm quotations are available.

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STAGE I

1. A minimum of 2,000 feet of core diamond drilling using QN core (approximately 2"). Holes should be 200 to 300 feet in depth.
2. Additional surface sampling where feasible. Correlation of assay results with gamma ray logs of present program to determine factors to be applied in grade determinations.

STAGE II

1. Enlarged program of percussion drilling with a minimum of a 3" hole.
2. Gamma ray logging of all holes.

COST ESTIMATESSTAGE I

- | | |
|---|--------------------|
| 1. 2,000 feet of diamond drilling at \$20.00/ft. | \$40,000.00 |
| Engineering supervision, sampling, assaying, etc. | 9,000.00 |
| 2. Correlation of data | 1,000.00 |
| Contingencies | 5,000.00 |
| | <u>\$55,000.00</u> |

STAGE II

- | | |
|--|--------------------|
| 1. 10,000 feet percussion drilling at \$3.00 | 30,000.00 |
| 2. Gamma ray logging | 10,000.00 |
| Engineering, supervision, etc. | 10,000.00 |
| Contingencies | 5,000.00 |
| | <u>\$55,000.00</u> |

Total	<u>\$110,000.00</u>
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Respectfully submitted,

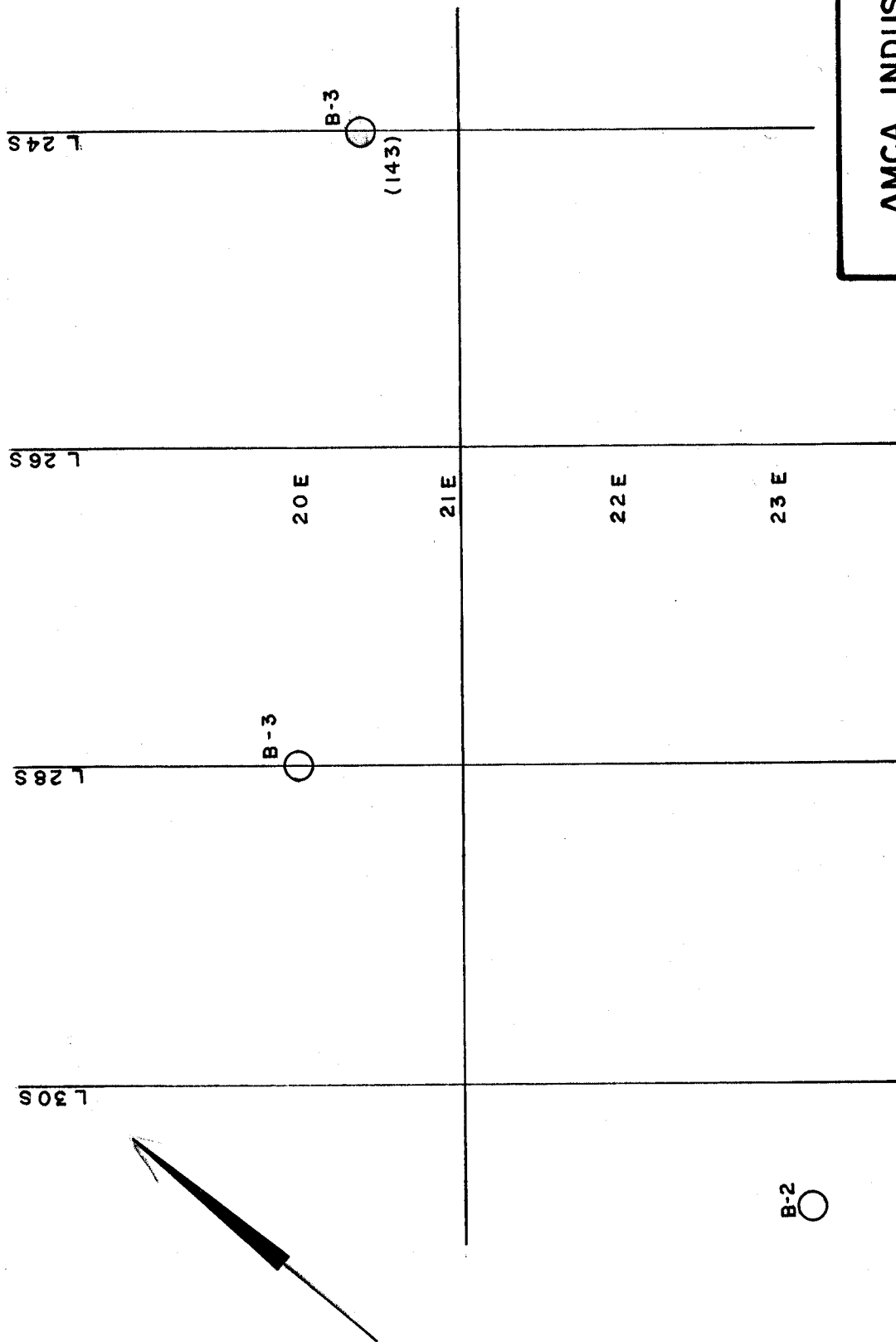
PROSPECTING GEOPHYSICS LTD.

Montreal, Que.
July 14, 1978.

H. J. Bergmann, P. Eng.

APPENDIX A

	<u>Hole No.</u>	<u>Depth drilled (ft.)</u>	<u>Depth logged (ft.)</u>
<u>"A" Zone</u>	P-1	100	-
	P-2	120	112
	P-4	78	-
	P-4A	76	70
	P-5	190	182
	P-6	125	116
	P-7	56	53
	P-8	87	81
	P-9	140	132
	P-10	82	54
	P-11	130	108
	P-15	46	37
	P-16	120	96
	P-17	112	73
	P-18	55	54
	P-19	112	107
	P-20	25	17
	P-21	120	111
	P-22	200	47
	Total	19	1,450
		1,974	
<u>"B" & "E"</u> <u>Zones</u>	B-4	150	111
	B-5	35	- clay
	B-6	172	168
	B-7	112	90
	B-8	20	16
	B-9	133	82
	B-10	170	140
	B-11	120	96
	B-12	153	122
	B-13	170	117
	B-14	158	151
	B-15	85	-
	Total	12	1,093
		1,478	
<u>"D" Zone</u>	B-3	40	36
	B-2	60	59
	B-1	50	46
	Total	3	141
<u>"F" Zone</u>	F-1	200	196
	F-2	74	70
	Total	2	266
<u>Grand Total</u>		36	3,876
			2,950



AMCA INDUSTRIES LTD.

DRILL HOLE PLAN
and
RADON GAS COUNT

AD' Zone

JUDY CLAIMS

LINCOLN COUNTY, NEVADA

SCALE: 1" = 100'

JULY 1978

L 30 S

L 28 S

BASE LINE

F1
(200)

F2
(124)

AMCA INDUSTRIES LTD.

DRILL HOLE PLAN
and
RADON GAS COUNT

'F' Zone
JUDY CLAIMS

LINCOLN COUNTY, NEVADA

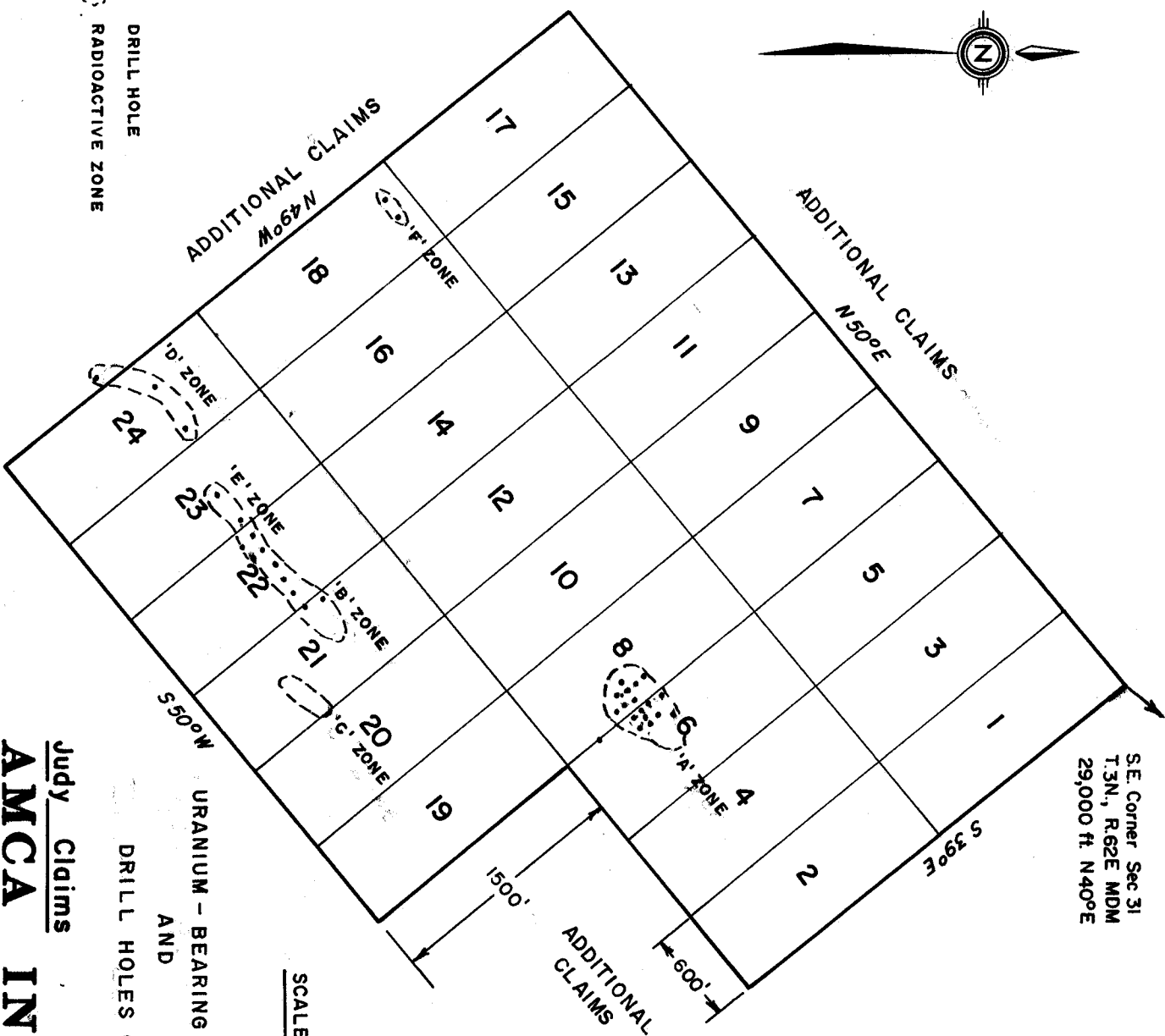
Scale : 1"=100'

July, 1978

Map No. 22



SE Corner Sec 31
T.3N., R.62E MDM
29,000 ft. N40°E



SCALE - 1" = 1000'

URANIUM - BEARING ZONES
AND
DRILL HOLES ON

DRILL HOLE
RADIOACTIVE ZONE

Judy Claims
AMCA INDUSTRIES LTD.
Lincoln County, Nevada

L 30 S

L 20 S

BASE LINE

F₂
(124)

F₁
(200)

AMCA INDUSTRIES LTD.

DRILL HOLE PLAN
and
RADON GAS COUNT

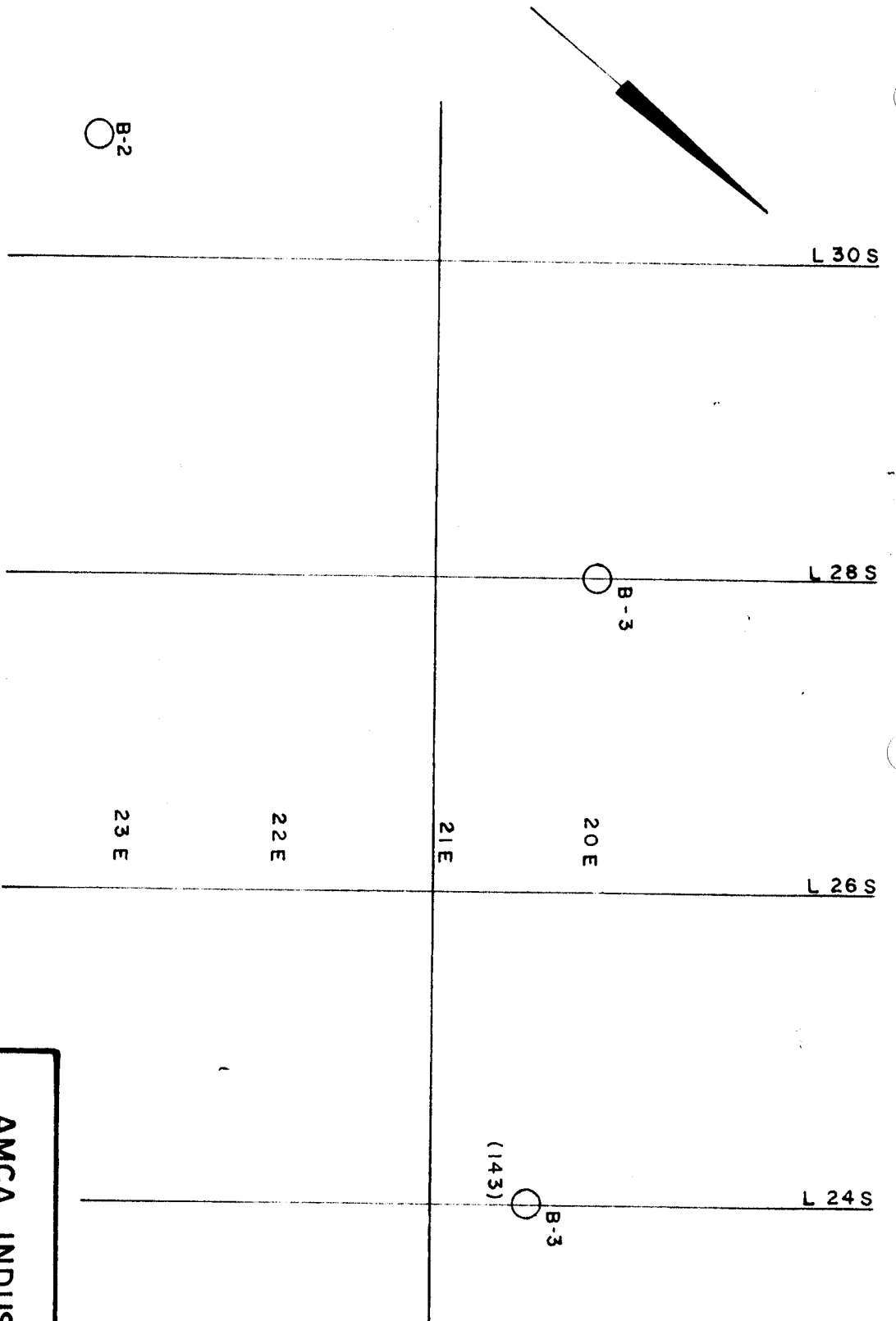
'F' Zone
JUDY CLAIMS

LINCOLN COUNTY, NEVADA

Scale: 1"=100'

July, 1978

Map No. 2



AMCA INDUSTRIES LTD.

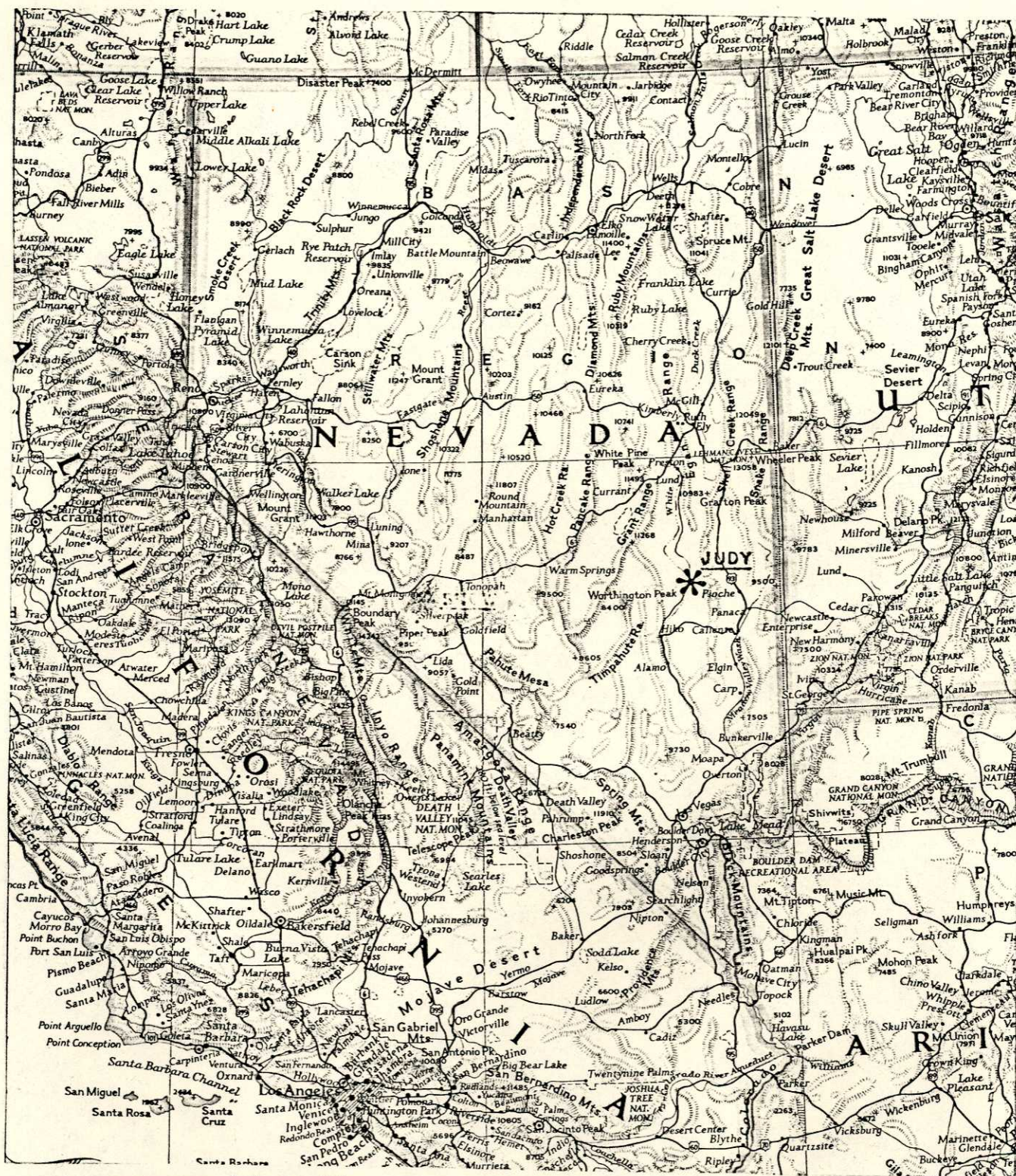
DRILL HOLE PLAN
and
RADON GAS COUNT

'D' Zone
JUDY CLAIMS

LINCOLN COUNTY, NEVADA

SCALE: 1"=100'

JULY 1978



SCALE - 1:5,000,000 (1" = 78.91 Mi)

Location Map Showing Properties* of -
AMCA INDUSTRIES LTD.
 State of Nevada, U.S.A.



Location Map Showing Properties* of -
AMCA INDUSTRIES LTD.
 State of Nevada, U.S.A.