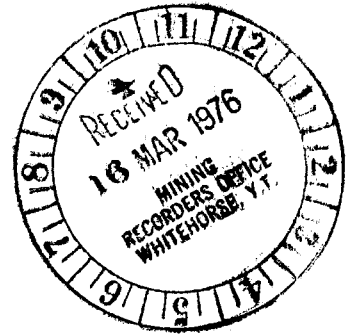


MAGNETOMETER SURVEY



of the



LOLO CLAIMS

Numbers 1 to 18 inclusive
Y98460 to Y98477 inclusive
Map Sheet 105K-12

Latitude $62^{\circ} - 38'$
Longitude $133^{\circ} - 50'$



YUKON TERRITORY

010057

Field Supervision: W.T. Salt
Program Supervision
and Interpretation: M. Cooper

Field Work: May 7th & 8th, 1975
Interpretation: September 1975

INDEX

	<u>Page #</u>
Introduction	1
Logistics	1
Field Work & Procedure	1
Computing & Mapping Procedure	2
Interpretation	2
Conclusions	3
Personnel On Project	5
Calculation Sheets	Appendix
Vertical Intensity Map	Enclosure

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$1800.00

J.B. Craig
Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B.R. Baxter
B.R. BAXTER
Supervising Mining Recorder
Commissioner of Yukon Territory

INTRODUCTION

On May 7th and 8th, 1975, Mr. W. Salt of Calgary acted as party chief for the staking, line cutting and magnetic survey of the Lolo claims. One line (line 11), 4,500 feet long, was cut by Mr. F. Strong and Mr. W. Salt on May 7th. The 18 claims were staked by Mr. Salt and Mr. Strong on May 7th and the magnetic survey was conducted by Mr. S. Perriment (magnetometer operator) and Mr. J. Jack (helper) on May 7th and May 8th, 1975.

LOGISTICS

The ground at the Lolo claims was covered with 1 foot to $1\frac{1}{2}$ feet of wet snow on May 7th, 1975 and it was decided to be most expedient to stay in Ross River with the field crew, commuting in the morning and evening by helicopter. At this time of year there was ample daylight to put in 12 to 14 hour work days. It was found that most of the lines required for a magnetic survey were in existence on the Lolo claims with the exception of the west end where a line (line 11) of the survey had to be cut.


FIELD WORK & PROCEDURE

Magnetic stations having a 200 foot station to station interval were measured and marked along the survey lines by Mr. Perriment and Mr. Jack. Readings were taken with a McPhar 800 vertical component Fluxgate Magnetometer with ties made to a common base to allow for diurnal drift correction calculations. The work progressed rapidly as the cut lines were in good condition and of ample width to facilitate the

chaining and reading. All readings were taken to 0.10 of a scale division which equals 2 gammas on the magnetometer used.

COMPUTATION & MAPPING

The field records taken in time and instrument reading have been reduced to differential quantity expressed in gammas. Time and drift have been calculated and reduced to eliminate magnetic drift. Magnetic values have been expressed using an assumed datum of 500 gammas. The resulting corrected magnetics are plotted on a 1 inch = 400 feet map and contoured at a 10 gamma contour interval.



William T. Salt
Field Supervisor

INTERPRETATION

In August of 1975, I was engaged to review the geophysical and geological work done in 1971 and 1972, and its relationship to the new magnetometer work from this year's field season, also, to include the magnetic results in the overall evaluation. Profiles of the magnetic lines were plotted along with overlays of the original gravity data. The existing geological information was also incorporated into the plots where known. The resultant findings are marked in red on the magnetic map included in this report.

The magnetic influences along the profiled lines generally are subdued and do not display any intense features. The one striking feature of the work is the magnetic map's similarity to the existing residual gravity maps of the claims. On both maps there is a pronounced nose or high extending from the northwest to the southeast through the central portion of the area. The gravity high is an expression of a sub-surface mass having density excess interpreted by Overland Exploration Services (1969) Ltd. to be about 600 feet deep to source. The magnetometer results show this mass to be coincident with high magnetic values which would indicate the mass excess to also have magnetic properties. The slow change in magnetic gradient supports the gravity findings that the main body of the mass is at least 600 feet below surface. In fact, the magnetics would indicate possible deeper source. However, I would take the gravity data to be a better indicator of source depth as the causative mass may be only partially magnetic. If this is the case we may be seeing pyrites associated with a non magnetic mass source which is giving only a minor influence to the magnetic readings.

CONCLUSIONS

The magnetic work, though not showing anomalies having large variations in magnetic intensity, does show some encouragement by it's coincidence in shape with the gravity anomalies. The one magnetic high defined in the work has the same general shape and the same strike as the gravity residual for the area. I find this very encouraging and suggest that a core hole to 700 feet located on line 9 at station 12 to be the next step in exploring these claims.

M. Cooper

M. Cooper
Professional Geologist

PERSONNEL EMPLOYED ON THE
LOLO MAGNETOMETER SURVEY

- W.T. Salt - 2308 - 58th Avenue S.W., Calgary, Alberta
Party chief, Line cutter & staker - worked 2
days on the Lolo property.
- F.M. Strong - 5071 Nesbitt Road N.W., Calgary, Alberta
Surveyor, Line cutter, staker - worked
2 days on the Lolo property.
- S.O. Perriment - #8, 6212 - 31st Avenue N.W., Calgary, Alberta
Magnetometer operator, survey helper, staker
worked 2 days on the Lolo property (on loan
from Overland Exploration Services)
- J. Jack - Ross River, Yukon Territory
Helper, Line cutter, etc.
Employed 2 days on the Lolo property.
- M. Cooper - Prof. Geoph., Calgary, Alberta
1416 Chardie Place S.W., Calgary, Alberta
Employed to lay out program and do interpretation
of results

CERTIFICATION

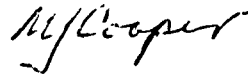
I, MICHAEL J. COOPER OF THE CITY OF CALGARY,
ALBERTA, HEREBY CERTIFY THAT;

I am a graduate of McGill University, Montreal,
Province of Quebec, in 1957, with a B.Sc. degree in
Geology.

I have practiced my profession as an economic
geologist for the past 18 years.

I am a member in good standing of the Association
of Professional Engineers of Alberta.

I hold no interest, direct or indirect, in
securities of Lobell Mines Ltd.



M.J. Cooper
P. Eng. Geol.
Prov. of Alberta.

Calgary, Alta.
August, 1975.

OVERLAND EXPLORATION SERVICES LTD.
MAGNETIC SURVEY

Sheet No. 1

Inst. No. 171

Job LOLO

Date _____

Scale Const. 1:50,000

STN	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value	STN.	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value
1-1	9:47	1415.2				4-8	10:41		-1.2	1416.5	500
		1416.2					10:44		-1.2	1417.0	500
	9:49	1411.0				11	10:47		-1.2	1417.8	502
	11:44	1411.2				10	10:50		-1.2	1418.0	516
	11:57	411.2	0	1411.2	500	9	10:54		-1.2	1412.0	516
3-15	9:12		-.1	1411.0	496	5	10:58		-1.3	1412.3	522
16	9:16		-.1	1410.8	496	7	11:01		-1.3	1412.4	524
17	9:21		-.2	1410.9	494	6	11:05		-1.3	1412.3	522
18	9:25		-.2	1411.1	498	5	11:08		-1.3	1412.1	518
19	9:30		-.3	1411.3	502	4	11:11		-1.3	1411.9	514
20	9:33		-.4	1411.6	508	3	11:14		-1.3	1411.9	514
21	9:36		-.4	1411.7	510	2	11:18		-1.3	1411.7	510
22	9:40		-.5	1411.9	514	2-1	11:22		-1.4	1411.6	508
23	9:44		-.6	1412.0	516	3-1	11:25		-1.4	1411.5	506
4-23	10:01		-.8	1411.9	514	2	11:33		-1.4	1411.6	508
22	10:06		-.8	1411.8	512	2	11:37		-1.4	1411.5	512
21	10:10		-.9	1411.4	504	4	11:40		-1.4	1411.5	512
20	10:14		-1.0	1411.4	504	5	11:43		-1.4	1412.0	516
19	10:17		-1.0	1411.1	498	6	11:47		-1.5	1411.9	514
	10:21		-1.0	1410.8	492	7	11:51		-1.5	1412.1	518
17	10:25		-1.0	1410.8	492	8	11:55		-1.5	1411.9	512
16	10:30		-1.2	1410.9	494	9	11:58		-1.5	1411.9	512
4-15	12:33	1412.4	-1.2	1411.2	500	10	12:02		-1.5	1411.7	510
4-14	12:37		-1.2	1411.4	504	11	12:07		-1.5	1411.6	508

OVERLAND EXPLORATION SERVICES LTD.
MAGNETIC SURVEY

Sheet No. 2

Inst. No. 171

Job Loco

Date _____

Scale Const. _____

STN	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value	STN.	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value
12	12:20		-1.5	1411.5	506	6-6	1:45		-1.5	1412.1	505
13	12:24		-1.6	1411.3	502	7	1:49		-1.5	1412.1	504
14	12:27		-1.6	1411.2	500	8	1:52		-1.5	1412.3	500
5-15	12:35	1412.8	-1.6	1411.2	500	9	1:56		-1.5	1412.2	520
14	12:37		-1.6	1411.8	512	10	1:59		-1.5	1412.1	506
13	12:40		-1.6	1412.0	516	11	2:03		-1.5	1412.6	538
12	12:45		-1.6	1412.1	518	12	2:07		-1.5	1412.9	504
11	12:48		-1.5	1412.0	516	13	2:11		-1.5	1412.1	522
10	12:51		-1.5	1412.4	524	14	2:14		-1.5	1412.5	526
9	12:54		-1.5	1412.3	522	15	2:17		-1.5	1412.5	520
8	12:57		-1.5	1412.5	526	Base 4-15	2:31		-1.2	1411.2	500
7	12:59		-1.5	1412.5	526	5-16	2:39		-1.5	1411.7	510
6	1:01		-1.5	1412.0	516	17	2:42		-1.5	1411.5	506
5	1:03		-1.5	1412.1	518	18	2:46		-1.5	1411.3	502
4	1:05		-1.5	1412.2	520	19	2:50		-1.2	1411.0	498
3	1:07		-1.4	1412.0	516	20	2:53		-1.2	1410.7	494
2	1:09		-1.4	1411.8	512	21	2:56		-1.2	1410.7	490
5-1	1:21		-1.4	1411.9	514	22	3:00		-1.2	1411.1	492
6-1	1:29		-1.4	1412.1	518	5-23	3:03		-1.2	1411.4	504
2	1:32		-1.4	1412.0	516	6-23	3:07		-1.2	1411.3	502
3	1:35		-1.4	1412.0	516	22	3:10		-1.2	1411.3	502
4	1:37		-1.4	1412.2	520	21	3:14		-1.2	1411.6	508
5	1:42		-1.3	1412.3	522	20	3:17		-1.2	1411.7	510
						19	3:21		-1.2	1411.5	506

OVERLAND EXPLORATION SERVICES LTD.
MAGNETIC SURVEY

Sheet No. 3

Inst. No. 171

Job L660

Scale Const. 20

Date _____

STN	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value	STN.	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value
17	3:25		-1.0	1411.6	508	9-17	9:32		+0.9	1412.9	511
16	3:29		-1.0	1411.8	512	15	9:36		+0.9	1413.1	514
15	3:32		-1.0	1412.1	514	15	9:40		+1.0	1413.5	516
14	3:35		-1.0	1411.2	500	14	9:43		+1.0	1413.5	514
Base 7-15	4:02		-1.0	1412.2	520	Base 7-15	9:53	1412.1	+1.1	1413.2	520
2-4-15	4:20	1412.0	-1.0	1413.2	500	7-14	9:57		+1.1	1413.7	530
						13	10:01		+1.1	1414.0	536
						12	10:05		+1.2	1413.7	530
11	8:01	1413.1			500	11	10:09		+1.2	1413.4	524
20	8:05	1413.0	0	1413.0	500	10	10:13		+1.2	1413.4	524
19	8:34		+0.1	1413.1	515	9	10:18		+1.2	1413.3	522
18	8:36		+0.2	1412.8	512	8	10:21		+1.3	1413.0	516
17	8:41		+0.2	1413.0	516	7	10:25		+1.3	1413.1	518
16	8:45		+0.3	1413.0	516	6	10:29		+1.3	1413.7	522
15	8:49		+0.3	1412.5	512	5	10:32		+1.3	1413.1	518
14	8:52		+0.4	1413.1	518	4	10:36		+1.4	1413.7	530
13	8:56		+0.4	1413.1	518	3	10:40		+1.4	1413.4	524
7-15	9:00		+0.5	1413.7	516	2	10:44		+1.4	1413.0	516
3-15	9:10		+0.6	1412.8	512	7-1	10:48		+1.4	1412.8	512
2	9:15		+0.7	1413.7	510	8-6	11:02		+1.5	1413.6	528
21	9:16		+0.7	1412.4	504	7	11:05		+1.5	1413.5	526
20	9:20		+0.8	1412.1	498	8	11:09		+1.5	1413.3	522
19	9:24		+0.8	1412.0	496	9	11:12		+1.5	1413.6	528
E-15	9:28		+0.9	1412.5	506	10	11:16		+1.6	1413.6	528

OVERLAND EXPLORATION SERVICES LTD.
MAGNETIC SURVEY

Sheet No. 4

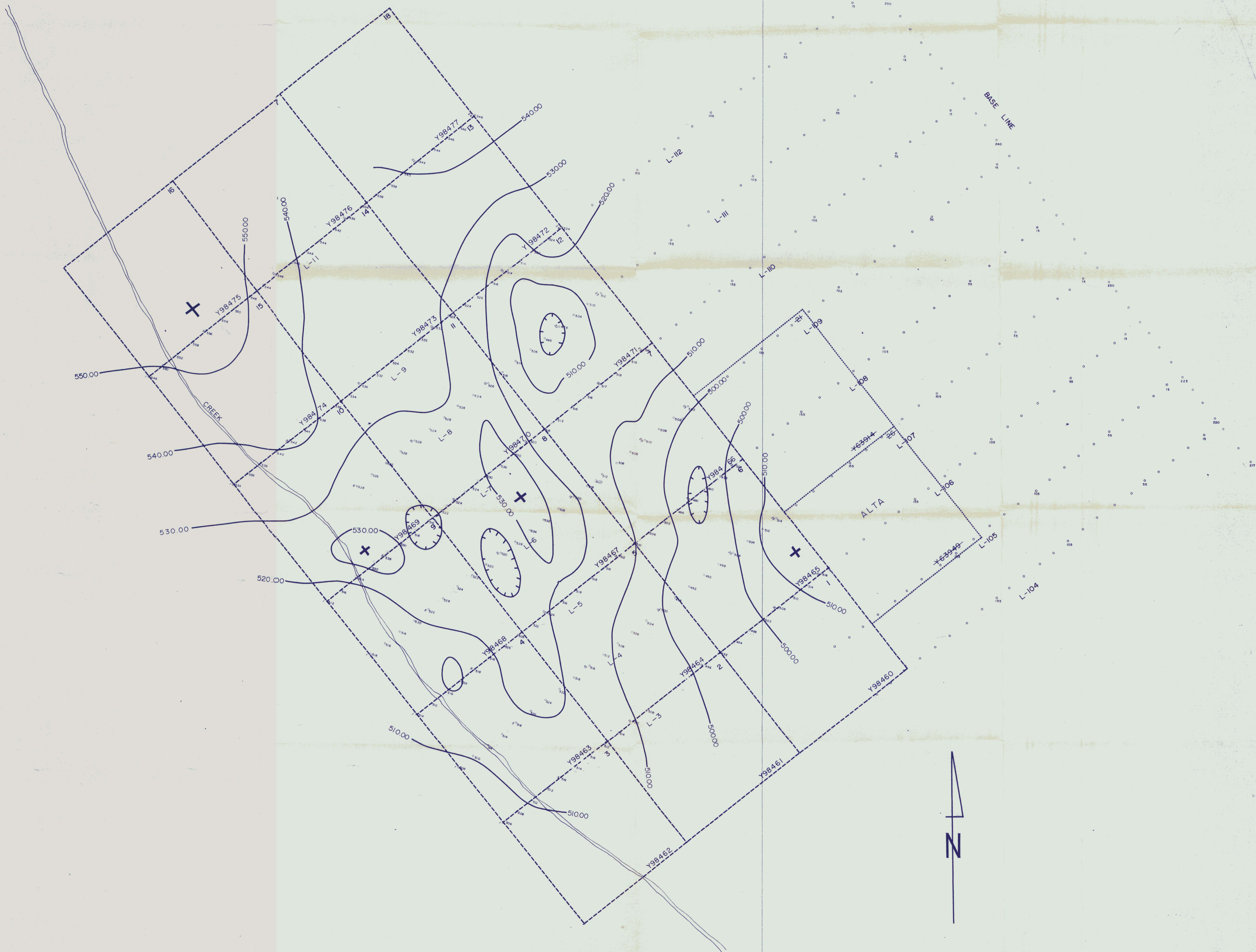
Inst. No. 171

Job 2020

Date _____

Scale Const. 50 00

STN	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value	STN.	Time	Reading	Diurnal Corr.	Corr. Reading	Magnetic Value
8-11	11:20		+1.6	1413.4	539	8	1:27		+2.1	1414.6	548
12	11:29		+1.6	1413.6	538	9	1:31		+2.1	1414.5	548
9-13	11:37		+1.6	1413.6	538	10	1:35		+2.1	1414.5	548
Base 7-5	11:39	1411.5	+1.7	1413.2	520	11	1:38		+2.1	1414.5	548
9-13	11:55		+1.8	1413.8	532	12	1:42		+2.1	1414.6	549
12	11:59		+1.8	1413.9	534	13	1:46		+2.1	1414.4	544
11	12:03		+1.8	1413.8	532	11-14	1:50		+2.1	1414.3	542
10	12:06		+1.8	1414.0	536	Base 7-15	2:10	1411.0	+2.2	1413.2	520
9	12:10		+1.8	1413.9	534	9-14	2:28		+2.2	1414.3	542
5	12:14		+1.8	1414.1	538	15	2:31		+2.2	1414.3	542
7	12:18		+1.8	1414.1	538	16	2:35		+2.2	1414.1	538
6	12:22		+1.8	1414.4	544	17	2:38		+2.2	1413.9	534
5	12:25		+1.9	1414.3	542	18	2:41		+2.2	1414.0	536
6	12:28		+1.9	1414.2	540	19	2:45		+2.2	1414.6	546
3	12:34		+1.9	1414.0	536	20	2:49		+2.2	1413.4	534
2	12:38		+1.9	1414.0	536	21	2:54		+2.2	1413.5	526
9-1	12:42		+1.9	1413.9	534	22	2:57		+2.2	1413.7	530
11-1	1:00		+2.0	1414.6	548	23	3:00		+2.2	1413.9	534
2	1:04		+2.0	1414.7	550	9-24	3:04		+2.2	1413.9	534
3	1:09		+2.0	1414.8	552	11-24	3:22		+2.3	1415.1	555
4	1:12		+2.0	1415.1	558	23	3:25		+2.3	1415.0	556
5	1:16		+2.0	1415.0	556	22	3:29		+2.3	1415.0	556
6	1:20		+2.0	1415.0	556	21	3:33		+2.3	1414.9	554
7	1:23		+2.0	1414.7	550	20	3:37		+2.3	1414.9	554



LOBELL MINES
 TWOPETE MOUNTAIN AREA — YUKON TERR.
LOLO CLAIMS
MAGNETIC MAP
 (VERTICAL COMPONENT)
 Scale 1" = 400' C.I. 10 GAMMAS