

REPORT ON THE 1997 EXPLORATION PROGRAM  
ON THE TODD CREEK PROPERTY  
SKEENA MINING DIVISION,  
NORTHWESTERN BRITISH COLUMBIA

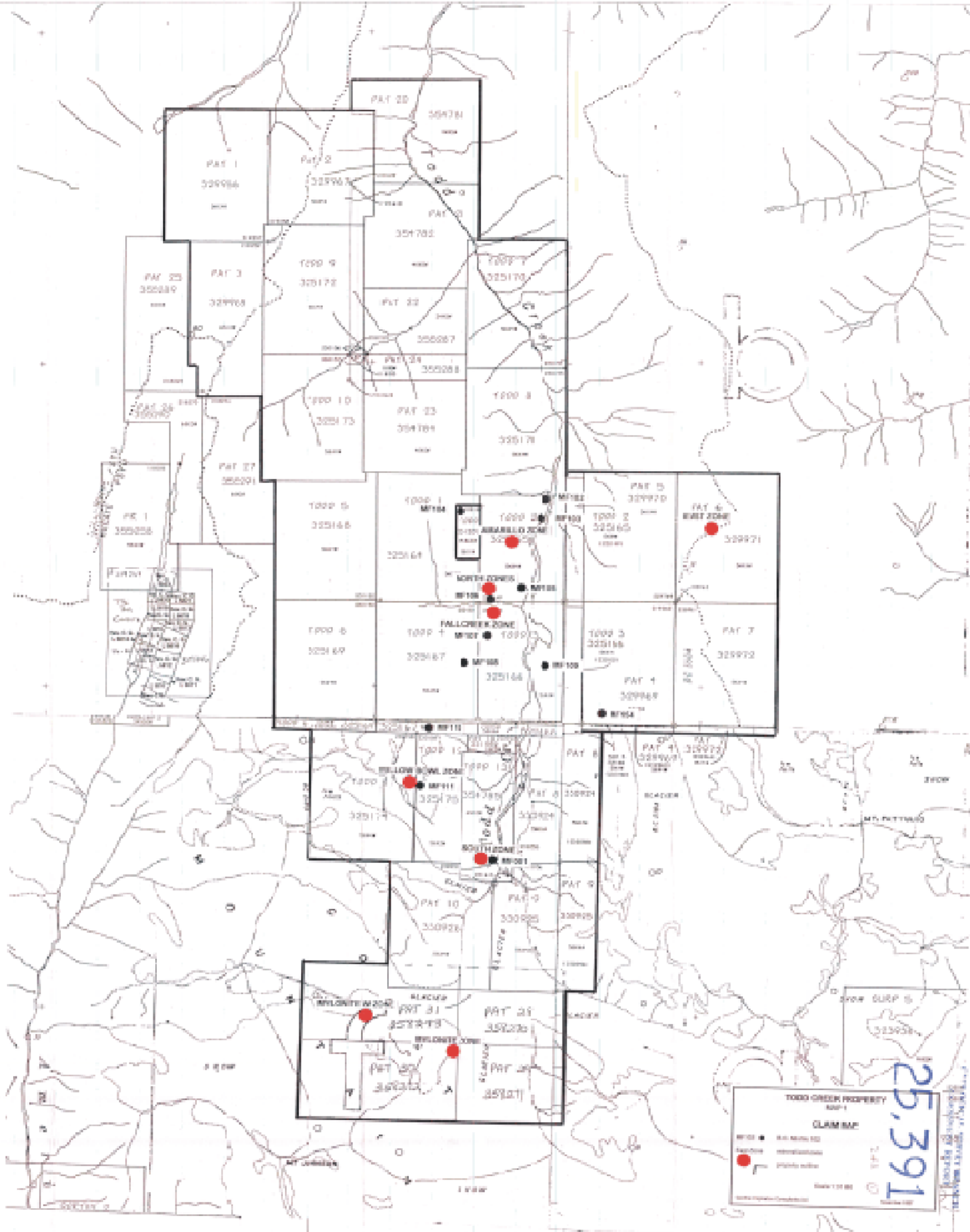
LATITUDE 56° 17' NORTH  
LONGITUDE 129° 48' WEST  
NTS 104 A/5, 104 A/4

BY  
GEOFINE EXPLORATION CONSULTANTS LTD.  
FOR  
ISLAND-ARC RESOURCES LTD.

BINDER 1  
POCKET A - M

DECEMBER, 1997

25371  
part 2 of 3



**TODD CREEK PROPERTY**  
Map 1

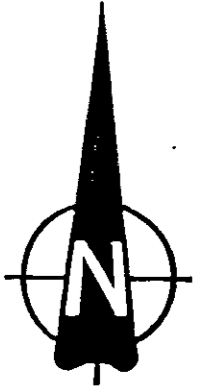
**CLAMM**

MF100 ● MF102 ●  
 [Symbol] [Symbol]  
 [Symbol] [Symbol]

Scale 1" = 100'

25.391

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VIRGINIA CREEK TARGET AREA

NORTHEAST TARGET AREA

ORANGE MOUNTAIN TARGET AREA

EAST TARGET AREA

FALL CREEK TARGET AREA

SOUTH ZONE TARGET AREA

MID ZONE TARGET AREA

MYLONITE TARGET AREA

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

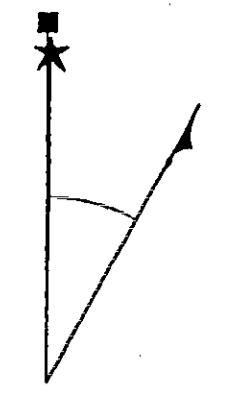
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TODD CREEK PROPERTY  
MAP 2  
TARGET AREAS & ALTERATION ZONES

- property outline
- ▨ alteration zones
- - - target area outline

Scale 1:25 000  
Geofine Exploration Consultants Ltd. November 1997





Square: Grid North  
 Star: True North  
 Arrow: Magnetic North

Angles presented are approximate mean deviations for centre of NTS sheet.  
 Use diagram for reference only.

Grid North - True North : 0.6°  
 Grid North - Magnetic North : 28.2°  
 Annual change : -0.05°

**FLIGHT PATH**

Navigation and flight path recovery was conducted using a Global Positioning System (GPS) satellite navigation system.

Lines were flown at an azimuth of 90 - 270°, with an average line spacing of 200m.

Average helicopter-terrain clearance of 60m was monitored by radar and barometric altimeters.

**EM ANOMALIES**

EM anomalies selected by computer algorithm and manually confirmed. Selection is based on the response correlation to theoretical sources such as a steeply dipping conductor.

Calculation of conductance is based on the response of the 4600 Hz coaxial data, and forms the basis for anomaly classification.

Letter codes are used to identify individual anomalies on a line, and the inphase amplitude of the 4600 Hz response is annotated opposite.

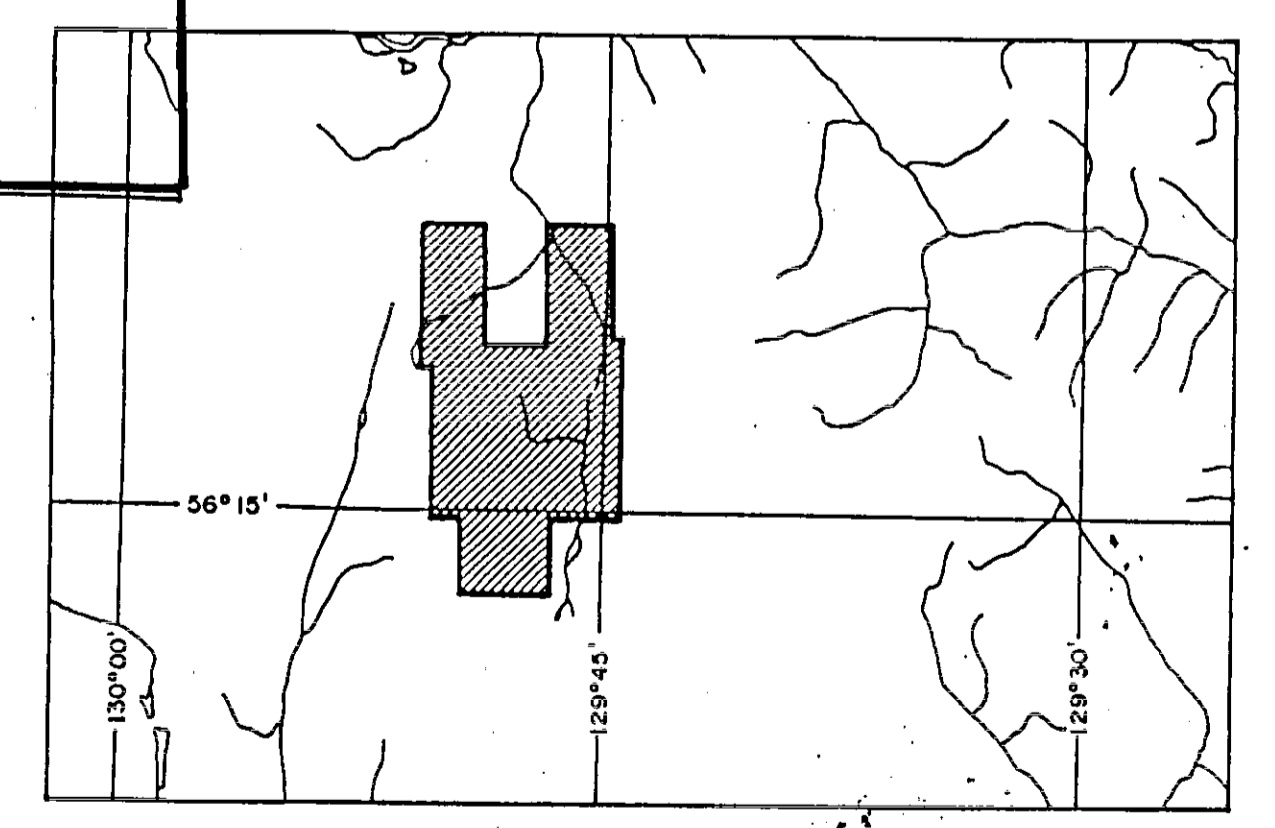
- 0 - 1 mhos
- 1 - 2 mhos
- 2 - 4 mhos
- 4 - 8 mhos
- 8 - 16 mhos
- 16 - 32 mhos
- > 32 mhos

**INTERPRETATION LEGEND**

- High amplitude magnetic trends
- - - Lower amplitude magnetic trends
- Major below background magnetic zone
- Conductive trend
- ▨ Area of anomalous potassium channel response
- K Localized potassium channel response
- Th Localized thorium channel response
- U Localized uranium channel response
- W W Possible fault structure
- area of 1997 field work

**GEOLOGICAL SURVEY BRANCH  
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**GEOFINE EXPLORATION CONSULTANTS LTD.**

**INTERPRETATION  
 TODD CREEK PROPERTY**

MAP 4

SCALE 1:20 000

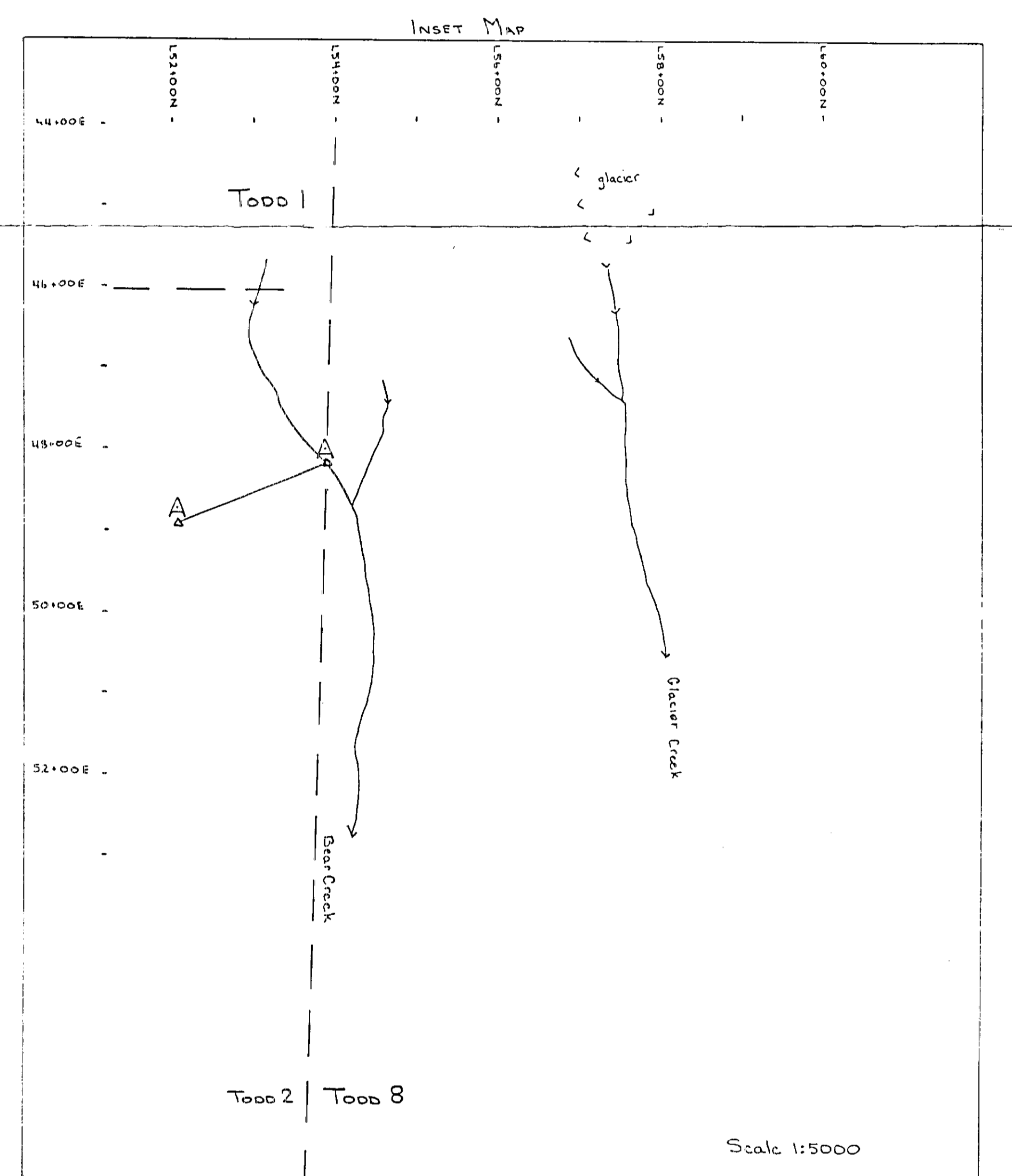
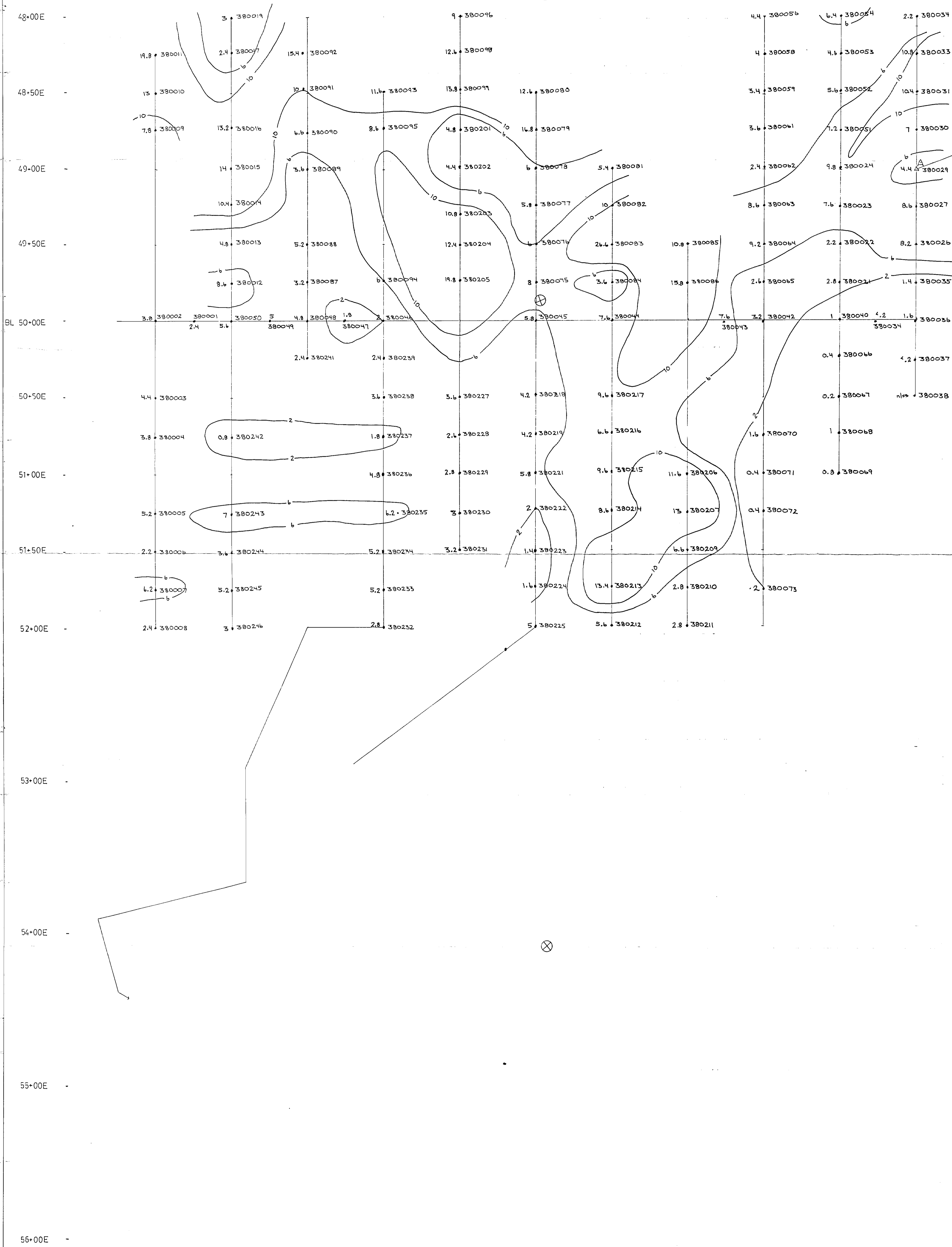
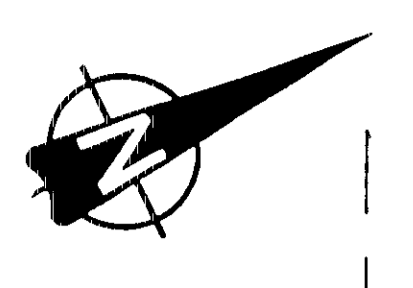
500 0 200 400 600 800 1000 1200 1400 1600 1800 2000 metres

**GEONEX AERODAT**

Date Flown : AUG 1994  
 NTS : 104 A/4.5  
 Project : J9440 Map Ref : 1 - 2



N00-671 N05-671 N00-671 N05-671 N00-671 N05-671 N00-671 N05-671 N00-671 N05-671 N00-671 N05-671



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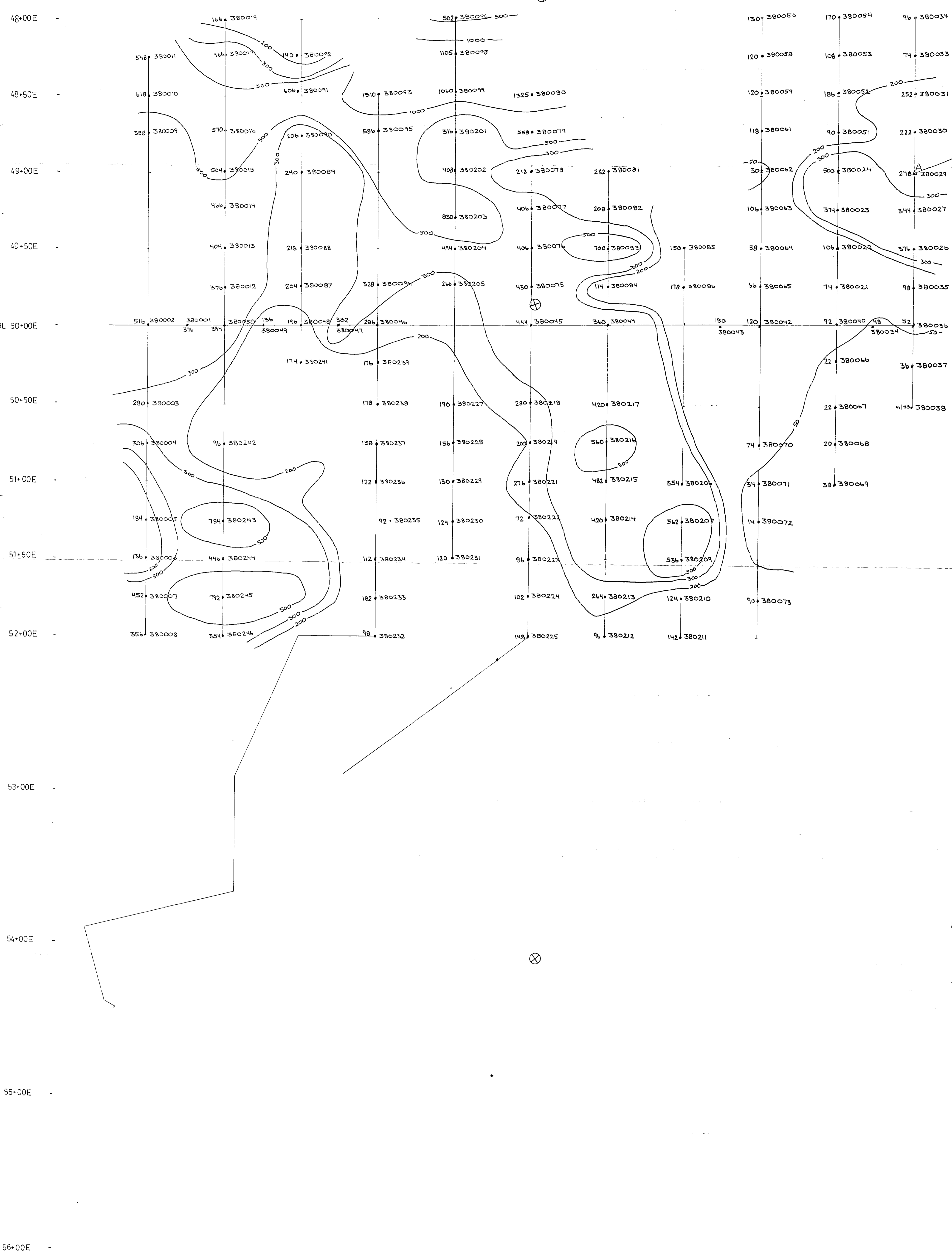
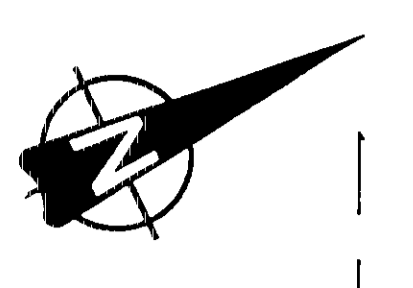
25,391 243

TODD CREEK PROPERTY  
MAP 5B  
AMARILLO ZONE - SOIL GEOCHEMICAL SURVEY  
Ag ppm.

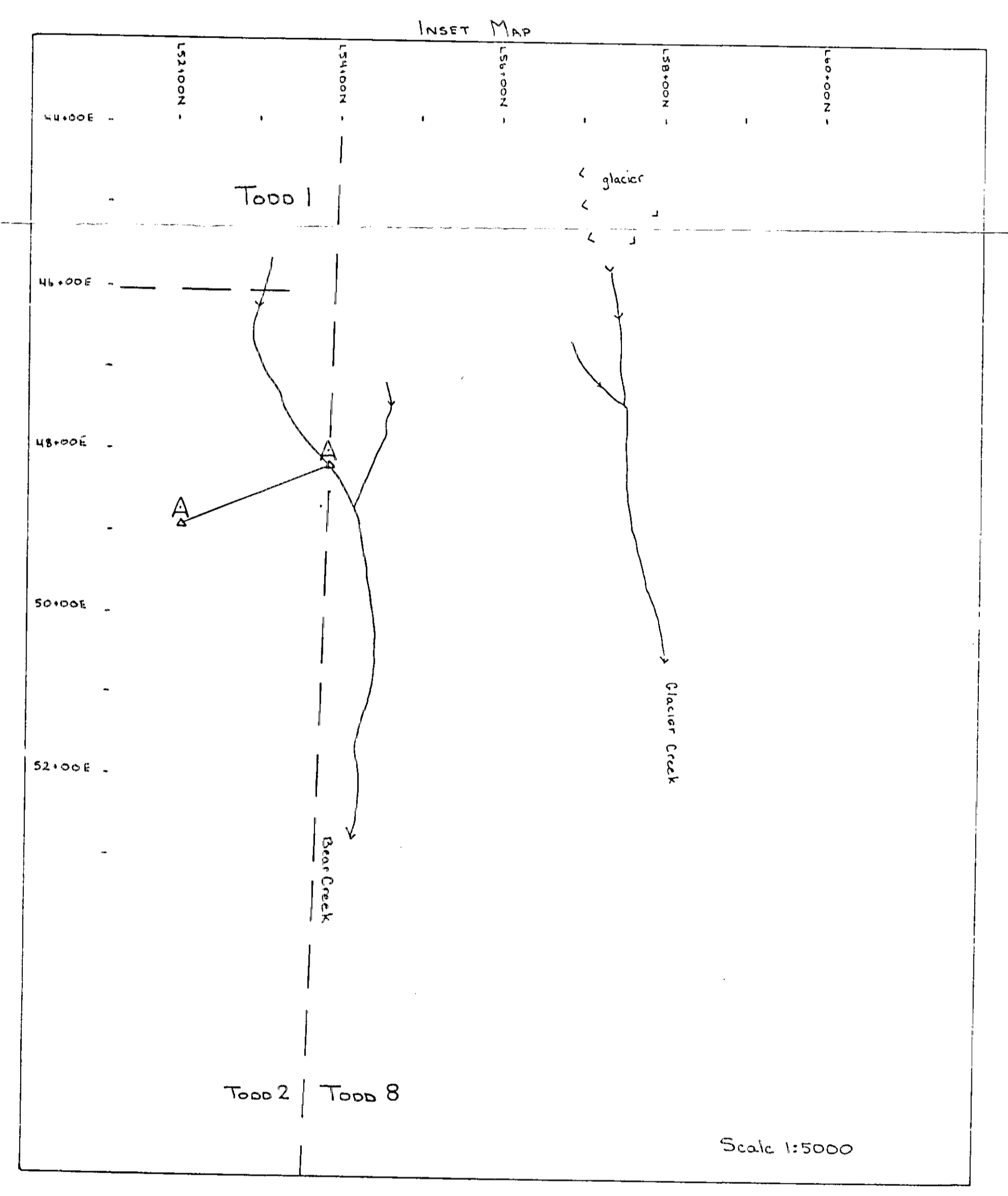
- 2.8-380211 1997 soil sample analysis, location and number
- 10 — contour of geochemical analyses (ppm)
- Todd 1 claim line and name
- ⊗ 1994 weak EM anomaly

Scale 1:1 000  
Geotech Exploration Consultants Ltd. November 1997

N00-27  
N05-50N  
N10-00N  
N15-50N  
N20-00N  
N25-50N  
N30-00N  
N35-50N  
N40-00N  
N45-50N  
N50-00N  
N55-50N



see inset map below



GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

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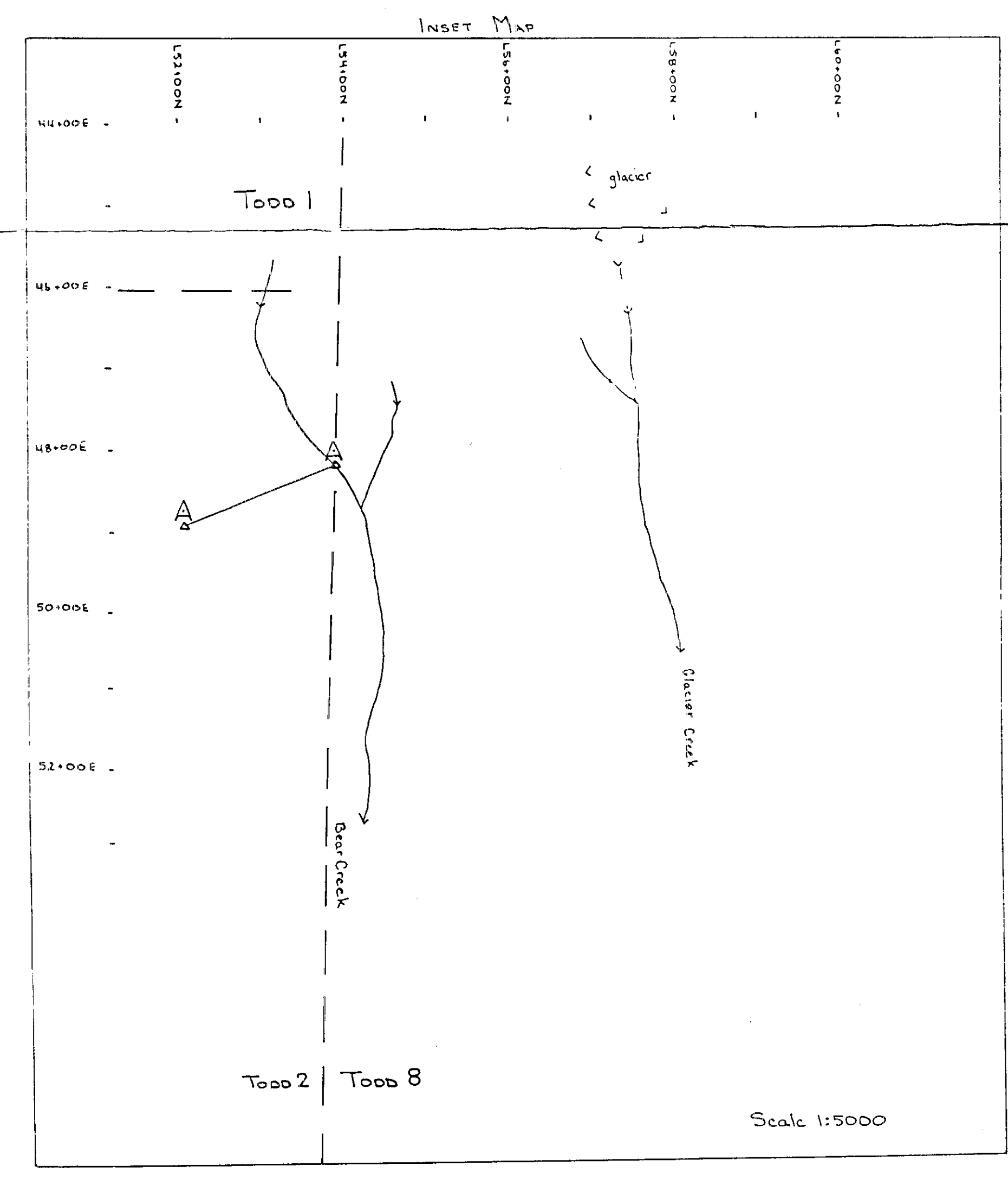
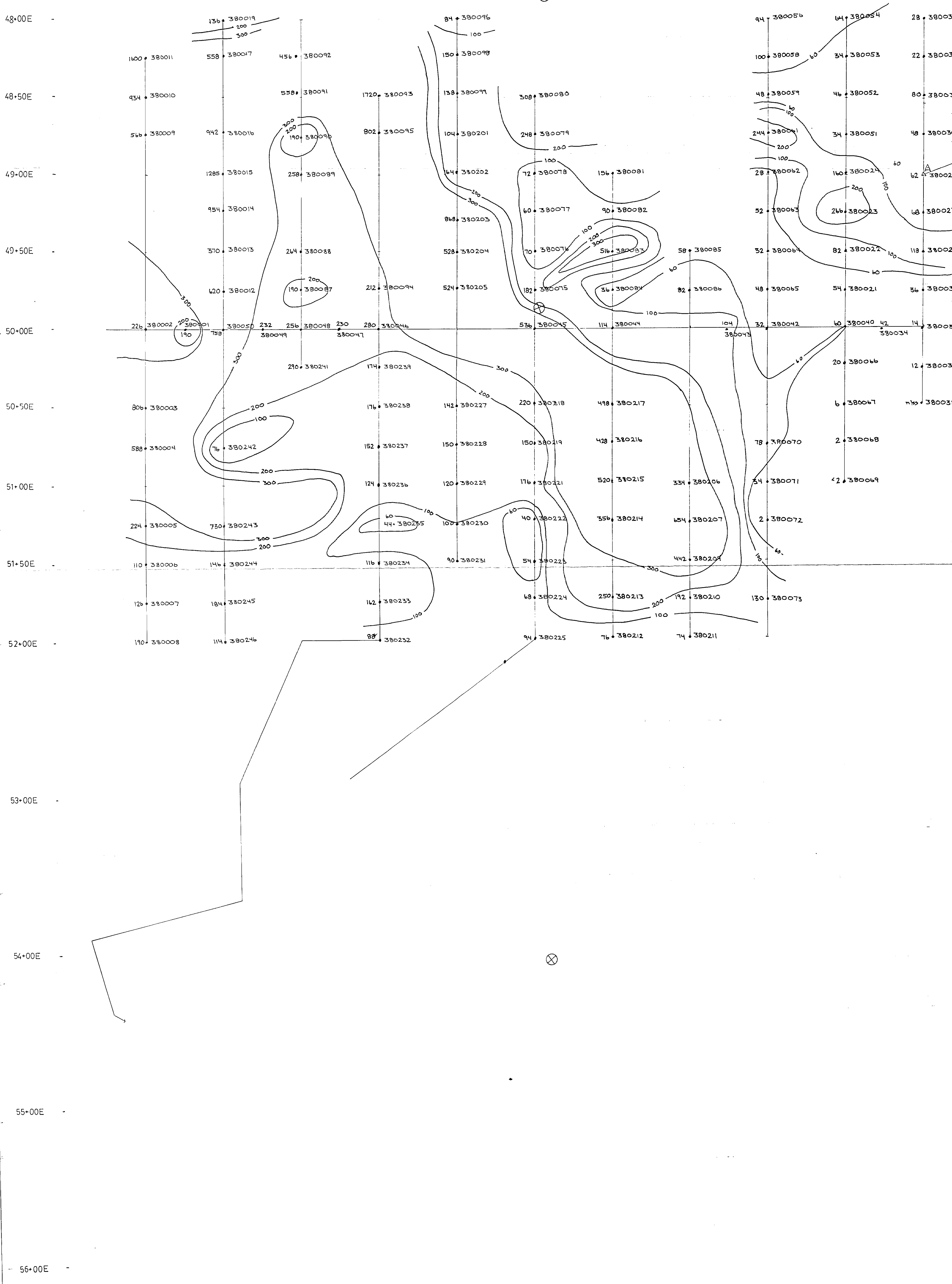
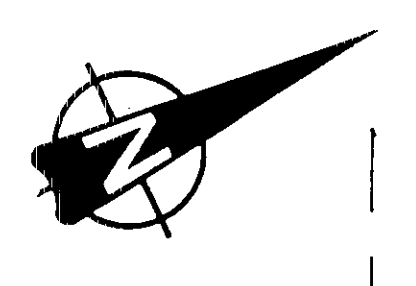
**TODD CREEK PROPERTY**  
MAP 5C  
**AMARILLO ZONE - SOIL GEOCHEMICAL SURVEY**  
Pb, ppm.

1997 soil sample analysis, location and number  
# - 380212  
- 500 - contour of geochemical analyses (ppm)  
--- claim line and name  
X 1994 weak EM anomaly

Scale 1:1 000  
GeoLine Exploration Consultants Ltd. November 1997



N00-47 N05-47 N10-47 N15-47 N20-47 N25-47 N30-47 N35-47 N40-47 N45-47 N50-47 N55-47 N60-47



GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

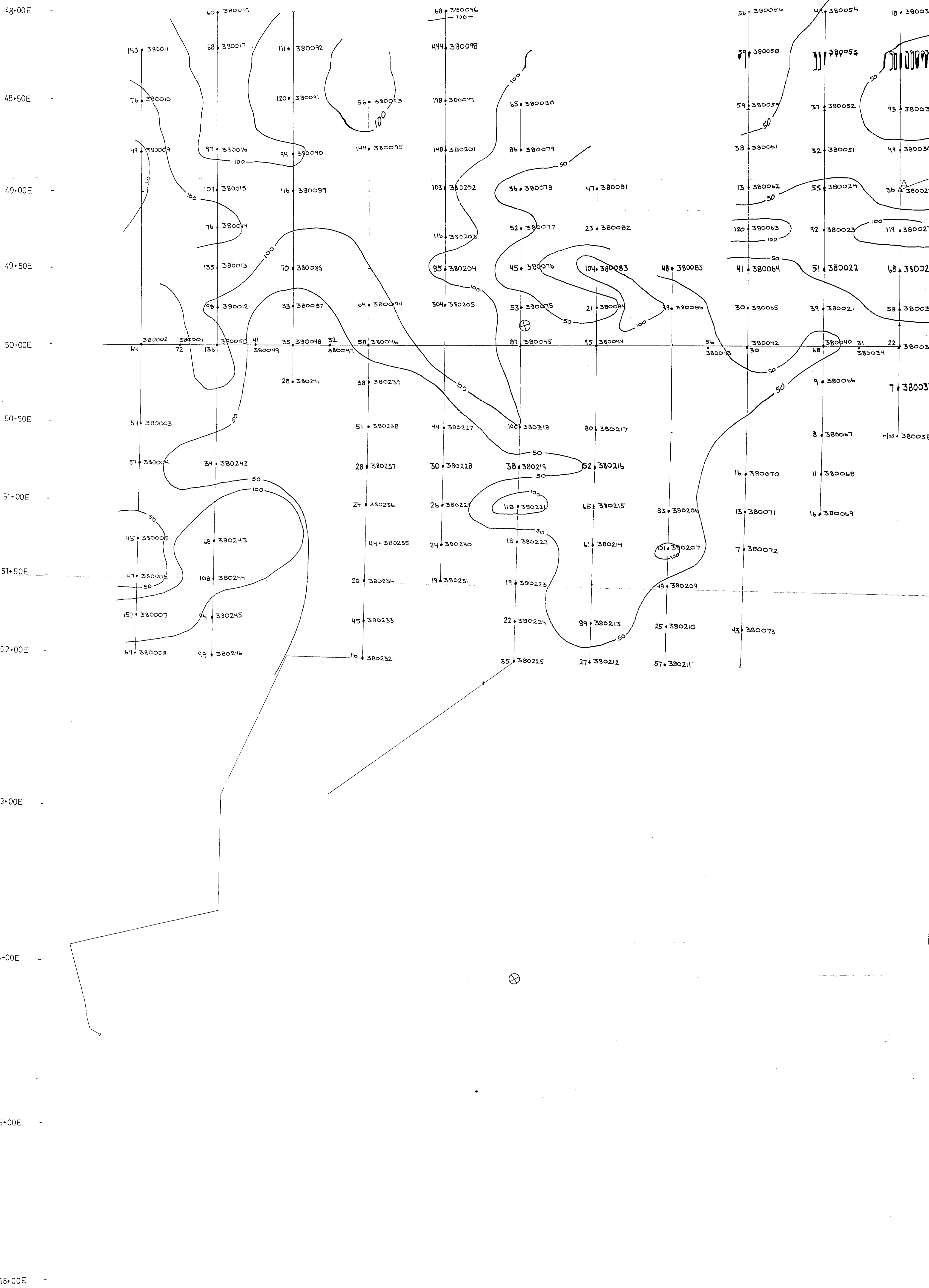
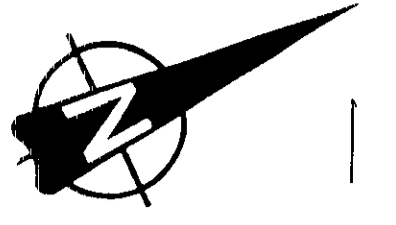
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TODD CREEK PROPERTY  
MAP 5D  
AMARILLO ZONE - SOIL GEOCHEMICAL SURVEY  
As ppm

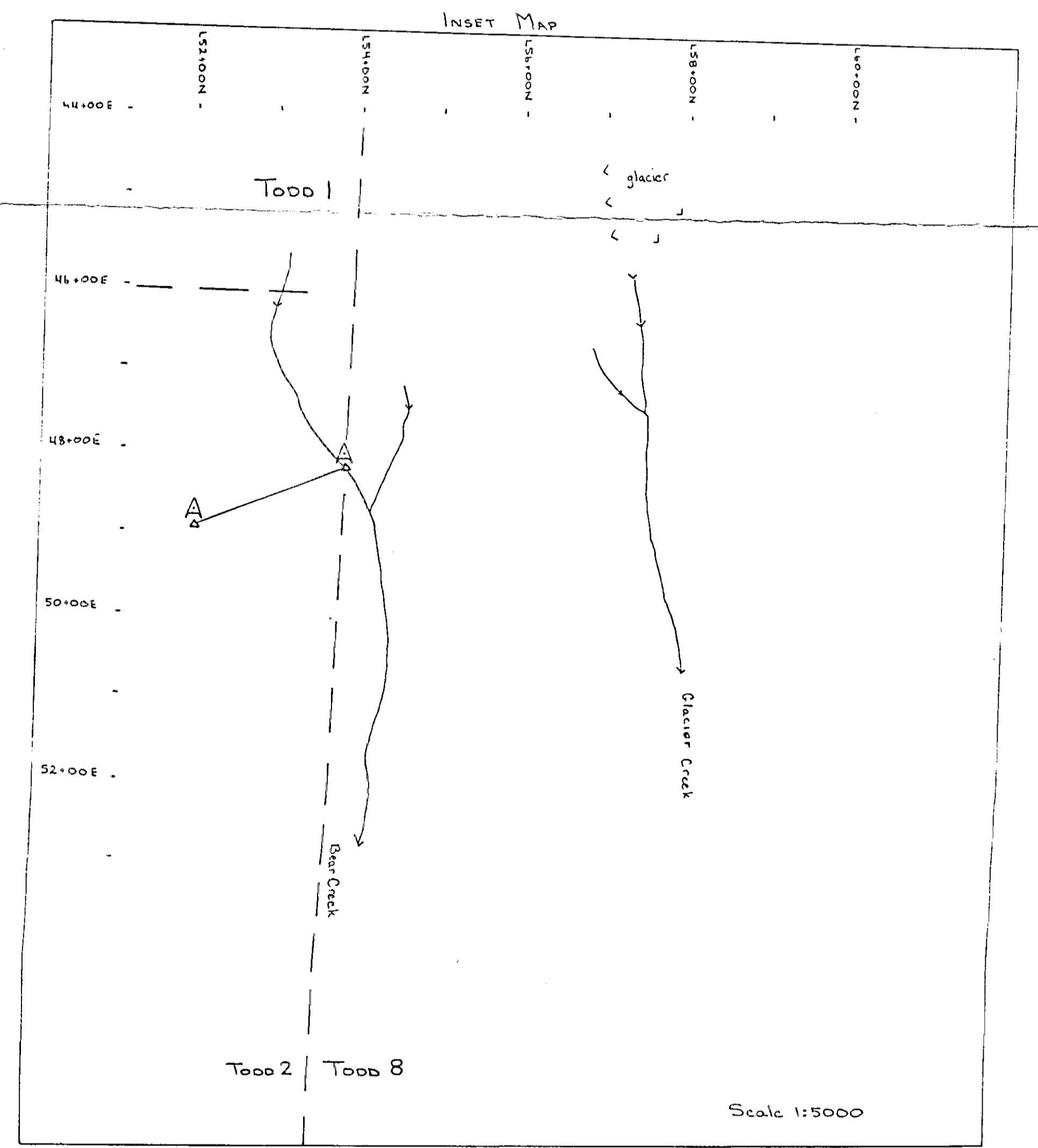
- 76-380212 1997 soil sample analysis, location and number
- 300 contour of geochemical analyses (ppm)
- Todd claim line and name
- X 1994 weak EM anomaly

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November 1997  
Geome Exploration Consultants Ltd.

L47-00N L47-50N L48-00N L48-50N L49-00N L49-50N L50-00N L50-50N L51-00N L51-50N L52-00N



see inset map below



GEOLOGICAL SURVEY BRANCH  
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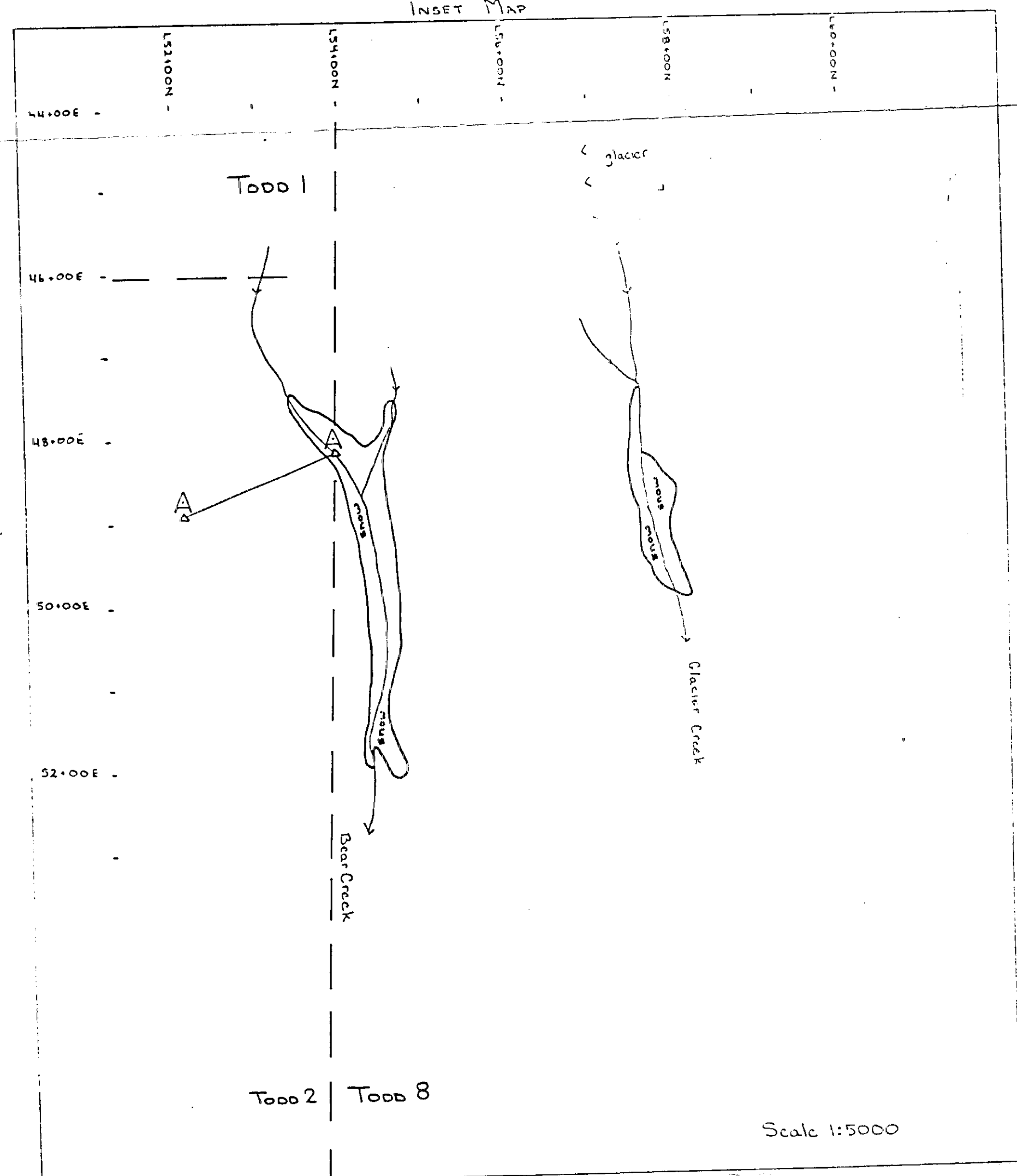
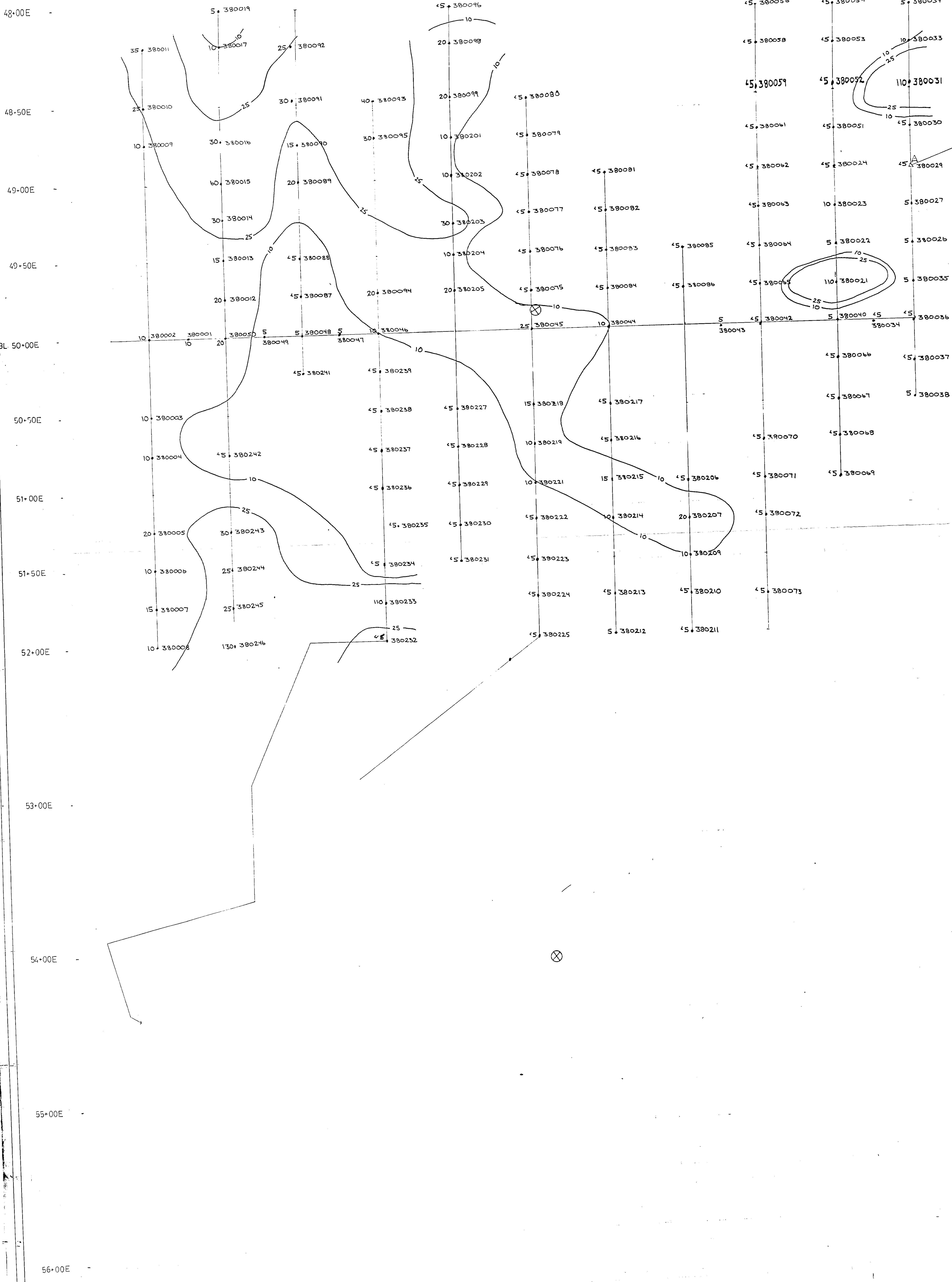
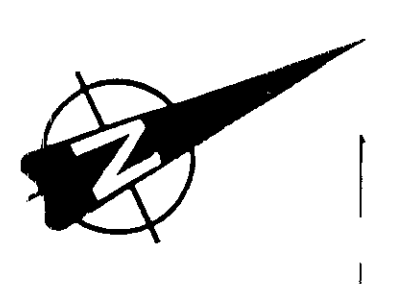
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TODD CREEK PROPERTY  
MAP SE  
AMARILLO ZONE - SOIL GEOCHEMICAL SURVEY  
Cu, ppm

26 + 380212 1997 soil sample analysis, location and number  
— 50 — contour of geochemical analyses (ppm)  
Toco 1 claim line and name  
⊗ 1994 weak EM anomaly  
Scale 1:1 000

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L47-00N L47-50N L48-00N L48-50N L49-00N L49-50N L50-00N L50-50N L51-00N L51-50N L52-00N



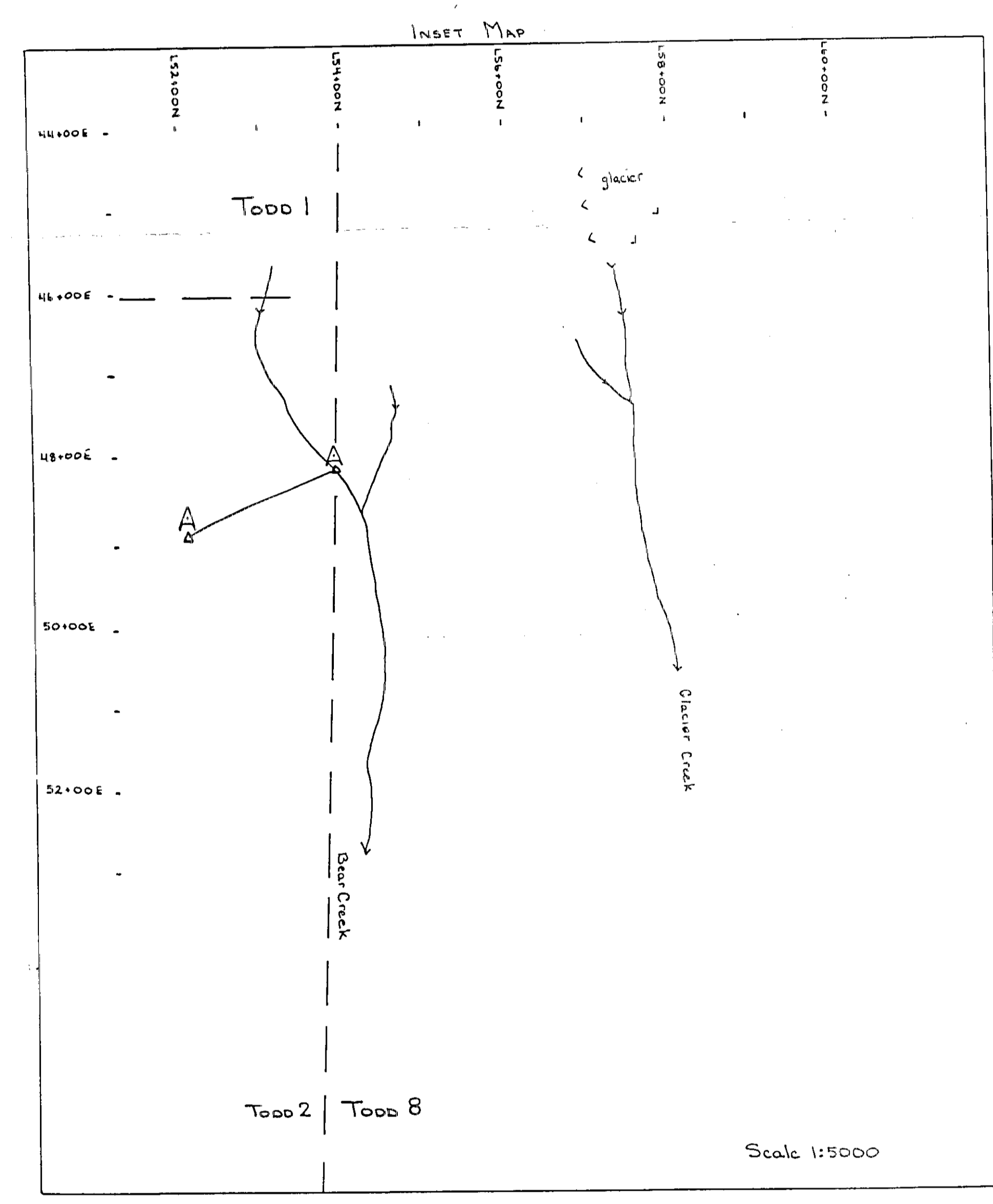
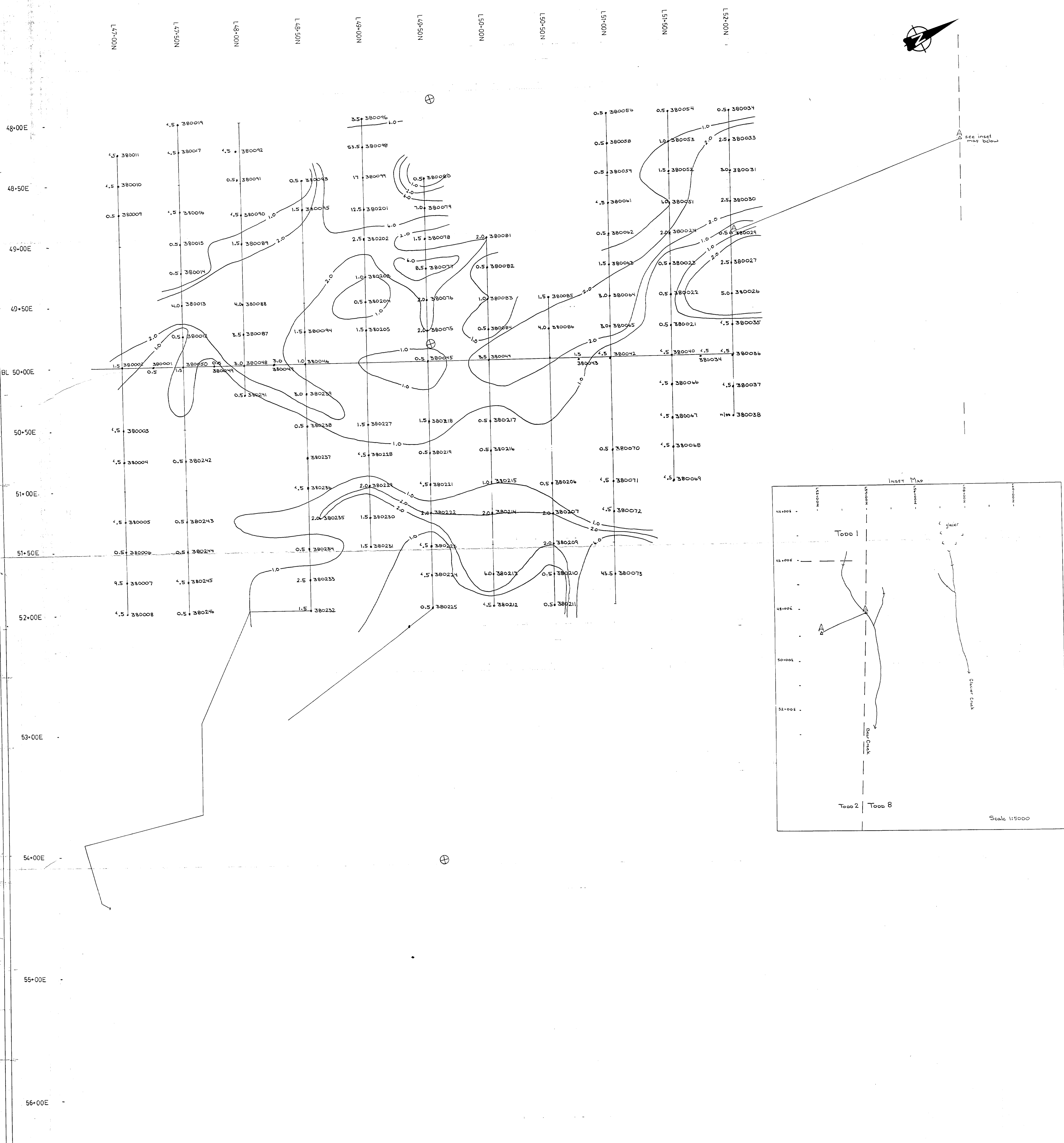
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ASSESSMENT REPORT

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TODD CREEK PROPERTY  
MAP 5F  
AMARILLO ZONE - SOIL GEOCHEMICAL SURVEY  
Au ppb

5+380212 1997 soil sample analysis, location and number  
 10 contour of geochemical analyses (ppb)  
 Toco 1 claim line and name  
 X 1994 weak EM anomaly  
 Scale 1:1 000  
 Geotech Exploration Consultants Ltd. November 1997





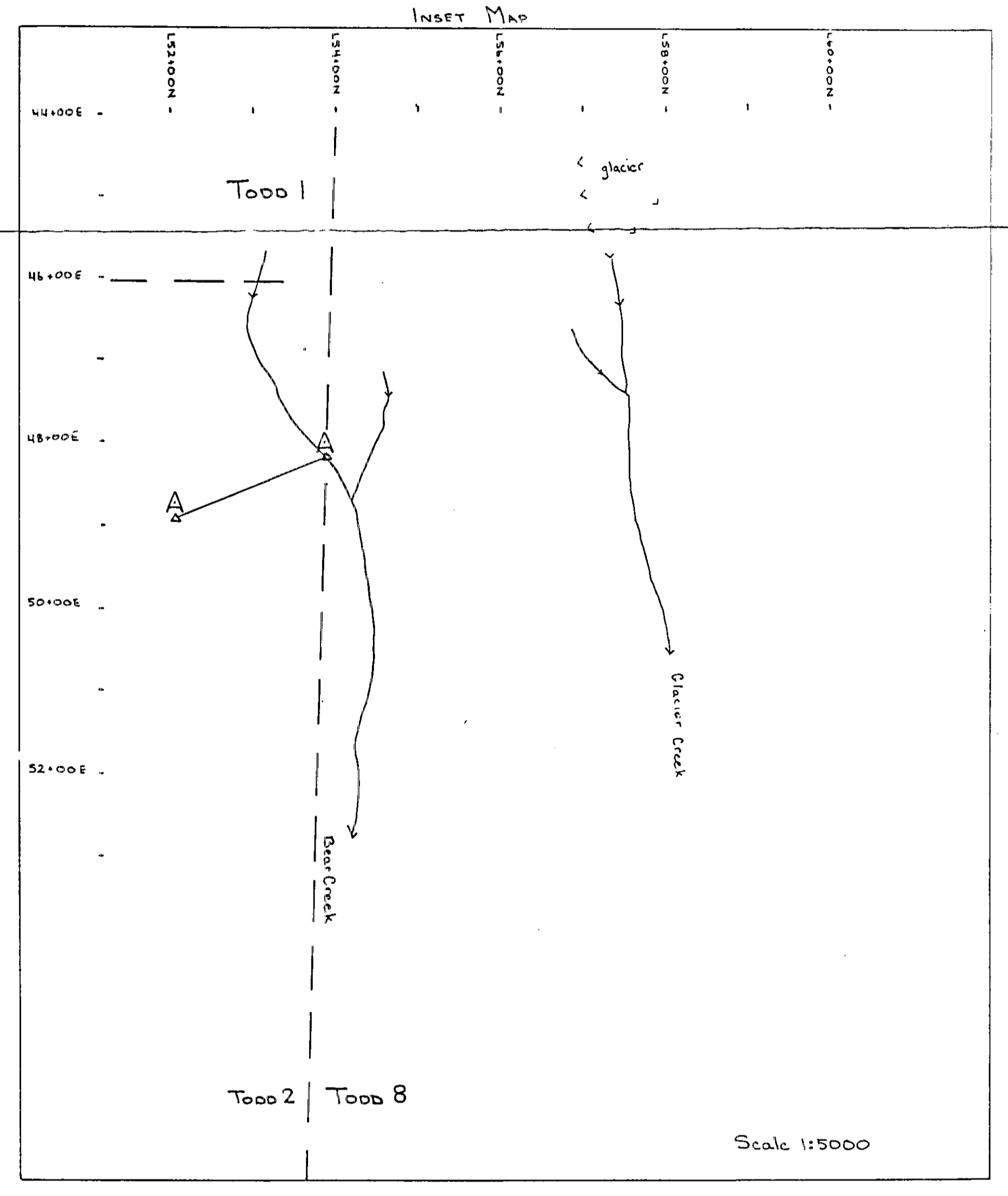
GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

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TODD CREEK PROPERTY  
MAP SH

**AMARILLO ZONE - SOIL GEOCHEMICAL SURVEY**  
Cd ppm

300 + 380012 1997 soil sample analysis, location and number  
 400 contour of geochemical analyses (ppm)  
 TODD 1 claim line and name  
 ⊗ 1994 weak EM anomaly  
 Scale 1:1 000  
Geological Survey Branch, Alberta, Canada



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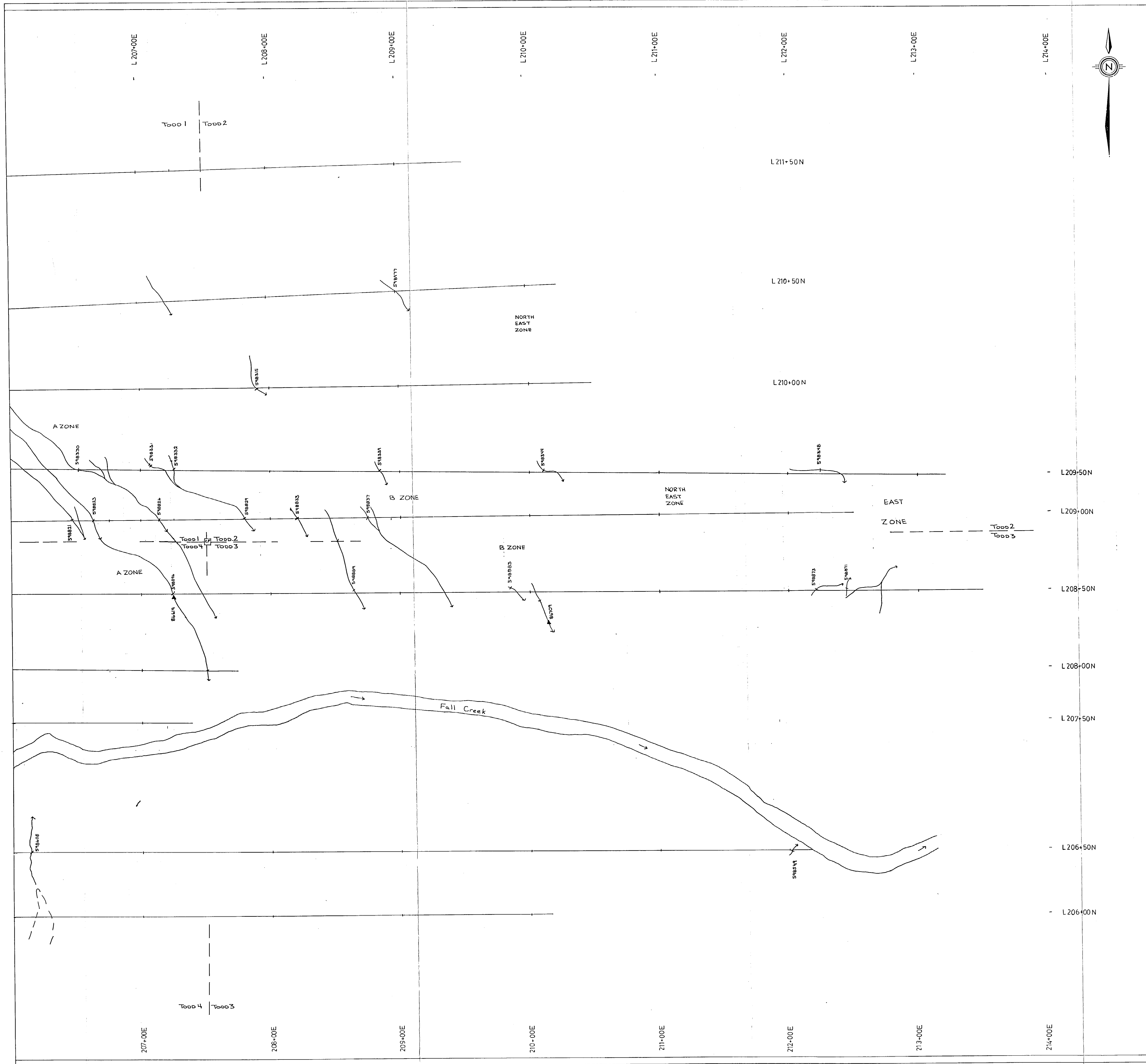
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TODD CREEK PROPERTY  
MAP 51  
AMARILLO ZONE - SOIL GEOCHEMICAL SURVEY  
2a ppm.

330 = 380212 1997 soil sample analysis, location and number  
— 400 — contour of geochemical analyses (ppm)  
— 38001 — claim line and name  
⊗ 1994 weak EM anomaly

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November 1997





**1997 STREAM SEDIMENT ANALYSES**

SAMPLE NO	Au	Cu	Zn	Ag	Pb	Cd	Ba
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S19826	<0.05	15	102	<3	18	14	0.5
S19827	0.05	72	102	0.2	28	100	0.5
S19828	<0.05	25	76	3.2	10	1	290
S19815	<0.05	100/NA	100/NA	100/NA	100/NA	100/NA	100/NA
S19818	<0.05	16	76	0.4	38	12	<5
S19819	0.015	16	76	0.4	38	12	<5
S19829	<0.05	45	88	0.2	30	12	0.5
S19830	0.005	24	80	0.2	26	16	0.5
S19831	<0.05	19	102	0.2	20	18	1.5
S19832	<0.05	100	78	0.2	26	18	1.5
S19833	<0.05	54	84	<2	8	1	330
S19839	0.01	54	104	<2	8	8	1
S19840	0.01	54	104	<2	8	8	1
S19845	0.01	176	74	0.4	8	10	1.5
S19825	<0.05	35	100	0.2	44	24	1.5
S19834	<0.05	19	110	0.2	20	18	1.5
S19854	<0.05	24	124	0.2	34	22	1.5
S19835	<0.05	19	120	<2	20	20	100
S19830	100/NA	18	82	<2	2	10	2
S19847	0.01	36	112	0.4	26	18	0.5
S19823	<0.05	43	96	<2	24	14	1
S19824	0.02	27	86	0.8	36	12	1
S19825	0.215	22	80	<2	20	24	0.5
S19826	0.005	44	86	0.2	32	14	0.5
S19827	0.015	43	78	<2	16	10	1.5
S19828	0.01	56	84	<2	46	16	1.5
S19847	0.015	47	70	<2	28	10	1.5
S19848	0.005	15	78	<2	18	8	0.5
S19849	0.17	NA	NA	NA	NA	NA	NA
S19850	0.02	51	64	<2	30	10	<5
S19851	0.06	82	72	<2	30	10	<5
S19852	0.11	169	102	0.2	62	22	0.5
S19821	0.035	25	86	<2	38	18	<5
S19823	<0.010	38	76	0.2	24	18	0.5
S19826	0.06	22	66	0.2	16	10	<5
S19829	0.02	62	60	0.2	64	16	0.5
S19833	<0.05	33	70	0.2	<5	12	0.5
S19837	<0.05	66	232	0.2	<2	14	3.5
S19871	0.01	207	216	0.6	18	24	2
S19873	0.02	198	270	0.2	26	18	2
S19881	<0.05	77	130	0.2	28	18	1
S19889	<0.05	102	94	<2	42	20	1
S19896	0.045	132	138	1	24	44	1
S19898	<0.05	23	90	0.2	18	14	<5
S19853	0.07	53	82	<2	42	12	0.5
S19827	0.01	22	64	<2	36	12	0.5
S19817	<0.05	17	102	<2	14	38	<5

**1994 STREAM SEDIMENT ANALYSES**

SAMPLE NO	Au	Cu	Zn	Ag	Pb	Cd	Ba
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S19811	0.003	31	106	NA	NV	41	NA
S19815	0.002	28	71	NA	NV	34	NA
S19817	0.002	44	56	NA	NV	21	NA
S19813	0.009	23	72	NA	NV	28	NA
S19826	0.13	33	76	NA	NV	25	NA
S19821	NA	NA	NA	NA	NA	NA	NA
S19822	0.024	47	81	NA	NV	34	NA
S19823	0.03	43	76	NA	NV	31	NA
S19824	0.003	55	69	NA	NV	26	NA
S19825	0.333	27	74	NA	14	41	NA
S19821	0.02	19	66	0.1	NV	27	6.1
S19824	0.05	22	76	0.1	NV	31	6.1
S19825	0.018	23	72	0.1	NV	28	0.1
S19810	0.011	10	62	0.1	NV	27	0.1
S19813	0.018	28	69	0.1	NV	30	0.1
S19815	0.014	49	59	0.2	NV	29	0.1
S19816	0.002	17	62	0.1	NV	29	0.1
S1981	0.045	29	77	0.1	NV	32	0.1
S19814	0.054	84	89	0.1	NV	49	0.1
S19809	0.044	775	113	NA	NV	56	NA

NA - not available  
 NV - not available  
 10000 - not available

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

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**TODD CREEK PROPERTY  
MAP 6A  
NORTH ZONE C GRID - STREAM SEDIMENT  
GEOCHEMICAL SURVEY**

S19820-1997 stream sediment sample 1997  
 S19820-1994 stream sediment sample 1994  
 - stream and flow direction  
 - claim post and claim line  
 ⊗ 1994 weak EM anomaly

Scale 1:1 000  
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1997 STREAM SEDIMENT ANALYSES

SAMPLE NO	Au	Cu	Zn	Ag	As	Pb	Cd	Ba
NO	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
598256	<0.05	15	102	<2	18	14	0.5	580
598287	0.05	72	102	0.2	38	100	1.0	110
598297	<0.05	34	210	<2	20	10	0.5	410
598315	<0.05	notba	notba	notba	notba	notba	notba	notba
598318	<0.05	29	76	0.2	12	10	1	510
598319	0.015	15	102	<2	18	14	0.5	480
598321	0.025	27	102	0.6	18	12	3	560
598326	<0.05	24	86	0.2	28	15	0.5	410
598330	0.005	24	86	0.2	28	15	0.5	630
598331	<0.05	15	102	<2	18	14	0.5	410
598332	<0.05	103	78	0.2	28	18	1.5	480
598338	0.01	54	154	<2	8	8	1	330
598344	0.01	178	74	<2	8	8	1	290
598348	<0.05	35	100	0.4	8	10	1.5	440
598363	<0.05	15	124	0.2	34	22	1.5	410
598364	<0.05	19	110	0.2	20	18	1.5	540
598375	<0.05	19	120	<2	20	20	10	560
598380	notba	18	82	<2	7	10	3	380
598407	0.01	30	112	0.4	28	18	0.5	780
598423	<0.05	43	80	<2	24	14	1	510
598424	0.02	27	86	0.8	38	12	1	320
598425	0.015	23	80	<2	20	24	0.5	290
598426	0.005	44	86	0.2	32	24	0.5	410
598427	0.015	43	84	<2	40	14	0.5	410
598428	0.01	56	78	<2	16	10	1.5	470
598447	0.015	47	70	<2	26	10	1	360
598449	0.005	15	78	<2	18	8	0.5	420
598449	0.17	NA	NA	NA	NA	NA	NA	NA
598501	0.02	51	54	<2	20	10	<5	120
598502	0.06	82	72	<2	38	8	<5	160
598506	0.11	108	102	0.2	62	22	0.5	210
598521	0.035	25	86	<2	38	18	0.5	310
598523	<0.10	38	76	0.2	24	18	0.5	510
598526	0.06	22	66	0.2	18	10	<5	290
598529	0.02	62	72	<2	18	12	0.5	410
598533	<0.05	33	80	0.2	64	18	0.5	580
598537	<0.05	66	72	0.2	<2	14	3.5	330
598571	0.01	207	0.6	18	24	2	620	
598573	0.02	198	270	0.2	26	18	2	300
598583	<0.05	77	130	0.2	20	18	1	620
598589	<0.05	102	94	<2	42	20	1	370
598596	0.045	132	138	1	34	44	1	800
598598	<0.05	23	90	0.2	16	14	<5	660
598623	0.07	53	82	<2	42	12	0.5	480
598627	0.01	22	64	<2	38	12	0.5	310
598677	<0.05	17	102	<2	14	38	<5	590

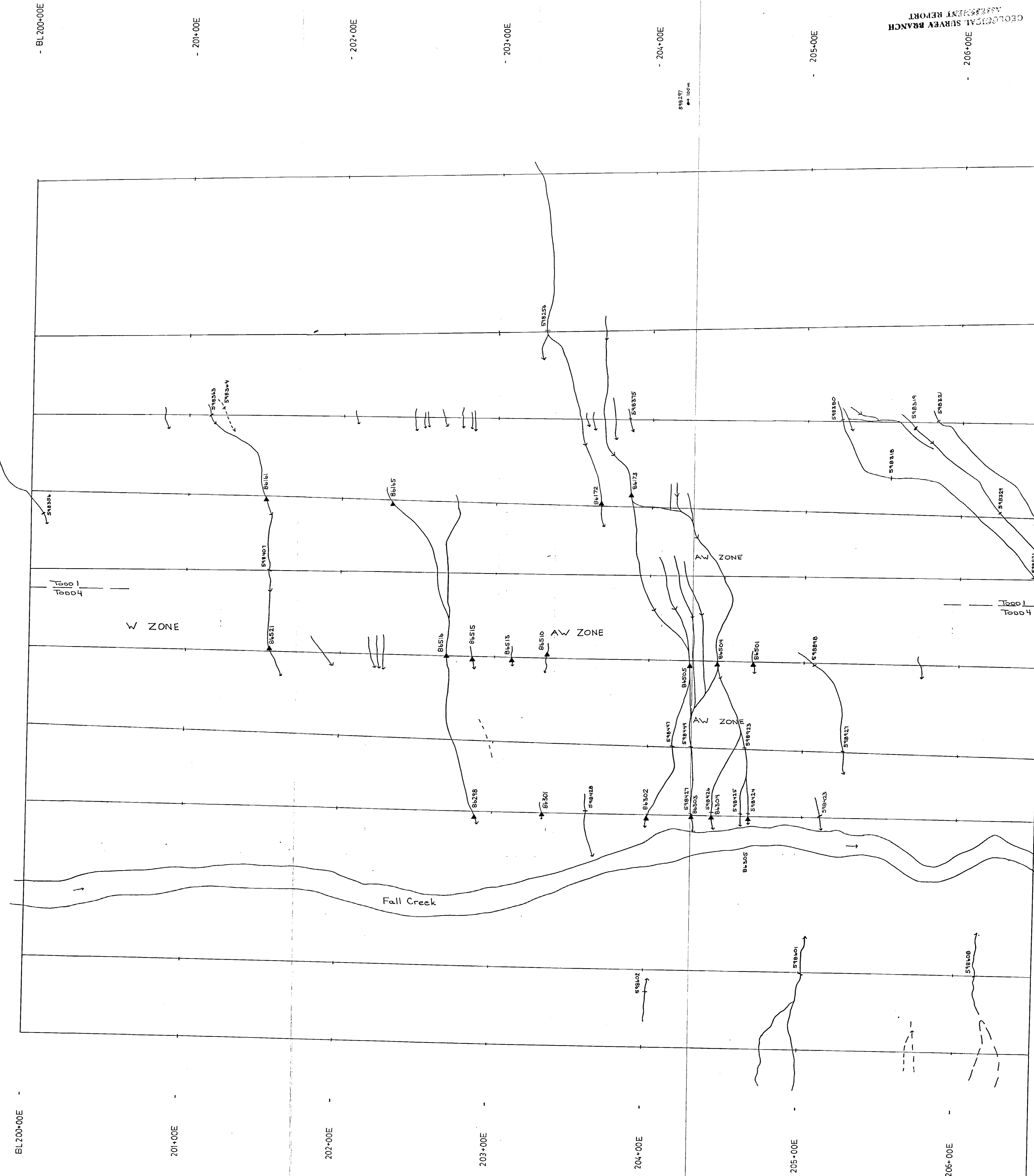
1994 STREAM SEDIMENT ANALYSES

SAMPLE NO	Au	Cu	Zn	Ag	As	Pb	Cd	Ba
NO	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
86161	0.003	31	108	NA	NV	41	NA	NA
86165	0.002	28	71	NA	NV	34	NA	NA
86172	0.002	44	58	NA	NV	21	NA	NA
86173	0.009	23	12	NA	NV	28	NA	NA
86208	0.13	33	78	NA	NV	35	NA	NA
86201	NA	NA	NA	NA	NA	NA	NA	NA
86202	0.024	47	81	NA	NA	34	NA	NA
86203	0.03	43	78	NA	NV	31	NA	NA
86204	0.003	55	69	NA	NV	26	NA	NA
86205	0.003	27	74	NA	NA	14	41	NA
86201	0.02	18	68	0.1	NV	37	0.1	211
86204	0.02	22	78	0.1	NV	31	0.1	311
86205	0.018	23	12	0.1	NV	38	0.1	260
86210	0.011	19	62	0.1	NV	27	0.1	192
86213	0.016	28	60	0.1	NV	23	0.1	300
86215	0.014	49	59	0.2	NV	29	0.1	384
86216	0.022	17	77	0.1	NV	32	0.1	311
86221	0.045	29	62	0.1	NV	29	0.1	384
86214	0.054	84	85	0.1	NV	49	0.1	517
86219	0.04	73	113	NA	NV	58	NA	NA

NA - not available  
NV - not valid analysis  
notba - not analysed sample material



L211+50N  
L210+50N  
L210+00N  
L209+50N  
L209+00N  
L208+50N  
L208+00N  
L207+50N  
L205+50N  
L206+00N

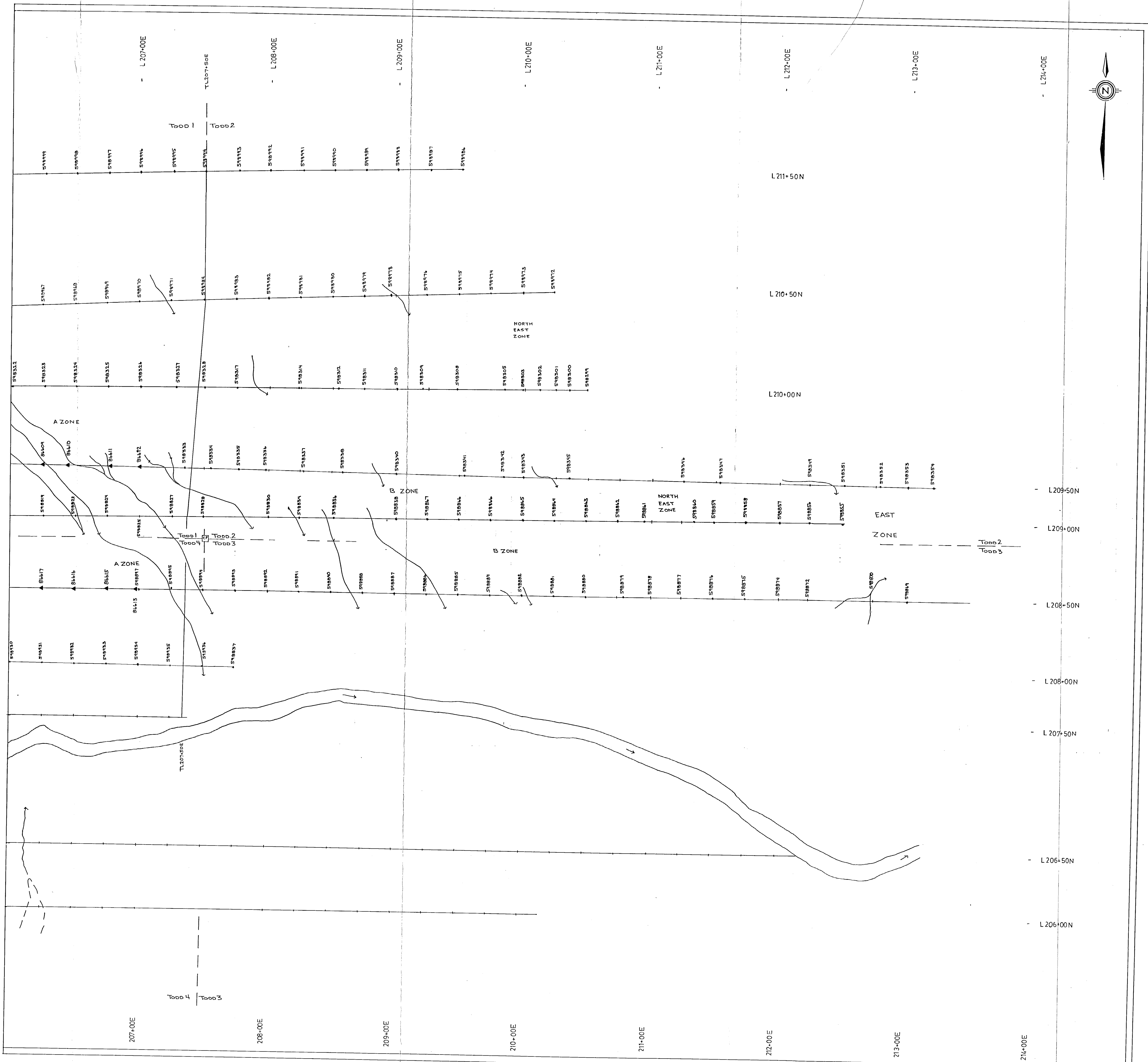


**TODD CREEK PROPERTY**  
MAP 68

**NORTH ZONE C GRID - STREAM SEDIMENT GEOCHEMICAL SURVEY**

stream sediment sample 1997  
 stream sediment sample 1994  
 stream and flow direction  
 claim post and claim line  
 1994 weak EM anomaly

Scale 1:1 000  
Geofine Exploration Consultants Ltd. November 1997



**TODD CREEK PROPERTY**  
MAP 7A

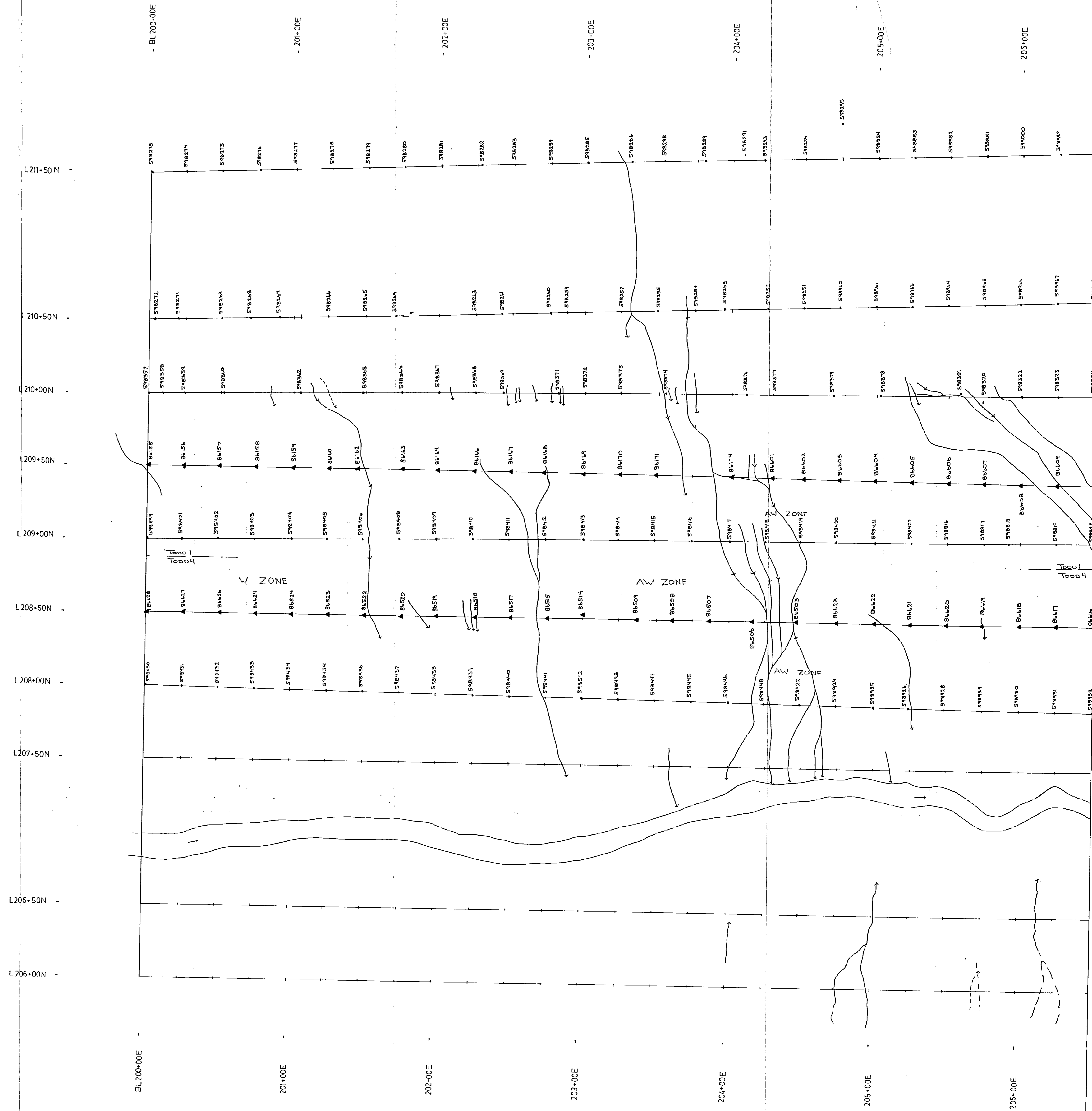
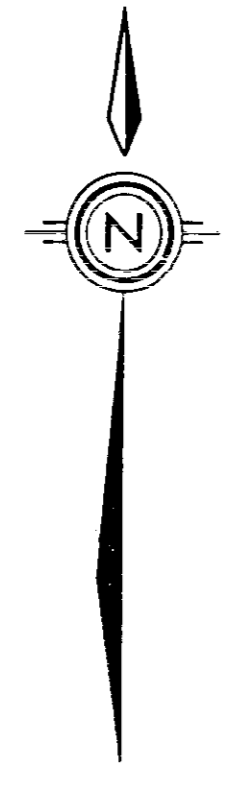
**NORTH ZONE C. GRID - SOIL GEOCHEMICAL SURVEY SAMPLE LOCATIONS**

▲ 844512 soil sample 1997  
 ● 844513 soil sample 1994  
 — contour of geochemical analyses (ppm)  
 stream with flow direction  
 claim post and claim line  
 1994 weak EM anomaly

Scale 1:1,000  
November 1997

GeoFire Exploration Consultants Ltd.

GEOLOGICAL SURVEY BRANCH  
 ASSESSMENT REPORT  
 25791

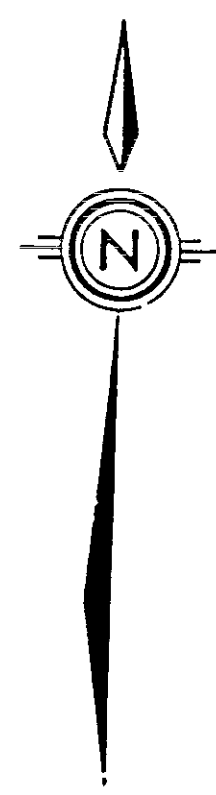
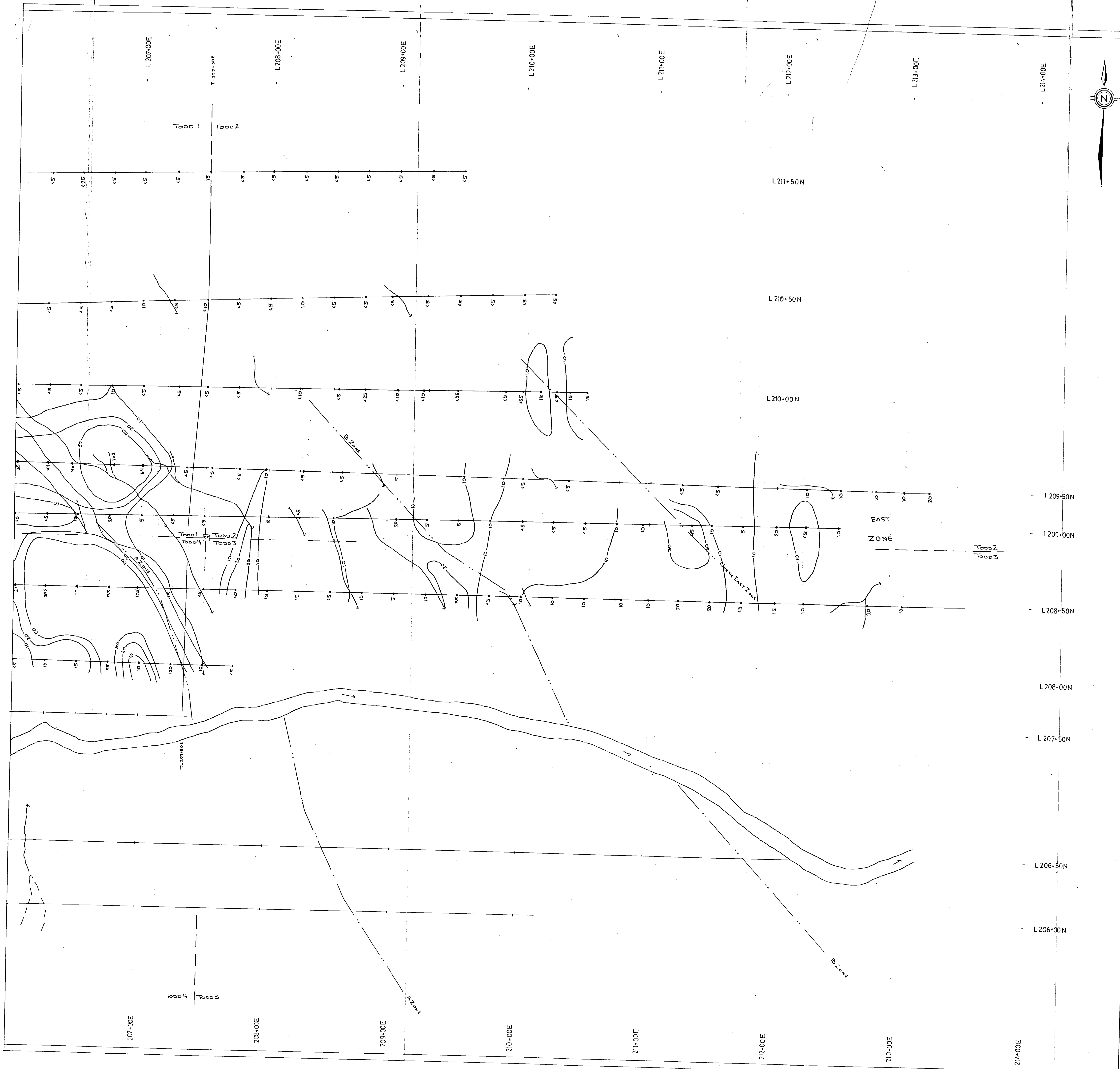


**TODD CREEK PROPERTY**  
MAP 7B

**NORTH ZONE C GRID - SOIL GEOCHEMICAL SURVEY SAMPLE LOCATIONS**

● soil sample 1997  
 ▲ soil sample 1994  
 → stream with flow direction  
 ○ claim post and claim line  
 ⊗ 1994 weak EM anomaly

Scale 1:1 000  
November 1997  
Geofine Exploration Consultants Ltd.

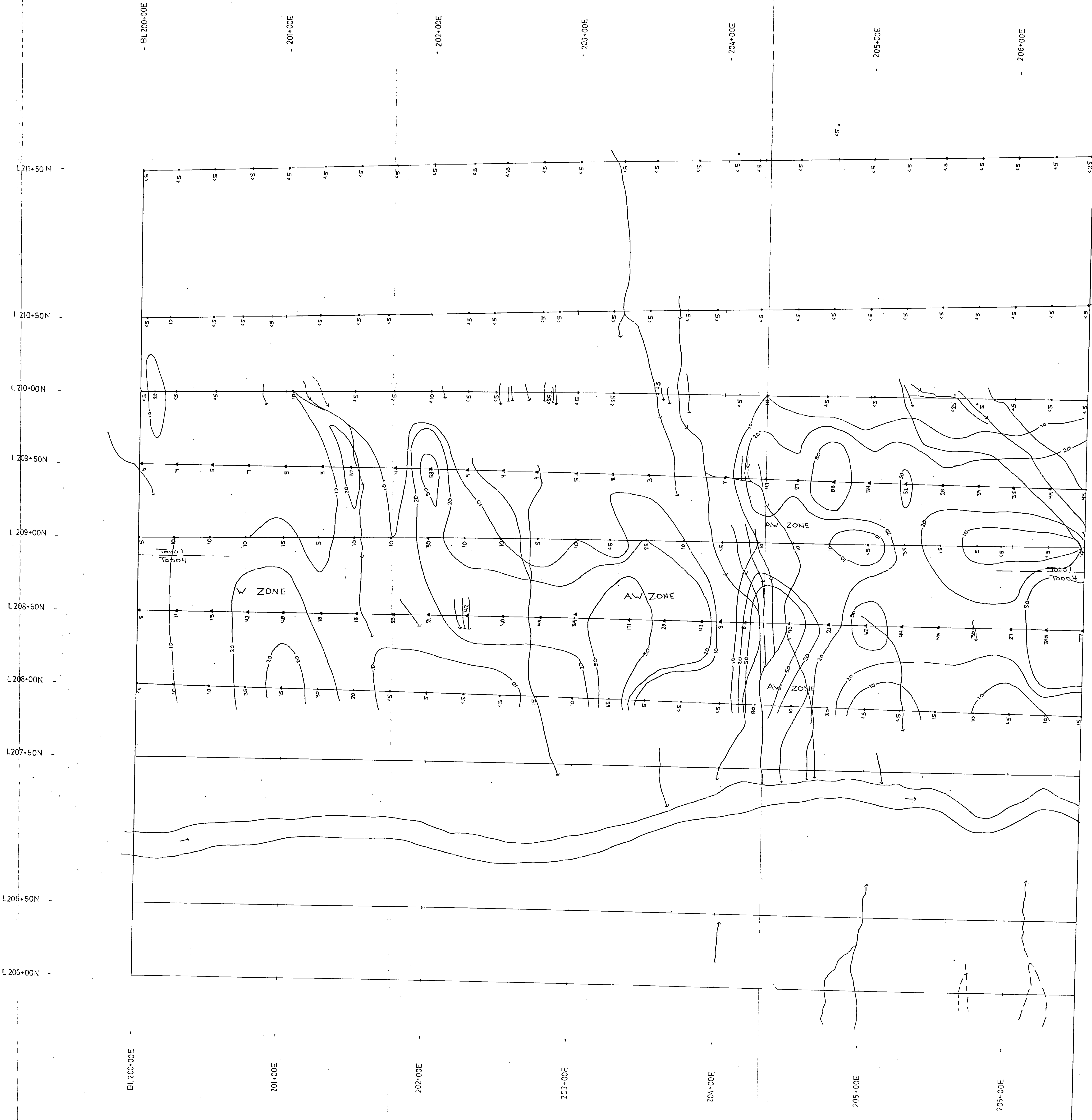
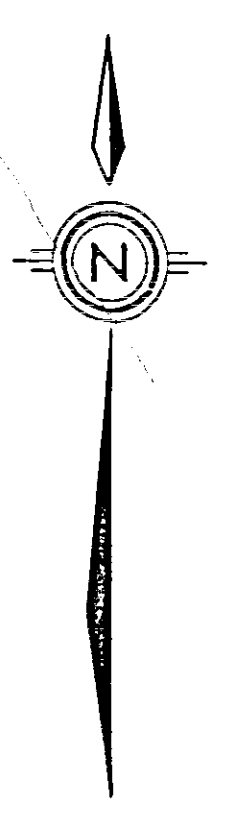


TODD CREEK PROPERTY  
 MAP 6A  
 NORTH ZONE C GRID - SOIL GEOCHEMICAL  
 SURVEY. Au ppb

- ▲ soil sample 1997
- soil sample 1994
- - - contour of geochemical analyses (ppb)
- stream with flow direction
- - - claim post and claim line
- ⊗ 1994 weak EM anomaly

Scale 1:1 000  
 Geolite Exploration Consultants Ltd. November 1997

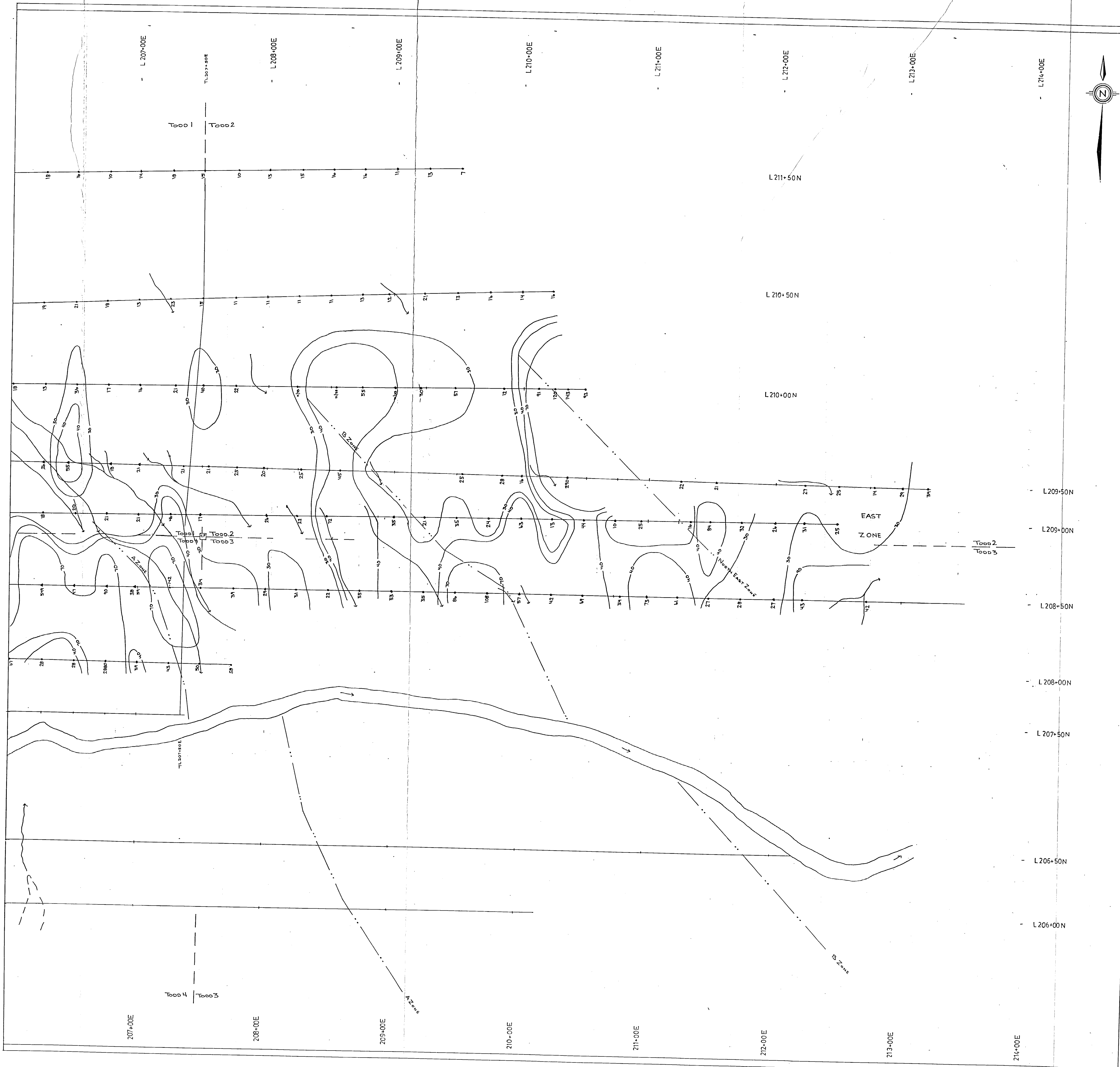
25,391



**TODD CREEK PROPERTY**  
MAP 88  
**NORTH ZONE C GRID - SOIL GEOCHEMICAL SURVEY: Au ppb**

- soil sample 1997
- soil sample 1994
- contour of geochemical analyses (ppb)
- stream with flow direction
- claim post and claim line
- 1994 weak EM anomaly

Scale 1:1 000  
November 1997

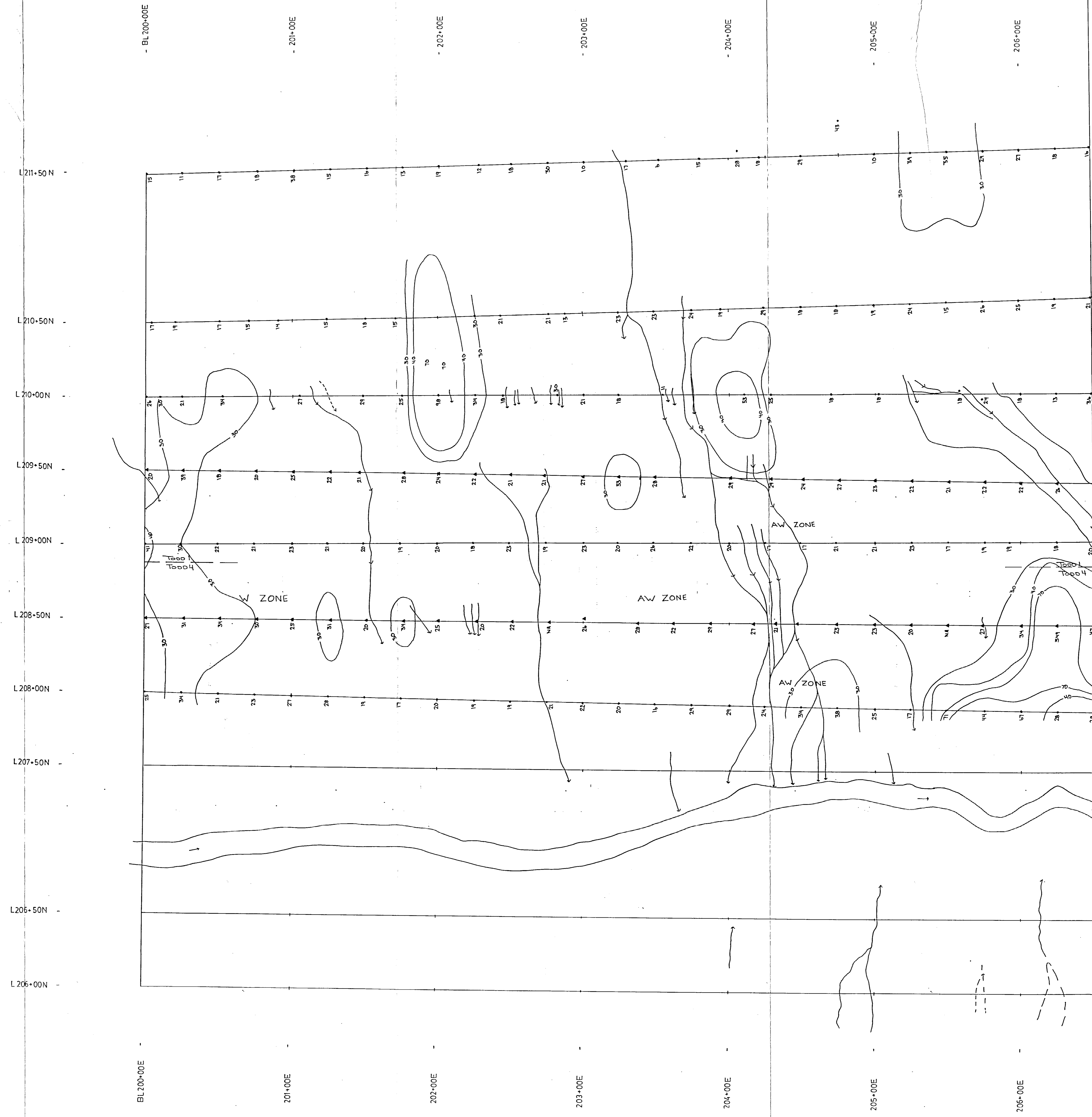


**TODD CREEK PROPERTY**  
 MAP 8A  
**NORTH ZONE C GRID - SOIL GEOCHEMICAL SURVEY: Cu ppm**

- soil sample 1997
- ▲ soil sample 1994
- - - contour of geochemical analyses (ppm)
- stream with flow direction
- - - claim post and claim line
- ⊗ 1994 weak EM anomaly

Scale 1:1 000  
 Geofine Exploration Consultants Ltd  
 November 1997

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 GEOLOGICAL SURVEY BRANCH  
 ASSESSMENT REPORT



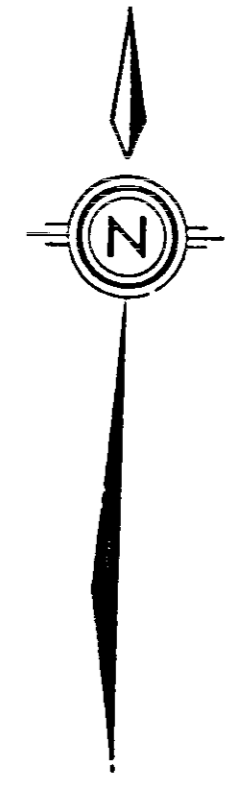
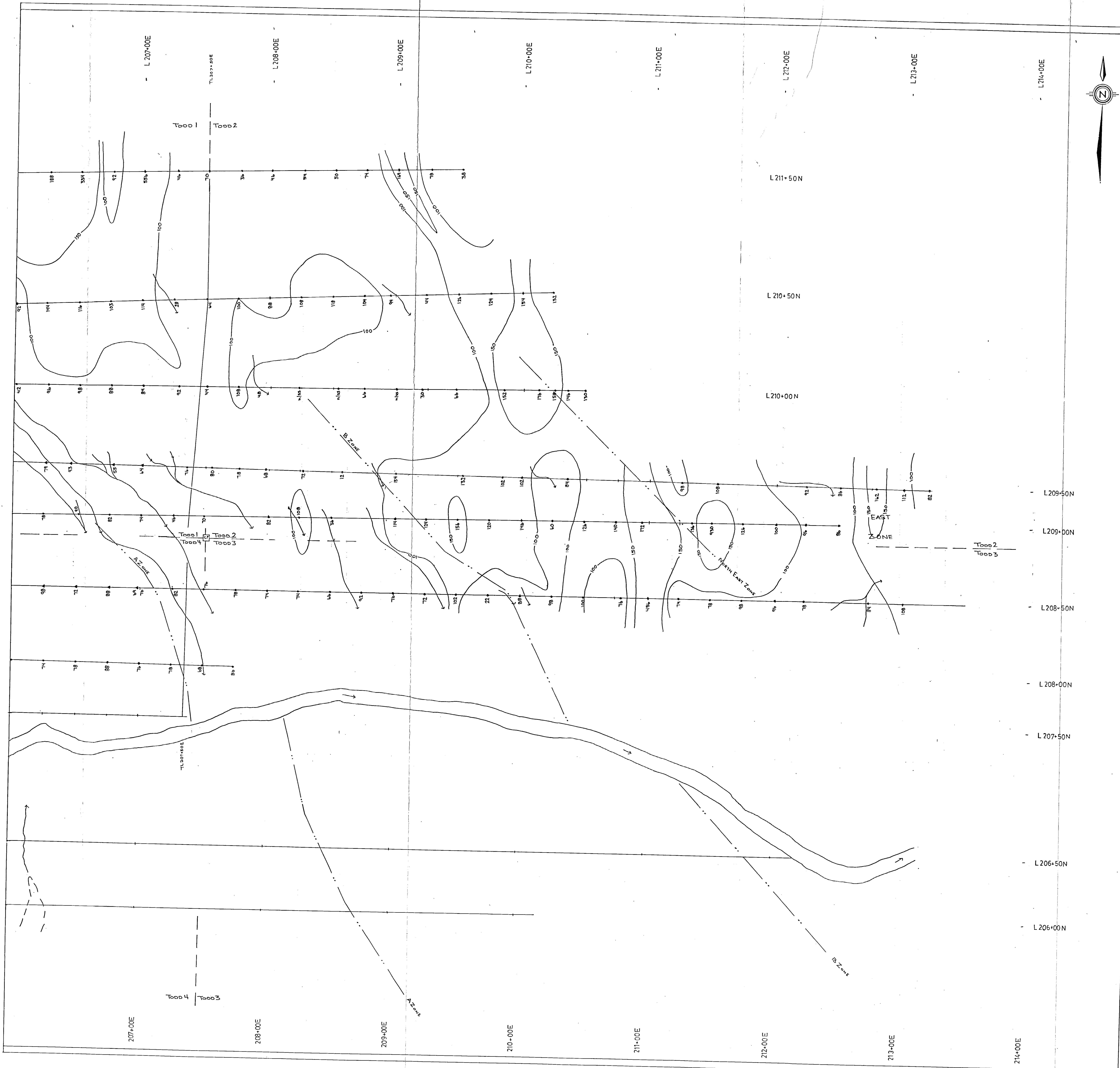
**TODD CREEK PROPERTY**  
 MAP 9B

**NORTH ZONE C GRID - SOIL GEOCHEMICAL SURVEY: Cu ppm**

- ▲ soil sample 1997
- soil sample 1994
- contour of geochemical analyses (ppm)
- stream with flow direction
- ⊗ claim post and claim line
- ⊖ 1994 weak EM anomaly

Scale 1:1 000

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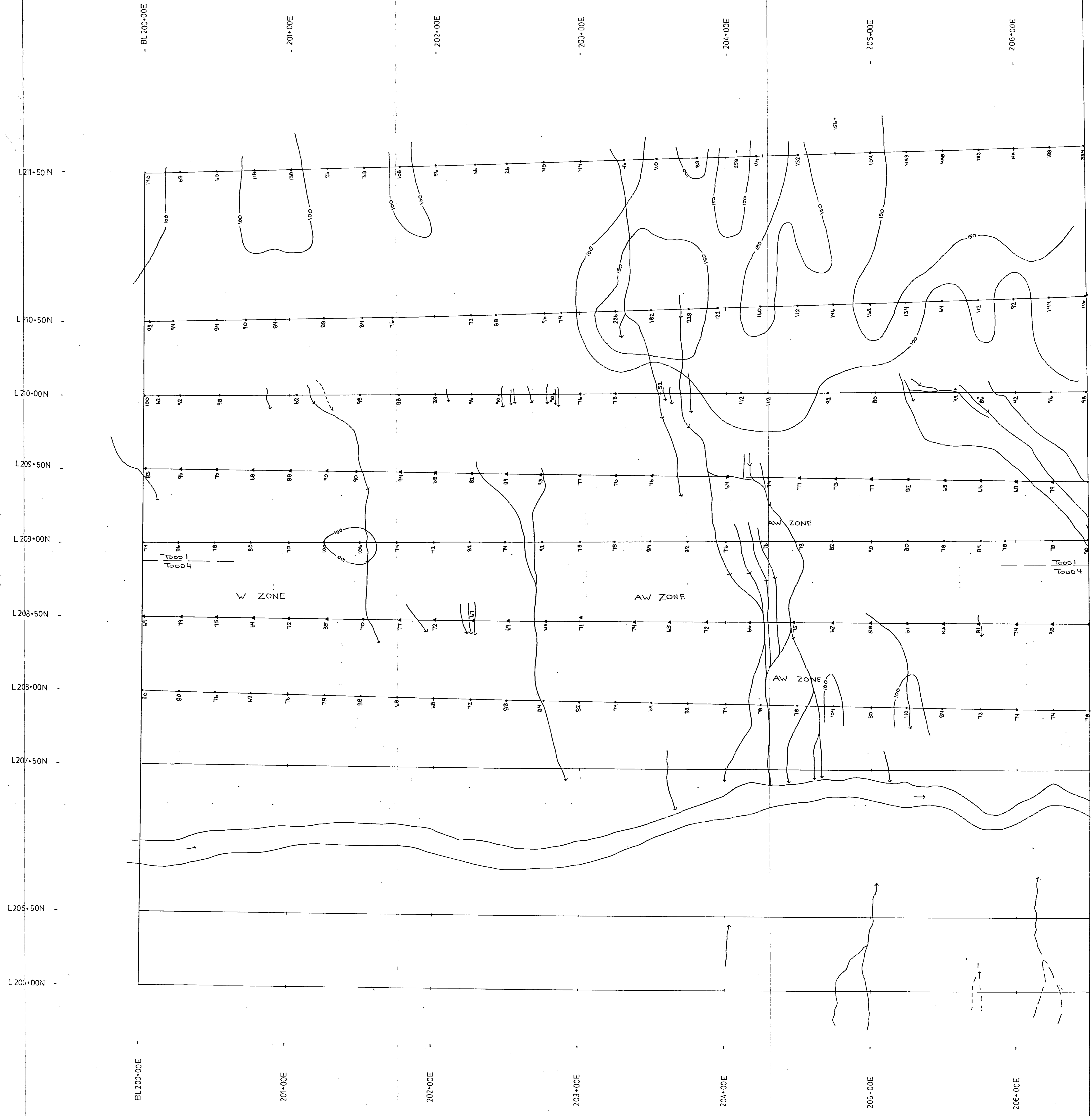
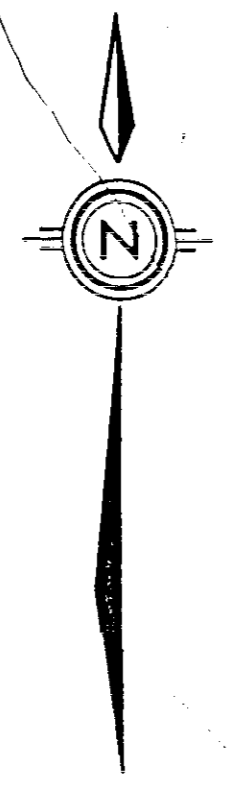
**TODD CREEK PROPERTY**  
 MAP 10A  
**NORTH ZONE C GRID - SOIL GEOCHEMICAL SURVEY: Zn ppm**

- soil sample 1997
- soil sample 1994
- contour of geochemical analyses (ppm)
- stream with flow direction
- claim post and claim line
- ⊗ 1994 weak EM anomaly

Scale 1:1 000  
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 November 1997

25,291  
 25  
 GEOLOGICAL SURVEY BRANCH  
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 INVESTIGATION REPORT





**TODD CREEK PROPERTY**  
MAP 10B

**NORTH ZONE C GRID - SOIL GEOCHEMICAL SURVEY: Zn ppm**

- ▲ soil sample 1997
- ▲ soil sample 1994
- contour of geochemical analyses (ppm)
- stream with flow direction
- - - claim post and claim line
- ⊗ 1994 weak EM anomaly

Scale 1:1 000

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