84-1145- 13199

PLACER DEVELOPMENT LIMITED

GEOCHEMICAL REPORT
ON THE
P.D.L. MINERAL CLAIM

OSOYOOS MINING DIVISION
N.T.S. 82E5

Latitude 49°22'N Longitude 119°48'W

Owner of Claim
Placer Development Limited

Operator
Placer Development Limited

R.J. Young

November 1984

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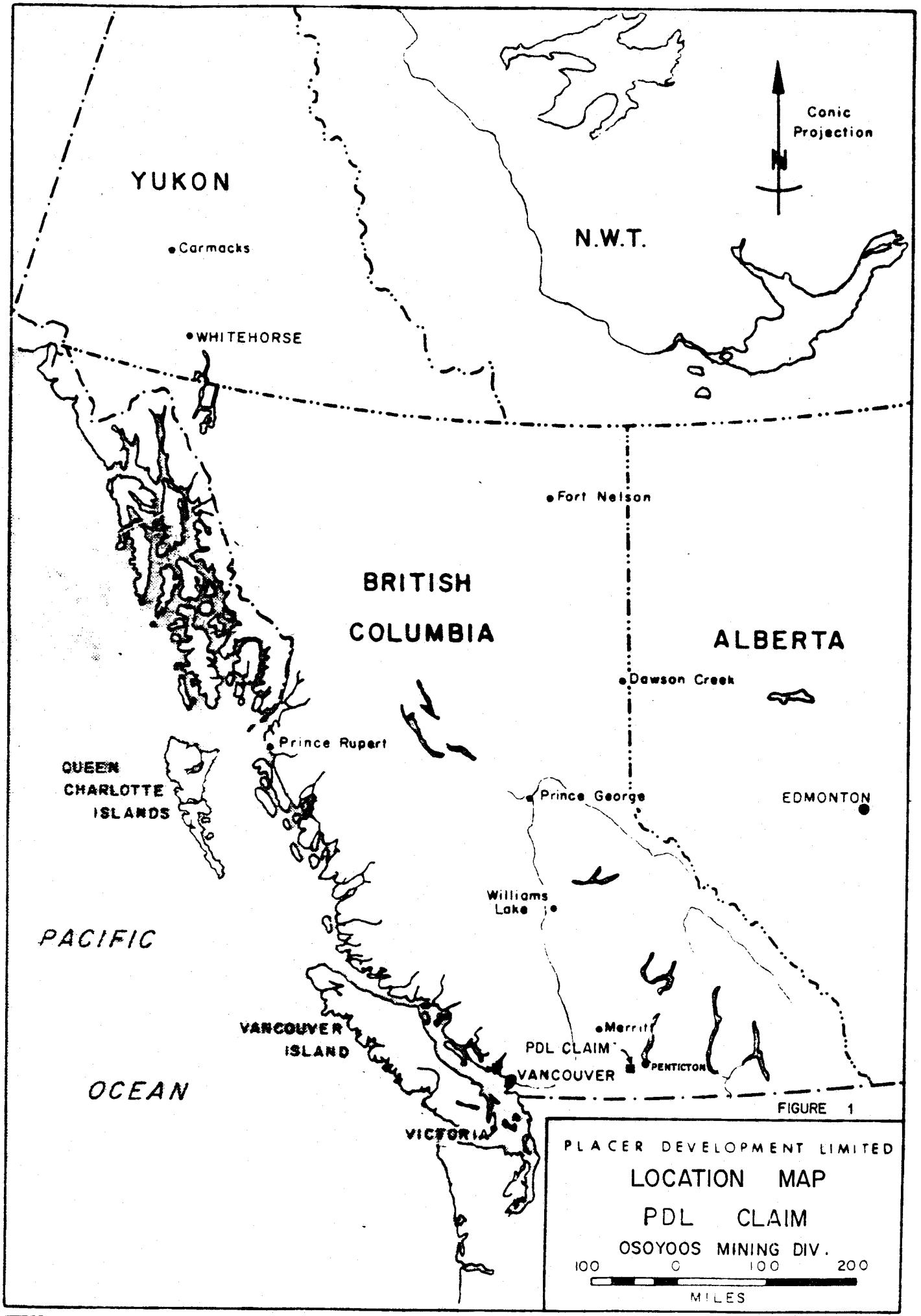
TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

APPENDICES

I Statement of Qualifications - R.J. Young, P. Eng.

II Geochemical Assay Listing for Soil Samples.


Conic Projection
N
YUKON
N.W.T.
Carmacks
WHITEHORSE
Fort Nelson
BRITISH COLUMBIA
ALBERTA
Dawson Creek
Prince Rupert
QUEEN CHARLOTTE ISLANDS
Prince George
EDMONTON
Williams Lake
PACIFIC
OCEAN
VANCOUVER ISLAND
Merritt
PDL CLAIM
PENTICTON
VANCOUVER
VICTORIA
FIGURE 1
PLACER DEVELOPMENT LIMITED
LOCATION MAP
PDL CLAIM
OSOYOOS MINING DIV.
100 0 100 200
MILES

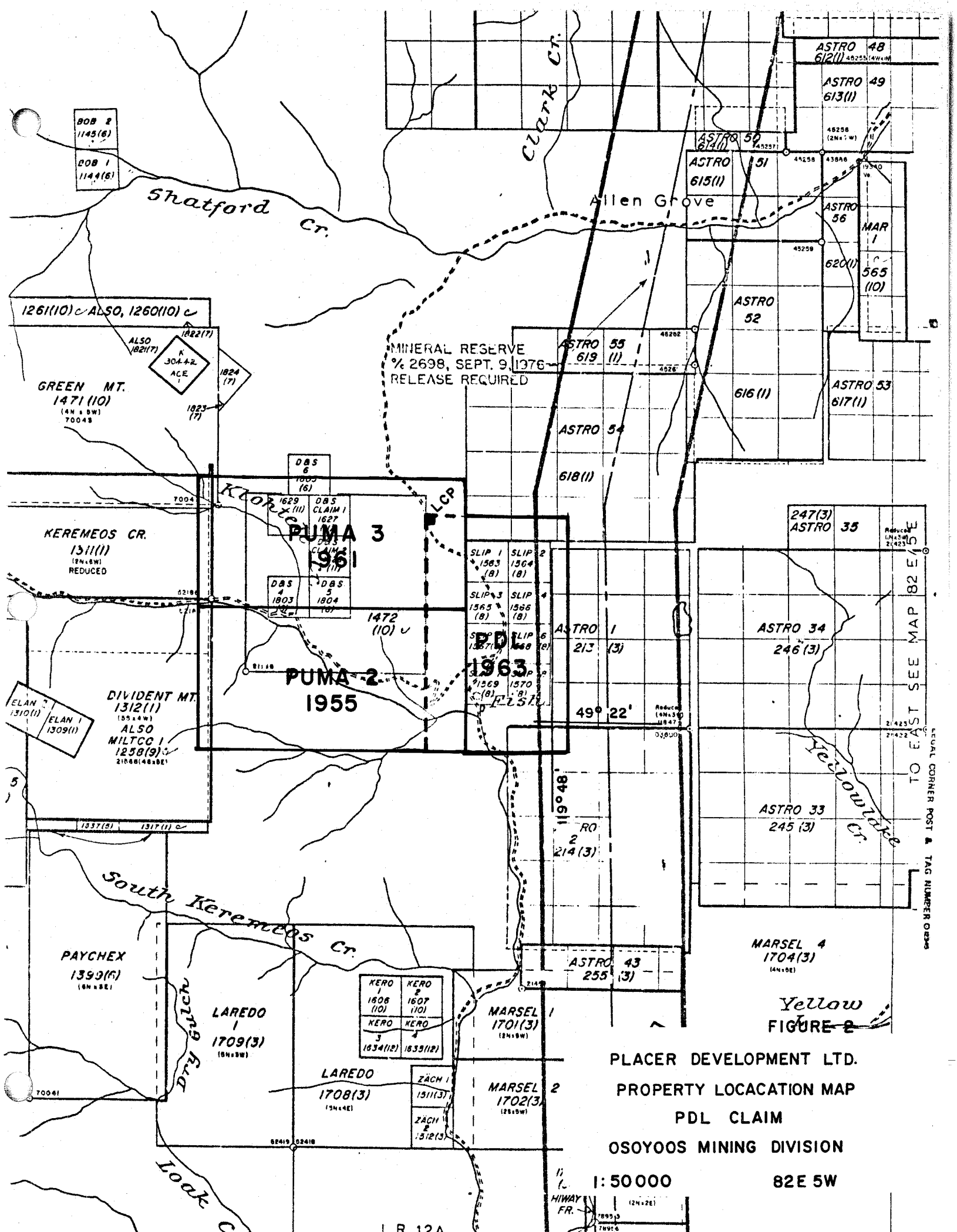


FIGURE 2

PLACER DEVELOPMENT LTD.

PROPERTY LOCACATION MAP

PDL CLAIM

OSOYOOS MINING DIVISION

1:50000 82E 5W

1. Introduction

Placer Development carried out a limited reconnaissance soil sampling program on the P.D.L. Claim in the Osoyoos Mining Division. This report describes the procedures used in and the results of, that program.

2. Summary

Soil samples were collected at 30 meter intervals along a line 2.1 km long along the toe of the slope of the east side of the Keremeos Creek Valley. Part of the line crosses an alluvial fan.

A number of the samples are anomalous in Au, As, Cu, and Mo. Slightly elevated Co values are also present. The distribution of anomalous values indicate a source(s) on the east wall of the valley above the line and upstream from the alluvial fan.

Follow up is recommended.

3. Property Definition

The property consists of the 15 unit P.D.L. Claim. Record No. is 1963 and the anniversary date is 23 December. The claim is shown on Figure 2.

4. Topography Cover and Access

The claim covers the valley and slopes at a 2.5 km portion of Keremeos Creek. The valley bottom is relatively narrow and the adjacent slopes are rugged with numerous talus slopes and rock bluffs. The area is moderately well treed with fir and/or pine. There is very little underbrush.

Access is extremely easy. The Green Mountain Road is located along the westerly side of the claims. The Green Mountain Road may be accessed from a point approximately 6 km northerly from Olalla on Highway 3A or from a point approximately 20 km westerly from Penticton or the Apex Alpines ski resort access road.

5. Economic Assessment

There are no known occurrences of economic type mineralization on the claim. However, considering the results of the present survey it must be considered to have some potential to contain, at least, a mineral occurrence.

6. Work Done

The work was carried out in 19 October 1984 by a crew of 4 men over a time, once on the ground of 2 1/2 hours. With travel, the work required just over one half day.

Two men laid out the sample points using a hip chain and flagging. The line was run along the toe of the eastern valley wall and generally followed the course of the toe. All sample stations were marked with orange plastic ribbon upon which the sample number was written with black waterproof felt markers. Once the sample points were established this pair doubled back collecting samples.

The other two men collected samples from the beginning of the line. They carried on until they met the first pair sampling on their way back.

In this manner approximately 2 km of sample line was constructed, 70 stations established and 69 samples collected.

Samples were collected where possible form the B horizon.

All were analysed for Au, As, Cu, Mo and Co.

6.1 Results of the Geochemical Survey

(i) Gold

Gold values range from below detection limit to 0.19 ppm. Samples 1 to 15 were below detection limit as were samples 66, 68 to 87, i.e., both ends of the line. Only a few samples in the balance of the line are below detection limit.

(ii) Arsenic

Values range from a loss of 4 ppm to a high of 296 ppm. The higher values tend toward the central portion of the line.

(iii) Copper

Values range from a low of 52 ppm to a high of 260 ppm. Again, the higher values tend toward the central portion of the line.

(iv) Molybdenum

Values range from a low of 1 ppm to a high of 12 ppm with, once again, the higher values tending toward the central portion of the line.

(v) Cobalt

Values range from a low of 32 ppm to a high of 71 ppm. Thus contrast is not great. However, once again, the higher values tend toward the central portion of the line.

6.2 Interpretation of Results

The results of the soil sampling in general indicate that there may be mineralization in the steep east wall of the valley of Keremeos Creek, most likely above the central to northern portion of the line.

Samples 51 thru 56 are definitely on fan material dumped out by a creek entering from the east side of the valley. The anomalous readings in these samples indicate an upstream source.

Samples 68 through 70 are in talus material from the wall on the east side of the valley north of the stream material above. These samples indicate no mineralization in the east wall above the location of the samples.

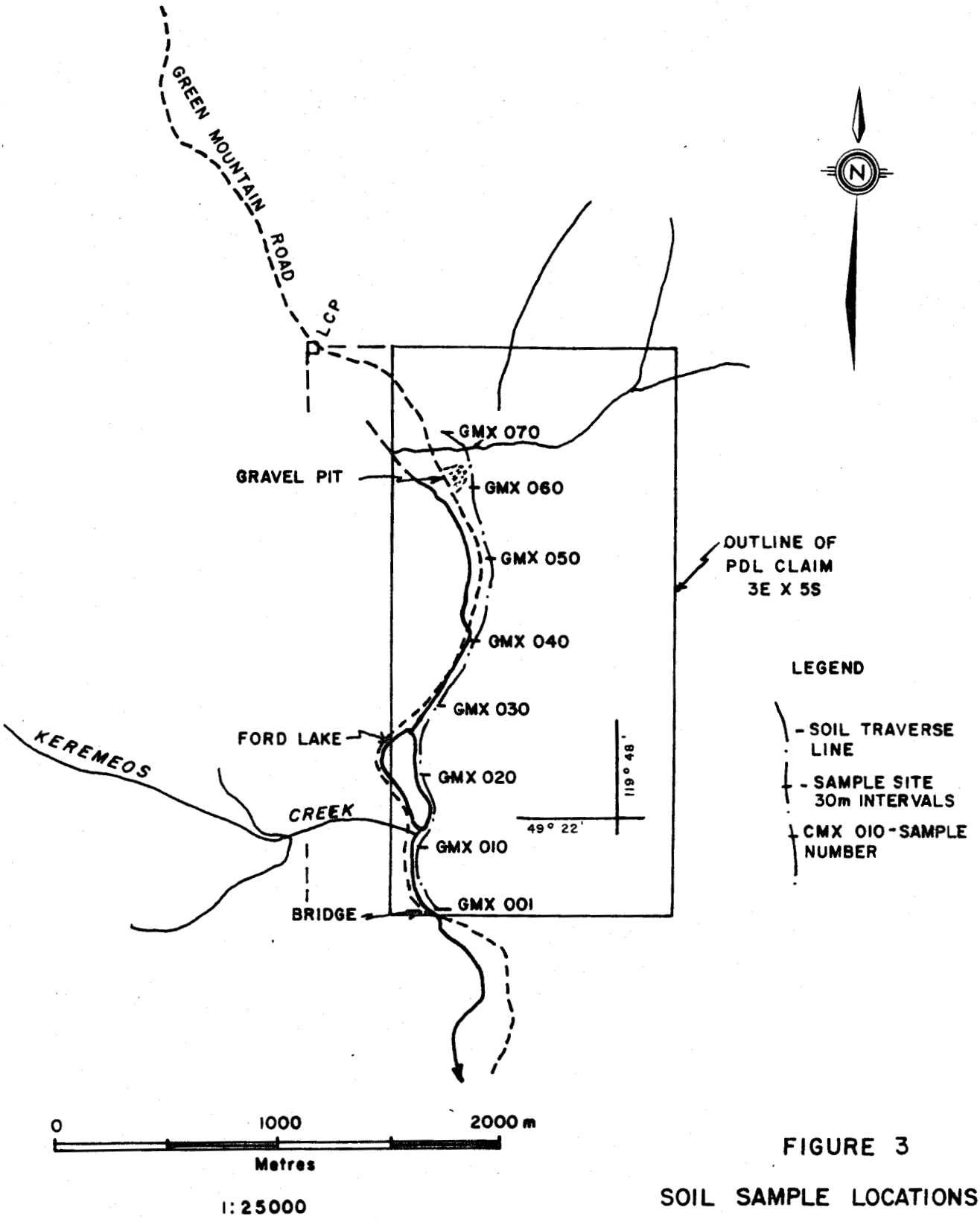


FIGURE 3

SOIL SAMPLE LOCATIONS

PDL CLAIM

82E 5W

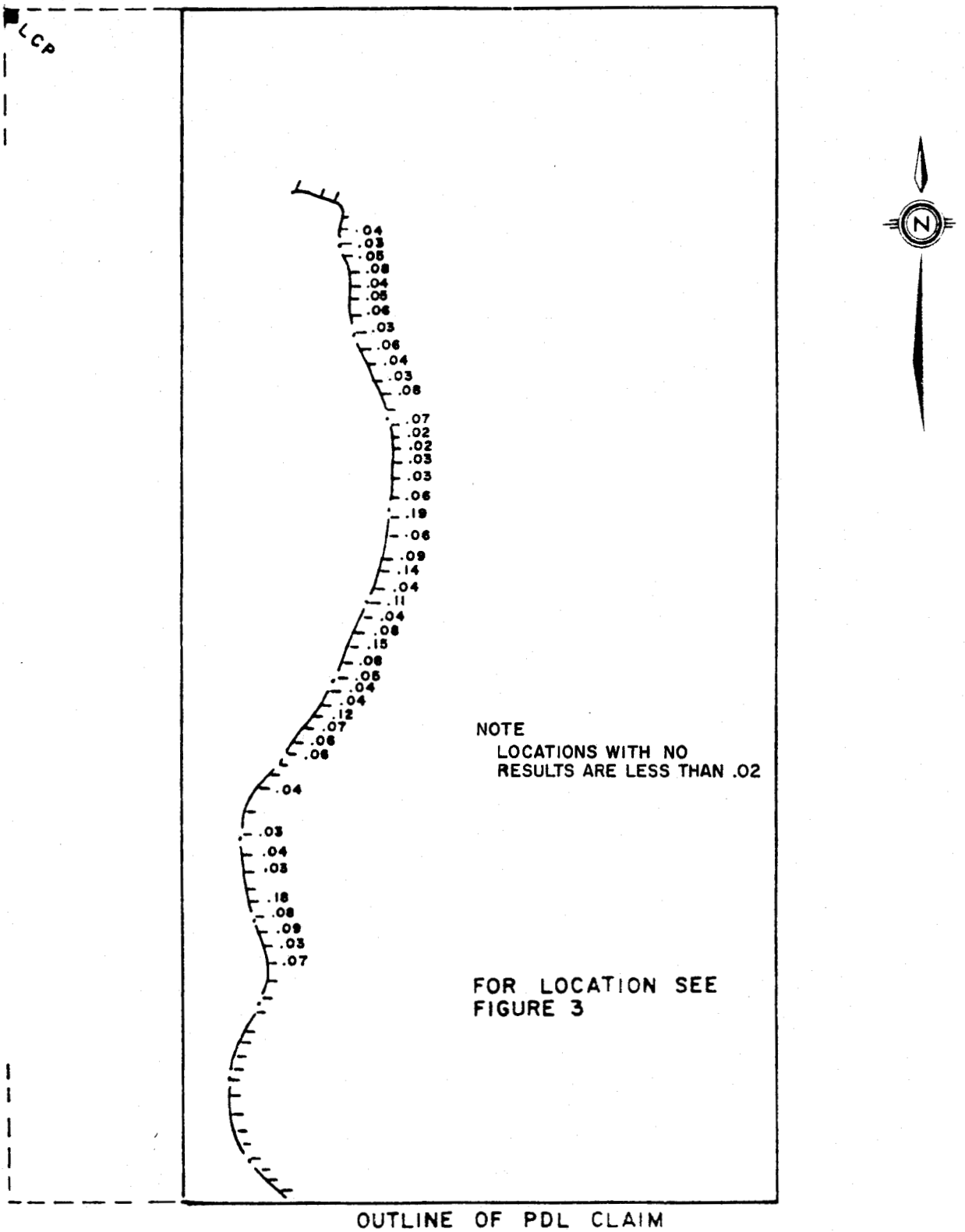


FIGURE 4

PDL CLAIM
SOIL SAMPLE RESULTS
GOLD IN PPM

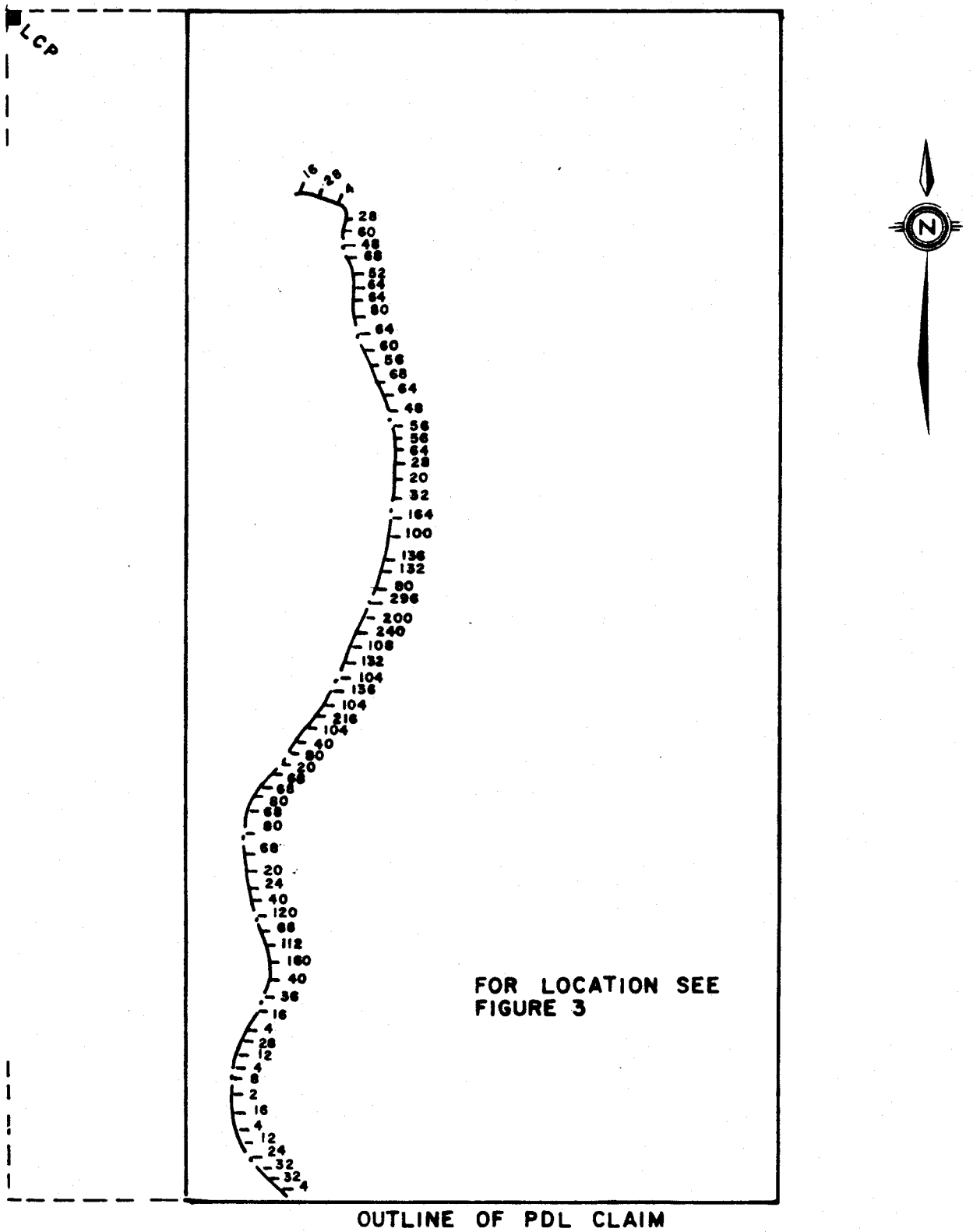


FIGURE 5

PDL CLAIM
SOIL SAMPLE RESULTS
ARSENIC IN PPM

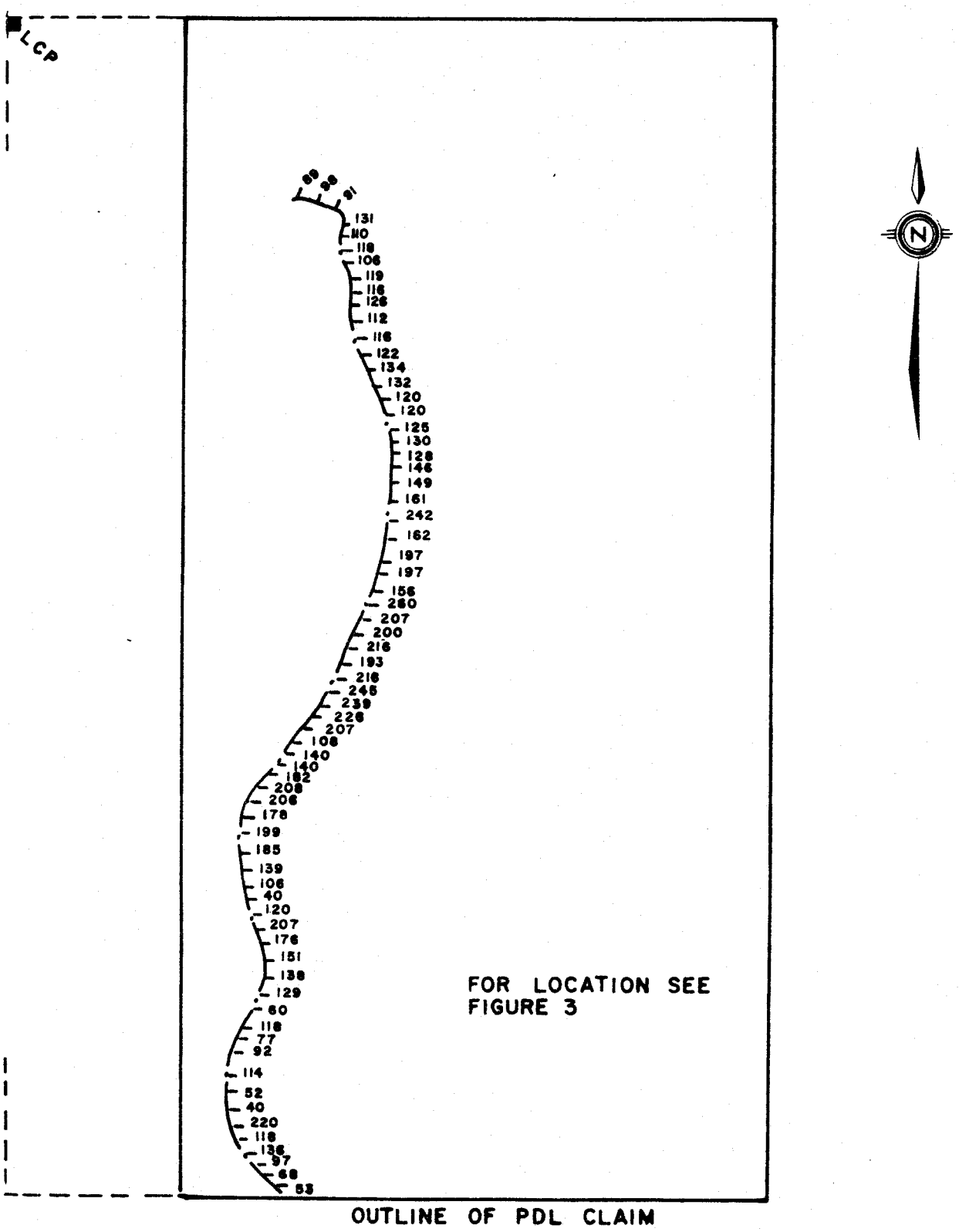


FIGURE 6

PDL CLAIM
SOIL SAMPLE RESULTS
COPPER IN PPM

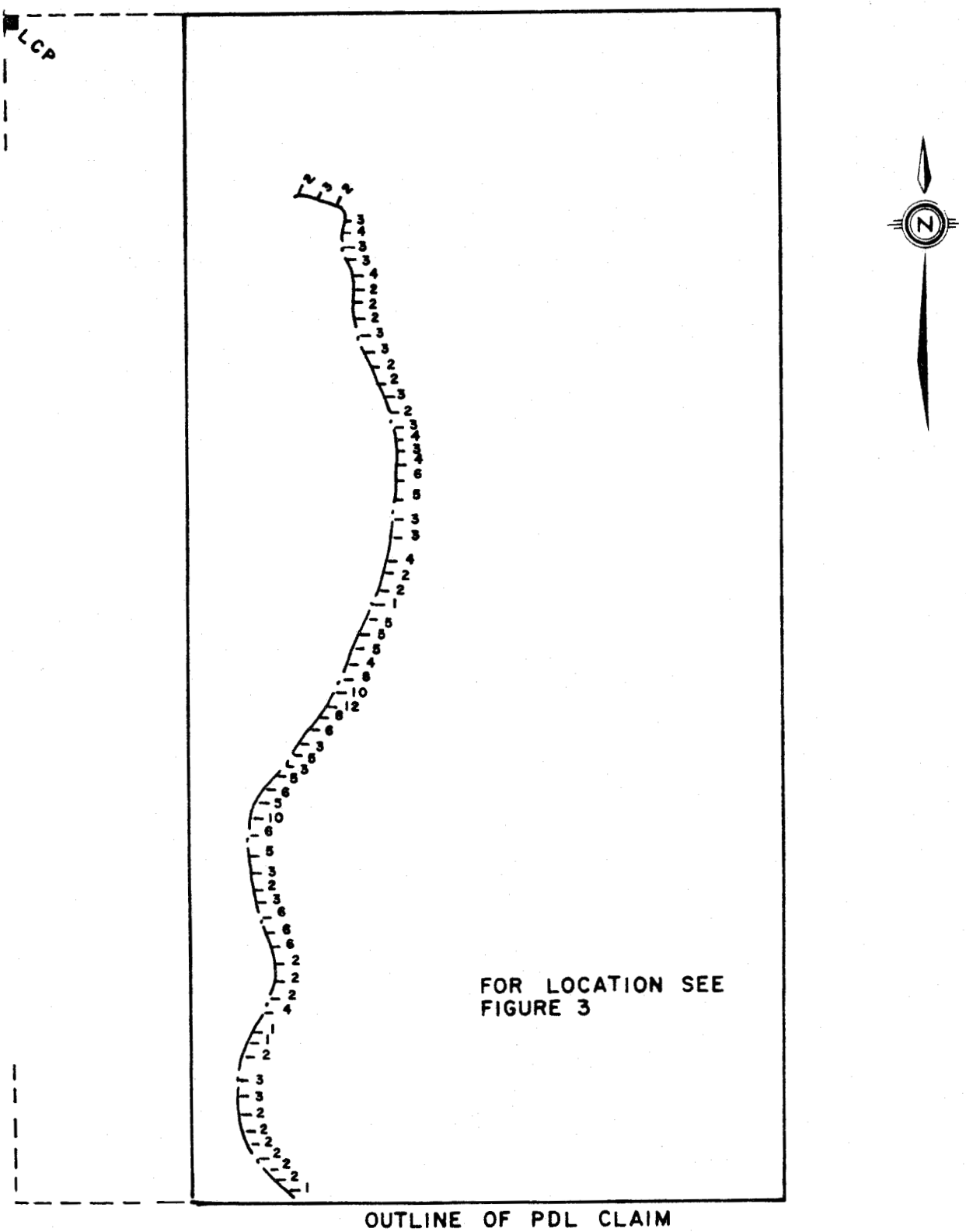


FIGURE 7

PDL CLAIM
SOIL SAMPLE RESULTS
MOLYBDENUM IN PPM

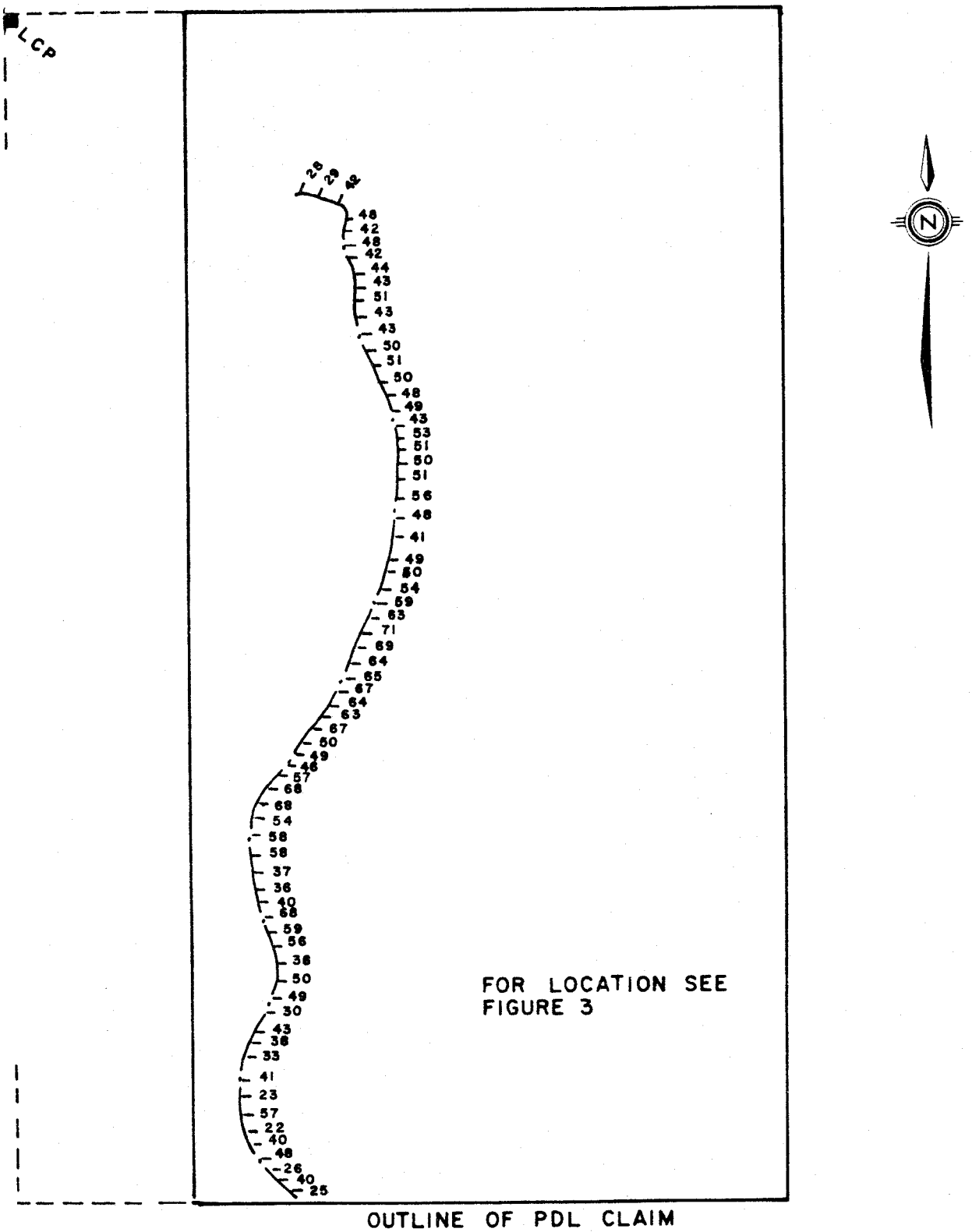


FIGURE 8

PDL CLAIM
SOIL SAMPLE RESULTS
COBALT IN PPM

6.3 Sample Preparation and Analytical Procedures

All samples for this program were prepared and assayed by Placer Development Limited Geochemical Laboratory at Vancouver, B.C.

(a) **Analysis for Cu, Mo, As, and Co.**

All samples are dried in a hot air dryer. The soil samples are then sifted in -80 mesh nylon sieves.

Following the drying and sieving process, a 0.50 gm portion of -80 mesh fraction of soil is weighed with a precision torsion balance. Samples are digested in hot solution of HNO_3 and $HClO_4$ for three and a half hours, then cooled, diluted and prepared for analysis on Perkin-Elmer 603 Atomic Absorption Spectrophotometer for Cu, Mo, Pb, Mn, Ag, As and Ni. Bulk sediments were not analyzed for Ni.

Detection limits and ranges are listed below:

Metal	Detection Limit & Range
Copper	2 - 4,000 ppm
Molybdenum	1 - 1,000 ppm
Arsenic	2 - 1,000 ppm
Cobalt	2 - 2,000 ppm

(b) **Analysis for Au**

Following the drying and sieving process, a 10.0 gm portion of -80 mesh fraction of soil talus-fine or conventional sediment or -150 mesh fraction of the bulk sediments or rock is mixed with aqua regia and heated at 600 degrees Celsuis for three hours, then HBr solution is added

and allowed to stand overnight. Water and MIBr solution are added, shaken, centrifuged and then 1% HBr in water is added to the top organic layer separate. Solution is shaken prior to analysis for Au by atomic absorption. Detection limit and range are 0.02 to 4.00 ppm.

7. Statement of Expenses

Sample preparation and analysis for Au, As, Cu, Mo, Co		
69 samples @ $10.45/sample		$ 721.05
Labour Cost		
R. Young 1 1/2 days @$390/day	$585.00	
J. Thornton 1/2 day @$300/day	150.00	
P. Pacor 1/2 day @$300/day	150.00	
R. Boyce 1/2 day @$250/day	125.00	
Totals 2 man days	$1,010.00	$1,010.00
Camp Cost		
2 man days @ $40/man day	80.00	80.00
Vehicle Cost		
1 day @$20/vehicle day	20.00	20.00
TOTAL:		$1,831.05

8. Conclusion

There is/are mineral occurrence(s) in the east wall of the valley above the line and upstream from the alluvial fan that was sampled that act as a source(s) for the metal detected by the sampling.

The results are such that follow up to locate and evaluate the source(s) is necessary.

9. Recommendation

That follow up be done and that the necessary work carried out as soon as possible in the 1985 field season.

Robert J. Young, P. Eng.

RJY/cs
11:22:84
Attachment

APPENDIX 1

STATEMENT OF QUALIFICATIONS

I, Robert J. Young of Placer Development Limited do hereby certify that:

1. I am a Geological Engineer.

2. I am a graduate of the University of British Columbia with a B.A.Sc in Geological Engineering 1962.

3. I am a member, in good standing at the Association of Professional Engineers of British Columbia.

4. From 1957 until the present, I have been engaged in exploration and mining geology (open pit and underground) in British Columbia and in Chile, S.A.

5. I personally supervised and participated in the field work and have compiled, reviewed and assessed the data resulting from the work.

Robert J. Young, P. Eng.

RJY/cs

APPENDIX II

Geochemical Assay Listing for Soil Samples.

PLACER GEOCHEM ASSAY SYSTEM: DATA FROM PDL CLAIMS

GRID	SAMPLE		PROJECT	MO	CU	CO	AU	AS
82E5	GMX	055	4319	2	132	50	0.03	68
82E5	GMX	056	4319	2	134	51	0.04	56
82E5	GMX	057	4319	3	122	50	0.05	60
82E5	GMX	058	4319	3	116	43	0.03	64
82E5	GMX	059	4319	2	112	43	0.06	80
82E5	GMX	060	4319	2	126	51	0.05	64
82E5	GMX	061	4319	2	116	43	0.04	64
82E5	GMX	062	4319	4	119	44	0.08	52
82E5	GMX	063	4319	3	106	42	0.05	68
test	STD G		4319	12	95	20		64
82E5	GMX	064	4319	3	118	48	0.03	48
82E5	GMX	065	4319	4	110	42	0.04	60
82E5	GMX	066	4319	3	131	48	<0.02	28
82E5	GMX	068	4319	2	91	29	<0.02	4
82E5	GMX	069	4319	3	98	29	<0.02	28
82E5	GMX	070	4319	2	89	28	<0.02	16
82E5	GMX	070*	4319	3	90	28	<0.02	16
test	STD AU		4319				0.67	
test	STD AU		4319				0.69	
test	STD AU		4319				0.70	
test	STD AU		4319				0.70	

END OF LISTING - 81 RECORDS PRINTED
GCLIST RUN AT: 08:43:09

PLACER GEOCHEM ASSAY SYSTEM: DATA FROM PDL CLAIMS

GRID	SAMPLE		PROJECT	MO	CU	CO	AU	AS
82E5	GMX	001	4319	1	53	25	<0.02	4
82E5	GMX	002	4319	2	68	40	<0.02	32
82E5	GMX	003	4319	2	97	26	<0.02	32
82E5	GMX	004	4319	2	136	48	<0.02	24
82E5	GMX	005	4319	2	118	40	<0.02	12
82E5	GMX	006	4319	2	40	22	<0.02	4
82E5	GMX	007	4319	2	220	57	<0.02	16
82E5	GMX	008	4319	3	52	23	<0.02	2
82E5	GMX	009	4319	3	114	41	<0.02	8
test	STD G		4319	12	85	22		72
82E5	GMX	010	4319	2	92	33	<0.02	4
82E5	GMX	011	4319	1	77	38	<0.02	12
82E5	GMX	012	4319	1	118	43	<0.02	28
82E5	GMX	013	4319	4	60	30	<0.02	4
82E5	GMX	014	4319	2	129	49	<0.02	16
82E5	GMX	015	4319	2	138	50	<0.02	36
82E5	GMX	016	4319	2	151	38	0.07	40
82E5	GMX	017	4319	6	176	56	0.03	160
82E5	GMX	018	4319	6	207	59	0.09	112
test	STD G		4319	13	100	22		68
82E5	GMX	019	4319	6	210	68	0.08	120
82E5	GMX	020	4319	3	130	40	0.18	40
82E5	GMX	021	4319	2	106	36	<0.02	24
82E5	GMX	022	4319	3	139	37	<0.02	20
82E5	GMX	023	4319	5	185	58	0.03	68
82E5	GMX	024	4319	6	199	58	0.04	80
82E5	GMX	025	4319	5	178	54	0.03	68
82E5	GMX	026	4319	10	206	68	<0.02	80
82E5	GMX	027	4319	6	208	66	0.04	68
82E5	GMX	027*	4319	6	210	68	0.03	68
82E5	GMX	028	4319	5	182	57	<0.02	68
82E5	GMX	029	4319	3	140	46	<0.02	20
82E5	GMX	030	4319	5	140	49	0.06	80
82E5	GMX	031	4319	3	108	50	0.06	40
82E5	GMX	032	4319	6	207	67	0.09	104
82E5	GMX	033	4319	8	226	69	0.12	216
82E5	GMX	034	4319	12	239	64	0.04	104
82E5	GMX	035	4319	10	245	67	0.04	136
82E5	GMX	036	4319	8	216	65	0.05	104
82E5	GMX	036*	4319	8	214	68	0.08	104
82E5	GMX	037	4319	4	193	64	0.08	132
82E5	GMX	038	4319	5	216	69	0.15	108
82E5	GMX	039	4319	5	200	71	0.08	240
82E5	GMX	040	4319	5	207	63	0.04	200
82E5	GMX	041	4319	1	260	59	0.11	296
82E5	GMX	042	4319	2	156	54	0.04	80
82E5	GMX	043	4319	2	197	50	0.14	132
82E5	GMX	044	4319	4	197	49	0.09	136
82E5	GMX	045	4319	3	162	41	0.06	100
test	STD G		4319	12	95	19		60
82E5	GMX	046	4319	3	242	48	0.19	164
82E5	GMX	047	4319	5	161	56	0.06	32
82E5	GMX	048	4319	6	149	51	0.03	20
82E5	GMX	049	4319	4	146	50	0.02	28
82E5	GMX	050	4319	3	128	51	0.03	64
82E5	GMX	051	4319	4	130	53	0.02	56
82E5	GMX	052	4319	3	125	43	0.07	56
82E5	GMX	053	4319	2	120	49	<0.02	48
82E5	GMX	054	4319	3	121	48	0.08	64
82E5	GMX	054*	4319	3	123	48	0.03	60