

85-1111-14408

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 94F/11W, 11E

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,408

ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

KWAD GROUP - KWAD 1-4, 6-8 CLAIMS

KWADACHA RIVER AREA

OMINECA MINING DIVISION

BRITISH COLUMBIA

LATITUDE: 57°37'N; LONGITUDE: 125°^{16.5'}W

FILMED

PERIOD OF FIELD WORK

AUGUST 3 TO AUGUST 8, 1985

Owner/Operator: Cominco Ltd.

RECEIVED
JAN 31 1986
Gold Commissioner's Office
VANCOUVER, B.C.

30 JANUARY 1986

BY: D. RHODES.

LIST OF CLAIMS - KWAD GROUP

<u>CLAIM NO.</u>	<u>RECORD NO.</u>	<u>NO. OF UNITS</u>	<u>RECORDING DATE</u>
KWAD 1	2335	20	November 8, 1979
KWAD 2	2336	20	November 8, 1979
KWAD 3	2337	20	November 8, 1979
KWAD 4	2338	20	November 8, 1979
KWAD 6	2340	20	November 8, 1979
KWAD 7	2341	20	November 8, 1979
KWAD 8	2342	18	November 8, 1979

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ASSESSMENT REPORT

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE KWAD GROUP

KWADACHA RIVER AREA

OMINECA MINING DIVISION

I. INTRODUCTION

The Kwad Group, totalling 138 units was staked to cover the baritic shale facies of the Gunsteel Formation and the possible strike extension of the Mount Alcock barite-lead-zinc occurrence.

Preliminary silt, soil and rock sampling, prospecting, geological mapping and linecutting in 1980 was followed up in 1981 by more detailed mapping and geochemical sampling.

In 1985 a rock geochemical sampling program took 257 samples which were subsequently analyzed for Pb, Zn, Ba, Hg and major elements. This program costing \$23,063.41 is documented in this report.

II. LOCATION AND ACCESS

The Kwad Group is located on the south side of the Kwadacha River approximately 7 kilometres south of Mount Alcock. The center of the claim group is located at latitude 57°37'N and longitude 125°17'W.

The property work was conducted out of a fly camp which was mobilized and supplied by (i) wheel equipped aircraft flying into Ingenika strip from Mackenzie 190 km to the south, (ii) a Hughes 500D helicopter operating out of the Sturdee strip flying the 60 km from Ingenika to the property.

III. GEOLOGY (Taken from Waters, B.C., 1981)

A. Geological Setting

A northwesterly trending belt of Ordovician to Devonian clastics has been outlined 40 km east of the Rocky Mountain Trench during a recent mapping program by the Geological Survey of Canada. This belt is part of the NW trending Kechika Trough which may represent a southeasterly extension of the larger Selwyn Basin. The belt can be subdivided into three parallel troughs or sub-basins which strike northwesterly. These are paleogeographic troughs as indicated by sedimentology and are not structural repetitions of a single trough. Barite appears to be present in all three troughs from both the Ordovician-Silurian Road River Formation and the Devonian Earn Group.

The South Kwad claim group is located over the central trough which is also the site of the Devonian Ba,Pb,Zn,Ag mineralization of the Cirque deposit and the Ordovician submarine volcanics. Block faults probably developed under an extensional tectonic regime and are thought to have controlled the shale deposition within the three sub-basins of the Kechika trough. These faults could also have acted as conduits for mineralizing solutions, which could have produced sulphides (pyrite, sphalrite and galena) or sulphate (barite) precipitates upon exhalation into the Middle/Upper Devonian euxinic sedimentary basin.

The Columbian orogeny (Cretaceous?) has produced regional folding and thrusting in the area with NE vergence and NWSE strike. Competant Cambrian and Silurian lithologies tend to form the overthrust plates while Devonian and Ordovician shales in the footwall plates of the thrusts are often heavily deformed by semi-isoclinal folding. A slightly later normal faulting along NWSE lines is evident locally.

B. Geology of the Property

The geology of the property is dominated by NE vergent SW dipping thrust faults, probably developed during the Mesozoic Columbian orogeny, which has induced the prevalent NW strike and SW dip of most lithologies. The faults have exploited the contacts between the Cambrian, Ordovician, Silurian, Lower Devonian and Upper Devonian, (Table 1) and have produced tight folding and strong cleavage in the finer clastic lithologies resulting in an overall tectonic shortening of around 50%.

The Ordovician and Silurian sediments do not vary significantly across the area, but the thrustsed Lower Devonian sections suggest a progression from limestone reef deposition on an elevated ridge in the east of the claim, to a restricted basinal turbiditic shale deposition across the centre of the area. This basinal environment is also reflected in the Upper Devonian Earn Group "Gunsteel".

IV. GEOCHEMISTRY

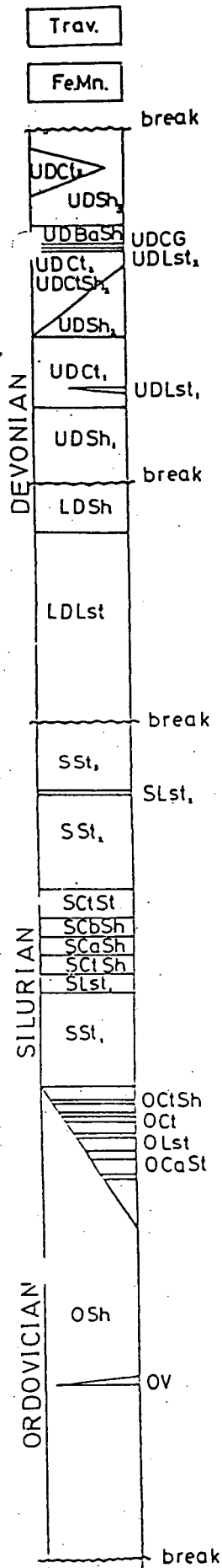
Two hundred and fifty-seven rock samples were collected along ten traverses that followed areas of moderate to good outcrop and felsenmeer exposure on ridge tops and in creek bottoms. Sample sites were spaced 40 metres apart along the traverses with two hand-size specimens being taken 5 metres apart at each sample site (Plate 85-3).

All of the samples were analyzed for lead, zinc, barium and mercury and major elements. The lead and zinc analyses were made by decomposition with aqua regia and subsequent analysis in dilute nitric acid by atomic absorption. Barium was quantitatively determined by XRF. Mercury was determined by dissolution in nitric acid and reduction in stannous chloride. The mercury was washed with an air stream into a silica absorption cell and analyzed with cold vapour atomic absorption. The major elements were determined by lithium borate fusion and XRF.

Appendix D presents the field data and statistics on the rock geochemistry based on the total population collected. From this data and the cumulative frequency curves one can pick anomalous thresholds for the elements as follows:

Ba - 20,000 ppm Zn - 200 ppm Pb - 30 ppm Hg - 150 ppm

TABLE 1



Trav.	Trav	Cream yellow vuggy travertine.
FeMn.	FeMn	Fe Mn cemented breccia deposits.
	UDSh	Unassigned Upper Devonian shale.
	UDCt ₃	Grey weathering and or Fe stained black cherts and cherty shales. (0-50 m)
	UDSh ₃	Fe stained weathering black carbonaceous shale and silty shale. (200 m?)
	UDBaSh	Fe stained weathering <u>barite</u> and <u>pyrite</u> lensed black carbonaceous and silty shale. (0-20 m)
	UDCG	Slightly <u>pyritic</u> and <u>baritic</u> 'Chert Grit' variably sized angular grit fragments in a very fine grained matrix. (0-2 m)
	UDLst ₂	Black coarsely crystalline fetid (strong smelling) limestone. (0-1 m)
	UDct ₂	Dark grey to black carbonaceous chert. (50-200 m)
	UDctSh ₂	Fe stained weathering black cherty shale. (50-200 m)
	UDSh ₂	Fe stained weathering dark grey to black silty shale. (50-200 m)
	UDct ₁	Black cherts and cherty shales. (?-150 m)
	UDLst ₁	Black coarsely crystalline fetid limestone. (2 m)
	UDSh ₁	Fe stained weathering silty shale. (?-150 m)
	LDSh	Brown weathering black carbonaceous calcareous silt and silty shale. (50-100 m)
	LDLst	Light grey weathering dark grey to black limestone with occasional fossils. (0-400 m?)
	SSt	Unassigned Silurian siltstone.
	SSt ₃	Brown weathering mottled calcareous silty shales, calcareous silts and semi-quartzites. (50-150 m?)
	SLst ₂	Grey brown weathering medium grey variably silty limestone. (0-5 m)
	SSt ₂	Brown weathering homogenous calc siltstone with pyrite filled burrows. (50-200 m?)
	SCtSt	Grey brown or reddish purple weathering siltstone with 1-2 cm long lenses of dark grey or black chert. (0-20 m)
	SCbSh	Black carbonaceous silty shale. (0-20 m)
	SCaSh	Grey brown weathering calcareous shale. (0-20 m)
	SCtSh	Black cherty and carbonaceous shale. (0-20 m)
	SLst ₁	Grey brown weathering silty or Crinoidal limestone. (0-20 m)
	SSt ₁	Grey brown weathering calc silt and silty shale. (0-200 m)
	OSh	Variably carbonaceous, calcareous and silty shale with occasional thick pyrite lenses.
	OCtSh	Black carbonaceous cherty shale. (10-20 m beds)
	OCt	Black carbonaceous chert - (rare <u>sphalerite</u> grains). (1-2 m beds)
	OLst	Lenoid bodies of black coarsely crystalline limestone. (1-2 m beds)
	OCaSt	Grey brown weathering calc silts. (1-2 m beds)
	OV	Orange weathering green vuggy tuffs and lavas. (10 m?)

E
A
R
N
G
R
O
U
P

1000m.

STRATIGRAPHIC COLUMN
SOUTH KWAD GROUP.

Scale: _____ Date: Oct 81 Plate: _____



The whole rock compositions identify the different rock units by their relatively distinct compositions ie. high MgO characterizing the dolomitic Silurian siltstones, variable high SiO₂ and CaO characterizes the calcareous to siliceous Ordovician mudstones and siltstones and high SiO₂ and barium characterizing the Earn Group.

The Earn Group strata on the South Kwad are clearly very anomalous in barium with elevated levels of lead and mercury. These overall high values produce anomalous thresholds for the South Kwad claims that are higher than Earn Group samples on the Gnome property.

V. CONCLUSIONS

The high barium values and somewhat elevated lead and mercury values in Earn Group rocks on the South Kwad claims suggest that these rocks have greater potential for hosting barite-lead-zinc deposits than Earn Group rocks on Cominco's Gnome claims. The metal values however are generally low and do not indicate any immediate proximity to significant sulphide accumulations. Any potential for deposits on these claims is probably well down dip from surface exposures and would require testing by systematically spaced wild cat holes. Such drilling may be justifiable when and if known Akie deposits (ie. the Cirque) are being mined. It cannot be justified at present or in the immediate future.

Reported by: *Derek Rhodes*
D. Rhodes,
Senior Geologist

Endorsed for
Release by: *John Hamilton*
J.M. Hamilton
Manager, Exploration -
Western Canada

DR/cgs

Distribution
Mining Recorder
Western District
DR

VI. REFERENCES

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- Pride, K.R. (1980): Assessment Report Geological and Geochemical Report on the Gnome Group, Akie River Area, Omineca M.D. B.C.
- Waters, B.C. (1981): Assessment Report-Geology, Geochemistry, South Kwad Property.

APPENDIX A

STATEMENT OF EXPENDITURES

SOUTH KWAD CLAIM GROUP

AUGUST 3 TO AUGUST 8, 1985

D. Rhodes	5 days @ \$281.84	\$1,409.20	
C.N. Repp	5 days @ \$ 87.12	435.60	
T.C. McDonald	5 days @ \$ 97.68	<u>488.40</u>	\$2,333.20
Equipment and Supplies			3,578.89
Transportation - Fixed Wing		\$ 787.67	
- Helicopter and Fuel		<u>4,737.85</u>	5,525.52
Geochemistry			
257 Rock Samples			
Prep. & analysis for Pb,Zn,Hg,Ba @ \$14.40 each			3,700.80
257 Rock Samples			
Analysis for major elements @ \$25.00 each			6,425.00
Report Preparation and Draughting			<u>1,500.00</u>
		TOTAL	<u>\$23,063.41</u>

APPENDIX B

A F F I D A V I T

I, Dereck Rhodes, of the Municipality of North Vancouver District, in the Province of British Columbia, make oath and say:

1. THAT I am employed as a geologist by Cominco Ltd., and as such have a personal knowledge of the facts to which I hereinafter depose;
2. THAT I annexed hereto and marked as Appendix A to this my affidavit is a true copy of expenditures incurred in connection with a geochemical program carried out on the KWAD mineral claims:
3. THAT said expenditures were incurred between the third day of August and the eighth day of August, 1985 for the purpose of mineral exploration on the above noted claims.

Signed: _____

Dereck Rhodes

Dereck Rhodes
Senior Geologist

APPENDIX C

STATEMENT OF QUALIFICATIONS

I, Dereck Rhodes, of the Municipality of North Vancouver District, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 2514 Bronte Road, North Vancouver, British Columbia, with a business address at 700-409 Granville Street, Vancouver, British Columbia.
2. THAT I graduated with a B.Sc., in geology from McMaster University in 1969.
3. THAT I have practiced geology with Cominco Ltd. from June 1969 to the present.

Signed: _____

Dereck Rhodes

Dereck Rhodes
Senior Geologist

APPENDIX D

ROCK GEOCHEMICAL DATA AND STATISTICS

SOUTH KWAD (AIKIE W.P.)

JOB

V 85-0343R

SOUTH KWAD

REPORT DATE 4 OCT 1985

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	BA(4) PPM	Hg PPB
R8511783	KWAD 1-2A	4	60	901	123
R8511784	KWAD 1-2B	4	7	1024	160
R8511785	KWAD 1-3A	5	8	1535	450
R8511786	KWAD 1-3B	10	51	5645	720
R8511787	KWAD 1-4A	12	146	4421	95
R8511788	KWAD 1-4B	16	22	4191	80
R8511789	KWAD 1-5A	17	10	4646	80
R8511790	KWAD 1-5B	7	53	6180	132
R8511791	KWAD 1-6A	4	1	1306	112
R8511792	KWAD 1-6B	4	51	1026	84
R8511793	KWAD 1-7A	15	9	5127	143
R8511794	KWAD 1-7B	4	14	2426	40
R8511795	KWAD 1-8A	15	83	10979	92
R8511796	KWAD 1-8B	17	78	14789	59
R8511797	KWAD 1-9A	18	41	15134	98
R8511798	KWAD 1-9B	4	39	1618	23
R8511799	KWAD 1-10A	6	357	3290	50
R8511800	KWAD 1-10B	16	13	11596	89
R8511801	KWAD 1-11A	15	21	843	27
R8511802	KWAD 1-11B	13	69	7057	92
R8511803	KWAD 1-12B	13	14	822	19
R8511804	KWAD 1-14A	16	169	831	45
R8511805	KWAD 1-14B	22	94	657	32
R8511806	KWAD 1-15A	7	109	529	19
R8511807	KWAD 1-15B	34	106	656	28
R8511808	KWAD 2-1A	7	13	529	19
R8511809	KWAD 2-1B	18	50	704	32
R8511810	KWAD 2-2A	27	147	1216	46
R8511811	KWAD 2-2B	5	19	473	41
R8511812	KWAD 2-3A	11	68	1044	50
R8511813	KWAD 2-3B	37	249	1080	41
R8511814	KWAD 2-4A	9	94	3727	67
R8511815	KWAD 2-4B	8	73	3335	50
R8511816	KWAD 2-5A	11	13	9892	96
R8511817					
R8511818					
R8511819					
R8511820	KWAD 2-5B	16	347	10249	130
R8511821	KWAD 2-6A	12	125	13883	110
R8511822	KWAD 2-6B	20	78	5464	80
R8511823	KWAD 2-7A	17	54	10464	58
R8511824	KWAD 2-7B	12	29	6852	70
R8511825	KWAD 2-8A	13	25	11658	72
R8511826	KWAD 2-8B	10	16	5734	86
R8511827	KWAD 2-9A	18	16	6074	89
R8511828	KWAD 2-9B	19	23	5747	83
R8511829	KWAD 2-10A	11	37	9935	32
R8511830	KWAD 2-10B	18	17	6159	109
R8511831	KWAD 2-11A	4	21	663	42
R8511832	KWAD 2-11B	4	186	1142	28
R8511833	KWAD 2-12A	14	190	5257	62

LAD NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba (4) PPM	Hg PPB
R0511034	KNAD 2-12b	5	36	30942	130
R0511035	KNAD 2-13a	12	34	10503	07
R0511036	KNAD 2-13b	11	32	10226	92
R0511037	KNAD 2-14a	6	28	4437	73
R0511038	KNAD 2-14b	10	10	5761	02
R0511039	KNAD 2-15a	5	89	4119	60
R0511040	KNAD 2-15b	8	72	3203	50
R0511041	KNAD 2-17a	<4	29	620	100
R0511042	KNAD 2-17b	<4	16	1077	95
R0511043	KNAD 2-1a	5	305	906	100
R0511044	KNAD 3-1b	5	114	1150	95
R0511045	KNAD 2-2a	<4	302	1092	68
R0511046	KNAD 3-2b	13	192	1356	112
R0511047	KNAD 2-3a	8	59	1481	84
R0511048	KNAD 3-3b	5	16	988	127
R0511049	KNAD 2-4a	6	65	1087	100
R0511050	KNAD 3-4b	0	33	1029	98
R0511051	KNAD 2-5a	4	26	1151	27
R0511052	KNAD 3-5b	11	41	1098	50
R0511053	KNAD 2-6a	7	21	891	73
R0511054	KNAD 3-6b	7	37	980	87
R0511055	KNAD 2-7a	5	128	1227	82
R0511056	KNAD 3-7b	<4	71	1151	89
R0511057	KNAD 2-8a	<4	24	1183	07
R0511058	KNAD 3-8b	7	10	3300	160
R0511059	KNAD 2-9a	<4	19	1772	130
R0511060	KNAD 3-9b	<4	9	1267	100
R0511061	KNAD 2-10a	5	20	2838	210
R0511062	KNAD 3-10b	5	9	2887	140
R0511063	KNAD 4-1a	<4	7	645	32
R0511064	KNAD 4-1b	<4	255	950	62
R0511065	KNAD 4-2a	4	20	1096	82
R0511066	KNAD 4-2b	<4	90	1163	67
R0511067	KNAD 4-4a	9	11	3513	280
R0511068	KNAD 3-4b	<4	9	879	73
R0511069	KNAD 4-5a	19	25	3307	92
R0511070	KNAD 3-5b	12	73	3244	82
R0511071	KNAD 4-6a	13	26	5167	80
R0511072	KNAD 3-6b	11	27	6551	87
R0511073	KNAD 4-7a	11	17	60616	180
R0511074	KNAD 3-7b	8	52	5439	175
R0511075	KNAD 4-8a	5	5	978	73
R0511076	KNAD 3-8b	5	40	1061	41
R0511077	KNAD 4-9a	11	66	13435	83
R0511078	KNAD 3-9b	13	20	6529	76
R0511079	KNAD 4-10a	<4	125	1471	10
R0511080	KNAD 3-10b	16	29	5994	70
R0511081	KNAD 4-11a	22	16	14654	87
R0511082	KNAD 3-11b	15	26	4719	89
R0511083	KNAD 4-12a	28	16	6087	100
R0511084	KNAD 3-12b	24	116	6817	87
R0511085	KNAD 4-13a	7	17	18015	220
R0511086	KNAD 3-13b	12	33	16670	170
R0511087	KNAD 4-14a	7	22	1727	23

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	BA (4) PPM	Hg PPB
R8511888	KWAD 3-14b	<4	30	1051	46
R8511889	KWAD 4-16a	4	12	1329	<10
R8511890	KWAD 4-16b	<4	46	1564	10
R8511891	KWAD 4-17a	12	96	1173	76
R8511892	KWAD 4-17b	7	8	913	49
R8511893	KWAD 4-18a	<4	16	1017	32
R8511894	KWAD 4-18b	<4	9	811	28
R8511895	KWAD 4-19a	10	27	1134	32
R8511896	KWAD 4-19b	4	18	1364	10
R8511897	KWAD 5-1a	13	72	1021	<10
R8511898	KWAD 5-1b	13	77	1220	32
R8511899	KWAD 5-2a	9	69	1057	20
R8511900	KWAD 5-2b	7	18	913	23
R8511901	KWAD 5-7a	12	54	12279	82
R8511902	KWAD 5-7b	18	36	6519	73
R8511903	KWAD 5-8a	11	266	5684	76
R8511904	KWAD 5-8b	21	34	5252	83
R8511905	KWAD 5-9a	15	20	5614	82
R8511906	KWAD 5-9b	18	30	5875	92
R8511907	KWAD 5-10a	9	48	10656	59
R8511908	KWAD 5-10b	11	23	14063	73
R8511909	KWAD 5-11a	10	7	1615	370
R8511910	KWAD 5-11b	<4	6	1225	76
R8511911	KWAD 5-12a	6	4	1245	66
R8511912	KWAD 5-12b	5	33	1050	46
R8511913	KWAD 5-13a	12	154	34947	130
R8511914	KWAD 5-13b	14	35	35581	89
R8511915	KWAD 5-14a	18	74	11869	82
R8511916	KWAD 5-14b	12	40	38636	76
R8511917	KWAD 5-15a	16	70	4743	82
R8511918	KWAD 5-15b	13	43	14773	86
R8511919	KWAD 5-16a	14	21	4054	76
R8511920	KWAD 5-16b	13	7	3551	46
R8511921	KWAD 5-17a	6	56	805	42
R8511922	KWAD 5-17b	8	53	927	82
R8511923	KWAD 6-1a	21	132	3905	155
R8511924	KWAD 6-1b	93	348	3980	440
R8511925	KWAD 6-4a	17	114	5287	205
R8511926	KWAD 6-4b	16	84	5357	140
R8511927	KWAD 6-5a	15	33	6413	210
R8511928	KWAD 6-5b	16	38	11718	165
R8511929	KWAD 6-6a	18	33	6062	170
R8511930	KWAD 6-6b	23	120	16135	62
R8511931	KWAD 6-7a	13	9	6530	63
R8511932	KWAD 6-7b	16	32	53472	210
R8511933	KWAD 6-8a	15	17	11337	58
R8511934	KWAD 6-8b	17	31	15493	123
R8511935	KWAD 6-9a	13	15	4395	46
R8511936	KWAD 6-9b	13	48	6177	86
R8511937	KWAD 6-10a	18	24	6769	84
R8511938	KWAD 6-10b	21	37	9652	59
R8511939	KWAD 7-1b	11	143	63656	285
R8511940	KWAD 7-2a	13	38	4683	92
R8511941	KWAD 7-2b	8	36	6993	140

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	DA(4) PPM	Hg PPB
R8511942	KHAD 7-3A	14	106	12127	180
R8511943	KHAD 7-3B	26	78	4062	84
R8511944	KHAD 7-4A	17	34	15914	89
R8511945	KHAD 7-4B	9	42	4781	23
R8511946	KHAD 7-5A	19	19	5318	84
R8511947	KHAD 7-5B	18	12	15520	73
R8511948	KHAD 7-6A	18	151	17723	96
R8511949	KHAD 7-6B	27	91	5618	99
R8511950	KHAD 7-7A	18	27	6357	89
R8511951	KHAD 7-7B	24	121	5778	100
R8511952	KHAD 7-8B	20	178	12732	99
R8511953	KHAD 7-9B	20	205	14156	89
R8511954	KHAD 7-14A	13	61	544	73
R8511955	KHAD 8-1A	17	8	946	70
R8511956	KHAD 8-1B	10	10	1014	49
R8511957	KHAD 8-4A	10	96	518	10
R8511958	KHAD 8-4B	12	39	375	14
R8511959	KHAD 8-6A	12	85	821	28
R8511960	KHAD 8-6B	9	33	915	130
R8511961	KHAD 8-7A	14	9	1148	47
R8511962	KHAD 8-7B	15	138	918	83
R8511963	KHAD 8-8A	15	35	1975	87
R8511964	KHAD 8-8B	17	19	708	49
R8511965	KHAD 8-9A	16	48	1277	50
R8511966	KHAD 8-9B	21	14	886	38
R8511967	KHAD 8-10A	17	22	1583	28
R8511968	KHAD 9-11A	14	203	3167	32
R8511969	KHAD 9-11B	25	171	4206	49
R8511970	KHAD 9-12A	14	63	4453	86
R8511971	KHAD 9-12B	18	53	5560	84
R8511972	KHAD 9-13A	11	78	2237	70
R8511973	KHAD 9-13B	13	43	2326	60
R8511974	KHAD 9-14A	15	60	6968	90
R8511975	KHAD 9-14B	14	71	30732	129
R8511976	KHAD 9-15A	25	14	10359	80
R8511977	KHAD 9-15B	24	15	6455	90
R8511978	KHAD 9-16A	20	19	11459	92
R8511979	KHAD 9-16B	16	10	16886	72
R8511980	KHAD 9-17A	14	24	1320	33
R8511981	KHAD 9-17B	12	21	2769	68
R8511982	KHAD 9-18A	16	369	3516	72
R8511983	KHAD 9-18B	14	36	2954	60
R8511984	KHAD 9-19A	17	11	2190	59
R8511985	KHAD 9-19B	15	60	3038	84
R8511986	KHAD 9-22A	10	96	1809	80
R8511987	KHAD 9-22B	11	165	1718	80
R8511988	KHAD 10-1A	8	27	1498	10
R8511989	KHAD 10-1B	11	61	1326	17
R8511990	KHAD 10-3A	18	27	2884	120
R8511991	KHAD 10-3B	10	138	3105	73
R8511992	KHAD 10-4A	22	21	4606	90
R8511993	KHAD 10-4B	17	107	3944	83
R8511994	KHAD 10-5A	16	32	3503	170
R8511995	KHAD 10-5B	14	29	3154	98

LAB NO	FIELD NUMBER	Pb PPM	Zn PPM	Ba(4) PPM	Hg PPM
R8511996	KHAD 10-6A	19	26	10417	99
R8511997	KHAD 10-6B	18	34	6892	97
R8511998	KHAD 10-7A	15	9	10418	75
R8511999	KHAD 10-7B	16	7	39934	100
R8512000	KHAD 10-8A	11	43	32395	130
R8512001	KHAD 10-8B	14	78	33320	98
R8512002	KHAD 10-9A	22	91	4631	73
R8512003	KHAD 10-9B	17	80	4355	70
R8512004	KHAD 10-10A	15	53	2842	83
R8512005	KHAD 10-10B	15	52	2963	93
R8512006	KHAD 8-10B	379	142	916	505
R8512007	KHAD 8-11A	18	33	6480	97
R8512008	KHAD 8-11B	15	18	1876	50
R8512009	KHAD 8-12A	25	70	16459	135
R8512010	KHAD 8-12B	18	125	2604	100
R8512011	KHAD 8-13A	29	20	13198	89
R8512012	KHAD 8-13B	30	15	11683	110
R8512013	KHAD 8-14A	18	19	1738	630
R8512014	KHAD 8-14B	17	35	1262	240
R8512015	KHAD 8-15A	12	124	1330	68
R8512016	KHAD 8-15B	10	25	1443	60
R8512017	KHAD 8-16A	14	9	1413	100
R8512018	KHAD 8-16B	24	20	16990	128
R8512019	KHAD 8-17A	22	66	15130	99
R8512020	KHAD 8-17B	25	73	3676	130
R8512021	KHAD 8-18A	17	43	15740	99
R8512022	KHAD 8-18B	19	122	5954	68
R8512023	KHAD 8-19A	14	53	1177	115
R8512024	KHAD 8-19B	20	122	6052	325
R8512025	KHAD 8-20A	12	48	1409	112
R8512026	KHAD 8-20B	11	10	748	47
R8512027	KHAD 8-21A	14	48	943	10
R8512028	KHAD 8-21B	19	144	1407	10
R8512029	KHAD 9-1A	14	161	1561	73
R8512030	KHAD 9-1B	16	111	1096	32
R8512031	KHAD 9-2A	14	59	1028	23
R8512032	KHAD 9-2B	12	50	1024	40
R8512033	KHAD 9-4A	12	43	1342	10
R8512034	KHAD 9-4B	11	161	1132	23
R8512035	KHAD 9-5A	12	51	1240	(10
R8512036	KHAD 9-5B	12	36	951	(10
R8512037	KHAD 9-6A	11	52	1846	32
R8512038	KHAD 9-6B	8	44	1469	23
R8512039	KHAD 9-9A	30	92	2546	60
R8512040	KHAD 9-9B	22	322	2582	50
R8512041	KHAD 9-10A	22	133	2399	63
R8512042	KHAD 9-10B	19	105	1375	83

LABORATORY
 CONTROL
 28180 T3
 REC-88
 11/10/88

I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCEEDS CALIBRATION C=BEING CHECKED R=REVISED
 IF REQUESTED ANALYSES ARE NOT SHOWN RESULTS ARE TO FOLLOW

ANALYTICAL METHODS
 Pb AQUA REGIA DECOMPOSITION / AAS
 Zn AQUA REGIA DECOMPOSITION / AAS
 Ba(4) X-RAY FLUORESCENCE
 Hg FLAMELESS AAS

SOUTH KWAD (AIKIE W.P.)

JOB V 65-0343R

REPORT DATE 4 OCT 1985

SOUTH KWAD

LAB NO	FIELD NUMBER	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %	FeO %	MnO %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	LOI %	TOTAL %
R8511783	KWAD 1-2a	92.66	0.10	1.72	1.10			0.11	0.09	0.02	0.55		2.97	99.32
R8511784	KWAD 1-2a	92.30	0.10	1.98	0.64			0.07	0.07	0.02	0.58		3.57	99.33
R8511785	KWAD 1-3a	92.63	0.13	2.56	0.62			0.08	0.05	0.02	0.75		2.58	99.42
R8511784	KWAD 1-3a	76.37	0.36	8.24	1.28			0.83	0.06	0.24	2.16		9.43	98.97
R8511787	KWAD 1-4a	77.50	0.48	9.92	3.94			0.30	0.07	0.13	2.09		4.75	99.18
R8511788	KWAD 1-4a	81.65	0.46	9.18	1.60			0.32	0.05	0.08	1.93		3.98	99.25
R8511789	KWAD 1-5a	81.47	0.48	9.14	1.37			0.45	0.05	0.18	2.38		3.68	99.20
R8511790	KWAD 1-5a	82.94	0.35	6.98	2.54			0.36	0.06	0.15	1.73		4.07	99.20
R8511791	KWAD 1-6a	89.00	0.14	2.88	0.47			0.19	0.04	0.02	0.49		6.13	99.64
R8511792	KWAD 1-6a	92.08	0.12	2.36	0.81			0.10	0.07	0.02	0.57		3.30	99.43
R8511793	KWAD 1-7a	77.14	0.39	10.13	1.77			0.79	0.20	0.03	2.33		6.50	99.30
R8511794	KWAD 1-7a	94.45	0.06	1.29	0.94			0.04	0.08	0.02	0.36		2.07	99.31
R8511795	KWAD 1-8a	79.42	0.39	7.68	3.15			0.51	0.16	0.09	1.87		5.35	98.62
R8511796	KWAD 1-8a	76.82	0.44	8.78	3.17			0.66	0.15	0.19	2.27		5.80	98.28
R8511797	KWAD 1-9a	80.09	0.48	8.26	2.14			0.60	0.12	0.30	2.34		4.28	98.53
R8511798	KWAD 1-9a	93.58	0.10	1.42	1.93			0.02	0.15	0.02	0.27		1.64	99.13
R8511799	KWAD 1-10a	76.96	0.41	9.49	3.66			0.71	0.13	0.02	4.33		3.52	99.23
R8511800	KWAD 1-10a	79.85	0.47	9.09	1.67			0.44	0.10	0.01	2.21		4.16	98.00
R8511801	KWAD 1-11a	59.08	0.33	7.71	1.96			4.88	9.30	0.03	3.21		11.58	98.08
R8511802	KWAD 1-11a	80.67	0.42	7.94	2.64			0.47	0.14	0.02	2.03		4.39	98.72
R8511803	KWAD 1-12a	59.46	0.37	8.31	1.97			4.92	8.63	0.11	3.35		11.39	98.51
R8511804	KWAD 1-14a	65.21	0.39	9.60	1.63			3.58	5.53	0.13	3.97		8.41	98.45
R8511805	KWAD 1-14a	55.15	0.31	7.53	2.19			5.67	10.58	0.03	2.98		13.29	97.73
R8511806	KWAD 1-15a	30.87	0.17	4.55	1.44			2.87	32.16	0.33	1.40		22.14	95.15
R8511807	KWAD 1-15a	52.31	0.34	7.78	2.23			6.44	11.60	0.10	3.03		14.33	98.16
R8511808	KWAD 2-1a	27.53	0.16	4.35	1.11			2.97	31.39	0.63	1.25		26.31	95.65
R8511809	KWAD 2-1a	85.50	0.33	7.55	2.69			4.71	11.21	0.09	3.00		13.27	98.43
R8511810	KWAD 2-2a	73.58	0.46	10.64	2.07			1.86	1.42	0.08	5.21		3.96	99.28
R8511811	KWAD 2-2a	31.28	0.18	4.69	1.36			1.86	30.98	0.45	1.39		24.55	96.74
R8511812	KWAD 2-3a	65.15	0.39	9.28	2.87			3.54	5.67	0.19	3.84		7.20	97.33
R8511813	KWAD 2-3a	69.47	0.48	9.85	1.96			2.77	3.21	0.14	4.76		5.84	98.40
R8511814	KWAD 2-4a	71.48	0.52	13.67	1.86			1.08	0.18	0.49	3.12		7.94	99.44
R8511815	KWAD 2-4a	73.60	0.48	13.21	1.50			0.96	0.15	0.48	3.04		5.97	99.47

LAB NO	FIELD NUMBER	SiO2	TiO2	Al2O3	Fe2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	TOTAL
		%	%	%	%	%	%	%	%	%	%	%	%	%
R0511816	KHAB 2-5a	86.15	0.32	5.84	0.98			0.33	0.05	0.13	1.50		3.01	98.33
R0511817	CT BR-1	10.58	0.02	1.08	0.24			6.25	16.23	0.02	0.26		5.80	48.48
R0511818	CT BR-2	0.03	0.07	1.73	1.91			1.82	0.94	2.09	0.14		10.58	17.31
R0511819	CT BR-3	0.70	0.10	2.32	5.89			2.05	1.44	2.90	0.21		9.88	25.69
R0511820	KHAB 2-5a	80.72	0.50	9.11	1.15			0.59	0.08	0.17	2.39		4.20	98.91
R0511821	KHAB 2-6a	84.06	0.34	6.57	1.04			0.41	0.10	0.21	1.67		3.59	97.99
R0511822	KHAB 2-6a	84.46	0.38	7.30	1.06			0.35	0.04	0.08	1.79		3.61	99.07
R0511823	KHAB 2-7a	89.81	0.29	4.81	0.65			0.21	0.05	0.18	1.21		2.19	98.40
R0511824	KHAB 2-7a	80.23	0.50	9.99	0.69			0.52	0.04	0.16	2.48		4.29	98.90
R0511825	KHAB 2-8a	82.41	0.44	8.36	0.87			0.45	0.04	0.16	2.13		3.65	98.51
R0511826	KHAB 2-8a	80.60	0.46	9.34	1.24			0.56	0.05	0.18	2.45		4.28	99.16
R0511827	KHAB 2-9a	82.07	0.45	8.54	0.84			0.45	0.05	0.19	2.14		4.17	98.90
R0511828	KHAB 2-9a	86.59	0.33	6.12	0.79			0.30	0.05	0.37	1.51		2.95	99.01
R0511829	KHAB 2-10a	79.85	0.48	9.61	1.28			1.05	0.12	0.41	2.66		3.54	99.00
R0511830	KHAB 2-10a	83.26	0.41	7.86	0.77			0.42	0.05	0.08	1.95		4.16	98.96
R0511831	KHAB 2-11a	93.42	0.07	1.17	0.33			0.02	0.04	0.05	0.35		1.77	99.32
R0511832	KHAB 2-11a	94.73	0.08	1.53	0.32			0.02	0.04	0.04	0.41		2.04	99.21
R0511833	KHAB 2-12a	84.45	0.37	7.24	0.77			0.43	0.06	0.05	1.79		4.03	99.21
R0511834	KHAB 2-12a	79.51	0.28	6.40	0.95			0.34	0.08	0.41	0.95		6.80	95.72
R0511835	KHAB 2-13a	80.45	0.47	9.48	1.00			0.53	0.03	0.01	2.39		3.64	98.20
R0511836	KHAB 2-13a	81.97	0.41	7.20	1.28			0.29	0.08	0.35	1.63		4.06	97.27
R0511837	KHAB 2-14a	79.94	0.31	9.82	1.28			0.37	0.05	0.08	2.56		4.09	98.98
R0511838	KHAB 2-14a	78.54	0.54	10.84	1.22			0.65	0.04	0.02	2.84		3.90	98.59
R0511839	KHAB 2-15a	82.14	0.36	7.61	2.23			0.12	0.04	0.02	1.59		4.82	98.93
R0511840	KHAB 2-15a	83.24	0.39	8.20	1.89			0.13	0.04	0.02	1.55		3.67	99.13
R0511841	KHAB 2-17a	94.46	0.08	1.30	0.48			0.02	0.04	0.02	0.40		2.36	99.16
R0511842	KHAB 2-17a	92.61	0.11	1.75	0.47			0.02	0.05	0.02	0.57		3.61	99.21
R0511843	KHAB 2-1a	64.33	0.36	8.57	2.33			4.05	5.84	0.02	2.88		9.89	98.37
R0511844	KHAB 3-1a	58.89	0.35	7.96	1.92			5.79	8.28	0.08	2.99		11.87	98.13
R0511845	KHAB 3-2a	66.41	0.34	8.27	1.59			3.64	5.39	0.55	3.16		9.04	98.39
R0511846	KHAB 3-2a	71.25	0.39	8.91	2.99			1.83	2.55	0.03	4.09		5.88	97.92
R0511847	KHAB 3-3a	50.64	0.34	7.20	1.77			7.57	10.69	0.03	2.85		16.93	97.97
R0511848	KHAB 3-3a	86.99	0.20	3.84	0.56			0.34	0.09	0.02	1.20		5.90	99.14
R0511849	KHAB 3-4a	89.26	0.18	3.90	0.57			0.34	0.19	0.02	1.24		3.48	99.18
R0511850	KHAB 3-4a	89.01	0.19	3.91	0.57			0.75	0.13	0.02	1.29		4.05	99.42
R0511851	KHAB 3-5a	65.24	0.29	7.69	1.50			4.61	6.44	0.17	3.13		9.37	98.44

LAB NO	FIELD NUMBER	SiO2	TiO2	Al2O3	Fe2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	TOTAL
R8511852	KHAD 3-5a	64.46	0.28	7.00	3.70			4.23	5.81	0.13	2.82		8.52	96.95
R8511853	KHAD 3-6a	59.55	0.28	5.88	1.64			8.22	18.45	0.03	2.14		21.38	97.57
R8511854	KHAD 3-6b	36.38	0.31	5.96	1.88			10.00	17.17	0.21	2.01		23.41	97.33
R8511855	KHAD 3-7a	48.50	0.31	6.44	1.52			7.60	12.82	0.19	2.50		19.36	99.24
R8511856	KHAD 3-7b	43.65	0.28	5.58	1.38			8.29	15.28	0.03	2.14		22.58	99.13
R8511857	KHAD 3-8a	94.09	0.08	1.17	0.63			0.02	0.10	0.02	0.45		2.41	98.97
R8511858	KHAD 3-8a	80.23	0.32	8.48	0.39			0.82	0.07	0.02	2.38		6.11	99.02
R8511859	KHAD 3-9a	89.54	0.12	2.76	0.68			0.14	0.09	0.02	0.85		4.92	99.12
R8511860	KHAD 3-9a	92.49	0.10	1.85	0.43			0.05	0.05	0.07	0.60		3.44	99.28
R8511861	KHAD 3-10a	89.79	0.15	3.06	0.57			0.19	0.10	0.02	0.98		4.12	98.98
R8511862	KHAD 3-10a	83.82	0.27	5.73	0.27			0.52	0.07	0.02	1.64		7.55	99.09
R8511863	KHAD 4-1a	44.68	0.25	5.91	1.58			4.13	17.09	0.99	1.79		20.66	98.48
R8511864	KHAD 4-1a	37.87	0.23	5.92	1.59			3.22	24.28	0.44	2.04		23.37	98.98
R8511865	KHAD 4-2a	43.83	0.27	6.81	1.20			8.13	16.00	0.56	1.99		21.79	99.78
R8511866	KHAD 4-2a	41.66	0.25	5.42	1.28			9.62	15.98	0.74	1.91		23.03	99.89
R8511867	KHAD 4-4a	69.12	0.46	12.25	2.71			1.43	0.09	0.18	3.95		9.51	99.70
R8511868	KHAD 4-4a	95.23	0.08	1.35	0.50			0.02	0.06	0.02	0.44		1.74	99.44
R8511869	KHAD 4-5a	85.16	0.41	7.57	0.97			0.29	0.10	0.02	1.62		3.51	99.65
R8511870	KHAD 4-5a	79.43	0.52	10.30	1.77			0.32	0.10	0.27	2.15		4.65	99.51
R8511871	KHAD 4-6a	78.14	0.52	10.73	1.46			0.67	0.10	0.27	2.74		4.61	99.24
R8511872	KHAD 4-6a	79.81	0.47	9.24	1.67			0.41	0.11	0.02	2.35		4.44	98.52
R8511873	KHAD 4-7a	72.86	0.42	8.67	0.96			0.65	0.09	0.64	2.09		4.83	91.21
R8511874	KHAD 4-7a	83.46	0.43	8.28	0.49			0.34	0.12	0.02	1.79		3.79	98.72
R8511875	KHAD 4-8a	93.08	0.10	1.71	0.27			0.02	0.06	0.02	0.49		3.34	99.09
R8511876	KHAD 4-8a	89.92	0.11	2.26	1.09			0.02	0.08	0.02	0.60		4.81	98.91
R8511877	KHAD 4-9a	79.71	0.42	8.25	1.87			0.52	0.12	0.01	2.86		4.78	97.66
R8511878	KHAD 4-9a	82.52	0.43	8.07	0.76			0.52	0.13	0.11	2.04		4.03	98.61
R8511879	KHAD 4-10a	62.83	0.41	8.63	2.23			2.60	8.19	0.36	3.63		10.25	99.04
R8511880	KHAD 4-10a	79.18	0.43	9.31	1.14			0.62	0.43	0.07	2.52		4.88	98.58
R8511881	KHAD 4-11a	80.01	0.45	8.69	1.48			0.52	0.14	0.11	2.16		4.21	97.77
R8511882	KHAD 4-11a	80.58	0.44	7.99	2.39			0.56	0.11	0.11	2.03		4.52	98.73
R8511883	KHAD 4-12a	88.62	0.45	8.92	1.33			0.49	0.15	0.06	2.28		4.37	98.59
R8511884	KHAD 4-12a	74.72	0.44	10.42	3.15			0.60	0.24	0.07	2.50		6.43	98.57
R8511885	KHAD 4-13a	82.45	0.34	7.12	0.48			0.42	0.12	0.19	1.51		4.67	97.22
R8511886	KHAD 4-13a	81.59	0.43	8.16	0.68			0.43	0.12	0.01	1.79		4.18	97.39
R8511887	KHAD 4-14a	61.60	0.37	7.98	2.10			3.66	8.16	0.58	3.36		10.77	98.58

LAD NO	FIELD NUMBER	Gr02	Tr02	Ac203	Fu203	Fu0	Ma0	Ma0	Ca0	Ma200	K20	P205	L01	TOTAL
		X	X	X	X	X	X	X	X	X	X	X	X	X
R0511888	KHAD 4-14a	71.07	0.40	7.37	1.57			3.04	4.59	0.02	3.21		7.07	99.14
R0511889	KHAD 4-14a	58.51	0.40	8.02	2.34			3.53	9.77	0.23	3.32		12.28	98.42
R0511890	KHAD 4-16a	64.76	0.38	8.75	2.24			3.09	6.16	0.45	3.72		9.14	98.69
R0511891	KHAD 4-17a	70.67	0.34	11.90	2.05			2.41	1.72	0.02	4.57		5.40	99.40
R0511892	KHAD 4-17a	54.56	0.40	8.34	2.35			6.29	8.80	0.10	3.59		13.81	98.32
R0511893	KHAD 4-18a	66.53	0.39	8.10	1.94			3.17	6.49	0.15	3.15		8.53	98.44
R0511894	KHAD 4-18a	48.84	0.39	7.21	1.46			2.39	6.99	0.04	2.91		7.98	98.23
R0511895	KHAD 4-19a	50.35	0.49	9.42	2.42			7.15	9.54	0.05	3.59		15.43	98.44
R0511896	KHAD 4-19a	67.19	0.39	8.49	1.89			2.96	5.92	0.20	3.25		8.35	98.64
R0511897	KHAD 5-1a	63.08	0.36	8.20	1.51			3.45	7.53	0.50	3.50		10.09	98.30
R0511898	KHAD 5-1a	72.74	0.36	8.67	1.47			2.58	2.88	0.74	4.04		5.45	98.95
R0511899	KHAD 5-2a	67.43	0.37	8.63	1.52			3.32	5.15	0.32	3.79		8.17	98.70
R0511900	KHAD 5-2a	55.74	0.38	8.05	1.99			4.44	10.76	0.58	3.08		13.48	98.50
R0511901	KHAD 5-7a	77.86	0.51	9.88	1.94			0.59	0.19	0.16	2.47		4.81	98.41
R0511902	KHAD 5-7a	79.82	0.48	9.49	1.14			0.52	0.24	0.10	2.39		4.48	98.66
R0511903	KHAD 5-8a	69.62	0.43	9.18	0.75			0.43	0.16	0.02	2.68		7.07	98.54
R0511904	KHAD 5-8a	79.55	0.45	8.47	2.55			0.46	0.10	0.16	2.02		5.04	98.80
R0511905	KHAD 5-9a	80.21	0.47	9.00	1.63			0.47	0.12	0.07	2.24		4.69	98.90
R0511906	KHAD 5-9a	80.01	0.45	9.08	1.90			0.44	0.11	0.04	2.22		4.44	98.69
R0511907	KHAD 5-10a	77.23	0.52	10.74	2.02			0.58	0.09	0.08	2.55		4.85	98.66
R0511908	KHAD 5-10a	69.69	0.43	9.21	0.85			0.97	0.12	1.09	2.08		4.82	89.26
R0511909	KHAD 5-11a	84.16	0.18	3.11	3.68			0.15	0.09	0.02	1.00		6.01	99.00
R0511910	KHAD 5-11a	91.68	0.12	2.04	0.44			0.02	0.07	0.02	0.54		3.86	98.79
R0511911	KHAD 5-12a	92.60	0.14	2.18	0.64			0.02	0.05	0.02	0.60		2.61	98.86
R0511912	KHAD 5-12a	90.61	0.13	2.08	2.08			0.02	0.05	0.02	0.54		3.44	98.89
R0511913	KHAD 5-13a	75.57	0.37	6.98	3.71			0.49	0.05	0.28	1.74		5.29	94.48
R0511914	KHAD 5-13a	80.91	0.45	8.67	0.81			0.43	0.07	0.01	2.20		4.35	97.90
R0511915	KHAD 5-14a	73.02	0.40	8.92	2.04			0.66	0.09	0.37	2.20		5.00	94.46
R0511916	KHAD 5-14a	77.95	0.51	10.50	1.46			0.57	0.04	0.04	2.66		3.89	97.62
R0511917	KHAD 5-15a	80.55	0.47	8.79	1.68			0.35	0.07	0.01	2.25		4.12	98.29
R0511918	KHAD 5-15a	77.05	0.51	10.54	1.70			0.62	0.05	0.15	2.69		4.06	98.17
R0511919	KHAD 5-16a	81.72	0.45	8.35	1.14			0.32	0.06	0.02	2.11		4.01	98.18
R0511920	KHAD 5-16a	84.37	0.39	7.23	0.93			0.28	0.06	0.02	1.87		3.68	98.83
R0511921	KHAD 5-17a	15.74	0.10	2.29	0.73			3.36	41.61	0.15	0.64		30.91	95.55
R0511922	KHAD 5-17a	31.04	0.24	5.07	1.25			10.65	20.46	0.18	1.75		26.37	97.01
R0511923	KHAD 6-1a	77.57	0.51	9.66	1.41			0.84	0.34	0.35	3.37		5.05	99.12

LAB NO	FIELD NUMBER	SiO2	TiO2	Al2O3	Fe2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	TOTAL
		%	%	%	%	%	%	%	%	%	%	%	%	%
R0511924	KHAB 6-1a	72.50	0.51	10.61	2.89			0.70	0.41	0.03	3.91		7.23	98.87
R0511925	KHAB 6-4a	78.19	0.40	10.73	0.66			0.72	0.17	0.02	2.51		5.47	98.87
R0511926	KHAB 6-4a	79.55	0.51	9.82	1.44			0.67	0.10	0.08	2.33		4.59	99.09
R0511927	KHAB 6-5a	79.57	0.47	9.22	1.53			0.55	0.14	0.02	2.34		5.08	98.92
R0511928	KHAB 6-5a	80.09	0.43	8.13	1.20			0.58	0.13	0.25	2.04		4.72	97.57
R0511929	KHAB 6-6a	80.09	0.47	9.18	1.07			0.58	0.11	0.03	2.39		4.03	98.75
R0511930	KHAB 6-6a	78.14	0.40	8.26	2.19			0.58	0.13	0.15	2.17		5.64	97.66
R0511931	KHAB 6-7a	79.66	0.49	9.76	1.38			0.58	0.10	0.02	2.57		4.17	98.73
R0511932	KHAB 6-7a	77.27	0.35	7.94	0.65			0.58	0.10	0.00	1.37		4.00	92.16
R0511933	KHAB 6-8a	79.46	0.46	9.52	1.04			0.46	0.04	0.05	2.31		4.72	98.06
R0511934	KHAB 6-8a	79.80	0.45	8.02	1.22			0.44	0.13	0.15	2.10		4.35	97.54
R0511935	KHAB 6-9a	87.40	0.33	4.75	1.80			0.12	0.12	0.02	1.26		2.96	98.76
R0511936	KHAB 6-9a	79.99	0.48	9.43	1.19			0.46	0.06	0.02	2.33		4.79	98.75
R0511937	KHAB 6-10a	79.91	0.50	9.07	1.17			0.45	0.08	0.04	2.34		4.11	98.47
R0511938	KHAB 6-10a	80.46	0.45	8.85	1.12			0.48	0.12	0.09	2.30		4.42	98.29
R0511939	KHAB 7-1a	75.11	0.30	6.19	1.74			0.57	0.15	0.75	1.33		4.98	91.12
R0511940	KHAB 7-2a	84.34	0.34	6.18	1.92			0.26	0.21	0.02	1.54		3.01	98.62
R0511941	KHAB 7-2a	85.16	0.24	5.56	1.17			0.23	0.08	0.02	1.36		4.56	98.38
R0511942	KHAB 7-3a	78.65	0.37	9.41	1.06			0.60	0.19	0.01	2.28		5.99	98.56
R0511943	KHAB 7-3a	83.44	0.37	7.22	1.69			0.25	0.13	0.02	1.82		3.97	98.91
R0511944	KHAB 7-4a	77.91	0.48	9.69	1.48			0.44	0.15	0.01	2.34		5.27	97.77
R0511945	KHAB 7-4a	98.04	0.21	3.34	1.31			0.01	0.15	0.01	0.03		2.31	98.41
R0511946	KHAB 7-5a	81.69	0.47	6.60	1.22			0.45	0.12	0.02	2.01		3.89	98.58
R0511947	KHAB 7-5a	78.35	0.46	9.28	1.45			0.52	0.13	0.06	2.10		5.35	97.70
R0511948	KHAB 7-6a	76.06	0.48	10.69	1.26			0.66	0.18	0.24	2.74		5.22	97.53
R0511949	KHAB 7-6a	83.42	0.43	7.75	1.24			0.40	0.10	0.02	2.04		3.39	98.79
R0511950	KHAB 7-7a	81.83	0.45	8.68	0.90			0.55	0.08	0.07	2.26		3.91	98.73
R0511951	KHAB 7-7a	79.33	0.50	9.52	1.36			0.56	0.13	0.03	2.49		4.67	98.59
R0511952	KHAB 7-8a	79.65	0.47	9.10	1.37			0.55	0.14	0.01	2.38		4.27	97.94
R0511953	KHAB 7-9a	78.58	0.48	9.38	1.09			0.57	0.16	0.01	2.40		4.35	97.82
R0511954	KHAB 7-14a	90.95	0.10	1.53	0.83			0.03	0.00	0.02	0.64		3.42	98.34
R0511955	KHAB 8-1a	58.81	0.36	7.11	2.13			5.95	0.26	0.03	2.94		13.46	99.05
R0511956	KHAB 8-1a	77.01	0.28	4.71	1.40			2.69	4.17	0.14	2.55		6.57	99.52
R0511957	KHAB 8-4a	9.09	0.02	1.09	0.44			0.47	50.83	0.28	0.20		38.24	100.06
R0511958	KHAB 8-4a	6.53	0.02	0.79	0.47			0.49	52.11	0.39	0.13		39.00	100.72
R0511959	KHAB 8-6a	56.22	0.41	7.45	2.41			6.34	9.01	0.03	2.52		14.97	99.36

1000000

LAB NO	FIELD NUMBER	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %	FeO %	MnO %	MgO %	CaO %	Mg2O %	K2O %	P2O5 %	LOI %	TOTAL %
R0511960	KHAB 8-3a	57.19	0.34	6.07	1.53		4.40	6.44	0.04	2.80			10.24	99.05
R0511961	KHAB 8-7a	57.98	0.45	8.18	2.44		5.36	7.83	0.08	3.56			12.70	98.60
R0511962	KHAB 8-7b	52.04	0.19	4.00	1.78		6.94	13.12	0.03	2.04			17.66	97.30
R0511963	KHAB 8-8a	47.74	0.28	6.50	2.14		6.84	13.62	0.06	2.53			18.95	98.66
R0511964	KHAB 8-8a	50.76	0.30	6.65	2.63		6.44	11.79	0.22	2.62			16.62	98.23
R0511965	KHAB 8-9a	64.21	0.43	9.51	2.00		3.88	5.17	0.14	4.09			9.50	98.93
R0511966	KHAB 8-9a	56.06	0.41	8.14	2.19		5.12	9.14	0.03	3.12			13.80	98.81
R0511967	KHAB 8-10a	61.59	0.39	7.93	2.00		3.77	8.41	0.04	3.03			11.51	98.67
R0511968	KHAB 9-11a	40.55	0.85	19.48	4.32		2.11	0.33	0.61	3.51			5.75	99.51
R0511969	KHAB 9-11a	65.63	0.83	17.48	5.99		1.78	0.32	0.71	3.09			5.49	99.44
R0511970	KHAB 9-12a	78.22	0.52	9.93	2.10		0.31	0.28	0.08	2.17			4.90	98.59
R0511971	KHAB 9-12b	64.54	0.80	16.75	5.72		1.44	0.08	0.39	3.06			6.61	99.39
R0511972	KHAB 9-13a	81.55	0.38	8.09	1.16		0.21	0.14	0.02	1.82			4.92	98.29
R0511973	KHAB 9-13a	83.35	0.33	7.25	0.71		0.21	0.17	0.02	1.64			5.31	98.99
R0511974	KHAB 9-14a	82.74	0.39	7.49	1.17		0.21	0.18	0.02	1.62			4.41	98.23
R0511975	KHAB 9-14b	76.13	0.52	9.00	1.78		0.48	0.16	0.53	1.83			5.72	96.15
R0511976	KHAB 9-15a	77.24	0.57	11.13	1.00		0.52	0.05	0.33	2.48			4.95	98.27
R0511977	KHAB 9-15a	79.91	0.52	9.60	1.07		0.41	0.10	0.12	2.18			4.61	98.52
R0511978	KHAB 9-16a	77.55	0.53	10.40	1.47		0.46	0.08	0.18	2.31			5.29	98.27
R0511979	KHAB 9-16a	78.85	0.50	9.11	1.04		0.50	0.07	0.34	2.01			5.12	97.56
R0511980	KHAB 9-17a	81.49	0.33	7.56	1.74		0.32	0.07	0.18	1.69			5.64	97.04
R0511981	KHAB 9-17a	84.82	0.26	6.60	1.04		0.14	0.14	0.09	1.34			4.98	98.81
R0511982	KHAB 9-18a	45.40	0.47	15.20	6.62		0.99	0.19	0.26	2.91			7.01	99.33
R0511983	KHAB 9-18a	77.01	0.47	11.85	1.19		0.62	0.14	0.08	2.49			5.27	97.12
R0511984	KHAB 9-19a	83.80	0.30	7.28	0.87		0.38	0.10	0.02	1.57			4.79	99.11
R0511985	KHAB 9-19a	77.01	0.44	10.25	1.41		0.58	0.13	0.02	2.29			7.11	99.24
R0511986	KHAB 9-22a	89.01	0.18	3.02	0.97		0.05	0.32	0.02	0.67			4.80	99.04
R0511987	KHAB 9-22a	88.87	0.17	3.10	1.21		0.02	0.40	0.02	0.74			4.27	98.80
R0511988	KHAB 10-1a	65.91	0.45	9.35	2.29		3.68	5.02	0.02	3.38			9.04	99.14
R0511989	KHAB 10-1a	71.08	0.42	8.28	1.85		2.92	3.72	0.14	3.60			7.77	99.28
R0511990	KHAB 10-3a	77.17	0.47	8.49	1.71		0.21	0.37	0.16	1.93			6.63	99.14
R0511991	KHAB 10-3a	78.69	0.37	8.80	2.00		0.24	0.61	0.20	1.86			6.17	98.94
R0511992	KHAB 10-4a	82.22	0.52	9.13	0.82		0.27	0.14	0.28	2.05			3.40	98.83
R0511993	KHAB 10-4a	79.26	0.51	9.50	2.01		0.52	0.19	0.26	1.95			4.28	99.08
R0511994	KHAB 10-5a	82.30	0.48	7.81	1.99		0.21	0.06	0.19	1.57			4.27	98.88
R0511995	KHAB 10-5a	85.24	0.39	6.81	1.23		0.09	0.07	0.02	1.40			3.58	98.83

LAD NO	FIELD NUMBER	SiO2	TiO2	Al2O3	Fe2O3	FeO	MnO	MgO	CaO	Na2O	K2O	P2O5	LOI	TOTAL
R8511996	KMAD 10-6a	78.29	0.55	11.09	1.05			0.53	0.05	0.07	2.46		4.42	98.51
R8511997	KMAD 10-6a	78.54	0.52	10.28	1.13			0.47	0.06	0.12	2.25		5.18	98.52
R8511998	KMAD 10-7a	81.93	0.45	8.29	0.88			0.43	0.05	0.15	1.82		4.41	98.41
R8511999	KMAD 10-7a	78.40	0.41	7.30	0.68			0.51	0.13	0.74	1.53		4.68	94.38
R8512000	KMAD 10-8a	79.47	0.40	6.45	1.99			0.41	0.11	0.59	1.35		4.71	95.48
R8512001	KMAD 10-8a	77.33	0.35	6.54	2.93			0.32	0.28	0.71	1.18		5.33	94.97
R8512002	KMAD 10-9a	68.94	0.79	15.60	6.41			1.15	0.06	0.41	3.03		3.08	99.47
R8512003	KMAD 10-9a	68.96	0.77	15.15	3.79			1.10	0.06	0.41	2.92		6.41	99.57
R8512004	KMAD 10-10a	80.83	0.34	8.32	1.43			0.44	0.12	0.16	1.76		5.64	99.10
R8512005	KMAD 10-10a	80.11	0.34	8.60	1.32			0.52	0.18	0.03	1.83		6.25	99.18
R8512006	KMAD 0-10a	90.14	0.12	2.70	2.47			0.62	0.32	0.62	0.26		3.11	99.16
R8512007	KMAD 0-11a	66.92	0.71	17.32	1.87			1.32	0.14	0.32	3.81		6.73	99.16
R8512008	KMAD 0-11a	89.64	0.15	3.24	0.65			0.16	0.10	0.02	0.80		4.35	99.11
R8512009	KMAD 0-12a	77.38	0.46	9.73	1.95			0.69	0.22	0.21	2.62		4.85	97.91
R8512010	KMAD 0-12a	84.89	0.22	5.11	2.49			0.68	0.14	0.01	0.82		3.28	99.04
R8512011	KMAD 0-13a	80.31	0.44	8.94	1.09			0.62	0.07	0.25	2.19		4.35	98.26
R8512012	KMAD 0-13a	81.15	0.44	8.08	0.64			0.56	0.08	0.24	2.25		4.22	98.48
R8512013	KMAD 0-14a	87.76	0.17	3.56	0.84			0.16	0.08	0.02	0.93		5.69	99.21
R8512014	KMAD 0-14a	88.31	0.16	3.14	1.20			0.14	0.07	0.02	0.77		5.35	99.16
R8512015	KMAD 0-15a	88.06	0.17	3.24	2.36			0.20	0.16	0.12	0.81		4.21	99.33
R8512016	KMAD 0-15a	89.98	0.17	3.23	0.57			0.19	0.07	0.11	0.82		4.05	99.19
R8512017	KMAD 0-16a	90.41	0.16	3.13	0.38			0.16	0.07	0.07	0.78		4.05	99.21
R8512018	KMAD 0-16a	81.80	0.63	8.37	0.55			0.58	0.07	0.32	1.88		4.90	97.95
R8512019	KMAD 0-17a	76.68	0.53	11.73	1.57			0.68	0.07	0.25	2.83		4.23	98.07
R8512020	KMAD 0-17a	86.35	0.36	6.26	1.12			0.27	0.08	0.12	1.62		3.09	99.27
R8512021	KMAD 0-18a	86.04	0.45	8.97	1.37			0.47	0.16	0.24	2.14		4.02	97.86
R8512022	KMAD 0-18a	75.55	0.51	19.58	2.55			0.61	0.15	0.10	2.60		5.98	98.63
R8512023	KMAD 0-19a	91.29	0.13	2.42	0.63			0.05	0.08	0.02	0.66		3.88	99.16
R8512024	KMAD 0-19a	77.11	0.40	9.12	0.96			0.66	0.10	0.04	2.09		0.82	98.70
R8512025	KMAD 0-20a	89.54	0.20	3.78	0.52			0.22	0.15	0.02	0.94		3.78	99.15
R8512026	KMAD 0-20a	94.55	0.09	1.42	0.55			0.02	0.06	0.02	0.44		2.13	99.28
R8512027	KMAD 0-21a	63.04	0.37	8.37	1.76			4.48	6.66	0.04	3.27		11.19	99.20
R8512028	KMAD 0-21a	63.72	0.34	8.27	1.95			3.89	6.73	0.12	3.58		9.95	98.55
R8512029	KMAD 9-1a	66.22	0.36	7.98	1.76			3.52	6.56	0.27	2.84		10.08	99.59
R8512030	KMAD 9-1a	59.82	0.40	7.71	1.94			4.79	8.27	0.66	2.75		12.55	98.89
R8512031	KMAD 9-2a	62.98	0.50	9.21	1.85			4.29	5.89	0.97	3.00		10.22	98.91

LAB NO	FIELD NUMBER	SiO2	TiO2	Al2O3	Fe2O3	FeO	H2O	NaO	CaO	MgO	K2O	P2O5	LOI	TOTAL
		%	%	%	%	%	%	%	%	%	%	%	%	%
R8512032	KHAB 9-2a	42.03	0.41	8.17	2.07			4.57	7.23	1.00	2.57		10.80	98.85
R8512033	KHAB 9-4a	59.55	0.47	8.08	2.19			5.10	7.31	0.88	3.07		12.40	99.95
R8512034	KHAB 9-4a	53.97	0.41	8.00	2.14			6.43	9.29	0.50	3.12		15.22	99.16
R8512035	KHAB 9-5a	51.69	0.30	8.18	1.90			7.17	10.42	0.20	3.17		16.65	99.04
R8512036	KHAB 9-5a	50.60	0.42	8.02	2.21			6.97	10.93	0.20	2.89		16.96	99.20
R8512037	KHAB 9-6a	44.05	0.46	9.47	2.14			3.51	5.18	0.04	3.45		8.96	99.26
R8512038	KHAB 9-6a	75.56	0.48	9.66	1.20			1.89	2.02	0.06	3.52		5.11	99.50
R8512039	KHAB 9-9a	43.32	0.81	18.00	5.57			1.41	0.25	0.61	3.47		6.49	99.93
R8512040	KHAB 9-9a	43.29	0.84	17.40	6.62			1.94	0.42	0.51	3.16		5.75	99.93
R8512041	KHAB 9-10a	65.36	0.79	17.11	6.08			1.43	0.17	0.63	3.10		5.35	100.00
R8512042	KHAB 9-10a	49.03	0.36	8.11	1.42			0.81	4.83	0.10	3.96		8.28	96.90

I=INSUFFICIENT SAMPLE X=SMALL SAMPLE E=EXCESS CALIBRATION C=CRIBING CHECKED R=REVISED
 IF REQUESTED ANALYSES ARE NOT SHOWN RESULTS ARE TO FOLLOW

ANALYTICAL METHODS

FeO DETERMINED BY ACID DIGESTION /VOLUMETRIC LOI DETERMINED GRAVIMETRICALLY
 OTHER ELEMENTS BY LI BORATE FUSION/XRF. WHERE NO FeO VALUE SHOWN 'Fe2O3' IS TOTAL Fe AS Fe2O3

HISTOGRAM FOR ELEMENT PB

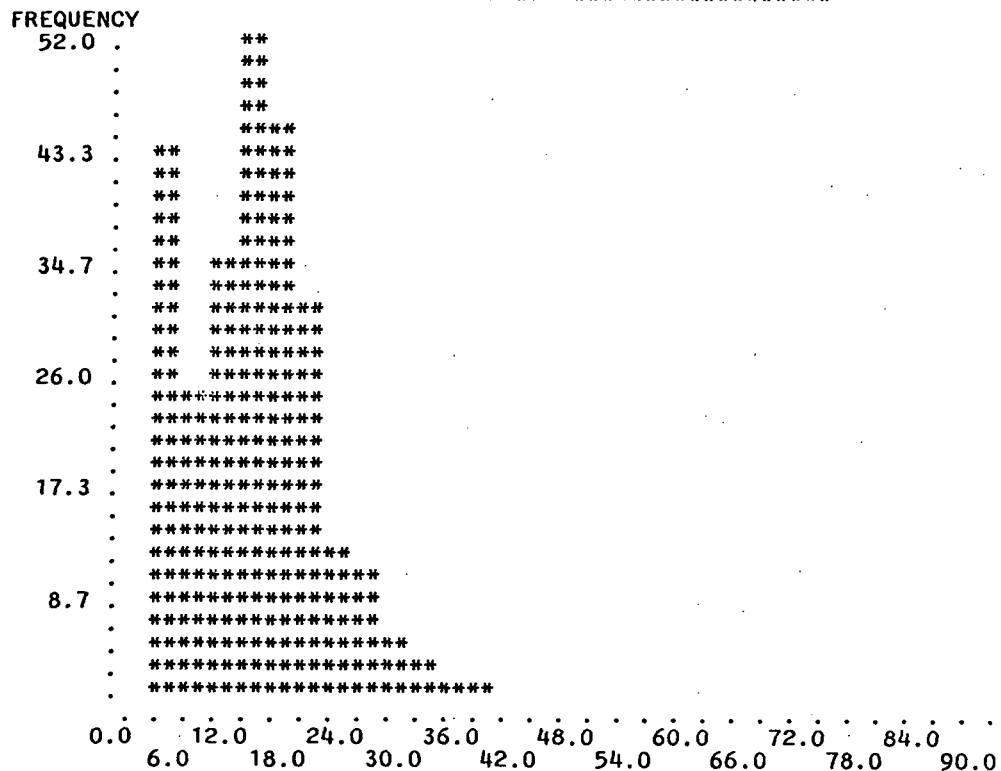


FIGURE : KWADGEO

TOTAL NUMBER OF SAMPLES PLOTTED = 255 ELEMENT PB
 NUMBER OF MISSING VALUES = 0
 SAMPLES ABOVE MAXIMUM = 2 PERCENT OF POPULATION = 0.78

MEAN OF SAMPLES = 13.19
 STANDARD DEVIATION = 6.36
 MEDIAN OF SAMPLES = 13.00

PERCENT (TOTAL NUMBER OF DATA) 257 ADJUSTED PERCENT (DATA USED IN HISTOGRAM) 255

CLASS	INTERVAL LOWER PT.	INTERVAL UPPER PT.	FREQUENCY	PERCENT	ADJUSTED PERCENT	CUMULATIVE PERCENT	CLASS INTERVAL	FREQUENCY	PERCENT	PERCENT
1	0.00 -	3.00	0	0.00	0.00	0.00	<1.0	0	0.00	0.00
2	3.00 -	6.00	42	16.34	16.47	16.47	1. - 2.	0	0.00	0.00
3	6.00 -	9.00	24	9.34	9.41	25.88	2. - 3.	0	0.00	0.00
4	9.00 -	12.00	34	13.23	13.33	39.22	3. - 4.	0	0.00	0.00
5	12.00 -	15.00	52	20.23	20.39	59.61	4. - 5.	29	11.28	11.28
6	15.00 -	18.00	44	17.12	17.25	76.86	5. - 5.	13	5.06	16.34
7	18.00 -	21.00	30	11.67	11.76	88.63	6. - 7.	15	5.84	22.18
8	21.00 -	24.00	12	4.67	4.71	93.33	8. - 9.	15	5.84	28.02
9	24.00 -	27.00	9	3.50	3.53	96.86	10. - 11.	28	10.89	38.91
10	27.00 -	30.00	4	1.56	1.57	98.43	12. - 14.	52	20.23	59.14
11	30.00 -	33.00	2	0.78	0.78	99.22	15. - 18.	62	24.12	83.27
12	33.00 -	36.00	1	0.39	0.39	99.61	19. - 23.	24	9.34	92.61
13	36.00 -	39.00	1	0.39	0.39	100.00	24. - 29.	13	5.06	97.67
14	39.00 -	42.00	0	0.00	0.00	100.00	30. - 37.	4	1.56	99.22
15	42.00 -	45.00	0	0.00	0.00	100.00	38. - 46.	0	0.00	99.22
16	45.00 -	48.00	0	0.00	0.00	100.00	47. - 58.	0	0.00	99.22
17	48.00 -	51.00	0	0.00	0.00	100.00	59. - 74.	0	0.00	99.22
18	51.00 -	54.00	0	0.00	0.00	100.00	75. - 93.	1	0.39	99.61
19	54.00 -	57.00	0	0.00	0.00	100.00	94. - 117.	0	0.00	99.61
20	57.00 -	60.00	0	0.00	0.00	100.00	118. - 147.	0	0.00	99.61
21	60.00 -	63.00	0	0.00	0.00	100.00	148. - 186.	0	0.00	99.61
22	63.00 -	66.00	0	0.00	0.00	100.00	187. - 234.	0	0.00	99.61
23	66.00 -	69.00	0	0.00	0.00	100.00	235. - 295.	0	0.00	99.61
24	69.00 -	72.00	0	0.00	0.00	100.00	296. - 371.	0	0.00	99.61
25	72.00 -	75.00	0	0.00	0.00	100.00	372. - 467.	1	0.39	100.00
26	75.00 -	78.00	0	0.00	0.00	100.00	468. - 588.	0	0.00	100.00
27	78.00 -	81.00	0	0.00	0.00	100.00	589. - 741.	0	0.00	100.00
28	81.00 -	84.00	0	0.00	0.00	100.00	742. - 933.	0	0.00	100.00
29	84.00 -	87.00	0	0.00	0.00	100.00	934. - 1175.	0	0.00	100.00
30	87.00 -	90.00	0	0.00	0.00	100.00	1176. - 1478.	0	0.00	100.00
31							1479. - 2000.	0	0.00	100.00
							> 2000.	0	0.00	100.00
TOTAL			255	99.22	100.00			257	100.00	

LIST OF DATA ABOVE MAXIMUM VALUE (90)

93.0 379.0

KWADGEO

NUMBER OF VALUES IS 256 VARIABLE NAME IS: PB
 CALCULATED PARAMETERS: MEAN= 14.9688 STD.DEV.= 24.2191 VARIANCE= 586.5637 NO.VALUES USED= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF ARITHMETIC VALUES	LOG LIMIT
1	-48.6064	0	0.0		*****
2	-42.5516	0	0.0		*****
3	-36.4969	0	0.0		*****
4	-30.4421	0	0.0		*****
5	-24.3873	0	0.0		*****
6	-18.3326	0	0.0		*****
7	-12.2778	0	0.0		*****
8	-6.2231	0	0.0		*****
9	-0.1683	0	0.0		*****
10	5.8865	41	16.0	*****	0.7699
11	11.9412	58	22.7	*****	1.0770
12	17.9960	96	37.5	*****	1.2552
13	24.0508	46	18.0	*****	1.3811
14	30.1056	11	4.3	****	1.4786
15	36.1604	1	0.4		1.5582
16	42.2151	1	0.4		1.6255
17	48.2699	0	0.0		1.6837
18	54.3247	0	0.0		1.7350
19	60.3795	0	0.0		1.7809
20	66.4342	0	0.0		1.8224
21	72.4890	0	0.0		1.8603

LOG VALUES.....: MEAN= 1.0727 STD.DEV.= 0.2627 VARIANCE= 0.0690 NO. VALUES= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF LOGARITHMIC VALUES	ARITH. LIMIT
1	0.3832	0	0.0		2.4167
2	0.4489	0	0.0		2.8112
3	0.5146	0	0.0		3.2701
4	0.5802	0	0.0		3.8039
5	0.6459	28	10.9	*****	4.4248
6	0.7116	13	5.1	*****	5.1471
7	0.7772	0	0.0		5.9873
8	0.8429	5	2.0	**	6.9646
9	0.9086	19	7.4	*****	8.1015
10	0.9742	6	2.3	**	9.4239
11	1.0399	10	3.9	****	10.9622
12	1.1056	37	14.5	*****	12.7517
13	1.1712	33	12.9	*****	14.8332
14	1.2369	44	17.2	*****	17.2545
15	1.3026	30	11.7	*****	20.0711
16	1.3682	12	4.7	*****	23.3474
17	1.4339	11	4.3	****	27.1586
18	1.4996	4	1.6	**	31.5918
19	1.5652	1	0.4		36.7488
20	1.6309	1	0.4		42.7476
21	1.6966	0	0.0		49.7255

STATISTICAL SUMMARY

NAME	NO. OF VALUES	ARITHMETIC		LOGARITHMIC	
		MEAN	STD. DEV.	MEAN	STD. DEV.
PB	256	14.969	24.219	1.073	0.263

HISTOGRAM FOR ELEMENT ZN

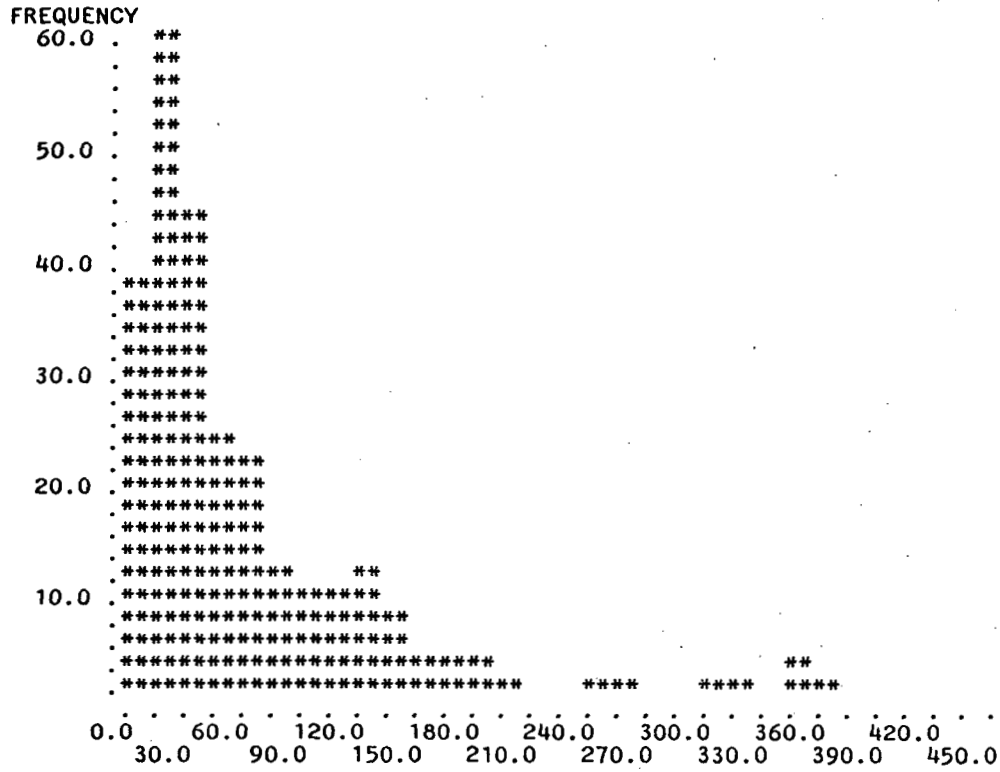


FIGURE : KWADGEO

TOTAL NUMBER OF SAMPLES PLOTTED = 257 ELEMENT ZN
 NUMBER OF MISSING VALUES = 0
 SAMPLES ABOVE MAXIMUM = 0 PERCENT OF POPULATION = 0.00

MEAN OF SAMPLES = 63.93
 STANDARD DEVIATION = 67.76
 MEDIAN OF SAMPLES = 38.50

PERCENT (TOTAL NUMBER OF DATA) 257 ADJUSTED PERCENT (DATA USED IN HISTOGRAM) 257

CLASS	INTERVAL LOWER PT.	INTERVAL UPPER PT.	FREQUENCY	PERCENT	ADJUSTED PERCENT	CUMULATIVE PERCENT	CLASS INTERVAL	FREQUENCY	PERCENT	PERCENT
							<1.0	0	0.00	0.00
1	0.00 -	15.00	38	14.79	14.79	14.79	1. - 2.	1	0.39	0.39
2	15.00 -	30.00	60	23.35	23.35	38.13	2. - 3.	0	0.00	0.39
3	30.00 -	45.00	43	16.73	16.73	54.86	3. - 4.	0	0.00	0.39
4	45.00 -	60.00	24	9.34	9.34	64.20	4. - 5.	1	0.39	0.78
5	60.00 -	75.00	22	8.56	8.56	72.76	5. - 5.	1	0.39	1.17
6	75.00 -	90.00	11	4.28	4.28	77.04	6. - 7.	6	2.33	3.50
7	90.00 -	105.00	9	3.50	3.50	80.54	8. - 9.	12	4.67	8.17
8	105.00 -	120.00	9	3.50	3.50	84.05	10. - 11.	8	3.11	11.28
9	120.00 -	135.00	11	4.28	4.28	88.33	12. - 14.	9	3.50	14.79
10	135.00 -	150.00	7	2.72	2.72	91.05	15. - 18.	17	6.61	21.40
11	150.00 -	165.00	4	1.56	1.56	92.61	19. - 23.	23	8.95	30.35
12	165.00 -	180.00	4	1.56	1.56	94.16	24. - 29.	20	7.78	38.13
13	180.00 -	195.00	3	1.17	1.17	95.33	30. - 37.	28	10.89	49.03
14	195.00 -	210.00	2	0.78	0.78	96.11	38. - 46.	16	6.23	55.25
15	210.00 -	225.00	0	0.00	0.00	96.11	47. - 58.	21	8.17	63.42
16	225.00 -	240.00	0	0.00	0.00	96.11	59. - 74.	24	9.34	72.76
17	240.00 -	255.00	1	0.39	0.39	96.50	75. - 93.	15	5.84	78.60
18	255.00 -	270.00	2	0.78	0.78	97.28	94. - 117.	14	5.45	84.05
19	270.00 -	285.00	0	0.00	0.00	97.28	118. - 147.	18	7.00	91.05
20	285.00 -	300.00	0	0.00	0.00	97.28	148. - 186.	9	3.50	94.55
21	300.00 -	315.00	2	0.78	0.78	98.05	187. - 234.	4	1.56	96.11
22	315.00 -	330.00	1	0.39	0.39	98.44	235. - 295.	3	1.17	97.28
23	330.00 -	345.00	0	0.00	0.00	98.44	296. - 371.	7	2.72	100.00
24	345.00 -	360.00	3	1.17	1.17	99.61	372. - 467.	0	0.00	100.00
25	360.00 -	375.00	1	0.39	0.39	100.00	468. - 588.	0	0.00	100.00
26	375.00 -	390.00	0	0.00	0.00	100.00	589. - 741.	0	0.00	100.00
27	390.00 -	405.00	0	0.00	0.00	100.00	742. - 933.	0	0.00	100.00
28	405.00 -	420.00	0	0.00	0.00	100.00	934. - 1175.	0	0.00	100.00
29	420.00 -	435.00	0	0.00	0.00	100.00	1176. - 1478.	0	0.00	100.00
30	435.00 -	450.00	0	0.00	0.00	100.00	1479. - 2000.	0	0.00	100.00
31							> 2000.	0	0.00	100.00
TOTAL			257	100.00	100.00			257	100.00	

LIST OF DATA ABOVE MAXIMUM VALUE (450)

NO DATA ABOVE MAXIMUM VALUE

KWADGEO

NUMBER OF VALUES IS 256 VARIABLE NAME IS: ZN
 CALCULATED PARAMETERS: MEAN= 63.9492 STD.DEV.= 67.8916 VARIANCE= 4609.2695 NO. VALUES USED= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF ARITHMETIC VALUES	LOG LIMIT
1	-114.2662	0	0.0		*****
2	-97.2933	0	0.0		*****
3	-80.3204	0	0.0		*****
4	-63.3475	0	0.0		*****
5	-46.3746	0	0.0		*****
6	-29.4017	0	0.0		*****
7	-12.4288	0	0.0		*****
8	4.5441	2	0.8	*	
9	21.5170	71	27.7	*****	0.6574
10	38.4899	55	21.5	*****	1.3328
11	55.4628	34	13.3	*****	1.5853
12	72.4357	20	7.8	*****	1.7440
13	89.4086	15	5.9	*****	1.8600
14	106.3815	12	4.7	*****	1.9514
15	123.3544	10	3.9	****	2.0269
16	140.3273	9	3.5	****	2.0912
17	157.3002	7	2.7	***	2.1471
18	174.2731	5	2.0	**	2.1967
19	191.2460	3	1.2	*	2.2412
20	208.2189	3	1.2	*	2.2816
21	225.1918	0	0.0		2.3185
					2.3526

LOG VALUES.....: MEAN= 1.6051 STD.DEV.= 0.4292 VARIANCE= 0.1842 NO. VALUES= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF LOGARITHMIC VALUES	ARITH. LIMIT
1	0.4784	0	0.0		3.0092
2	0.5857	0	0.0		3.8525
3	0.6930	1	0.4		4.9322
4	0.8003	2	0.8	*	6.3144
5	0.9076	8	3.1	***	8.0840
6	1.0149	15	5.9	*****	10.3496
7	1.1222	7	2.7	***	13.2500
8	1.2295	14	5.5	*****	16.9634
9	1.3368	25	9.8	*****	21.7173
10	1.4441	20	7.8	*****	27.8037
11	1.5514	25	9.8	*****	35.5956
12	1.6587	23	9.0	*****	45.5713
13	1.7660	22	8.6	*****	58.3427
14	1.8733	23	9.0	*****	74.6933
15	1.9806	17	6.6	*****	95.6262
16	2.0879	16	6.3	*****	122.4255
17	2.1952	16	6.3	*****	156.7354
18	2.3025	9	3.5	****	200.6606
19	2.4098	4	1.6	**	256.8958
20	2.5171	4	1.6	**	328.8911
21	2.6243	4	1.6	**	421.0627

STATISTICAL SUMMARY

NAME	NO. OF VALUES	ARITHMETIC		LOGARITHMIC	
		MEAN	STD. DEV.	MEAN	STD. DEV.
ZN	256	63.946	67.890	1.605	0.429

HISTOGRAM FOR ELEMENT BA

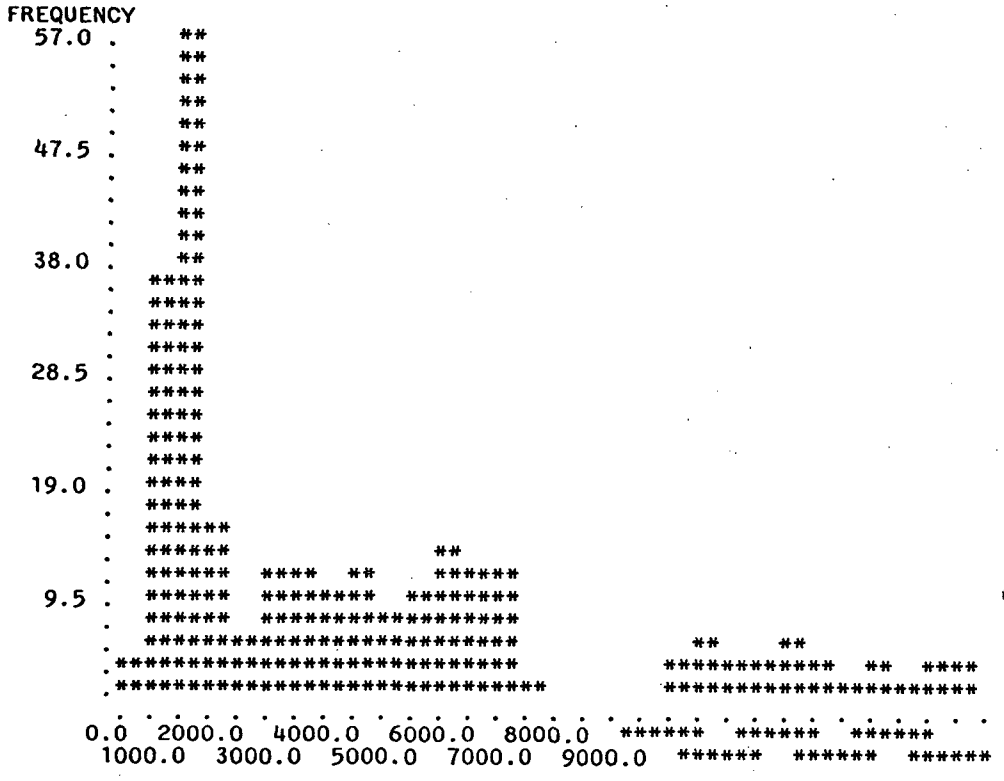


FIGURE : KWADGEO

TOTAL NUMBER OF SAMPLES PLOTTED = 232 ELEMENT BA
 NUMBER OF MISSING VALUES = 0
 SAMPLES ABOVE MAXIMUM = 25 PERCENT OF POPULATION = 9.73

MEAN OF SAMPLES = 3910.69
 STANDARD DEVIATION = 3618.25
 MEDIAN OF SAMPLES = 2582.00

PERCENT (TOTAL NUMBER OF DATA) 257 ADJUSTED PERCENT (DATA USED IN HISTOGRAM) 232

CLASS	INTERVAL LOWER PT.	INTERVAL UPPER PT.	FREQUENCY	PERCENT	ADJUSTED PERCENT	CUMULATIVE PERCENT	CLASS INTERVAL	FREQUENCY	PERCENT	PERCENT
							<1.0	0	0.00	0.00
1	0.00 -	500.00	2	0.78	0.86	0.86	1. - 2.	0	0.00	0.00
2	500.00 -	1000.00	36	14.01	15.52	16.38	2. - 3.	0	0.00	0.00
3	1000.00 -	1500.00	57	22.18	24.57	40.95	3. - 4.	0	0.00	0.00
4	1500.00 -	2000.00	14	5.45	6.03	46.98	4. - 5.	0	0.00	0.00
5	2000.00 -	2500.00	5	1.95	2.16	49.14	5. - 5.	0	0.00	0.00
6	2500.00 -	3000.00	10	3.89	4.31	53.45	6. - 7.	0	0.00	0.00
7	3000.00 -	3500.00	10	3.89	4.31	57.76	8. - 9.	0	0.00	0.00
8	3500.00 -	4000.00	9	3.50	3.88	61.64	10. - 11.	0	0.00	0.00
9	4000.00 -	4500.00	10	3.89	4.31	65.95	12. - 14.	0	0.00	0.00
10	4500.00 -	5000.00	7	2.72	3.02	68.97	15. - 18.	0	0.00	0.00
11	5000.00 -	5500.00	9	3.50	3.88	72.84	19. - 23.	0	0.00	0.00
12	5500.00 -	6000.00	12	4.67	5.17	78.02	24. - 29.	0	0.00	0.00
13	6000.00 -	6500.00	11	4.28	4.74	82.76	30. - 37.	0	0.00	0.00
14	6500.00 -	7000.00	10	3.89	4.31	87.07	38. - 46.	0	0.00	0.00
15	7000.00 -	7500.00	1	0.39	0.43	87.50	47. - 58.	0	0.00	0.00
16	7500.00 -	8000.00	0	0.00	0.00	87.50	59. - 74.	0	0.00	0.00
17	8000.00 -	8500.00	0	0.00	0.00	87.50	75. - 93.	0	0.00	0.00
18	8500.00 -	9000.00	0	0.00	0.00	87.50	94. - 117.	0	0.00	0.00
19	9000.00 -	9500.00	0	0.00	0.00	87.50	118. - 147.	0	0.00	0.00
20	9500.00 -	10000.00	3	1.17	1.29	88.79	148. - 186.	0	0.00	0.00
21	10000.00 -	10500.00	5	1.95	2.16	90.95	187. - 234.	0	0.00	0.00
22	10500.00 -	11000.00	3	1.17	1.29	92.24	235. - 295.	0	0.00	0.00
23	11000.00 -	11500.00	2	0.78	0.86	93.10	296. - 371.	0	0.00	0.00
24	11500.00 -	12000.00	5	1.95	2.16	95.26	372. - 467.	1	0.39	0.39
25	12000.00 -	12500.00	2	0.78	0.86	96.12	468. - 588.	5	1.95	2.33
26	12500.00 -	13000.00	1	0.39	0.43	96.55	589. - 741.	7	2.72	5.06
27	13000.00 -	13500.00	2	0.78	0.86	97.41	742. - 933.	18	7.00	12.06
28	13500.00 -	14000.00	1	0.39	0.43	97.84	934. - 1175.	36	14.01	26.07
29	14000.00 -	14500.00	2	0.78	0.86	98.71	1176. - 1478.	26	10.12	36.19
30	14500.00 -	15000.00	3	1.17	1.29	100.00	1479. - 2000.	16	6.23	42.41
31							> 2000.	148	57.59	100.00
TOTAL			232	90.27	100.00			257	100.00	

LIST OF DATA ABOVE MAXIMUM VALUE (15000)

15134.0 30942.0 18226.0 60616.0 18015.0 16670.0 34947.0 35581.0 38636.0 16135.0
 53472.0 15493.0 63656.0 15914.0 15520.0 17723.0 30732.0 16886.0 39934.0 32395.0
 33320.0 16459.0 16990.0 15130.0 15740.0

KWADGEO
 NUMBER OF VALUES IS 256 VARIABLE NAME IS: BA
 CALCULATED PARAMETERS: MEAN= 6213.4531 STD.DEV.= 9010.5078 VARIANCE=***** NO.VALUES USED= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF ARITHMETIC VALUES	LOG LIMIT
1	-17439.1406	0	0.0		*****
2	-15186.5156	0	0.0		*****
3	-12933.8906	0	0.0		*****
4	-10681.2656	0	0.0		*****
5	-8428.6406	0	0.0		*****
6	-6176.0156	0	0.0		*****
7	-3923.3906	0	0.0		*****
8	-1670.7637	0	0.0		*****
9	581.8633	6	2.3	**	2.7648
10	2834.4902	112	43.8	*****	3.4525
11	5087.1172	41	16.0	*****	3.7065
12	7339.7461	43	16.8	*****	3.8657
13	9592.3750	0	0.0		3.9819
14	11845.0039	17	6.6	*****	4.0735
15	14097.6328	8	3.1	***	4.1491
16	16350.2617	11	4.3	****	4.2135
17	18602.8906	7	2.7	***	4.2696
18	20855.5195	0	0.0		4.3192
19	23108.1484	0	0.0		4.3638
20	25360.7773	0	0.0		4.4042
21	27613.4062	0	0.0		4.4411

LOG VALUES.....: MEAN= 3.5076 STD.DEV.= 0.4853 VARIANCE= 0.2355 NO. VALUES= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF LOGARITHMIC VALUES	ARITH. LIMIT
1	2.2336	0	0.0		171.2556
2	2.3550	0	0.0		226.4524
3	2.4763	0	0.0		299.4395
4	2.5976	1	0.4		395.9507
5	2.7190	2	0.8	*	523.5684
6	2.8403	8	3.1	***	692.3176
7	2.9616	16	6.3	*****	915.4563
8	3.0830	41	16.0	*****	1210.5144
9	3.2043	30	11.7	*****	1600.6702
10	3.3256	10	3.9	****	2116.5774
11	3.4470	10	3.9	****	2798.7649
12	3.5683	20	7.8	*****	3700.8230
13	3.6896	21	8.2	*****	4893.6250
14	3.8110	31	12.1	*****	6470.8672
15	3.9323	12	4.7	****	8556.4727
16	4.0536	11	4.3	****	11314.2852
17	4.1750	18	7.0	*****	14960.9414
18	4.2963	14	5.5	****	19782.9609
19	4.4176	0	0.0		26159.1445
20	4.5390	4	1.6	**	34590.3867
21	4.6603	4	1.6	**	45739.1133

KWADGEO

VARIABLE NAME IS: BA

CELL	LOWER LIMIT	NO	CUMPT	APPROXIMATE CUMULATIVE PROBABILITY PLOT OF LOGARITHMIC VALUES										ARITH. LIMIT			
1	4.691	3	1.2	*													49047.9805
2	4.630	0	1.2	*													42653.5508
3	4.569	2	2.0		*												37092.7695
4	4.509	4	3.5			*											32256.9180
5	4.448	2	4.3			*											28051.5547
6	4.387	0	4.3			*											24394.4492
7	4.327	0	4.3			*											21214.1016
8	4.266	0	4.3			*											18448.3984
9	4.205	8	7.4		*												16043.2656
10	4.145	11	11.7			*											13951.6758
11	4.084	5	13.7			*											12132.7852
12	4.023	10	17.6				*										10551.0234
13	3.963	9	21.1				*										9175.4687
14	3.902	0	21.1				*										7979.2539
15	3.841	3	22.3				*										6938.9922
16	3.781	19	29.7				*										6034.3437
17	3.720	19	37.1				*										5247.6406
18	3.659	9	40.6				*										4563.5000
19	3.599	11	44.9				*										3968.5522
20	3.538	8	48.0				*										3451.1653
21	3.477	10	52.0				*										3001.2336
22	3.417	7	54.7				*										2609.9602
23	3.356	6	57.0				*										2269.6951
24	3.295	3	58.2				*										1973.7930
25	3.235	7	60.9				*										1716.4678
26	3.174	7	63.7				*										1492.6887
27	3.113	16	69.9				*										1298.0857
28	3.053	20	77.7				*										1128.8530
29	2.992	21	85.9				*										981.6824
30	2.931	16	92.2				*										853.6997
31	2.871	7	94.9				*										742.4021
32	2.810	5	96.9				*										645.6138
33	2.749	2	97.7				*										561.4446
34	2.689	4	99.2				*									*	488.2485
35	2.628	1	99.6				*									*	424.5947
36	2.567	1	100.0				*									*	369.2400
37	2.507	0	100.0				*									*	321.1018
38	2.446	0	100.0				*									*	279.2393
39	2.385	0	100.0				*									*	242.8345
40	2.325	0	100.0				*									*	211.1759
41	2.264	0	100.0				*									*	183.6447

STATISTICAL SUMMARY

NAME	NO. OF VALUES	ARITHMETIC		LOGARITHMIC	
		MEAN	STD. DEV.	MEAN	STD. DEV.
BA	256	6213.039	9010.766	3.508	0.485

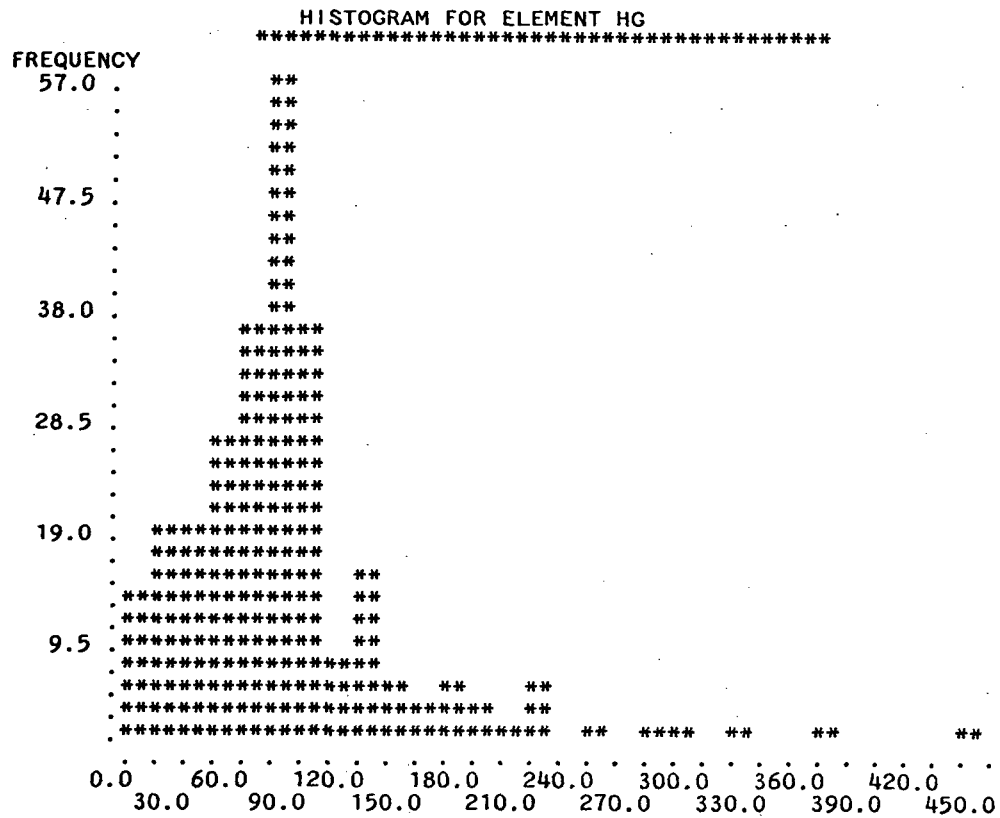


FIGURE : KWADGEO

TOTAL NUMBER OF SAMPLES PLOTTED = 253 ELEMENT HG
 NUMBER OF MISSING VALUES = 0
 SAMPLES ABOVE MAXIMUM = 4 PERCENT OF POPULATION = 1.56

MEAN OF SAMPLES = 83.78
 STANDARD DEVIATION = 56.39
 MEDIAN OF SAMPLES = 80.00

PERCENT (TOTAL NUMBER OF DATA) 257 ADJUSTED PERCENT (DATA USED IN HISTOGRAM) 253

CLASS	INTERVAL LOWER PT.	INTERVAL UPPER PT.	FREQUENCY	PERCENT	ADJUSTED PERCENT	CUMULATIVE PERCENT	CLASS INTERVAL	FREQUENCY	PERCENT	PERCENT
							<1.0	0	0.00	0.00
1	0.00 -	15.00	13	5.06	5.14	5.14	1. - 2.	0	0.00	0.00
2	15.00 -	30.00	19	7.39	7.51	12.65	2. - 3.	0	0.00	0.00
3	30.00 -	45.00	19	7.39	7.51	20.16	3. - 4.	0	0.00	0.00
4	45.00 -	60.00	26	10.12	10.28	30.43	4. - 5.	0	0.00	0.00
5	60.00 -	75.00	36	14.01	14.23	44.66	5. - 5.	0	0.00	0.00
6	75.00 -	90.00	57	22.18	22.53	67.19	6. - 7.	0	0.00	0.00
7	90.00 -	105.00	36	14.01	14.23	81.42	8. - 9.	0	0.00	0.00
8	105.00 -	120.00	7	2.72	2.77	84.19	10. - 11.	12	4.67	4.67
9	120.00 -	135.00	14	5.45	5.53	89.72	12. - 14.	1	0.39	5.06
10	135.00 -	150.00	5	1.95	1.98	91.70	15. - 18.	1	0.39	5.45
11	150.00 -	165.00	3	1.17	1.19	92.89	19. - 23.	11	4.28	9.73
12	165.00 -	180.00	5	1.95	1.98	94.86	24. - 29.	7	2.72	12.45
13	180.00 -	195.00	2	0.78	0.79	95.65	30. - 37.	11	4.28	16.73
14	195.00 -	210.00	1	0.39	0.40	96.05	38. - 46.	14	5.45	22.18
15	210.00 -	225.00	4	1.56	1.58	97.63	47. - 58.	16	6.23	28.40
16	225.00 -	240.00	0	0.00	0.00	97.63	59. - 74.	40	15.56	43.97
17	240.00 -	255.00	1	0.39	0.40	98.02	75. - 93.	68	26.46	70.43
18	255.00 -	270.00	0	0.00	0.00	98.02	94. - 117.	32	12.45	82.88
19	270.00 -	285.00	1	0.39	0.40	98.42	118. - 147.	19	7.39	90.27
20	285.00 -	300.00	1	0.39	0.40	98.81	148. - 186.	10	3.89	94.16
21	300.00 -	315.00	0	0.00	0.00	98.81	187. - 234.	5	1.95	96.11
22	315.00 -	330.00	1	0.39	0.40	99.21	235. - 295.	3	1.17	97.28
23	330.00 -	345.00	0	0.00	0.00	99.21	296. - 371.	2	0.78	98.05
24	345.00 -	360.00	0	0.00	0.00	99.21	372. - 467.	2	0.78	98.83
25	360.00 -	375.00	1	0.39	0.40	99.60	468. - 588.	1	0.39	99.22
26	375.00 -	390.00	0	0.00	0.00	99.60	589. - 741.	2	0.78	100.00
27	390.00 -	405.00	0	0.00	0.00	99.60	742. - 933.	0	0.00	100.00
28	405.00 -	420.00	0	0.00	0.00	99.60	934. - 1175.	0	0.00	100.00
29	420.00 -	435.00	0	0.00	0.00	99.60	1176. - 1478.	0	0.00	100.00
30	435.00 -	450.00	1	0.39	0.40	100.00	1479. - 2000.	0	0.00	100.00
31							> 2000.	0	0.00	100.00
TOTAL			253	98.44	100.00			257	100.00	

LIST OF DATA ABOVE MAXIMUM VALUE (450)

450.0 720.0 505.0 630.0

KWADGEO
 NUMBER OF VALUES IS 256 VARIABLE NAME IS: HG
 CALCULATED PARAMETERS: MEAN= 91.3203 STD.DEV.= 84.0157 VARIANCE= 7058.6406 NO. VALUES USED= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF ARITHMETIC VALUES	LOG LIMIT
1	-129.2212	0	0.0		*****
2	-108.2173	0	0.0		*****
3	-87.2134	0	0.0		*****
4	-66.2095	0	0.0		*****
5	-45.2056	0	0.0		*****
6	-24.2016	0	0.0		*****
7	-3.1977	0	0.0		*****
8	17.8062	14	5.5	*****	1.2506
9	38.8101	30	11.7	*****	1.5889
10	59.8141	33	12.9	*****	1.7768
11	80.8180	50	19.5	*****	1.9075
12	101.8219	79	30.9	*****	2.0078
13	122.8258	8	3.1	***	2.0893
14	143.8297	17	6.6	*****	2.1578
15	164.8337	3	1.2	*	2.2170
16	185.8376	7	2.7	***	2.2691
17	206.8415	1	0.4		2.3156
18	227.8454	4	1.6	**	2.3576
19	248.8493	1	0.4		2.3959
20	269.8533	0	0.0		2.4311
21	290.8574	2	0.8	*	2.4637

LOG VALUES.....: MEAN= 1.8438 STD.DEV.= 0.3257 VARIANCE= 0.1061 NO. VALUES= 256

CELL	LOWER LIMIT	NO	PCT	PERCENTAGE HISTOGRAM OF LOGARITHMIC VALUES	ARITH. LIMIT
1	0.9889	0	0.0		9.7465
2	1.0703	12	4.7	*****	11.7564
3	1.1517	1	0.4		14.1808
4	1.2331	1	0.4		17.1051
5	1.3146	4	1.6	**	20.6325
6	1.3960	7	2.7	***	24.8873
7	1.4774	7	2.7	***	30.0195
8	1.5588	11	4.3	****	36.2100
9	1.6403	8	3.1	***	43.6772
10	1.7217	20	7.8	*****	52.6841
11	1.8031	16	6.3	*****	63.5485
12	1.8845	33	12.9	*****	76.6534
13	1.9660	60	23.4	*****	92.4606
14	2.0474	29	11.3	*****	111.5276
15	2.1288	17	6.6	*****	134.5266
16	2.2102	8	3.1	***	162.2684
17	2.2917	7	2.7	***	195.7310
18	2.3731	5	2.0	**	236.0941
19	2.4545	2	0.8	*	284.7808
20	2.5359	2	0.8	*	343.5078
21	2.6174	1	0.4		414.3450

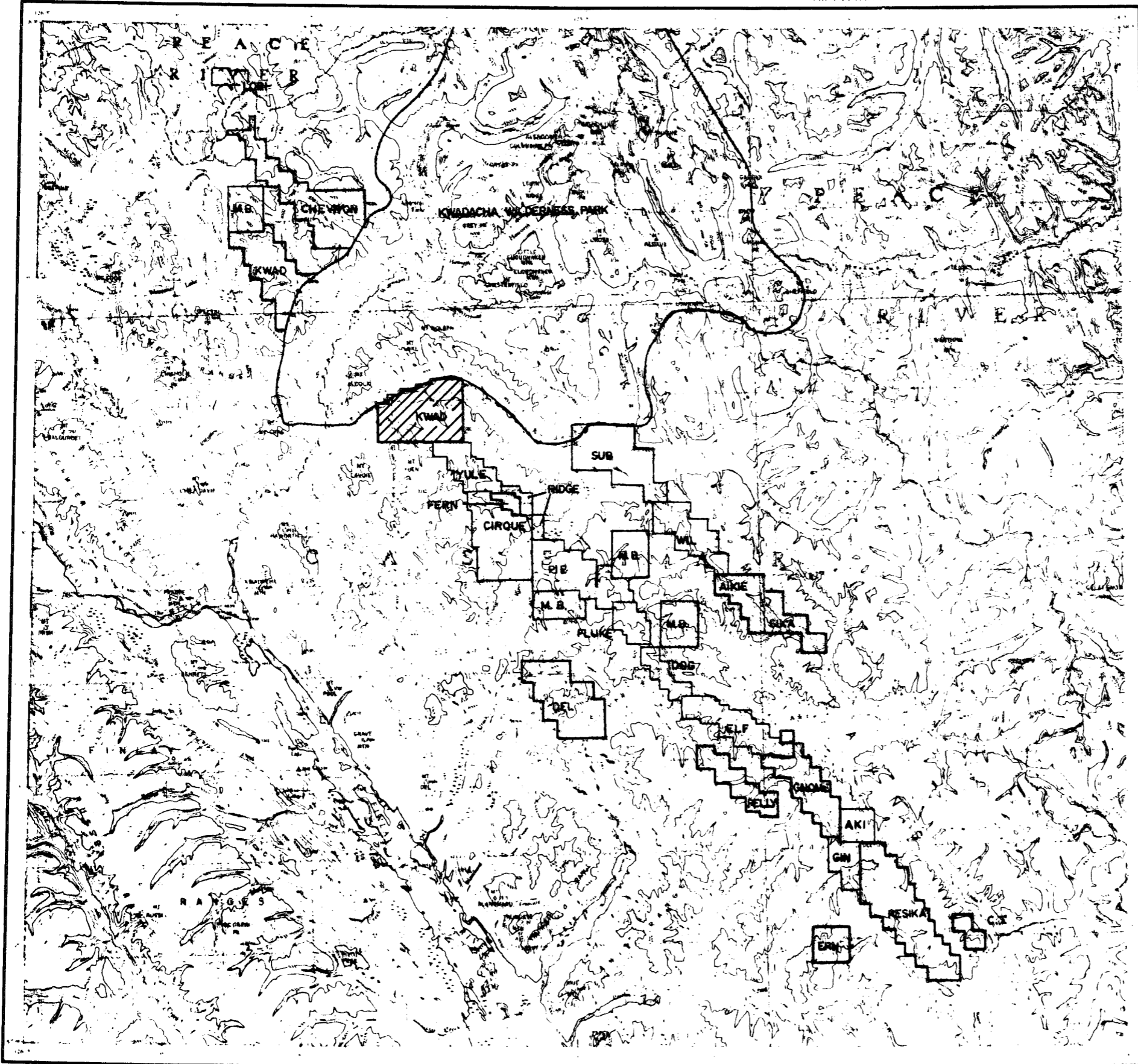
KWADGEO

VARIABLE NAME IS: HG

CELL	LOWER LIMIT	NO	CUMPT	APPROXIMATE CUMULATIVE PROBABILITY PLOT OF LOGARITHMIC VALUES					ARITH. LIMIT	
1	2.638	5	2.0	*						434.2295
2	2.597	0	2.0	*						395.3723
3	2.556	1	2.3	*						359.9919
4	2.516	0	2.3	*						327.7776
5	2.475	1	2.7	*						298.4463
6	2.434	2	3.5	*						271.7395
7	2.393	0	3.5	*						247.4226
8	2.353	1	3.9	*						225.2819
9	2.312	4	5.5	*						205.1223
10	2.271	1	5.9	*						186.7667
11	2.231	3	7.0	*						170.0538
12	2.190	7	9.8	*						154.8364
13	2.149	1	10.2	*						140.9808
14	2.108	13	15.2	*						128.3650
15	2.068	4	16.8	*						116.8781
16	2.027	7	19.5	*						106.4192
17	1.986	20	27.3	*						96.8962
18	1.946	25	37.1	*						88.2253
19	1.905	34	50.4	*						80.3304
20	1.864	14	55.9	*						73.1420
21	1.823	25	65.6	*						66.5968
22	1.783	6	68.0	*						60.6373
23	1.742	11	72.3	*						55.2111
24	1.701	0	72.3	*						50.2706
25	1.661	19	79.7	*						45.7720
26	1.620	3	80.9	*						41.6761
27	1.579	6	83.2	*						37.9467
28	1.538	0	83.2	*						34.5510
29	1.498	11	87.5	*						31.4591
30	1.457	0	87.5	*						28.6440
31	1.416	7	90.2	*						26.0808
32	1.376	0	90.2	*						23.7469
33	1.335	7	93.0	*						21.6219
34	1.294	1	93.4	*						19.6870
35	1.253	3	94.5	*						17.9253
36	1.213	1	94.9	*						16.3213
37	1.172	0	94.9	*						14.8607
38	1.131	1	95.3	*						13.5309
39	1.091	0	95.3	*						12.3201
40	1.050	0	95.3	*						11.2176
41	1.009	0	95.3	*						10.2138

STATISTICAL SUMMARY

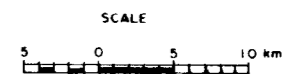
NAME	NO. OF VALUES	ARITHMETIC		LOGARITHMIC	
		MEAN	STD. DEV.	MEAN	STD. DEV.
HG	256	91.317	84.014	1.844	0.326



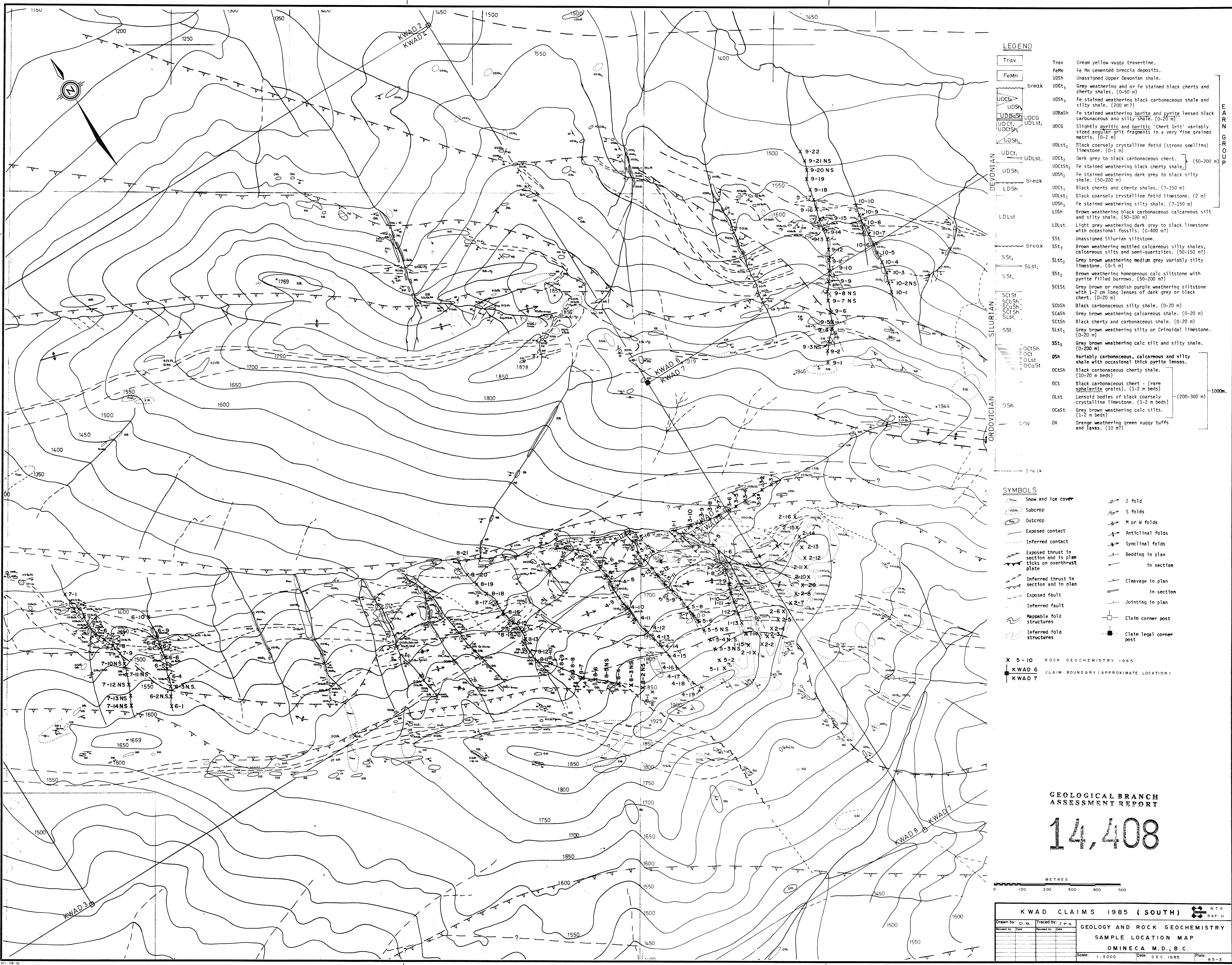
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,408

WARE
BRITISH COLUMBIA



AIKIE PROPERTIES		94 F
Drawn by KRP	Traced by	
Revised by	Date	
CLAIM LOCATION MAP		
KWAD CLAIMS (SOUTH)		
Scale 1:500,000	Date Dec. 85	Plate 85-1



LEGEND

Trav	Trav	Cream yellow vuggy travertine.
FeMn	FeMn	Fe Mn cemented breccia deposits.
UDSh	UDSh	Unassigned Upper Devonian shale.
UDCt ₃	UDCt ₃	Grey weathering and or Fe stained black cherts and cherty shales. (0-50 m)
UDCt ₂	UDCt ₂	Dark grey to black carbonaceous shale and silty shale. (200 m?)
UDCt ₁	UDCt ₁	Fe stained weathering black carbonaceous shale and silty shale. (200 m?)
UDCt ₀	UDCt ₀	Fe stained weathering barite and pyrite lensed black carbonaceous and silty shale. (0-20 m)
UDCt ₀ Sh	UDCt ₀ Sh	Slightly pyritic and baritic 'chert grit' variably sized angular grit fragments in a very fine grained matrix. (0-2 m)
UDCt ₀ Lst	UDCt ₀ Lst	Black coarsely crystalline fetid (strong smelling) limestone. (0-1 m)
UDCt ₀ Sh ₂	UDCt ₀ Sh ₂	Dark grey to black carbonaceous chert. (50-200 m)
UDCt ₀ Sh ₁	UDCt ₀ Sh ₁	Fe stained weathering black cherty shale. (50-200 m)
UDCt ₀ Sh ₀	UDCt ₀ Sh ₀	Fe stained weathering dark grey to black silty shale. (50-200 m)
UDCt ₀ Sh ₀ Lst	UDCt ₀ Sh ₀ Lst	Black cherts and cherty shales. (?-150 m)
UDCt ₀ Sh ₀ Lst ₂	UDCt ₀ Sh ₀ Lst ₂	Black coarsely crystalline fetid limestone. (2 m)
UDCt ₀ Sh ₀ Lst ₁	UDCt ₀ Sh ₀ Lst ₁	Fe stained weathering silty shale. (?-150 m)
UDCt ₀ Sh ₀ Lst ₀	UDCt ₀ Sh ₀ Lst ₀	Brown weathering black carbonaceous calcareous silt and silty shale. (50-100 m)
UDCt ₀ Sh ₀ Lst ₀ Lst	UDCt ₀ Sh ₀ Lst ₀ Lst	Light grey weathering dark grey to black limestone with occasional fossils. (0-400 m?)
SSt	SSt	Unassigned Silurian siltstone.
SSt ₂	SSt ₂	Brown weathering mottled calcareous silty shales, calcareous silt and semi-quartzites. (50-150 m?)
SSt ₁	SSt ₁	Grey brown weathering medium grey variably silty limestone. (0-5 m)
SSt ₀	SSt ₀	Brown weathering homogeneous calc siltstone with pyrite filled burrows. (50-200 m?)
SSt ₀ Lst	SSt ₀ Lst	Grey brown or reddish purple weathering siltstone with 1-2 cm long lenses of dark grey or black chert. (0-20 m)
SSt ₀ Lst ₂	SSt ₀ Lst ₂	Black carbonaceous silty shale. (0-20 m)
SSt ₀ Lst ₁	SSt ₀ Lst ₁	Grey brown weathering calcareous shale. (0-20 m)
SSt ₀ Lst ₀	SSt ₀ Lst ₀	Black cherty and carbonaceous shale. (0-20 m)
SSt ₀ Lst ₀ Lst	SSt ₀ Lst ₀ Lst	Grey brown weathering silty or Crinoidal limestone. (0-20 m)
SSt ₀ Lst ₀ Lst ₂	SSt ₀ Lst ₀ Lst ₂	Grey brown weathering calc silt and silty shale. (0-200 m)
SSt ₀ Lst ₀ Lst ₁	SSt ₀ Lst ₀ Lst ₁	Variably carbonaceous, calcareous and silty shale with occasional thick pyrite lenses. (10-20 m beds)
SSt ₀ Lst ₀ Lst ₀	SSt ₀ Lst ₀ Lst ₀	Black carbonaceous cherty shale. (10-20 m beds)
SSt ₀ Lst ₀ Lst ₀ Lst	SSt ₀ Lst ₀ Lst ₀ Lst	Black carbonaceous chert - (rare sphalerite grains). (1-2 m beds)
SSt ₀ Lst ₀ Lst ₀ Lst ₂	SSt ₀ Lst ₀ Lst ₀ Lst ₂	Lensoid bodies of black coarsely crystalline limestone. (1-2 m beds)
SSt ₀ Lst ₀ Lst ₀ Lst ₁	SSt ₀ Lst ₀ Lst ₀ Lst ₁	Grey brown weathering calc silt. (1-2 m beds)
SSt ₀ Lst ₀ Lst ₀ Lst ₀	SSt ₀ Lst ₀ Lst ₀ Lst ₀	Orange weathering green vuggy tuffs and lavas. (10 m?)

SYMBOLS

	Snow and ice cover		Z fold
	Subcrop		S folds
	Outcrop		M or W folds
	Exposed contact		Anticlinal folds
	Inferred contact		Synclinal folds
	Exposed thrust in section and in plan ticks on overthrust plate		Bedding in plan
	Inferred thrust in section and in plan		Cleavage in plan
	Exposed fault		Jointing in plan
	Inferred fault		Claim corner post
	Mappable fold structures		Claim legal corner post
	Inferred fold structures		

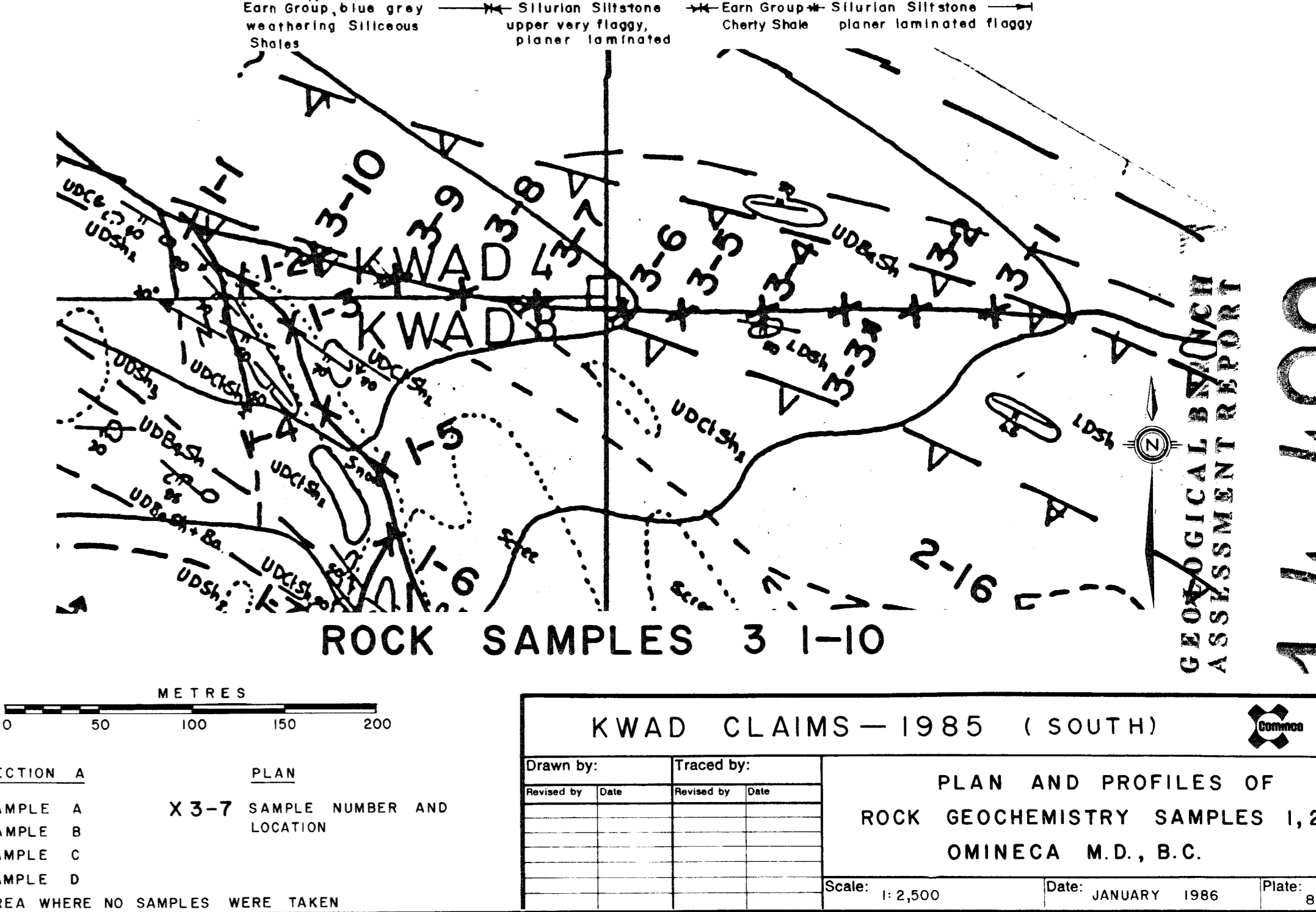
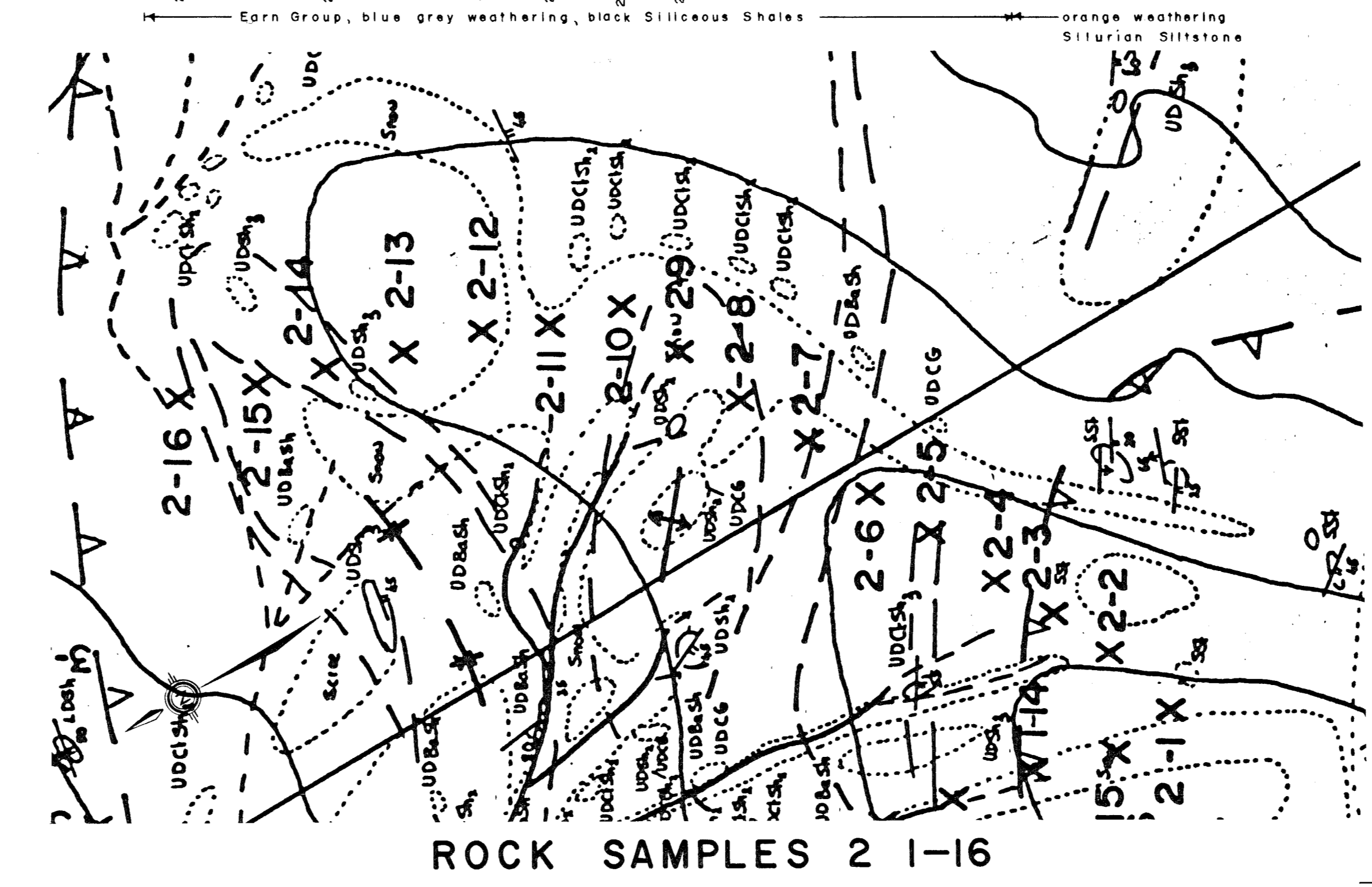
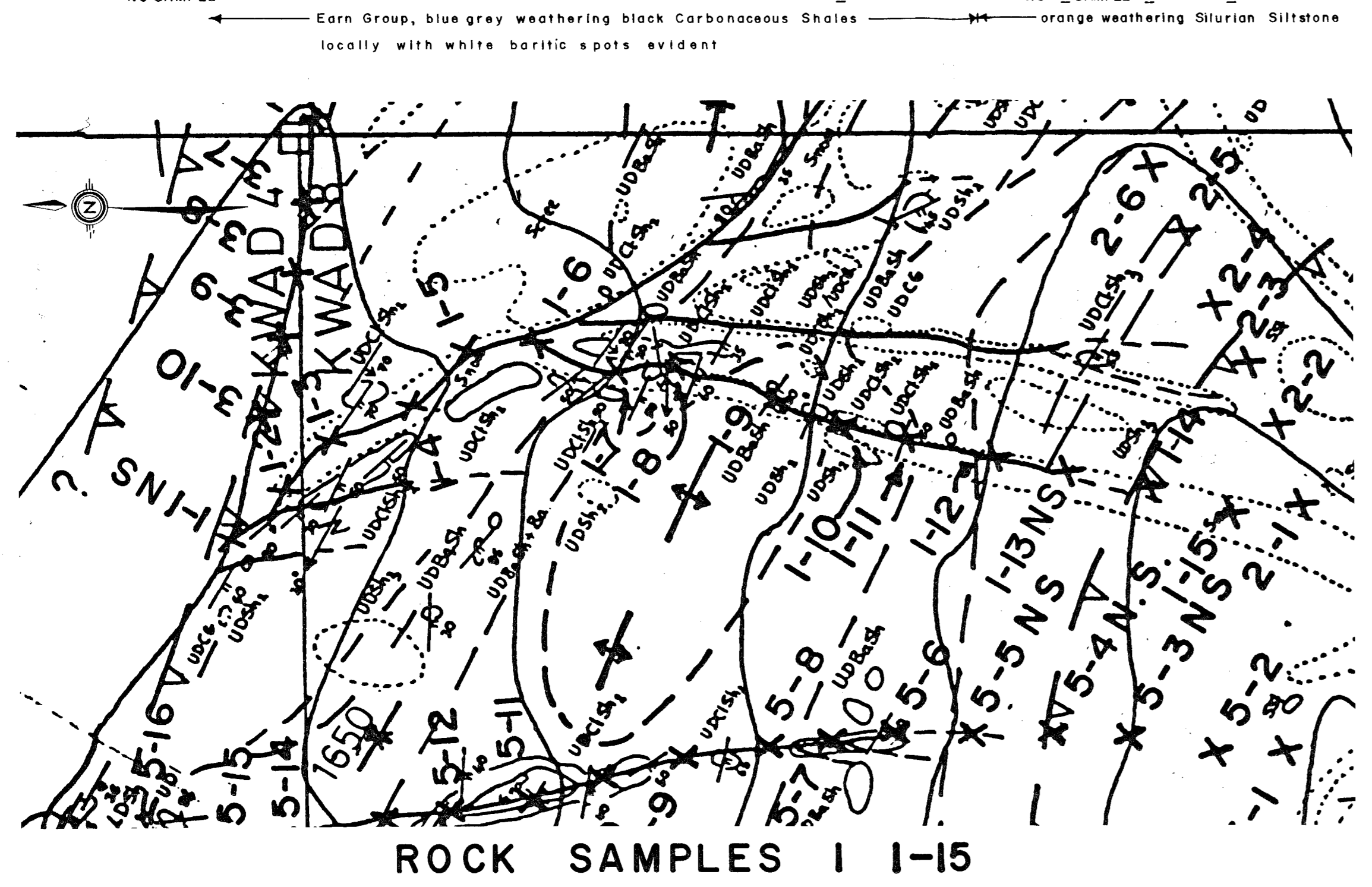
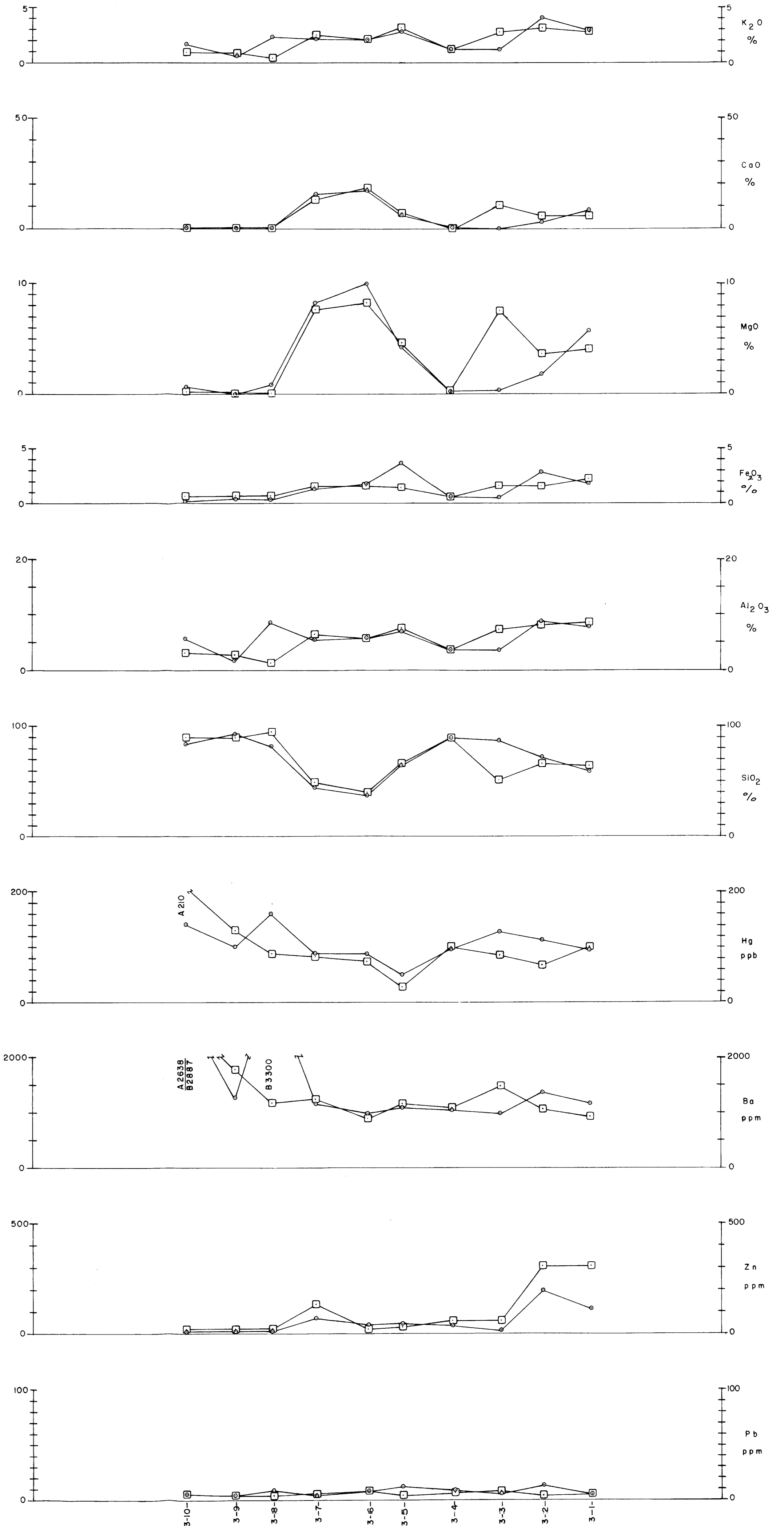
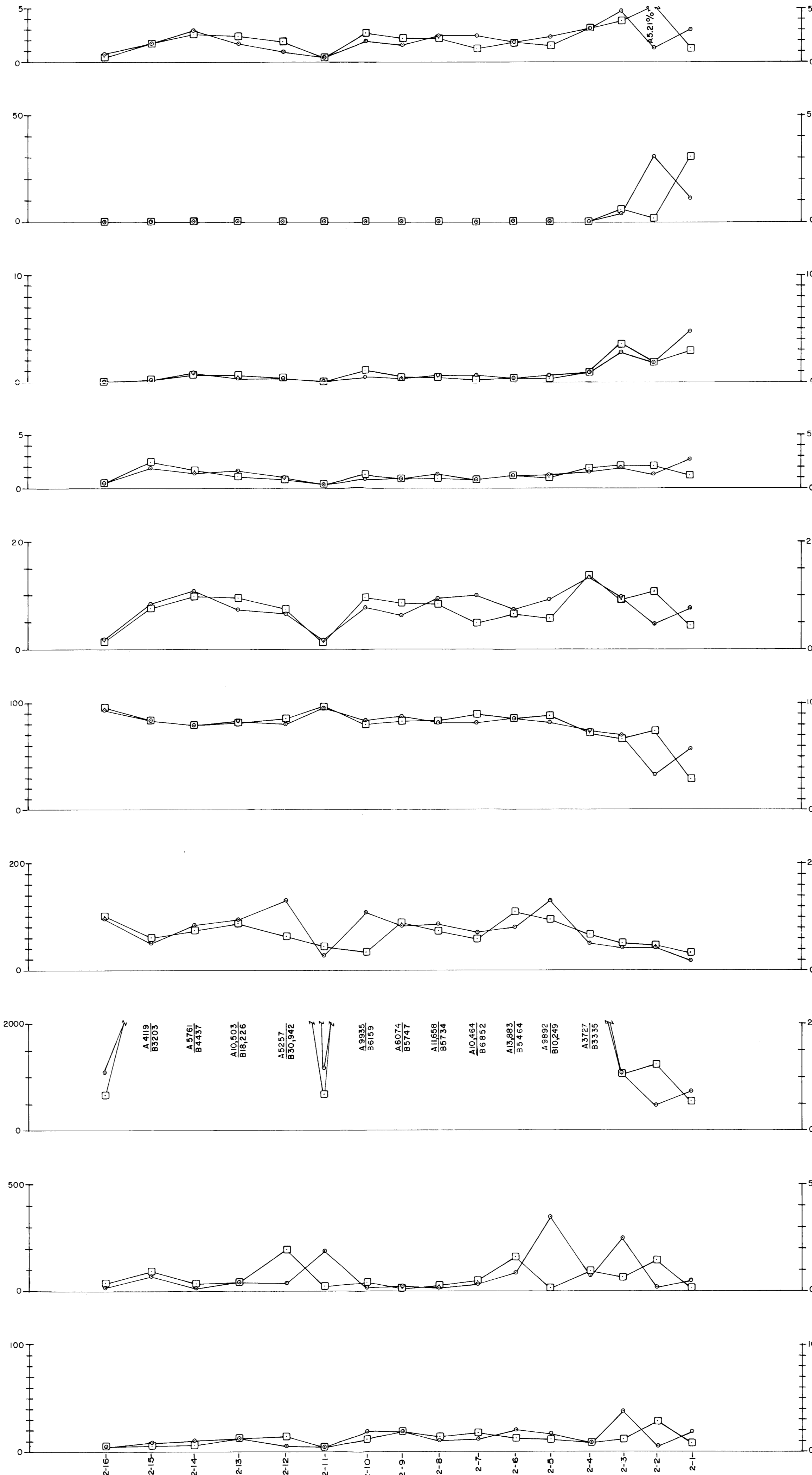
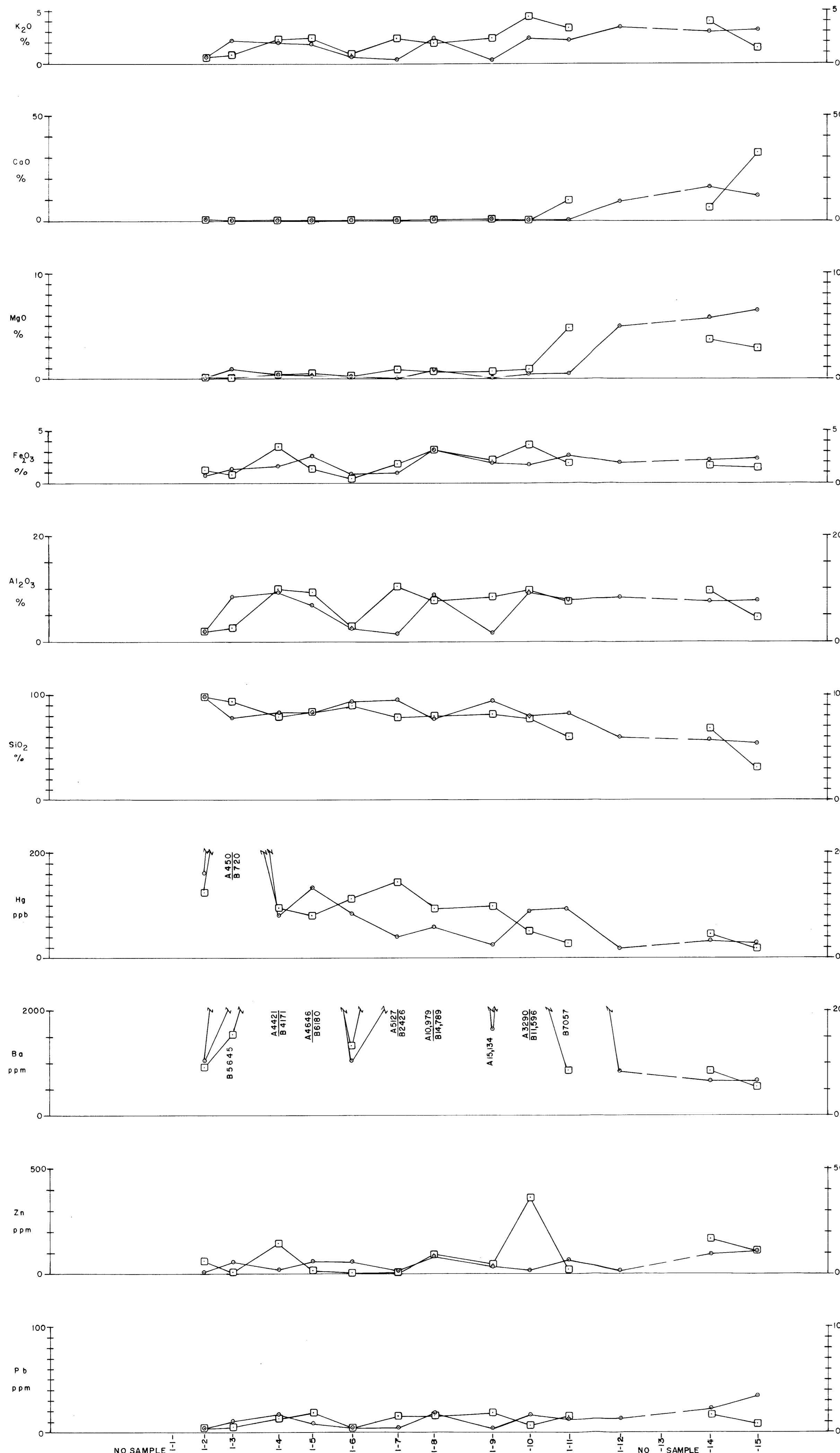
X 5-10 ROCK GEOCHEMISTRY 1985
 CLAIM BOUNDARY (APPROXIMATE LOCATION)

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

14,408

Scale: 1:5000 Date: DEC. 1985 Plate: 85-3

KWAD CLAIMS 1985 (SOUTH)		NTS 94F-11
Drawn by: D. S.	Traced by: J. P. S.	
Revised by: []	Revised by: []	GEOLOGY AND ROCK GEOCHEMISTRY SAMPLE LOCATION MAP OMINECA M.D., B.C.



14,408

GEOLOGICAL SURVEY
ASSESSMENT REPORT

NTS
94F-11

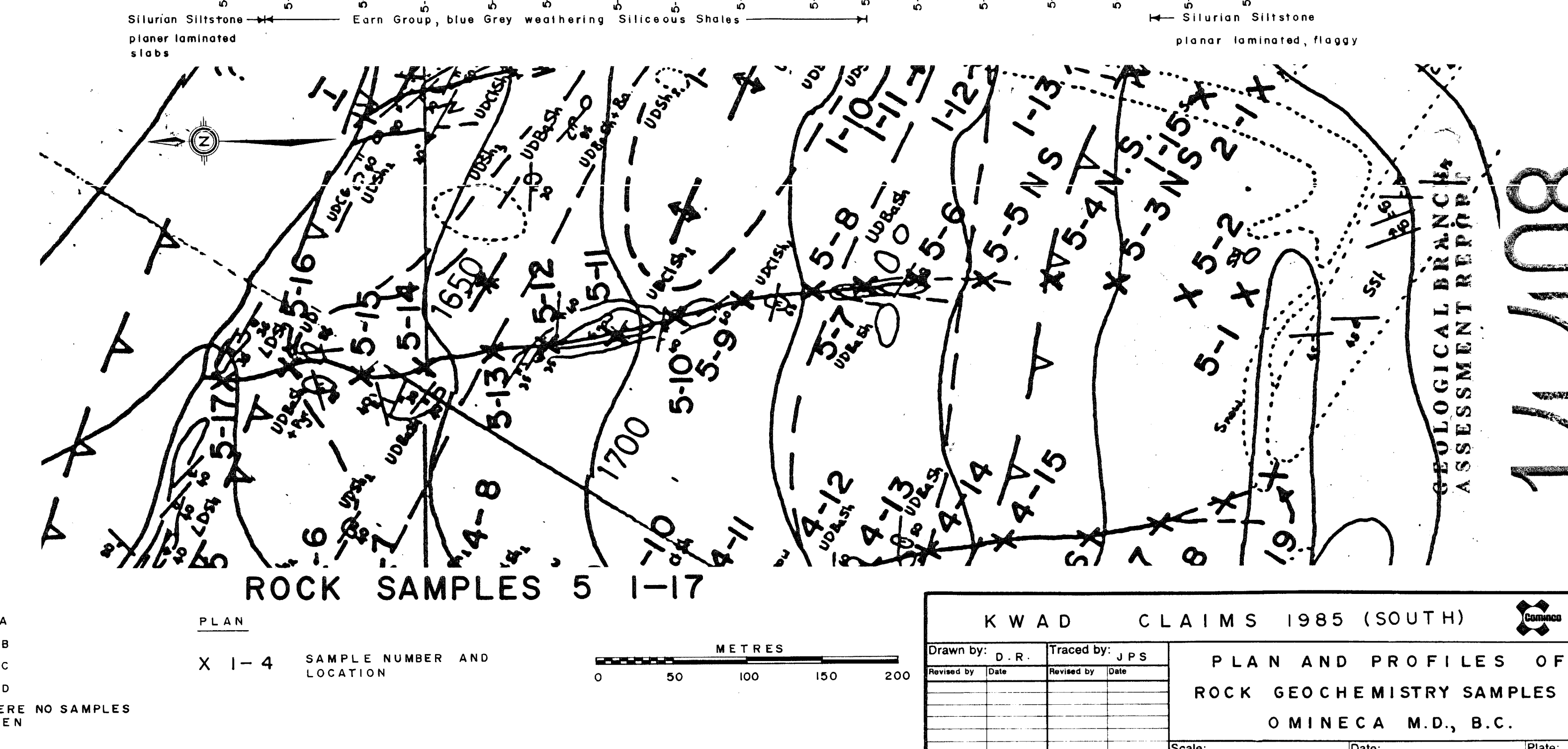
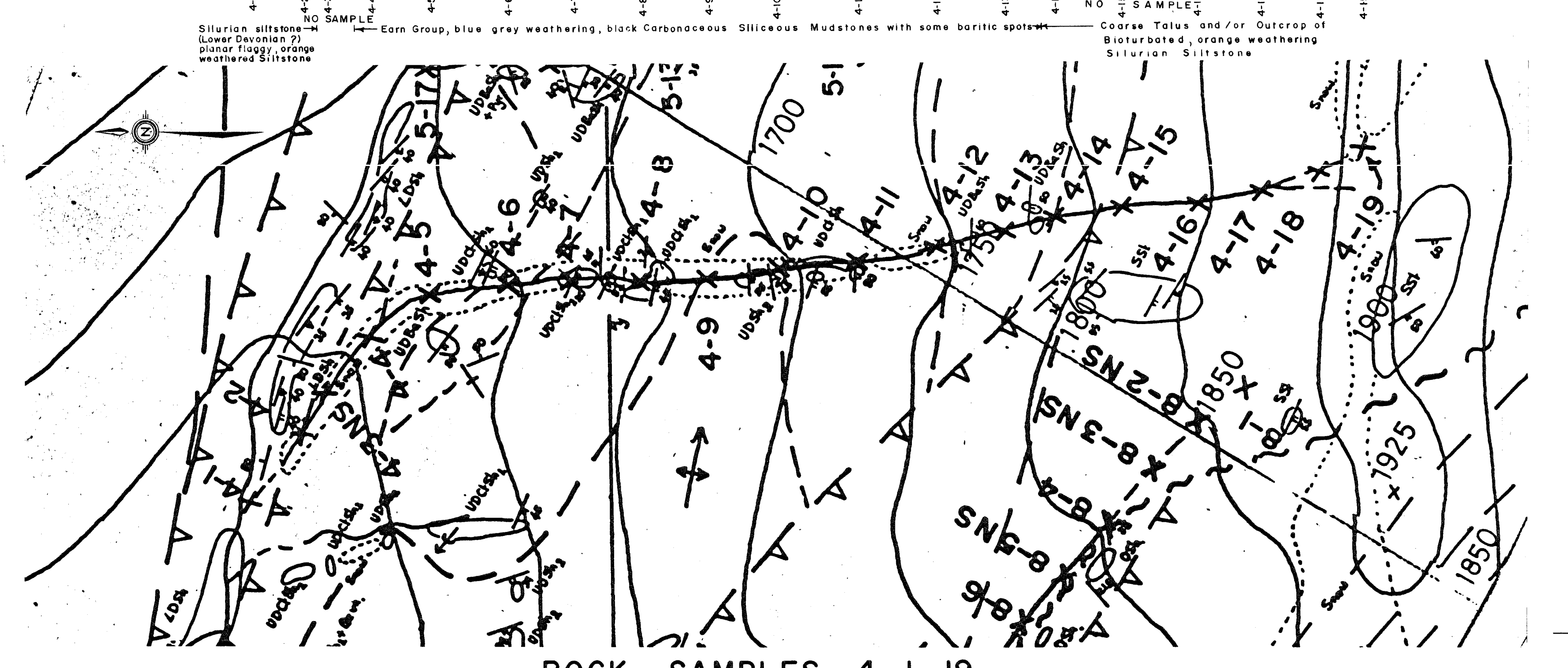
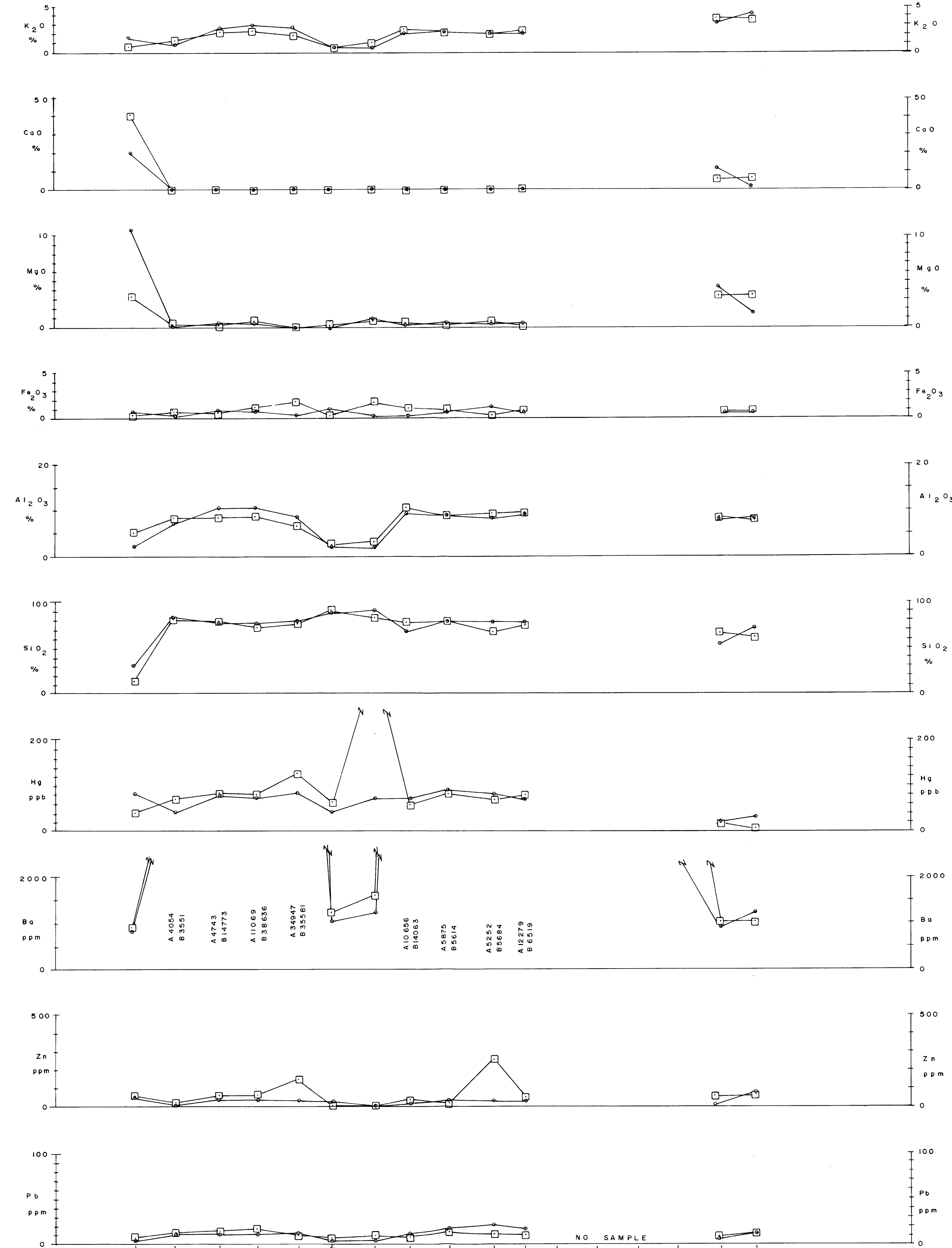
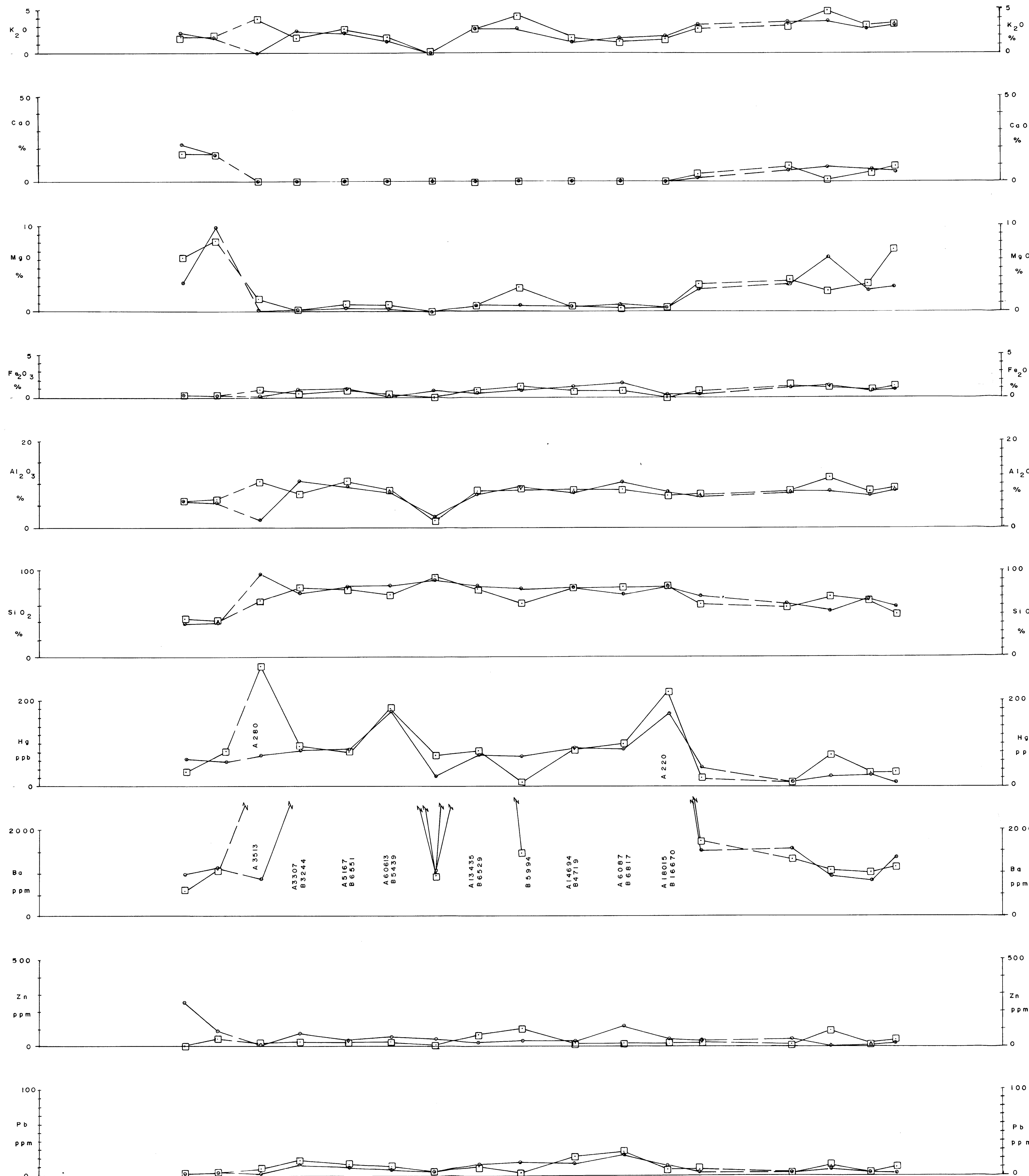
KWAD CLAIMS - 1985 (SOUTH)

Drawn by:	Traced by:
Checked by:	Reviewed by:
Date:	Date:

SECTION A PLAN
X 3-7 SAMPLE NUMBER AND LOCATION

PLAN AND PROFILES OF
ROCK GEOCHEMISTRY SAMPLES 1, 2, 3
OMINECA M.D., B.C.

Scale: 1:2,500 Date: JANUARY 1986 Plate: 94F-11

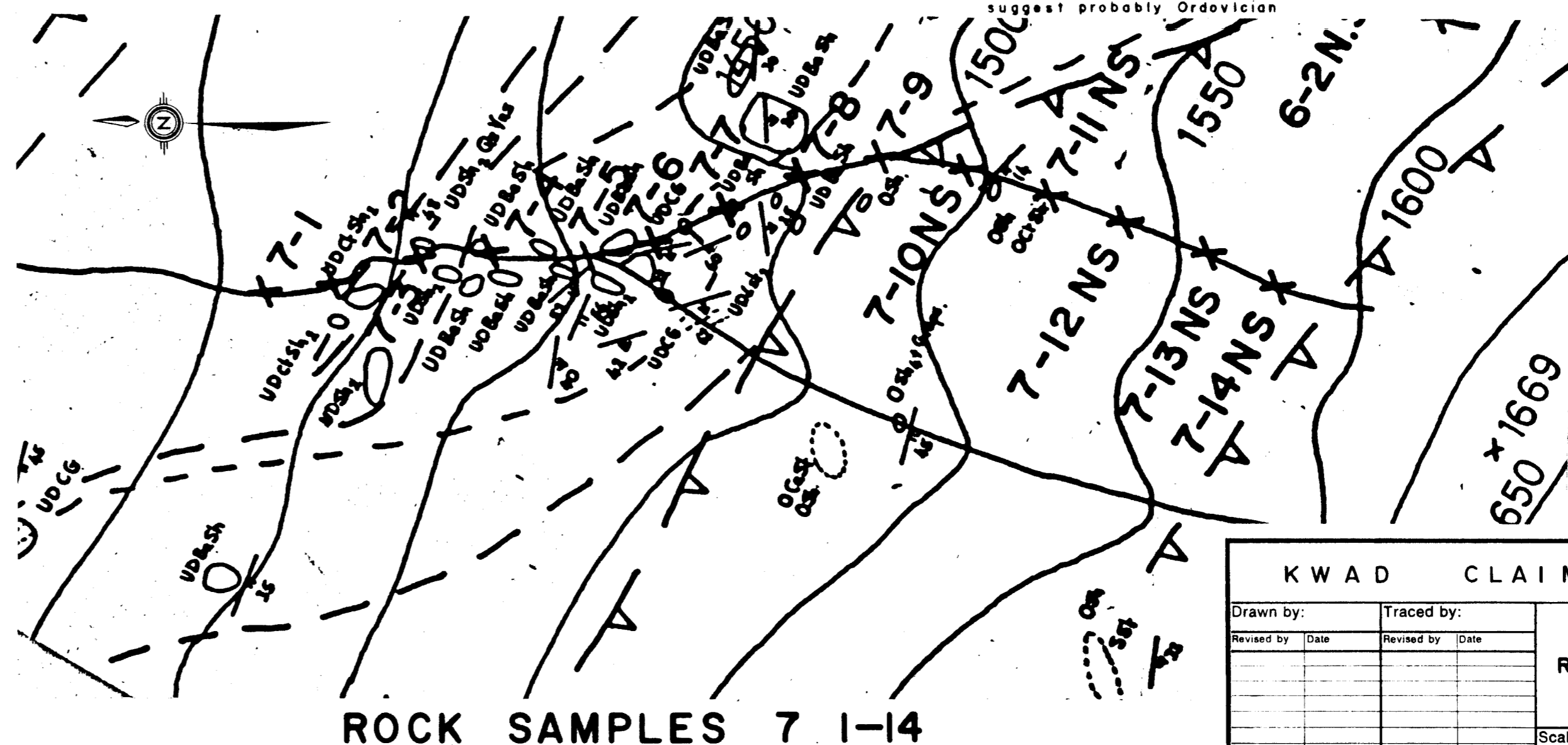
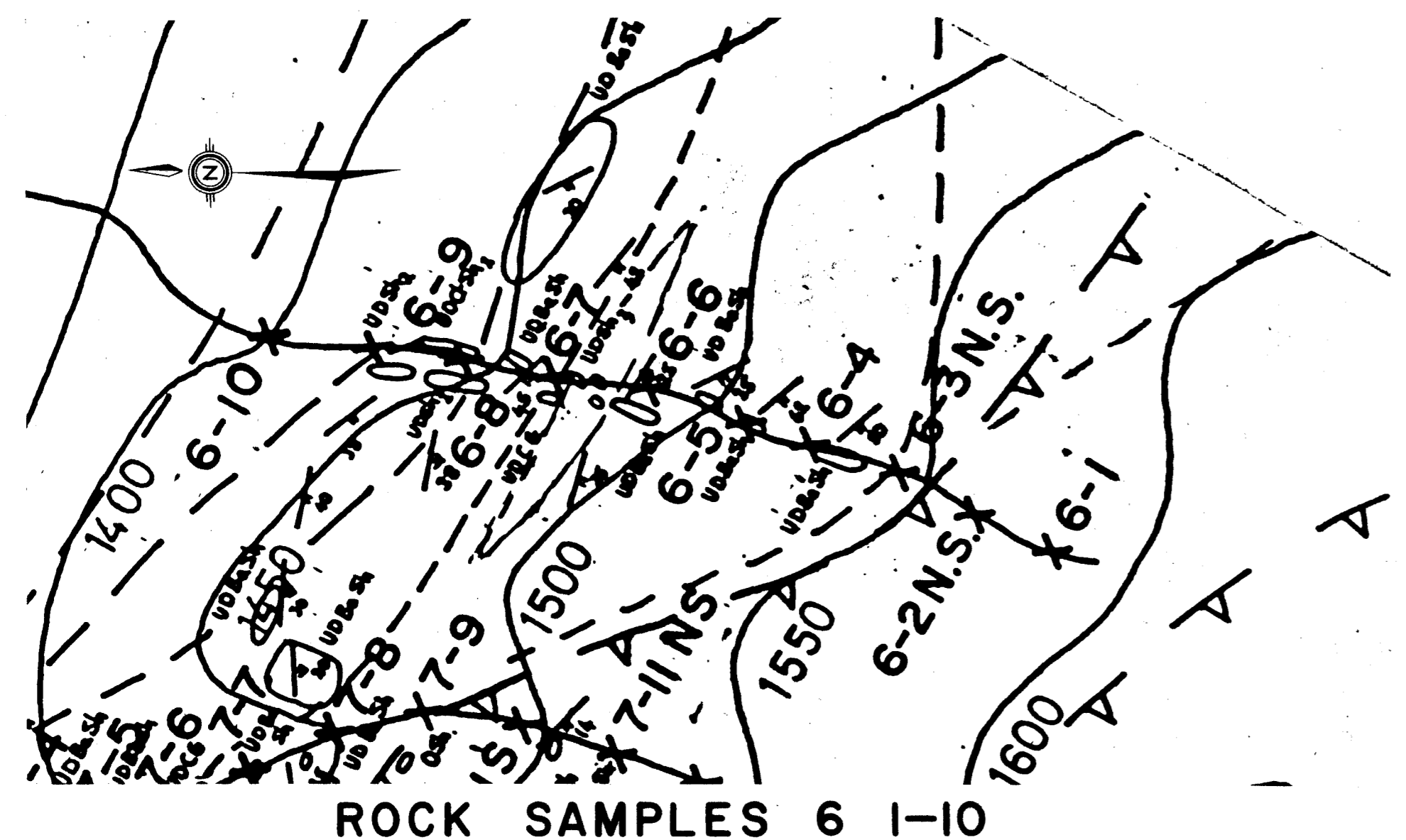
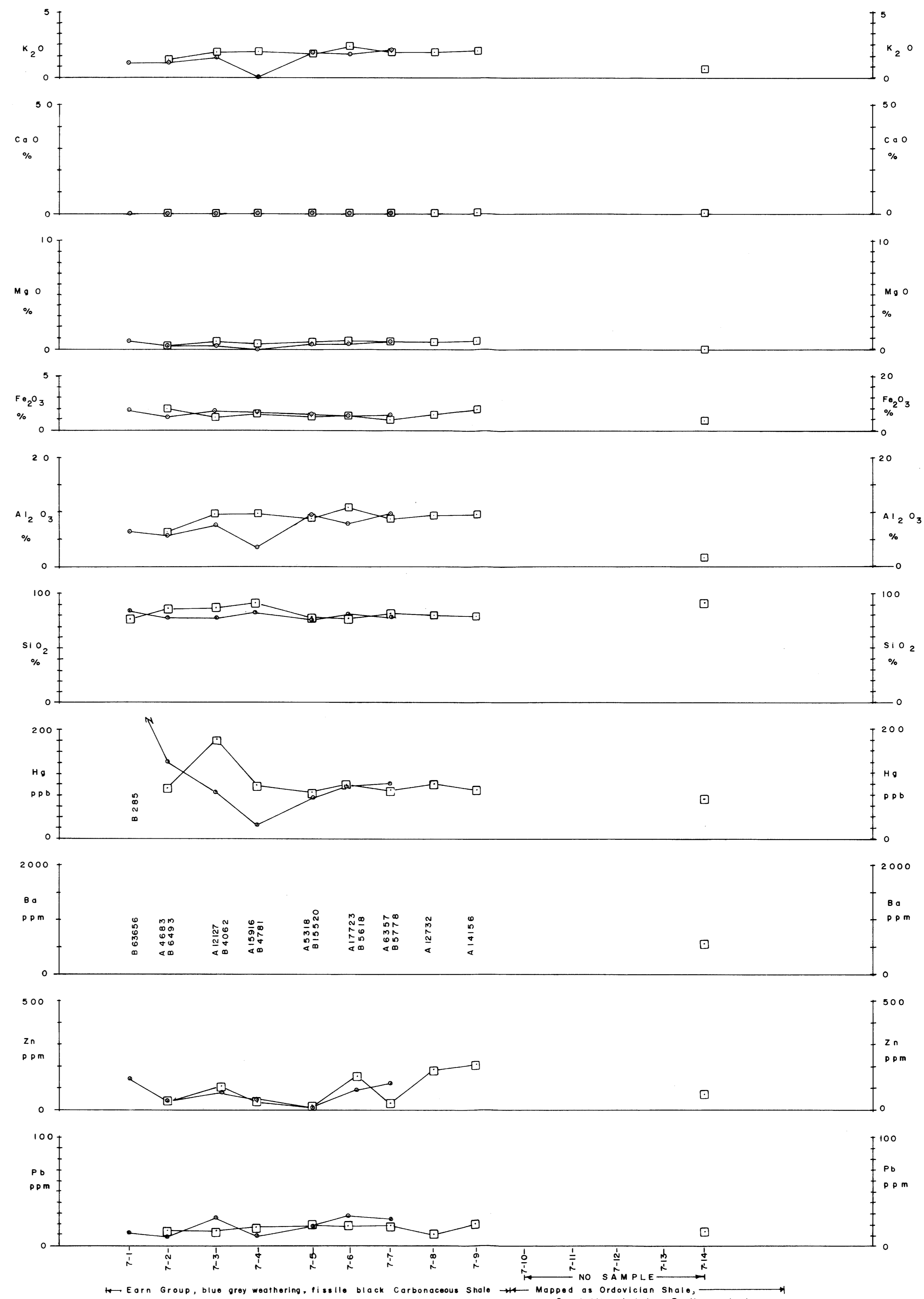
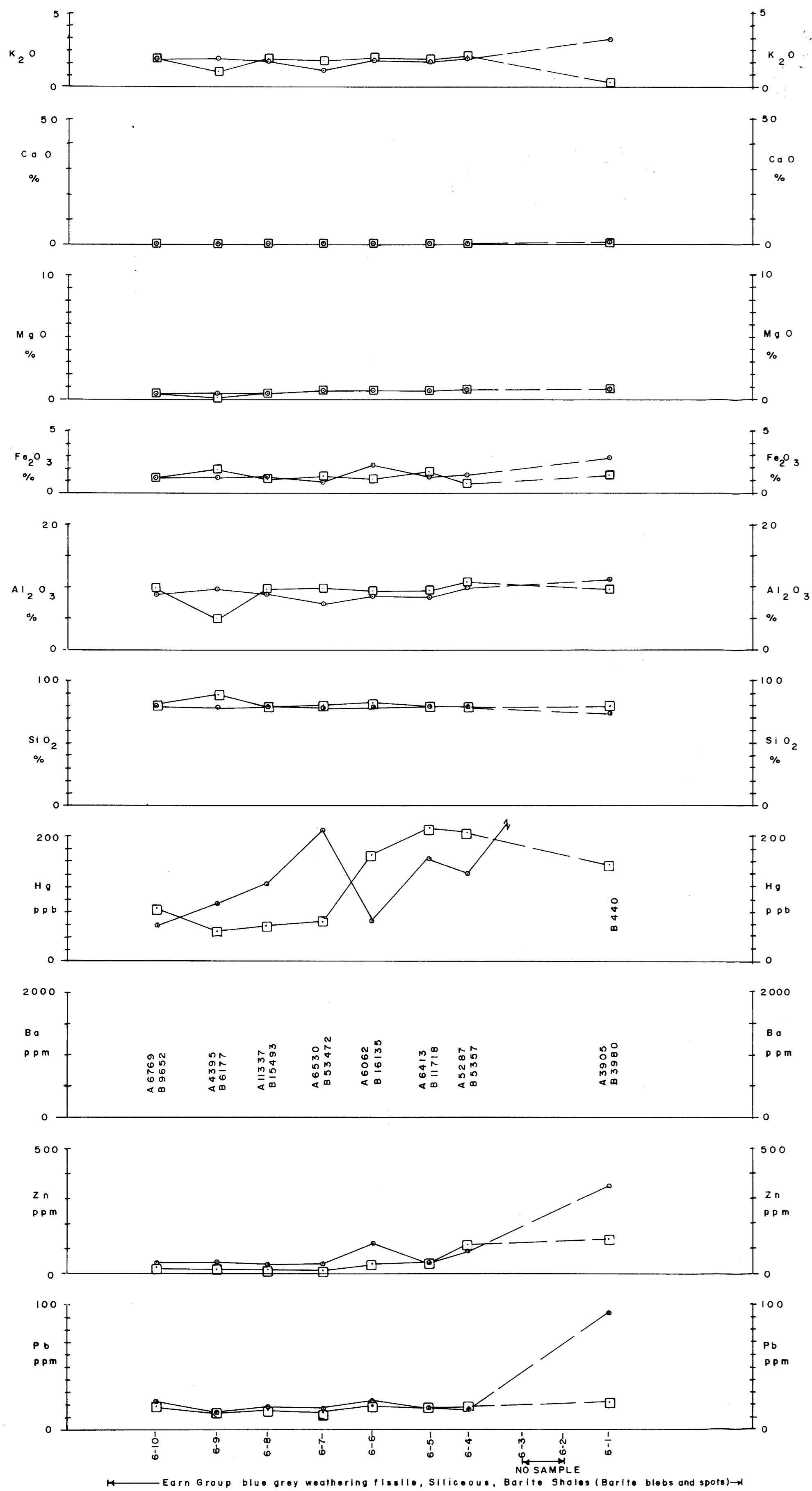


SECTION
 □ SAMPLE A
 ○ SAMPLE B
 △ SAMPLE C
 ◇ SAMPLE D
 — AREA WHERE NO SAMPLES WERE TAKEN

PLAN
 X 1-4 SAMPLE NUMBER AND LOCATION
 METRES
 0 50 100 150 200

KWAD CLAIMS 1985 (SOUTH) N.T.S.
 Drawn by: D.R. Traced by: J.P.S.
 Revised by: [] Date: []
 PLAN AND PROFILES OF
 ROCK GEOCHEMISTRY SAMPLES 4, 5
 OMINICA M.D., B.C.
 Scale: 1:2500 Date: JAN 1986 Plate: 85-5
 Form 210-060

14,408
 GEOLOGICAL BRANCH
 ASSESSMENT REPORT



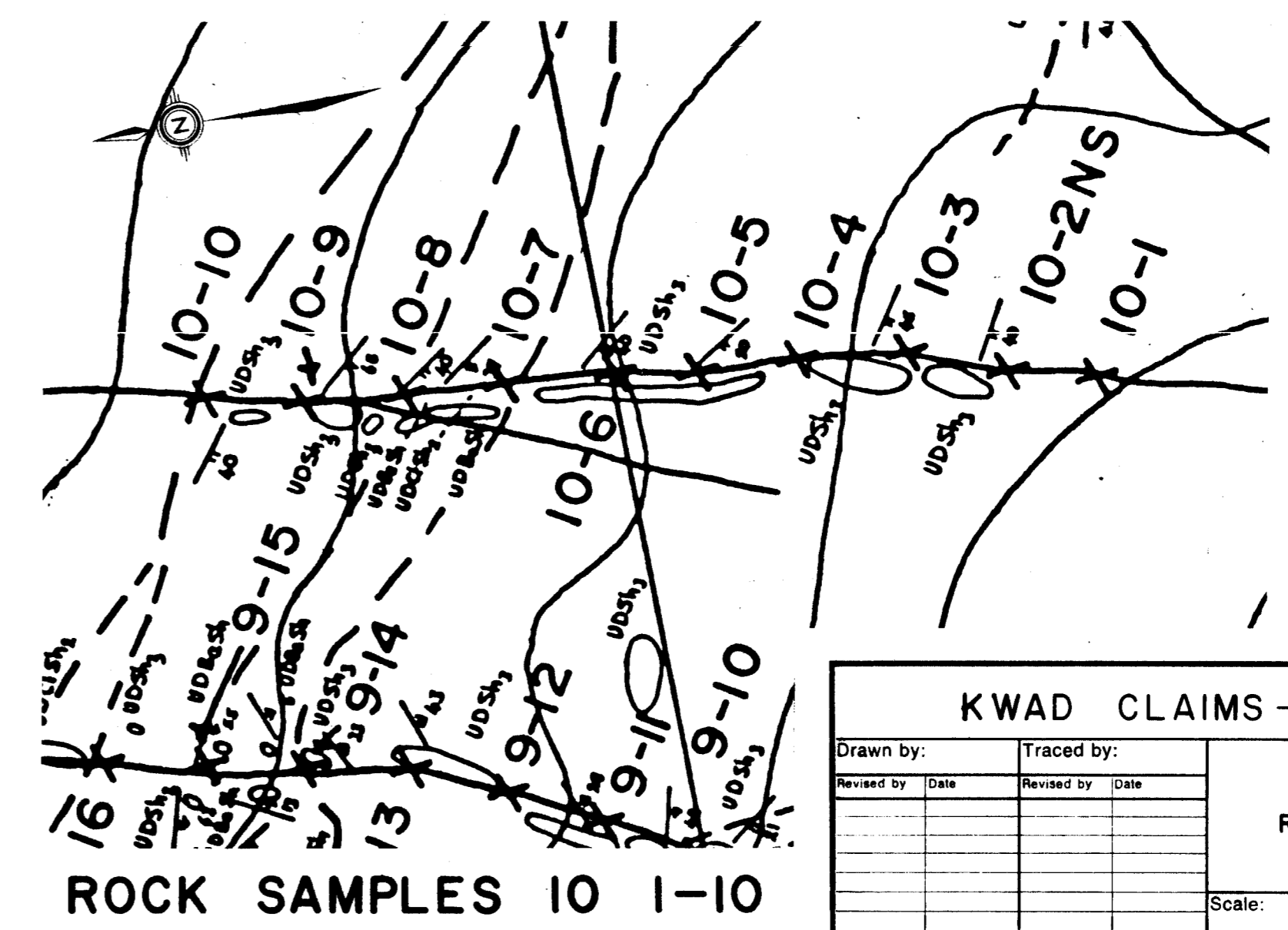
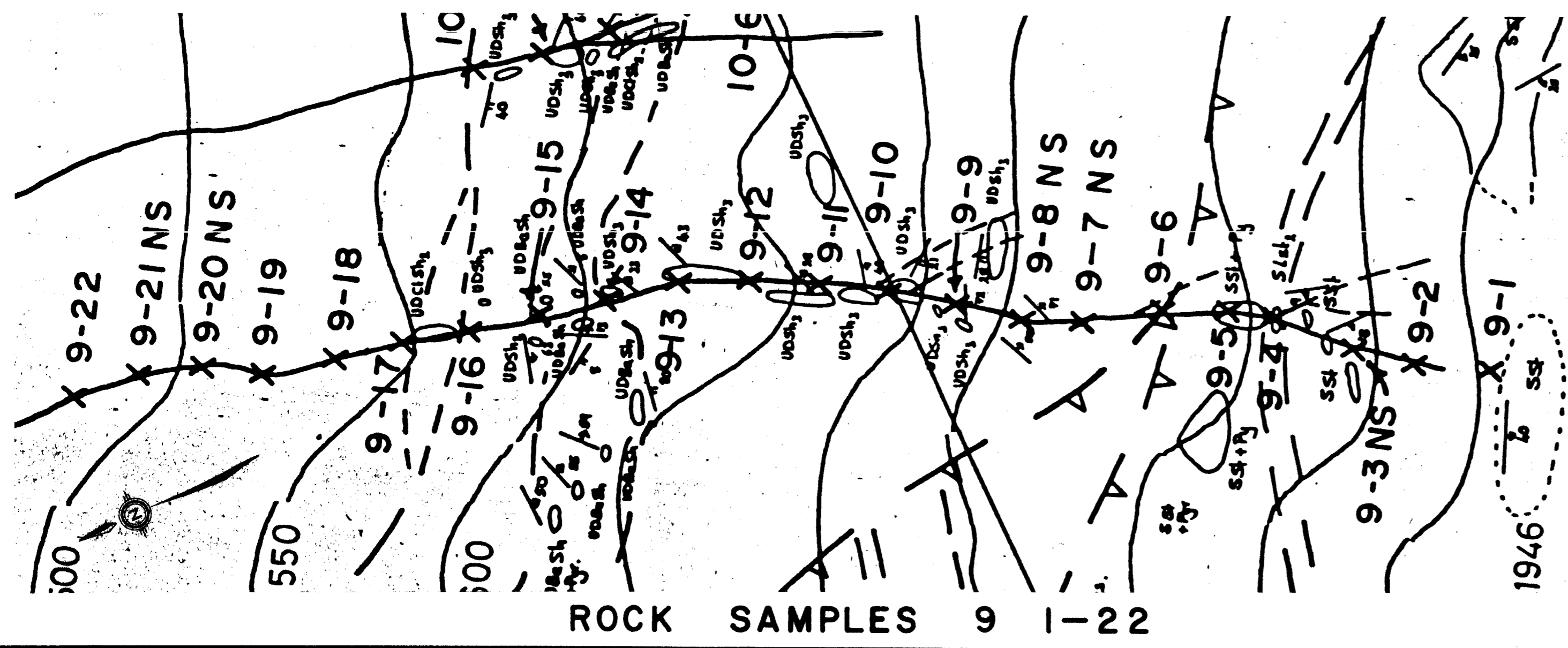
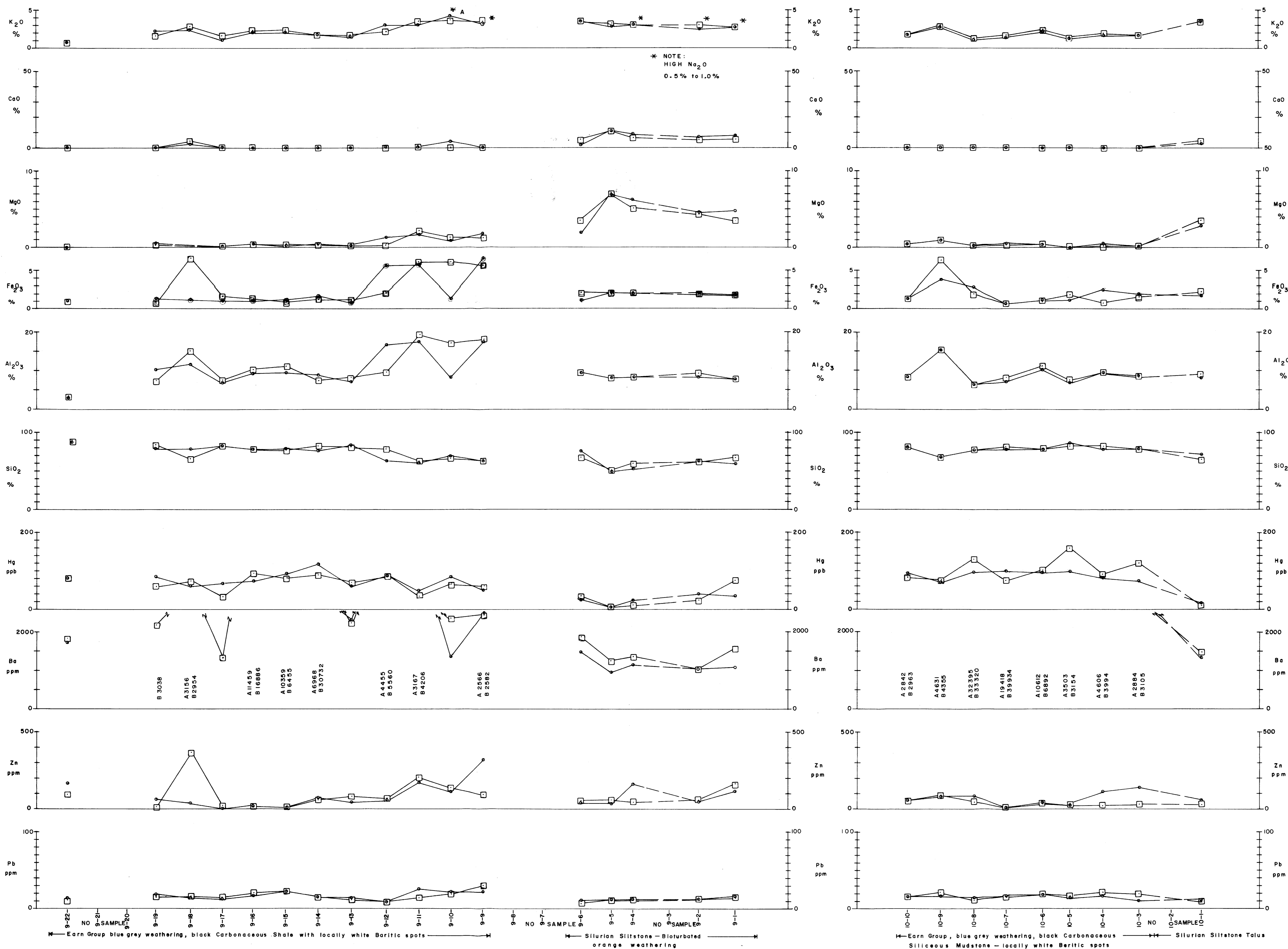
SECTION
 □ SAMPLE A
 ○ SAMPLE B
 △ SAMPLE C
 ⊙ SAMPLE D
 — AREA WHERE NO SAMPLES WERE TAKEN

PLAN
 X 7-|| SAMPLE NUMBER AND LOCATION
 METRES
 0 50 100 150 200

KWAD CLAIMS 1985 (SOUTH)		NTS 94 F-11
Drawn by:	Traced by:	PLAN AND PROFILES OF ROCK GEOCHEMISTRY SAMPLES 6,7 OMINECA M.D., B.C.
Revised by:	Revised by:	
Date:	Date:	Scale: 1:2500
		Date: JAN., 1986
		Plate: 85-6

ROCK SAMPLES 6 1-10

ROCK SAMPLES 7 1-14



SECTION A
 □ SAMPLE A
 ○ SAMPLE B
 △ SAMPLE C
 ◇ SAMPLE D
 --- AREA WHERE NO SAMPLES WERE TAKEN

PLAN
 X10-6 SAMPLE NUMBER AND LOCATION

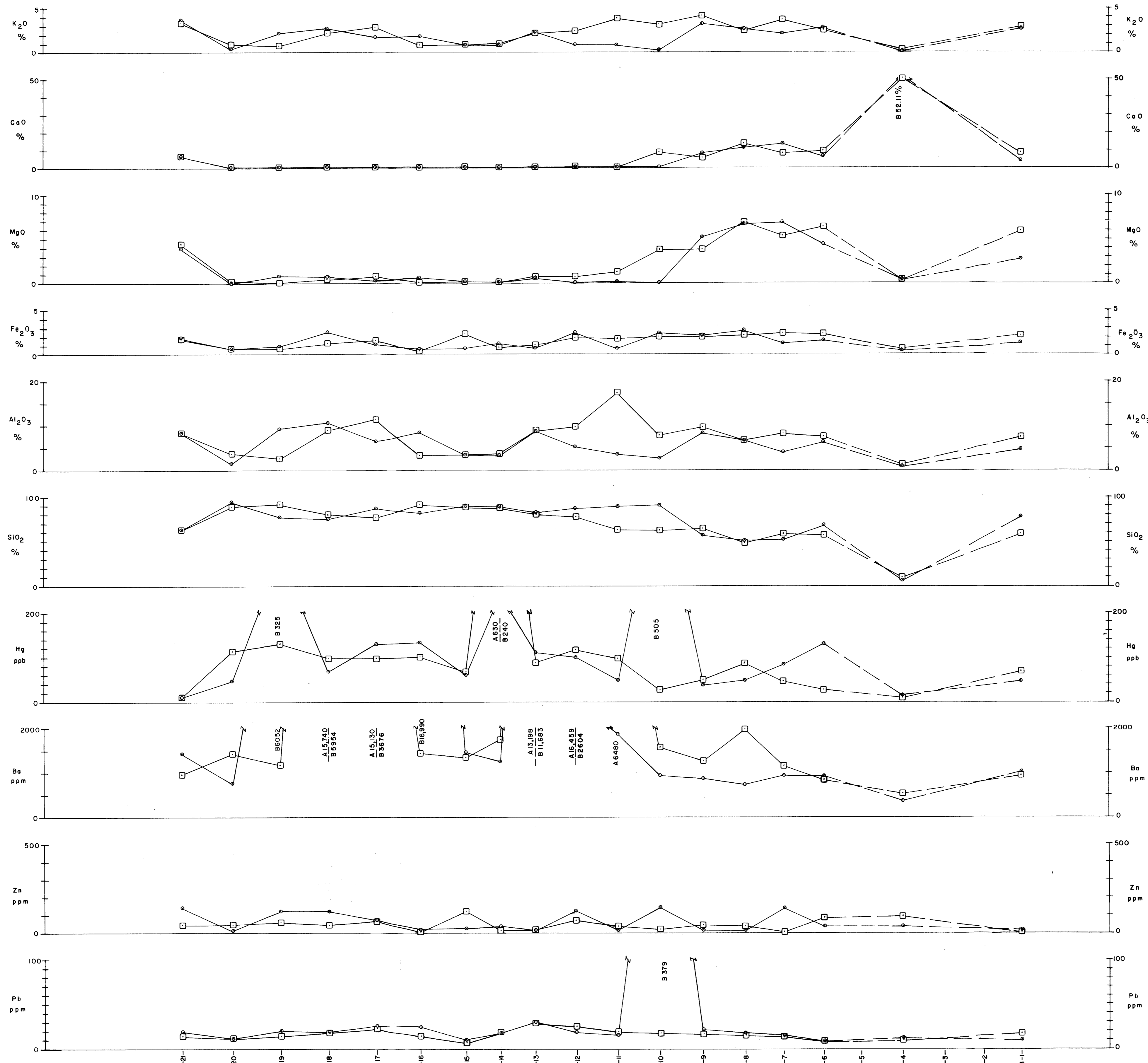


KWAD CLAIMS-1985 (SOUTH)

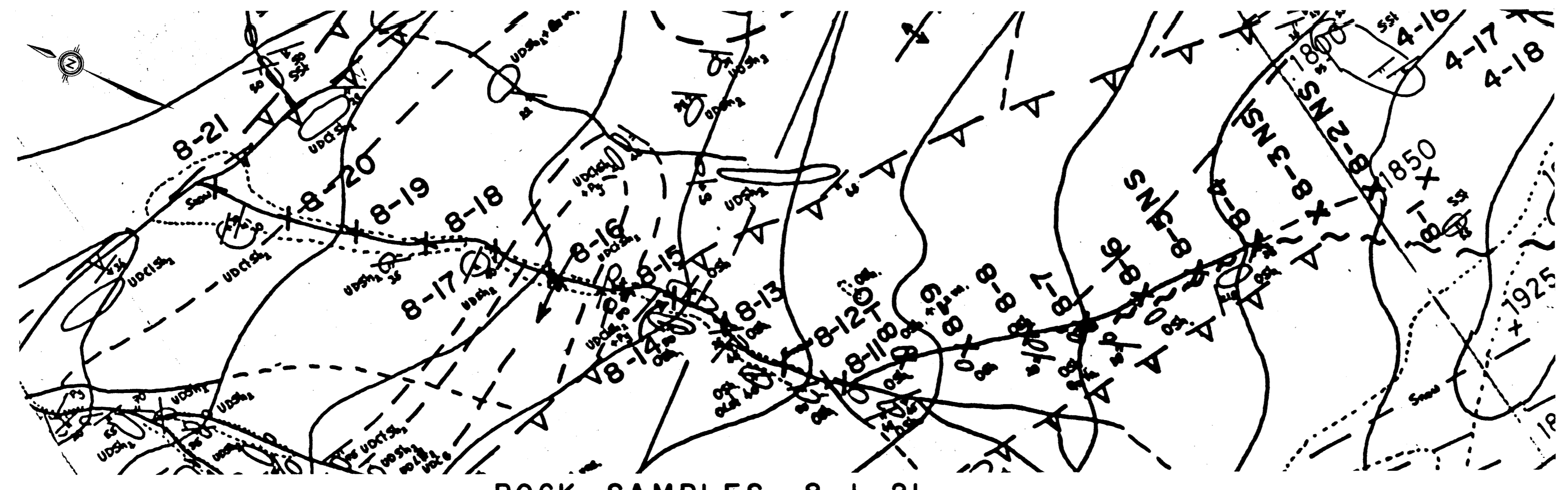
Drawn by:	Traced by:
Revised by:	Revised by:

PLAN AND PROFILES OF
ROCK GEOCHEMISTRY SAMPLES 9, 10
OMINECA M.D., B.C.

Scale: 1:2,500 Date: JANUARY 1986 Plate: 85-B



← Earn Group - Blue grey weathering, black Carbonaceous, Siliceous Cherty Mudstones → Ordovician? black fissile Shales fine Siltstones → Dark gray Micritic (Silurian?) → Silurian Siltstone



SECTION A
 PLAN
 X 8-4 SAMPLE NUMBER AND LOCATION
 GEOLOGICAL BRANCH
 ASSESSMENT REPORT

14,408



KWAD CLAIMS - 1985 (SOUTH)		NTS 94F-11	
Drawn by:	Traced by:	PLAN AND PROFILES OF	
Revised by:	Revised by:	ROCK GEOCHEMISTRY SAMPLE 8	
		OMINECA M.D., B.C.	
Scale: 1:2,500	Date: JANUARY 1986	Plate: 8 5-7	