ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 89.06.21

ASSESSMENT REPORT 17519 MINING DIVISION: Omineca

PROPERTY: Shasta
LOCATION: LAT 57 14 50 LONG 126 59 55
UTM 09 6346468 620767
NTS 094E02E
CLAIM(S): Shasta 1
OPERATOR(S): Esso Min. Can.
AUTHOR(S): Holbeck, P.;Thiersch, P.
REPORT YEAR: 1987, 224 Pages
COMMODITIES
SEARCHED FOR: Gold,Silver
GEOLOGICAL
SUMMARY: The property is underlain by volcanic and volcaniclastic rocks of the Toodoggone formation, and possibly the Hazelton Group. Mineralization is hosted by structurally controlled quartz-calcite stockwork and breccia zones within large areas of weakly veined and hydrothermally altered rock. Multi-episodic mineralization and rebrecciation is evident in varicoloured crystalline and chalcedonic cross-cutting quartz veins and late stage calcite veins. Mineralization consists of pyrite, galena, sphalerite, rare chalcopyrite, acanthite, native silver and electrum. Alteration is highly variable in both extent and intensity and ranges from broad zones of propylitic (chlorite, epidote and calcite +/- pyrite) alteration to scattered narrow zones of silicification with minor clay alteration.

WORK
DONE: Drilling
DIAD 2369.0 m 24 hole(s);BQ
Map(s) - 1; Scale(s) - 1:1000

RELATED
REPORTS: 08781,09886,11715
MINFILE: 094E 050

1987 DIAMOND DRILL REPORT ON THE

SHASTA CLAIM GROUP

Omineca Mining Division
NTS 94E/2,7W; 3,6E

December 1, 1987

1987 DIAMOND DRILL REPORT

ON THE

SHASTA CLAIM GROUP

OMINECA MINING DIVISION

NTS 94E/2,7W; 3,6E.

Lat: 57° 15'N Long. 127° 00'W

Owner:
INTERNATIONAL SHASTA RESOURCES LTD.

Operator:
ESSO MINERALS CANADA LTD.

Authors:
P. HOLBEK, P. THIERSCH

DECEMBER 1, 1987

Distribution:
FAME - 2 copies
D.E.M.P.R. - 2 copies
Shasta - 1 copy
EMC Files - 1 copy
Field - 1 copy

MA23.C.601

728.B

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

SUMMARY AND RECOMMENDATIONS

The 1987 diamond drill program on the Shasta Property, Toodoggone District, consisted of 24 holes totalling 2369m and was conducted from August 26 through to October 1. The prospect is an epithermal gold-silver vein and stockwork-type deposit occurring in Jurassic Toodoggone volcanics. Mineralization is hosted by structurally controlled quartz-calcite stockwork and breccia zones within large areas of weakly veined and hydrothermally altered rock. Drilling was concentrated on mineralized and altered zones in three areas identified by previous and current exploration.

Fourteen drill holes tested the JM Zone over 500 m of its 800 m strike length. The zone is comprised of two to three close-spaced, parallel structures and has an overall thickness that varies from 4 to 50 m. Assay results are variable within drill holes indicating a need for closer spaced drilling to define the limits and orientation of potential ore shoots. The best intersection was 9.4 m of 285.3 g/t Ag and 4.7 g/t Au.

The Jock Zone was tested with seven drill holes which delineated two sets of mineralized structures. Mineralization is generally weak and lacks continuity. Best potential is within the western-most structure intersected by holes 87-04 and 87-05 (8.1 m of 114.5 g/t Ag, 1.69 g/t Au and 1.5 m of 15.0 g/t Ag, 7.65 g/t Au, respectively).

Three structures were tested by three drill holes within the Rainier Zone. Positive results were encountered by drill hole 87-17 which intersected 2.1 m of 91.0 g/t Ag and 8.77 g/t Au along a north-trending structure. This structure was intersected previously by 83-03 with similar results and is open in all directions.

Additional diamond drilling is recommended to delineate mineralization within the JM and Rainier Zones and to further test the Jock Zone.

1.0 INTRODUCTION

1.1 Location and Access

The Shasta claim group is located in the Toodoggone River area approximately 275km north of Smithers B.C. (Fig. 1.1). The property was initially accessed by fixed wing aircraft from Smithers to the Sturdee River airstrip, located 10 km west of the study area, and then by helicopter from Sturdee airstrip. The property is now accessible by summer road from the Sturdee airstrip or from Fort St. James via the Omineca mine road to Moose Valley and from there to the Sturdee airstrip by the new Cheni mine road.

1.2 Land Status

The Shasta property consists of 66 units in five claims. The claims are owned by International Shasta Resources Ltd. and are under option to Esso Minerals Canada Ltd. Claim configuration is shown on the claim map (Fig. 1.2) and claim data is summarized in Table 1.1 below.

TABLE 1.1 - CLAIM STATUS

Claim Name	Units	Record Number	Staking Date	Expiry Date
Shasta 1	20	8542 (6)	June 26, 1987	July 6, 1993
Shasta 2	10	8574 (6)	June 26, 1987	July 6, 1993
Shasta 3	18	5229 (6)	June 13, 1983	June 23, 1988
Shasta 4	12	5230 (6)	June 13, 1983	June 23, 1988
Shasta 5	6	5779 (9)	Aug. 42, 1983	Sept. 7, 1988

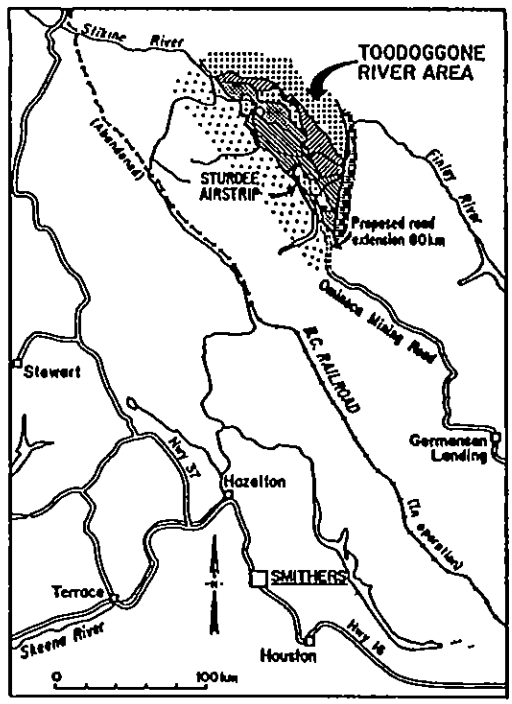


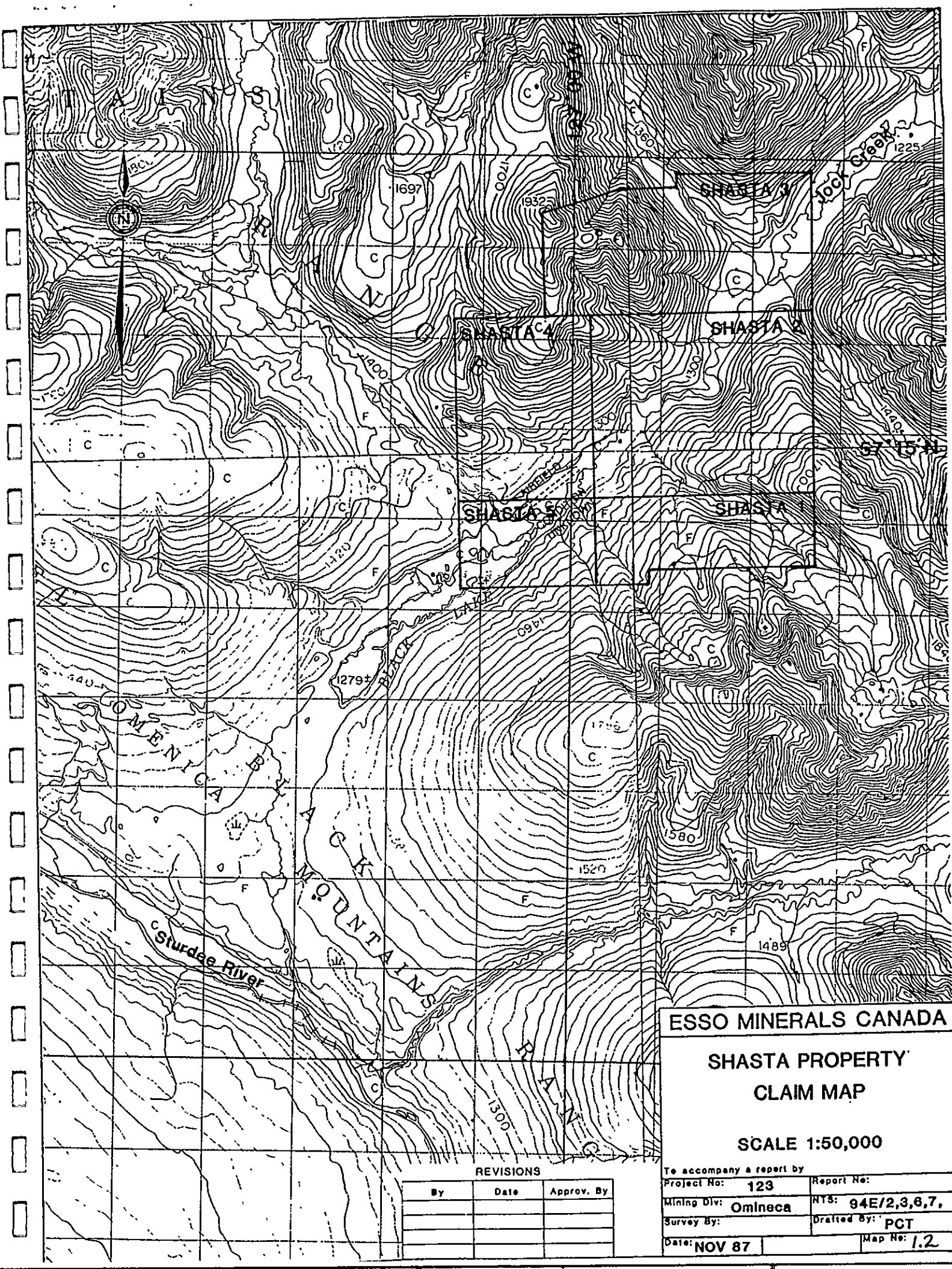
FIG. 1. Location and access of the Toodoggone River area.

ESSO MINERALS CANADA

SHASTA PROJECT

LOCATION MAP

FIGURE 1.1



ESSO MINERALS CANADA

SHASTA PROPERTY
CLAIM MAP

SCALE 1:50,000

REVISIONS		
By	Date	Approv. By

To accompany a report by

Project No: 123	Report No:
Mining Div: Omineca	NTS: 94E/2,3,6,7,
Survey By:	Drafted By: PCT
Date: NOV 87	Map No: 1.2

1.3 Exploration History

The original claims in the property area were staked in 1972 by Shasta Mines and Oil Ltd., who later changed their name to International Shasta Resources Ltd. Prospecting, soil and rock geochemical surveys, geological mapping and magnetometer surveys were carried out between 1973 and 1975 by W. Meyers and Associates Ltd. on behalf of the owner. Most of this work was carried out on the south side of Jock Creek (Shasta 1 claim area). In 1978, the property was optioned and quickly returned by Asarco Ltd. Newmont Exploration Canada Ltd. optioned the property in 1983 and increased its size with additional claims. Newmont conducted extensive soil geochemical, geological and geophysical surveys in addition to 2675m of diamond drilling during 1983 and 1984. Newmont's drilling defined the Creek Zone and identified two other mineralized structures.

Mineralization within the Creek Zone occurs over a 300m strike length and extends to a depth in excess of 80m down-dip. Thickness and drill indicated grades are highly variable.

1.4 Present Work

The work described in this report summarizes a diamond drill program that was part of a larger exploration program. Drill holes were used to test mineralized structures or zones identified by geological mapping and sampling, VLF-R geophysical surveys, and/or backhoe trenches. Twenty-four holes totalling 2369m were drilled during the period from August 26 to October 1, 1987. Drill hole locations are shown on Figures 3.1 and 3.2.

Seven holes tested the Jock Zone, three holes tested three structures within the Rainier Zone (formerly termed the Main Zone by Downing (1984 and 1985), and fourteen holes tested the JM Zone. Drill hole specifications are listed in Table 3.1 and drill logs are contained in Appendix I.

1.5 Physiography

The property area is moderately rugged, with elevations ranging between 1250 and 1800m. Slope gradients commonly reach 60%. Most of the property area is covered by 15 to 30-year-old burn. Forest re-growth is minimal. Alpine vegetation begins at approximately the 1600m level. Drainage is provided by a number of small creeks which feed Jock Creek, a tributary of the Finlay River. Jock Creek flows diagonally through the property in a northeasterly direction. Mean annual precipitation ranges from 50 to 75cm, with most of this occurring as rainfall during the summer months. Average temperatures vary from -20°C in winter to +12°C in summer. Snow was persistent at higher elevations until mid June.

Overburden depth ranges from 0 (outcrop) to 20m depending on location, but averages 1 to 4m over much of the property area. Bedrock surface below the overburden is glaciated and highly irregular or hummocky.

2.0 GEOLOGY AND MINERALIZATION

2.1 Regional Setting

The Toodoggone River area lies on the eastern margin of the Intermontane Belt in the Cassiar-Omineca Mountains (Fig. 2.1). The oldest rocks in the area are the Permian Asitka Group crystalline limestones which are in thrust contact with Late Triassic Takla volcanics (Gabrielse et al., 1976). Takla volcanics consist of andesite flows and augite-tremolite andesite porphyries and are easily distinguished from the overlying Jurassic Toodoggone volcanics. Toodoggone volcanics (Carter, 1972) include andesitic and dacitic flows, tuffs, pyroclastic breccias and associated sediments. The youngest rocks in the area are the Tertiary to Cretaceous Sustut Group which is composed of chert pebble conglomerates and sandstones that unconformably overlie the Toodoggone volcanics. Omineca Intrusions, of granodiorite to quartz monzonite composition and Early Jurassic to Triassic age, intrude the Takla and Toodoggone volcanics.

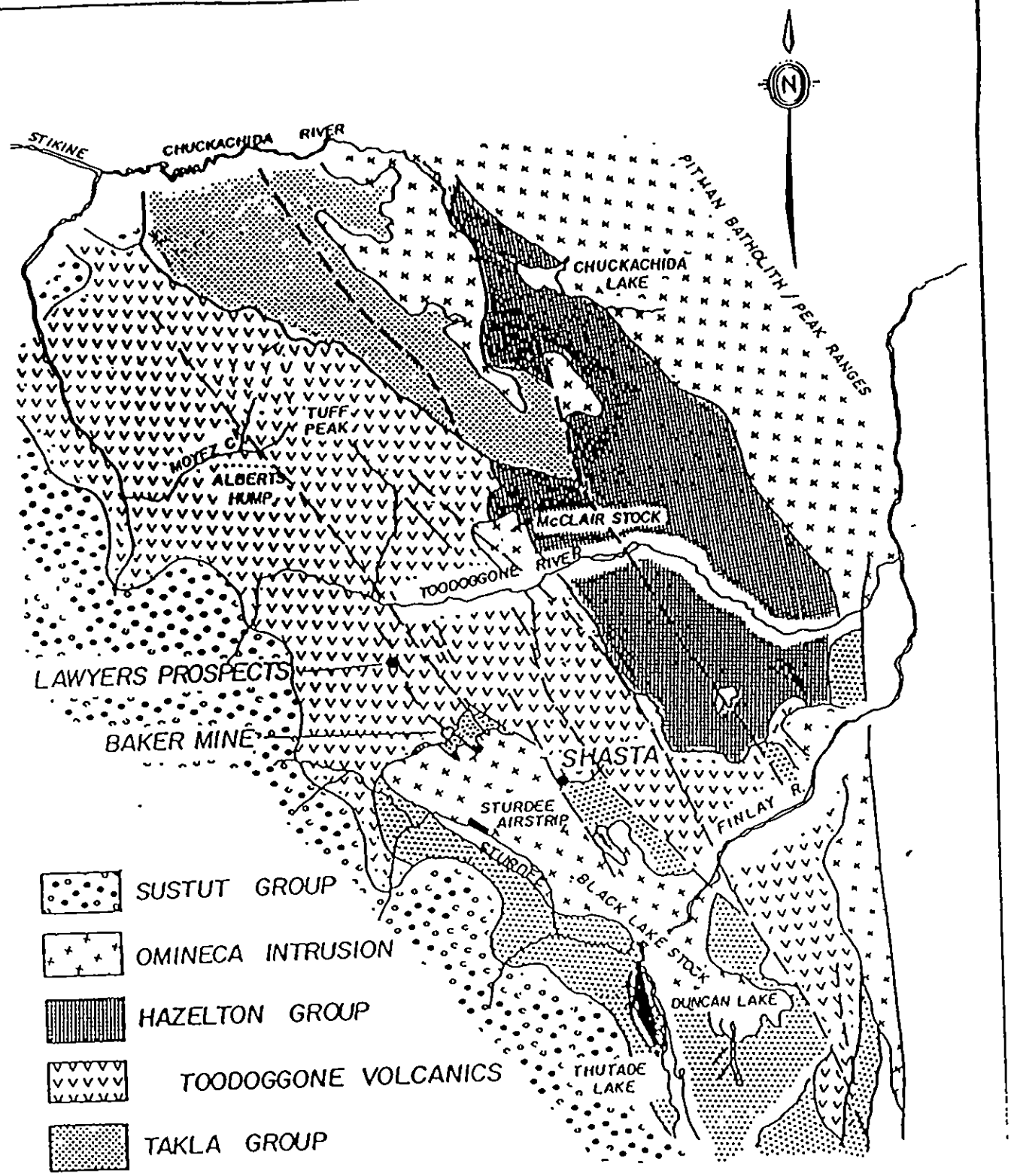
The structure of the area is dominated by Early Jurassic to Tertiary normal faults which trend from north-northwest to north-northeast. These faults are thought to have acted as conduits for mineralizing hydrothermal solutions (Schroeter, 1982).

2.2 Property Geology

The property area is underlain by volcanic and volcaniclastic rocks of the Toodoggone, and possibly Hazelton, formations. A generalized stratigraphic column is given in Figure 2.2. However, numerous faults and lack of marker horizons prevents a clear understanding of the stratigraphic succession.

Rocks north of Jock Creek are volcaniclastic to epiclastic and consist of coarse heterolithic lahars and debris flows (LAHR), lapilli tuffs (LLTF), lithic and crystal-lithic wackes (LXWK) and ash tuffs (ASHT). These rocks, informally termed the epivolcaniclastic series (EVCS), are intermediate in composition, feldspar phyric with white euhedral feldspars, and generally heterolithic with maroon, green or grey matrices. The coarser units have restricted lateral extent. Bedding trends northeasterly and dips shallowly to the northwest.

Rocks on the south side of Jock Creek and east of the Shasta fault (Fig. 3.1), termed the pyroclastic series, comprise two lithologically similar units. The upper unit is a feldspar and quartz crystal tuff with 5 to 30% rounded chloritic lapilli (FQLT). The lower unit is a feldspar, quartz and biotite-bearing crystal tuff with rare lithic fragments (FQXT). Outcrops of the lower unit commonly have a massive, granitoid appearance but in places display fine laminations presumed to be parallel to bedding. These laminations strike northwest and dip moderately to the southwest as does the contact between the FQLT and FQXT. Both units tend to have pale pink coloured feldspars and pale green-grey to salmon coloured matrices.



ESSO MINERALS CANADA

SHASTA PROJECT

REGIONAL GEOLOGY

Project No 123	Mining Div OMIN
NTS. 94 E	Drawn by: PCT
Date: Sept'87	Fig. No. 2.1

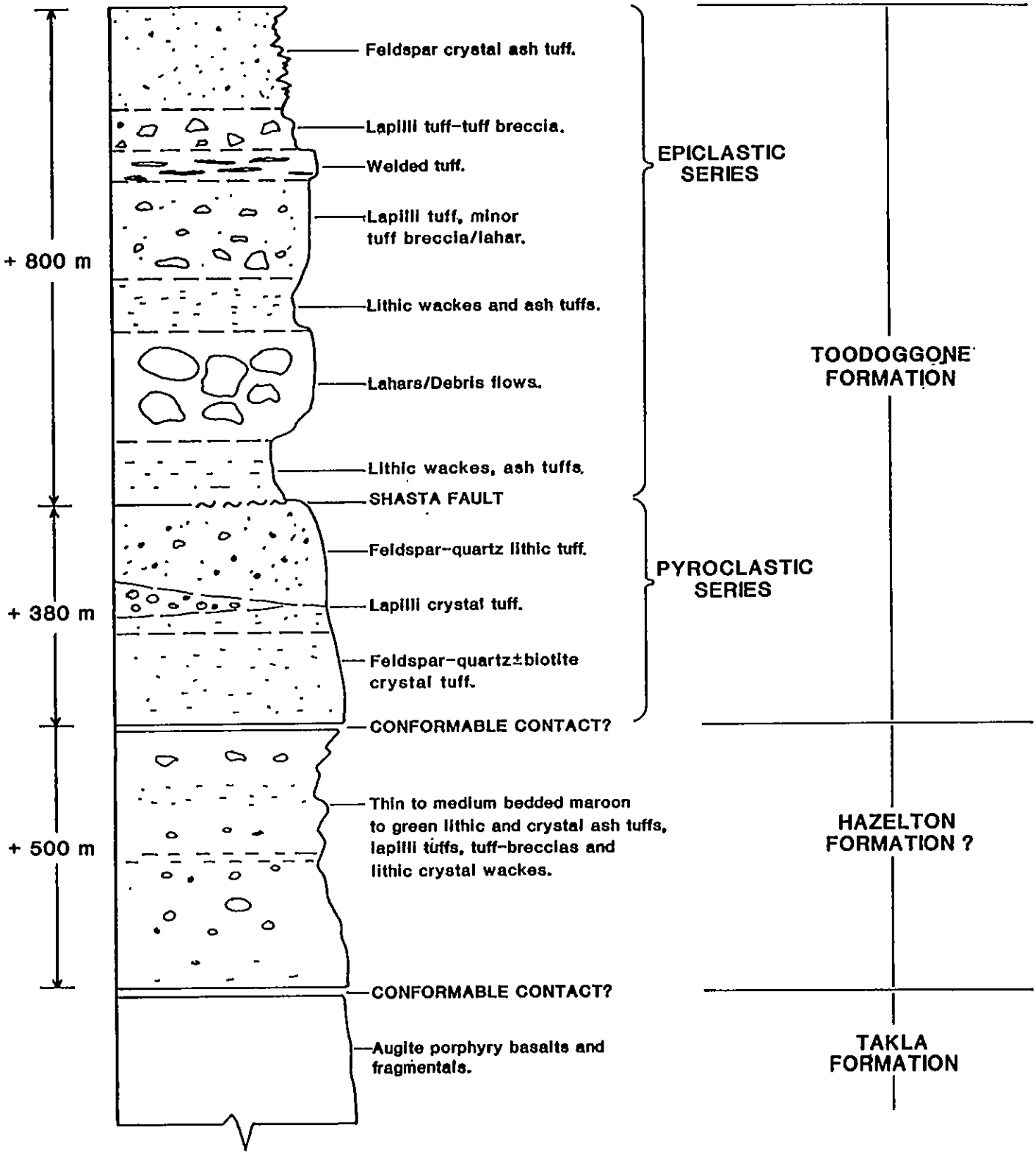


Figure 2.2 DIAGRAMATIC INTERPRETED STRATIGRAPHIC SECTION OF THE SHASTA PROPERTY AREA

2.3 Mineralization and Alteration

Mineralization on the Shasta property is hosted by structurally controlled quartz-carbonate stockwork and breccia veins. Multi-episodic mineralization and rebrecciation is evident in varicoloured crystalline and chalcedonic cross-cutting quartz veins and late stage calcite veins. Sulphides present are pyrite, galena, sphalerite, rare chalcopyrite, acanthite, native silver and electrum.

Alteration is intimately associated with mineralization but type and intensity of alteration does not necessarily correspond to assay values. Alteration, highly variable in both extent and intensity, ranges from broad zones of propylitic style alteration (chlorite, epidote and calcite ± pyrite) to scattered narrow zones of intense silicification with minor clay alteration. There is a zonation of alteration around mineralization from outer zones of propylitic to inner zones of progressively more intense silicification, pinking and clay alteration. Pinking is the field term used to describe the progressive change in colouration of the rock from green to pink caused by destruction of mafic minerals and addition of, or change to, quartz and possibly orthoclase and/or albite. Sericite is rarely observed. Late calcite and chlorite (± epidote) veins and brecciation is usually observed overprinting earlier quartz stockwork and alteration.

Recognition of alteration facies is significant in attempting to define mineralized structures and potential ore shoots. The fracture controlled

multi-episodic nature of the alteration makes it difficult to define alteration facies strictly on the basis of mineral assemblages. For instance, chlorite, calcite and epidote, which may be the defining assemblage for propylitic alteration, are found superimposed upon intensely silicified and "pinked" rock (possibly representing potassic alteration facies). Similarly, late clay-filled fractures may be overprinting propylitic style alteration. In this study, alteration facies were defined on the basis of both mineralogy and intensity with emphasis placed on the earlier or dominant stage of alteration. Alteration intensity was gauged on wall rock fragments while vein, stockwork or breccia-fill abundance was estimated and recorded separately. Alteration facies are numbered 1 through 5 from outer (weaker) to inner (intense) zones. Field descriptions of the facies are given below:

Facies 1; Feldspar phenocrysts change from pale orange or grey to bright pink or brick red. Matrix becomes chloritic. Calcite, chlorite and epidote veinlets commonly to 10%. Minor pyrite.

Facies 2; Pinking of feldspar phenocrysts increases in intensity. Mafic minerals begin to breakdown with a corresponding colour change from green to dull grey. Lithic fragments still chloritic and therefore visibly prominant. Weak silicification. Up to 2% pyrite.

Facies 3; Matrix progressively silicified (± orthoclase, albite) and takes on a pink hue. Chlorite within fragments breaks down but fragment outlines still visible. 1 to 2% pyrite.

Facies 4; Matrix strongly silicified and "pinked." Primary fragment and phenocryst outlines become indistinct. Feldspars may be partially converted to sericite (??) and/or clay. 1 to 2% pyrite.

Facies 5; Rock is totally silicified (± orthoclase, albite). Primary textures indistinct. Pale green to white coloured clay along fractures, as vein selvages and within vugs. Clay content up to 5%. Matrix colour ranges from bright pink to dark grey.

3.0 DIAMOND DRILL PROGRAM

3.1 Methods

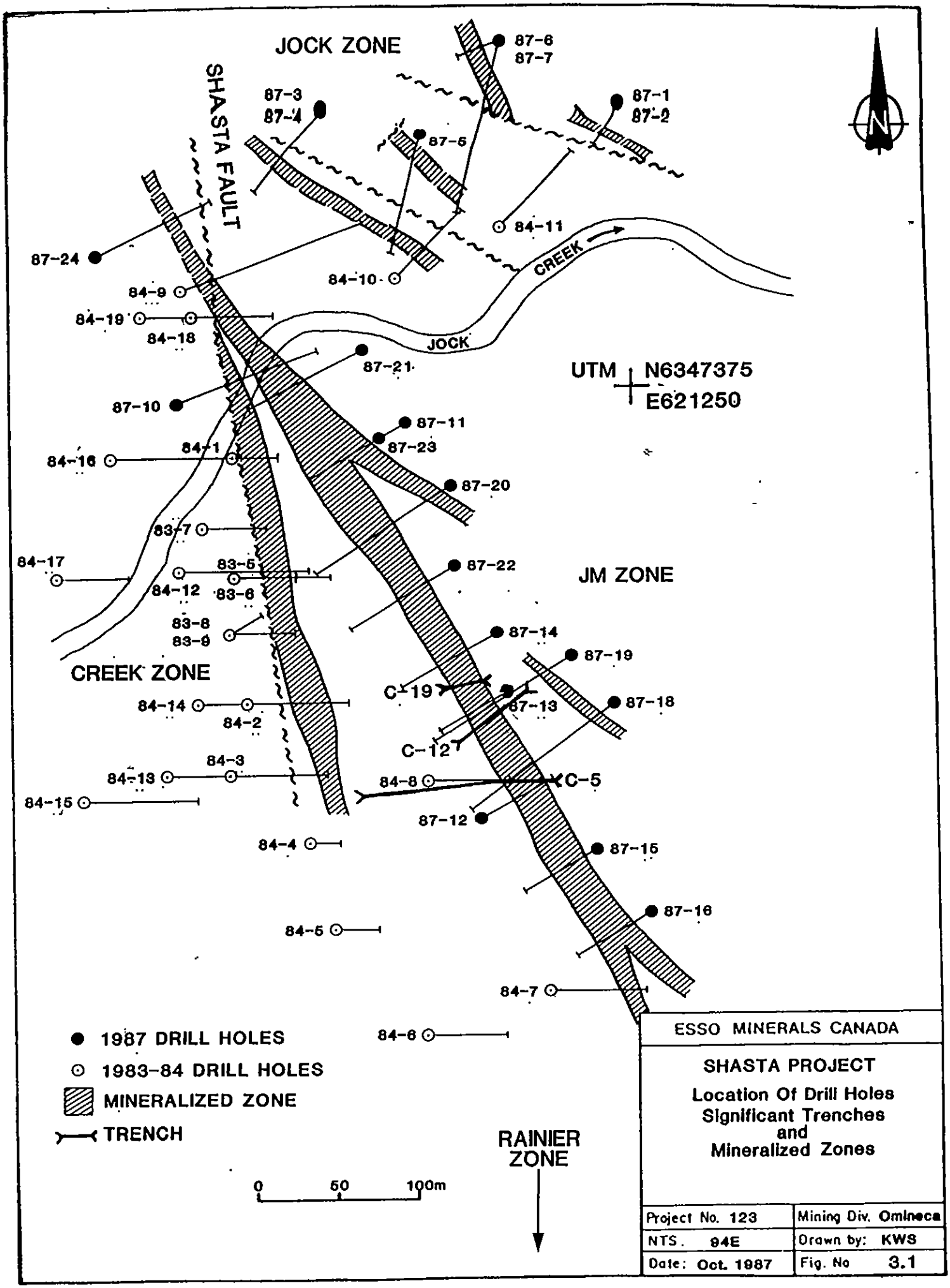
The diamond drill program was conducted from August 26 through to October 1, 1987. Twenty-four BQ diameter holes, for a total of 2369m, were drilled with a J.K.Smit-300 diamond drill rig. The drill contractor was J.T. Thomas Diamond Drilling Ltd. of Smithers, B.C. Drill mobilization was from Smithers. A Hughs 500D helicopter, supplied by Northern Mountain Helicopters Ltd., was used for drill moves between the first nine holes. The drill rig was then transferred to skids and the remaining moves made with a Caterpillar D6 tractor.

Drill core was logged on site using the GEOLOG format of Lynx Geosystems Inc. Drill hole specifications are listed in Table 3.1 and drill logs are contained in Appendix II. Core is stored in racks near the camp area at UTM co-ordinates N6347270, E620850.

Core was manually split over irregular length intervals within the altered and/or mineralized sections of the hole. Split core was shipped to Acme Analytical Laboratories Ltd. in Vancouver for silver and gold assays. Assay method was fire assay with atomic absorption finish on one assay-ton (29g) sub-samples. Reproducibility of gold and silver assays commonly exceed 20% variation over the typical concentration range (0.1 - 10.0 g/t Au). Causes of this poor reproducibility are currently being investigated. Assay results are included within the drill logs. Assay lab reports are contained in Appendix III.

TABLE 3.1 - DIAMOND DRILL HOLE SPECIFICATIONS

Drill Hole	Azimuth	Dip	Length	Northing	Easting	Elevation
87-01	210	-50	48.5	7548.41	1265.17	1290.16
87-02	210	-75	54.6	7548.41	1265.17	1290.16
87-03	220	-45	64.6	7561.00	1090.35	1299.30
87-04	220	-60	127.7	7561.00	1090.35	1299.30
87-05	195	-45	106.4	7544.86	1155.57	1286.97
87-06	195	-45	149.0	7590.70	1194.80	1302.34
87-07	250	-45	39.3	7590.70	1194.80	1302.34
87-08	50	-45	122.2	6668.88	1216.04	1431.29
87-09	240	-45	72.9	6791.67	1462.16	1465.10
87-10	71	-45	130.8	7367.69	1006.14	1256.61
87-11	240	-45	94.2	7368.84	1138.97	1268.35
87-12	61	-45	66.8	7119.00	1195.79	1345.77
87-13	240	-45	63.7	7190.73	1211.74	1326.97
87-14	240	-40	85.0	7236.26	1206.35	1314.64
87-15	241	-45	72.8	7111.49	1278.01	1358.43
87-16	239	-45	78.9	7066.80	1299.34	1372.25
87-17	90	-45	91.7	6832.75	1233.41	1402.93
87-18	233	-45	146.0	7184.64	1276.44	1337.29
87-19	240	-45	130.8	7211.08	1250.75	1325.95
87-20	242	-45	133.8	7330.35	1163.56	1276.09
87-21	241	-45	136.9	7410.56	1114.36	1255.64
87-22	240	-45	110.6	7264.41	1162.86	1302.16
87-23	241	-45	91.1	7357.00	1118.00	1269.50
87-24	60	-45	127.7	7457.63	0925.00	1286.09



ESSO MINERALS CANADA

SHASTA PROJECT

Location Of Drill Holes Significant Trenches and Mineralized Zones

Project No. 123	Mining Div. Omineca
NTS. 94E	Drawn by: KWS
Date: Oct. 1987	Fig. No 3.1

3.2 Results

3.2.1 Jock Zone

The Jock Zone is located on the north side of Jock Creek in an area of good outcrop exposure and comprises two sets of sub-parallel faults or fractures that host narrow quartz and carbonate veins and/or breccias associated with broad areas of silicification. These structures were tested with seven drill holes from four set-ups. Hole 87-01 was lost at target depth due to broken ground. Consequently hole 87-02 was drilled from the same location at a steeper dip. The target structure failed to yield significant results in either hole although a subordinate quartz stockwork zone, higher in the holes, gave low grade gold and silver values over 1.6 to 1.7m widths. Hole 87-03 was lost due to ground conditions at 38.1m. Hole 87-04 was drilled from the same setup as 87-03 but at a steeper dip, and encountered 8.1m of 1.69 g/t Au and 114.5 g/t Ag within a silicified fault breccia. Hole 87-05 tested both structures targeted with holes 1 and 3 and yielded a 1.5m intersection of 7.62 g/t Au and 15.0 g/t Ag in the latter or more westerly structure. Hole 87-06 intersected a wide zone of alteration but did not return any significant assay results.

Hole 87-07 tested a northwesterly trending subordinate quartz breccia zone and yielded a 6.4m intersection grading 2.5 g/t Au and 47.8 g/t Ag.

3.2.2 Rainier Zone

The Rainier Zone is a moderately well-exposed area of anomalous soil geochemistry in the south central part of the Shasta 1 claim. The zone contains a number of mineralized structures, three of which were tested by drill holes 87-08, 87-09 and 87-17. Hole 87-08 tested a northwesterly trending quartz breccia exposed on surface and possibly tested by drill hole 83-01. The quartz breccia was intersected but failed to give any significant assays. Drill hole 87-09 tested a wide exposure of quartz breccia and stockwork for an easterly dip. The surface showing is truncated by post-mineral faults at shallow depths. The possibility of a north-trending mineralized structure as suggested by drill hole 83-03 was tested by hole 87-17 with positive results including a 2.4m intersection of 8.77 g/t Au and 91.0 g/t Ag.

3.2.3 JM Zone

The JM Zone was identified by backhoe trenching along an 800m strike length and tested with 14 drill holes over 500m of its strike length. Drill holes 87-10 through

87-24, with exception of 87-17, confirmed the presence of a 2 to 50m wide quartz and carbonate stockwork and breccia zone. The zone dips 65° to the east and consists of multiple veins and breccias. Drill holes were located on eleven sections spaced 50m apart. Only three of these sections have two holes. The zone was tested to a depth of 70m below surface. Assay results ranged up to 4.7 g/t Au and 232.2 g/t Ag over a 9.4m thickness. The most significant assay results are summarized in Table 3.2. Most of the higher grade material is contained within the breccia zones but some narrow "high-grade' veinlets do occur in weakly altered rock peripheral to the breccias. These peripheral veinlets do not appear to have continuity between drill holes.

TABLE 3.2 - SIGNIFICANT 1987 DRILL INTERSECTIONS

JM ZONE

DRILL HOLE	FROM	TO	WIDTH (m)	Ag g/t	Au g/t
87-10	15.4	18.8	3.4	94.7	0.81
	25.1	28.0	2.9	103.5	1.35
	38.1	42.1	4.0	168.8	3.81
	56.5	59.0	2.5	236.1	4.53
	83.0	84.0	1.0	133.5	2.44
87-11	71.2	92.3	21.1	147.1	2.46
includes:	75.2	84.6	9.4	285.3	4.70
87-12	14.9	20.5	5.6	206.6	2.26
	26.0	52.5	26.5	156.4	2.38
includes:	36.3	40.5	4.2	342.9	3.23
	46.0	52.5	6.5	232.2	4.11
87-13	18.0	38.6	20.6	76.2	1.77
includes:	19.0	33.9	14.0	94.7	2.13
and:	19.0	22.5	3.5	188.6	2.82
87-14	16.0	17.9	1.9	106.4	0.76
includes:	17.5	17.9	0.4	458.5	2.94
	54.5	59.0	4.5	32.6	2.03
	68.2	69.2	1.0	232.0	4.39
87-15	14.6	16.6	2.0	139.0	3.6
	46.0	53.0	7.6	223.8	4.09
includes:	51.5	53.6	2.1	539.2	9.77
87-16	48.7	51.0	2.3	132.5	3.89
	60.0	61.5	1.5	38.5	1.96
87-18	62.5	65.6	3.1	13.5	1.76
	75.6	85.0	9.4	116.2	2.13
	122.8	127.5	4.7	154.7	4.65
includes:	123.9	126.0	2.1	334.6	9.34
87-19	81.5	82.5	1.0	98.5	3.01
87-20	25.1	28.8	3.7	37.2	2.13
	65.0	70.0	5.0	67.9	0.85
	82.8	84.8	2.0	41.75	1.54
87-21	55.6	79.9	24.3	33.7	0.64
includes:	75.9	77.9	2.0	125.0	1.87
	105.0	106.0	1.0	89.0	3.60

TABLE 3.2 - SIGNIFICANT 1987 DRILL INTERSECTIONS

JM ZONE (cont'd)

DRILL HOLE	FROM	TO	LENGTH (m)	Ag g/t	Au g/t
87-22	36.0	54.4	18.4	100.6	2.08
includes:	36.0	42.3	6.3	200.2	4.25
87-23					
	32.9	88.7	55.8	36.5	0.86
includes:	39.0	42.0	3.0	301.8	1.91
includes:	43.7	46.0	2.3	65.7	1.46
	74.3	76.5	2.2	76.5	1.96
87-24					
	97.0	103.5	7.5	54.8	1.23
includes:	103.0	103.5	0.5	495.0	8.88
	108.6	110.0	1.4	95.4	1.21
	115.7	120.0	4.3	49.5	1.09
JOCK ZONE					
87-01	1.5	3.4	1.9	36.5	2.85
	27.1	28.7	1.6	100.1	2.28
	39.9	42.4	2.5	62.7	0.68
87-02	26.5	28.2	1.7	62.9	3.11
87-04	86.7	94.8	8.1	114.5	1.69
87-05	78.9	80.4	1.5	15.0	7.65
87-07	15.9	22.3	6.4	47.8	2.50
RAINIER ZONE					
87-17	45.1	47.5	2.4	91.0	8.77

3.3 Discussion of Results

Drill results within the Jock Zone are inconclusive. While drill holes confirm the presence of the structures, surface and drill data suggest that mineralization within the structures is patchy or irregular. Host structures display some post-mineral movement within drill holes. The 160 degree trending structures carry better grades, on average, than than those with a 110 degree trend; however, on surface the reverse is true. Further drill holes are warranted to test the strike and depth extensions of the stronger structures.

Drill hole 87-09, within the Rainier Zone, indicates a possible easterly dip to the host structure just above the point where it was faulted off. If fault movement can be determined then, the root zone to the surface showing should be drill tested. Drill hole 87-17 confirms the presence of a well-mineralized north-trending structure. This structure may be related to the Shasta fault and should be drill tested in all directions.

Drill holes along the JM Zone have confirmed multiple, sub-parallel, east-dipping mineralized structures. Alteration along the zone is strong and shows good continuity. Assay results are variable and demonstrate the need for close-spaced drilling in order to define the orientation and limits of potential ore shoots. The zone remains open down-dip and along strike. Additionally, the area below the Creek Zone should be tested for east-dipping mineralized structures.

REFERENCES

DOWNING, B.W., 1985 - Report on the 1984 Exploration Program, Shasta Project. Internal company report for Newmont

CARTER, N.C., 1971 - Toodoggone River Area, British Columbia. B.C. Department of Mines and Petroleum Resources, G.E.M., pp. 63-70

SCHROETER, T.G., 1982 - Toodoggone River (94E). B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1981, Paper 1982-1, pp. 122-333

SCHROETER, T.G., 1983 - Toodoggone River (94E). B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1982, Paper 1983-1, pp. 125-333

APPENDIX I

STATEMENT OF COSTS

STATEMENT OF QUALIFICATIONS

STATEMENT OF COSTS

PERSONNEL (August 26 to October 10 inclusive)	
P. Thiersch - 30 days @ $135/day	$ 4,050
K. Dom - 10 days @ $135/day	1,350
P. Holbek - 30 days @ $245/day	7,350
R. Britten - 6 days @ $390/day	2,340
Core Splitter - 35 days @ $80/day	2,800
LOGISTICS	
Fixed-Wing Aircraft Central Mountain Air Services	2,580
Northern Mountain Helicopters 10.4 hrs @ $600/hr (including fuel)	6,240
Food and Accommodation 270 mandays @ $30/day	8,100
Cook - 31 days @ $100/day	3,100
Materials and Supplies	
Truck - 1.25 mos @ $500/mo	600
Computer - 3 mos @ $500/mo	1,500
Camp Equipment - 1.25 mos @ $1200/mo	1,500
ANALYSIS	
Au and Ag Assays - 1141 @ $13.50	15,400
Freight - 2860 kg @ $1.76/kg	5,030
DRILLING	
2369 m @ $57.90/m	137,165
Man and Machine hours	12,026
Materials	16,373
Fuel - 2070 gallons @ $3/gallon	6,210
Tractor	7,884
Mobilization	4,500
Core boxes and racks	4,300
REPORT PREPARATION	3,000
TOTAL	$253,398

STATEMENT OF QUALIFICATIONS

I, Peter Holbek, of 1276 West 21st Street, North Vancouver, B.C. V7P 2C9, do hereby certify that:

1. I am a Geologist in the employment of Esso Minerals Canada, a Division of Esso Resources Canada Limited of 1600 - 409 Granville Street, Vancouver, B.C. V6C 1T2.

2. I am graduate of the University of British Columbia B.Sc. (Honors) 1980.

3. I have been employed as an exploration geologist for seven (7) years.

4. I have no financial interest in the property described herein.

DATED THIS ___ DAY OF DECEMBER, 1987 AT VANCOUVER, B.C.

_____

P. Holbek, Project Geologist

STATEMENT OF QUALIFICATIONS

I, Peter Thiersch, of 5839 Falcon Road, West Vancouver, B.C., do hereby certify that:

1. I received a Bachelors Degree in Geological Sciences from the University of British Columbia in 1986.

2. I have five seasons of field experience.

3. I am currently employed by Esso Minerals Canada as a Project Geologist.

4. I have no financial interest in the property described herein.

DATED THIS 11th DAY OF DECEMBER, 1987 AT VANCOUVER, B.C.

P. Thiersch, Project Geologist

APPENDIX II

DIAMOND DRILL LOGS

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_01	COLLAR AZIMUTH	: 210.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -55.00
DATE STARTED	: 87/ **8/24**	COLLAR ELEVATION	: 1290.16
DATE COMPLETED	: 87/ **8/25**	COLLAR NORTHING	: 7548.41
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1265.17
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 48.5m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST EASTERLY STRUCTURE ON JOCK ZONE

COMMENTS: BROKEN GROUND - HOLE ABANDONED AT TARGET DEPTH.

KEY INTERSECTIONS: FROM: 27.1 TO: 28.7 LENGTH: 1.6M AT: 2.28 G/T AU; 100.1 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
48.5m	47°	

SUMMARY REMARKS

No major breccia zones were encountered in this hole, however the entire hole is weakly stockworked with thin to medium veinlets. Alteration is restricted to a strong quartz and carbonate stockwork between 23.0 and 28.7 M. Argentite occurs throughout the hole at various locations. The presence of electrum and argentite within a small carbonate veinlet at 39.3 m in an interval of virtually no alteration suggests potential GRADE CONTROL PROBLEMS. Lack of brecciation and presence of diffuse stockwork may be attributed to fluids coming through well fractured rock.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

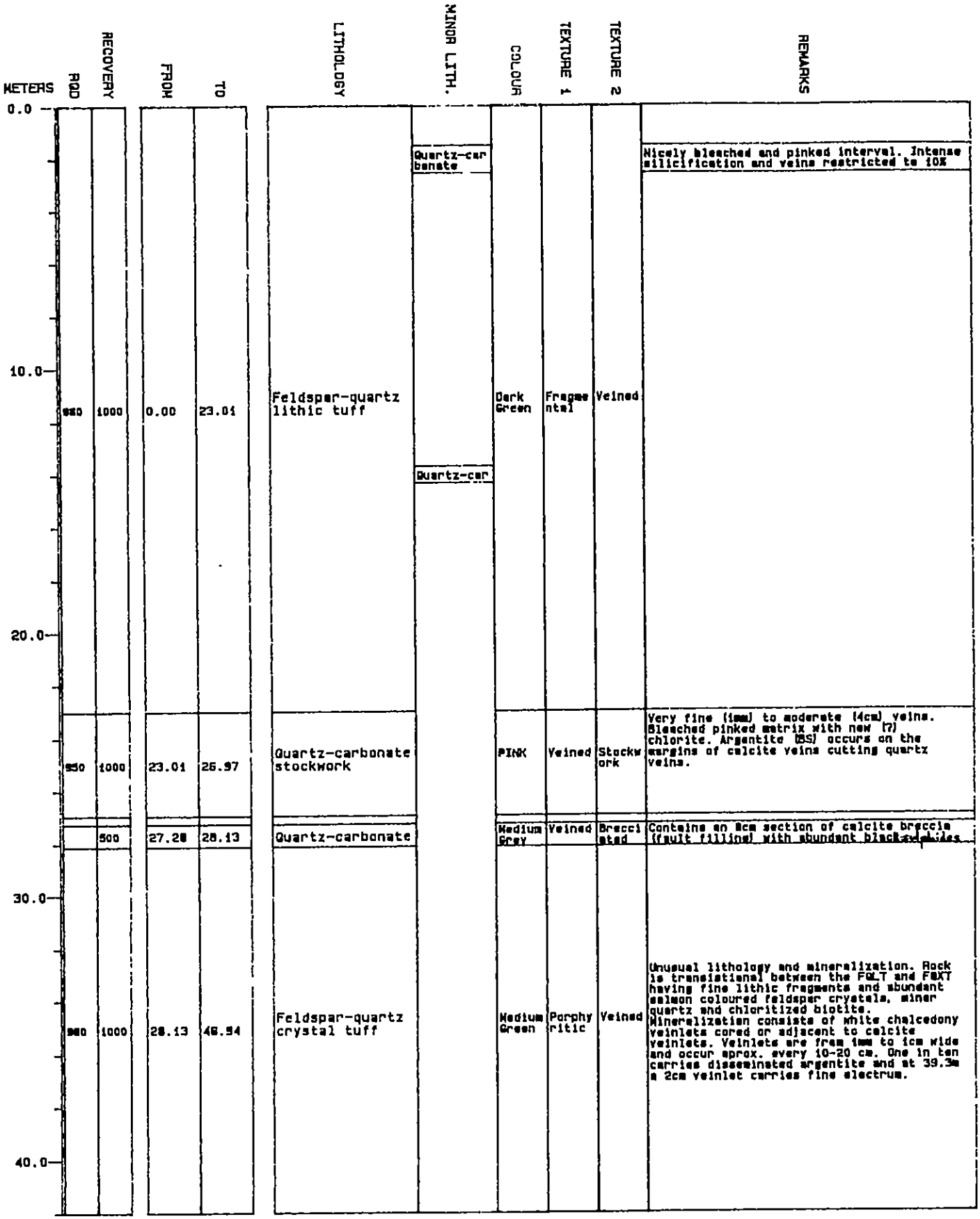
STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

0.00	23.01	Feldspar-quartz lithic tuff
23.01	26.97	Quartz-carbonate stockwork
28.13	46.94	Feldspar-quartz crystal tuff

DRILL HOLE: DDH87_01
PAGE 2



METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0										
						Quartz-carbonate				Nicely bleached and pinked interval. Intense silicification and veins restricted to 10%
10.0	980	1000	0.00	23.01	Feldspar-quartz lithic tuff	Quartz-car	Dark Green	Fragmental	Veined	
20.0	950	1000	23.01	26.97	Quartz-carbonate stockwork		PINK	Veined	Stockwork	Very fine (1mm) to moderate (4cm) veins. Bleached pinked matrix with new (?) chlorite. Argentite (BS) occurs on the margins of calcite veins cutting quartz veins.
		500	27.28	28.13	Quartz-carbonate		Medium Grey	Veined	Brecciated	Contains an 8cm section of calcite breccia (fault filling) with abundant blackened clasts
30.0	980	1000	28.13	48.94	Feldspar-quartz crystal tuff		Medium Green	Porphyritic	Veined	Unusual lithology and mineralization. Rock is transitional between the FQLT and FBXT having fine lithic fragments and abundant salmon coloured feldspar crystals, minor quartz and chloritized biotite. Mineralization consists of white chalcedony veinlets cored or adjacent to calcite veinlets. Veinlets are from 1mm to 1cm wide and occur aprox. every 10-20 cm. One in ten carries disseminated argentite and at 39.3m a 2cm veinlet carries fine electrum.
40.0										

STRUCTURE | ALTERATION | ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% TUCKWORK	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
										3			0.20	1.50	12401	13	0.5	0.030
													1.50	3.40	12402	19	38.5	2.850
													3.40	5.00	12403	16	2.0	0.140
													5.00	6.80				
													6.80	8.00	12404	12	0.5	0.030
													8.00	9.10				
													9.10	9.90	12405	08	1.5	0.100
QV	80	CV	80	5.0	5.0	5.0		2.5	10.0	1	10.0		9.90	12.50				
													12.50	13.50	12406	10	15.0	0.310
													13.50	14.50	12407	10	2.5	0.030
													14.50	15.20	12408	07	0.5	0.030
													15.20	20.40				
													20.40	21.00	12409	08	6.5	0.100
													21.00	22.00	12410	10	8.5	0.100
													22.00	23.30	12411	13	1.5	0.030
													23.30	24.10	12412	08	4.0	0.210
QV	80	CV	75	50.0	10.0	20.0		2.5	5.0	3	30.0	BS	24.10	25.10	12413	10	5.0	0.050
													25.10	26.10	12414	10	1.5	0.070
													26.10	27.10	12415	10	2.5	0.090
VN	80	VN	60	40.0	20.0			1.0		1	40.0	AR	27.10	28.10	12416	10	123.0	2.990
													28.10	28.70	12417	06	62.0	1.100
													28.70	29.40	12418	07	16.0	0.750
													29.40	30.20	12419	08	46.5	0.480
													30.20	31.20	12420	10	17.0	0.240
													31.20	32.70	12421	15	16.0	0.210
													32.70	34.20	12422	15	7.0	0.140
VN	70	VN	40	2.5	5.0			2.5		1	10.0	BS	34.20	35.70	12423	15	3.0	0.070
													35.70	37.20	12424	15	4.0	0.030
													37.20	38.20	12425	10	6.0	0.070
													38.20	39.20	12426	10	20.0	0.270
													39.20	39.90	12427	07	1.5	0.030
													39.90	40.90	12428	10	75.0	0.620
													40.90	42.40	12429	15	54.5	0.720

0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_01
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	860	1000	28.13	46.94	Feldspar-quartz crystal tuff		Medium Green	Porphyritic	Veined	Unusual lithology and mineralization. Rock is translational between the FQLT and FQXT having fine lithic fragments and abundant salmon coloured feldspar crystals, minor quartz and chloritized biotite. Mineralization consists of white chalcedony veinlets cored or adjacent to calcite veinlets. Veinlets are from 1mm to 1cm wide and occur aprox. every 10-20 cm. One in ten carries disseminated argentite and at 39.3m a 2cm veinlet carries fine electrum.
		1000	47.24	48.46	Feldspar crystal tuff		Green and	Porphyritic		Crystal tuff, medium phenocrysts of feldspar, hornblende and quartz in a fine

STRUCTURE

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE
VN	70	VN	40
CV	60		

ALTERATION

% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL
2.5	5.0			2.5		1		10.0		BS

ASSAYS

FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
42.40	43.90	12430	15	3.0	0.070
43.90	45.40	12431	15	2.5	0.030
45.40	46.90	12432	15	0.5	0.030

42.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_02	COLLAR AZIMUTH	: 210.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -75.00
DATE STARTED	: 87/ **8/25**	COLLAR ELEVATION	: 1290.16
DATE COMPLETED	: 87/ 8/26	COLLAR NORTHING	: 7548.41
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1265.17
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 54.6m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST EASTERLY STRUCTURE ON JOCK ZONE

COMMENTS: TARGET ZONE NOT INTERSECTED AT PROJECTED DEPTH.

KEY INTERSECTIONS: FROM: 26.5 TO: 28.2 LENGTH: 1.7M AT: 3.11 G/T AU: 62.9 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
9.1m	74°	
54.6	75°	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	2.80	Feldspar-quartz lithic tuff
6.40	25.80	Feldspar-quartz lithic tuff
25.80	28.10	Quartz-carbonate stockwork
28.10	33.20	Feldspar-quartz crystal tuff
33 20	48.50	Feldspar-quartz crystal tuff
48.50	56 00	Feldspar-quartz lithic tuff
56.00	72.00	Feldspar-quartz crystal tuff
72.00	76.10	Unknown
76.10	82.50	Feldspar-quartz crystal tuff
82.50	91.10	Feldspar-quartz crystal tuff

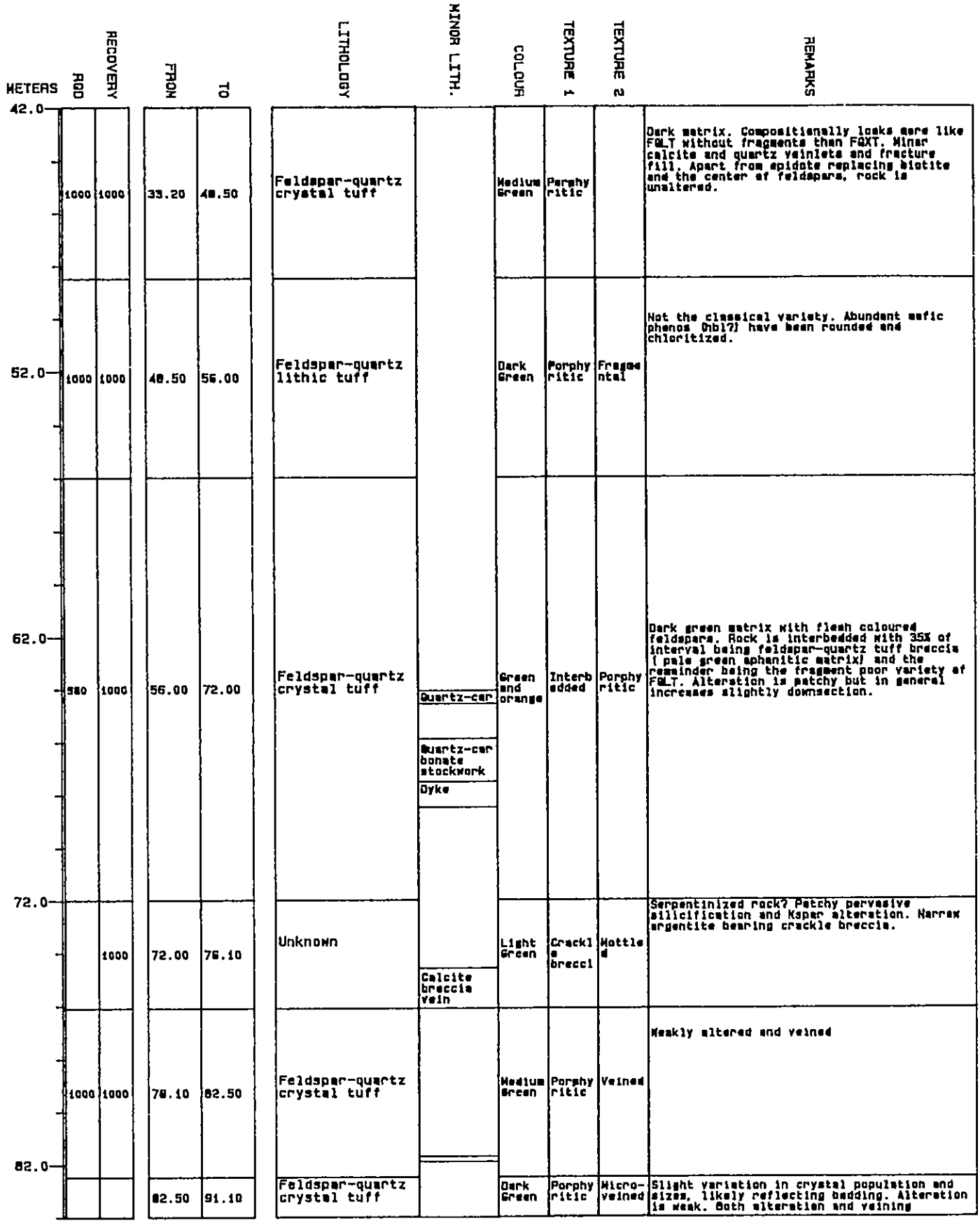
DRILL HOLE: DDH87_02
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0	910	1000	0.00	2.80	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Fine grained	Fine grained crystals, mafic lithic fragments; essentially unaltered. Minor veinlets of quartz and calcite.
	800	1000	2.80	4.00	Quartz-carbonate stockwork		PINK			A 40cm wide quartz breccia with peripheral, intensely pinked and bleached alteration
	850	1000	4.00	5.10	Lithic crystal ash tuff		Greenish	Fragmental	Fine grained	Fine grained fragmental (epiclastic?) rock with minor epidote, quartz, calcite
	820	1000	5.10	6.40	Quartz stockwork		PINK	Stockwork	Brecciated	Intensely bleached and pinked matrix cut by green and white quartz veins. Some dark grey, hairline chalcedony veinlets.
10.0	870	1000	6.40	25.80	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Variable, but generally weak, alteration. Some narrow 2-3cm calcite veins with grey calcite (possibly due to extremely fine disseminated sulphides) at 19.0 and 20.2m.
20.0	900	1000	25.80	26.10	Quartz-carbonate stockwork	Calcite	PINK	Crackle breccia	Stockwork	Pervasively silicified, fractured and infilled with carbonate.
30.0	1000	1000	26.10	33.20	Feldspar-quartz crystal tuff		Dark Green	Porphyritic	Veined	Dark green matrix, slightly pinked feldspar crystals, minor veining and patchy silicification.
	1000	1000	33.20	46.50	Feldspar-quartz crystal tuff		Medium Green	Porphyritic		Dark matrix. Compositionally looks more like FQLT without fragments than FQXT. Minor calcite and quartz veinlets and fracture fill. Apart from epidote replacing biotite and the center of feldspars, rock is unaltered.
40.0										

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	90	CV	45	1.0	1.0					0		3.0			0.00	2.00				
				20.0	5.0	20.0				2		20.0			2.00	3.20	12478	12	1.0	0.030
															3.20	3.70	12479	05	25.5	1.340
VN	45	VN	65	2.5	2.5	2.5		2.5		1		5.0			3.70	5.20	12480	15	2.5	0.070
QV	85	QV	45	30.0	2.5	20.0				3		30.0			5.20	6.60	12481	14	6.0	0.210
															6.60	7.80	12482	10	1.0	0.030
															7.60	10.00				
CV	85	CV	60	5.0	5.0	2.5		2.5	1.0	2		10.0			10.00	11.20	12483	12	0.5	0.030
															11.20	12.40	12484	12	0.5	0.030
															12.40	13.60	12485	12	1.0	0.030
															13.60	14.80	12486	12	0.5	0.030
															18.20	20.40	12487	22	8.5	0.140
															20.40	25.70				
CV	45			10.0	10.0	10.0		10.0		2		20.0			25.70	26.50	12488	08	4.5	0.210
															26.50	27.50	12489	10	22.5	0.820
CV	60	CV	70	5.0	5.0	1.0		2.5	1.0	1		10.0			28.20	29.70	12492	15	8.5	0.270
															29.70	31.30	12493	16	6.5	0.240
															31.30	33.00	12494	17	3.0	0.030
CV	45			1.0	2.5	1.0		1.0		0		3.0			33.00	63.20				

0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_02
PAGE 4



METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	1000	1000	33.20	48.50	Feldspar-quartz crystal tuff		Medium Green	Porphyritic		Dark matrix. Compositionally looks more like FQLT without fragments than FQXT. Minor calcite and quartz veinlets and fracture fill. Apart from epidote replacing biotite and the center of feldspars, rock is unaltered.
52.0	1000	1000	48.50	56.00	Feldspar-quartz lithic tuff		Dark Green	Porphyritic	Fragmental	Not the classical variety. Abundant mafic phenos (hbl?) have been rounded and chloritized.
62.0	980	1000	56.00	72.00	Feldspar-quartz crystal tuff	Quartz-carbonate stockwork Dyke	Green and orange	Interbedded	Porphyritic	Dark green matrix with flesh coloured feldspars. Rock is interbedded with 35% of interval being feldspar-quartz tuff breccia (pale green aphanitic matrix) and the remainder being the fragment poor variety of FQLT. Alteration is patchy but in general increases slightly downsection.
72.0		1000	72.00	76.10	Unknown	Calcite breccia vein	Light Green	Crackle breccia	Mottled	Serpentinized rock? Patchy pervasive silicification and Kspar alteration. Narrow argentite bearing crackle breccia.
	1000	1000	76.10	82.50	Feldspar-quartz crystal tuff		Medium Green	Porphyritic	Veined	Weakly altered and veined
82.0			82.50	91.10	Feldspar-quartz crystal tuff		Dark Green	Porphyritic	Micro-veined	Slight variation in crystal population and sizes, likely reflecting bedding. Alteration is weak. Both alteration and veining

STRUCTURE | ALTERATION | ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	45			1.0	2.5	1.0		1.0		0		3.0								
CV	45				2.5	0.3		1.0	10.0	0		3.0			33.00	63.20				
CV	60	CV	45	5.0	10.0	2.5		2.5		1	1	10.0			63.20	64.20	12495	10	1.5	0.030
															64.20	64.70	12496	05	1.5	0.060
															64.70	65.70	12497	10	1.0	0.030
											1				65.70	67.50	12498	18	3.5	0.030
															67.50	68.60	12499	11	4.0	0.580
															68.60	70.80	12500	22	2.0	0.030
															70.80	72.20	12501	14	2.0	0.070
BC	30			10.0	10.0	5.0				2		20.0		AR	72.20	73.60	12502	14	4.5	0.340
															73.60	74.80	12503	12	1.5	0.070
											2						13504	04	1.5	1.14
															75.20	76.10	12505	09	0.5	2.600
															76.10	77.00	12506	09	22.0	1.380
CV	45			5.0	5.0			2.5		1		10.0			77.00	81.00				
															81.00	81.70	12507	07	0.5	0.030
															81.70	82.50	12508	08	2.5	0.140
CV	45	CV	20	2.5	2.5			1.0		0		3.0								

42. 52. 62. 72. 82.

DRILL HOLE: DDH87_02
PAGE 6

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0			82.50	91.10	Feldspar-quartz crystal tuff		Dark Green	Porphyritic	Micro-veined	Slight variation in crystal population and sizes, likely reflecting bedding. Alteration is weak. Both alteration and veining decrease down the interval

STRUCTURE | ALTERATION | ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PYRITE	% CHLORITE	% EPIDOTE	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	45	CV	20	2.5	2.5			1.0	0	2.0								

64.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_03	COLLAR AZIMUTH	: 220.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ 8/26	COLLAR ELEVATION	: 1299.30
DATE COMPLETED	: 8/27	COLLAR NORTHING	: 7561.00
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1090.35
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
~~PROJECT LEADER~~	: ~~PETER HOLBEK~~	~~COLLAR STATION~~	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 54.6m

MINING DIV.: OMENICA

PURPOSE: TEST WESTERLY STRUCTURE ON JOCK ZONE

COMMENTS: BROKEN GROUND - HOLE ABANDONED AT 64.6 M

KEY INTERSECTIONS:

SURVEY DATA

DEPTH	DIP	AZIMUTH

SUMMARY REMARKS

Hole abandoned due to fault caving. Hole went through tuff breccias to lahars or debris flows of the epiclastic series. There is a bit of quartz and calcite fracture fill but very weak. The top 6m look like rock is a reworked version of the FQLT.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

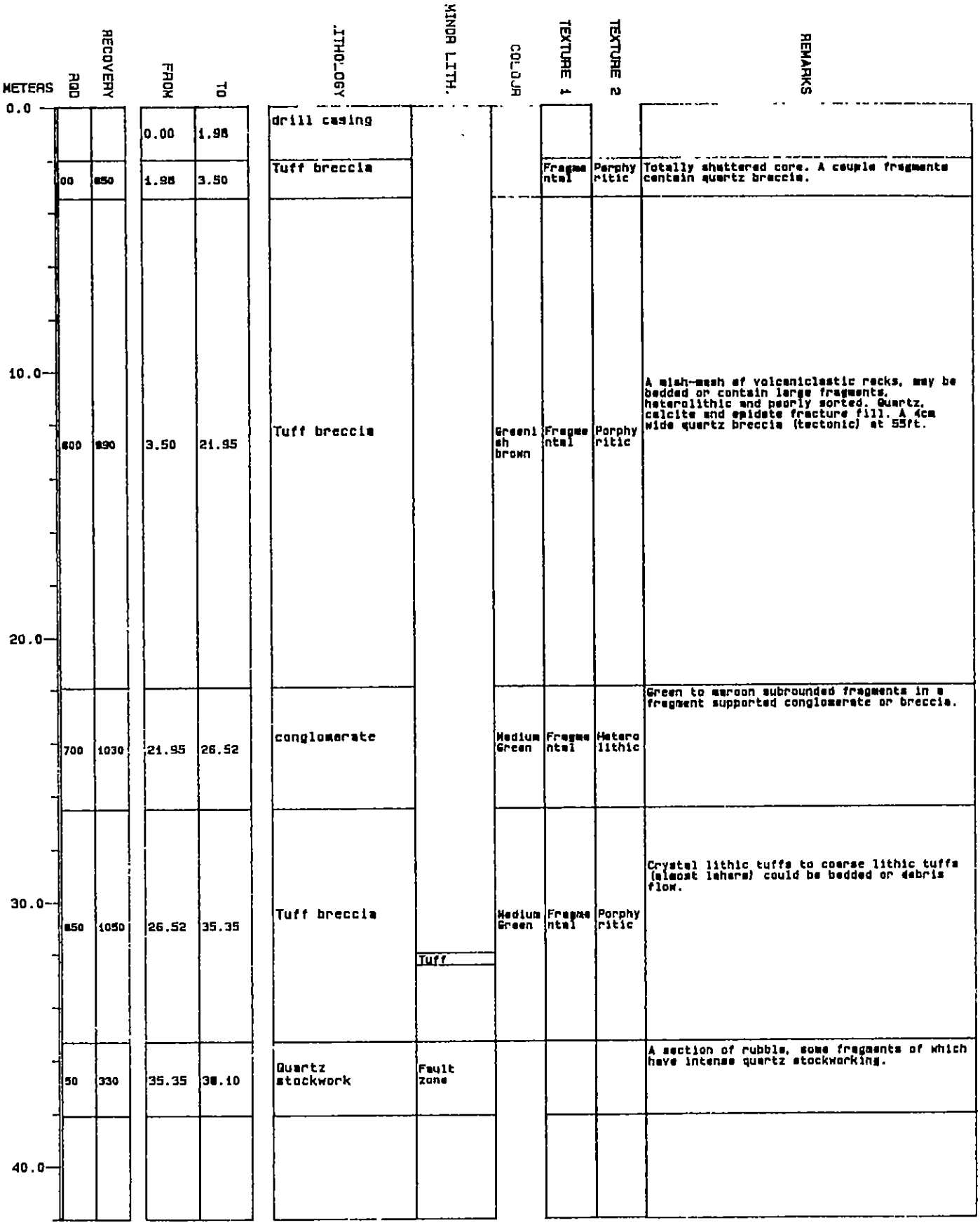
STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

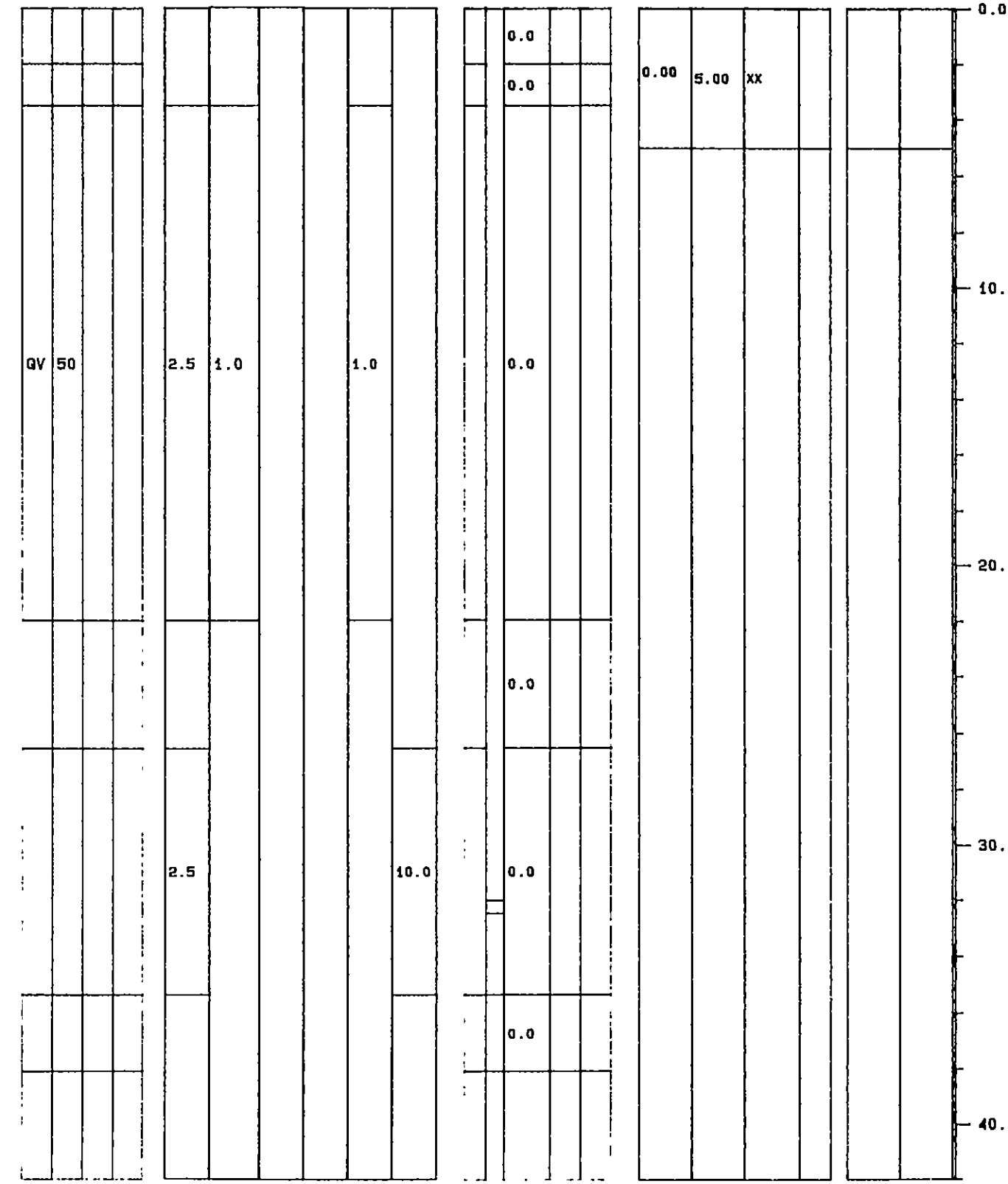
FROM	TO	LITHOLOGY
0.00	1.98	drill casing
1.98	3.50	Tuff breccia
3.50	21.95	Tuff breccia
21.95	26.52	conglomerate
26.52	35.35	Tuff breccia
35.35	38 10	Quartz stockwork

DRILL HOLE: DDH87_03
PAGE 2



METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.98	drill casing					
	00	850	1.98	3.50	Tuff breccia			Fragmental	Porphyritic	Totally shattered core. A couple fragments contain quartz breccia.
10.0	600	890	3.50	21.95	Tuff breccia		Greenish brown	Fragmental	Porphyritic	A mish-mash of volcaniclastic rocks, may be bedded or contain large fragments, heterolithic and poorly sorted. Quartz, calcite and epidote fracture fill. A 4cm wide quartz breccia (tectonic) at 55ft.
20.0	700	1030	21.95	26.52	conglomerate		Medium Green	Fragmental	Heterolithic	Green to maroon subrounded fragments in a fragment supported conglomerate or breccia.
30.0	850	1050	26.52	35.35	Tuff breccia	Tuff	Medium Green	Fragmental	Porphyritic	Crystal lithic tuffs to coarse lithic tuffs (almost lahars) could be bedded or debris flow.
	50	330	35.35	38.10	Quartz stockwork	Fault zone				A section of rubble, some fragments of which have intense quartz stockworking.
40.0										

DRILL HOLE: DDH87_03



ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_04	COLLAR AZIMUTH	: 220.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -60.00
DATE STARTED	: 87/ .8/27	COLLAR ELEVATION	: 1299.30
DATE COMPLETED	: 8/28	COLLAR NORTHING	: 7561.00
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1090.35
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 127.7m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST WESTERLY STRUCTURE ON JOCK ZONE

COMMENTS: SAME SITE AS 87-03; STEEPENED TO -60 DEGREES.

KEY INTERSECTIONS: FROM: 86.7 TO: 94.8 LENGTH: 8.1M AT: 1.69 G/T AU: 114.5 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
24.1m	61	
109.4	60	
127.7	62	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

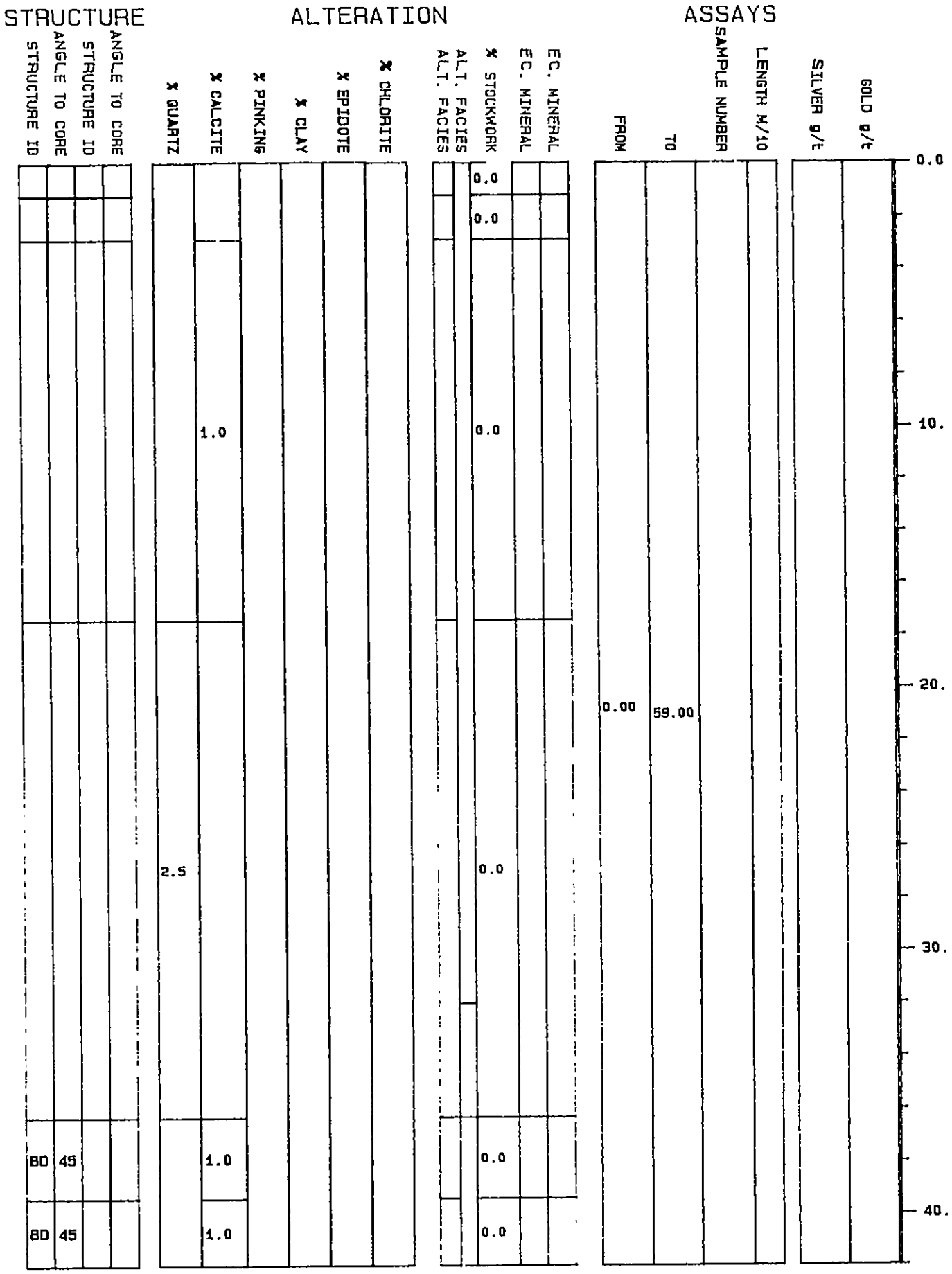
DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
2.90	17.40	Tuff breccia
17.40	36.30	Lahar
36.30	39.40	Tuff breccia
39.40	43.60	Lapilli crystal tuff
43.60	48.50	Lapilli crystal tuff
48.50	50.60	Dyke
50.60	55.30	Lapilli crystal tuff
57.00	61.30	Feldspar-quartz crystal tuff
61.30	79.90	Feldspar-quartz crystal tuff
82.30	89.40	Quartz breccia
89.40	94.18	Feldspar-quartz crystal tuff
94.64	98.60	Tuff breccia

DRILL HOLE: DDH87_04
PAGE 2

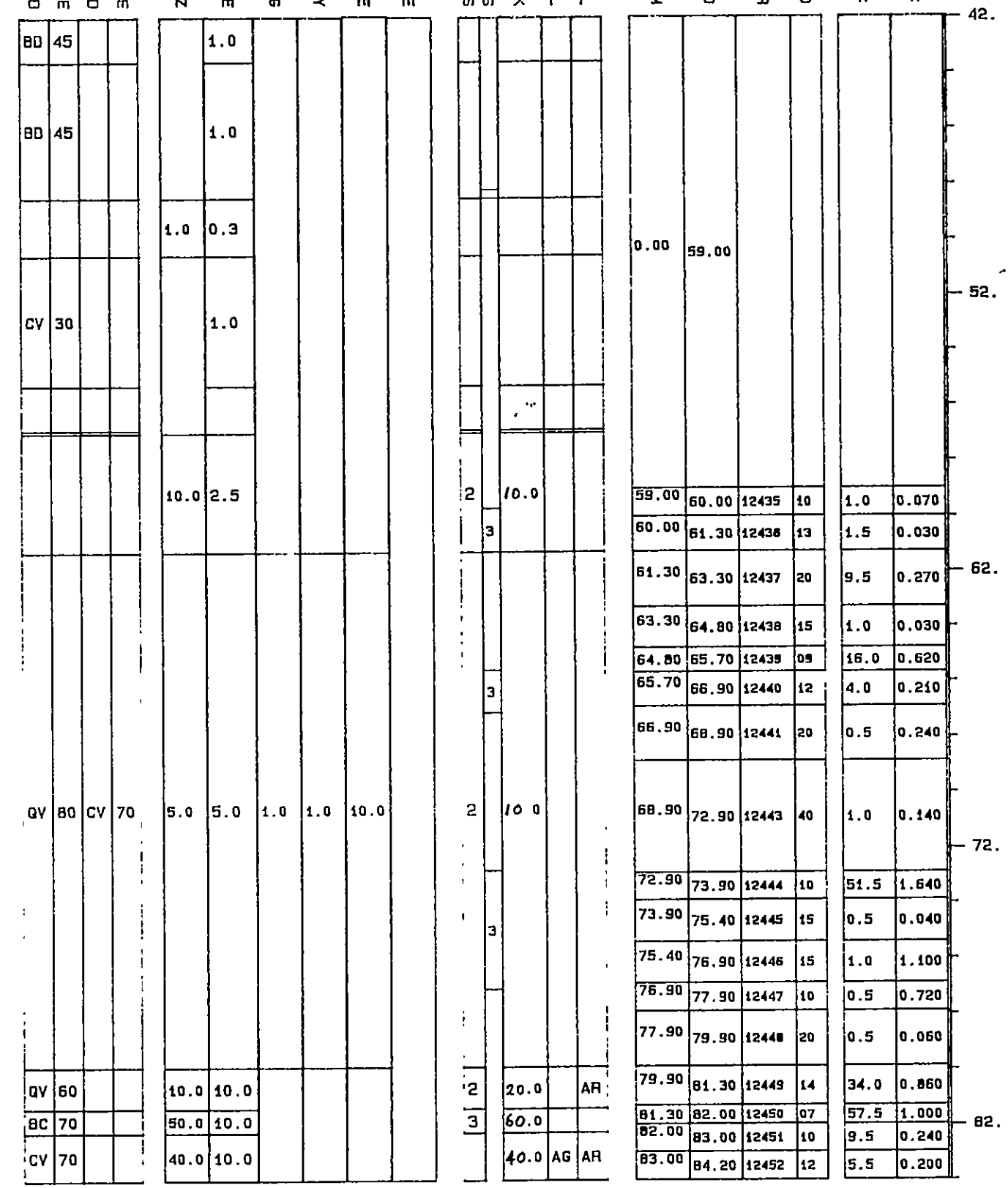
METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.20	drill casing					
	00	800	1.20	2.90	Tuff breccia			Fragmental	Porphyritic	A real hodge-podge of volcanic material thrown together.
10.0	700	1000	2.90	17.40	Tuff breccia		Greenish brown	Fragmental	Heterolithic	Fragments from everywhere of everysize. Really a coarse lithic wacke to volcanic conglomerate.
20.0	800	1000	17.40	36.30	Lahar		Medium Green	Fragmental	Porphyritic	An unusual lithology. A crowded white feldspar crystal tuff with cobble sized fragments of silicified and hematized material. Fragments appear to increase in size and abundance down section.
30.0						Lahar				
	850	1000	36.30	39.40	Tuff breccia		Light Green	Fragmental	Porphyritic	White subrounded feldspar grains, assorted subrounded porphyritic fragments. Streaks of hematite dust.
40.0	950	1000	39.40	43.60	Lapilli crystal tuff		Maroon	Fragmental	Heterolithic	Classic "grey tuff". Hematite rich matrix, with heterolithic fragments from 4mm to 4cm. White feldspars throughout.

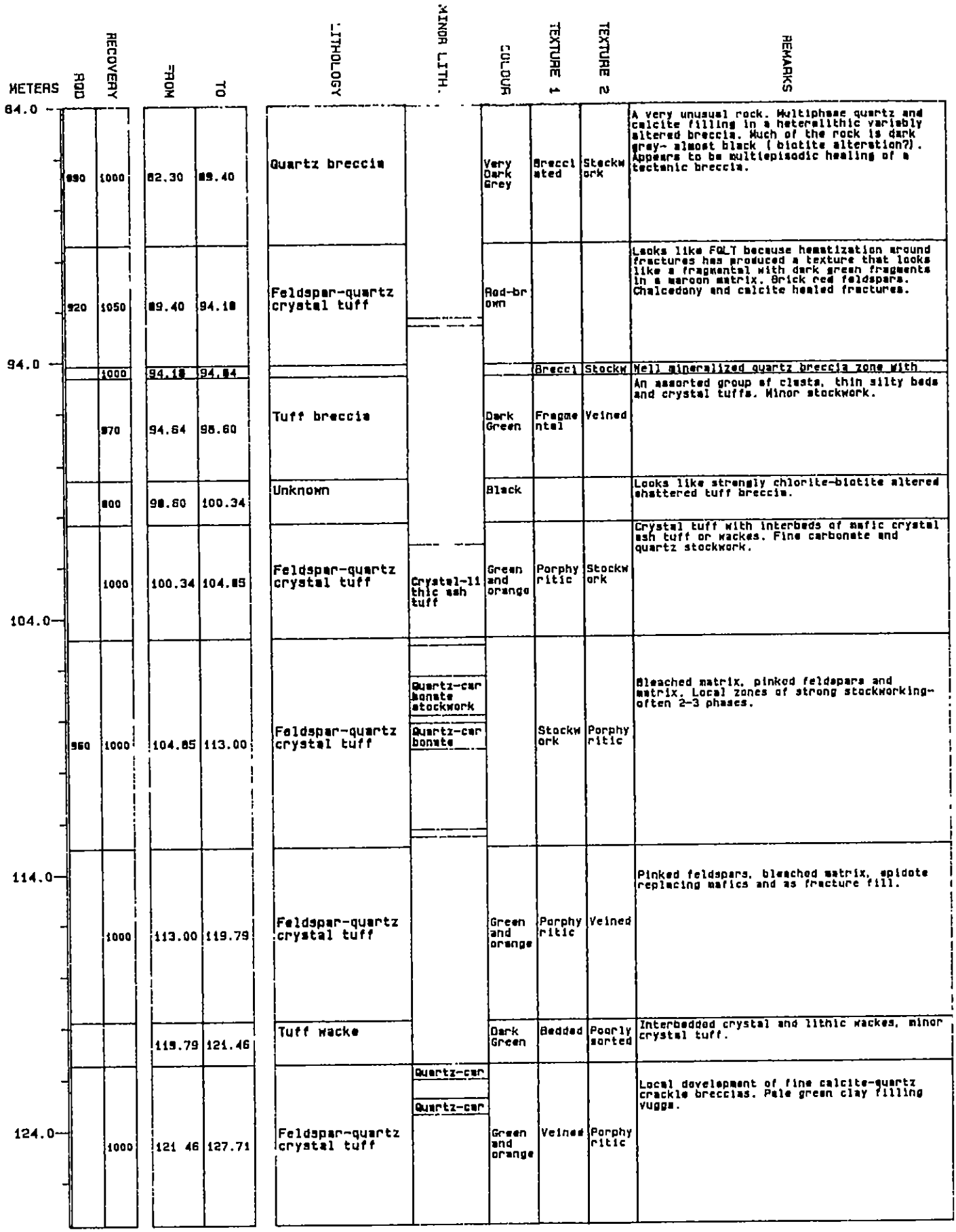
DRILL HOLE: DDH87_04



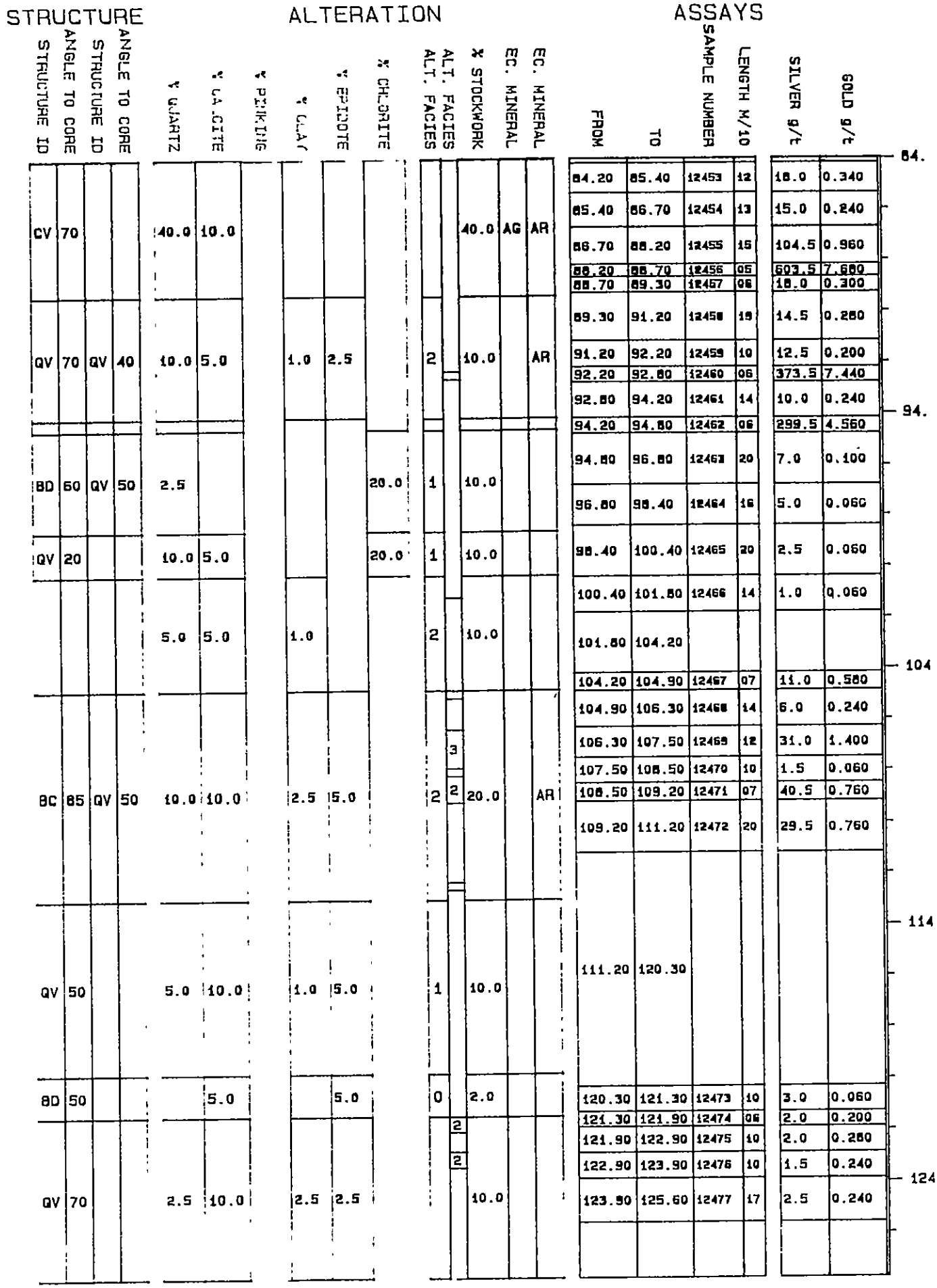
DRILL HOLE: DDH87_04
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	950	1000	39.40	43.80	Lapilli crystal tuff		Maroon	Fragmental	Heterolithic	Classic "grey tuff". Hematite rich matrix, with heterolithic fragments from 4mm to 4cm. White feldspars throughout.
	880	1000	43.80	48.50	Lapilli crystal tuff		Medium Green	Fragmental	Heterolithic	As above interval, only green.
	600	1000	48.50	50.80	Dyke		Very Dark Green	Fine grained		Fine grained, dark green mafic volcanic dyke (or possibly a mafic siltstone).
52.0	750	1000	50.80	55.30	Lapilli crystal tuff			Fragmental	Heterolithic	"A real garbage rock with a bit of everything thrown in."
			55.30	56.90	Dyke		Very Dark Green	Fine grained		
	800	1000	57.00	61.30	Feldspar-quartz crystal tuff	Feldspar-quartz crystal	Green and orange	Porphyritic		Dark green matrix, brick red feldspar crystals. Christmas rock. Irregular shaped fillings of quartz and calcite.
62.0	950	1000	61.30	79.90	Feldspar-quartz crystal tuff	Feldspar-quartz crystal Feldspar-quartz crystal	Orange-brown	Porphyritic	Stockwork	Brick red feldspar crystals, partially bleached matrix, rock appears to have been highly fractured and healed with epidote quartz and calcite. Biotite books are partially converted to epidote. In some areas the quartz and calcite fracture fillings form local crackle breccias, some of these carry base metal sulphides (+/- argentite).
72.0		1000	79.90	81.40	Feldspar-quartz crystal tuff		PINK	Stockwork	Brecciated	Crackle breccia with grey chalcedony fillings. Calcite cores the chalcedony and occasionally contains argentite.
82.0	950	1050	81.40	82.30	Quartz breccia		Medium Grey	Brecciated	Stockwork	A classic quartz breccia that grades into and out of fault zones and fault breccias (
	990	1000	82.30	83.40	Quartz breccia		Very Dark Grey	Brecciated	Stockwork	A very unusual rock. Multiphase quartz and calcite filling in a heterolithic variably altered breccia. Much of the rock is dark grey- almost black (biotite alteration?).


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
BD 45
BD 45
1.0 0.3
CV 30
1.0
10.0 2.5
2
3
10.0
0.00
59.00
59.00 60.00 12435 10 1.0 0.070
60.00 61.30 12436 13 1.5 0.030
61.30 63.30 12437 20 9.5 0.270
63.30 64.80 12438 15 1.0 0.030
64.80 65.70 12439 09 16.0 0.620
65.70 66.90 12440 12 4.0 0.210
66.90 68.90 12441 20 0.5 0.240
QV 80 CV 70 5.0 5.0 1.0 1.0 10.0 2 3 10.0
68.90 72.90 12443 40 1.0 0.140
72.90 73.90 12444 10 51.5 1.640
73.90 75.40 12445 15 0.5 0.040
75.40 76.90 12446 15 1.0 1.100
76.90 77.90 12447 10 0.5 0.720
77.90 79.90 12448 20 0.5 0.060
QV 60 10.0 10.0 2 20.0 AR
79.90 81.30 12449 14 34.0 0.860
BC 70 50.0 10.0 3 60.0
81.30 82.00 12450 07 57.5 1.000
CV 70 40.0 10.0 40.0 AG AR
82.00 83.00 12451 10 9.5 0.240
83.00 84.20 12452 12 5.5 0.200
42.
52.
62.
72.
82.



METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0	990	1000	82.30	89.40	Quartz breccia		Very Dark Grey	Brecciated	Stockwork	A very unusual rock. Multiphase quartz and calcite filling in a heterolithic variably altered breccia. Much of the rock is dark grey- almost black (biotite alteration?). Appears to be multiepisodic healing of a tectonic breccia.
	920	1050	89.40	94.18	Feldspar-quartz crystal tuff		Red-brown			Looks like FQLT because hematization around fractures has produced a texture that looks like a fragmental with dark green fragments in a maroon matrix. Brick red feldspars. Chalcedony and calcite healed fractures.
94.0		1000	94.18	94.64				Brecci	Stockw	Well mineralized quartz breccia zone with
		970	94.64	98.60	Tuff breccia		Dark Green	Fragmental	Veined	An assorted group of clasts, thin silty beds and crystal tuffs. Minor stockwork.
		800	98.60	100.34	Unknown		Black			Looks like strongly chlorite-biotite altered shattered tuff breccia.
		1000	100.34	104.85	Feldspar-quartz crystal tuff	Crystal-lithic ash tuff	Green and orange	Porphyritic	Stockwork	Crystal tuff with interbeds of mafic crystal ash tuff or wackes. Fine carbonate and quartz stockwork.
104.0										
	960	1000	104.85	113.00	Feldspar-quartz crystal tuff	Quartz-carbonate stockwork Quartz-carbonate		Stockwork	Porphyritic	Bleached matrix, pinked feldspars and matrix. Local zones of strong stockworking- often 2-3 phases.
114.0		1000	113.00	119.79	Feldspar-quartz crystal tuff		Green and orange	Porphyritic	Veined	Pinked feldspars, bleached matrix, epidote replacing mafics and as fracture fill.
			119.79	121.46	Tuff wacke		Dark Green	Bedded	Poorly sorted	Interbedded crystal and lithic wackes, minor crystal tuff.
124.0		1000	121 46	127.71	Feldspar-quartz crystal tuff	Quartz-car Quartz-car	Green and orange	Veined	Porphyritic	Local development of fine calcite-quartz crackle breccias. Pale green clay filling vuggs.


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PYRITE
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
CV 70 40.0 10.0 40.0 AG AR
QV 70 QV 40 10.0 5.0 1.0 2.5 2 10.0 AR
BD 60 QV 50 2.5 20.0 1 10.0
QV 20 10.0 5.0 20.0 1 10.0
5.0 5.0 1.0 2 10.0
BC 85 QV 50 10.0 10.0 2.5 5.0 3 2 2 20.0 AR
QV 50 5.0 10.0 1.0 5.0 1 10.0
BD 50 5.0 5.0 0 2.0
QV 70 2.5 10.0 2.5 2.5 2 2 10.0
84.20 85.40 12453 12 18.0 0.340
85.40 86.70 12454 13 15.0 0.240
86.70 88.20 12455 15 104.5 0.960
88.20 88.70 12456 05 603.5 7.680
88.70 89.30 12457 06 18.0 0.300
89.30 91.20 12458 19 14.5 0.280
91.20 92.20 12459 10 12.5 0.200
92.20 92.80 12460 06 373.5 7.440
92.80 94.20 12461 14 10.0 0.240
94.20 94.80 12462 06 299.5 4.560
94.80 96.80 12463 20 7.0 0.100
96.80 98.40 12464 16 5.0 0.060
98.40 100.40 12465 20 2.5 0.060
100.40 101.80 12466 14 1.0 0.060
101.80 104.20
104.20 104.90 12467 07 11.0 0.580
104.90 106.30 12468 14 6.0 0.240
106.30 107.50 12469 12 31.0 1.400
107.50 108.50 12470 10 1.5 0.060
108.50 109.20 12471 07 40.5 0.760
109.20 111.20 12472 20 29.5 0.760
111.20 120.30
120.30 121.30 12473 10 3.0 0.060
121.30 121.90 12474 06 2.0 0.200
121.90 122.90 12475 10 2.0 0.260
122.90 123.90 12476 10 1.5 0.240
123.90 125.60 12477 17 2.5 0.240
84.
94.
104
114
124

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_05	COLLAR AZIMUTH	: 195.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **8/29**	COLLAR ELEVATION	: 1286.97
DATE COMPLETED	: **8/30**	COLLAR NORTHING	: 7544.86
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1155.57
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 106.4m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST WEST & CENTRAL STRUCTURES JOCK ZONE

COMMENTS:

KEY INTERSECTIONS: FROM: 78.9 TO: 80.4 LENGTH: 1.5M AT: 7.62 G/T AU; 15.0 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
21.0m	45°	
45.7	44	
106.4	42	

SUMMARY REMARKS

A 64m wide zone of intense pinking and quartz +/- calcite flooding with local quartz and quartz-carbonate breccias. Some of the breccias very well pyritized, but argentite doesnt show up until below the main altered zone. Vein and breccia contact angles suggest that general stockwork orientation is vertical but with quite a bit of local variation.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	4.00	Feldspar-quartz lithic tuff
4.00	9.00	Feldspar-quartz lithic tuff
9.00	12.50	Quartz stockwork
12.50	15.50	Feldspar-quartz lithic tuff
15.50	19.50	Quartz stockwork
19.50	23.20	Feldspar-quartz lithic tuff
23.20	39.80	Quartz-carbonate stockwork
39.80	46.70	Quartz-carbonate stockwork
48.40	72.30	Quartz-carbonate stockwork
72.30	84.70	Quartz-carbonate stockwork
86.30	102.00	Feldspar-quartz crystal tuff

DRILL HOLE: DDH87_05
PAGE 2

METERS	RQD	%RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0	200	740	0.00	4.00	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Rubbley and leached due to surface weathering. A 84m wide zone of intense pinking and quartz +/- calcite flooding with local quartz and quartz-carbonate breccias. Some of the breccias very well pyritized, but argentite doesnt show up until below the main altered zone. Vein and breccia contact angles suggest that general stockwork orientation is vertical but with quite a bit
		900	4.00	9.00	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Stockwork	Patches of silicification and pinking (4.0-4.4m and 7.5-7.9m) still quite broken.
10.0	940	1000	9.00	12.50	Quartz stockwork			Veined	Mottled	Patchy zones of quartz flooding and veining, matrix is locally pinked but mafics still persist. Major veins are nearly perpendicular to core axis, but small veinlets are at various angles including parallel to core axis.
		1000	12.50	15.50	Feldspar-quartz lithic tuff		Dark Green	Fragmental	Porphyritic	Relatively unaltered, except around narrow quartz or calcite veinlets.
	950	1000	15.50	19.50	Quartz stockwork		PINK	Veined	Quartz flooded	Patchy zones of less alteration. Some strongly quartz flooded and pinked intervals which have been cut by dark grey chalcedonic veinlets. Could be a good one.
20.0	850	1000	19.50	23.20	Feldspar-quartz lithic tuff	Fault	Dark Green	Fragmental	Porphyritic	Disseminated pyrite and sparse quartz or calcite veinlets. Not altered.
						Quartz-car				
30.0	990	1000	23.20	39.80	Quartz-carbonate stockwork		Red-orange	*Pinked/* Kspar	Quartz flooded	Intensely pinked and silicified. Local networks of grey chalcedonic quartz to quartz breccias. Later veins often accompanied by disseminated wispy chlorite. Bright green soft mineral (?) occurs as cavity fillings. Pyrite concentration can reach 5% over narrow 2-10cm intervals.
40.0	1000	1000	39.80	46.70	Quartz-carbonate stockwork		PINK	Quartz flooded	*Pinked/* Kspar	Rock name is not totally descriptive. Pinked intensely pervasively silicified and Kspar (?) altered rock cut by later quartz and calcite stringers with 20% quartz breccias is closer to the truth. Dark to bright green

DRILL HOLE: DDH87_05

STRUCTURE

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE
QV	85		
CV	80	CV	30
CV	80	QV	40
CV	70	CV	60
QV	80	QV	70
QV	70	CV	70
QV	65	QV	60
QV	70		

ALTERATION

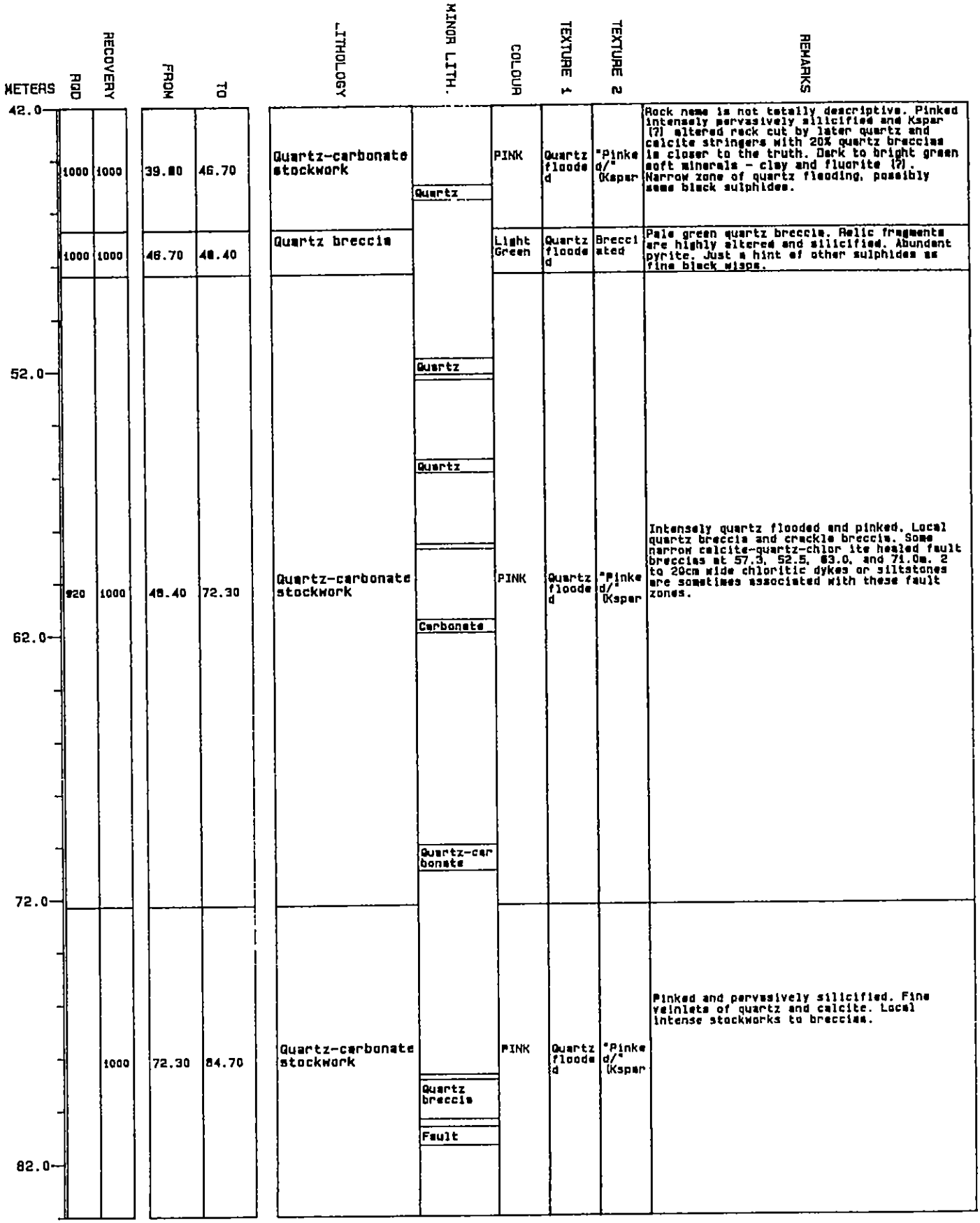
% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL
5.0	5.0					1	10.0		
20.0	5.0	5.0		2.5		2	20.0		
30.0	5.0	10.0		2.5		2	30.0		
2.5	2.5	1.0		1.0	10.0	0	5.0		
30.0	5.0	10.0	1.0	1.0	1.0	3	30.0		
2.5	2.5					0	5.0		
40.0	5.0	20.0	2.5	1.0	2.5	4	40.0	??	
40.0	5.0	20.0	1.0	2.5	5.0	4	40.0		BS

ASSAYS

FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
0.00	4.00				
4.00	4.80	12510	08	6.5	0.070
4.80	6.10	12511	13	6.0	0.060
6.10	7.60	12512	15	4.0	0.140
7.60	9.10	12513	15	5.0	0.110
9.10	10.60	12514	15	2.5	0.080
10.60	12.50	12515	19	1.5	0.060
12.50	15.50	12517	30	1.0	0.140
15.50	16.80	12518	13	1.5	0.060
16.80	17.90	12519	11	1.5	0.190
17.90	19.30	12520	14	5.0	0.170
19.30	20.80	12521	15	0.5	0.390
20.80	22.50	12522	17	2.5	0.260
22.50	24.10	12523	16	0.5	0.020
24.10	25.90	12525	18	1.5	0.020
25.90	26.70	12526	08	4.5	0.020
26.70	27.60	12527	09	0.5	0.180
27.60	29.10	12528	15	6.5	0.120
29.10	30.60	12529	15	2.5	0.020
30.60	32.10	12530	15	2.5	0.060
32.10	33.20	12531	11	0.5	0.020
33.20	34.70	12532	15	2.5	0.020
34.70	35.70	12533	10	2.0	0.560
35.70	37.20	12534	15	3.5	0.050
37.20	38.70	12535	15	1.5	0.070
38.70	39.90	12536	12	1.5	0.030
39.90	40.90	12537	10	7.0	0.130
40.90	42.40	12538	15	3.0	0.090

0.0
10.
20.
30.
40.

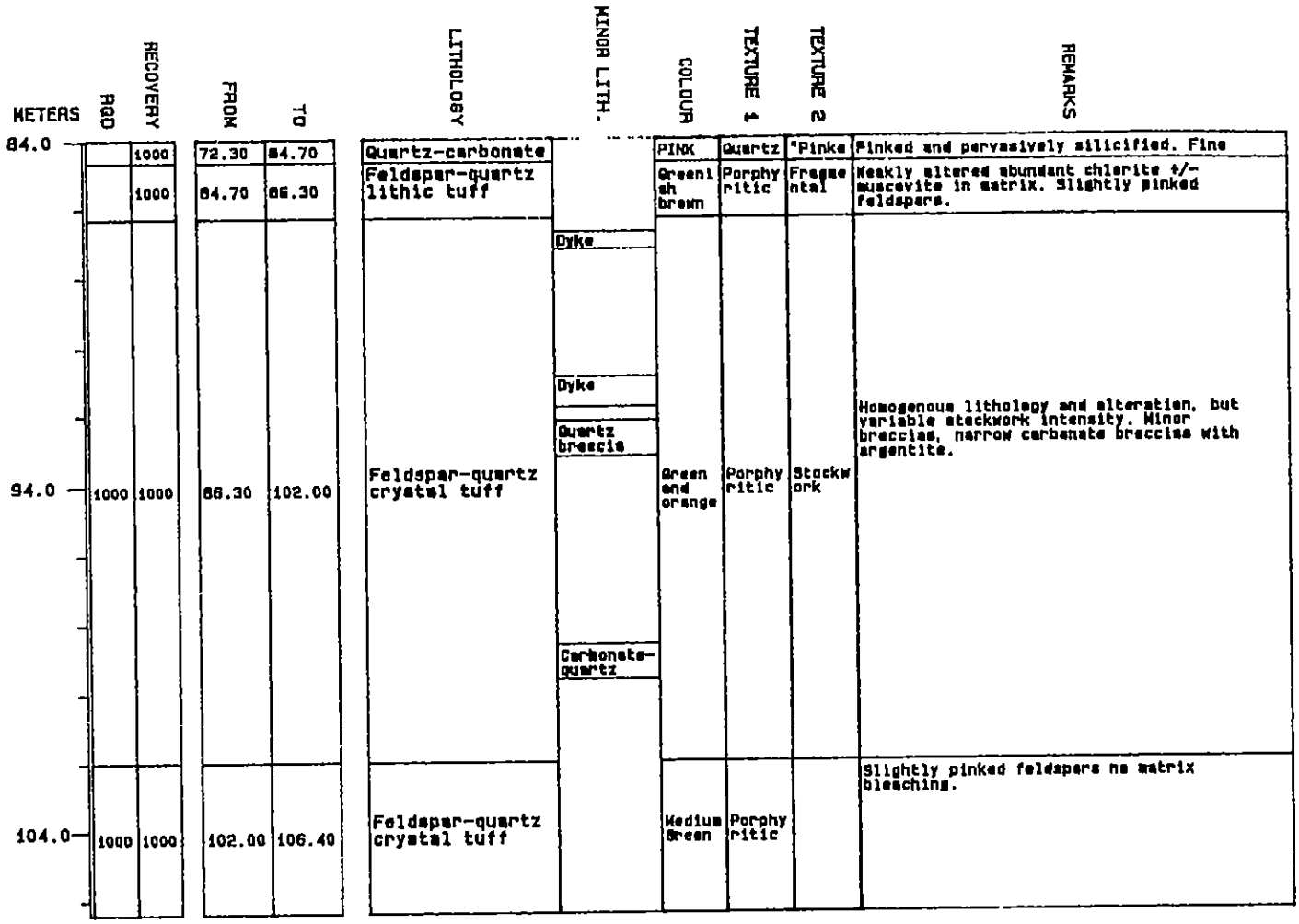
DRILL HOLE: DDH87_05
PAGE 4



STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	70			40.0	5.0	20.0	1.0	2.5	5.0	4	40.0		BS	42.40	43.90	12539	15	1.0	0.020
				60.0	0.0	1.0	5.0		5.0	5	60.0			43.90	45.10	12540	12	2.5	0.020
														45.10	45.70	12541	08	39.0	1.540
														45.70	46.80	12542	11	8.0	0.080
														46.80	48.00	12543	12	14.5	0.350
														48.00	49.20	12544	12	2.5	0.040
														49.20	50.80	12545	14	5.5	0.290
														50.80	51.80	12546	10	11.5	0.920
														51.80	52.80	12547	10	3.0	0.050
														52.80	54.10	12548	15	3.5	0.060
														54.10	55.40	12549	13	26.5	0.370
														55.40	56.40	12550	10	6.5	0.540
														56.40	57.30	12551	09	6.0	0.130
														57.30	58.70	12552	14	6.5	0.110
														58.70	60.20	12553	15	3.5	0.160
BC	45	CV	50	40.0	10.0		2.5		5.0	4	40.0			60.20	61.40	12554	12	2.5	0.020
														61.40	61.90	12555	05	4.0	0.020
														61.90	62.80	12556	09	2.0	0.020
														62.80	63.70	12557	09	2.0	0.020
														63.70	65.10	12558	14	4.0	0.020
														65.10	66.50	12559	14	2.5	0.020
														66.50	67.50	12560	10	3.5	0.180
														67.50	69.00	12561	15	1.5	0.030
														69.00	70.00	12562	10	15.5	0.310
														70.00	71.50	12563	15	1.5	0.040
														71.50	72.20	12564	07	2.5	0.020
														72.20	72.90	12565	07	1.5	0.020
														72.90	74.40	12566	15	2.5	0.070
														74.40	75.90	12567	15	2.5	0.080
														75.90	77.10	12568	12	2.0	0.020
														77.10	78.00	12569	09	2.0	0.020
														78.00	78.90	12570	09	1.5	0.060
														78.90	80.40	12571	15	15.0	7.620
														80.40	81.50	12572	11	9.0	0.220
														81.50	83.00	12573	15	2.5	0.180
QV	30			20.0	10.0	10.0	2.5	2.5	2.5	3	30.0			83.00	84.20	12574	12	11.5	0.060

42.
52.
62.
72.
82.

DRILL HOLE: DDH87_05
PAGE 6



METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0		1000	72.30	84.70	Quartz-carbonate		PINK	Quartz	*Pinke	Pinked and pervasively silicified. Fine
		1000	84.70	86.30	Feldspar-quartz lithic tuff		Greenish brown	Porphyritic	Fragmental	Weakly altered abundant chlorite +/- muscovite in matrix. Slightly pinked feldspars.
						Dyke				
						Dyke				Homogenous lithology and alteration, but variable stockwork intensity. Minor breccias, narrow carbonate breccias with argentite.
94.0	1000	1000	86.30	102.00	Feldspar-quartz crystal tuff	Quartz breccia	Green and orange	Porphyritic	Stockwork	
						Carbonate-quartz				
104.0	1000	1000	102.00	106.40	Feldspar-quartz crystal tuff		Medium Green	Porphyritic		Slightly pinked feldspars no matrix bleaching.

STRUCTURE | ALTERATION | ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PYRITE	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	30			20.0	10.0	10.0	2.5	2.5	2.5	3		30.0								
QV	35			5.0	5.0				10.0	1		10.0			84.20	86.30				
															86.30	86.70	12575	04	1.5	0.020
															86.70	87.20				
															87.20	89.00	12576	18	2.0	0.020
															89.00	91.00	12577	20	1.5	0.300
															91.00	91.80				
											2				91.80	93.30	12578	15	28.0	0.860
CV	45	QV	90	10.0	10.0		0.1	1.0		1		20.0			93.30	94.80	12579	15	27.0	0.840
															94.80	96.30	12580	15	2.5	0.030
															96.30	98.20	12581	19	2.0	0.050
											1				98.20	99.70	12582	15	83.0	1.990
															99.70	101.20	12583	15	4.5	0.170
															101.20	102.20	12584	10	3.5	0.060
															102.20	103.70	12585	15	10.0	0.130
QV	50	QV	60	5.0	2.5			1.0		1		5.0								

84.

94.

104

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_06	COLLAR AZIMUTH	: 195.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **8/31**	COLLAR ELEVATION	: 1302.34
DATE COMPLETED	: **9/01**	COLLAR NORTHING	: 7590.70
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1194.80
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 149.0m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST CENTRAL STRUCTURES JOCK ZONE

COMMENTS: SITE 25M E OF PREFERRED SETUP DUE TO STEEP SLOPE

KEY INTERSECTIONS:

SURVEY DATA

DEPTH	DIP	AZIMUTH
57.6m	45°	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
1.20	5.90	Feldspar-quartz lithic tuff
5.90	10.60	Feldspar-quartz lithic tuff
11.10	14.00	Quartz stockwork
14.00	35.70	Quartz-carbonate stockwork
36.30	41.40	Feldspar-quartz crystal
41.40	51.50	Feldspar-quartz crystal tuff
51.50	69.30	Feldspar-quartz crystal tuff
69.30	98.00	Feldspar-quartz crystal tuff
98.00	102.70	Feldspar-quartz crystal
103.40	108.00	Feldspar-quartz crystal
108.00	118.40	Feldspar-quartz crystal tuff
118.40	129.40	Quartz-carbonate stockwork
129.40	135.20	Feldspar-quartz lithic tuff
135.20	142.30	Quartz-carbonate stockwork
		Feldspar-quartz crystal

DRILL HOLE: DDH87_06
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.20	drill casing					
		900	1.20	5.90	Feldspar-quartz lithic tuff		PINK	Fragmental	Porphyritic	Bleached and pinked matrix fragments are slightly epidotized. No observed stockwork.
	780	980	5.90	10.60	Feldspar-quartz lithic tuff		Flesh coloured	Fragmental	Porphyritic	Bleached and pinked but fragmental texture still visible.
10.0	820	1000	10.60	11.10	Quartz-carbonate		Flesh	Stockw	Fragme	
	920	1000	11.10	14.00	Quartz stockwork		PINK	Stockwork	Brecciated	Intensely altered and veined. Late black hairline veinlets. Abundant white and green clay.
20.0	970	1000	14.00	35.70	Quartz-carbonate stockwork		PINK	Quartz floode d	"Pinked/" Kspar	Original fragmental texture variably preserved, but matrix (and often fragments) totally bleached, pinked and silicified. Consistent quartz and calcite stockworking with local juicy veins to crackle breccias. Sulphides show a stronger affinity to quartz than calcite in this interval.
30.0	900	1000	35.70	38.30	Quartz		Medium	Stockw	Crackl	Fine disseminated black sulphides in quartz
		1000	36.30	41.40	Feldspar-quartz crystal tuff	Fault Feldspar-quartz crystal	Green and orange	Porphyritic	Veined	Localized narrow zones of stockworking. Shearing at 38.4-39.3m.
40.0	1000	1000	41.40	51.50	Feldspar-quartz		Greenl	Porphy		Bleached matrix but no pinking. Disseminated

DRILL HOLE: DDH87_06

STRUCTURE

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE
QV	20	QV	05
QV	70	QV	45
CV	45		

ALTERATION

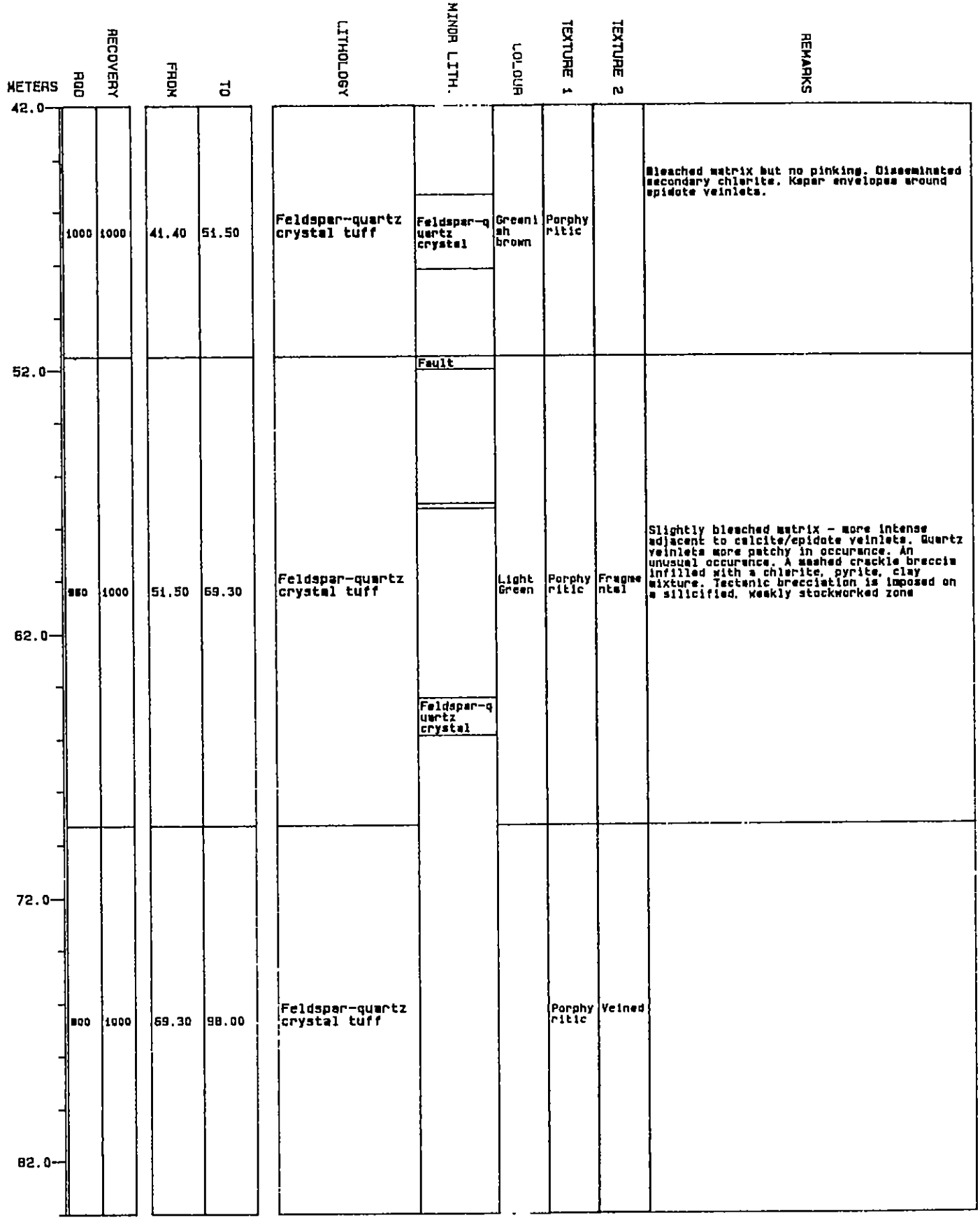
% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL
5.0		10.0		5.0	10.0	2	5.0		
2.5	2.5	10.0		1.0	5.0	2	5.0		
20.0		5.0	1.0			3	20.0		
40.0	1.0	20.0	5.0			4	40.0		BS
20.0	5.0	20.0	2.5	2.5	2.5	3	20.0		BS
30.0	5.0		1.0			2	30.0		BS
10.0	10.0	5.0	1.0	2.5	2.5	2	10.0		BS
1.0	1.0	1.0		2.5		2	10.0		

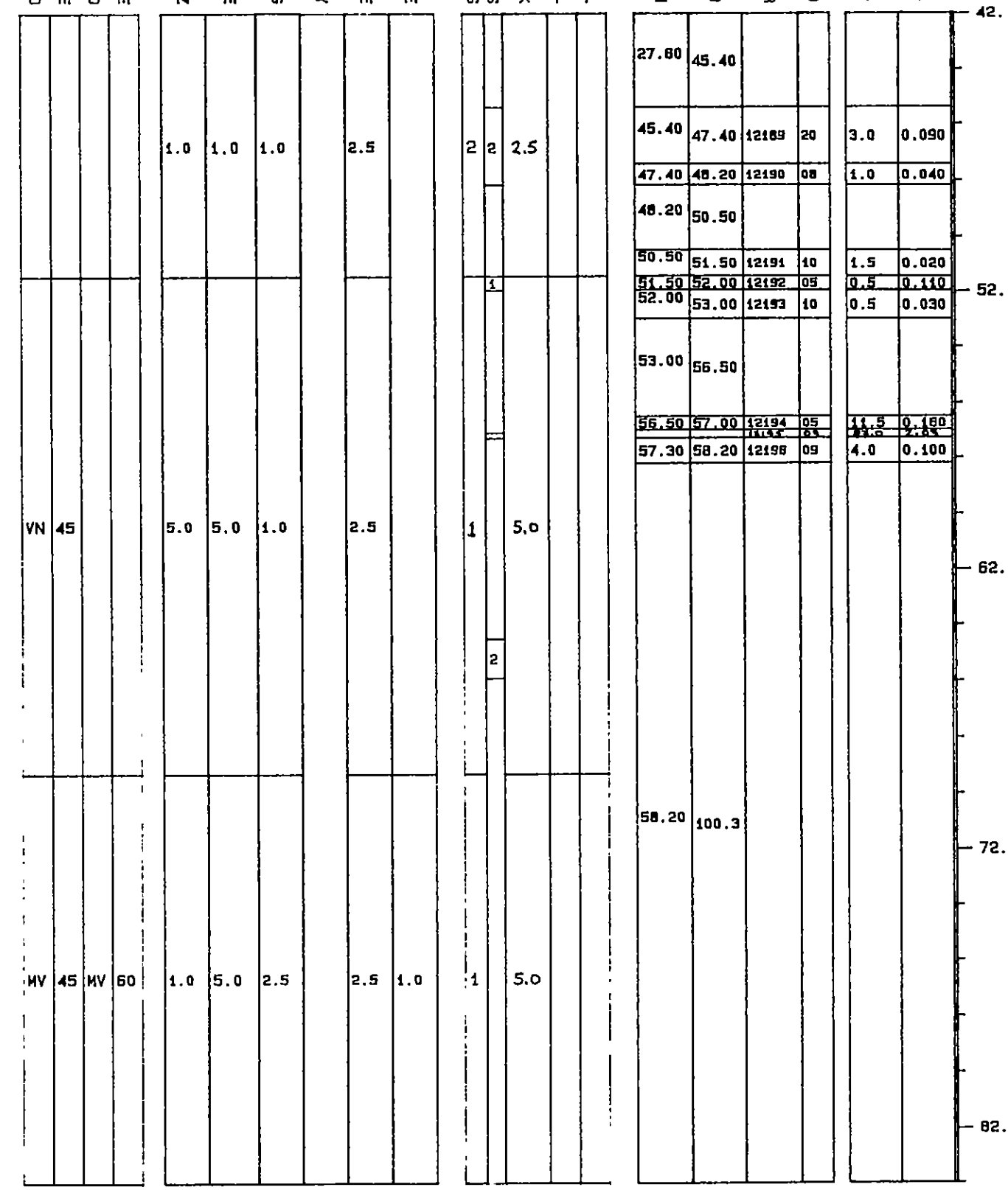
ASSAYS

FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
0.00	9.70				
9.70	10.70	12586	10	4.0	0.070
10.70	11.20	12587	05	6.0	0.150
11.20	12.10	12588	09	30.0	0.230
12.10	13.10	12589	10	5.5	0.190
13.10	14.10	12590	10	7.0	0.110
14.10	15.00	12591	09	2.0	0.100
15.00	16.50	12592	15	2.5	0.060
16.50	18.00	12593	15		
18.00	19.50	12594	15	6.5	0.260
19.50	22.50	12595	30	2.5	0.210
22.50	24.00	12596	15	3.5	0.090
24.00	25.50	12597	15	3.5	0.060
25.50	27.00	12598	15	1.5	0.050
27.00	27.60	12600	06	3.0	0.060
27.60	45.40				

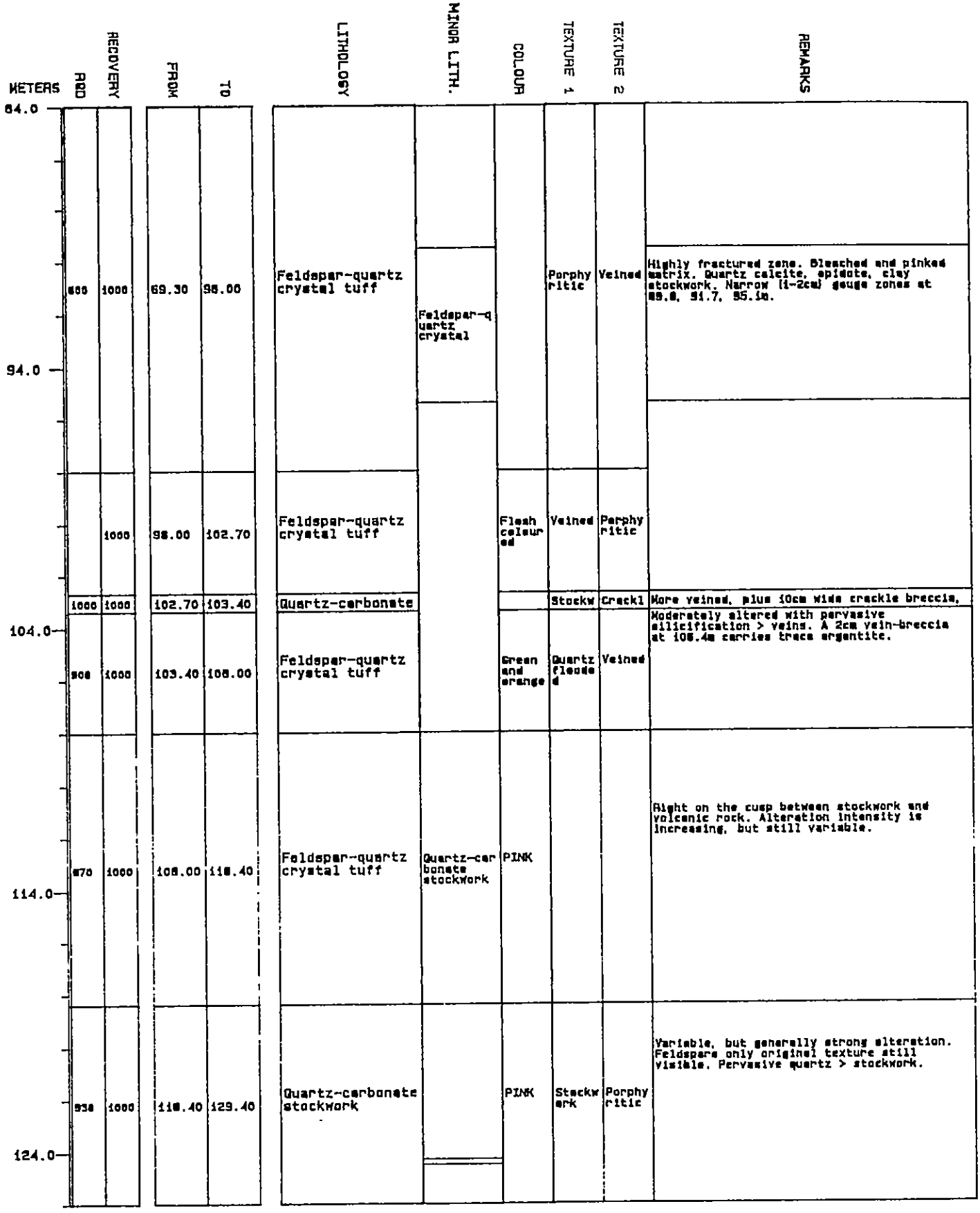
0.0
10.
20.
30.
40.

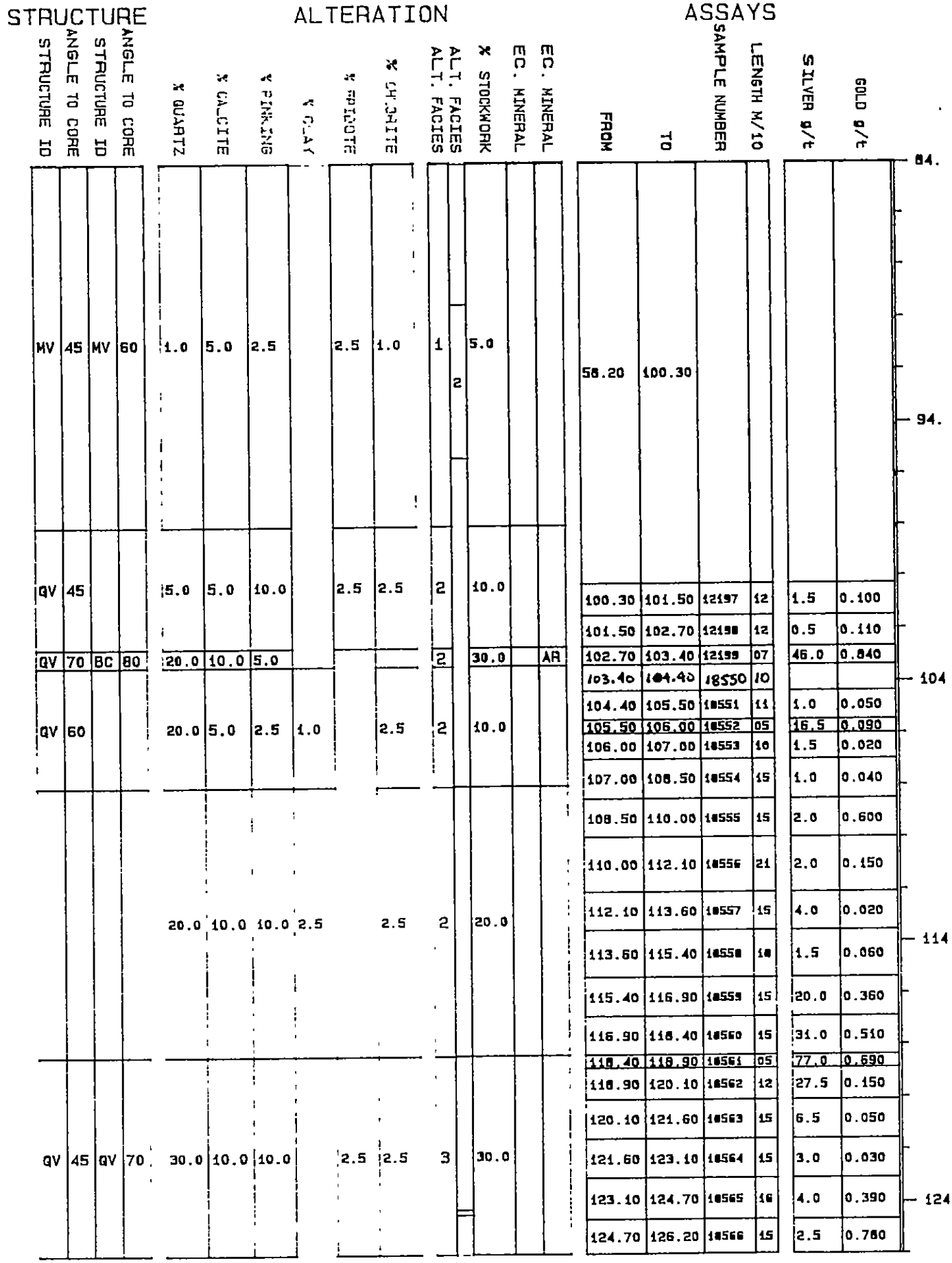
DRILL HOLE: DDH87_06
PAGE 4

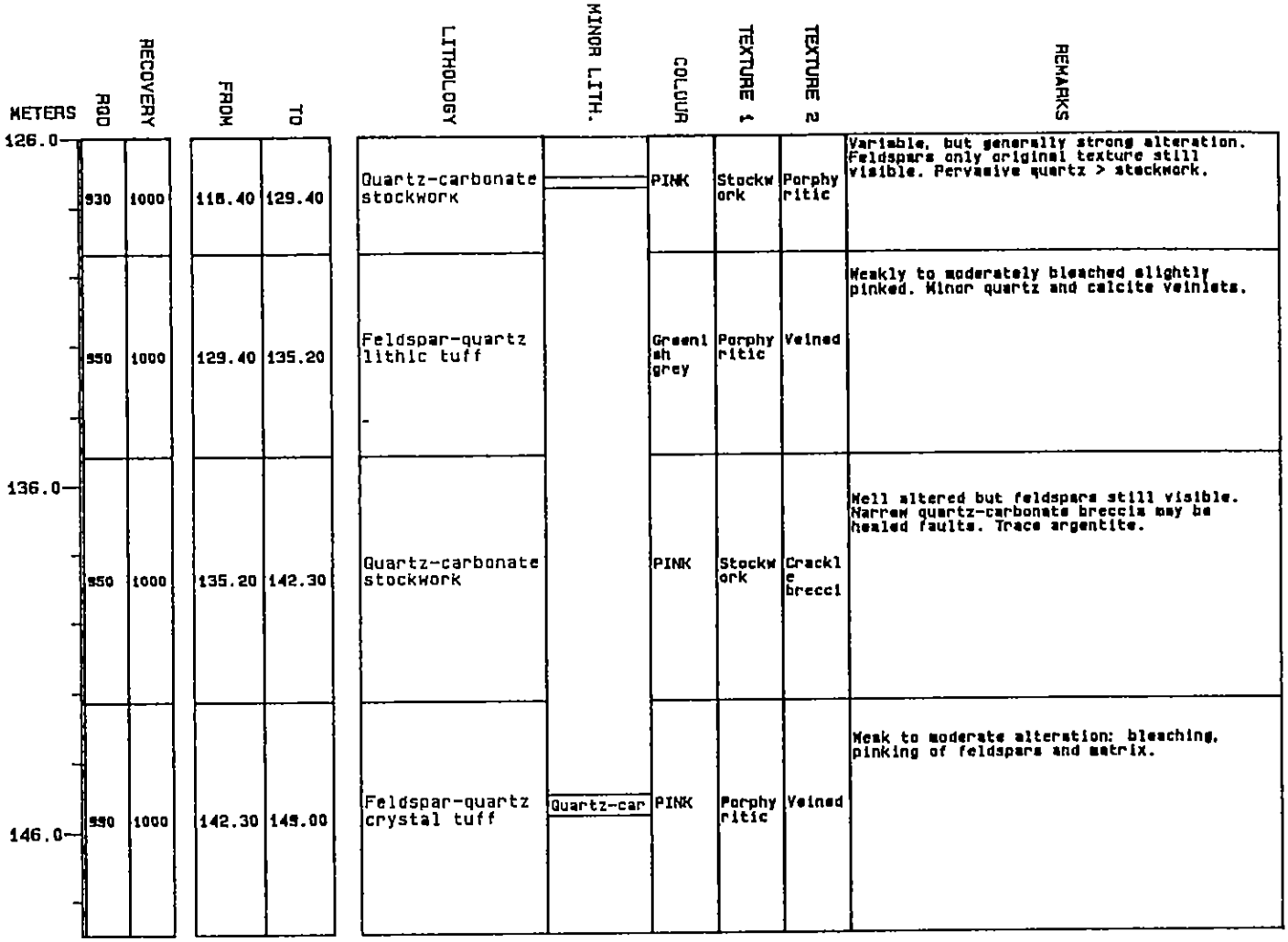



STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
VN 45
MV 45 MV 60
1.0 1.0 1.0 2.5 2 2 2.5
5.0 5.0 1.0 2.5 1 1 5.0
1.0 5.0 2.5 2.5 1.0 1 2 5.0
27.80 45.40
45.40 47.40 12189 20 3.0 0.090
47.40 48.20 12190 08 1.0 0.040
48.20 50.50
50.50 51.50 12191 10 1.5 0.020
51.50 52.00 12192 05 0.5 0.110
52.00 53.00 12193 10 0.5 0.030
53.00 56.50
56.50 57.00 12194 05 11.5 0.160
57.30 58.20 12196 09 4.0 0.100
58.20 100.3
42.
52.
62.
72.
82.

DRILL HOLE: DDH87_06
PAGE 6




STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
84.
94.
104
114
124
MV 45 MV 60 1.0 5.0 2.5 2.5 1.0 1 2 5.0 58.20 100.30
QV 45 5.0 5.0 10.0 2.5 2.5 2 10.0 100.30 101.50 12197 12 1.5 0.100
101.50 102.70 12198 12 0.5 0.110
QV 70 BC 80 20.0 10.0 5.0 2 30.0 AR 102.70 103.40 12199 07 46.0 0.840
103.40 104.40 18550 10
QV 60 20.0 5.0 2.5 1.0 2.5 2 10.0 104.40 105.50 18551 11 1.0 0.050
105.50 106.00 18552 05 16.5 0.090
106.00 107.00 18553 10 1.5 0.020
107.00 108.50 18554 15 1.0 0.040
108.50 110.00 18555 15 2.0 0.600
110.00 112.10 18556 21 2.0 0.150
20.0 10.0 10.0 2.5 2.5 2 20.0 112.10 113.60 18557 15 4.0 0.020
113.60 115.40 18558 18 1.5 0.060
115.40 116.90 18559 15 20.0 0.360
116.90 118.40 18560 15 31.0 0.510
118.40 118.90 18561 05 77.0 0.690
118.90 120.10 18562 12 27.5 0.150
120.10 121.60 18563 15 6.5 0.050
QV 45 QV 70 30.0 10.0 10.0 2.5 2.5 3 30.0 121.60 123.10 18564 15 3.0 0.030
123.10 124.70 18565 16 4.0 0.390
124.70 126.20 18566 15 2.5 0.780



METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
126.0	930	1000	116.40	129.40	Quartz-carbonate stockwork		PINK	Stockwork	Porphyritic	Variable, but generally strong alteration. Feldspars only original texture still visible. Pervasive quartz > stockwork.
	950	1000	129.40	135.20	Feldspar-quartz lithic tuff		Greenish grey	Porphyritic	Veined	Weakly to moderately bleached slightly pinked. Minor quartz and calcite veinlets.
136.0	950	1000	135.20	142.30	Quartz-carbonate stockwork		PINK	Stockwork	Crackle breccl	Well altered but feldspars still visible. Narrow quartz-carbonate breccia may be healed faults. Trace argentite.
146.0	990	1000	142.30	145.00	Feldspar-quartz crystal tuff	Quartz-car	PINK	Porphyritic	Veined	Weak to moderate alteration: bleaching, pinking of feldspars and matrix.

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	45	QV	70	30.0	10.0	10.0		2.5	2.5	3		30.0			126.20	127.70	18567	15	2.5	0.040
															127.70	129.20	18568	15	1.5	0.020
				5.0	5.0	2.5		2.5	1.0	2		10.0			129.20	135.40				
QV	50			20.0	10.0	10.0	2.5	2.5	2.5	2		30.0		AR	135.40	136.90	18569	15	1.5	0.050
															136.90	138.40	18570	15	2.5	0.020
															138.40	139.90	18571	15	4.0	0.200
															139.90	141.40	18572	15	3.0	0.350
															141.40	142.10	18573	07	6.5	0.460
															142.10	143.60	18574	15	2.5	0.090
															143.60	144.70	18575	11	1.5	0.020
CV	70			10.0	2.5	2.5				1	2	10.0			144.70	146.00	18576	13	1.5	0.020
															146.00	146.80	18577	08	2.0	0.090

126
136
146

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_07	COLLAR AZIMUTH	: 250.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/2**	COLLAR ELEVATION	: 1302.34
DATE COMPLETED	: **9/2**	COLLAR NORTHING	: 7590.70
GEOLOGGED BY	: PCT	COLLAR EASTING	: 1194.80
PLOT DATE	: 87/NOV/25	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 39.3m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST 160 DEG. BRECCIA IN JOCK ZONE

COMMENTS:

KEY INTERSECTION: FROM: 15.9 TO: 22.3 LENGTH: 6.4M AT: 2.50 G/T AU; 47.8 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
39.3m	43°	

SUMMARY REMARKS

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	2.20	drill casing
2.20	9.80	Lapilli crystal tuff
9.80	16.80	Quartz-carbonate stockwork
16.80	22.50	Lapilli crystal tuff
22.50	28.30	Quartz-carbonate stockwork
28.30	39.30	Lapilli crystal tuff

LEGEND

EC. MINERAL:

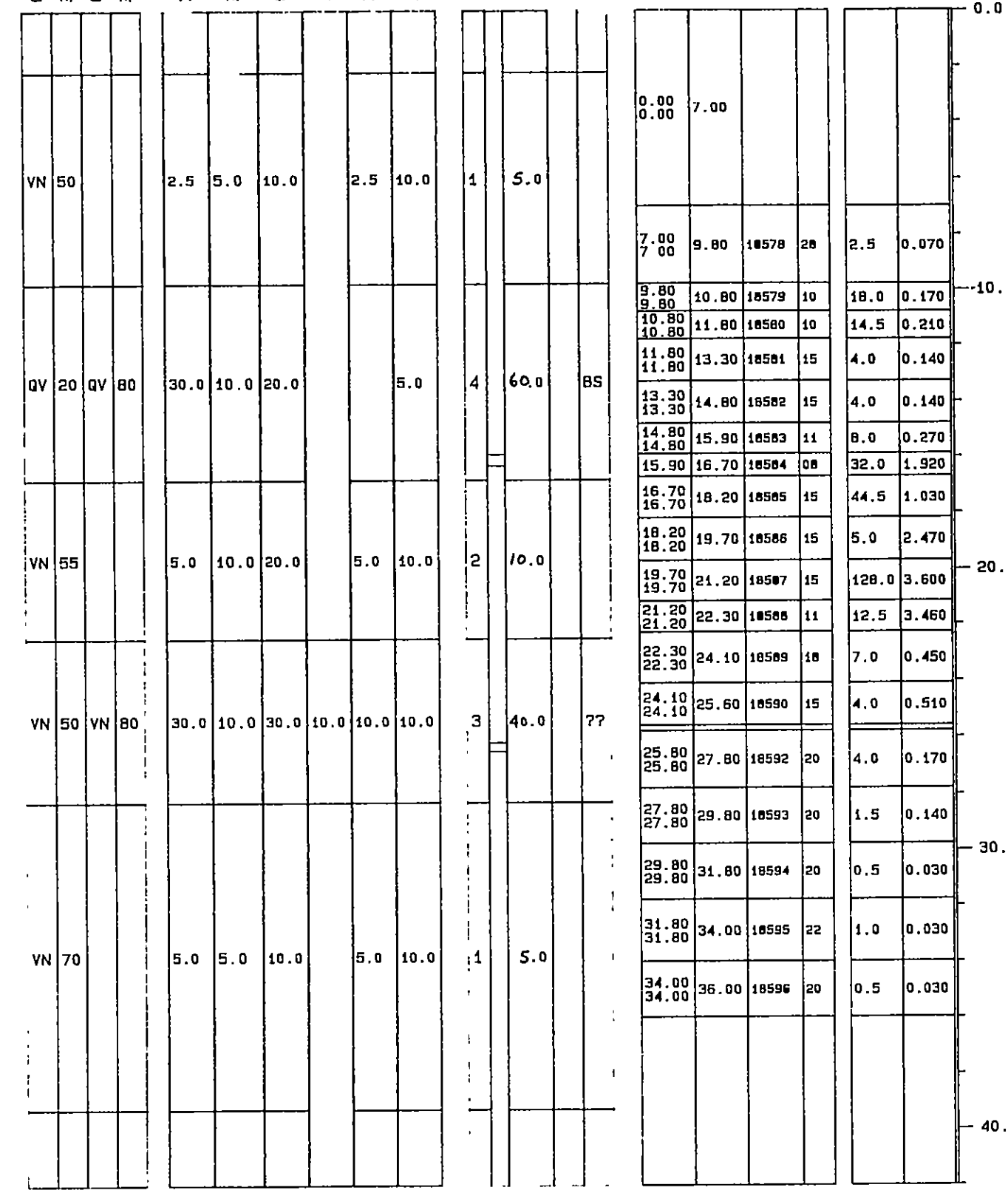
AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE: DDH87_07
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	2.20	drill casing					
		700	2.20	9.80	Lapilli crystal tuff		Green and orange	Fragmental	Porphyritic	Heavily chloritized. Well pinked feldspars. Very broken and poor recovery (50%) between 8-10m.
10.0		1000	9.80	16.80	Quartz-carbonate stockwork		PINK	Stockwork	Veined	Moderate quartz and K-spar flooding. moderate quartz stockwork with late calcite-chlorite stage. Abundant pyrite and dark grey quartz (BS?).
		1000	16.80	22.50	Lapilli crystal tuff		Green and orange	Fragmental	Porphyritic	LIXT with increased K-spar alteration, more pyrite and epidote, sparse calcite veinlets.
20.0		1000	22.50	28.30	Quartz-carbonate stockwork		Flesh coloured	Veined	Stockwork	Strong quartz dominant steckwork with very strong pervasive Strong quartz dominant stockWork with very strong pervasive K-spar alteration and patchy strong argillic alteration, clay and epidote.
30.0		1000	28.30	39.30	Lapilli crystal tuff		Green and orange			Sporadically calcite veined, moderate patchy K-spar and chlorite alteration. Still a lot of epidote and clay associated with grey carb-quartz stringers +/- pyrite and BS?
40.0										


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
FC. MINERAL
FC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
VN 50 2.5 5.0 10.0 2.5 10.0 1 5.0
QV 20 QV 80 30.0 10.0 20.0 5.0 4 60.0 BS
VN 55 5.0 10.0 20.0 5.0 10.0 2 10.0
VN 50 VN 80 30.0 10.0 30.0 10.0 10.0 10.0 3 40.0 ??
VN 70 5.0 5.0 10.0 5.0 10.0 1 5.0
0.00 0.00 7.00
7.00 7.00 9.80 18578 28 2.5 0.070
9.80 9.80 10.80 18579 10 18.0 0.170
10.80 10.80 11.80 18580 10 14.5 0.210
11.80 11.80 13.30 18581 15 4.0 0.140
13.30 13.30 14.80 18582 15 4.0 0.140
14.80 14.80 15.90 18583 11 8.0 0.270
15.90 16.70 18584 08 32.0 1.920
16.70 16.70 18.20 18585 15 44.5 1.030
18.20 18.20 19.70 18586 15 5.0 2.470
19.70 19.70 21.20 18587 15 128.0 3.600
21.20 21.20 22.30 18588 11 12.5 3.460
22.30 22.30 24.10 18589 18 7.0 0.450
24.10 24.10 25.60 18590 15 4.0 0.510
25.80 25.80 27.80 18592 20 4.0 0.170
27.80 27.80 29.80 18593 20 1.5 0.140
29.80 29.80 31.80 18594 20 0.5 0.030
31.80 31.80 34.00 18595 22 1.0 0.030
34.00 34.00 36.00 18596 20 0.5 0.030
0.0
10.
20.
30.
40.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_08	COLLAR AZIMUTH	: 50.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ 9/2	COLLAR ELEVATION	: 1431.29
DATE COMPLETED	: 9/3	COLLAR NORTHING	: 6668.88
GEOLOGGED BY	: PCT	COLLAR EASTING	: 1216.04
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 122.2m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST S STRUCTURE ON RAINIER ZONE

COMMENTS:

KEY INTERSECTION:

SURVEY DATA

DEPTH	DIP	AZIMUTH
94.2m	44°	
121.6	42°	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

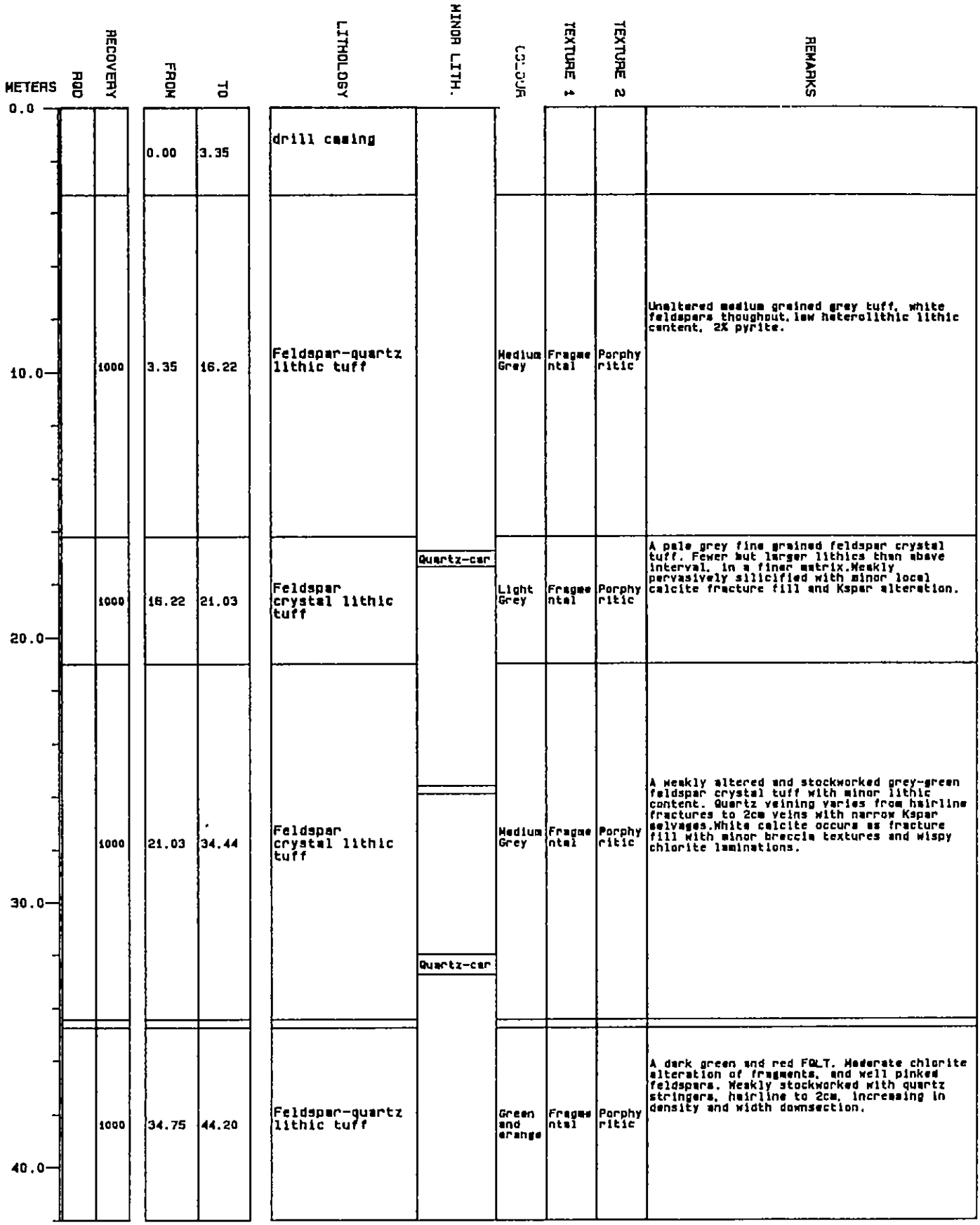
STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

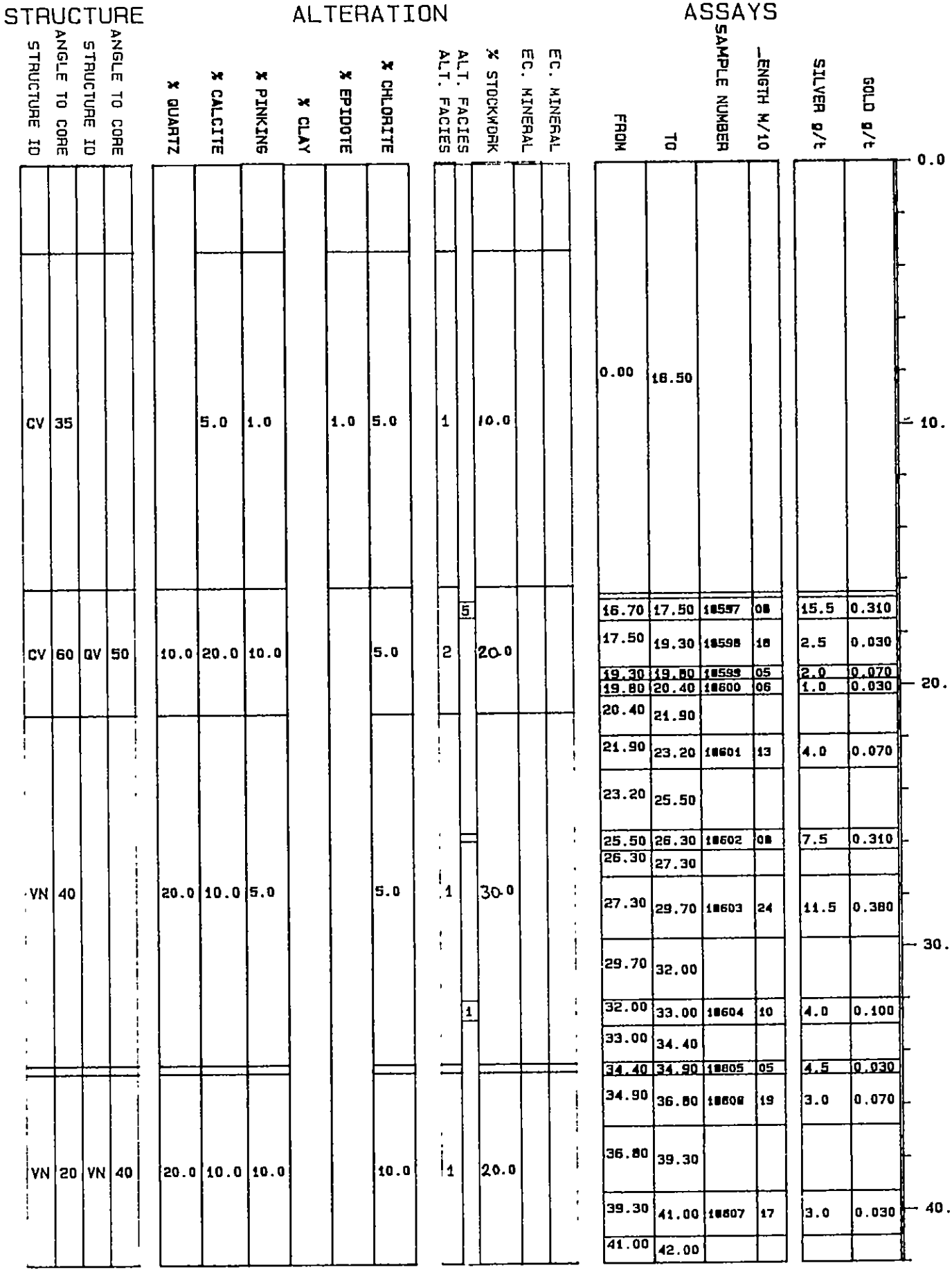
DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	3.35	drill casing
3.35	16.22	Feldspar-quartz lithic tuff
16.22	21.03	Feldspar crystal lithic
21.03	34.44	Feldspar crystal lithic tuff
34.75	44.20	Feldspar-quartz lithic tuff
45.57	50.44	Feldspar-quartz lithic tuff
50.44	54.56	Quartz-carbonate stockwork
54.56	59.74	Quartz-carbonate stockwork
59.74	99.52	Feldspar-quartz lithic tuff
99.52	122.22	Lahar

DRILL HOLE: ODH87_08
PAGE 2

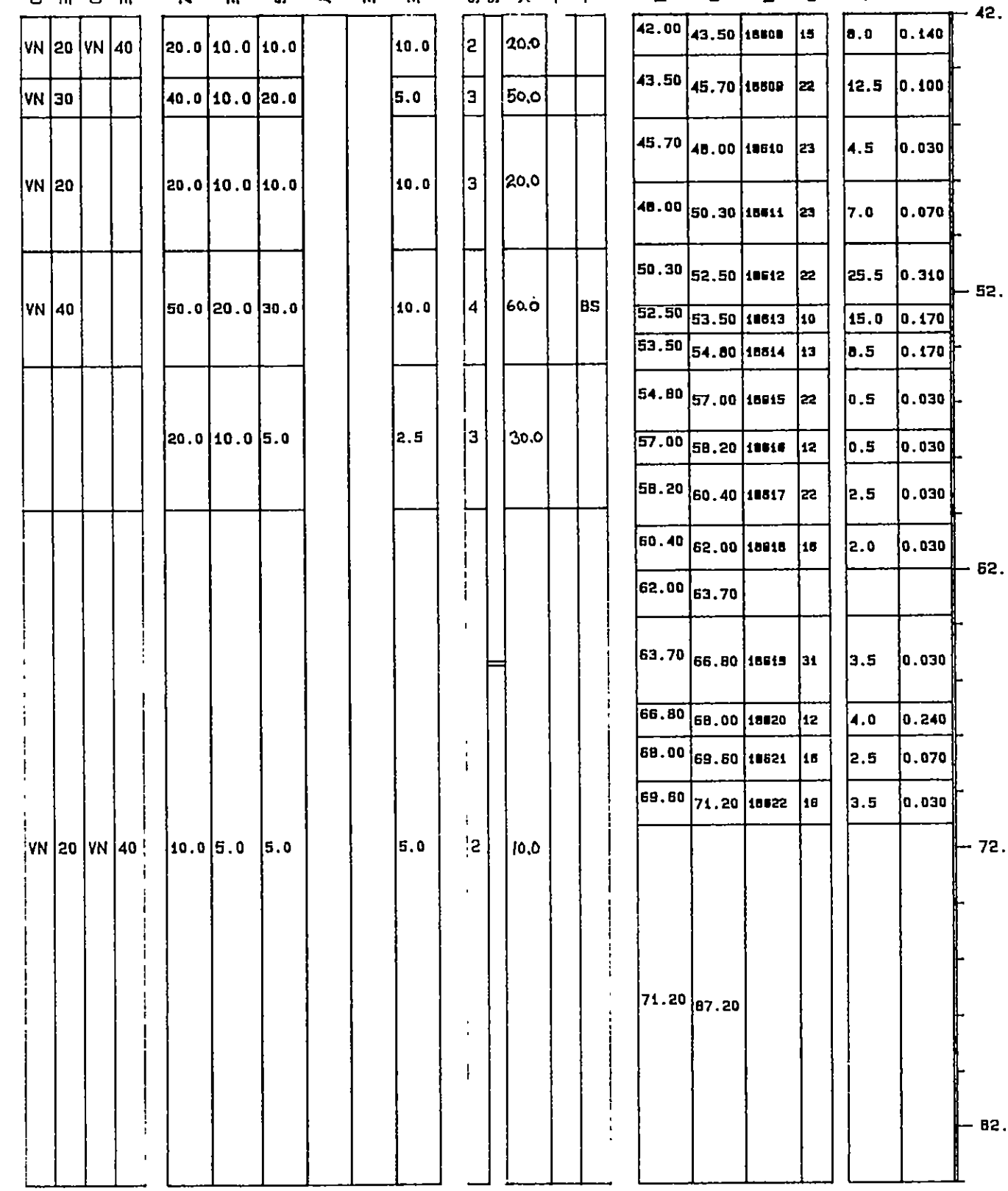


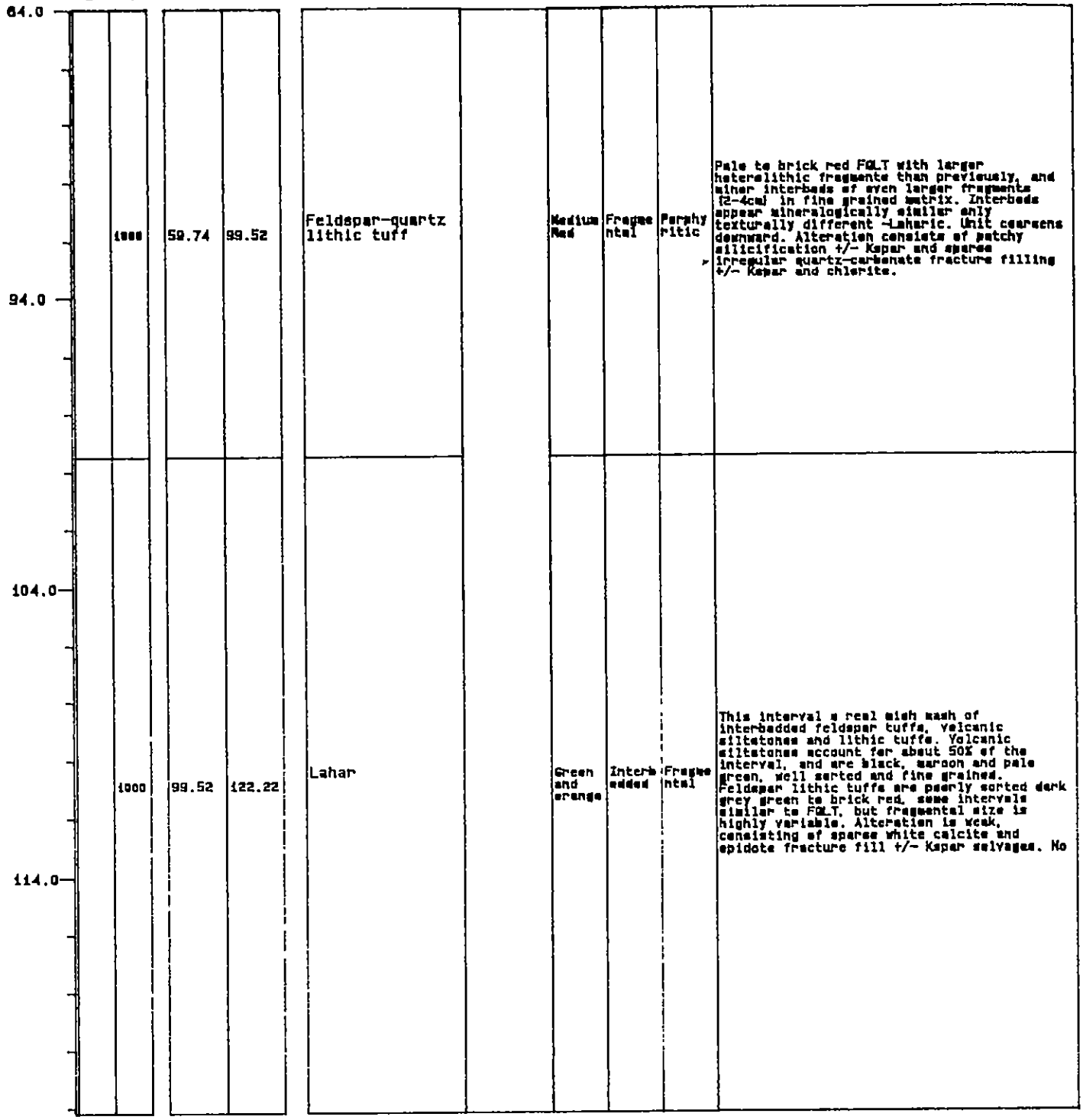
DRILL HOLE: DDH87_08



DRILL HOLE: DDH87_08
PAGE 4

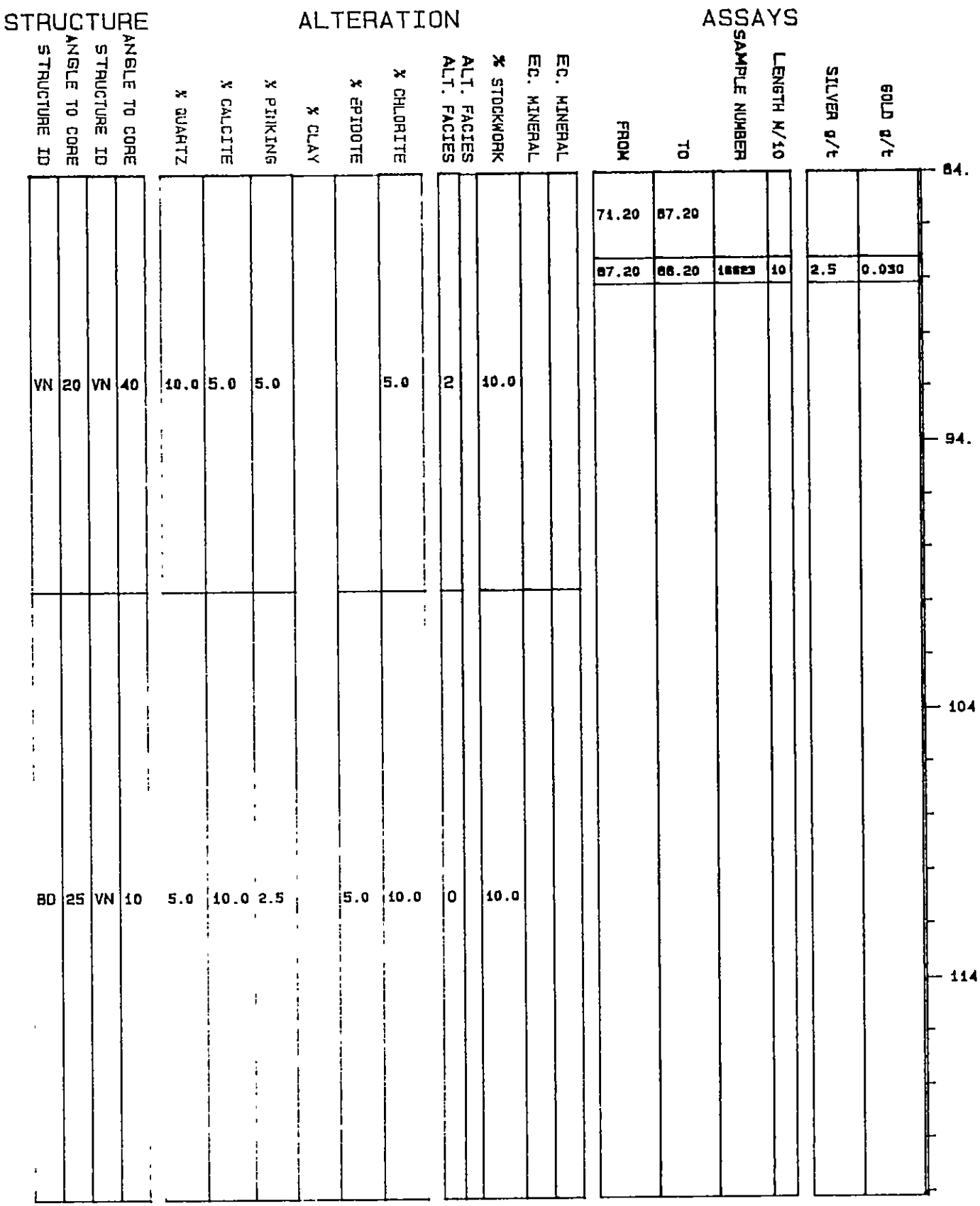
METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0		1000	34.75	44.20	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Porphyritic	A dark green and red FOLT. Moderate chlorite alteration of fragments, and well pinked feldspars. Weakly stockworked with quartz stringers, hairline to 2cm, increasing in density and width downsection.
		1000	44.20	45.57	Quartz stockwork			Veined	Stockwork	Strong quartz stockwork/breccia zone with strong Kspar and moderate chlorite alteration. Up to 5% pyrite. No positive
		1000	45.57	50.44	Feldspar-quartz lithic tuff		Medium Green	Fragmental	Porphyritic	Same as above except green overall and slightly more silicified.
52.0		1000	50.44	54.56	Quartz-carbonate stockwork		Flesh coloured	Veined	Stockwork	Strongly Kspar altered quartz dominant breccia zone. 5% pyrite locally and trace black sulphides as wispy laminations. 3 phase mineralization evident. Early quartz and Kspar, 2nd grey chalcedonic quartz stringers, late calcite +/-chlorite fracture fill.
		1000	54.56	59.74	Quartz-carbonate stockwork		Medium Red	Fragmental	Porphyritic	Moderately but patchy stockworked FOLT. White quartz, minor calcite, locally 2% pyrite. Irregular veinlets, local crackle breccia.
62.0										
72.0		1000	59.74	99.52	Feldspar-quartz lithic tuff		Medium Red	Fragmental	Porphyritic	Pale to brick red FOLT with larger heterolithic fragments than previously, and minor interbeds of even larger fragments (2-4cm) in fine grained matrix. Interbeds appear mineralogically similar only texturally different -Laharic. Unit coarsens downward. Alteration consists of patchy silicification +/- Kspar and sparse irregular quartz-carbonate fracture filling +/- Kspar and chlorite.
82.0										


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
VN 20 VN 40 20.0 10.0 10.0 10.0 2 20.0 42.00 43.50 18608 15 8.0 0.140
VN 30 40.0 10.0 20.0 5.0 3 50.0 43.50 45.70 18609 22 12.5 0.100
VN 20 20.0 10.0 10.0 10.0 3 20.0 45.70 48.00 18610 23 4.5 0.030
48.00 50.30 18611 23 7.0 0.070
VN 40 50.0 20.0 30.0 10.0 4 60.0 BS 50.30 52.50 18612 22 25.5 0.310
52.50 53.50 18613 10 15.0 0.170
53.50 54.80 18614 13 8.5 0.170
20.0 10.0 5.0 2.5 3 30.0 54.80 57.00 18615 22 0.5 0.030
57.00 58.20 18616 12 0.5 0.030
58.20 60.40 18617 22 2.5 0.030
60.40 62.00 18618 16 2.0 0.030
62.00 63.70
63.70 66.80 18619 31 3.5 0.030
66.80 68.00 18620 12 4.0 0.240
68.00 69.60 18621 16 2.5 0.070
69.60 71.20 18622 16 3.5 0.030
VN 20 VN 40 10.0 5.0 5.0 5.0 2 10.0
71.20 87.20
42.
52.
62.
72.
82.



METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
64.0		1000	59.74	99.52	Feldspar-quartz lithic tuff		Medium Red	Fragmental	Porphyritic	Pale to brick red FQLT with larger heterolithic fragments than previously, and minor interbeds of even larger fragments (2-4cm) in fine grained matrix. Interbeds appear mineralogically similar only texturally different -Laharic. Unit coarsens downward. Alteration consists of patchy silicification +/- Kspar and sparse irregular quartz-carbonate fracture filling +/- Kspar and chlorite.
94.0										
104.0		1000	99.52	122.22	Lahar		Green and orange	Interbedded	Fragmental	This interval a real mish mash of interbedded feldspar tuffs, volcanic siltstones and lithic tuffs. Volcanic siltstones account for about 50% of the interval, and are black, maroon and pale green, well sorted and fine grained. Feldspar lithic tuffs are poorly sorted dark grey green to brick red, some intervals similar to FQLT, but fragmental size is highly variable. Alteration is weak, consisting of sparse white calcite and epidote fracture fill +/- Kspar selvages. No
114.0										

DRILL HOLE: DDH87_08



ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_09	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/4**	COLLAR ELEVATION	: 1465.10
DATE COMPLETED	: **9/5**	COLLAR NORTHING	: 6791.67
GEOLOGGED BY	: PCT	COLLAR EASTING	: 1462.16
PLOT DATE	: 87/NOV/24	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 72.8m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST EAST STRUCTURE RAINIER ZONE (83-04)

COMMENTS: ZONE APPEARS TO FAULTED OFF BELOW SURFACE

KEY INTERSECTION:

SURVEY DATA

DEPTH	DIP	AZIMUTH
66.8m	42°	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

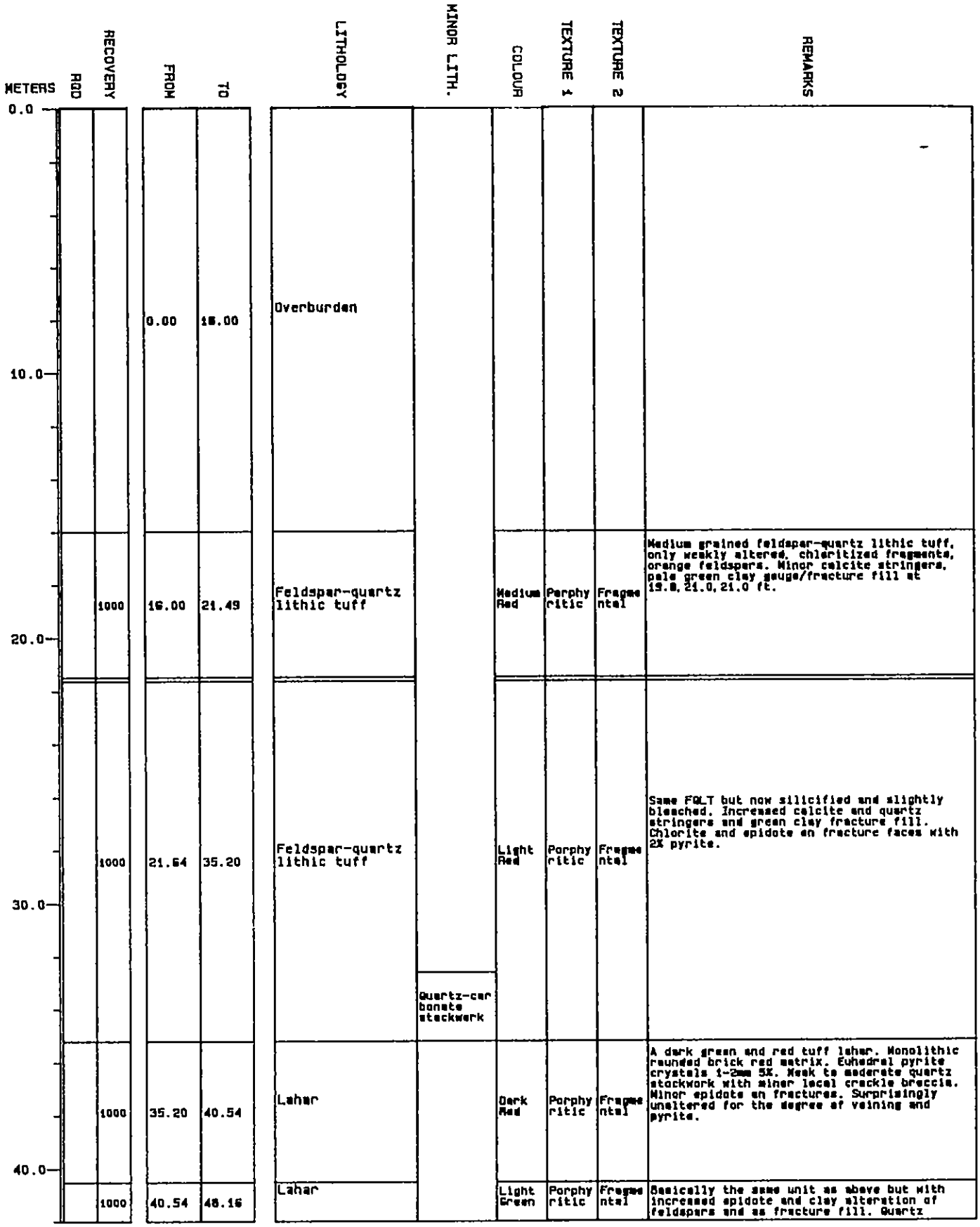
STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

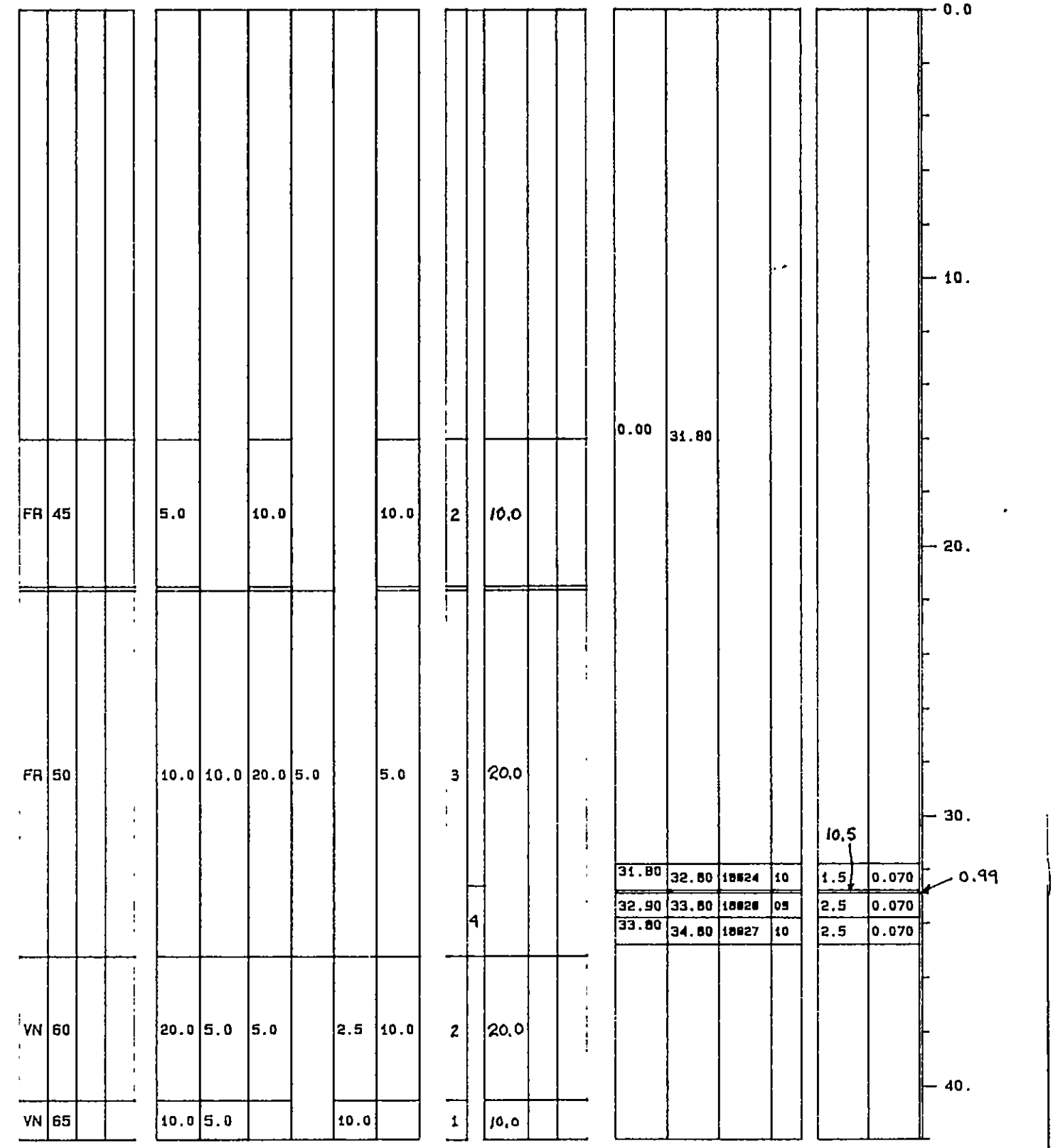
DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	16.00	Overburden
16.00	21.49	Feldspar-quartz lithic tuff
21.64	35.20	Feldspar-quartz lithic tuff
35.20	40.54	Lahar
40.54	48.16	Lahar
49.68	72.85	Lahar

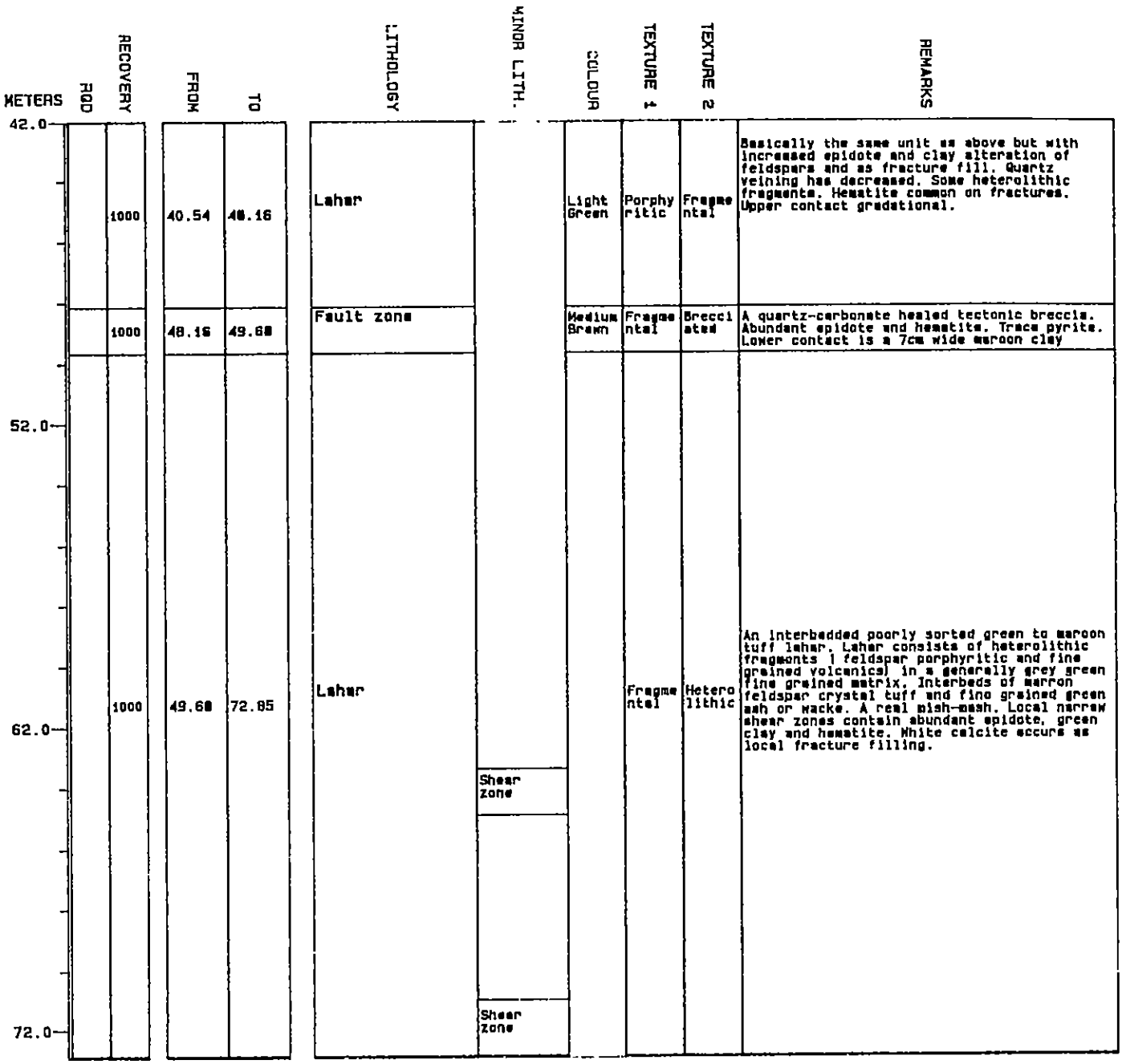
DRILL HOLE: DDH87_09
PAGE 2

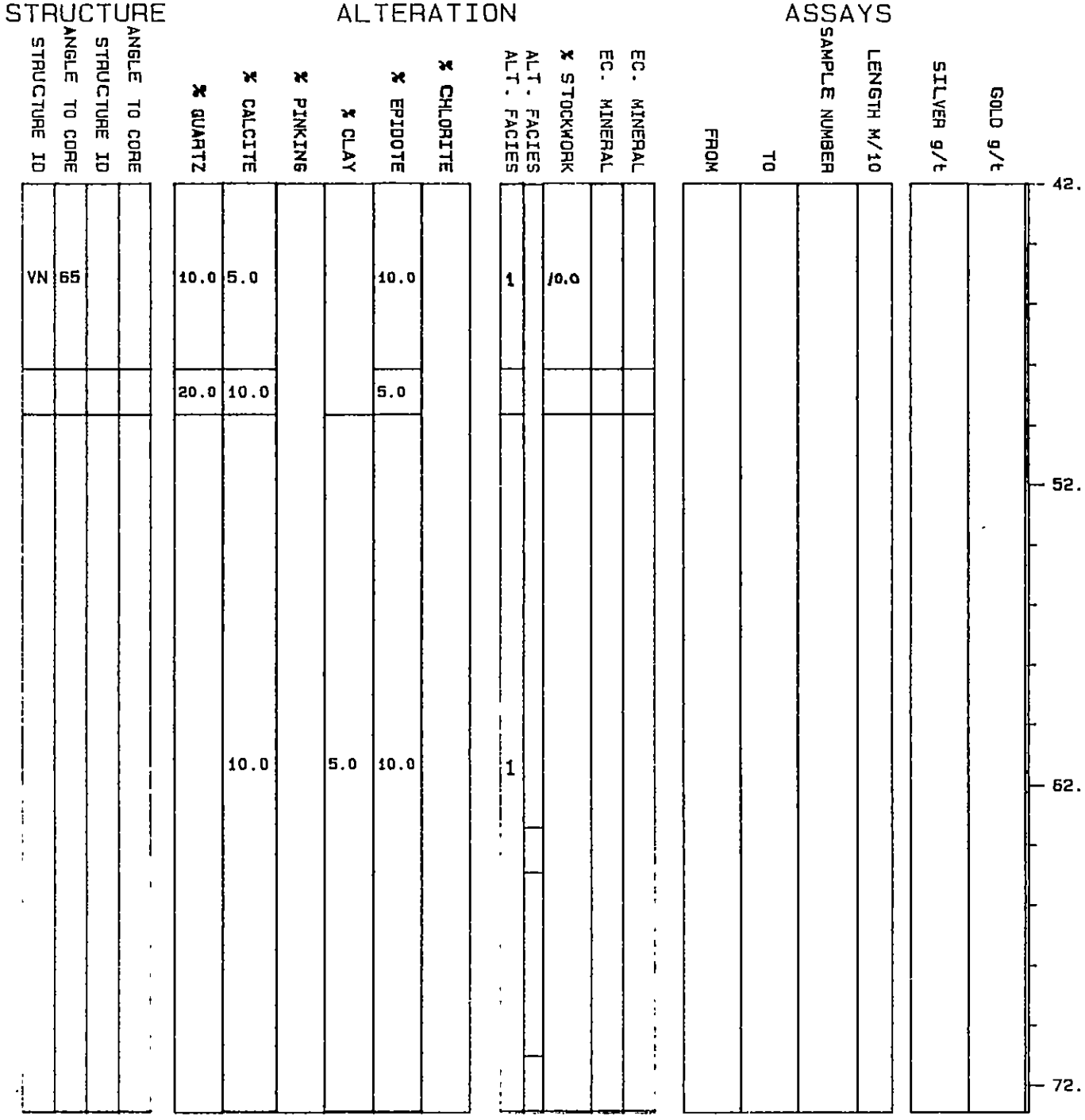


METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	16.00	Overburden					
10.0		1000	16.00	21.49	Feldspar-quartz lithic tuff		Medium Red	Porphyritic	Fragmental	Medium grained feldspar-quartz lithic tuff, only weakly altered, chloritized fragments, orange feldspars. Minor calcite stringers, pale green clay gouge/fracture fill at 19.8, 21.0, 21.0 ft.
20.0		1000	21.64	35.20	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Light Red	Porphyritic	Fragmental	Same FQLT but now silicified and slightly bleached. Increased calcite and quartz stringers and green clay fracture fill. Chlorite and epidote on fracture faces with 2% pyrite.
30.0		1000	35.20	40.54	Lahar		Dark Red	Porphyritic	Fragmental	A dark green and red tuff lahar. Monolithic rounded brick red matrix. Euhedral pyrite crystals 1-2mm 5%. Weak to moderate quartz stockwork with minor local crackle breccia. Minor epidote on fractures. Surprisingly unaltered for the degree of veining and pyrite.
40.0		1000	40.54	48.16	Lahar		Light Green	Porphyritic	Fragmental	Basically the same unit as above but with increased epidote and clay alteration of feldspars and as fracture fill. Quartz


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
FR 45 5.0 10.0 10.0 2 10.0
FR 50 10.0 10.0 20.0 5.0 5.0 3 20.0
VN 60 20.0 5.0 5.0 2.5 10.0 2 20.0
VN 65 10.0 5.0 10.0 1 10.0
0.00
31.80
31.80 32.80 18824 10 1.5 0.070
32.90 33.80 18826 09 2.5 0.070
33.80 34.80 18827 10 2.5 0.070
4
10.5
0.99
0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_09
PAGE 4




STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
VN
65
10.0
5.0
10.0
1
10.0
20.0
10.0
5.0
10.0
10.0
5.0
10.0
1
42.
52.
62.
72.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_10	COLLAR AZIMUTH	: 68.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/6**	COLLAR ELEVATION	: 1256.61
DATE COMPLETED	: **9/9**	COLLAR NORTHING	: 7367.69
GEOLOGGED BY	: RMB	COLLAR EASTING	: 1006.14
PLOT DATE	: 87/NOV/26	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 130.8m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST CREEK AND JM ZONES UNDER JOCK CK.

COMMENTS:

KEY INTERSECTION: FROM: 38.1 TO: 42.1 LENGTH: 4.0M AT: 3.81 G/T AU; 168.8 G/T AG
. 56.5 59.0 2.5 4.53 G/T AU; 236.1 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
63.7m	45°	
130.8m	40	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

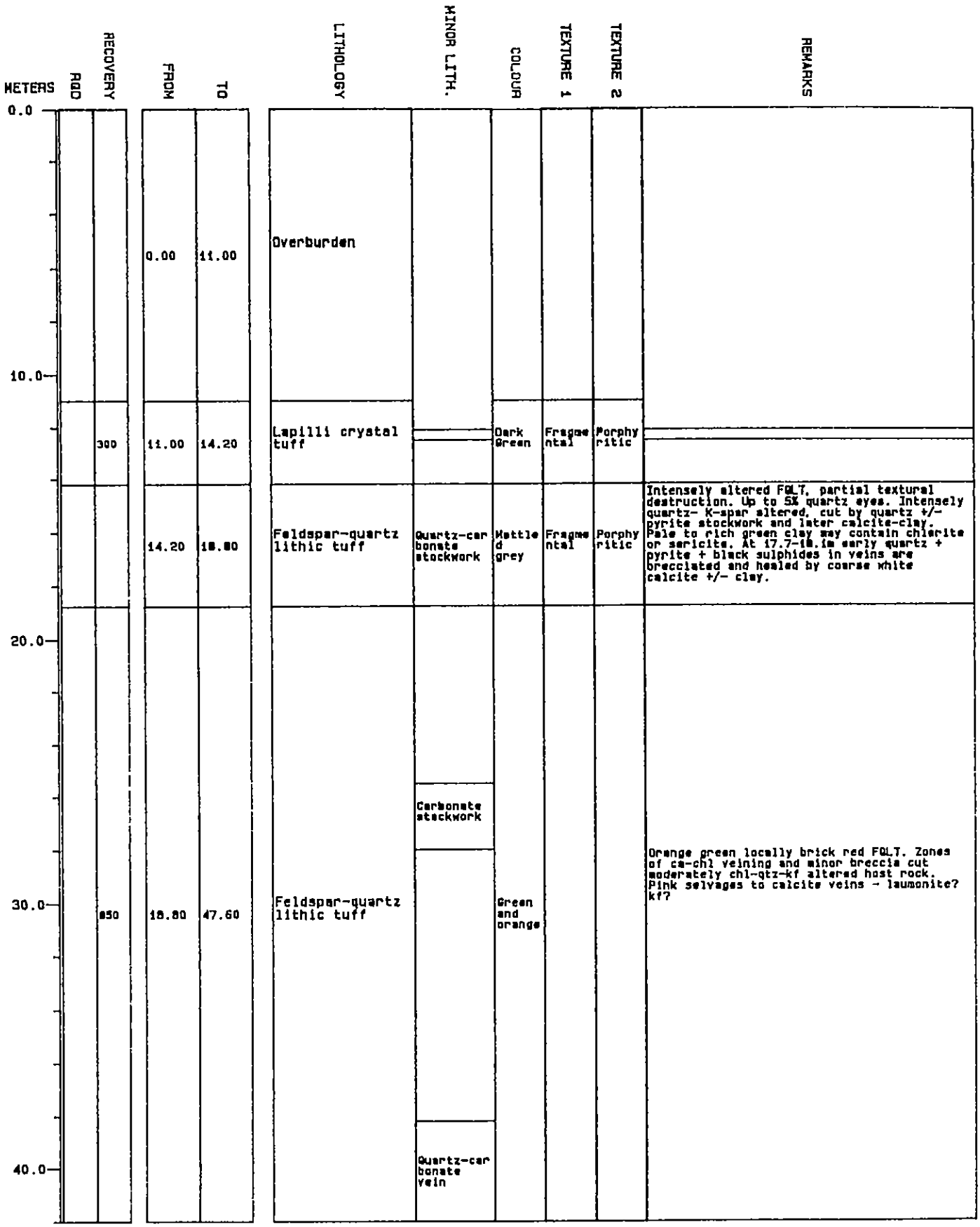
STRUCTURE ID:

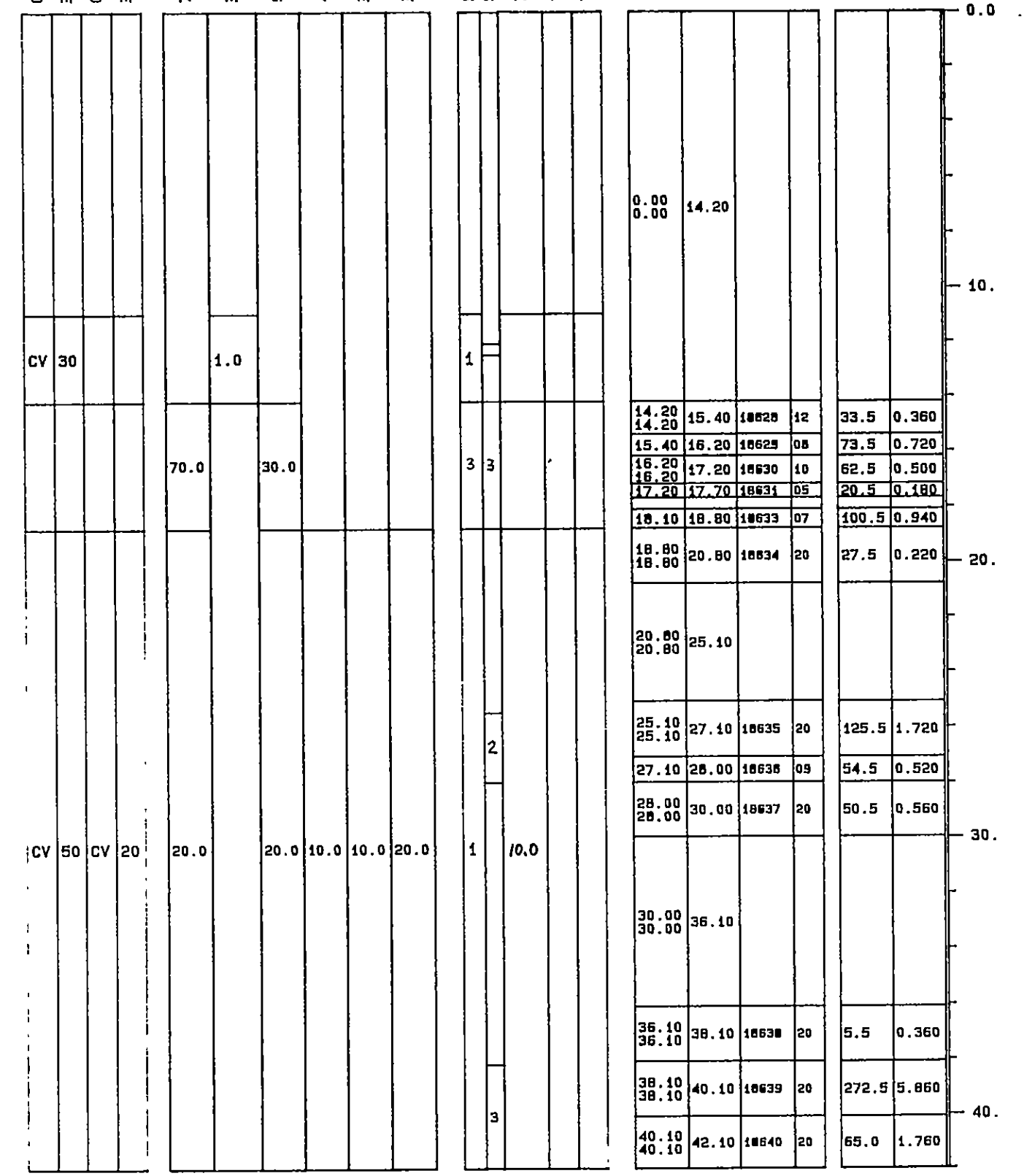
CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

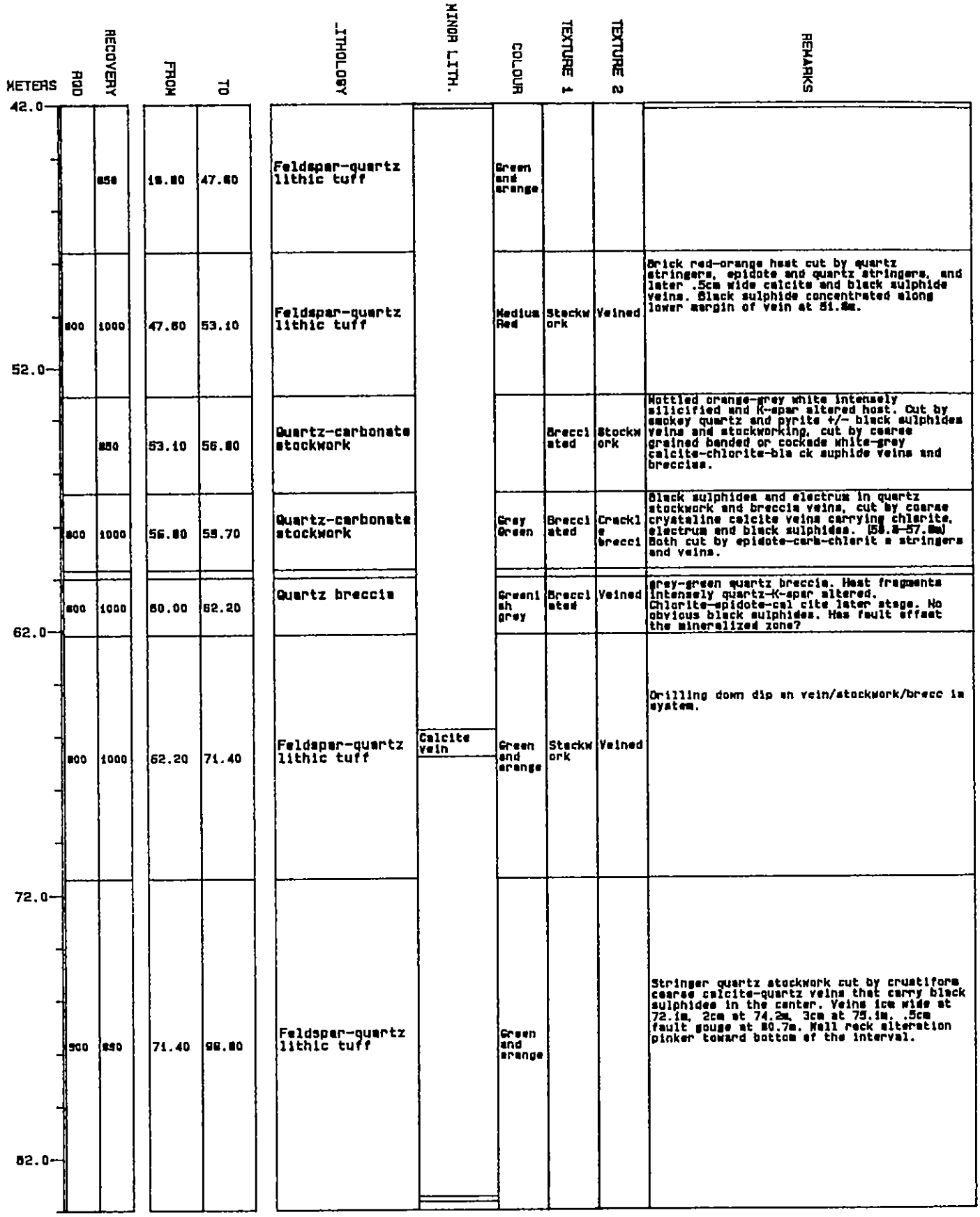
FROM	TO	LITHOLOGY
0.00	11.00	Overburden
11.00	14.20	Lapilli crystal tuff
14.20	18.80	Feldspar-quartz lithic tuff
18.80	47.60	Feldspar-quartz lithic tuff
47.60	53.10	Feldspar-quartz lithic tuff
53.10	56.80	Quartz-carbonate stockwork
56.80	59.70	Quartz-carbonate stockwork
62.20	71.40	Feldspar-quartz lithic tuff
71.40	96.80	Feldspar-quartz lithic tuff
96.80	103.30	Feldspar-quartz lithic tuff
103.30	121.60	Feldspar-quartz lithic tuff
122.80	130.80	Feldspar-quartz crystal tuff

DRILL HOLE: DDH87_10
PAGE 2




STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
CV 30
1.0
1
70.0
30.0
3 3
CV 50 CV 20
20.0
20.0
10.0
10.0
20.0
1
10.0
2
3
0.00
0.00
14.20
14.20
14.20
15.40
18628
12
33.5
0.360
15.40
16.20
18629
08
73.5
0.720
16.20
16.20
17.20
18630
10
62.5
0.500
17.20
17.70
18631
05
20.5
0.180
18.10
18.80
18633
07
100.5
0.940
18.80
18.80
20.80
18634
20
27.5
0.220
20.80
20.80
25.10
25.10
25.10
27.10
18635
20
125.5
1.720
27.10
28.00
18636
09
54.5
0.520
28.00
28.00
30.00
18637
20
50.5
0.560
30.00
30.00
36.10
36.10
36.10
38.10
18638
20
5.5
0.360
38.10
38.10
40.10
18639
20
272.5
5.860
40.10
40.10
42.10
18640
20
65.0
1.760
0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_10
PAGE 4

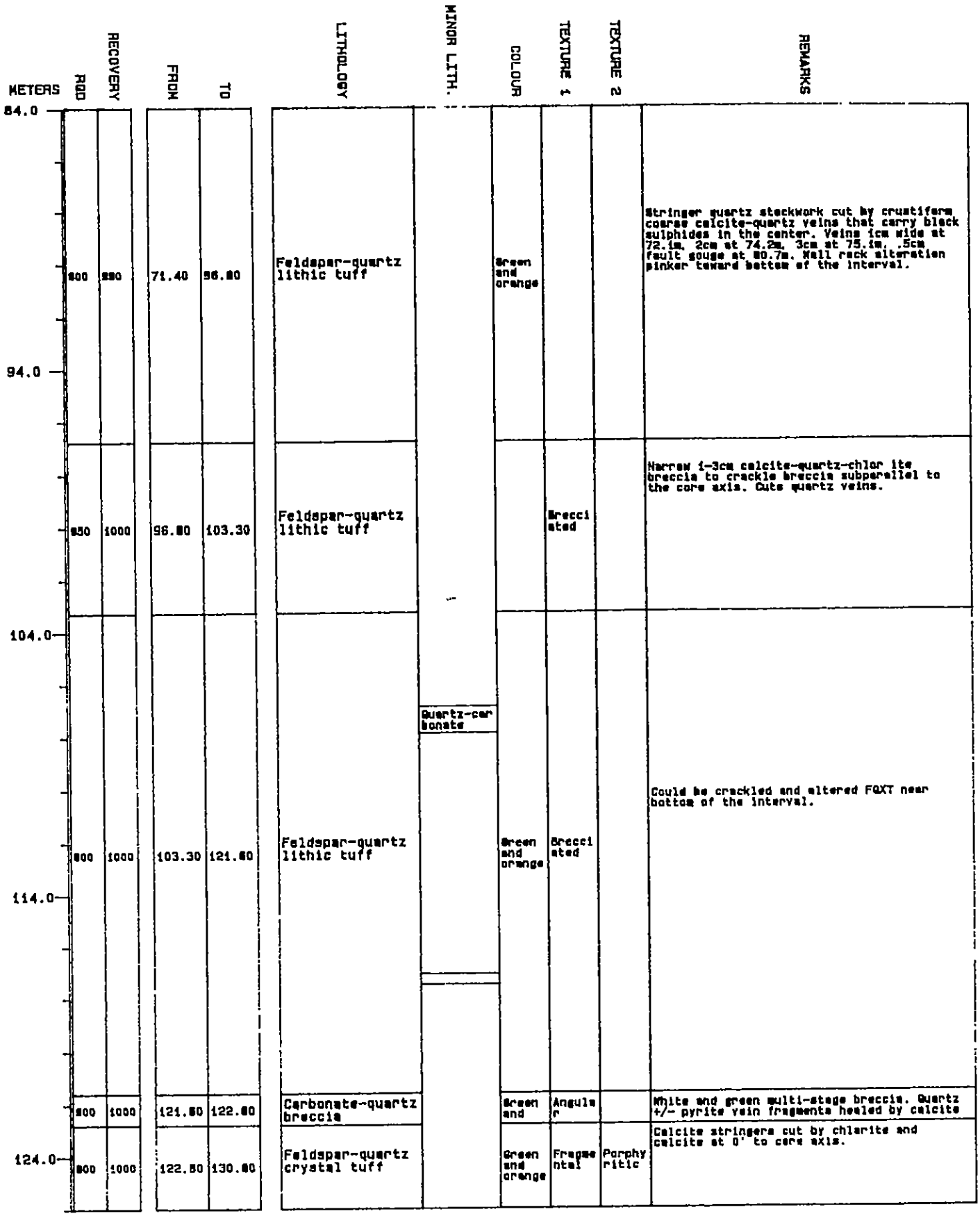


METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0		850	18.80	47.60	Feldspar-quartz lithic tuff		Green and orange			
	800	1000	47.60	53.10	Feldspar-quartz lithic tuff		Medium Red	Stockwork	Veined	Brick red-orange host cut by quartz stringers, epidote and quartz stringers, and later .5cm wide calcite and black sulphide veins. Black sulphide concentrated along lower margin of vein at 51.8m.
52.0		850	53.10	56.80	Quartz-carbonate stockwork			Brecciated	Stockwork	Mottled orange-grey white intensely silicified and K-spar altered host. Cut by smokey quartz and pyrite +/- black sulphides veins and stockworking, cut by coarse grained banded or cockade white-grey calcite-chlorite-black suphide veins and breccias.
	800	1000	56.80	59.70	Quartz-carbonate stockwork		Grey Green	Brecciated	Crackle breccia	Black sulphides and electrum in quartz stockwork and breccia veins, cut by coarse crystaline calcite veins carrying chlorite, electrum and black sulphides. [58.8-57.8m] Both cut by epidote-carb-chlorite stringers and veins.
	800	1000	60.00	62.20	Quartz breccia		Greenish grey	Brecciated	Veined	grey-green quartz breccia. Host fragments intensely quartz-K-spar altered. Chlorite-epidote-calcite later stage. No obvious black sulphides. Has fault offset the mineralized zone?
62.0	800	1000	62.20	71.40	Feldspar-quartz lithic tuff	Calcite vein	Green and orange	Stockwork	Veined	Drilling down dip on vein/stockwork/brecc ia system.
72.0	900	950	71.40	98.80	Feldspar-quartz lithic tuff		Green and orange			Stringer quartz stockwork cut by crustiform coarse calcite-quartz veins that carry black sulphides in the center. Veins 1cm wide at 72.1m, 2cm at 74.2m, 3cm at 75.1m. .5cm fault gouge at 80.7m. Wall rock alteration pinker toward bottom of the interval.
82.0										

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	50	CV	20	20.0		20.0	10.0	10.0	20.0	1	10.0			42.10 42.10	44.30	18641	22	25.0	0.540
														44.30 44.30	48.90				
VN	60	VN	45	10.0		50.0			5.0	3	10.0		BS	48.90 48.90	50.90	18642	20	3.5	0.220
														50.90 50.90	52.90	18643	20	9.5	0.860
CV	25	QV	30	30.0		30.0	0.0		5.0	3	30.0	EL	BS	52.90	53.50	18644	06	9.0	0.200
														53.50 53.50	55.00	18645	15	3.5	0.160
CV	40	QV	10	30.0	10.0	20.0			10.0	3	40.0	EL	BS	55.00 55.00	56.50	18646	15	8.5	0.440
														56.50 56.50	58.00	18647	15	321.5	5.320
VN	30			90.0		10.0		10.0	10.0	3	60.0			58.00 58.00	59.00	18648	10	108.0	3.350
														59.00 59.00	60.00	18649	10	29.5	1.180
														60.00 60.00	61.00	18650	10	3.5	0.140
														61.00 61.00	62.00	18651	10	44.5	1.140
														62.00 62.00	63.50	18652	15	38.0	0.660
														63.50 63.50	65.50	18653	20	8.0	0.160
CV	30			20.0		20.0			30.0	4	40.0		BS	65.50 65.50	67.50	18654	20	25.0	0.400
														67.50 67.50	69.50	18655	20	8.0	0.160
														69.50 69.50	71.50	18656	20	4.0	0.360
														71.50 71.50	73.00	18657	15	19.0	0.320
														73.00 73.00	74.50	18658	15	15.5	0.080
														74.50 74.50	76.00	18659	15	22.5	0.420
														76.00 76.00	77.50	18660	15	7.5	0.240
CV	40			20.0		40.0	0.0		20.0	2	20.0	EL	BS	77.50 77.50	79.00	18661	15	16.0	0.640
														79.00 79.00	81.00	18662	20	5.0	0.180
														81.00 81.00	83.00	18663	20	2.5	0.120
														83.00 83.00	84.00	18664	10	133.5	2.440

42.
52.
62.
72.
82.

DRILL HOLE: DDH87_10
PAGE 6



METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0	800	880	71.40	96.80	Feldspar-quartz lithic tuff		Green and orange			Stringer quartz stockwork cut by crustiform coarse calcite-quartz veins that carry black sulphides in the center. Veins 1cm wide at 72.1m, 2cm at 74.2m, 3cm at 75.1m, .5cm fault gouge at 80.7m. Wall rock alteration pinker toward bottom of the interval.
94.0	950	1000	96.80	103.30	Feldspar-quartz lithic tuff			Brecciated		Narrow 1-3cm calcite-quartz-chlorite breccia to crackle breccia subparallel to the core axis. Cuts quartz veins.
104.0	800	1000	103.30	121.80	Feldspar-quartz lithic tuff	Quartz-carbonate	Green and orange	Brecciated		Could be crackled and altered FQXT near bottom of the interval.
114.0	800	1000	121.80	122.80	Carbonate-quartz breccia		Green and	Angular		White and green multi-stage breccia. Quartz +/- pyrite vein fragments healed by calcite
124.0	800	1000	122.80	130.80	Feldspar-quartz crystal tuff		Green and orange	Fragmental	Porphyritic	Calcite stringers cut by chlorite and calcite at 0° to core axis.

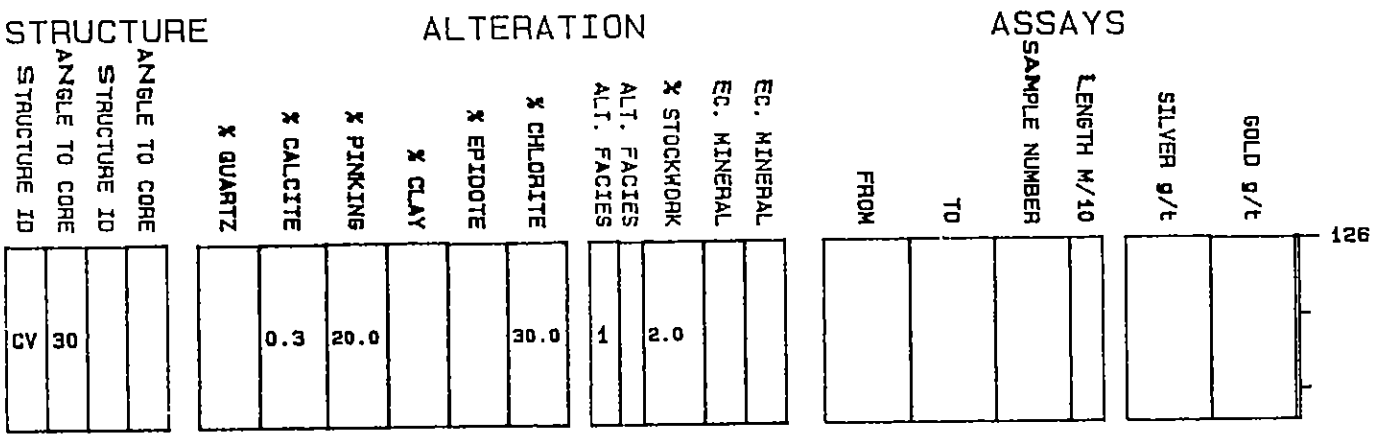
STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
															84.00	86.00	18685	20	7.5	0.120
															86.00	88.00	18686	20	8.0	0.190
															88.00	90.00	18687	20	8.0	0.130
CV	40			20.0		40.0	0.0		20.0	2			EL	BS	90.00	92.00	18688	20	8.0	0.150
															92.00	94.00	18689	20	10.5	0.220
															94.00	96.00	18670	20	9.0	0.210
															96.00	96.80	18671	08	3.0	0.090
															96.80	98.80	18672	20	2.5	0.110
VN	10			30.0	20.0	50.0		0.3	10.0	3		30.0			98.80	102.80	18673	40	2.5	0.110
															102.80	104.80	18674	20	1.5	0.060
															104.80	106.80	18675	20	1.5	0.030
															106.80	107.90	18676	11	1.0	0.050
															107.90	109.90	18677	20	1.5	0.040
															109.90	111.90	18678	20	1.0	0.030
CV	30			30.0	0.3	30.0			20.0	3					111.90	117.10				
															117.10	117.50	18679	04	0.6	0.150
															117.50	119.80	18680	23	0.5	0.350
															119.80	121.80	18681	20	0.5	0.130
VN	30			40.0	50.0				10.0			60.0			121.80	122.90	18682	11	9.0	0.350
															122.90	125.00	18683	21	0.5	0.120
CV	30				0.3	20.0			30.0	1		2.0								

84.
94.
104
114
124

DRILL HOLE: DDH87_10
PAGE 8

METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
126.0	800	1000	122.80	130.80	Feldspar-quartz crystal tuff		Green and orange	Fragmental	Porphyritic	Calcite stringers cut by chlorite and calcite at 0° to core axis.

DRILL HOLE: DDH87_10



ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_11	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -40.00
DATE STARTED	: 87/ **9/9**	COLLAR ELEVATION	: 1268.35
DATE COMPLETED	: **9/10**	COLLAR NORTHING	: 7368.84
GEOLOGGED BY	: AMB	COLLAR EASTING	: 1138.97
PLOT DATE	: 87/NOV/24	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 94.2m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST N END OF JM ZONE BELOW T87C01

COMMENTS:

KEY INTERSECTION: FROM: 75.2 TO: 84.6 LENGTH: 9.4M AT: 4.70 G/T AU; 285.3 G/T AG
. 71.2 92.3 21.1 2.46 G/T AU; 147.1 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
18.0m	40°	
94.2	40	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

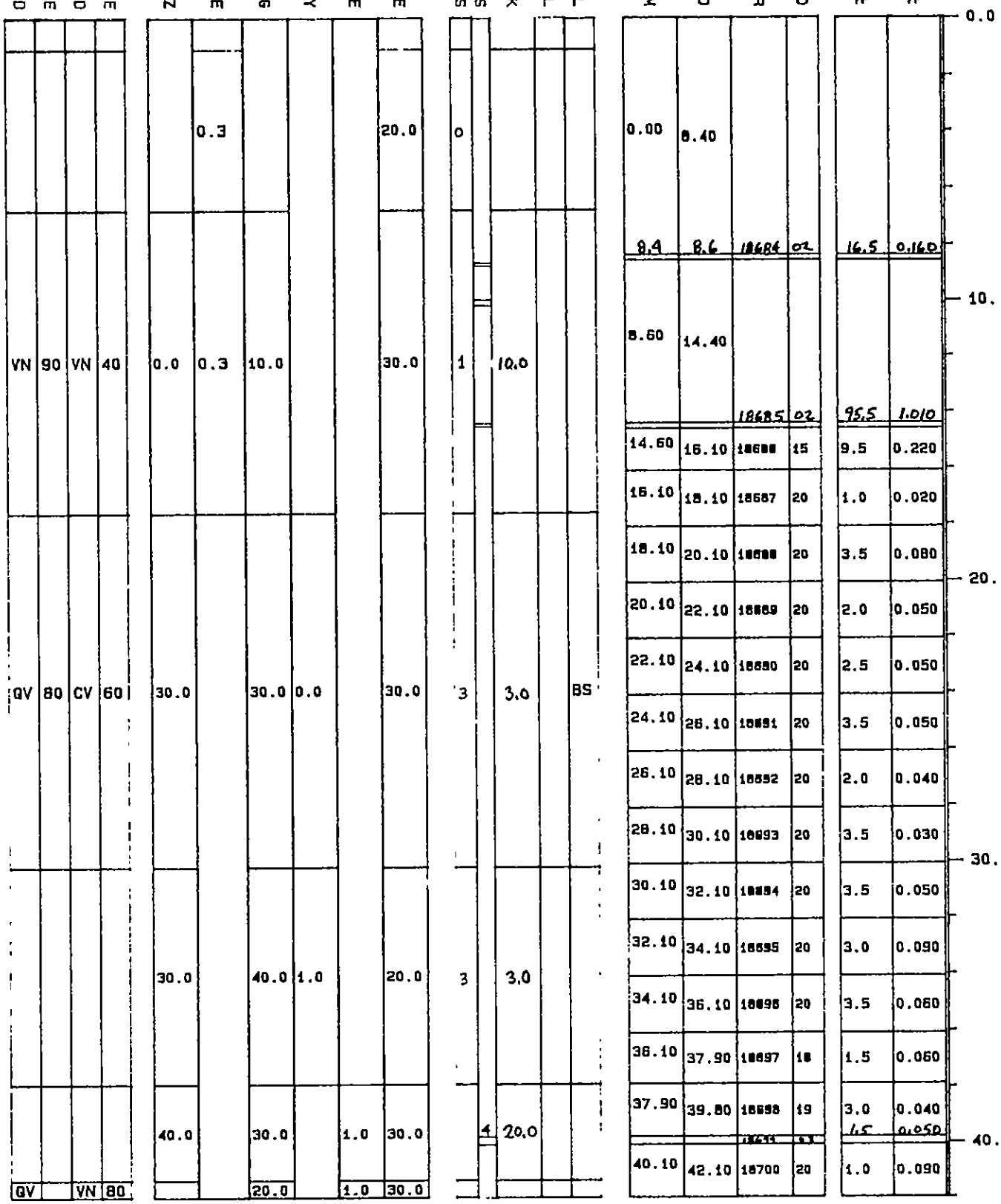
CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
1.10	6.80	Feldspar-quartz lithic tuff
6.80	17.60	Feldspar-quartz lithic tuff
17.60	30.20	Feldspar-quartz lithic tuff
30.20	37.90	Feldspar-quartz lithic tuff
37.90	41.40	Quartz stockwork
41.40	50.20	Feldspar-quartz lithic tuff
51.50	57.90	Feldspar-quartz lithic tuff
57.90	64.40	Feldspar-quartz crystal tuff
66.20	74.60	Quartz-carbonate stockwork
74.60	81.60	Carbonate-quartz stockwork
81.60	86.90	Feldspar-quartz lithic tuff
86.90	94.20	Feldspar-quartz lithic tuff

DRILL HOLE: DDH87_11
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0	--		0.00	1.10	Overburden					
	600	850	1.10	6.80	Feldspar-quartz lithic tuff		Mottled grey	Fragmental	Porphyritic	Dark green feldspar quartz to lapilli tuff. Monolithic fragments show subcrowded to uncrowded porphyritic textures. Fault at 6.4m at 70° to core axis 1cm wide.
10.0		850	6.80	17.60	Feldspar-quartz lithic tuff		Mottled grey	Fragmental	Porphyritic	Quartz-calcite-chlorite veins with black sulphides and pyrite, cut by calcite-chlorite-quartz veins carrying black sulphides.
20.0		1000	17.60	30.20	Feldspar-quartz lithic tuff		Green and orange			Moderately chlorite-Kspar altered host cut by quartz stringers and later crustiform calcite-chlorite-quartz veins carrying black sulphides in central vein. 3-4cm wide veins located at 18.1m, 24.4m and 26.7m.
30.0	800	1000	30.20	37.90	Feldspar-quartz lithic tuff					
40.0	500	1000	37.90	41.40	Quartz stockwork			Stockwork	Veined	Interval of variable intensely quartz-Kspar altered host with quartz stockwork to breccia zones aprox .5m wide evenly spaced over the interval (50%). Moderate chlorite-Kspar alteration between veins and breccias.
	800	1000	41.40	50.20	Feldspar-quartz		Green	Fragme	Porphy	Weak to moderate chlorite-Kspar alteration.

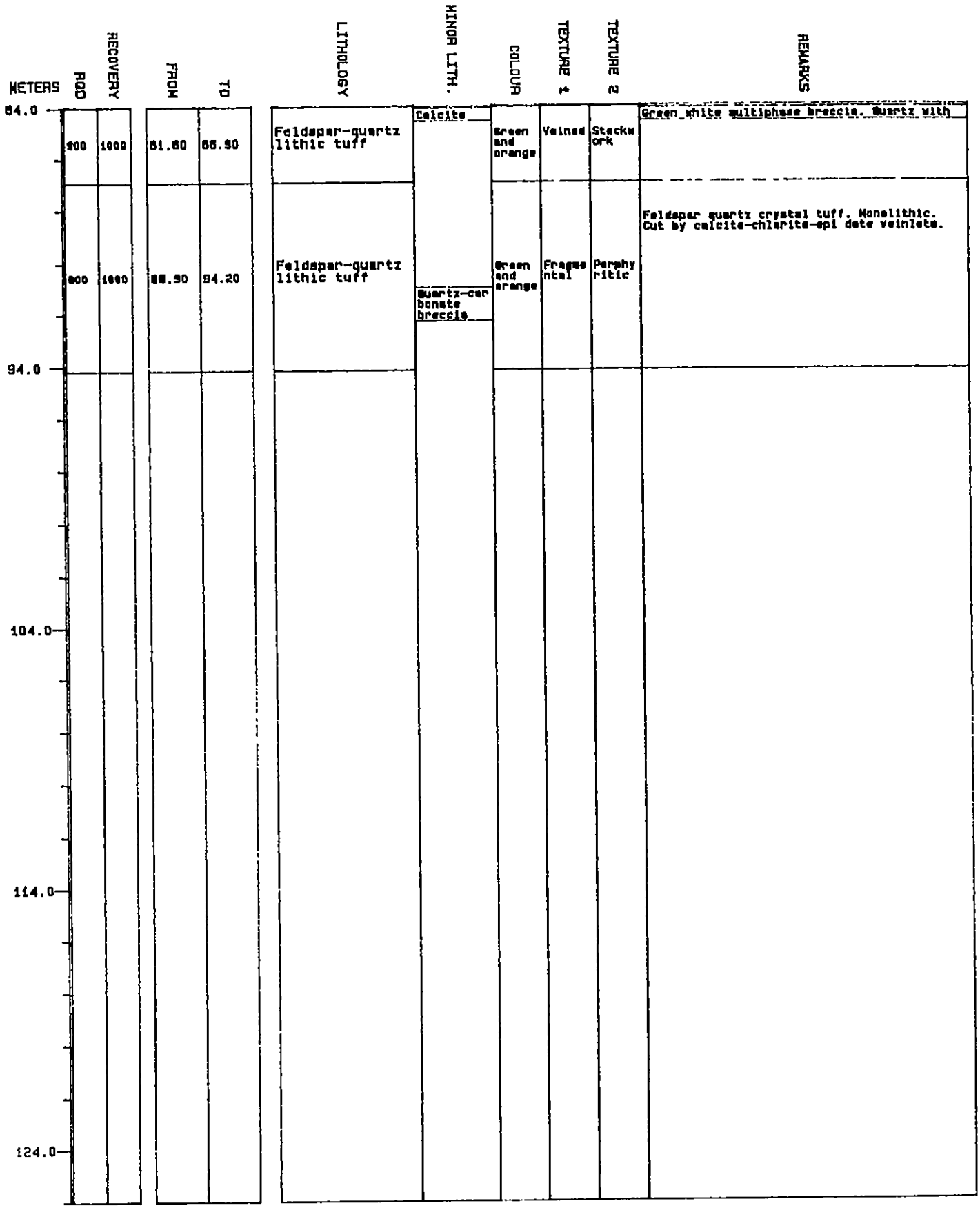

STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
0.0
10.
20.
30.
40.
VN 90 VN 40
0.0 0.3 10.0 30.0 1 10.0
0.3 20.0 0
QV 80 CV 60
30.0 30.0 0.0 30.0 3 3.0 BS
30.0 40.0 1.0 20.0 3 3.0
40.0 30.0 1.0 30.0 4 20.0
QV VN 80
20.0 1.0 30.0
0.00 8.40
8.4 8.6 18684 02 16.5 0.160
8.60 14.40
18685 02 95.5 1.010
14.60 16.10 18686 15 9.5 0.220
16.10 18.10 18687 20 1.0 0.020
18.10 20.10 18688 20 3.5 0.080
20.10 22.10 18689 20 2.0 0.050
22.10 24.10 18690 20 2.5 0.050
24.10 26.10 18691 20 3.5 0.050
26.10 28.10 18692 20 2.0 0.040
28.10 30.10 18693 20 3.5 0.030
30.10 32.10 18694 20 3.5 0.050
32.10 34.10 18695 20 3.0 0.090
34.10 36.10 18696 20 3.5 0.060
36.10 37.90 18697 18 1.5 0.060
37.90 39.80 18698 19 3.0 0.040
18699 03 4.5 0.050
40.10 42.10 18700 20 1.0 0.090

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	600	1000	41.40	50.20	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Porphyritic	Weak to moderate chlorite-Kspar alteration, microfractures of quartz and later calcite-chlorite, epidote along fractures is youngest.
		1000	50.20	51.50	Carbonate-quartz stockwork		Green and orange			Early quartz veining cut by calcite-chlorite veins carrying black sulphides.
52.0		1000	51.50	57.90	Feldspar-quartz lithic tuff		Green and orange			Early quartz-carb veins cut by calcite-quartz-epidote-chlorite veins carrying black sulphides in 1cm wide vein at 56.8m
		1000	57.90	64.40	Feldspar-quartz crystal tuff		Pale Green	Porphyritic	Stockwork	Pale green feldpsar quartz crystal tuff to ash tuff. Alteration increases from top to bottom where textures are partially destroyed and crackle brecciation is more common. Calcite and black sulphide veins are steep to core axis and cut early quartz and Kspar veining. Epidote fracture fill cuts both. 3cm crushed zone at FGLT contact.
62.0	100	950	64.40	66.20	Carbonate-quartz breccia		White		Brecciated	White to pale grey green multiphase breccia. 2 early quartz rich stages with pyrite, later crystalline calcite with pyrite and black sulphide traces. Chlorite filled
		1000	66.20	74.60	Quartz-carbonate stockwork	Feldspar-quartz lithic		Crackle breccia		Early quartz-Kspar flooding of probable crackle breccia followed by quartz with black sulphides and pyrite veins (>.5cm). Calcite stockwork carrying black sulphides and pyrite cuts the above and chlorite-epidote veins cut or infill the calcite veins. Black sulphides noted at 67.3m and 71.3m over .1-.2m intervals.
72.0	700	1000	74.60	81.60	Carbonate-quartz stockwork		Green and white.			FGLT intensely quartz-Kspar altered and cut by early quartz-black sulphide veining and more abundant calcite-clay-chlorite veining carrying black sulphides and native silver over 40% of interval. Black sulphides particularly abundant to 78.9m. Black sulphides mantle sphalerite, locally pyrargyrite may also be present. Breccia looks similar to hole 87-12.
82.0	900	1000	81.60	86.90	Feldspar-quartz lithic tuff		Green and orange	Veined	Stockwork	Green and orange moderately chlorite and Kspar altered host. Black sulphides in.5-2cm wide calcite-quartz veins at 82.1, 84.3, 84.5, 84.8 and 86.9m.

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV		VN	80			20.0		1.0	30.0	2	10.0			42.10	48.30				
QV	60	CV	50	10.0	20.0	30.0			30.0	2	30.0		BS	48.30	50.20	18701	19	2.5	0.040
QV	80	CV	50	2.5	2.5	20.0		0.3	20.0	1	10.0		BS	50.20	51.50	18702	13	6.0	0.210
CV	10	QV	50	40.0		20.0		1.0	20.0	3	20.0		BS	51.50	57.90				
VN	70			20.0		10.0			2.5	4	30.0		BS	57.90	59.50	18703	16	9.0	0.190
CV	70	QV	65	10.0		10.0		1.0		4	20.0		BS	59.50	61.40	18704	19	8.5	0.190
BC	60	CV	45	30.0	30.0	30.0	10.0	0.0	10.0	3	60.0	AG	BS	61.40	62.40	18705	10	20.5	0.290
CV	60	CV	45	30.0	10.0	30.0			20.0	3	40.0		BS	62.40	63.30	18706	09	32.5	0.680
														63.30	64.70	18707	14	14.0	0.580
														64.70	65.50	18708	08	12.0	0.540
														65.50	66.10	18709	06	8.5	0.170
														66.10	67.20	18710	11	7.0	0.150
														67.20	68.20	18711	10	40.0	1.410
														68.20	69.20	18712	10	21.0	0.420
														69.20	70.20	18713	10	11.5	0.270
														70.20	71.20	18714	10	5.0	0.330
														71.20	72.20	18715	10	129.5	2.550
														72.20	73.20	18716	10	3.5	0.140
														73.20	74.20	18717	10	18.5	0.410
														74.20	75.20	18718	10	63.0	1.050
														75.20	76.20	18719	10	98.0	1.770
														76.20	77.20	18720	10	87.5	1.620
														77.20	78.20	18721	10	117.0	1.570
														78.20	79.20	18722	10	103.5	1.540
														79.20	80.20	18723	10	88.5	1.580
														80.20	80.80	18724	06	369.5	6.160
														81.00	82.00	18726	10	23.0	0.460
														82.00	83.00	18727	10	68.5	1.080
														83.00	84.10	18728	11	571.0	6.980

42.
52.
62.
72.
73.40
82.
4,905.0

DRILL HOLE: DDH87_11
PAGE 6



STRUCTURE

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE
CV	60	CV	45
CV	70		

ALTERATION

% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	FC. MINERAL	FC. MINERAL
30.0	10.0	30.0			20.0	3		10.0		BS
10.0		30.0				2	3	10.0		

ASSAYS

FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
84.10	84.60	18729	05	529.5	16.950
84.60	85.60	18730	10	13.0	0.210
85.60	86.60	18731	10	56.0	0.970
86.60	87.60	18732	10	16.5	0.390
87.60	89.60	18733	20	7.5	0.100
89.60	91.00	18734	14	6.0	0.080
91.00	92.30	18735	13	75.5	1.250
92.30	94.20	18736	19	13.5	0.240

84.

94.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_12	COLLAR AZIMUTH	: 60.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/10**	COLLAR ELEVATION	: 1345.77
DATE COMPLETED	: **9/11**	COLLAR NORTHING	: 7119.00
GEOLOGGED BY	: RMB	COLLAR EASTING	: 1195.79
PLOT DATE	: 87/NOV/22	COLLAR OFFSET	:
~~PROJECT LEADER~~	.	~~COLLAR STATION~~	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 63.7m

MINING DIV.: OMENICA

PURPOSE: TEST EASTERLY STRUCTURE ON JOCK ZONE

COMMENTS: BROKEN GROUND - HOLE ABANDONED AT TARGET DEPTH.

KEY INTERSECTIONS: FROM: TO: LENGTH: GRADE:

SURVEY DATA

DEPTH	DIP	AZIMUTH
24.1m	44°	
69.8m	42°	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

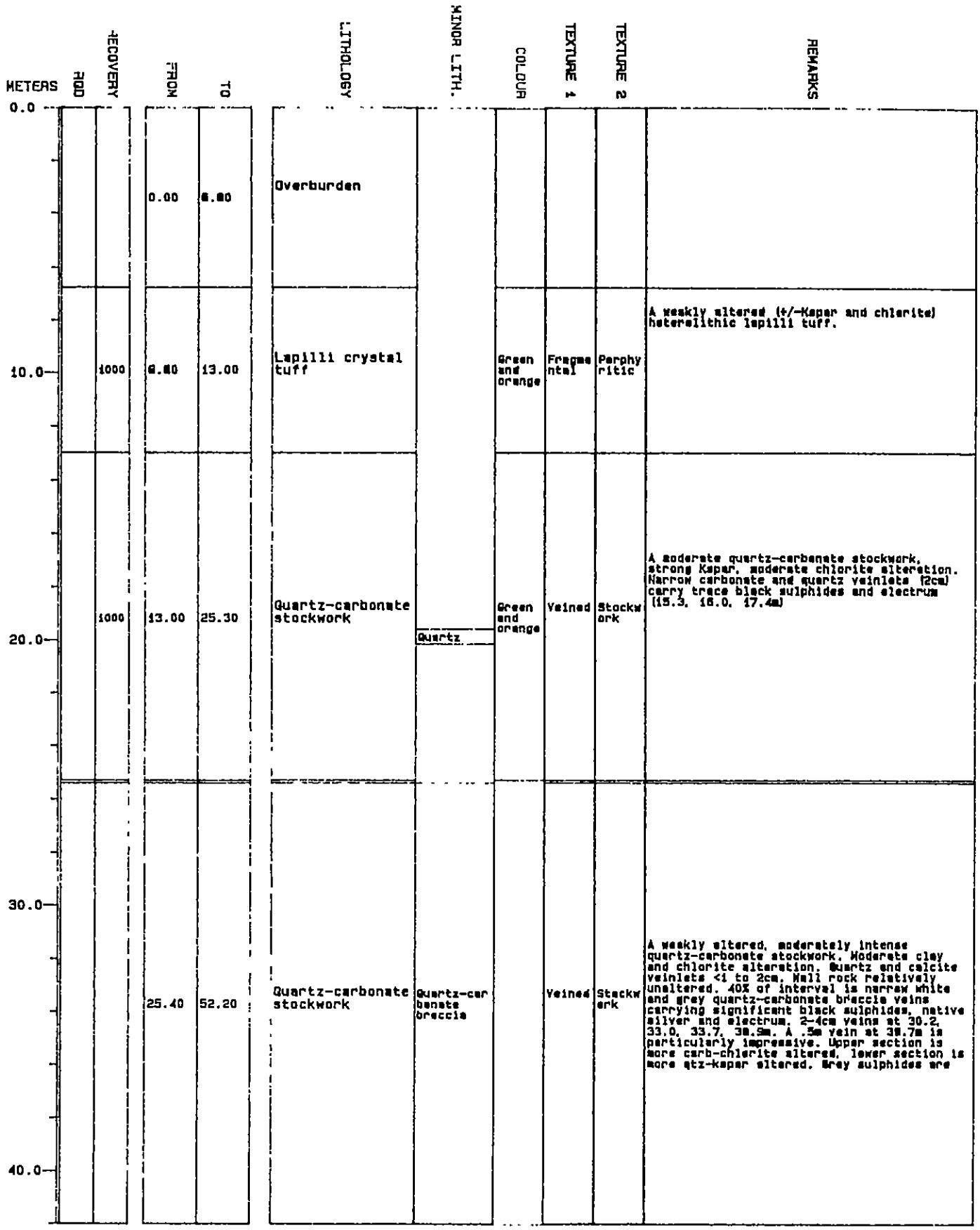
STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

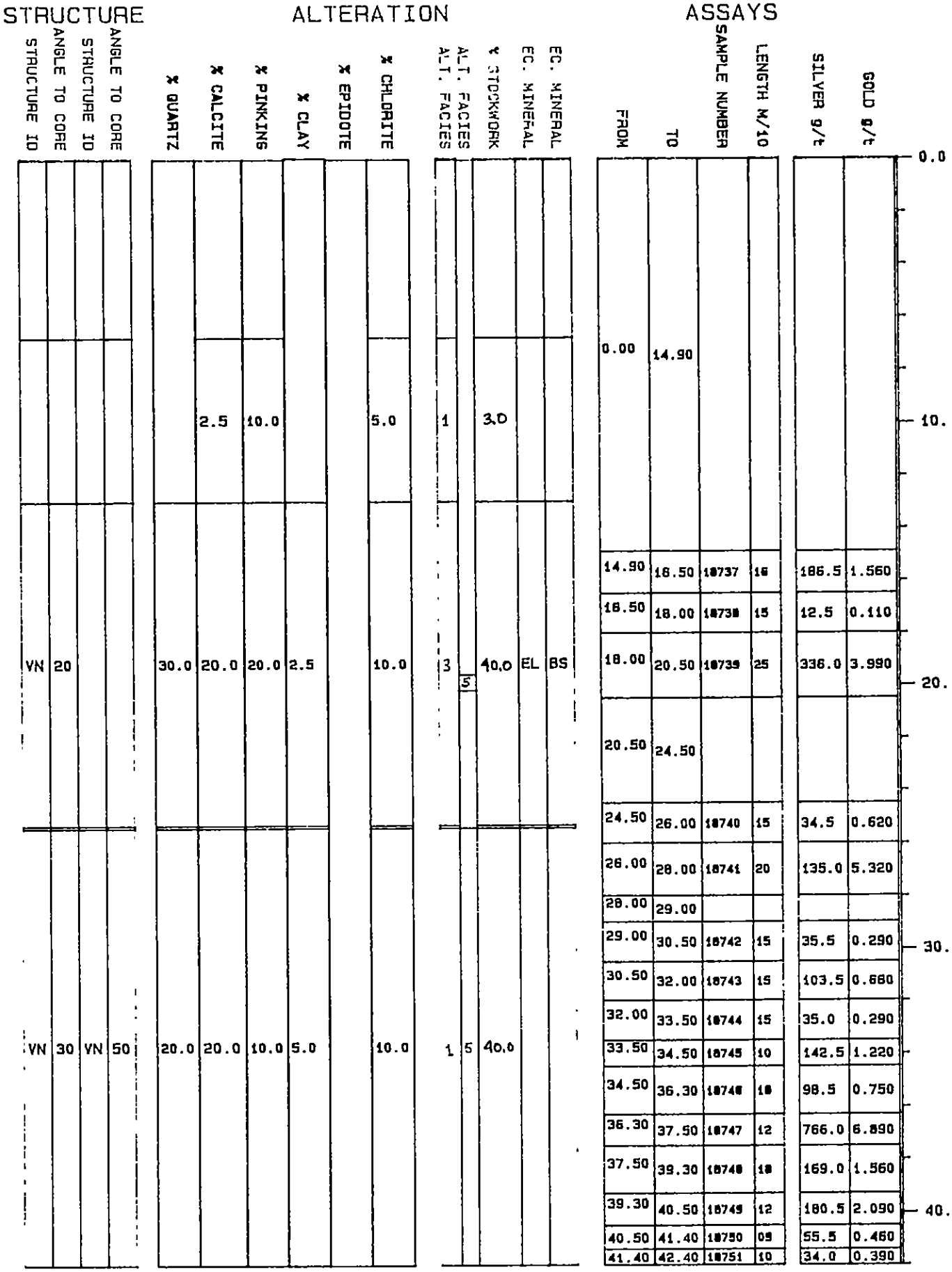
DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	6.80	Overburden
6.80	13.00	Lapilli crystal tuff
13.00	25.30	Quartz-carbonate stockwork
25.40	52.20	Quartz-carbonate stockwork
52.20	66.80	Lapilli crystal tuff

DRILL HOLE: DDH87_12
PAGE 2



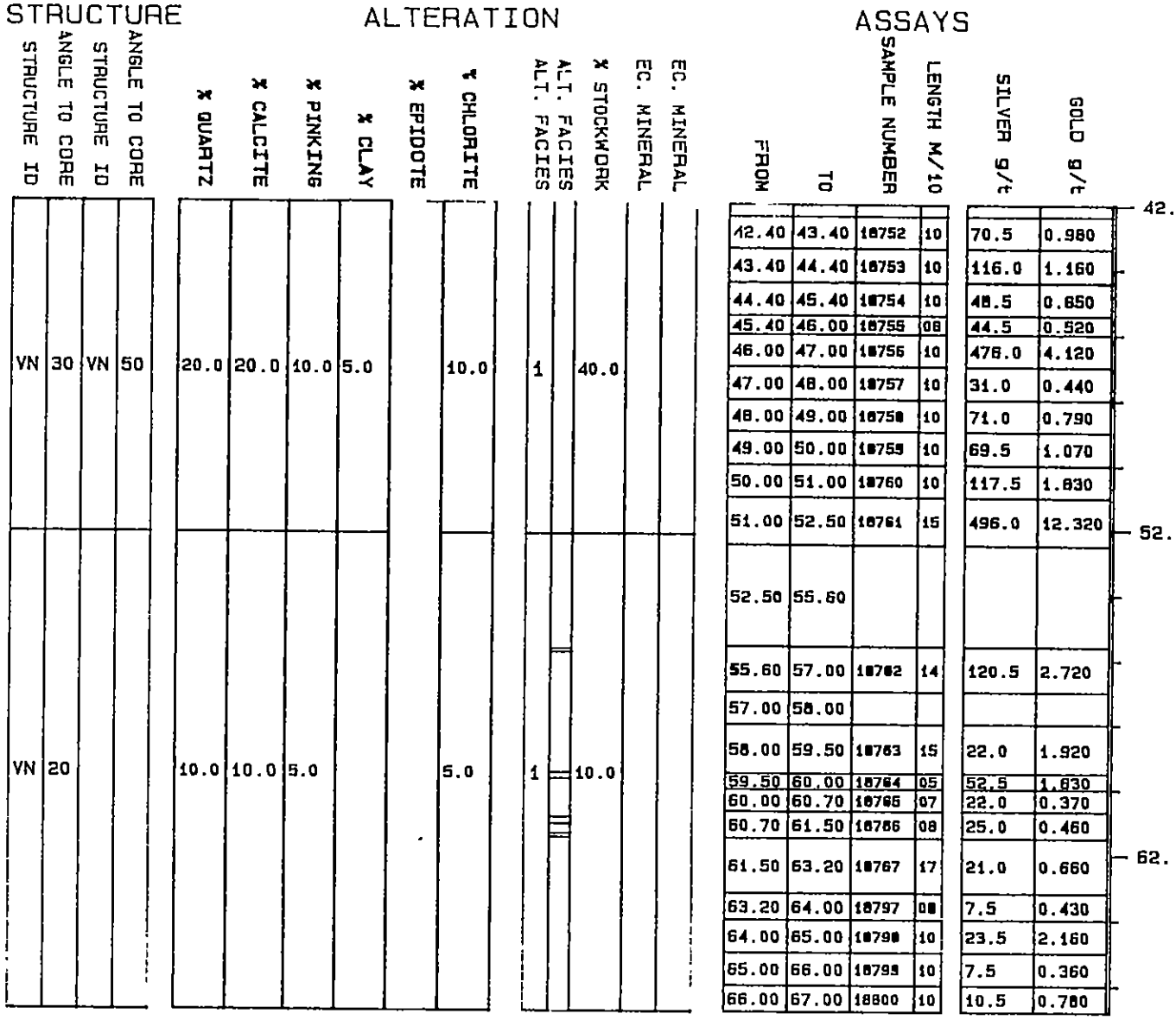
METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	6.80	Overburden					
10.0		1000	6.80	13.00	Lapilli crystal tuff		Green and orange	Fragmental	Porphyritic	A weakly altered (+/-Kspar and chlorite) heterolithic lapilli tuff.
20.0		1000	13.00	25.30	Quartz-carbonate stockwork	Quartz	Green and orange	Veined	Stockwork	A moderate quartz-carbonate stockwork, strong Kspar, moderate chlorite alteration. Narrow carbonate and quartz veinlets (2cm) carry trace black sulphides and electrum (15.3, 16.0, 17.4m)
30.0			25.40	52.20	Quartz-carbonate stockwork	Quartz-carbonate breccia		Veined	Stockwork	A weakly altered, moderately intense quartz-carbonate stockwork. Moderate clay and chlorite alteration. Quartz and calcite veinlets <1 to 2cm. Wall rock relatively unaltered. 40% of interval is narrow white and grey quartz-carbonate breccia veins carrying significant black sulphides, native silver and electrum. 2-4cm veins at 30.2, 33.0, 33.7, 38.9m. A .5m vein at 38.7m is particularly impressive. Upper section is more carb-chlorite altered, lower section is more qtz-kspar altered. Grey sulphides are
40.0										


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
0.00
14.90
2.5
10.0
5.0
1
3.0
VN 20
30.0
20.0
20.0
2.5
10.0
3
5
40.0
EL
BS
VN 30 VN 50
20.0
20.0
10.0
5.0
10.0
1
5
40.0
14.90 16.50 18737 16 186.5 1.560
16.50 18.00 18738 15 12.5 0.110
18.00 20.50 18739 25 336.0 3.990
20.50 24.50
24.50 26.00 18740 15 34.5 0.620
26.00 28.00 18741 20 135.0 5.320
28.00 29.00
29.00 30.50 18742 15 35.5 0.290
30.50 32.00 18743 15 103.5 0.660
32.00 33.50 18744 15 35.0 0.290
33.50 34.50 18745 10 142.5 1.220
34.50 36.30 18746 18 98.5 0.750
36.30 37.50 18747 12 766.0 6.890
37.50 39.30 18748 18 169.0 1.560
39.30 40.50 18749 12 180.5 2.090
40.50 41.40 18750 09 55.5 0.460
41.40 42.40 18751 10 34.0 0.390
0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_12
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0			25.40	52.20	Quartz-carbonate stockwork	Quartz-carbonate breccia		Veined	Stockwork	A weakly altered, moderately intense quartz-carbonate stockwork. Moderate clay and chlorite alteration. Quartz and calcite veinlets <1 to 2cm. Wall rock relatively unaltered. 40% of interval is narrow white and grey quartz-carbonate breccia veins carrying significant black sulphides, native silver and electrum. 2-4cm veins at 30.2, 33.0, 33.7, 38.9m. A .5m vein at 38.7m is particularly impressive. Upper section is more carb-chlorite altered, lower section is more qtz-kspar altered. Grey sulphides are
52.0		1000	52.20	66.80	Lapilli crystal tuff		Green and orange	Fragmental	Porphyritic	A weakly altered interval similar to lithology at top of hole but lithic content and coarseness has decreased.Now very similar to FGLT. Entire length shot through with qtz and carb stringers but still below stockwork grade. Alteration is pervasive quartz-Kspar, with chlorite selvages associated with carb veins. Trace pyrite, spotty hematite, and minor clay on fractures.
62.0										

DRILL HOLE: DDH87_12



ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_13	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/11**	COLLAR ELEVATION	: 1326.97
DATE COMPLETED	: 87/ **9/12**	COLLAR NORTHING	: 7190.73
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1211.74
PLOT DATE	: 87/NOV/24	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 63.7**m**

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE BELOW T87C21

COMMENTS:

KEY INTERSECTION: FROM: 19.0 TO: 33.9 LENGTH: 14.9M AT: 2.13 G/T AU: 94.7 G/T AG
. 19.0 22.5 3.5 2.82 G/T AU: 188.6 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
57.3m	50°	

SUMMARY REMARKS

Hole does not appear to give the same results as T87C12 which is 50m to S. The carbonate breccia is only 30cm wide (at 34.3m) and contains less than 1% sulphides. Electrum was observed at two locations (19.1-21.7 and 36.3); the upper is in a 1cm wide calcite epidote veinlet within weakly altered rock, the lower is in pervasively silicified and pinked rock with little veining. Both locations demonstrate the difficulty in predicting gold based on alteration and texture. Thickness of the intense alteration/stockwork /breccia is 13m.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	3.00	drill casing
3.00	10.90	Feldspar-quartz lithic tuff
10.90	18.00	Feldspar-quartz lithic tuff
18.00	25.30	Feldspar-quartz lithic tuff
25.30	33.90	Quartz-carbonate stockwork
33.90	37.10	Quartz-carbonate breccia
37.10	38.60	Quartz-carbonate stockwork
38.60	56.80	Crystal lithic tuff
56.80	63.70	Crystal lithic tuff

DRILL HOLE: DDH87_13
PAGE 2

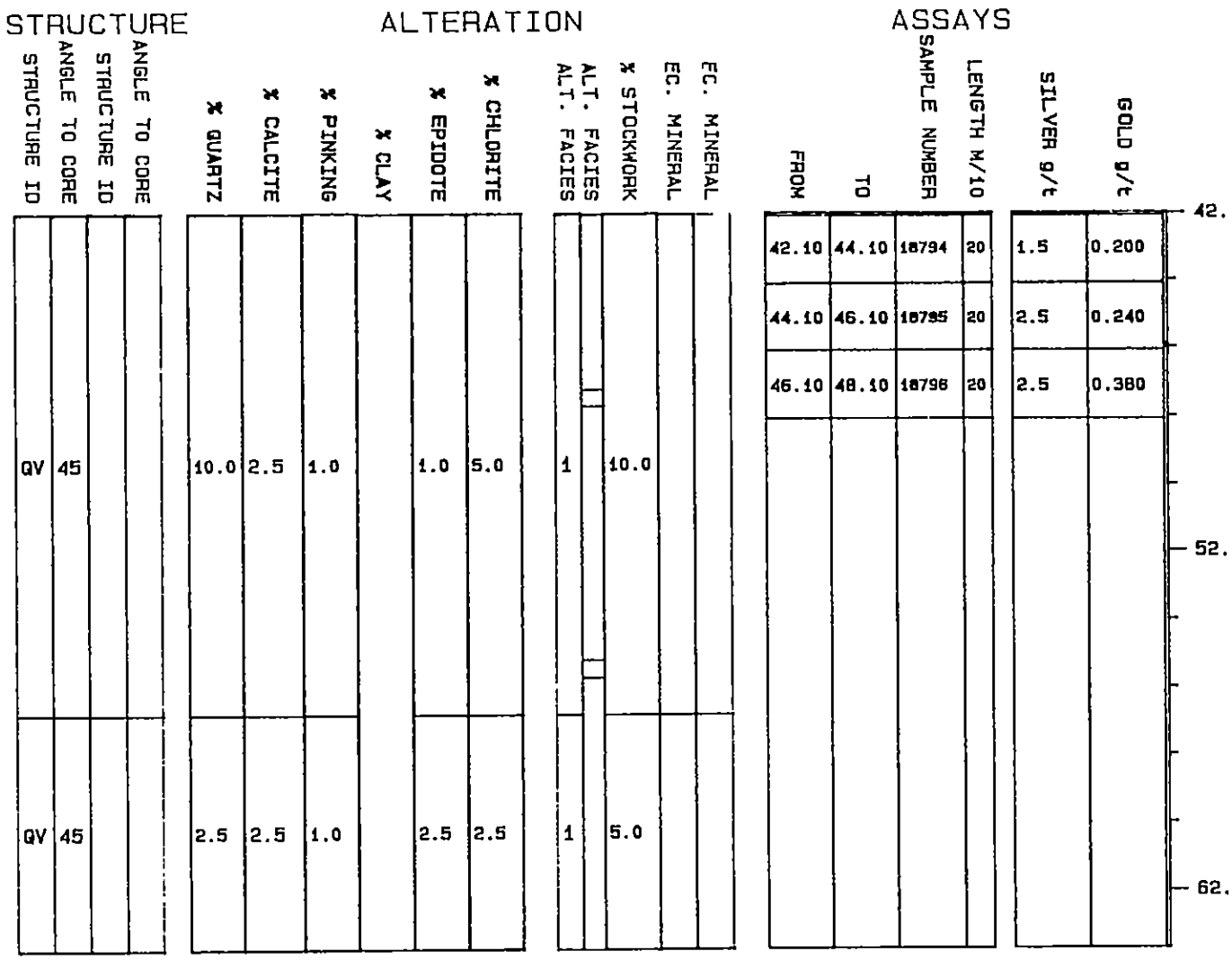
METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	3.00	drill casing					
	500	1000	3.00	10.90	Feldspar-quartz lithic tuff		Flesh coloured	Fragmental	Porphyritic	Weakly pinked matrix, moderately pinked feldspar crystals. Quartz veinlets and calcite plus epidote and/or chlorite to 5%.
10.0	800	1000	10.90	18.00	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Red-brown	Fragmental	Veined	Veined with matrix pinking, but lithic fragments still chloritic. Calcite cuts quartz crackle breccia.
20.0	940	1000	18.00	25.30	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Veined	Weakly altered but cut by quartz and calcite-chlorite veinlets that carry disseminated argentite, silver and electrum. Veinlets are 1 to 5cm thick and occur at 19.1, 19.4, 21.8, 23.1 and 24.3m.
30.0	850	1000	25.30	33.90	Quartz-carbonate stockwork	Quartz breccia	Flesh coloured	Stockwork	Brecciated	Alteration intensity increases down the interval. Zones of crackle breccia actually more common than stockwork veining.
	900	1000	33.90	37.10	Quartz-carbonate breccia		Very Dark Grey	Brecciated	Chalcedonic	Multiphase stockwork to breccia. Grey chalcedonic quartz fragments in a calcite matrix occur in the first metre of the interval. Chlorite and clay clots throughout. Textures are highly variable over the interval.
	930	1000	37.10	38.60	Quartz-carbonate stockwork		PINK	Veined	Stockwork	Mottled zones of silicification cut by quartz and calcite-chlorite stringers. Clay coated fractures.
40.0	980	1000	38.60	56.80	Crystal lithic tuff		Greenish brown	Fragmental	Porphyritic	Heterolitic, crystal-lithic tuff. Variably altered and silicified. Appears to be porous with matrix altered to muscovite (?). Veinlets have a large range of strikes and dips. Prominent pink envelopes around some of the veinlets.

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
															0.00	10.90				
CV	45	CV	05	2.5	2.5	2.5		1.0	5.0	2		5.0		BS						
											4				10 90	11.60	18768	07	9.5	0.270
															11.60	12.10	18769	05	62.0	1.320
															12.10	13.10	18770	10	6.0	0.800
QV	60	BC	50	10.0	5.0	10.0		2.5	2.5	2		10.0		BS	13.10	14.60	18771	15	6.5	0.590
															14.60	17.00				
															17.00	18.00	18772	10	3.0	0.090
															18 00	18.50	18773	05	72.5	1.280
															18.50	19.00	18774	05	3.5	0.260
															19.00	19.50	18775	05	604.0	11.80
CV	70	CV	60	5.0	2.5			2.5	5.0	1		5.0	AR	EL	19.50	20.50	18776	10	77.5	0 220
															20.50	21.50	18777	10	2.5	0 300
															21.50	22.50	18778	10	278.0	3 460
															22.50	23.50	18779	10	35.0	0.740
															23.50	24.00	18780	05	9.5	0 340
															24.00	25.30	18781	13	139.0	4 060
															25.30	26.80	18782	15	67 0	1 660
															26 80	28.30	18783	15	34 0	0.640
QV	45	QV	60	20.0	10.0	10 0	1.0	1.0	2.5	3	4	20.0		AR	28.30	30.20	18784	19	35.5	1.980
															30 20	30.90	18785	07	5.0	1.240
															30.90	32.40	18786	15	52 0	1 100
															32.40	33.90	18787	15	153 0	3.490
BC	45			40.0	30.0	20 0	2 5		2.5	5		60.0	BS	EL	33.90	34.90	18788	10	17 5	0 520
															34.90	35.60	18789	07	32 5	0 140
QV	20	CV	40	20.0	5.0	10.0	1.0	1.0	5.0	3		20.0			35.60	37 10	18790	15	22 0	0 940
															37 10	38.60	18791	15	31 5	1.720
QV	45			10.0	2.5	1.0		1 0	5.0	1		10.0			38.60	40.10	18792	15	15.5	0 560
															40.10	42 10	18793	20	1 0	0 260

0.0
10
20
30
40

DRILL HOLE: DDH87_13
PAGE 4

METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0										
	M40	1000	38.60	56.80	Crystal lithic tuff	Fault Fault	Greenish brown	Fragmental	Porphyritic	Heterolitic, crystal-lithic tuff. Variably altered and silicified. Appears to be porous with matrix altered to muscovite (?). Veinlets have a large range of strikes and dips. Prominent pink envelopes around some of the veinlets.
52.0										
			56.80	63.70	Crystal lithic tuff		Greenish brown	Fragmental	Porphyritic	
62.0										


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
QV 45 10.0 2.5 1.0 1.0 5.0 1 10.0
QV 45 2.5 2.5 1.0 2.5 2.5 1 5.0
42.10 44.10 18794 20 1.5 0.200
44.10 46.10 18795 20 2.5 0.240
46.10 48.10 18796 20 2.5 0.380
42.
52.
62.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_14	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -38.00
DATE STARTED	: 87/ **9/12**	COLLAR ELEVATION	: 1314.64
DATE COMPLETED	: 87/ **9/13**	COLLAR NORTHING	: 7236.26
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1206.35
PLOT DATE	: 87/NOV/25	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 85.0m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE BELOW T87C03

COMMENTS: SHALLOW DIP.

KEY INTERSECTION: FROM: 54.5 TO: 59.0 LENGTH: 4.5M AT: 2.03 G/T AU; 32.6 G/T AG
. 68.2 69.2 1.0 4.39 G/T AU; 232.0 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
45.4m	37°	
69.8	38	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	3.00	drill casing
3.00	10.90	Feldspar-quartz lithic tuff
10.90	18.00	Feldspar-quartz lithic tuff
18.00	25.30	Feldspar-quartz lithic tuff
25.30	33.90	Quartz-carbonate stockwork
33.90	37.10	Quartz-carbonate breccia
38.60	56.80	Crystal lithic tuff
56.80	63.70	Crystal lithic tuff

DRILL HOLE: DDH87_14
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.00	drill casing					
10.0	830	1000	1.00	17.50	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Porphyritic	
20.0	950	1000	17.50	23.50	Feldspar-quartz lithic tuff	Quartz	Flesh coloured	Fragmental	Porphyritic	Increase in silicification, pinking and bleaching. Black sulphides in a calcite-chlorite vein at 17.7m and in a quartz vein at 20.0m.
30.0		1000	23.50	31.60	Feldspar-quartz lithic tuff	Carbonate-	Green and orange	Fragmental	*Pinked/* (Kaspar	Weak to moderate pinking and silicification. Weak quartz and calcite stockworking.
	800	1000	31.60	38.30	Quartz-carbonate stockwork	Quartz Quartz	PINK	Stockwork	Veined	Moderate to intense quartz stockwork and alteration. Late crosscutting calcite/chlorite veins. Electrum within quartz veins; argentite within calcite veins.
40.0	850	920	39.30	46.70	Quartz-carbonate stockwork	Quartz-carbonate breccia	Red-brown	Stockwork	Brecciated	Moderate pinking and pervasive silicification. Quartz and calcite are concentrated in 5-15cm wide zones of crackle breccia.

STRUCTURE | ALTERATION | ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	30	VN	45	1.0	2.5	2.5	0.3	2.5	5.0	1		3.0			0.00	16.00				
															16.00	17.50	18801	15	12.5	0.180
																	18802	04	458.5	2.990
QV	80	CV	30	5.0	2.5	5.0	0.3	2.5	5.0	2	2	5.0		BS	17.90	19.40	18803	15	3.0	0.200
															19.40	20.00	18804	06	9.0	0.220
															20.00	21.50	18805	15	3.0	0.280
															21.50	22.50	18806	10	2.0	0.300
															22.50	23.50	18807	10	0.5	0.120
CV	45	QV	45	10.0	5.0	5.0	0.1	1.0	2.5	2		20.0			23.50	24.50	18808	10	8.0	0.180
															24.50	26.00	18809	15	2.0	0.020
															26.00	28.30	18810	23	0.5	0.020
															28.30	30.00	18811	17	2.0	0.240
															30.00	31.50	18812	15	0.5	0 120
															31.50	33.00	18813	15	8.0	0.190
															33.00	34.50	18814	15	11.5	0.180
QV	75	CV	25	30.0	5.0	10.0	0.1		2.5	3		30.0	AR	EL	34.50	36.00	18815	15	6.0	0.030
															36.00	37.00	18816	10	15.5	0 740
															37.00	38.30	18817	13	6 5	0.480
															38.30	39.30	18818	10	15.5	0 100
QV	75	CV	45	20.0	10.0	10 0			2.5	2	3	20.0	CL		39.30	40.80	18819	15	4.0	0 220
															40.80	42.30	18820	15	8.0	0 090

0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_14
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	880	920	39.30	48.70	Quartz-carbonate stockwork	Quartz-carbonate breccia	Red-brown	Stockwork	Brecciated	Quartz stockwork with intense pervasive quartz and Kspar alteration, broken and infilled with calcite and chlorite.
	900	940	48.70	53.80	Carbonate-quartz stockwork		White orange	Stockwork	Crackle breccia	An intensely pinked and silicified (stockwork and veins) interval cut by calcite (+/-chlorite) locally brecciated.
52.0	850	1000	53.80	56.00	Calcite breccia vein		White	Crackle breccia		Massive calcite vein to breccia with angular siliceous fragments. Both fragments and calcite carry trace black sulphides. Bottom of the interval is a breccia consisting of 30% black siliceous fragments in a chlorite
	1000	1000	56.00	61.50	Quartz-carbonate stockwork		Green and orange	"Pinked/" (Kspar	Veined	Change in lithology to crystal tuff (?). Pervasively silicified and pinked. Weak to moderate quartz-clay , calcite chlorite veining.
62.0	880	1000	61.50	68.30	Feldspar-quartz lithic tuff		Greenish brown	Porphyritic	Fragmental	Weakly altered. Calcite, chlorite, quartz veins with pervasive pink envelopes. Variable concentrations of quartz grains, feldspar crystals and lithics. Rare clay filled fractures. 1cm chloritic gouge at 64.5m.
72.0	850	980	68.30	75.90	Quartz-carbonate stockwork	Feldspar-quartz lithic	PINK	Stockwork	Crackle breccia	Strong pinking (+/- pervasive silicic alteration). Local late calcite-chlorite crackle breccia. One calcite veinlet carries black sulphides.
82.0	980	1000	75.90	85.00	Feldspar-quartz lithic tuff	Feldspar-quartz lithic	Dark Green	Porphyritic	Fragmental	Close packed crystal tuff. Calcite, epidote, Quartz veinlets with or without Kspar envelopes. One vein has a bit of black sulphides.

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	75	CV	45	20.0	10.0	10.0			2.5	2	3	20.0	CL		42.30	43.80	18821	15	6.0	0.060
															43.80	45.30	18822	15	9.0	0.070
															45.30	46.70	18823	14	11.0	0.140
CV	60	BC	55	30.0	30.0	10.0	1.0	1.0	10.0	3		40.0		BS	46.70	48.50	18824	18	5.0	0.120
															48.50	49.80	18825	13	5.5	0.560
															49.80	51.30	18826	15	21.0	0.470
															51.30	52.80	18827	15	14.0	0.250
															52.80	53.80	18828	10	17.0	0.490
BC	75			20.0	60.0			2.5		4		50.0			53.80	54.50	18829	07	18.0	0.430
															54.50	55.50	18830	10	95.0	1.750
															55.50	56.00	18831	05	70.5	2.150
QV	60	CV	40	20.0	5.0	5.0	1.0		5.0	2		20.0			56.00	57.50	18832	15	8.0	0.090
															57.50	59.00	18833	15	3.0	4.120
															59.00	60.50	18834	15	4.5	0.120
BD	50			2.5	5.0	2.5	0.1	1.0	1.0	1		5.0			60.50	67.20				
															67.20	68.20	18835	10	2.0	0.020
															68.20	69.20	18836	10	232.0	4.390
															69.20	70.70	18837	15	4.5	0.110
															70.70	71.70	18838	10	3.0	0.040
BC	75	CV	00	20.0	10.0	10.0	2.5		2.5	2		20.0		BS	71.70	72.80	18839	11	42.0	1.350
															72.80	75.90	18840	31	4.0	0.030
															75.90	77.10	18841	12	5.0	0.020
															77.10	77.60	18842	05	1.0	0.020
CV	70	CV	45	5.0	5.0	2.5		2.5	1.0	1		5.0		BS						
											2				83.00	84.50	18843	15	10.0	0.120

42.
52.
62.
72.
82.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_15	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/13**	COLLAR ELEVATION	: 1358.43
DATE COMPLETED	: **9/14**	COLLAR NORTHING	: 7111.49
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1278.01
PLOT DATE	: 87/NOV/25	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOOOOGGONE DIS	TOTAL LENGTH	: 72.8m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE BELOW T87C09 (SOUTH END)

COMMENTS:

KEY INTERSECTION: FROM: 14.6 TO: 16.6 LENGTH: 2.0M AT: 3.60 G/T AU: 139.0 G/T AG
46.0 To: 53.6 7.6 4.09 223.8

SURVEY DATA

DEPTH	DIP	AZIMUTH
5.8m	43°	
66.8	42	

SUMMARY REMARKS

Moderately well mineralized stockwork-breccia zone from 45-58m. Dip angles on veins and breccias suggest steep easterly dip to the overall zone. Alteration and stockwork veining is much stronger and wider in the hanging wall than the footwall. Like other drill holes electrum occurs in narrow calcite veinlets in weakly altered rocks as well as in the more intense altered zones. This hole is more intensely silicified and contains less calcite breccia and argentite than the holes to the north.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	11.90	Feldspar-quartz lithic tuff
11.90	27.10	Carbonate-quartz stockwork
27.10	36.30	Feldspar-quartz lithic tuff
36.30	44.80	Quartz-carbonate stockwork
44.80	57.90	Quartz-carbonate stockwork
57.90	72.80	Feldspar-quartz lithic tuff

DRILL HOLE: DDH87_15
PAGE 2

METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		980	0.00	11.90	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Porphyritic	Moderately well pinked with weak veining. The fine pale green variety of FQLT.
10.0						Quartz-carbonate breccia				
	700	1000	11.90	27.10	Carbonate-quartz stockwork		PINK	Stockwork	Veined	Patchy veining to local narrow (2-10cm) breccia zones. Alteration is variable being slightly more intense adjacent to the quartz breccia zones. Most of the sulphides occur between 13.4-16.4m. Quartz-Kspar was earlier phase, followed by calcite-chlorite veining and brecciation. Small fault at 25.3m.
20.0										
30.0	750	1000	27.10	38.30	Feldspar-quartz lithic tuff		Pale Green	Fragmental	Porphyritic	Pale green fine matrix variety of FQLT. Narrow clay gouge zones at 29.7 and 33.2m. A 1cm calcite veinlet carries a hefty sprinkling of electrum native silver and argentite.
	920	1000	38.30	44.80	Quartz-carbonate stockwork		PINK	*Pinked/* Kspar	Quartz flooded	Intensely pinked and silicified. Moderate stockwork with sparse local crackle breccias. Weakly mineralized.
40.0										

DRILL HOLE: DDH87_15

STRUCTURE

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE
CV	50		
CV	40	QV	80
CV	50	QV	70
QV	80	CV	30

ALTERATION

% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL
2.5	5.0	10.0			2.5	2		5.0		
20.0	20.0	10.0	1.0		1.0	2	3	30.0		BS
2.5	2.5	5.0		1.0	5.0	1		5.0	AG	EL
30.0	5.0	20.0			2.5	3		30.0		BS

ASSAYS

FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
0.00	11.90				
11.90	13.40	71501	15	10.0	0.180
13.40	14.60	71502	12	23.5	0.670
14.60	15.60	71503	10	187.5	1.920
15.60	16.60	71504	10	110.5	5.290
16.60	18.10	71505	15	22.0	0.440
18.10	19.60	71506	15	8.0	0.190
19.60	21.10	71507	15	8.0	0.250
21.10	22.60	71508	15	6.0	0.200
22.60	24.10	71509	15	15.5	0.220
24.10	25.60	71510	15	11.5	0.200
25.60	27.10	71511	15	12.0	0.210
27.10	28.60	71512	15	8.0	0.110
28.60	30.10	71513	15	6.0	0.090
30.10	31.60	715014	15	14.0	0.190
31.60	32.60	715015	10	23.0	0.220
32.60	34.10	715016	15	4.0	0.050
34.10	35.30	715017	12	9.0	1.110
35.30	36.30	715018	10	13.0	0.170
36.30	37.80	715019	15	186.0	2.820
37.80	38.80	715020	10	18.0	0.200
38.80	39.80	715021	10	95.0	1.140
39.80	40.80	715022	10	30.5	0.690
40.80	41.80	715023	10	18.0	0.580

0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_15
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	920	1000	38.30	44.80	Quartz-carbonate stockwork		PINK	*Pinked/ Kaper	Quartz flooded	Intensely pinked and silicified. Moderate stockwork with sparse local crackle breccias. Weakly mineralized.
	950	1000	44.80	57.90	Quartz-carbonate stockwork	Quartz-carbonate Quartz-carbonate	PINK	*Pinked/ Kaper	Quartz flooded	A fairly wide zone of strong stockwork and quartz-carbonate breccia. Mineralization appears to be better in the stockwork rather than the breccia. The calcite matrix breccias do not appear to be as well mineralized as they are further to the north. Some late quartz-calcite veins from .5 -2cm run parallel to core axis.
52.0										
62.0	950	1000	57.90	72.80	Feldspar-quartz lithic tuff	Carbonate-quartz stockwork	Dark Green	Porphyritic	Fragmental	Dark green FELT. Mostly chloritic fragments but minor exotic lithologies as well. Some calcite veins carry specks of black sulphide.
72.0										

STRUCTURE

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE
QV	80	CV	30
BC	50	CV	50
CV	50		

ALTERATION

% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL
30.0	5.0	20.0			2.5	3		30.0		BS
40.0	20.0	20.0	1.0		2.5	4	4	50.0	AG	EL
							5			
1.0	5.0	1.0			10.0	1	3	5.0		BS

ASSAYS

FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
41.80	42.80	715024	08	20.5	0.860
42.80	43.60	715025	10	20.5	0.330
43.60	45.00	715026	14	32.0	0.650
45.00	46.00	715027	10	34.0	0.830
46.00	47.00	715028	10	125.0	2.510
47.00	48.60	715029	16	47.0	0.890
48.60	49.60	715030	10	224.0	3.680
49.60	50.60	715031	10	72.5	1.740
50.60	51.50	715032	09	79.5	1.310
51.50	52.50	715033	10	700.0	12.070
52.50	53.60	715034	11	393.0	7.680
53.60	55.00	715035	14	33.0	0.560
55.00	56.00	715036	10	17.5	0.970
56.00	57.00	715037	10	9.0	0.260
57.00	58.00	715038	10	18.0	0.330
58.00	59.00	715039	10	8.5	0.520
59.00	60.90	71514	19	2.0	0.090
60.90	61.90	71515	10	1.5	0.160
61.90	62.90	71516	10	6.5	0.200
62.90	63.70	71517	08	3.0	0.110
63.70	65.70	71518	20	6.0	0.250
65.70	67.10	71519	14	10.0	0.210
67.10	68.60	71520	15	2.5	0.040

42.

52.

62.

72.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_16	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ 9/14	COLLAR ELEVATION	: 1372.25
DATE COMPLETED	: 9/15	COLLAR NORTHING	: 7066.80
GEOLOGGED BY	: PCT	COLLAR EASTING	: 1299.34
PLOT DATE	: 87/NOV/25	COLLAR OFFSET	:

TOTAL LENGTH : 78.9m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE BELOW T87C40 (SOUTH END)

COMMENTS: PAD TOO FAR WEST TO HIT UPPER ZONE IN 87-15

KEY INTERSECTION: FROM: 48.7 TO: 51.0 LENGTH: 2.3M AT: 3.89 G/T AU; 132.5 G/T AG
60.0 61.5 1.5 1.96 G/T AU; 38.5 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
27.1m	44°	
75.9	42	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

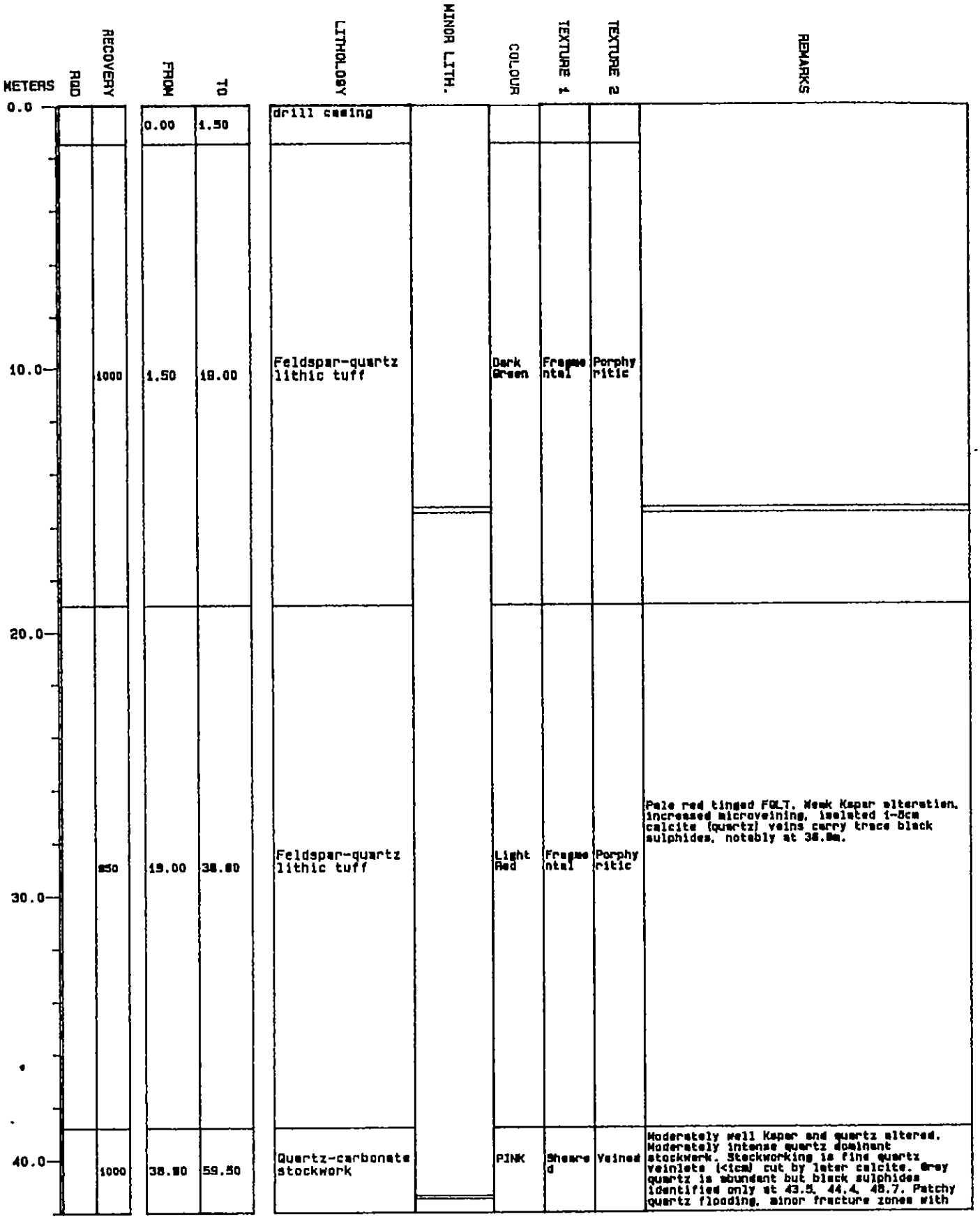
STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

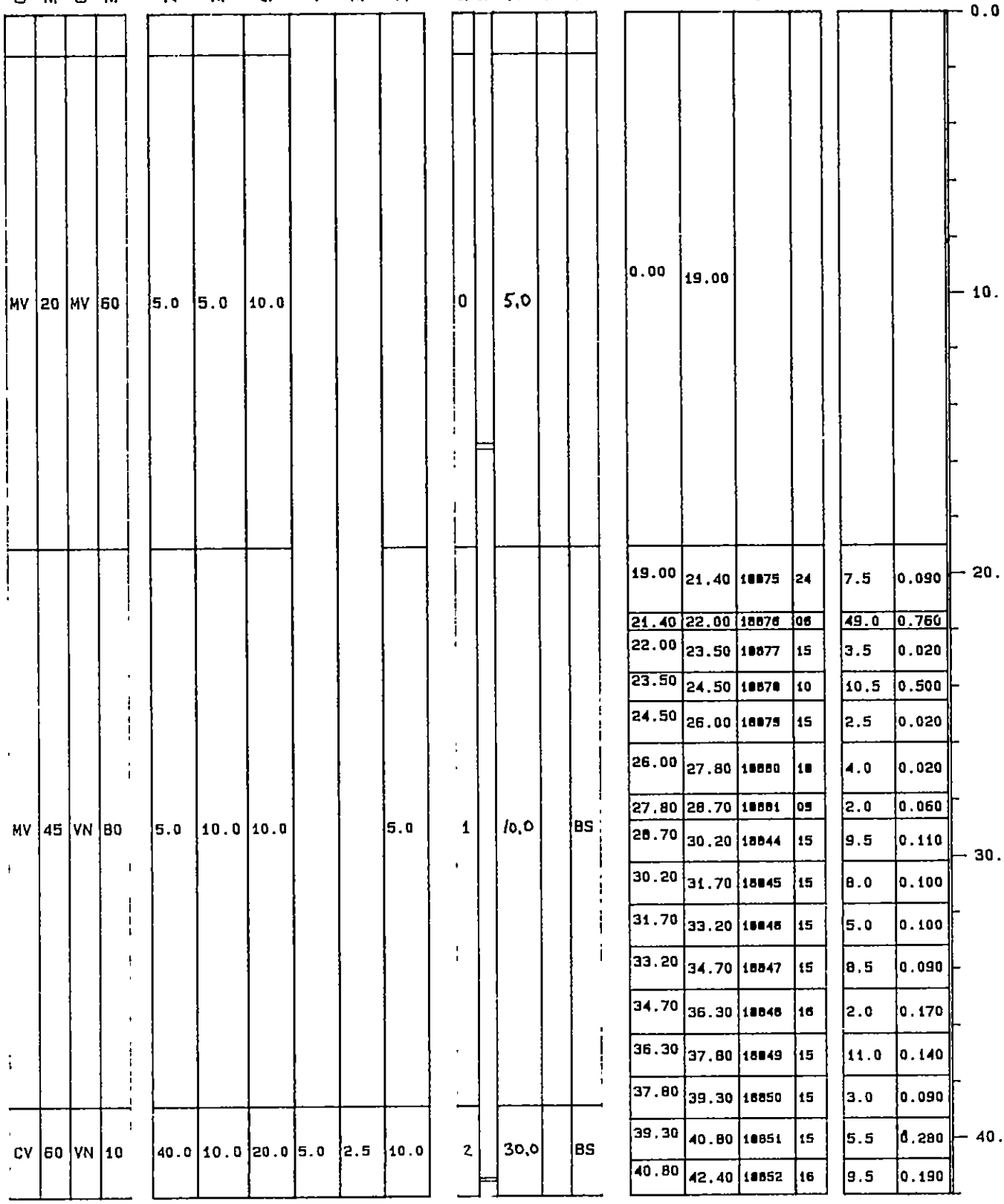
DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
1.50	19.00	Feldspar-quartz lithic tuff
19.00	38.80	Feldspar-quartz lithic tuff
38.80	59.50	Quartz-carbonate stockwork
59.50	64.50	Quartz-carbonate stockwork
64.50	72.30	Carbonate-quartz breccia
72.30	78.90	Feldspar-quartz lithic tuff

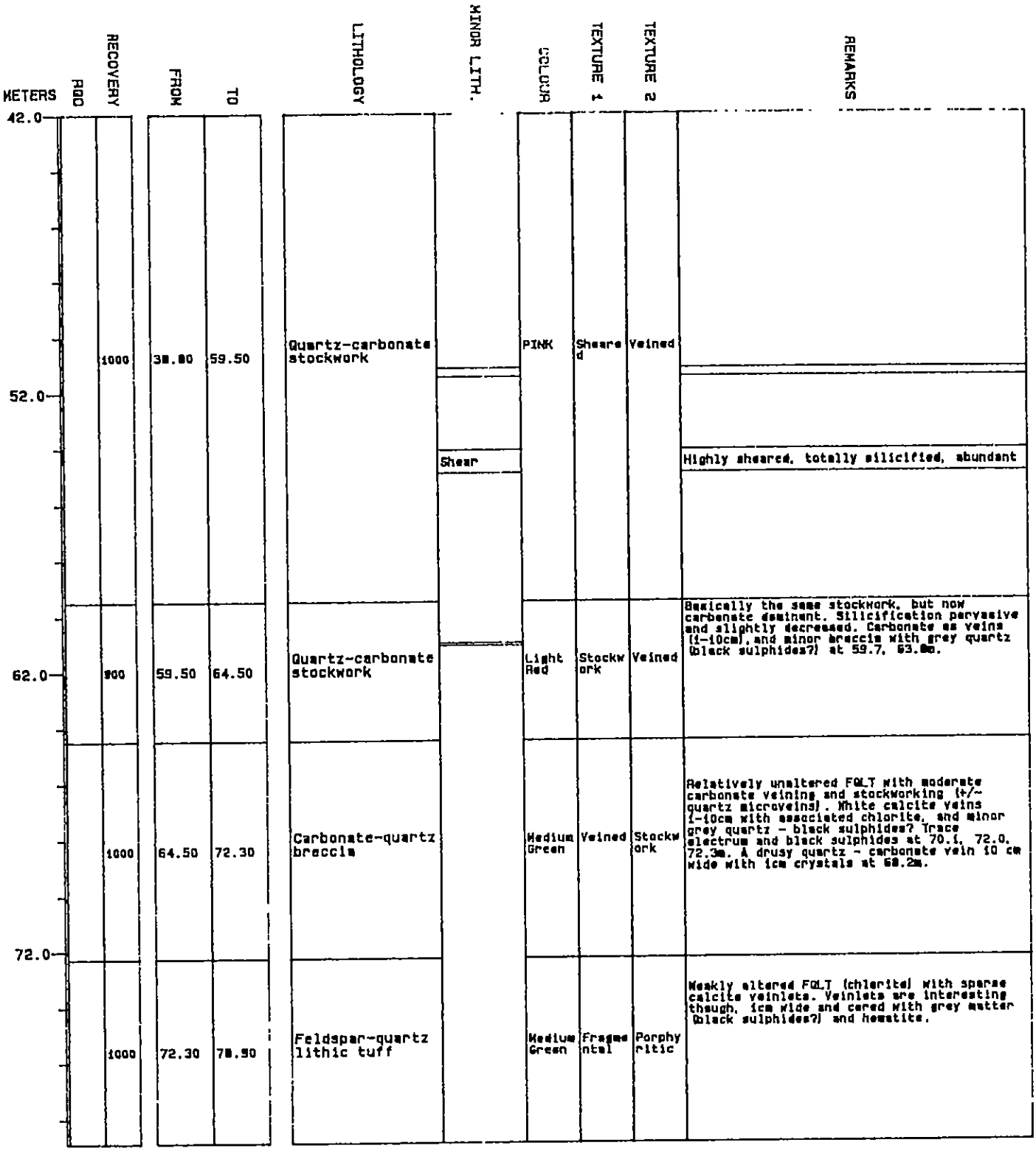
DRILL HOLE: DDH87_16
PAGE 2

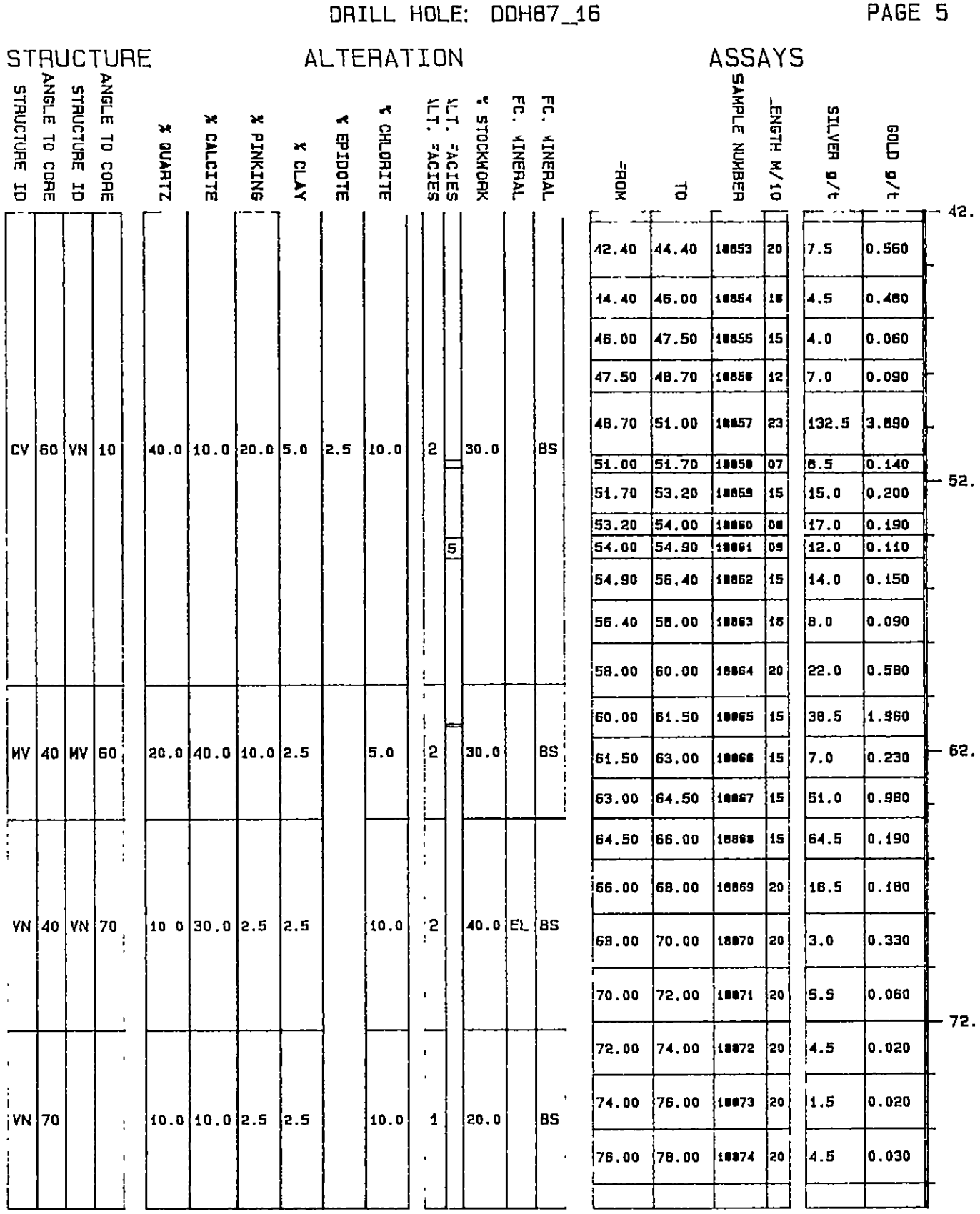


METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.50	drill casing					
10.0		1000	1.50	18.00	Feldspar-quartz lithic tuff		Dark Green	Fragmental	Porphyritic	
20.0		950	18.00	38.80	Feldspar-quartz lithic tuff		Light Red	Fragmental	Porphyritic	Pale red tinged FELT. Weak Kspar alteration, increased microveining, isolated 1-5cm calcite (quartz) veins carry trace black sulphides, notably at 36.0m.
30.0										
40.0		1000	38.80	59.50	Quartz-carbonate stockwork		PINK	Sheared	Veined	Moderately well Kspar and quartz altered. Moderately intense quartz dominant stockwork. Stockworking is fine quartz veinlets (<1cm) cut by later calcite. Grey quartz is abundant but black sulphides identified only at 43.5, 44.4, 48.7. Patchy quartz flooding, minor fracture zones with


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
0.0
10.
20.
30.
40.
MV 20 MV 60 5.0 5.0 10.0 0 5.0
MV 45 VN 80 5.0 10.0 10.0 5.0 1 10.0 BS
CV 60 VN 10 40.0 10.0 20.0 5.0 2.5 10.0 2 30.0 BS
0.00 19.00
19.00 21.40 18875 24 7.5 0.090
21.40 22.00 18876 06 49.0 0.760
22.00 23.50 18877 15 3.5 0.020
23.50 24.50 18878 10 10.5 0.500
24.50 26.00 18879 15 2.5 0.020
26.00 27.80 18880 18 4.0 0.020
27.80 28.70 18881 09 2.0 0.060
28.70 30.20 18844 15 9.5 0.110
30.20 31.70 18845 15 8.0 0.100
31.70 33.20 18846 15 5.0 0.100
33.20 34.70 18847 15 8.5 0.090
34.70 36.30 18848 16 2.0 0.170
36.30 37.80 18849 15 11.0 0.140
37.80 39.30 18850 15 3.0 0.090
39.30 40.80 18851 15 5.5 0.280
40.80 42.40 18852 16 9.5 0.190

DRILL HOLE: DDH87_16
PAGE 4




STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
FC. MINERAL
FC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
CV 60 VN 10 40.0 10.0 20.0 5.0 2.5 10.0 2 30.0 BS
MV 40 MV 60 20.0 40.0 10.0 2.5 5.0 2 30.0 BS
VN 40 VN 70 10 0 30.0 2.5 2.5 10.0 2 40.0 EL BS
VN 70 10.0 10.0 2.5 2.5 10.0 1 20.0 BS
5
42.40 44.40 18853 20 7.5 0.560
44.40 46.00 18854 16 4.5 0.460
46.00 47.50 18855 15 4.0 0.060
47.50 48.70 18856 12 7.0 0.090
48.70 51.00 18857 23 132.5 3.890
51.00 51.70 18858 07 8.5 0.140
51.70 53.20 18859 15 15.0 0.200
53.20 54.00 18860 08 17.0 0.190
54.00 54.90 18861 09 12.0 0.110
54.90 56.40 18862 15 14.0 0.150
56.40 58.00 18863 16 8.0 0.090
58.00 60.00 18864 20 22.0 0.580
60.00 61.50 18865 15 38.5 1.960
61.50 63.00 18866 15 7.0 0.230
63.00 64.50 18867 15 51.0 0.980
64.50 66.00 18868 15 64.5 0.190
66.00 68.00 18869 20 16.5 0.180
68.00 70.00 18870 20 3.0 0.330
70.00 72.00 18871 20 5.5 0.060
72.00 74.00 18872 20 4.5 0.020
74.00 76.00 18873 20 1.5 0.020
76.00 78.00 18874 20 4.5 0.030
42.
52.
62.
72.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_17	COLLAR AZIMUTH	: 90.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ 9/15	COLLAR ELEVATION	: 1402.93
DATE COMPLETED	: 9/16	COLLAR NORTHING	: 6832.75
GEOLOGGED BY	: PCT	COLLAR EASTING	: 1233.41
PLOT DATE	: 87/NOV/25	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 91.7m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST NW STRUCTURE RAINIER ZONE S OF 83-3

COMMENTS: EAST DIPPING VEINS IN BOTTOM OF HOLE

KEY INTERSECTION: FROM: 45.1 TO: 47.5 LENGTH: 2.4M AT: 8.77 G/T AU; 91.0 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
39.3m	45	
78.9	41	

SUMMARY REMARKS

First 40m of hole is unaltered epiclastic series, then a sporadically faulted and clay altered stockwork zone between 40m to end of hole. Alteration is moderate to strong quartz and Kspar with patchy quartz flooding and quartz-carb stockworking. Sporadic carb-quartz veins carry rare grey sulphides between 47 and 59m. Hole bottoms in what appears to be the start of a new zone.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

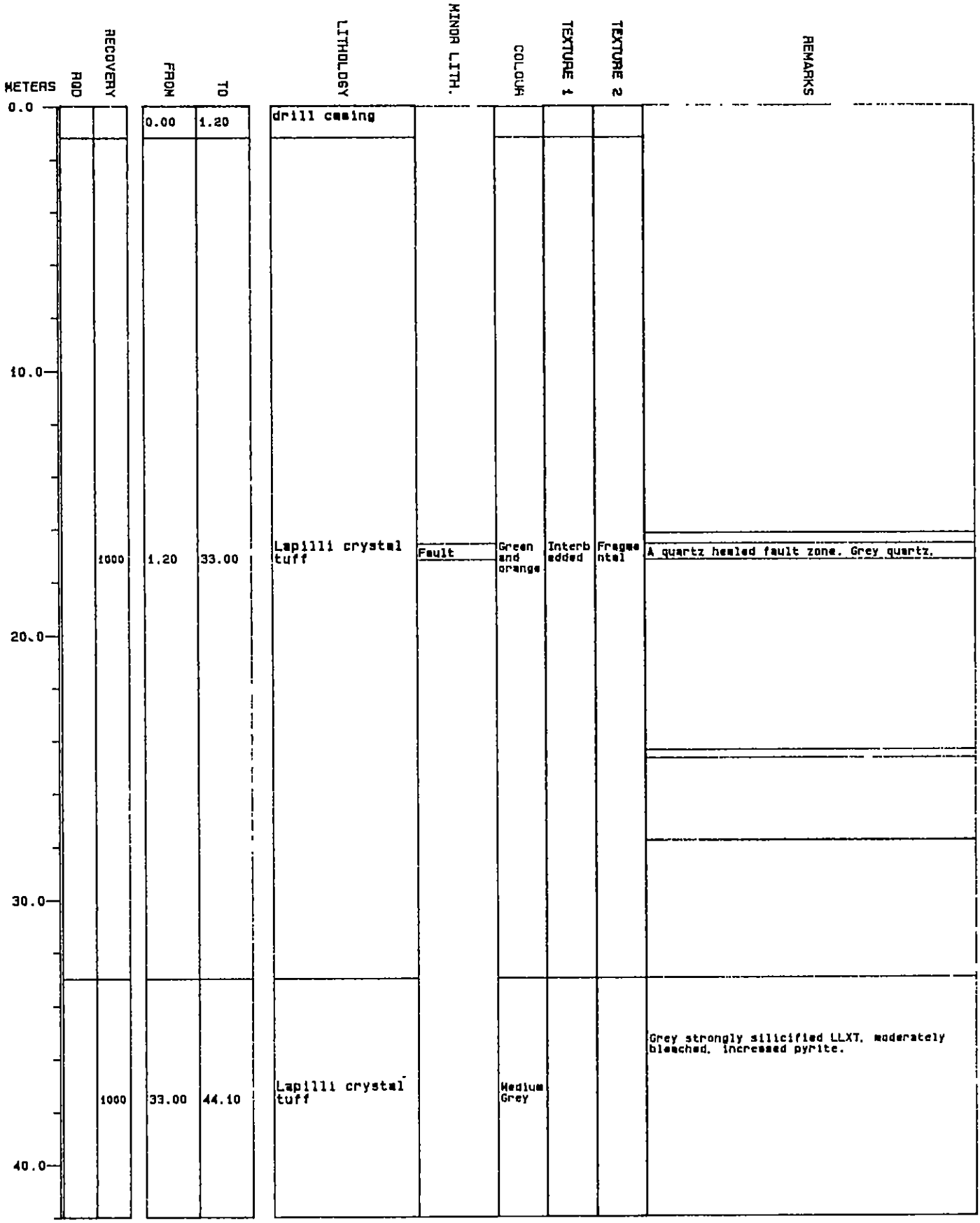
STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

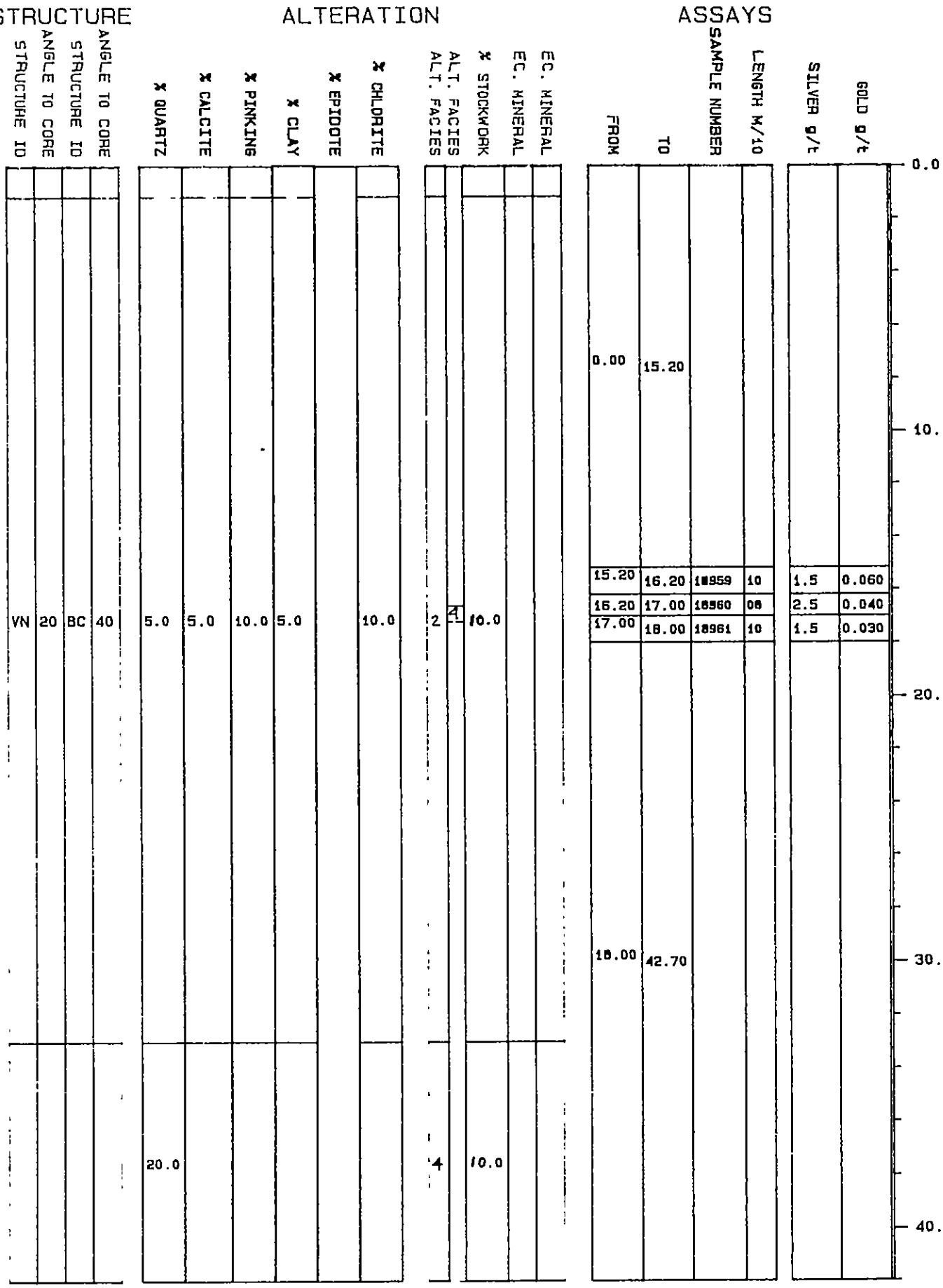
FROM	TO	LITHOLOGY
0.00	11.90	Feldspar-quartz lithic tuff
11.90	27.10	Carbonate-quartz stockwork
27.10	36.30	Feldspar-quartz lithic tuff
36.30	44.80	Quartz-carbonate stockwork
44.80	57.90	Quartz-carbonate stockwork
57.90	72.80	Feldspar-quartz lithic tuff

DRILL HOLE: DDH87_17
PAGE 2



METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.20	drill casing					
		1000	1.20	33.00	Lapilli crystal tuff	Fault	Green and orange	Interbedded	Fragmental	A quartz healed fault zone. Grey quartz.
10.0										
20.0										
30.0										
		1000	33.00	44.10	Lapilli crystal tuff		Medium Grey			Grey strongly silicified LLXT, moderately bleached, increased pyrite.
40.0										

DRILL HOLE: DDH87_17



DRILL HOLE: DDH87_17
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0		1000	33.00	44.10	Lapilli crystal tuff		Medium Grey			
		1000	44.10	46.10	Quartz-carbonate stockwork		Fleah coloured	Stockwork	Veined	Quartz dominant stockwork. Strong Kspar and quartz alteration, moderate stockwork intensity. White to grey quartz veins (<1cm) locally vuggy (weathered calcite?) Pyrite to
		1000	46.10	47.30	Fault zone		Light Green	Brecciated	Sheared	A quartz-carbonate-cla y altered fault zone. Local grey clay gauge, and rubbly texture.
52.0		1000	47.30	59.60	Quartz-carbonate stockwork	Carbonate-quartz vein		Stockwork	Veined	Moderate quartz-carbonate stockwork. Patchy alteration and veining. Alteration varies from weak but pervasive quartz and Kspar to strong carb-chlorite, with local clay alteration and hematite fracture fill. 40% of above interval is patchy carbonate-quartz veining (2-10cm wide) with abundant chlorite. Some veins show grey laminations and purple (hematite?) tinges and rare grey sulphide. Grey veins at 48.8, 49.3, 51.1, 52.0, 52.3m
62.0		1000	59.60	73.70	Quartz-carbonate stockwork	Fault Calcite vein	Green and orange	Stockwork	Veined	Moderate to strong quartz dominant stockwork. Moderate to strong quatz and Kspar flooding. Pale grey <1cm quartz veinlets and later white calcite. Pervasive pyrite, no grey sulphides, local breccia textures. Upper half of interval is broken, sheared, contains abundant clay.
72.0		1000	73.70	88.10	Quartz-carbonate stockwork			Veined	Stockwork	Moderately Kspar and quartz altered, moderate quartz dominant stockwork with late calcite veins. Patchy quartz flooding and veining 1-2cm. Classic FAULT.
82.0										

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
				20.0						4					18.00	42.70				
VN	20	VN	50	40.0	10.0	40.0	2.5		2.5	3		40.0			42.70	44.20	18962	15	2.5	0.040
															44.20	45.10	18963	09	6.5	0.100
															45.10	46.10	18964	10	49.0	1.420
FT	50	VN	20	30.0	10.0	5.0	10.0		5.0	1					46.10	47.50	18965	14	121.0	14.020
															47.50	49.00	18966	15	8.0	0.110
															49.00	49.60	18967	06	11.5	0.150
															49.60	50.50	18968	09	1.0	0.040
															50.50	51.50	18969	10	2.5	0.050
															51.50	52.50	18970	10	1.0	0.040
															52.50	53.00	18971	05	2.0	0.090
VN	20	VN	40	20.0	20.0	10.0	5.0	5.0	10.0	2	4	30.0			53.00	54.60	18972	16	2.5	0.060
															54.60	56.10	18973	15	3.0	0.080
															56.10	57.60	18974	15	6.5	0.060
															57.60	59.60	18975	20	5 5	0.070
											1				59.60	60.50	18976	09	5.5	0.120
															60.50	62.00	18999	15	3.0	0.260
															62.00	63.50	18977	15	3.5	0.120
															63.50	65.00	18978	15	5.0	0.130
VN	40			40.0	20.0	10.0	10.0		10.0	4		40.0			65.00	66.50	18979	15	3.5	0.110
															66.50	67.80	18980	13	1.0	0.050
															67.80	69.00	18981	12	6.0	0.180
															69.00	70.00	18982	10	7.0	0.340
															70.00	71.00	18983	10	6.0	0.150
															71.00	72.50	18984	15	6.0	0.370
															72.50	73.70	18985	12	5.5	0.660
															73.70	75.70	18986	20	3.5	0.070
															75.70	77.70	18987	20	0.5	0.040
VN	40	VN	30	30.0	10.0	10.0			5.0	3		30.0			77.70	79.70	18988	20	0.5	0.220
															79.70	81.20	18989	15	0.5	0.020
															81.20	81.70	18990	05	4.0	0.020
															81.70	83.70	18991	20	1.0	0.040

42.
52.
62.
72.
82.

DRILL HOLE: DDH87_17
PAGE 6

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
64.0		1000	73.70	88.10	Quartz-carbonate stockwork			Veined	Stockwork	Moderately Kspar and quartz altered, moderate quartz dominant stockwork with late calcite veins. Patchy quartz flooding and veining 1-2cm. Classic FOLT.
			88.10	91.70	Quartz-carbonate stockwork			Veined	Stockwork	Basically the same stockwork and alteration, but with increased quartz veining. Bottom 3m is actually a quartz-carb breccia vein with chlorite, hematite and trace grey sulphides. Appear to be nearing a new zone.

DRILL HOLE: DDH87_17 PAGE /

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
VN	40	VN	30	30.0	10.0	10.0			5.0	3		30.0			83.70	84.70	18992	10	2.5	0.040
															84.70	86.70	18993	20	1.5	0.020
															86.70	88.00	18994	13	0.5	0.020
															88.00	89.00	18995	10	4.5	0.050
VN	40	VN	30	40.0	10.0	10.0			5.0	3		50.0			89.00	90.00	18996	10	0.5	0.020
															90.00	91.00	18997	10	0.5	0.040
															91.00	91.70	18998	07	3.0	0.040

84.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: ODH87_18	COLLAR AZIMUTH	: 234.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/16**	COLLAR ELEVATION	: 1337.29
DATE COMPLETED	: 87/ 9/19	COLLAR NORTHING	: 7184.64
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1276.44
PLOT DATE	: 87/NOV/24	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOOOOGGONE DIS	TOTAL LENGTH	: 146.0m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE BELOW 87-12 AND T87C5

COMMENTS: PAD OFF SECTION HOLE DRILLED AT AZIMUTH 233 DEG.

KEY INTERSECTION: FROM: 75.6 TO: 85.0 LENGTH: 9.4M AT 2.13 G/T AU; 116.2 G/T AG
123.9 126.0 2.1 9.34 G/T AU; 334.6 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
94.2m	39°	
136.9	38	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

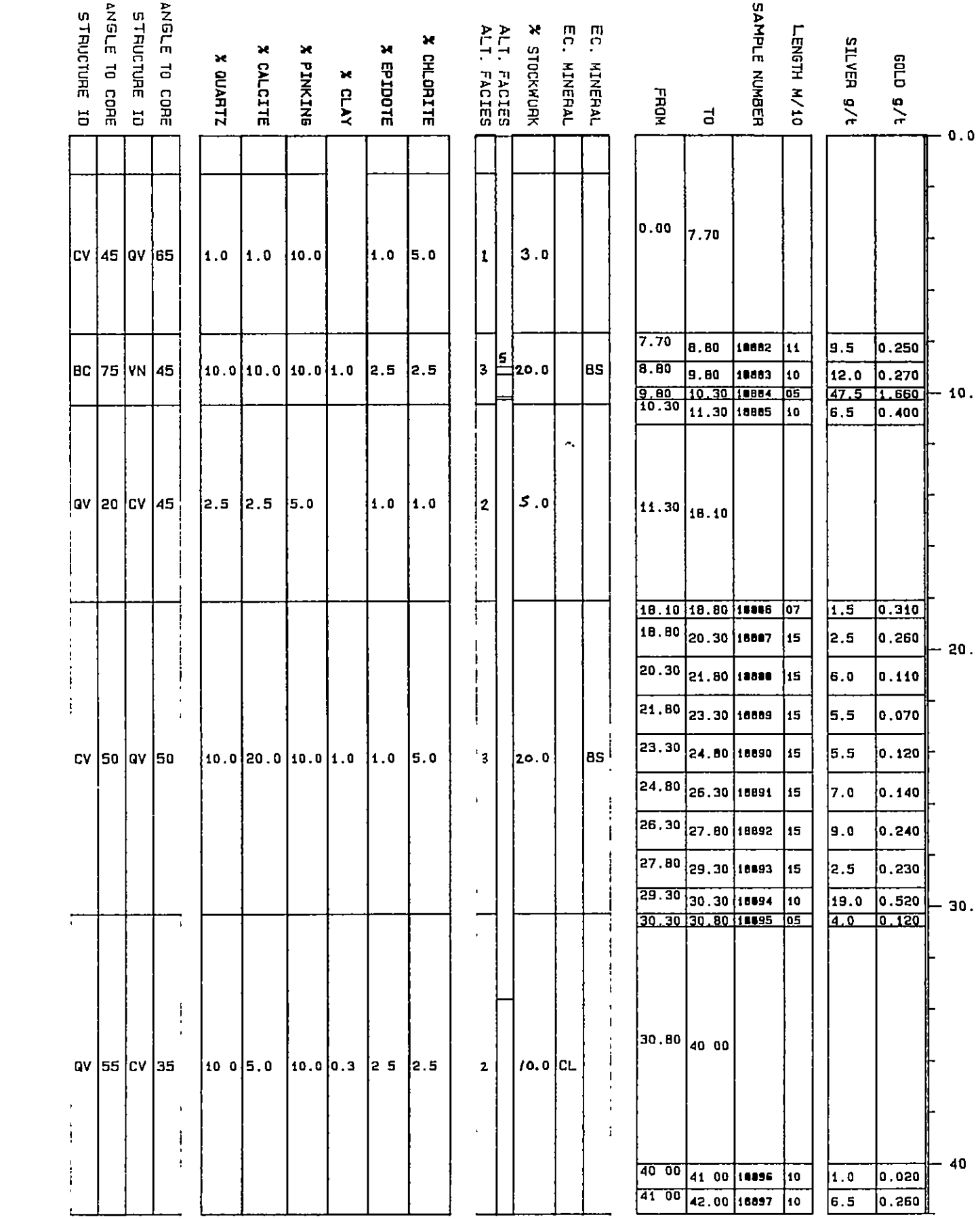
DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
1.50	7.70	Feldspar-quartz lithic tuff
7.70	10.50	Quartz-carbonate stockwork
10.50	18.10	Feldspar-quartz lithic tuff
18.10	30.30	Quartz-carbonate stockwork
30.30	60.70	Feldspar-quartz lithic tuff
60.70	67.80	Feldspar-quartz lithic tuff
67.80	75.60	Quartz-carbonate stockwork
75.60	80.70	Quartz-carbonate stockwork
80.70	85.10	Quartz-carbonate breccia
85.10	90.00	Feldspar-quartz lithic tuff
90.00	101.50	Feldspar-quartz lithic tuff
101.50	109.50	Feldspar-quartz lithic tuff
111.20	114.00	Quartz-carbonate stockwork
114.00	116.80	Feldspar-quartz lithic tuff
116.80	124.00	Feldspar-quartz lithic tuff
126.00	129.10	Feldspar-quartz lithic tuff
129.10	142.60	Feldspar-quartz lithic tuff

DRILL HOLE: DDH87_18
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.50	drill casing					
	700	900	1.50	7.70	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Porphyritic	Round to rectangular chloritic fragments in a pinked feldspar quartz crystal tuff. Round to rectangular chloritic fragments in a pinked feldspar quartz crystal tuff.
	800	1000	7.70	10.50	Quartz-carbonate stockwork		PINK	Stockwork	Breccia veins	Lithology is FQLT. Matrix is pinked but chlorite still visible in fragments. Feldspar crystals are pinked but euhedral and hard. Lithology is FQLT. Matrix is pinked but chlorite still visible in fragments. Feldspar crystals are pinked but
10.0										
	920	1000	10.50	18.10	Feldspar-quartz lithic tuff		PINK	Fragmental	Stockwork	Moderate alteration (chlorite still present in fragments) and weak stockwork. Moderate alteration (chlorite still present in fragments) and weak stockwork.
20.0										
	880	1000	18.10	30.30	Quartz-carbonate stockwork		PINK	Stockwork	*Pinked/* (Kspar	A well altered and stockworked section. Carbonate-chlorite veins cut (and core) earlier quartz veins. Localized narrow zones of carbonate and quartz crackle breccia. Black sulphides (rare) are more concentrated towards the bottom of the interval. Epidote is also more prevalent in the lower part of the interval.
30.0										
	940	1000	30.30	60.70	Feldspar-quartz lithic tuff	Quartz-carbonate vein	Green and orange	Fragmental	*Pinked/* (Kspar	A uniform interval. Feldspar crystals and matrix are well pinked but fine to coarse lithic fragments are still chloritic. Matrix is also pervasively silicified. Qz + calcite veinlets are abundant but thin, comprising about 5% rock volume. Chlorite and epidote are common associates of calcite. No black sulphides observed but calcite veinlets are sometimes tinged with grey colouration.
40.0										

DRILL HOLE: DDH87_18
PAGE 3



METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0						Quartz-carbonate vein				Calcite cuts qz. Low sulphides. No alteration envelope.
						Fault				Partially healed shatter zone
52.0	940	1000	30.30	60.70	Feldspar-quartz lithic tuff		Green and orange	Fragmental	"Pinked" (Kspar	
62.0	560	1000	60.70	67 80	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Green and orange	Stockwork	Veined	Moderate alteration. Calcite-quartz veins to 30cm thickness. Trace black sulphide. Local QCBX at 65.2 65.3.
72.0	700	1000	67.80	75.60	Quartz-carbonate stockwork	Quartz breccia	PINK	Veined	Stockwork	Intense alteration, some chlorite/epidote replaced by clay (?). Clay is soft WHI, pale green to bright electric green. Feldspars are partially destroyed in areas of local microbreccias.
	730	1000	75.60	80.70	Quartz-carbonate stockwork	Calcite vein	PINK	Veined	Stockwork	Strongly altered, no mafics remain in matrix. Fine quartz stockwork to local crackle breccia is cut by irregular calcite veins, some of which carry disseminated argentite.
82.0	710	1000	80 70	85.10	Quartz-carbonate breccia		Orange and white	Brecciated	Stockwork	Quartz (calcite) stockwork increases in intensity until it becomes a bonafide breccia. This breccia has been infilled and rebrecciated by calcite. Calcite carries the majority of argentite

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
													42.00	43.00	16898	10	2.5	0.070
													43.00	44.00	16899	10	7.0	0.150
													44.00	45.00	16900	10	2.0	0.030
QV	55	CV	35	10.0	5.0	10.0	0.3	2.5	2.5	2	10.0	CL	45.00	58.80				
													58.80	59.50	16901	07	5.0	0.160
													59.50	61.00	16902	15	2.0	0.110
													61.00	62.50	16903	15	8.5	0.180
CV	45	BC	50	10.0	10.0	10.0	1.0	1.0	2.5	2	20.0		62.50	64.00	16904	15	1.5	2.590
												BS	64.00	65.20	16905	12	5.0	0.190
													65.60	66.80	16907	12	1.5	0.150
													66.80	67.80	16908	10	3.0	0.050
													67.80	69.00	16909	12	5.5	0.130
													69.00	69.90	16910	09	15.0	0.350
													69.90	71.40	16911	15	4.0	0.220
				30.0	10.0	10.0	2.5	0.3	1.0	4	30.0		71.40	72.90	16912	15	8.0	0.530
												BS	72.90	74.40	16913	15	8.0	0.740
													74.40	75.60	16914	12	4.5	0.180
													75.60	77.10	16915	15	193.0	2.740
CV	50	QV	50	20.0	20.0	10.0	1.0		2.5	4	40.0		77.10	78.10	16916	10	122.0	1.440
												AR	78.10	79.60	16917	15	10.0	0.260
													79.60	80.80	16918	12	16.0	0.820
													80.80	82.00	16919	12	149.0	3 100
BC	40			30.0	20.0	20.0			1.0	4	50.0		82.00	83.50	16920	15	113.5	2.210
												AR	83.50	85.00	16921	15	198 5	4.060

42.
52.
62.
72.
82.

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
64.0	710	1000	60.70	65.10	Quartz-carbonate breccia		Orange and	Brecciated	Stockwork	Quartz (calcite) stockwork increases in intensity until it becomes a bonafide
	950	1000	65.10	90.00	Feldspar-quartz lithic tuff	Calcite	Green and orange	Stockwork	Fragmental	Weak to moderate patchy alteration. Calcite chlorite healed tectonic breccia in middle of interval.
94.0	980	1000	90.00	101.50	Feldspar-quartz lithic tuff	Quartz-carbonate Quartz-carbonate stockwork	Grey Green	Veined	Stockwork	Almost BCSW. Different style of alteration here. Original mafics have been bleached but matrix has not been extensively pinked or silicified. Rock is green grey with a pink tinge and softer than normal. Feldspars may be sericitized. Black sulphide is heated in calcite veins at the top of the interval.
104.0	700	680	101.50	109.50	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Green and orange	Stockwork	"Pinked/" Kspar	Patchy alteration (2 to 3) associated with stockwork intensity. Bottom 3m of interval only had 18% recovery.
	1000	1000	109.50	111.20	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Pervasively silicified, weakly bleached and pinked.
	980	1000	111.20	114.00	Quartz-carbonate stockwork			Quartz flooded	"Pinked/" Kspar	Lithology is FQLT. Highly bleached, weakly pinked and intense pervasive silicification. Some jet black spots - possibly argentite.
114.0	1000	1000	114.00	116.80	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Weakly bleached, patchy silicification and pinking. Rock is heterolithic with a relatively high amount of mafic phenocrysts.
	970	1000	116.80	124.00	Feldspar-quartz lithic tuff		Reddish green	Stockwork	"Pinked/" Kspar	Brick red feldspar crystals in weakly bleached matrix. Prevalent epidote veining. Reddish green colour.
124.0	930	1000	124.00	126.00	Quartz-carbonate stockwork	Quartz	PINK	Stockwork	Quartz flooded	Most of the argentite is within the breccia.

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
BC	40			30.0	20.0	20.0			1.0	4		50.0		AR	83.50	85.00	18921	15	198.5	4.060
															85.00	86.00	18922	10	5.5	0.620
															86.00	87.00	18923	10	5.5	0.170
QV	75			10.0	5.0	2.5	0.3	1.0	2.5	2		10.0			87.00	87.50	18924	05	2.5	0.040
															87.50	88.10	18925	08	12.0	0.380
															88.10	90.00	18926	19	5.0	0.200
															90.00	91.00	18927	10	33.0	0.740
															91.00	92.50	18928	15	25.5	0.510
															92.50	93.50	18929	10	5.5	0.140
															93.50	94.50	18929	10	13.5	1.200
VN	45	VN	20	20.0	5.0	5.0	1.0	2.5	2.5	2	3	20.0		BS	94.50	95.50	18930	10	4.0	0.620
															95.50	98.30	18931	28	2.5	0.180
											5				98.30	99.80	18932	15	13.0	0.290
															99.80	101.50	18933	17	3.0	0.220
															101.50	103.00	18934	15	1.5	0.080
															103.00	104.50	18935	15	2.5	0.100
CV	45	QV	65	20.0	10.0	5.0		5.0	2.5	2	3	20.0			104.50	106.70	18936	22	4.0	0.110
															106.70	109.40	18937	27	6.5	0.160
QV	45	CV	45	10.0	5.0	5.0			2.5	1		10.0			109.40	110.00	18938	06	3.0	0.120
															110.00	111.20	18939	12	3.0	0.060
QV	50	CV	30	30.0	5.0	5.0	1.0			3		30.0		BS	111.20	112.50	18940	13	3.0	0.060
															112.50	114.00	18941	15	6.0	0.180
QV	75	QV	50	5.0	2.5	5.0			5.0	1		10.0	PY		114.00	115.50	18942	15	3.5	0.120
															115.50	116.80	18943	13	2.0	0.260
															116.80	118.10	18944	13	2.5	0.140
															118.10	119.60	18945	15	4.0	0.160
VN	45			5.0	5.0	10.0	1.0	10.0		2		10.0								
															122.80	123.90	18946	11	4.0	0.940
															123.90	124.50	18947	06	11.0	1.740
QV	40	CV	45	30.0	10.0	10.0	1.0		1.0	3	4	40.0		AR	124.50	126.00	18948	15	464.0	12.380

84.
94.
104
114
124

DRILL HOLE: DDH87_18
PAGE 8

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
126.0	980	1000	126.00	129.10	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Porphyritic	Weakly bleached and pinked. Weak veining but more clay than is normal for the alteration assemblage/intensity
136.0	970	1000	129.10	142.60	Feldspar-quartz lithic tuff		Fleshcoloured	"Pinked/" Kspar	Stockwork	Strongly pinked feldspar crystals, moderately pinked matrix. Lithic fragments epidotized. Small massive clot of galena and sphalerite at 133.9m. Black sulphides in quartz flooded area at 132.8 to 132.7m.
	950	1000	142.60	144.30	Feldspar-quartz lithic tuff		Light Green	Stockwork	Veined	Unusual alteration: rock is altered to soft green mass. This alteration appears to postdate pinking.
			144.30	145.00	Quartz-carbonate		Pale	Crackl	Brecci	Part grey quartz plus calcite crackle
146.0	840	1000	145.00	146.10	Feldspar-quartz lithic tuff			Fragmental	Porphyritic	Brick red feldspar crystals; matrix still chloritic. Weak stockwork.

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	45			5.0	10.0	2.5	1.0	2.5	5.0	2		10.0			126.00	127.50	18849	15	13.5	0.820
															127.50	129.00	18850	15	16.5	0.540
															129.00	131.10	18851	21	9.0	0.230
															131.10	132.50	18852	14	6.5	0.240
															132.50	134.00	18853	15	29.0	1.240
															134.00	135.40	18854	14	2.0	0.280
QV	60	CV	50	20.0	5.0	10.0	1.0	2.5	1.0	2		20.0								
															135.40	141.20				
															141.20	142.70	18855	15	3.0	0.070
				10.0	10.0	1.0	30.0			5		20.0	CY		142.70	144.20	18856	15	4.0	0.260
															144.20	145.00	18857	08	1.5	0.370
QV	70			10.0	5.0	5.0	1.0	1.0	1.0	2		10.0			145.00	146.10	18858	11	1.0	0.230

126
136
146

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: ODH87_19	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ 9/19	COLLAR ELEVATION	: 1325.95
DATE COMPLETED	: 87/ 9/20	COLLAR NORTHING	: 7211.08
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1250.75
PLOT DATE	: 87/NOV/25	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 130.8m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE BELOW 87-13 (AND T87C21)

COMMENTS:

KEY INTERSECTION: FROM: 81.5 TO: 82.5 LENGTH: 1.0M AT: 3.01 G/T AU; 98.5 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
66.8m	39°	
130.8	45	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

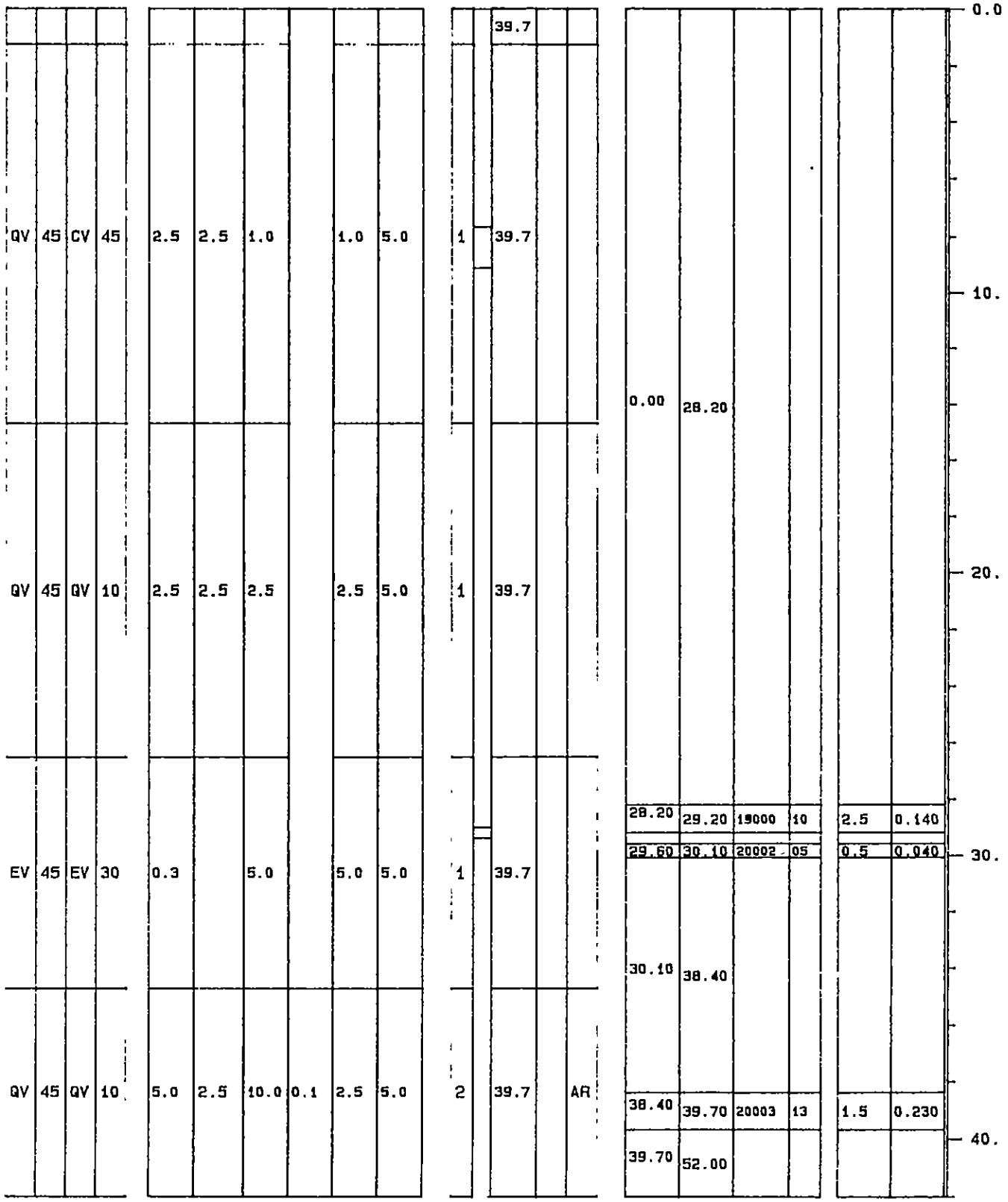
CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
1.30	14.70	Feldspar-quartz lithic tuff
14.70	26.50	Feldspar-quartz lithic tuff
26.50	34.70	Feldspar-quartz lithic tuff
34.70	52.00	Feldspar-quartz lithic tuff
52.00	60.90	Feldspar-quartz lithic tuff
60.90	66.80	Quartz stockwork
66.80	72.40	Feldspar-quartz lithic tuff
72.40	75.70	Quartz-carbonate stockwork
75.70	86.00	Quartz-carbonate stockwork
86.00	106.10	Quartz-carbonate stockwork
108.20	118.30	Quartz-carbonate stockwork
118.30	130.80	Feldspar-quartz lithic tuff

DRILL HOLE: DDH87_19
PAGE 2

METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.30	drill casing					Purpose of hole is to test the down dip extension of the center of the JM zone.
	800	980	1.30	14.70	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Greenish brown	Fragmental	Porphyritic	Weak pinking and silicification, chlorite going to epidote and calcite. Coarse rounded chloritic fragments.
10.0										
20.0	920	1000	14.70	26.50	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Variations in fragment size, abundance and type suggests gradational bedding. Matrix pinking is increasing from the last interval.
30.0	860	1000	26.50	34.70	Feldspar-quartz lithic tuff					Matrix bleaching/pinking has advanced to the point where chloritic fragments are strongly contrasted, giving the rock a coarse measle texture.
	1000	1000	34.70	52.00	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Mottled	Distinctive fabric: green-black rounded fragments, partially epidotized, in an orange matrix. Patches of weak, pervasive silicification, strong pinking and weak veining. Argentite in calcite vein at 38.5m.
40.0										


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
QV 45 CV 45 2.5 2.5 1.0 1.0 5.0 1 39.7
QV 45 QV 10 2.5 2.5 2.5 2.5 5.0 1 39.7
EV 45 EV 30 0.3 5.0 5.0 5.0 1 39.7
QV 45 QV 10 5.0 2.5 10.0 0.1 2.5 5.0 2 39.7 AR
39.7
0.00 28.20
28.20 29.20 19000 10 2.5 0.140
29.60 30.10 20002 05 0.5 0.040
30.10 38.40
38.40 39.70 20003 13 1.5 0.230
39.70 52.00
0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_19
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	1000	1000	34.70	52.00	Feldspar-quartz lithic tuff		Green and orange	Fragmental	Mottled	
52.0	1000	1000	52.00	60 90	Feldspar-quartz lithic tuff	Feldspar-quartz lithic	Green and orange	Fragmental	Porphyritic	Well pinked matrix with conspicuousdark green irregular size and shape fragments. Veining increasing along the interval. 10cm wide qzbx zone at 57.7m, no peripheral alteration. More intense alteration and silicification.
62.0	890	1000	60.90	66.80	Quartz stockwork	Calcite	PINK	Stockwork	Veined	Pink to flesh coloured. Feldspar crystals bright pink-orange, qz crystals dark glassy grey set in pale pink to cream or pale green matrix. Epidote appears te be going to calcite + musco- vite. Fine quartz veinlets form a network or crackle breccia (fragments /breccia filling 10).
	1000	1000	66.80	72.40	Feldspar-quartz lithic tuff	Calcite	Green and orange	Fragmental	Porphyritic	Bleached matrix, pinked feldspars. Weak veining. More intense matrix pinking associated with quartz and/or epidote and/or calcite veins
72.0	970	1000	72.40	75.70	Quartz-carbonate stockwork	Quartz-carbonate	PINK	"Pinked/" (Ksper	Quartz floode d	Upper part of the interval is a vuggy quartz-barite vein followed by a fine quartz stockwork breccia. Intense silicification and pinking.
82 0	980	1000	75.70	86.00	Quartz-carbonate stockwork	Carbonate-	PINK	Stockwork	Veined	Intensely pinked and silicified. Chlorite, epidote and feldspars appear to be going to clay, muscovite and quartz. Argentite occurs both within quartz flooded areas and with late crosscutting calcite (little chlorite) veins and veinlets.

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	45	QV	10	5.0	2.5	10.0	0.1	2.5	5.0	2	1	10.0		AR	39.70	52.00				
BC	45	CV	10	10.0	5.0	10.0		5.0	1.0	2	3	10.0	CL		52.00	53.50	20004	15	0.5	0.390
															53.50	55.00	20005	15	0.5	0.160
															55.00	56.50	20006	15	0.5	0.090
															56.50	58.50	20007	20	0.5	0.020
															58.50	60.80	20008	23	0.5	0.020
CV	10	QV	50	30.0	5.0	10.0	2.5	2.5	1.0	3		30.0			60.80	62.80	20009	20	3.0	0.310
											2				62.80	64.30	20010	15	8.0	0.310
															64.30	65.80	20011	15	8.0	0.440
															65.80	66.50	20012	07	11.0	0.810
CV	50			5.0	5.0	5.0		5.0	1.0	2		5.0	CL		66.50	68.00	20013	15	5.0	0.100
															68.00	69.50	20014	15	3.5	0.070
															69.50	71.00	20015	15	5.5	0.170
															71.00	72.50	20016	15	1.0	0.130
QV	70			30.0	10.0	10.0			1.0	3	4	30.0	BA	AR	72.80	73.80	20018	10	18.5	0.410
															73.80	75.50	20019	17	20.5	1.480
QV	50	CV	60	40.0	10.0	20.0	1.0	1.0	1.0	4		40.0		AR	75.50	76.50	20020	10	8.0	0.250
															76.50	77.50	20021	10	13.0	0.360
															77.50	78.50	20022	10	13.5	0.960
															78.50	79.50	20023	10	6.5	0.210
															79.50	80.50	20024	10	5.0	0.170
															80.50	81.50	20025	10	9.0	0.400
															81.50	82.50	20026	10	98.5	3.010
															82.50	84.00	20027	15	3.5	0.290

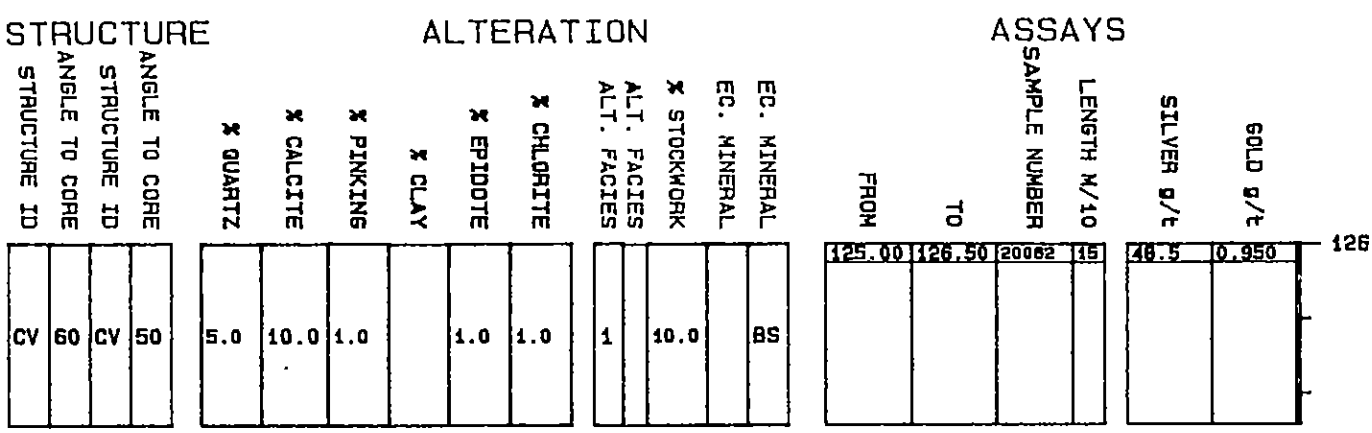
42.
52.
62.
72.
82.

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0	960	1000	75.70	86.00	Quartz-carbonate stockwork		PINK	Stockwork	Veined	Intensely pinked and silicified. Chlorite, epidote and feldspars appear to be going to clay, muscovite and quartz. Argentite occurs both within quartz flooded areas and with
94.0	960	1000	86.00	106.10	Quartz-carbonate stockwork	Carbonate-quartz breccia	Green and orange	Stockwork	Veined	Patchy alteration and silicification. Stockwork varies from mild to intense within breccias. Specks of black sulphide are distributed within both calcite and quartz veins throughout this interval. Partially healed shatter zone between 80-81.4m. Fine rare black sulphides occur within siliceous fragments. Narrow (4-10cm) zones of breccia usually due to calcite invasion. Some carry fine disseminations of black sulphide.
104.0	960	1000	106.10	106.20	Feldspar-quartz lithic tuff		Medium Green	Fragmental	Heterolithic	Weakly altered with a chlorite, epidote, Kspar, quartz, calcite assemblage. Weak quartz and minor calcite veining.
	740	1000	106.20	116.30	Quartz-carbonate stockwork		PINK	Stockwork	Veined	Strongly pinked and quartz stockworked rock cut by calcite veins forming carbonate-quartz breccia. A number of areas have been extensively fractured and healed with chlorite-calcite. Earthy hematite is also found as fracture coatings near these fracture zones. Alteration weakens towards the bottom of the interval.
114.0	1000	1000	116.30	130.80	Feldspar-quartz lithic tuff		Light Green	Veined	Fragmental	Weakly altered but moderately veined by 1-3cm calcite veinlets. Many of the veinlets are grey in the center and contain sparse black sulphides on their margins. Both veining and alteration decrease towards the bottom of the interval.
124.0										

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	FC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	50	CV	60	40.0	10.0	20.0	1.0	1.0	1.0	4		40.0		AR	84.00	85.00	20028	10	9.0	0.260
															85.00	86.00	20029	10	14.0	0.390
															86.00	87.40	20030	14	1.5	0.090
															87.40	88.80	20031	14	15.5	0.510
															88.80	90.20	20032	14	4.5	1.210
															90.20	91.60	20033	14	19.5	1.980
															91.60	92.60	20034	10	4.0	0.160
															92.60	93.10	20035	05	3.5	0.220
															93.10	94.10	20036	10	2.0	0.190
															94.10	95.60	20037	15	3.0	0.150
BC	75	QV	55	20.0	10.0	5.0	0.3	2.5	5.0	2	4	30.0		BS	95.60	96.30	20038	07	3.5	0.350
															96.30	97.80	20039	15	7.0	0.290
															97.80	98.80	20040	10	1.0	0.170
															98.80	99.80	20041	10	5.5	1.020
															99.80	101.30	20042	15	1.5	0.100
															101.30	102.80	20043	15	1.0	0.040
															102.80	103.50	20044	07	28.5	1.980
															103.50	105.00	20045	15	3.5	0.640
															105.00	106.00	20046	10	12.5	0.410
QV	70			5.0	2.5	2.5		2.5	5.0	1		10.0			106.00	107.00	20047	10	2.0	0.090
															107.00	108.20	20048	12	2.0	0.080
															108.20	109.20	20049	10	7.5	0.230
															109.20	110.70	20050	15	6.0	0.290
															110.70	112.20	20051	15	16.5	0.620
QV	65	BC	60	30.0	20.0	10.0		2.5	2.5	3		40.0		BS	112.20	113.60	20052	14	6.0	0.230
															113.60	115.00	20053	14	7.0	0.260
															115.00	115.80	20054	08	6.0	0.240
															115.80	117.00	20055	12	10.5	0.340
															117.00	118.20	20056	12	6.5	0.240
															118.20	119.70	20057	15	4.5	0.140
															119.70	120.70	20058	10	8.0	0.450
															120.70	121.70	20059	10	1.5	0.020
CV	60	CV	50	5.0	10.0	1.0		1.0	1.0	1		10.0		BS	121.70	123.50	20060	18	12.0	0.160
															123.50	125.00	20061	15	7.0	0.250
															125.00	126.50	20062	15	48.5	0.950

84.
94.
104
114
124

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
126.0	1000	1000	118.30	130.80	Feldspar-quartz lithic tuff		Light Green	Veined	Fragmental	Weakly altered but moderately veined by 1-3cm calcite veinlets. Many of the veinlets are grey in the center and contain sparse black sulphides on their margins. Both veining and alteration decrease towards the bottom of the interval.


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
CV
60
CV
50
5.0
10.0
1.0
1.0
1.0
1
10.0
BS
125.00
126.50
20062
15
48.5
0.950
126

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_20	COLLAR AZIMUTH	: 242.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/21**	COLLAR ELEVATION	: 1276.09
DATE COMPLETED	: **9/24**	COLLAR NORTHING	: 7330.35
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1163.56
PLOT DATE	: 87/NOV/25	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 133.8m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE SECTION 1600N

COMMENTS:

KEY INTERSECTION: FROM: 25.1 TO: 28.8 LENGTH: 3.7M AT: 2.13 G/T AU: 37.2 G/T AG
. 82.8 84.8 2.0 1.54 G/T AU: 41.8 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
55.7m	42°	
133.8	42	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
1.50	6.50	Feldspar-quartz lithic tuff
6.50	17.00	Feldspar-quartz lithic tuff
17.00	21.60	Feldspar-quartz lithic tuff
21.60	24.50	Carbonate-quartz breccia
24.50	35.80	Feldspar-quartz lithic tuff
35.80	45.90	Feldspar-quartz lithic tuff
45.90	51.20	Feldspar-quartz lithic tuff
51.20	57.90	Feldspar-quartz lithic tuff
57.90	62.40	Feldspar-quartz lithic tuff
62.40	65.10	Quartz stockwork
65.10	72.10	Quartz-carbonate stockwork
72.10	84.70	Quartz-carbonate stockwork
84.70	88.40	Feldspar-quartz lithic tuff
88.40	97.00	Feldspar-quartz lithic tuff
97.00	100.60	Quartz-carbonate stockwork
102.10	122.10	Lapilli crystal tuff
122.10	131.50	Lapilli crystal tuff

DRILL HOLE: DDH87_20
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	1.50	drill casing					
	700	850	1.50	6.50	Feldspar-quartz lithic tuff		Red-brown	Porphyritic	Fragmental	Weakly altered with orange feldspars in a highly chloritized matrix. Minor QCVNs with fine black sulphides.
10.0	950	1000	6.50	17.00	Feldspar-quartz lithic tuff		Green and orange	Porphyritic	Fragmental	Slight increase in alteration over last interval. Matrix is beginning to "bleach." Veining is becoming more regular. Calcite + chlorite veins greater than qz veins.
20.0	900	1000	17.00	21.60	Feldspar-quartz lithic tuff		Pale Orange	Porphyritic	Veined	Matrix is bleached to a cream colour with pink feldspar phenos and clusters of chlorite. Qz + calcite veining to stockwork.
	970	1000	21.60	24.50	Carbonate-quartz breccia		White orange	Brecciated	Veined	A multi-stage breccia. May be partly tectonic in origin. Intensly pinked fragments float in calcite matrix. Later crackle breccia with chlorite-calcite filling. 20cm wide interval in center of zone carries abundant argentite.
30.0	600	1000	24.50	35.80	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Orange-brown	Veined	"Pinked" (Kspar	Strongly pinked FX. Matrix moderately lightened. Weak qz and calcite veining (but close spaced - almost crackle breccia). Argentite observered near the center of the interval.
	980	1000	35.80	45.90	Feldspar-quartz lithic tuff	Calcite vein	Orange-brown	Veined	Porphyritic	Original textures are becoming less distinct. Calcite veins range from 1cm to 1m and contain finely disseminated argentite and silver (electrum?) along their margins. Silver bearing veins are indistinguishable from barren (?) ones.
40.0										

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EQ. MINERAL	EQ. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
															0.00	1.50				
CV	50			2.5	2.5	2.5			10.0	1		3.0		BS	1.50	2.50	20083	10	0.5	0.020
															2.50	4.40	20084	19	1.0	0.030
															4.40	5.50	20085	11	50.5	0.430
															5.50	6.50	20086	10	1.0	0.020
CV	60			2.5	2.5	2.5	0.3		2.5	1		5.0		BS	6.50	8.10	20087	16	3.0	0.020
															8.10	9.70	20088	16	1.0	0.020
															9.70	11.40	20089	17	17.0	0.180
															11.40	12.90	20070	15	4.5	0.080
															12.90	13.40	20071	05	7.5	0.100
															13.40	14.90	20072	15	6.5	0.020
															14.90	16.00	20073	11	1.0	0.040
															16.00	17.00	20074	10	1.0	0.020
CV	45	QV	65	10.0	5.0	5.0	1.0		2.5	2		10.0			17.00	18.00	20075	10	0.5	0.020
															18.00	19.30	20076	13	1.5	0.020
															19.30	20.30	20077	10	0.5	0.020
															20.30	21.60	20078	13	2.0	0.080
				10.0	40.0	10.0	1.0		2.5	4		50.0	CA	BS	21.60	22.60	20079	10	7.5	0.160
															22.60	23.10	20080	05	23.0	0.560
															23.10	24.50	20081	14	7.5	0.210
															24.50	25.10	20082	06	2.0	0.150
															25.10	26.10	20083	10	4.5	1.330
															26.10	27.10	20084	10	21.0	3.020
															27.10	28.60	20085	17	66.0	2.080
CV	50	CV	10	5.0	10.0	5.0	1.0	1.0	1.0	2		10.0		AR	28.60	30.30	20086	15	1.0	0.020
															30.30	31.50	20087	12	0.5	0.020
											2				31.50	32.50	20088	10	0.5	0.120
															32.50	33.50	20089	10	3.0	0.220
															33.50	35.00	20090	15	2.0	0.020
															35.00	36.10	20091	11	4.0	0.020
															36.10	37.10	20092	10	131.5	1.330
CV	85	CV	45	5.0	10.0	5.0	1.0	1.0	2.5	2		10.0	BS	AG	37.10	39.10	20093	20	0.5	0.040
															39.10	40.10	20094	10	5.5	0.090
															40.10	41.30	20095	12	2.0	0.050
															41.30	42.30	20096	10	5.5	0.130

0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_20
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	960	1000	35.80	45.90	Feldspar-quartz lithic tuff		Orange-brown	Veined	Porphyritic	Original textures are becoming less distinct. Calcite veins range from 1cm to 1m and contain finely disseminated argentite and silver (electrum?) along their margins. Silver bearing veins are indistinguishable from barren (?) ones.
	200	970	45.90	51.20	Feldspar-quartz lithic tuff		Orange-brown	Fragmental	Porphyritic	Type FELT. Pinked FX but otherwise unaltered. Highly fractured with very weak veining.
52.0	960	1000	51.20	57.90	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Weakly bleached matrix and pinked FX. Chloritic fragments are aligned and flattened parallel to core axis.
	980	1000	57.90	62.40	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Ragged, chloritic, porphyritic frags in a crystal tuff. FX pinked, minor epidote. 1 to 10mm calcite and qz veinlets - a few with rare specks of grey sulphide.
62.0	700	1000	62.40	65.10	Quartz stockwork	Feldspar-quartz lithic	PINK	Stockwork	Veined	Silicification and pinking increase downwards. Cl occurs with late calcite veinlets.
	980	1000	65.10	72.70	Quartz-carbonate stockwork	Quartz-carbonate breccia		Stockwork	Brecciated	A well defined zone. Strong, but patchy, QCSW cut by CVs and brecciated with calcite filling. Alteration of host tuff varies from mild to intense. Argentite occurs within qzvns, pinked fragments, calcite bx matrix and, to a lesser extent, calcite veinlets.
72.0	980	1000	72.70	84.70	Quartz-carbonate stockwork		Orange-brown	Quartz flooded	"Pinked/" Kspar	Patchy alteration, but in general, moderate to strong. Local second generation crackle breccias and third generation calcite breccias.
82.0										

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	FC. MINERAL	FC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	85	CV	45	5.0	10.0	5.0	1.0	1.0	2.5	2	10.0	BS	AG	42.30 42.30	43.30	20097	10	48.0	0.750
														43.30 43.30	44.30	20098	10	3.0	0.020
														44.30	44.90	20099	06	2.0	0.050
														44.90 44.90	45.90	20100	10	63.5	0.980
CV	60			2.5	5.0	2.5	0.1		1.0	1	5.0	CL		45.90 45.90	47.90	12826	20	3.0	0.030
														47.90 47.90	49.90	12827	20	3.5	0.050
														49.90 49.90	51.20	12828	13	4.0	0.080
CV	70	CV	40	2.5	2.5	2.5				1	3.0			51.20 51.20	59.30				
CV	70	CV	50	2.5	5.0	1.0		0.3	10.0	1	10.0		BS	59.30 59.30	60.80	12830	15	1.0	0.020
														60.80 60.80	62.50	12831	17	5.0	0.150
QV	60			30.0	10.0	10 0	0.1	2.5	1.0	3	40.0			62.50 62.50	63.50	12832	10	2.0	0.090
														63.50 63.50	65.00	12833	15	5.5	0.160
														65.00 65.00	66.50	12834	15	112.5	1.430
										3				66.50 66.50	68 00	12835	15	32.0	0.460
CV	50	QV	45	30.0	20 0	10.0			2.5	3	50.0	CA	AR	68.00 68.00	69.00	12836	10	31.0	0.330
														69.00 69 00	70 00	12837	10	92.0	1.060
														70.00	70.70	12838	07	19.5	0.260
														70.70 70 70	71.70	12839	10	8.5	0.120
														71.70 71 70	72.70	12840	10	30.0	0.450
														72.70 72.70	74.20	12841	15	17.5	0.170
														74.20 74.20	75.20	12842	10	4.0	0 060
														75.20 75.20	76.20	12843	10	9.0	0 080
														76.20 76.20	77.20	12844	10	12.0	0.150
														77.20 77.20	78.20	12845	10	12.0	0.180
CV	50			30 0	20.0	10.0		1.0	2.5	3	40.0		BS	78.20	78.80	12846	06	4.5	0.030
														78.80 78.80	79.80	12847	10	18.0	0.170
														79.80 79.80	81.30	12848	15	9.0	0.140
														81.30 81.30	82.80	12849	15	13 0	0.380
														82.80 82.80	83.80	12850	10	17 5	0.490

42.
52.
62.
72
82

DRILL HOLE: DDH87_20
PAGE 6

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0	950	1000	72.10	84.70	Quartz-carbonate		Orange	Quartz	*Pinke	Moderate to strong but patchy alteration.
	990	1000	84.70	88.40	Feldspar-quartz lithic tuff			Porphyritic	Fragmental	
94.0	930	1000	88.40	97.00	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Virtually unaltered. Dark green brown matrix with rounded chloritic frags and minor heterolithic frags.
	850	1000	97.00	100.60	Quartz-carbonate stockwork			Stockwork	*Pinked/* Kspar	A well-pinked qz flooded SW zone that has been tectonically brecciated and healed with calcite-chlorite.
	600	1000	100.60	102.10	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Typical FQLT with weak alteration and weak SW.
104.0	930	940	102.10	122.10	Laplll crystal tuff	Quartz breccia	PINK			May be FQLT; but has dark green sub-angular frags set in a pale pink crowded fx-qz crystal tuff. Some fragments are heterolithic. Some chloritic frags are flattened. Crackle BX, strongly pinked frags in grey qz matrix. Minor calcite and chlorite selvages. Could be Helen Bx.
114.0										
124.0	950	1000	122.10	131.50	Laplll crystal tuff		Grey Green	Fragmental	Porphyritic	Same composition as previous interval but abundant, coarse, sub-rounded frags - almost a tuff-breccia.

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	50			30.0	20.0	10.0		1.0	2.5	3		40.0		BS	83.80	84.80	12851	10	68.0	2.580
															84.80	85.80	12852	10	8.0	0.310
QV	50	CV	80	10.0	5.0	5.0		1.0	5.0	2		10.0		BS	85.80	88.90	12853	11	6.5	0.150
															88.90	88.40	12854	15	5.0	0.100
															88.40	89.40	12855	10	3.5	0.030
CV	45	CV	60	2.5	2.5			1.0	10.0	0		5.0			89.40	96.00				
															96.00	97.00	12856	10	8.0	0.080
															97.00	98.00	12857	10	8.5	0.220
				30.0	20.0	10.0	0.3	1.0	2.5	3		40.0		BS	98.00	99.50	12858	15	9.0	0.200
															99.50	101.00	12859	15	5.0	0.390
QV	45			5.0	2.5	1.0			1.0	1		10.0	CL		101.00	102.50	12860	15	5.5	0.190
											4				102.50	103.30	12861	08	11.0	0.310
															103.30	104.30	12862	10	8.0	0.210
															104.30	105.80	12863	15	8.5	0.520
															105.80	106.80	12864	10	7.5	0.210
															106.80	107.80	12865	10	8.0	0.180
															107.80	108.80	12866	10	6.0	0.110
															108.80	109.80	12867	10	8.0	0.180
				5.0	5.0	5.0				2		10.0			109.80	112.60	12868	28	9.5	0.230
															112.60	114.60	12869	20	6.5	0.200
															114.60	116.10	12870	15	6.5	0.350
															116.10	117.60	12871	15	4.5	0.160
															117.60	119.10	12872	15	2.5	0.060
															119.10	120.60	12873	15	3.5	0.060
															120.60	122.10	12874	15	1.5	0.030
QV	40			1.0	1.0	2.5		2.5	10.0	1		2.0		BS	122.10	127.40				

84.
94.
104
114
124

DRILL HOLE: DDH87_20
PAGE 8

METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
126.0										
	850	1000	122.10	131.50	Lapilli crystal tuff		Grey Green	Fragmental	Porphyritic	Same composition as previous interval but abundant, coarse, sub-rounded frags - almost a tuff-breccia.
	800	1000	131.50	150.00	Lapilli crystal tuff		PINK	Fragmental	Porphyritic	

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
															122.10	127.40				
QV	40			1.0	1.0	2.5		2.5	10.0	1		2.0		BS	127.40	128.90	12875	15	0.5	0.030
															128.90	130.20	12876	13	0.5	0.020
															130.20	131.70	12877	15	0.5	0.020
QV	40			10.0	5.0	5.0		2.5	5.0	2		10.0		BS	131.70	133.20	12878	15	0.5	0.070
															133.20	134.80	12879	14	2.0	0.130

126

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_21	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/24**	COLLAR ELEVATION	: 1255.64
DATE COMPLETED	: 87/ **9/26**	COLLAR NORTHING	: 7410.56
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1114.36
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 136.9**m**

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM ZONE ON NORTH END

COMMENTS: MISLATCH & HOLE BLOCKED AT 136.9 M

KEY INTERSECTION: FROM: 55.6 TO: 79.9 LENGTH: 24.3M AT 0.64 G/T AU; 33.7 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
48.5m	41°	

SUMMARY REMARKS

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	5.80	Overburden
5.80	35.10	Feldspar-quartz lithic tuff
35.10	40.70	Quartz-carbonate stockwork
40.70	46.10	Feldspar-quartz lithic tuff
46.10	53.60	Feldspar-quartz lithic tuff
53.60	69.80	Feldspar-quartz crystal tuff
69.80	72.70	Fault zone
72.70	80.60	Quartz-carbonate stockwork
80.60	86.00	Quartz-carbonate stockwork
86.00	91.50	Feldspar-quartz lithic tuff
91.50	104.30	Quartz-carbonate stockwork
104.30	113.00	Feldspar-quartz lithic tuff
113.00	120.90	Quartz-carbonate stockwork
120.90	129.50	Feldspar-quartz lithic tuff
129.50	136.90	Feldspar-quartz lithic tuff

DRILL HOLE: DDH87_21
PAGE 2

METERS	ROD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	5.80	Overburden					
10.0						Dyke				
						Quartz-car				Not really a stockwork, but closely spaced
20.0	900	1000	5.80	35.10	Feldspar-quartz lithic tuff		Orange-brown	Porphyritic	Fragmental	
30.0						Carbonate-				Narrow (20cm) quartz breccia cut by calcite
	880	1000	35.10	40.70	Quartz-carbonate stockwork		Pale Green	Veined	Fragmental	FOLT as above but variably veined and altered from mild to intense. Minor black sulphides within calcite veins and quartz flooded areas.
40.0			40.70	46.10	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Fleshcoloured			Moderate to strong pinking and silicification, weak veining. Matrix moderately bleached.

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	% STOCKWORK	FE. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
													0.00	7.40				
													7.40	8.90	12891	15	7.5	0.140
													8.90	10.40	12892	15	5.5	0.100
													10.40	11.90	12893	15	29.5	0.540
													11.90	13.20	12894	13	37.0	0.420
													13.20	13.90	12895	07	1.5	0.080
													13.90	15.70	12896	18	0.5	0.160
													15.70	16.20	12897	05	13.0	0.520
													16.20	17.20	12898	10	4.5	0.060
													17.20	18.20	12899	10	7.5	0.170
													18.20	19.20	12900	10	0.5	0.100
CV	5	CV	50	5.0	5.0	5.0		1.0	2.5	1	10.0	BS						
													19.20	25.70				
													25.70	27.00	12901	13	17.5	0.390
													27.00	27.70	12902	07	3.0	0.170
													27.70	29.20	12903	15	1.5	0.070
													29.20	30.40	12904	12	3.5	0.120
													30.40	31.90	12905	15	20.5	0.290
													31.90	33.40	12906	15	10.0	0.250
													33.40	35.20	12907	18	6.5	0.160
													35.20	36.20	12908	10	8.0	0.130
													36.20	37.70	12909	15	24.5	0.400
CV	80	QV	60	20.0	10.0	5.0	1.0		2.5	2	20.0	BS	37.70	39.00	12910	13	1.0	0.160
													39.00	40.20	12911	12	2.0	0.080
QV	45	CV	60	20.0	5.0	10.0		1.0	2.5	2	10.0	BS	40.20	41.70	12912	15	10.0	1.590

0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_21
PAGE 4

METERS	ADD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
12.0			40.70	46.10	Feldspar-quartz lithic tuff	Quartz-carbonate stockwork	Flesh coloured			Moderate to strong pinking and silicification. Weak veining. Matrix moderately bleached.
	980	1000	46.10	53.80	Feldspar-quartz lithic tuff	Quartz breccia	Light Green	Fragmental	Porphyritic	Subrounded chloritic fragments in a moderately bleached matrix. Weak veining.
52.0										
62.0	800	1000	53.80	69.80	Feldspar-quartz crystal tuff	Carbonate-quartz stockwork	Green and orange	Porphyritic	Stockwork	Bright orange coarse feldspars in a grey green matrix. Weak quartz veining, but patches of pervasive silicification. Moderate calcite (+ clay) veining - locally narrow zones of crackle breccia. Strong epidote fracture fill but weak matrix alteration. Abundant black sulphide at 57.5m.
	00	200	69.80	72.70	Fault zone			Stockwork	Brecciated	Top of interval (8cm) is a green quartz breccia. Rest of interval is rubble including some exotic lithologies.
72.0										
	1000	1000	72.70	80.60	Quartz-carbonate stockwork	Quartz-carbonate	PINK	Stockwork	Brecciated	Strongly pinked and silicified. Original lithology is indeterminant.
82.0	1000	1000	80.60	86.00	Quartz-carbonate stockwork		Red-orange	"Pinked/" (Kspar	Quartz flooded	Strong pervasive silicification and pinking. Fine quartz stockwork. Late calcite and chlorite veins and patches. Trace black sulphides.

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	45	CV	60	20.0	5.0	10.0		1.0	2.5	2		20.0		BS	41.70	43.20	12913	15	11.5	0.320
															43.20	44.70	12914	15	3.0	0.090
															44.70	46.30	12915	16	4.0	0.110
QV	45			10.0	1.0	5.0			5.0	1		5.0			46.30	47.80	12916	15	0.5	0.030
											4				47.80	48.80	12917	10	4.5	0.090
															48.80	49.80	12918	10	4.5	0.060
															49.80	52.60				
															52.60	53.60	12919	10	2.5	0.080
															53.60	54.60	12920	10	2.5	0.190
															54.60	55.60	12921	10	2.5	0.150
CV	60	QV	10	20.0	10.0	2.5	1.0	5.0		1	2	20.0		BS	55.60	57.30	12922	17	3.5	1.420
															57.30	58.80	12923	15	22.0	0.760
															58.80	59.80	12924	10	3.0	0.110
															59.80	60.80	12925	10	2.5	0.070
															60.80	61.80	12926	10	0.5	0.540
															61.80	63.30	12927	15	1.5	1.480
															63.30	64.80	12928	15	1.0	0.180
															64.80	66.80	12929	20	0.5	0.090
															66.80	68.30	12930	15	1.0	0.150
															68.30	69.80	12931	15	1.0	1.280
															69.80	72.70	12932	29	2.0	0.050
															72.70	74.20	12933	15	6.0	0.240
															74.20	75.20	12934	10	14.0	0.690
															75.20	75.90	12935	07	3.0	0.080
BC	80	QV	70	30.0	10.0	20.0	1.0		2 5	3	5	30.0		AR	75.90	76.90	12936	10	179.0	2.140
															76.90	77.90	12937	10	71.0	1.600
															77.90	78.90	12938	10	9.5	0.670
															78.90	79.90	12939	10	31.0	0.710
															79.90	80.90	12940	10	9.5	0.110
															80.90	81.90	12941	10	6.0	0 120
QV	60	QV	5	30.0	5.0	20.0			5.0	3		30.0	CL	BS	81.90	83.40	12942	15	6.0	0.110
															83.40	84.40	12943	10	6.0	0.120

42.
52.
62.
72.
82.

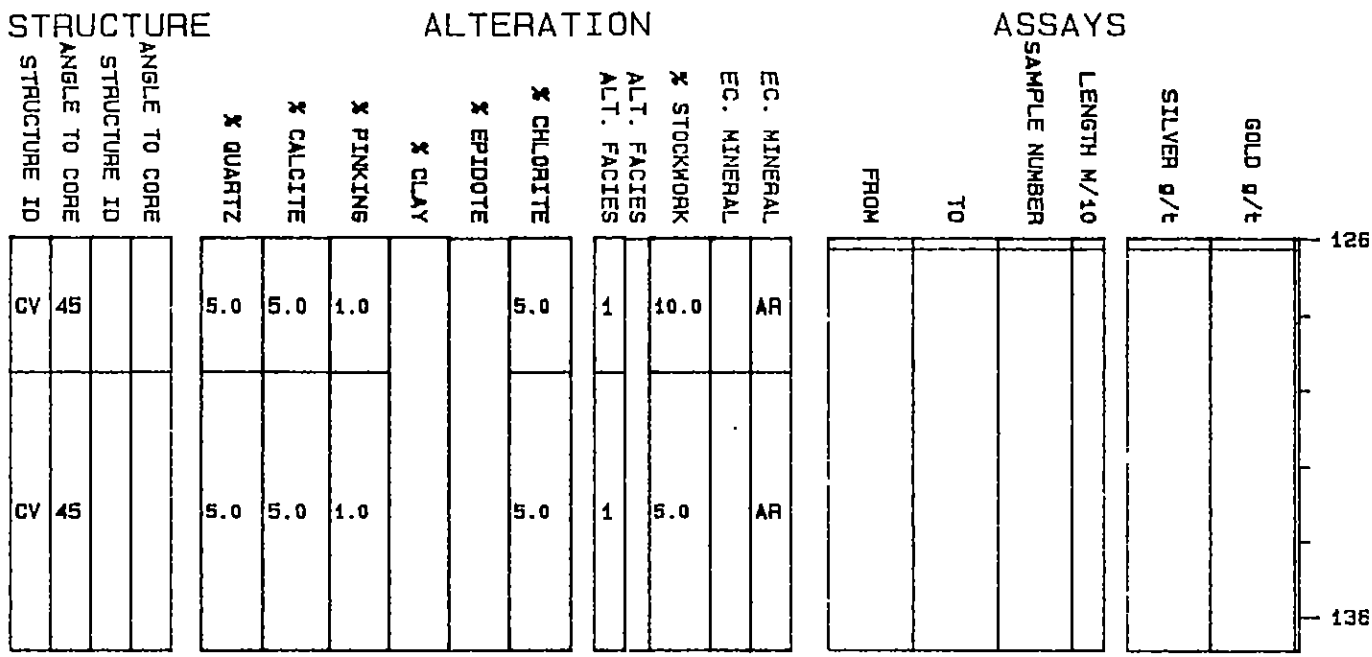
METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0	1000	1000	80.80	86.00	Quartz-carbonate stockwork		Red-orange	*Pinked/* Kspar	Quartz flooded	Strong pervasive silicification and pinking. Fine quartz stockwork. Late calcite and chlorite veins and patches. Trace black sulphides.
	1000	1000	86.00	91.50	Feldspar-quartz lithic tuff		Dark Green	Fragmental	Porphyritic	Patchy pinking and silicification, weak veining. Fragments slightly flattened and very chloritic. 1cm fault gouge at 91.2m.
94.0	1000	1000	91.50	104.30	Quartz-carbonate stockwork	Quartz		Veined	Quartz flooded	Patchy veining breccias and alteration in FGLT. Electrum occurs in quartz-carbonate breccia at top of interval. Early light grey quartz breccia with totally silicified fragments and disseminated black sulphides is cut by a calcite vein.
104.0	1000	1000	104.30	113.00	Feldspar-quartz lithic tuff		Light Green	Fragmental	Heterolithic	Only altered peripheral to veinlets . Almost crystal lithic wacke with fine subrounded heterolithic fragments.
114.0	880	1000	113.00	120.90	Quartz-carbonate stockwork		PINK	*Pinked/* Kspar	Fragmental	Well pinked and silicified with unaltered patches. Fragments still discernable, no black sulphides observed.
124.0	1000	1000	120.90	129.50	Feldspar-quartz lithic tuff		Grey Green	Fragmental		Feldspar not distintive is not classic FGLT. Fragments coarsen down the interval. Quartz-carbonate veinlets carry disseminated argentite. 2cm fault gouge at 114.1m.

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	60	QV	5	30.0	5.0	20.0			5.0	3		30.0	CL	BS	84.40	86.10	12944	17	3.0	0.220
															86.10	87.60	12945	15	5.0	0.080
CV	55			20.0	10.0	5.0		1.0	5.0	2		20.0			87.60	89.10	12946	15	5.5	0.090
															89.10	90.60	12947	15	2.5	0.080
															90.60	91.60	12948	10	2.0	0.080
															91.90	92.90	12950	10		
															92.90	93.90	12951	10	2.0	0.070
															93.90	94.90	12952	10	2.5	0.080
															94.90	95.90	12953	10	1.5	0.090
															96.00	97.00	12955	10	3.0	0.280
BC	10	CV	50	20.0	10.0	2.5		1.0	2.5	2		20.0	BS	EL	97.00	98.50	12956	15	3.0	0.160
															98.50	100.00	12957	15	3.0	0.020
										3					100.00	101.00	12958	10	7.5	0.130
															101.00	101.50	12959	05	2.5	0.020
															101.50	103.00	12960	15	1.0	0.070
															103.00	104.00	12961	10	17.5	0.380
															104.00	105.00	12962	10	1.0	0.040
															105.00	106.00	12963	10	89.0	3.800
															106.00	107.00	12964	10	0.5	0.090
CV	45			2.5	10.0	1.0		2.5	10.0	1		10.0		BS	107.00	110.00				
															110.00	112.00	12965	20	0.5	0.060
															112.00	113.00	12966	10	0.5	0.140
															113.00	114.20	12967	12	2.5	0.290
															114.20	115.20	12968	10	1.0	0.020
QV	45			30.0	5.0	20.0	1.0		5.0	3		30.0			115.20	116.70	12969	15	4.0	0.120
															116.70	117.70	12970	10	1.5	0.080
															117.70	118.80	12971	11	0.5	0.170
															118.80	119.80	12972	10	2.0	0.150
															119.80	120.80	12973	10	6.0	0.100
															120.80	122.30	12974	15	5.5	0.090
															122.30	123.80	12975	15	1.0	0.040
CV	45			5.0	5.0	1.0			5.0	1		10.0		AR	123.80	125.30	12976	15	8.5	0.150
															125.30	126.30	12977	10	7.0	0.090

84.
94.
104
114
124

DRILL HOLE: DDH87_21
PAGE 8

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
126.0	1000	1000	120.90	129.50	Feldspar-quartz lithic tuff		Grey Green	Fragmental		Feldspar not distintive ie not classic FQLT. Fragments coarsen down the interval. Quartz-carbonate veinlets carry disseminated argentite. 2cm fault gouge at 114.1m.
	1000	1000	129.50	136.90	Feldspar-quartz lithic tuff		Grey Green	Fragmental		Slightly more bleached looking but fewer veinlets and no silver sulphides observed.
136.0										


STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
CV 45 5.0 5.0 1.0 5.0 1 10.0 AR
CV 45 5.0 5.0 1.0 5.0 1 5.0 AR
126
136

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_22	COLLAR AZIMUTH	: 240.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/27**	COLLAR ELEVATION	: 1302.16
DATE COMPLETED	: 87/ 9/28	COLLAR NORTHING	: 7264.41
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1162.86
PLOT DATE	: 87/DEC/ 4	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 110.6m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST JM AND HELEN ZONES SECTION 1550N

COMMENTS:

KEY INTERSECTION: FROM: 36.0 TO: 54.4 LENGTH: 18.4M AT: 2.08 G/T AU; 100.6 G/T AG
. 36.0 42.3 6.3 4.25 G/T AU; 200.2 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH

SUMMARY REMARKS

The JM alteration/mineraliz ation occurs from 6.2 to 45.8m with 7m appearant thickness of QZBX (34-41.0m) The central breccia zone is well endowed with black sulphides and/or argentite, but no electrum was observed. The Helen Bx could be any, or all, of the lower SW zones at 64.2-66.4, 79.4-81.7, and 84.4-86.6.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	3.60	Overburden
6.20	24.00	Quartz-carbonate stockwork
24.00	34.20	Quartz-carbonate stockwork
34.20	41.00	Quartz-carbonate breccia
41.00	45.80	Quartz-carbonate stockwork
45.80	53.80	Feldspar-quartz lithic tuff
53.80	64.20	Feldspar-quartz lithic tuff
64.20	83.60	Crystal-lithic ash tuff
83.60	97.20	Feldspar-quartz lithic tuff
97.20	110.60	Feldspar-quartz lithic tuff

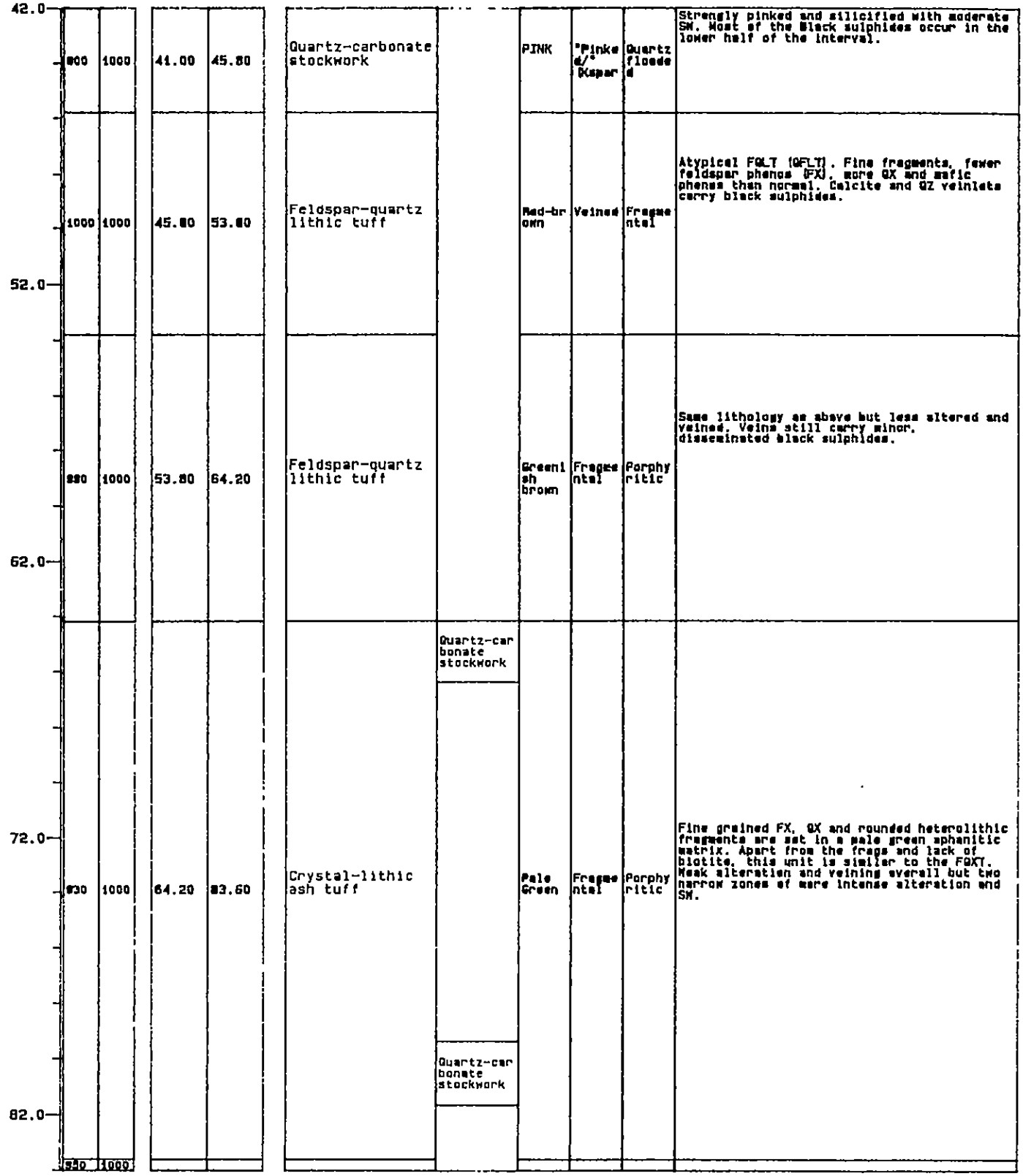
DRILL HOLE: DDH87_22
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	3.80	Overburden					
	250	960	3.60	6.20	Feldspar-quartz lithic tuff		Orange-brown	Fragmental	Porphyritic	Classic chloritic fragment FELT. Weak alteration; some matrix pinking and minor veining
10.0	700	1000	6.20	24.00	Quartz-carbonate stockwork	Quartz-carbonate breccia	PINK	"Pinked/" Kspar	Quartz flooded	A well-pinked and qz flooded interval. Alteration changes from facies 2 to 4. Calcite veins, some with chlorite selvages cut silicified rock. Vein orientation is all over but 45 is the average or dominant trend. Black sulphides are hosted by intense qz flooded to QZBX zones at 8.8, 16.7, 20.7, 21.9m.
20.0										
30.0	750	1000	24.00	34.20	Quartz-carbonate stockwork		PINK	"Pinked/" Kspar	Fragmental	Slightly less altered and veined than the preceeding interval.
40.0	850	1000	34.20	41.00	Quartz-carbonate breccia		PINK	Stockwork	Quartz flooded	A "juicy" looking interval that is similar to the C1 trench. Interval is flanked by green to pale grey chalcedonic BX veins and cored by pink and white QZSM to crackle BX. Black sulphides are liberally sprinkled throughout. Calcite is more prevalent than surface exposure indicates.
	900	1000	41.00	45.80	Quartz-carbonate stockwork		PINK	"Pinked/"	Quartz flooded	Strongly pinked and silicified with moderate SM. Most of the Black sulphides occur in the

STRUCTURE				ALTERATION									ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	FC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
															0.00	5.20				
QV	45			5.0	5.0	2.5			5.0	1		10.0			5.20	6.20	12978	10	21.0	0.230
															6.20	8.20	12979	20	5.0	0.060
															8.20	8.70	12980	05	24.5	0.100
															8.70	10.20	12981	15	7.0	0.220
															10.20	11.90	12982	17	5.0	0.830
															11.90	13.40	12983	15	2.0	0.210
															13.40	14.90	12984	15	7.5	0.060
QV	45	QV	20	30.0	10.0	10.0	1.0		10.0	3	4	30.0		BS	14.90	15.90	12985	10	4.5	0.140
															15.90	17.40	12986	15	5.5	0.180
															17.40	18.90	12987	15	4.0	0.240
															18.90	19.40	12988	05	4.5	0.120
															19.40	21.00	12989	16	7.0	0.160
															21.00	21.50	12990	05	4.0	0.190
															21.50	22.00	12991	05	5.0	0.180
															22.00	23.00	12992	10	11.5	0.330
															23.00	24.00	12993	10	12.0	0.200
															24.00	25.60	12994	16	17.5	0.350
															25.60	27.10	12995	15	10.5	0.180
															27.10	28.60	12996	15	23.0	0.890
QV	45			30.0	5.0	10.0			5.0	3		20.0	CL	BS	28.60	30.20	12997	16	6.0	0.140
															30.20	31.70	12998	15	4.0	0.200
															31.70	33.20	12999	15	5.0	0.140
															33.20	34.20	13000	10	7.0	0.190
															34.20	35.40	72224	12	10.5	0.390
															35.40	36.00	72225	06	11.5	0.290
															36.00	37.00	72226	10	62.5	1.240
QV				40.0	20.0	20.0	2.5		5.0	4		50.0	AR	BS	37.00	38.00	72227	10	370.5	6.710
															38.00	39.00	72228	10	642.5	13.71
															39.00	40.00	72229	10	38.5	0.810
															40.00	41.00	72230	10	28.5	0.140
QV	50			30.0	10.0	20.0	1.0		1.0	3		30.0		BS	41.00	42.30	72231	13	91.5	3.220

0.0
10.
20.
30.
40.

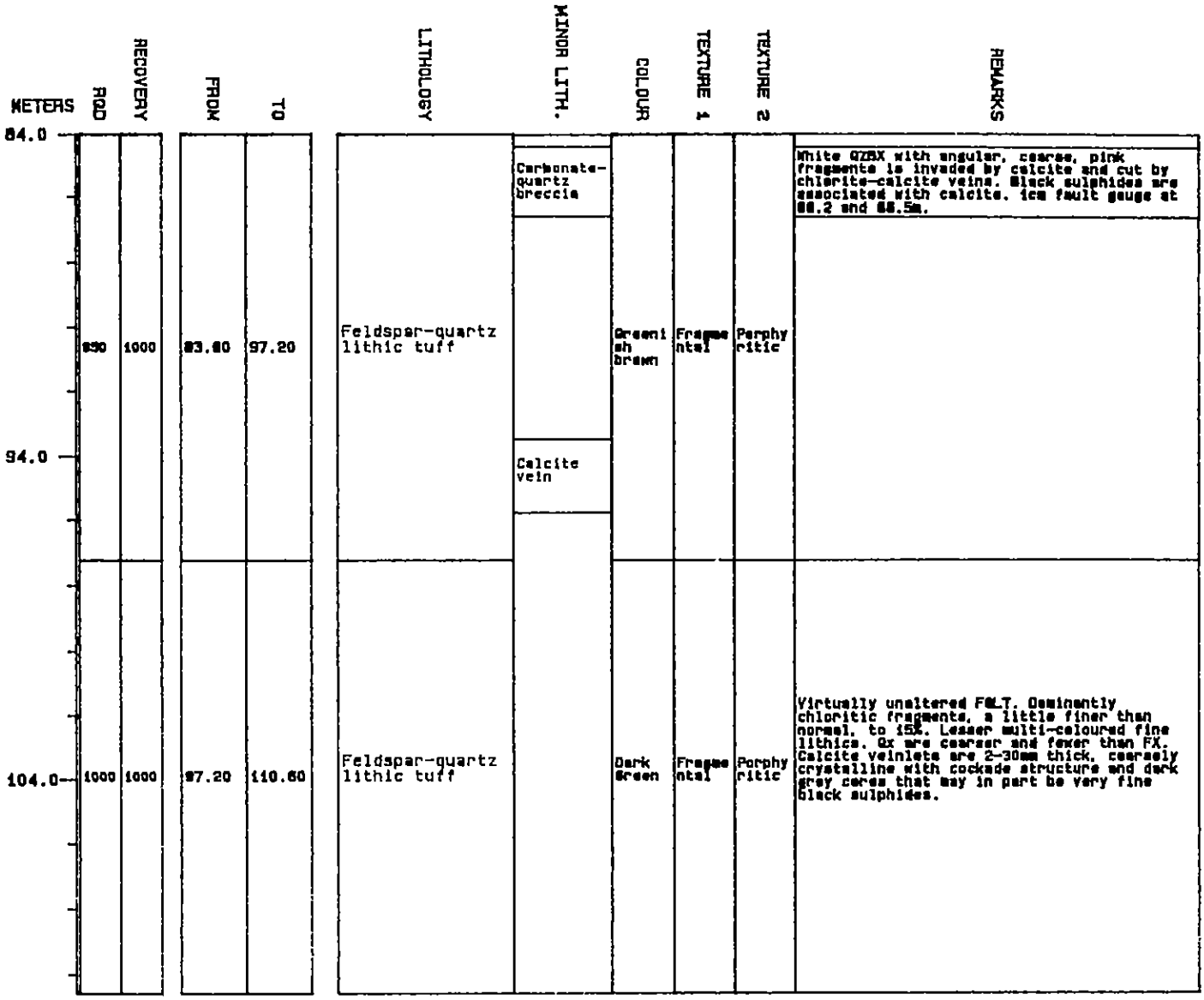
DRILL HOLE: DDH87_22
PAGE 4



STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	FC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
QV	50			30.0	10.0	20.0	1.0		1.0	3		30.0		BS	42.30	43.70	72232	14	52.0	0.730
															43.70	44.90	72233	12	30.0	0.740
															44.90	45.90	72234	10	4.5	1.450
															45.90	46.90	72235	10	21.0	0.590
															46.90	48.40	72236	15	12.5	0.540
CV	50	CV	10	10.0	10.0	5.0		1.0	2.5	2		10.0		BS	48.40	49.90	72237	15	5.5	0.230
															49.90	51.40	72238	15	182.5	2.720
															51.40	52.90	72239	15	41.5	0.750
															52.90	54.40	72240	15	62.0	0.720
															54.40	55.90	72241	15	20.0	0.200
															55.90	57.40	72242	15	6.0	0.120
CV	60			2.5	5.0	1.0		1.0	2.5	1		5.0	CL	BS	57.40	58.90	72243	15	9.0	0.210
															58.90	60.40	72244	15	29.0	0.390
															60.40	61.90	72245	15	5.0	0.200
															61.90	63.40	72246	15	13.5	0.290
															63.40	64.40	72247	10	2.0	0.100
											2				64.40	65.90	72248	15	5.5	0.170
															65.90	66.90	72249	10	6.5	0.150
															66.90	78.50				
QV	70	CV	45	2.5	2.5	2.5		2.5	2.5	1		5.0								
															78.50	79.50	72250	10	15.5	0.230
															79.50	80.00	72251	05	23.0	0.430
															80.00	80.50	72252	05	16.5	0.300
											2				80.50	82.00	72253	15	17.5	0.270
															82.00	83.50	72254	15	26.5	0.390
															83.50	85.00	72255	15	4.0	0.120

42.
52.
62.
72.
82.

DRILL HOLE: DDH87_22
PAGE 6



METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0						Carbonate-quartz breccia				White QZBX with angular, coarse, pink fragments is invaded by calcite and cut by chlorite-calcite veins. Black sulphides are associated with calcite. 1cm fault gauge at 88.2 and 88.5m.
	930	1000	83.80	97.20	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	
94.0						Calcite vein				
104.0	1000	1000	97.20	110.60	Feldspar-quartz lithic tuff		Dark Green	Fragmental	Porphyritic	Virtually unaltered F&LT. Dominantly chloritic fragments, a little finer than normal, to 15%. Lesser multi-coloured fine lithics. Qx are coarser and fewer than FX. Calcite veinlets are 2-30mm thick, coarsely crystalline with cockade structure and dark grey cores that may in part be very fine black sulphides.

STRUCTURE | ALTERATION | ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL
CV	75			5.0	20.0	1.0		1.0	1.0	1	3	20.0		BS
CV	45	CV	5		5.0			1.0	10.0	0		5.0		

FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
83.50	85.00	72255	15	4.0	0.120
85.00	85.50	72256	05	2.5	0.090
85.50	86.70	72257	12	17.0	0.410
86.70	88.20	72258	15	10.5	0.250
88.20	89.70	72259	15	2.0	0.070
89.70	90.70	72260	10	41.5	0.520
90.70	92.20	72261	15	6.5	0.080
92.20	93.60	72262	14	9.5	0.120
93.60	94.60	72263	10	42.5	0.390
94.60	95.60	72264	10	14.5	0.160
95.60	96.60	72265	10	22.0	0.220
96.60	97.20	72266	06	105.5	1.050
97.20	98.70	72267	15	2.5	0.050
98.70	105.80				
105.80	106.80	72268	10	3.5	0.040
106.80	107.80	72269	10	19.5	0.240

84.
94.
104

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_23	COLLAR AZIMUTH	: 243.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/28**	COLLAR ELEVATION	: 1269.50
DATE COMPLETED	: 87/ 9/29	COLLAR NORTHING	: 7357.00
GEOLOGGED BY	: PMH	COLLAR EASTING	: 1118.00
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 91.1m

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: JM ZONE UPDIP FROM DDH87-11

COMMENTS:

KEY INTERSECTION: FROM: 39.0 TO: 42.0 LENGTH: 3.0M AT: 1.91 G/T AU; 301.8 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
91.1m	42°	

SUMMARY REMARKS

Hole is veined and mineralized over its entire length. There is a general correspondance of mineralization and alteration although one is not necessary for the other. The main breccia zone occurs from52.5m to 60m and is flanked by thick zones of moderate to intense quartz-carb stockwork. The stockworking is stronger on the hanging wall than the footwall. Native silver (electrum) and argentite are both widespread and abundant in contrast to the lower results obtained in the overlying trench T87C1.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY
0.00	10.40	Feldspar-quartz lithic tuff
10.40	22.50	Quartz-carbonate stockwork
22.50	26.30	Feldspar-quartz lithic tuff
26.30	35.30	Quartz-carbonate stockwork
35.30	45.00	Feldspar-quartz lithic tuff
45.00	52.50	Quartz-carbonate stockwork
52.50	60.00	Quartz-carbonate breccia
60.00	72.80	Feldspar-quartz lithic tuff
72.80	77.30	Feldspar-quartz lithic tuff
77.30	83.70	Feldspar-quartz lithic tuff
83.70	91.10	Feldspar-quartz lithic tuff

DRILL HOLE: DDH87_23
PAGE 2

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0	650	900	0.00	10.40	Feldspar-quartz lithic tuff		PINK	Fragmental	"Pinked/" Kspar	Pink matrix with poorly sorted ragged shaped green fragments. May correlate with LITFI. Strong pervasive silicification and weak to moderate veining.
10.0	800	1000	10.40	22.50	Quartz-carbonate stockwork	Quartz-carbonate breccia	PINK	"Pinked/" Kspar	Quartz flooded	Alteration ranges from 2-5. Rock is pinked and cut by a myriad of quartz veinlets which are cut by calcite veinlets. Black sulphide and argentite is disseminated in both quartz and calcite veins. Quartz-carbonate breccia at bottom of interval is abruptly terminated by a small fault.
20.0	900	1000	22.50	26.30	Feldspar-quartz lithic tuff		Red-brown	Porphyritic	Fragmental	Feldspars pinked brick red, matrix still chloritic, weak quartz stockwork.
30.0	950	1000	26.30	35.30	Quartz-carbonate stockwork	Carbonate-quartz	Green and orange	Veined	Fragmental	Moderately altered with modest but consistent quartz stockworking. Black sulphides associated with late calcite vein at 27m.
40.0	950	1000	35.30	45.00	Feldspar-quartz lithic tuff	Carbonate-quartz stockwork	Greenish brown	Veined	Fragmental	Very weakly altered except for envelopes around veins. Carbonate-quartz vein in the lower section carry significant native silver.

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
															0.00	5.80				
QV	50	CV	80	20.0	5.0	5.0	1.0			2		20.0								
															5.80	7.30	72301	15	6.0	0.080
															7.30	8.80	72302	15	3.0	0.060
															8.80	10.50	72303	17	9.0	0.220
															10.50	11.50	72304	10	7.5	0.100
															11.50	12.50	72305	10	22.0	0.180
															12.50	13.50	72306	10	4.0	0.080
QV	80	CV	60	30.0	10.0	10.0	5.0		5.0	4		40.0	BS	AR	13.50	15.00	72307	15	7.0	0.200
															15.00	16.00	72308	10	6.5	0.110
															16.00	17.00	72309	10	6.0	0.120
															17.00	18.00	72310	10	17.5	0.470
															18.00	19.50	72311	15	3.0	0.170
											5				19.50	20.50	72312	10	26.0	0.780
															20.50	21.50	72313	10	11.5	0.460
															21.50	22.50	72314	10	5.5	0.100
QV	70	CV	50	10.0	5.0	2.5		1.0		2		10.0	KF		22.50	24.00	72315	15		
															24.00	25.50	72316	15	4.5	0.110
															25.50	26.50	72317	10	3.5	0.210
															26.50	27.30	72318	08	3.0	0.060
															27.30	28.80	72319	15	0.5	0.090
															28.80	30.30	72320	15	1.0	0.110
BC	45	CV	80	30.0	10.0	2.5		2.5	5.0	2		30.0	CL	BS	30.30	31.30	72321	10	3.5	0.120
															31.30	32.90	72322	16	2.5	0.090
											3				32.90	33.90	72323	10	36.5	0.710
															33.90	35.30	72324	14	26.0	0.780
															35.30	36.80	72325	15	1.5	0.070
															36.80	38.30	72326	15	42.0	0.390
CV	45			10.0	20.0	5.0		1.0	10.0	1		20.0		AG	38.30	39.00	72327	07	33.0	0.250
															39.00	40.00	72328	10	62.5	0.940
											1				40.00	40.50	72329	05	215.0	2.630
															40.50	41.50	72330	10	77.5	1.150
															41.50	42.00	72331	05	325.5	4.650

0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_23
PAGE 4

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
42.0	850	1000	35.30	45.00	Feldspar-quartz lithic tuff	Carbonate-quartz stockwork	Greenish brown	Veined	Fragmental	Narrow veins or narrow selvages on larger calcite veins carry black sulphides and native silver.W
	880	1000	45.00	52.50	Quartz-carbonate stockwork		PINK	"Pinked/" Kspar	Stockwork	FQLT. Strong alteration, moderate but irregular veining. Rare black sulphides associated with late stage calcite.
52.0	980	1000	52.50	60.00	Quartz-carbonate breccia		PINK	"Pinked/" Kspar	Quartz flooded	Multi-phase milled breccias to crackle breccias to intense stockworks. Argentite appears to be mostly within calcite filling of quartz breccias. A 1m section of core at 54.5m is completely shot to a dark grey quartz-clay pyrite rock although relict textures can still be seen.
62.0	980	1000	60.00	72.80	Feldspar-quartz lithic tuff	Quartz-carbonate breccia	Light Orange	Stockwork	Veined	A fine line between calling this FQLT and quartz-carb stockwork. Interval includes two quartz-carb breccia zones at 64.5 and 71.5m with peripheral stockwork and altered areas. The upper breccia is composed of pink silicified fragments floating in a grey-cream quartz matrix with minor calcite (possibly later). The lower breccia is a broken light grey quartz vein filled with a calcite-chlorite matrix.
72.0	700	1000	72.80	77.30	Feldspar-quartz lithic tuff	Quartz-carbonate breccia	Green and orange	Veined	"Pinked/" Kspar	Well mineralized veinlets (quartz and calcite) occur sporadically throughout the interval.
	950	1000	77.30	83.70	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Change in lithology from a pale green aphanitic matrix FQLT (similar to FQLT) to chloritic fragment FQLT at 78m. The upper unit is aprox 3m thick and contacts are gradational.
82.0										

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	45			10.0	20.0	5.0		1.0	10.0	1	1	20.0		AG	42.00	43.00	72332	10	1.1	0.570
															43.00	43.70	72333	07	53.0	0.580
															43.70	44.20	72334	05	10.0	4.110
															44.20	45.00	72335	08	6.5	0.120
QV		CV	80	30.0	10.0	10.0		1.0	2.5	3		30.0		BS	45.00	46.00	72336	10	141.0	1.200
															46.00	47.50	72337	15	28.0	0.460
															47.50	49.00	72338	15	0.3	0.290
															49.00	50.50	72339	15	17.5	0.730
															50.50	51.50	72340	10	56.5	0.780
															51.50	52.50	72341	10	1.0	0.430
BC	45	CV	80	40.0	10.0	10.0	5.0		1.0	5		50.0		AR	52.50	53.50	72342	10	114.0	2.190
															53.50	54.50	72343	10	6.6	3.200
															54.50	55.50	72344	10	0.6	0.220
															55.50	57.00	72345	15	7.5	0.180
															57.00	58.00	72346	10	121.5	1.820
															58.00	59.00	72347	10	79.0	1.730
															59.00	60.00	72348	10	18.0	0.220
															60.00	60.80	72349	08	17.5	0.130
															60.80	62.30	72350	15	4.8	1.660
															62.30	63.80	72351	15	28.5	0.320
											3				63.80	64.30	72352	05	16.5	0.220
											3				64.30	64.80	72353	05	102.0	1.150
CV	70	QV	80	20.0	5.0	5.0		1.0	1.0	2		20.0		BS	64.80	65.80	72354	10	18.5	0.250
															65.80	67.30	72355	15	16.0	0.260
															67.30	68.40	72356	11	7.0	0.060
															68.40	69.40	72357	10	21.0	0.380
															69.40	70.40	72358	10	24.0	0.260
															70.40	71.40	72359	10	6.5	0.130
											3				71.40	71.90	72360	05	168.5	3.820
															71.90	72.80	72361	08	8.5	0.660
QV	45	CV	55	5.0	5.0	5.0	1.0	5.0	5.0	2		10.0		BS	72.80	74.30	72362	15	2.0	0.220
															74.30	76.00	72363	17	5.5	0.900
															76.00	76.50	72364	05	317.5	5.560
															76.50	77.30	72365	08	2.0	0.420
															77.30	79.00	72366	17	4.0	0.250
CV	40				5.0	1.0		2.5		1		5.0	BS	AG	79.00	80.50	72367	15	1.0	0.070
															80.50	82.00	72368	15	4.0	0.070
															82.00	83.00	72369	10	54.5	0.560
															83.00	83.70	72370	07	18.0	0.240

42.
52.
62.
72.
82.

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0										
	000	000	83.70	91.10	Feldspar-quartz lithic tuff		Greenish brown	Fragmental	Porphyritic	Slight increase in pinking and veining but decrease in mineralization. Last 3m run mislatched rods were pulled and only 50% of run was recovered.

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
CV	40			5.0	5.0	5.0	1.0	2.5		1		10.0		BS	83.70	84.70	72371	10	35.0	2.470
															84.70	86.20	72372	15	2.5	0.240
															86.20	87.70	72373	15	74.0	1.670
															87.70	88.70	72374	10	77.0	2.720
															88.70	89.70	72375	10	4.0	0.260

84.

ESSO Minerals Canada
SHASTA PROJECT
DRILL HOLE LOG
PROJECT ID : SHASTA

HOLE / TRAVERSE ID	: DDH87_24	COLLAR AZIMUTH	: 60.00
CORE HOLE SIZE	: BQ	COLLAR DIP	: -45.00
DATE STARTED	: 87/ **9/29**	COLLAR ELEVATION	: 1286.09
DATE COMPLETED	: 87/ **9/30**	COLLAR NORTHING	: 7457.63
GEOLOGGED BY	: PMH	COLLAR EASTING	: 93.06
PLOT DATE	: 87/NOV/23	COLLAR OFFSET	:
PROJECT LEADER	: PETER HOLBEK	COLLAR STATION	:
LOCATION	: TOODOGGONE DIS	TOTAL LENGTH	: 127.7**m**

NTS: 94E

MINING DIV.: OMENICA

PURPOSE: TEST BLIND NORTH END OF CREEK AND JM ZONES

COMMENTS: SITE 35M W OF PREFERRED SETUP DUE TO STEEP SLOPE

KEY INTERSECTIONS: FROM: 103. TO: 103.5 LENGTH: 0.5M AT: 8.88 G/T AU: 495.0 G/T AG

SURVEY DATA

DEPTH	DIP	AZIMUTH
127.7	-44	

SUMMARY REMARKS

First 85m is epiclastic series, hematite rich lahar and grey tuff breccia. No alteration or mineralization. From 85-100m increasing quartz and K-spar alteration. Patchy silicified zones and crackle breccia. From 100-127m Strong quartz and K-spar altered calcite dominant stockwork/breccia. Sporadic black sulphides (116.1m, 119.9m) Hole bottoms in lithology similar to FQLT but contact is obscured by stockworking.

LEGEND

EC. MINERAL:

AG = NATIVE SILVER AR = ARGENTITE
AU = GOLD EL = ELECTRUM SP = SPHALERITE
BS = UNIDENTIFIED GREY/BLACK SULPHIDES

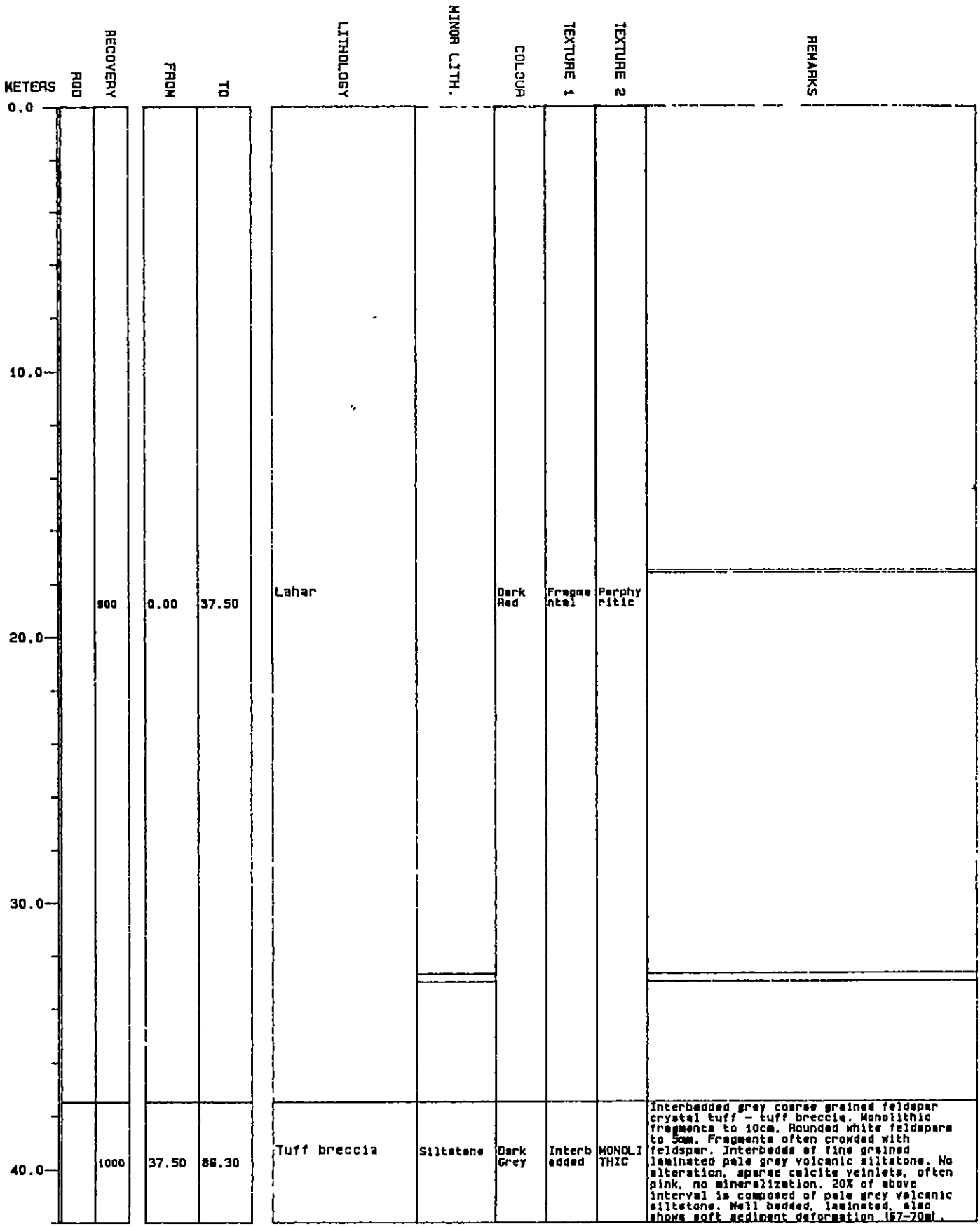
STRUCTURE ID:

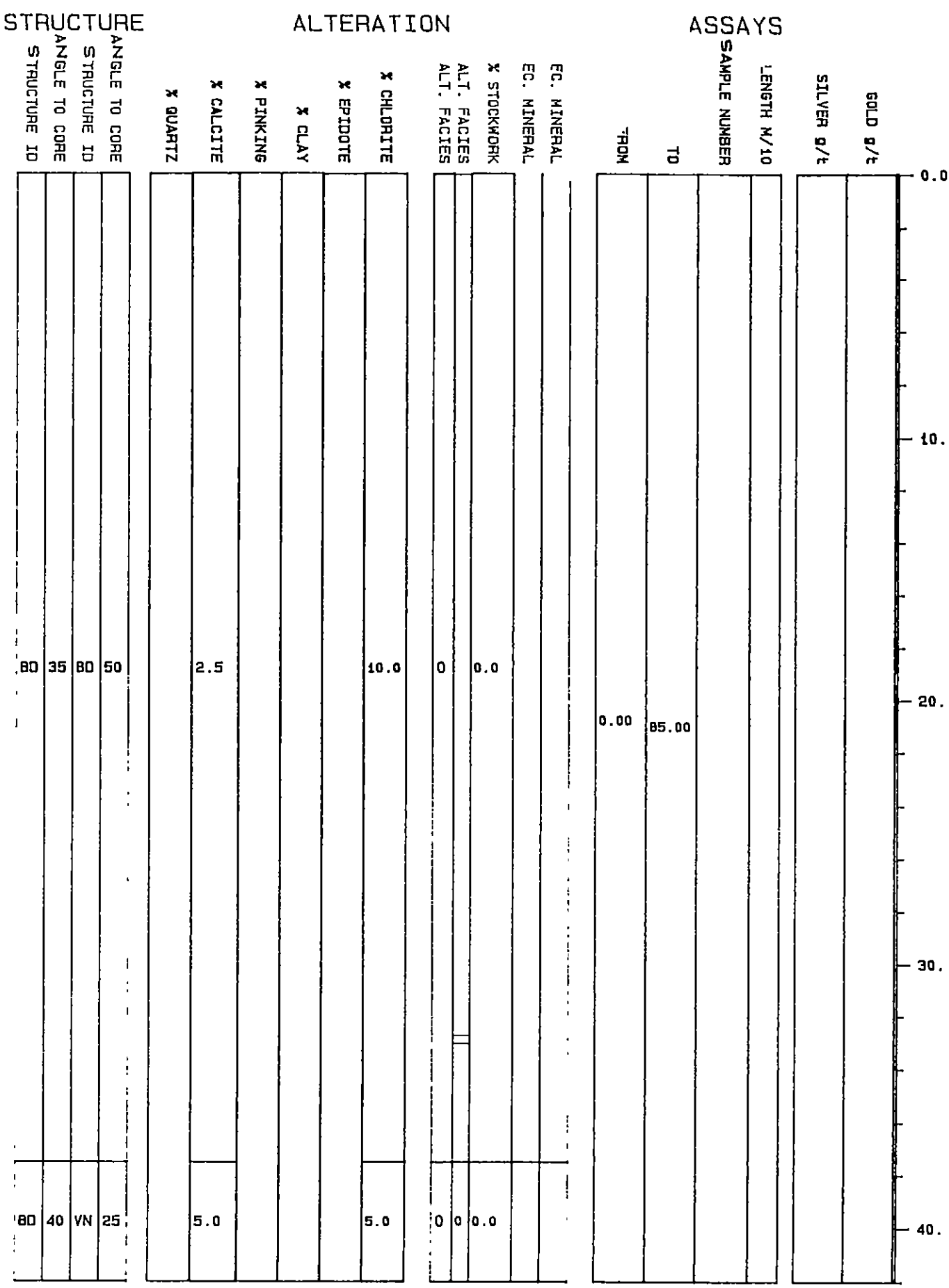
CV = CALCITE VEIN QV = QUARTZ VEIN
BC = BRECCIA CONTACT BD = BEDDING

DRILL HOLE SUMMARY

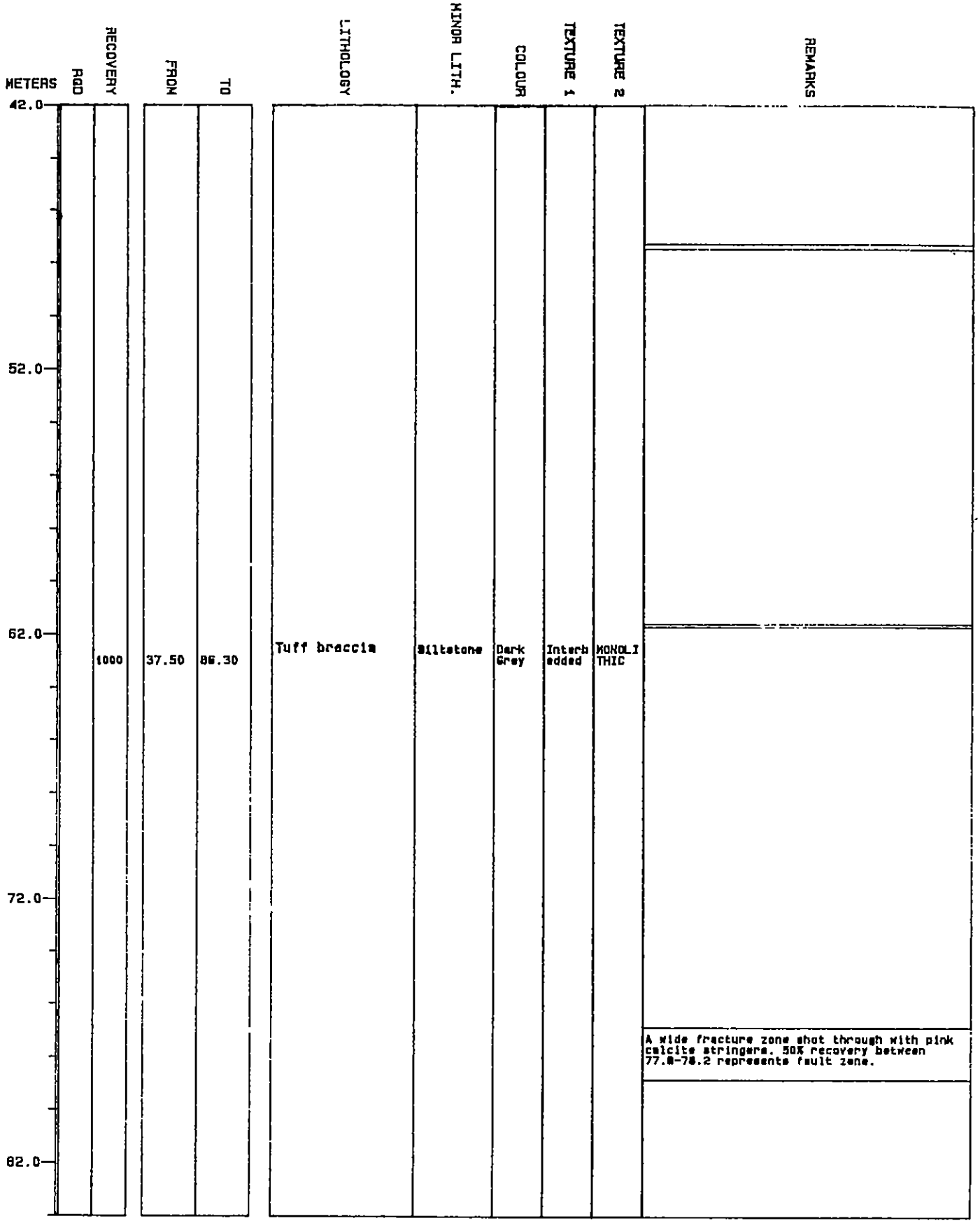
FROM	TO	LITHOLOGY
0.00	37.50	Lahar
37.50	86.30	Tuff breccia
86.70	112.50	Quartz-carbonate stockwork
112.50	127.70	Carbonate-quartz stockwork

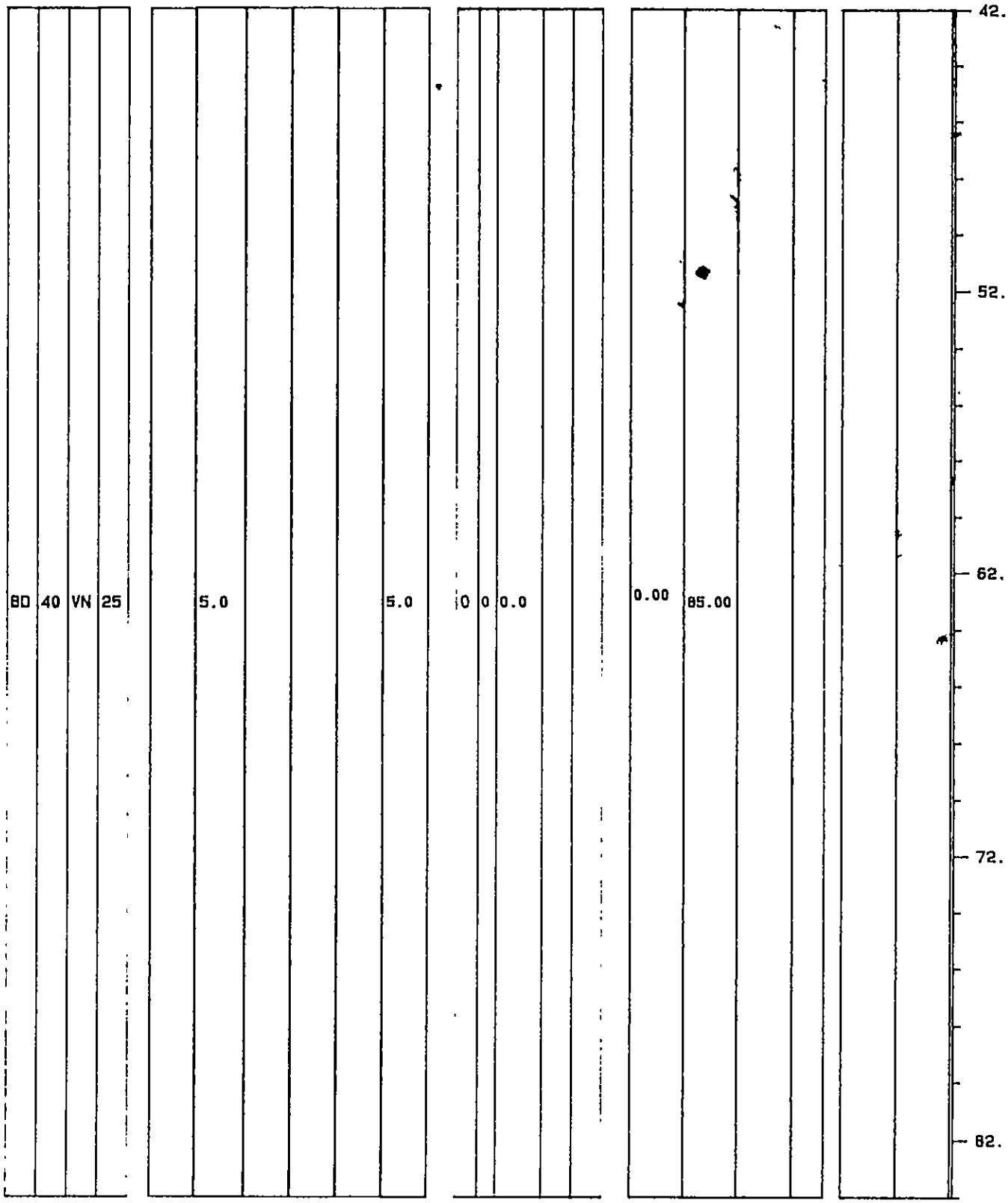
DRILL HOLE: DDH87_24
PAGE 2




STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
80
35
80
50
2.5
10.0
0
0.0
0.00
85.00
80
40
VN
25
5.0
5.0
0
0
0.0
0.0
10.
20.
30.
40.

DRILL HOLE: DDH87_24
PAGE 4




STRUCTURE
ALTERATION
ASSAYS
STRUCTURE ID
ANGLE TO CORE
STRUCTURE ID
ANGLE TO CORE
% QUARTZ
% CALCITE
% PINKING
% CLAY
% EPIDOTE
% CHLORITE
ALT. FACIES
ALT. FACIES
% STOCKWORK
EC. MINERAL
EC. MINERAL
FROM
TO
SAMPLE NUMBER
LENGTH M/10
SILVER g/t
GOLD g/t
BD 40 VN 25
5.0
5.0
0 0 0.0
0.00
85.00
42.
52.
62.
72.
82.

DRILL HOLE: DDH87_24
PAGE 6

METERS	RQD	RECOVERY	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
84.0		1000	37.50	88.30	Tuff breccia		Dark Grey	Interbedded	MONOLITHIC	Interbedded grey coarse grained feldspar crystal tuff - tuff breccia. Monolithic fragments to 10cm. Rounded white feldspars to 5mm. Fragments often crowded with feldspar. Interbedds of fine grained
		1000								
94.0		1000	88.70	112.50	Quartz-carbonate stockwork	Quartz-carbonate breccia	Green and orange	Stockwork	Veined	Weak quartz-carbonate stockwork. Patchy moderate pervasive silicification and K-spar increases down section. Upper half of interval moderate chlorite and epidote alteration. Later irregular calcite fracture fill and stringers +/- chlorite. Very low sulphides. 20% of above interval is composed of quartz dominant breccia veins. Alteration generally strong quartz flooding, very bleached fragments and wall rock. White to grey quartz locally banded. Low sulphides but trace black sulphides at 103.3m. Breccia
104.0										
114.0		1000	112.50	127.70	Carbonate-quartz stockwork	Carbonate-quartz	Green and orange	Veined	Stockwork	Moderate to strong carbonate-quartz stockwork with strong pervasive K-spar alteration. Initial quartz and K-spar flooding, minor crackle breccia. Later calcite veining and breccia filling +/- chlorite. Black sulphides in both phases. Interesting conjugate fracturing with calcite infilling 80°/40° to core axis forms enechelon veins at 115.9-116.4m. Nice calcite breccia vein carrying black sulphides at 119.8-120.0m.
124.0										

STRUCTURE				ALTERATION										ASSAYS					
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% QUARTZ	% CALCITE	% PINKING	% CLAY	% EPIDOTE	% CHLORITE	ALT. FACIES	ALT. FACIES	% STOCKWORK	EC. MINERAL	EC. MINERAL	FROM	TO	SAMPLE NUMBER	LENGTH M/10	SILVER g/t	GOLD g/t
															0.00	85.00				
BD	40	VN	25		5.0				5.0	0		5.0			85.00	86.30	72401	13	2.0	0.020
															87.00	89.00	72404	20	0.5	0.020
															89.00	91.20	72405	22	0.5	0.020
															91.40	93.50	72407	21	5.0	0.050
															93.50	96.00	72408	25	5.5	0.040
															96.00	97.00	72409	10	7.5	0.120
															97.00	98.00	72410	10	35.5	0.810
															98.00	98.80	72411	08	107.5	1.520
VN	40	VN	10	20.0	10.0	10.0	2.5	2.5	5.0	2	2	20.0		BS	98.80	100.00	72412	12	13.5	1.650
															100.00	101.00	72413	10	4.0	0.090
															101.00	102.00	72414	10	13.5	0.500
															102.00	103.00	72415	10	6.5	0.130
															103.00	103.50	72416	05	495.0	8.880
															103.50	104.50	72417	10	13.0	0.330
															104.50	105.50	72418	10	10.5	0.360
															105.50	106.50	72419	10	5.0	0.090
															106.50	107.50	72420	10	4.0	0.120
															107.50	108.60	72421	11	2.5	0.100
															109.00	110.00	72423	10	8.0	0.190
															110.00	111.00	72424	10	11.5	0.110
															111.00	112.00	72425	10	5.0	0.060
															112.00	113.00	72426	10	7.0	0.140
															113.00	114.00	72427	10	12.0	0.220
															114.00	115.00	72428	10	8.0	0.360
															115.00	115.70	72429	07	4.5	0.110
															115.70	116.30	72430	06	29.5	2.850
															116.30	118.00	72431	17	34.0	0.450
															118.00	119.00	72432	10	11.0	0.270
VN	60	VN	40	20.0	30.0	20.0	2.5		10.0	3		60.0		BS	119.00	120.00	72433	10	126.5	1.950
															120.00	121.00	72434	10	23.5	0.470
															121.00	122.00	72435	10	10.5	0.280
															122.00	123.00	72436	10	19.5	0.330
															123.00	124.00	72437	10	14.5	0.350
															124.00	125.00	72438	10	25.5	0.460
															125.00	125.50	72439	05	24.0	0.580
										3					125.50	126.50	72440	10	13.5	0.290
															126.50	127.70	72441	12	1.5	0.110

84.
94.
104
114
124

APPENDIX III

ANALYTICAL LABORATORY REPORTS

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 10 1987
DATE REPORT MAILED: Sept. 23/87

ASSAY CERTIFICATE

JAM → FILE COPY

- SAMPLE TYPE: P1 ROCK P2-4 CORE
Au Ag by F.A.

ASSAYER: ..... DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERALS PROJECT-123 File # 87-4059 Page 1

JA Ward 87.9.24

SAMPLE#	AG** GM/T	AU** GM/T
12151	4.5	.07
12152	17.0	.21
12153	4.0	.10
12154	3.5	.07
12156	6.0	.72
12157	5.0	.07
12158	.5	.03
12159	.5	.07
12160	.5	.03
12161	.5	.03
12162	.5	.03
12163	.5	.07
12164	.5	.03
12165	.5	.07
12166	.5	.03
12167	1.0	.03
12168	.5	.03

SAMPLE#	AG** GM/T	AU** GM/T
12401	.5	.03
12402	36.5	2.85
12403	2.0	.14
12404	.5	.03
12405	1.5	.10
12406	15.0	.31
12407	2.5	.03
12408	.5	.03
12409	6.5	.10
12410	8.5	.10
12411	1.5	.03
12412	4.0	.21
12417	62.0	1.10
12418	16.0	.75
12419	46.5	.48
12420	17.0	.24
12421	16.0	.21
12422	7.0	.14
12423	3.0	.07
12424	4.0	.03
12425	6.0	.07
12426	20.0	.27
12427	1.5	.03
12428	75.0	.62
12429	54.5	.72
12430	3.0	.07
12431	2.5	.03
12432	.5	.03
12433	7.5	.55
12434	.5	.27
12435	1.0	.07
12436	1.5	.03
12437	9.5	.27
12438	1.0	.03
12439	16.0	.62
12440	4.0	.21

SAMPLE#	AG** GM/T	AU** GM/T
12441	.5	.24
12443	1.0	.14
12444	51.5	1.64
12445	.5	.04
12446	1.0	1.10
12447	.5	.72
12448	.5	.06
12449	34.0	.86
12450	57.5	1.00
12451	9.5	.24
12452	5.5	.20
12453	18.0	.34
12454	15.0	.24
12455	104.5	.96
12456	603.5	7.68
12457	18.0	.30
12458	14.5	.28
12459	12.5	.20
12460	373.5	7.44
12461	10.0	.24
12462	299.5	4.56
12463	7.0	.10
12464	5.0	.06
12465	2.5	.06
RE 12452	6.0	.18
12466	1.0	.06
12467	11.0	.58
12468	6.0	.24
12469	31.0	1.40
12470	1.5	.06
12471	40.5	.76
12472	29.5	.76
12473	3.0	.06
12474	2.0	.20
12475	2.0	.28
12476	1.5	.24
12477	2.5	.24

SAMPLE#	AG** GM/T	AU** GM/T
12478	1.0	.03
12479	25.5	1.34
RE 12503	1.5	.07
12480	2.5	.07
12481	6.0	.21
12482	1.0	.03
12483	.5	.03
12484	.5	.03
12485	1.0	.03
12486	.5	.03
12487	8.5	.14
12488	4.5	.21
12489	22.5	.82
12490	7.5	.21
12491	205.5	11.02
12492	8.5	.27
12493	6.5	.24
12494	3.0	.03
12495	1.5	.03
12496	1.5	.06
12497	1.0	.03
12498	3.5	.03
12499	4.0	.58
12500	2.0	.03
12501	2.0	.07
12502	4.5	.34
12503	1.5	.07
12504	1.5	1.14
12505	.5	2.60
12506	22.0	1.38
12507	.5	.03
12508	2.5	.14
12509	15.0	1.24

JA. 1 → FILE COPY

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 14 1987
DATE REPORT MAILED: Sept. 26/87

ASSAY CERTIFICATE

- SAMPLE TYPE: Core

Fire Assay

ASSAYER: DEAN TOYE, CERTIFIED B.C. ASSAYER

87 9 29

ESSO MINERALS PROJECT-123 File # 87-4202 Page 1

SAMPLE#	AG** GM/T	AU** GM/T
12176	21.0	1.09
12177	2.0	.15
12178	1.0	.32
12179	6.0	.22
12180	2.0	.06
12181	1.0	.10
12182	8.0	.68
12183	5.5	.19
12184	2.5	.06
12185	4.0	.09
12186	2.5	.04
12187	1.0	.02
12188	1.0	.02
12189	3.0	.09
12190	1.0	.04
12191	1.5	.02
12192	.5	.11
12193	.5	.03
12194	11.5	.16
12195	87.0	2.03
12196	4.0	.10
12197	1.5	.10
12198	.5	.11
12199	46.0	.84
12200	16.0	.33
12510	6.5	.07
12511	6.0	.06
12512	4.0	.14
12513	5.0	.11
12514	2.5	.08
12515	1.5	.06
12517	1.0	.14
12518	1.5	.06
12519	1.5	.19
12520	5.0	.17

SAMPLE#	AG** GM/T	AU** GM/T
12521	.5	.39
12522	2.5	.26
12523	.5	.02
12525	1.5	.02
12526	4.5	.02
12527	.5	.18
12528	6.5	.12
12529	2.5	.02
12530	2.5	.06
12531	.5	.02
12532	2.5	.02
12533	2.0	.56
12534	3.5	.05
12535	1.5	.07
12536	1.5	.03
12537	7.0	.13
12538	3.0	.09
12539	1.0	.02
12540	2.5	.02
12541	39.0	1.54
12542	6.0	.06
12543	14.5	.35
12544	2.5	.04
12545	5.5	.29
12546	11.5	.92
12547	3.0	.05
12548	3.5	.06
12549	26.5	.37
12550	8.5	.54
12551	8.0	.13
12552	8.5	.11
12553	3.5	.16
12554	2.5	.02
12555	4.0	.02
12556	2.0	.02
12557	2.0	.02

SAMPLE#	AG** GM/T	AU** GM/T
12558	4.0	.02
12559	2.5	.02
12560	3.5	.18
12561	1.5	.03
12562	15.5	.31
12563	1.5	.04
12564	2.5	.02
12565	1.5	.02
12566	2.5	.07
12567	2.5	.08
12568	2.0	.02
12569	2.0	.02
12570	1.5	.06
12571	15.0	7.62
12572	9.0	.22
12573	2.5	.18
12574	11.5	.06
12575	1.5	.02
12576	2.0	.02
12577	1.5	.30
12578	28.0	.96
12579	27.0	.84
12580	2.5	.03
12581	2.0	.05
12582	83.0	1.99
12583	4.5	.17
12584	3.5	.06
12585	10.0	.13
12586	4.0	.07
12587	6.0	.15
12588	30.0	.23
12589	5.5	.19
12590	7.0	.11
12591	2.0	.10
12592	2.5	.06
12594	6.5	.26

SAMPLE#	AG** GM/T	AU** GM/T
12595	2.5	.21
12596	3.5	.09
12597	3.5	.06
12599	1.5	.05
12600	3.0	.06
18551	1.0	.05
18552	16.5	.09
18553	1.5	.02
18554	1.0	.04
18555	2.0	.60
18556	2.0	.15
18557	4.0	.02
18558	1.5	.06
18559	20.0	.36
18560	31.0	.51
18561	77.0	.69
18562	27.5	.15
18563	6.5	.05
18564	3.0	.03
18565	4.0	.39
18566	2.5	.78
18567	2.5	.04
18568	1.5	.02
18569	1.5	.05
18570	2.5	.02
18571	4.0	.20
18572	3.0	.35
18573	6.5	.48
18574	2.5	.09
18575	1.5	.02
18576	1.5	.02
18577	2.0	.09

JAM → FILE COPY

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 29 1987
DATE REPORT MAILED: Oct 9/87.

ASSAY CERTIFICATE

- SAMPLE TYPE: P1-5 CORE P6-ROCK

ASSAYER: D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERALS PROJECT-SHASTA 123 File # 87-4562 Page 1

87.12.5

DEC 04 87

SAMPLE#	AG** GM/T	AU** GM/T
18737	186.5	1.56
18738	12.5	.11
18739	336.0	3.99
18740	34.5	.62
18741	135.0	5.32
18742	35.5	.29
18743	103.5	.66
18744	35.0	.29
18745	142.5	1.22
18746	98.5	.75
18747	766.0	6.89
18748	169.0	1.56
18749	180.5	2.09
18750	55.5	.46
18751	34.0	.39
18752	70.5	.98
18753	116.0	1.16
18754	48.5	.65
18755	44.5	.52
18756	476.0	4.12
18757	31.0	.44
18758	71.0	.79
18759	69.5	1.07
18760	117.5	1.83
18761	496.0	12.32
18762	120.5	2.72
18763	22.0	1.92
18764	52.5	1.63
18765	22.0	.37
18766	25.0	.46
18767	21.0	.66
18768	9.5	.27
18769	62.0	1.32
18770	6.0	.80
18771	6.5	.59
18772	3.0	.09

SAMPLE#	AG** GM/T	AU** GM/T
18773	72.5	1.28
18774	3.5	.26
18775	604.0	11.80
18776	77.5	.22
18777	2.5	.30
18778	278.0	3.46
18779	35.0	.74
18780	9.5	.34
18781	139.0	4.06
18782	67.0	1.66
18783	34.0	.64
18784	35.5	1.98
18785	5.0	1.24
18786	52.0	1.10
18787	153.0	3.49
18788	17.5	.52
18789	32.5	.14
18790	22.0	.94
18791	31.5	1.72
18792	15.5	.56
18793	1.0	.26
18794	1.5	.20
18795	2.5	.24
18796	2.5	.38
18797	7.5	.43
18798	23.5	2.16
18799	7.5	.36
18800	10.5	.78
18801	12.5	.18
18802	458.5	2.94
18803	3.0	.20
18804	9.0	.22
18805	3.0	.28
18806	2.0	.30
18807	.5	.12
18808	8.0	.18

SAMPLE#	AG** GM/T	AU** GM/T
18809	2.0	.02
18810	.5	.02
18811	2.0	.24
18812	.5	.12
18813	8.0	.19
18814	11.5	.18
18815	6.0	.03
18816	15.5	.74
18817	6.5	.48
18818	15.5	.10
18819	4.0	.22
18820	8.0	.09
18821	6.0	.06
18822	9.0	.07
18823	11.0	.14
18824	5.0	.12
18825	5.5	.56
18826	21.0	.47
18827	14.0	.25
18828	17.0	.49
18829	18.0	.43
18830	95.0	1.75
18831	70.5	2.15
18832	8.0	.09
18833	3.0	4.12
18834	4.5	.12
18835	2.0	.02
18836	232.0	4.39
18837	4.5	.11
18838	3.0	.04
18839	42.0	1.35
18840	4.0	.03
18841	5.0	.02
18842	1.0	.02
18843	10.0	.12
18844	9.5	.11

SAMPLE#	AG** GM/T	AU** GM/T
18845	8.0	.10
18846	5.0	.10
18847	8.5	.09
18848	2.0	.17
18849	11.0	.14
18850	3.0	.09
18851	5.5	.28
18852	9.5	.19
18853	7.5	.56
18854	4.5	.48
18855	4.0	.06
18856	7.0	.09
18857	132.5	3.89
18858	8.5	.14
18859	15.0	.20
18860	17.0	.19
18861	12.0	.11
18862	14.0	.15
18863	8.0	.09
18864	22.0	.58
18865	38.5	1.96
18866	7.0	.23
18867	51.0	.96
18868	64.5	.19
18869	16.5	.18
18870	3.0	.33
18871	5.5	.06
18872	4.5	.02
18873	1.5	.02
18874	4.5	.03
18875	7.5	.09
18876	49.0	.76
18877	3.5	.02
18878	10.5	.50
18879	2.5	.02
18880	4.0	.02

SAMPLE#	AG** GM/T	AU** GM/T
18881	2.0	.06
18882	9.5	.25
18883	12.0	.27
18884	47.5	1.66
18885	6.5	.40
18886	1.5	.31
18887	2.5	.26
18888	6.0	.11
18889	5.5	.07
18890	5.5	.12
18891	7.0	.14
18892	9.0	.24
18893	2.5	.23
18894	19.0	.52
18895	4.0	.12
18896	1.0	.02
18897	6.5	.26
18898	2.5	.07
18899	7.0	.15
18900	2.0	.03
18901	5.0	.16
18902	2.0	.11
18903	8.5	.18
18904	1.5	2.59
18905	5.0	.19
18906	84.0	3.38
18907	1.5	.15
18908	3.0	.05
18909	5.5	.13
18910	15.0	.35
18911	4.0	.22
18912	8.0	.53
18913	8.0	.74
18914	4.5	.18
18915	193.0	2.74

SAMPLE#	AG** GM/T	AU** GM/T
12078	2.0	.02
12079	1.0	.02
12080	2.0	.02
12081	5.5	.02
12082	4.0	.09
12083	4.5	.06
12084	12.5	.29
12085	4.0	.12
12086	2.5	.15
12087	3.5	.62
12088	2.5	1.03
12089	4.5	.11
12090	5.5	.11
12091	3.0	.32
12092	5.5	.72
12093	3.5	.06
12094	5.0	.82
12095	11.5	.27
12096	4.0	.12
12097	3.0	.16
12098	2.0	.23
12099	5.5	.09
12100	1.0	.02
12128	1.5	.02
12129	1.5	.46
12130	5.5	.34
12131	12.5	.60
12132	11.5	.38
12133	3.5	.39
12134	1.0	.43
12135	1.5	.02
12136	1.5	.20
12137	.5	.16
12175	125.5	1.03
12413	5.0	.05
12414	1.5	.07
12415	2.5	.09
12416	123.0	2.99

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 18 1987
DATE REPORT MAILED: Sept. 30/87

ASSAY CERTIFICATE

J.AM → FILE COPY

Letter 87-10-2

AG** AND AU** BY FIRE ASSAY.
- SAMPLE TYPE: Core

ASSAYER: D. Toye. DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERAL PROJECT-123 File # 87-4296 Page 1

SAMPLE#	AG** GM/T	AU** GM/T
18578	2.5	.07
18579	18.0	.17
18580	14.5	.21
18581	4.0	.14
18582	4.0	.14
18583	8.0	.27
18584	32.0	1.92
18585	44.5	1.03
18586	5.0	2.47
18587	128.0	3.60
18588	12.5	3.46
18589	7.0	.45
18590	4.0	.51
18591	62.5	4.22
18592	4.0	.17
18593	1.5	.14
18594	.5	.03
18595	1.0	.03
18596	.5	.03
18597	15.5	.31
18598	2.5	.03
18599	2.0	.07
18600	1.0	.03
18601	4.0	.07
18602	7.5	.31
18603	11.5	.38
18604	4.0	.10
18605	4.5	.03
18606	3.0	.07
18607	3.0	.03
18608	8.0	.14
18609	12.5	.10
18610	4.5	.03
18611	7.0	.07
18612	25.5	.31
18613	15.0	.17

SAMPLE#	AG** GM/T	AU** GM/T
18614	8.5	.17
18615	.5	.03
18616	.5	.03
18617	2.5	.03
18618	2.0	.03
18619	3.5	.03
18620	4.0	.24
18621	2.5	.07
18622	3.5	.03
18623	2.5	.03
18624	1.5	.07
18625	10.5	.99
18626	2.5	.07
18627	2.5	.07

FILE COPY

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 23 1987
DATE REPORT MAILED: Oct 8/87.

ASSAY CERTIFICATE

- SAMPLE TYPE: Core Ag, Au by F.A.

ASSAYER: D. Toye. DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERALS PROJECT-123 File # 87-4462 Page 1

SAMPLE#	AG** GM/T	AU** GM/T
18628	33.5	.36
18629	73.5	.72
18630	62.5	.50
18631	20.5	.18
18632	300.0	2.30
18633	100.5	.94
18634	27.5	.22
18635	125.5	1.72
18636	54.5	.52
18637	50.5	.56
18638	5.5	.36
18639	272.5	5.86
18640	65.0	1.76
18641	25.0	.54
18642	3.5	.22
18643	9.5	.88
18644	9.0	.20
18645	3.5	.16
18646	8.5	.44
18647	321.5	5.32
18648	108.0	3.35
18649	29.5	1.18
18650	3.5	.14
18651	44.5	1.14
18652	38.0	.66
18653	8.0	.16
18654	25.0	.40
18655	8.0	.16
18656	4.0	.36
18657	19.0	.32
18658	15.5	.08
18659	22.5	.42
18660	7.5	.24
18661	16.0	.64
18662	5.0	.18
18663	2.5	.12

SAMPLE#	AG** GM/T	AU** GM/T
18664	133.5	2.44
18665	7.5	.12
18666	9.0	.19
18667	8.0	.13
18668	8.0	.15
18669	10.5	.22
18670	9.0	.21
18671	3.0	.09
18672	2.5	.11
18673	2.5	.11
18674	1.5	.06
18675	1.5	.03
18676	1.0	.05
18677	1.5	.04
18678	1.0	.03
18679	.5	.15
18680	.5	.35
18681	.5	.13
18682	9.0	.35
18683	.5	.12
18684	16.5	.16
18685	95.5	1.01
18686	9.5	.22
18687	1.0	.02
18688	3.5	.08
18689	2.0	.05
18690	2.5	.05
18691	3.5	.05
18692	2.0	.04
18693	3.5	.03
18694	3.5	.05
18695	3.0	.09
18696	3.5	.06
18697	1.5	.06
18698	3.0	.04
18699	1.5	.05

SAMPLE#	AG** GM/T	AU** GM/T
18700	1.0	.09
18701	2.5	.04
18702	6.0	.21
18703	9.0	.19
18704	6.5	.19
18705	20.5	.29
18706	32.5	.68
18707	14.0	.58
18708	12.0	.54
18709	8.5	.17
18710	7.0	.15
18711	40.0	1.41
18712	21.0	.42
18713	11.5	.27
18714	5.0	.33
18715	129.5	2.55
18716	3.5	.14
18717	18.5	.41
18718	63.0	1.06
18719	98.0	1.77
18720	87.5	1.62
18721	117.0	1.57
18722	103.5	1.54
18723	88.5	1.58
18724	369.5	6.16
18725	4905.0	73.40
18726	23.0	.46
18727	68.5	1.08
18728	571.0	6.98
18729	529.5	16.95
18730	13.0	.21
18731	56.0	.97
18732	16.5	.39
18733	7.5	.10
18734	6.0	.08
18735	75.5	1.25
18736	13.5	.24

JAM → FILE COPY

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE (604)253-3158 FAX (604)253-1716

DATE RECEIVED: OCT 6 1987
DATE REPORT MAILED: Oct. 20/87

ASSAY CERTIFICATE

OCT 21 1987

- SAMPLE TYPE: Core

ASSAYER: D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERALS PROJECT-SHASTA 123 File # 87-4710 Page 1

SAMPLE#	AG** GM/T	AU** GM/T
18916	122.0	1.44
18917	10.0	.26
18918	16.0	.82
18919	149.0	3.10
18920	113.5	2.21
18921	198.5	4.06
18922	5.5	.62
18923	5.5	.17
18924	2.5	.04
18925	12.0	.38
18926	5.0	.20
18927	33.0	.74
18928	25.5	.51
18929	5.5	.14
18929B	13.5	1.20
18930	4.0	.62
18931	2.5	.18
18932	13.0	.29
18933	3.0	.22
18934	1.5	.08
18935	2.5	.10
18936	4.0	.11
18937	6.5	.16
18938	3.0	.12
18939	3.0	.06
18940	3.0	.06
18941	6.0	.18
18942	3.5	.12
18943	2.0	.26
18944	2.5	.14
18945	4.0	.16
18946	4.0	.94
18947	11.0	1.74
18948	464.0	12.38
18949	13.5	.82
18950	16.5	.54

SAMPLE#	AG** GM/T	AU** GM/T
18951	9.0	.23
18952	6.5	.24
18953	29.0	1.24
18954	2.0	.28
18955	3.0	.07
18956	4.0	.26
18957	1.5	.37
18958	1.0	.23
18959	1.5	.06
18960	2.5	.04
18961	1.5	.03
18962	2.5	.04
18963	6.5	.10
18964	49.0	1.42
18965	121.0	14.02
18966	8.0	.11
18967	11.5	.15
18968	1.0	.04
18969	2.5	.05
18970	1.0	.04
18971	2.0	.09
18972	2.5	.06
18973	3.0	.08
18974	6.5	.06
18975	5.5	.07
18976	5.5	.12
18977	3.5	.12
18978	5.0	.13
18979	3.5	.11
18980	1.0	.05
18981	6.0	.18
18982	7.0	.34
18983	6.0	.15
18984	6.0	.37
18985	5.5	.66
18986	3.5	.07

SAMPLE#	AG** GM/T	AU** GM/T
18987	.5	.04
18988	.5	.22
18989	.5	.02
18990	4.0	.02
18991	1.0	.04
18992	2.5	.04
18993	1.5	.02
18994	.5	.02
18995	4.5	.05
18996	.5	.02
18997	.5	.04
18998	3.0	.04
18999	3.0	.26

JAM → FILE COPY

ACME ANALYTICAL LABORATORIES LTD. DATE RECE. ID: OCT 20 1987
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: Oct 24/87

ASSAY CERTIFICATE

OCT 27 1987

AG** AND AU** BY FIRE ASSAY.
- SAMPLE TYPE: Core

ASSAYER: D. Toye. DEAN TOYE, CERTIFIED B.C. ASSAYER

SHASTA.

ESSO MINERALS File # 87-5005 Page 1 ~~KUTCHO~~

JAM 87.10.29

SAMPLE#	AG** GM/T	AU** GM/T
12866	6.0	.11
12867	8.0	.18
12868	9.5	.23
12882	4.5	.12
12883	.5	.06
12884	3.0	.20
12885	9.5	.43
12886	2.0	.10
12887	8.0	.20
12888	3.0	.06
12889	8.0	.11
12890	3.0	.10
12891	7.5	.14
12892	5.5	.10
12893	29.5	.54
12894	37.0	.42
12895	1.5	.08
12896	.5	.16
12897	13.0	.52
12898	4.5	.06
12899	7.5	.17
12900	.5	.10
12901	17.5	.39
12902	3.0	.17
12903	1.5	.07
12904	3.5	.12
12905	20.5	.29
12906	10.0	.25
12907	6.5	.16
12908	8.0	.13
12909	24.5	.40
12910	1.0	.16
12911	2.0	.08
12912	10.0	1.59
12913	11.5	.32
12914	3.0	.09

SAMPLE#	AG** GM/T	AU** GM/T
12915	4.0	.11
12916	.5	.03
12917	4.5	.09
12918	4.5	.06
12919	2.5	.08
12920	2.5	.19
12921	2.5	.15
12922	3.5	1.42
12923	22.0	.76
12924	3.0	.11
12925	2.5	.07
12926	.5	.54
12927	1.5	1.48
12928	1.0	.18
12929	.5	.09
12930	1.0	.15
12931	1.0	1.28
12932	2.0	.05
12933	6.0	.24
12934	14.0	.69
12935	3.0	.08
12936	179.0	2.14
12937	71.0	1.60
12938	9.5	.67
12939	31.0	.71
12940	9.5	.11
12941	6.0	.12
12942	6.0	.11
12943	6.0	.12
12944	3.0	.22
12945	5.0	.08
12946	5.5	.09
12947	2.5	.08
12951	2.0	.07
12952	2.5	.08
12953	1.5	.09

SAMPLE#	AG** GM/T	AU** GM/T
12960	1.0	.07
12963	89.0	3.60
12964	.5	.09
12965	.5	.06
12966	.5	.14
12972	2.0	.15
12973	6.0	.10
12974	5.5	.09
12976	8.5	.15
12983	2.0	.21
12985	4.5	.14
12986	5.5	.18
12987	4.0	.24
12988	4.5	.12
12990	4.0	.19
12991	5.0	.18
12994	17.5	.35
12996	23.0	.89
12997	6.0	.14
12998	4.0	.20
12999	5.0	.14
13000	7.0	.19
722-24	10.5	.39
722-25	11.5	.29
722-26	62.5	1.24
722-27	370.5	6.71
722-29	38.5	.81
722-30	28.5	.14
722-33	30.0	.74
722-35	21.0	.59
722-36	12.5	.54
722-37	5.5	.23
722-38	182.5	2.72
722-39	41.5	.75
722-40	62.0	.72
722-41	20.0	.20

SAMPLE#	AG** GM/T	AU** GM/T
722-42	6.0	.12
722-44	29.0	.39
722-45	5.0	.20
722-46	13.5	.29
722-47	2.0	.10
722-48	5.5	.17
722-49	6.5	.15
722-50	15.5	.23
722-51	23.0	.43
722-52	16.5	.30
722-53	17.5	.27
722-54	26.5	.39
722-56	2.5	.09
722-57	17.0	.41
722-58	10.5	.25
722-59	2.0	.07
722-60	41.5	.52
722-61	6.5	.08
722-62	9.5	.12
722-63	42.5	.39
722-64	14.5	.16
722-65	22.0	.22
722-66	105.5	1.05
722-67	2.5	.05
722-68	3.5	.04
722-69	19.5	.24
723-71	35.0	2.47
723-72	2.5	.24
723-73	74.0	1.67
723-74	77.0	2.72
723-75	4.0	.26
87-15-1	10.0	.18
87-15-2	23.5	.67
87-15-3	167.5	1.92
87-15-4	110.5	5.29
87-15-5	22.0	.44

SAMPLE#	AG** GM/T	AU** GM/T
87-15-6	8.0	.19
87-15-7	8.0	.25
87-15-8	8.0	.20
87-15-9	15.5	.22
87-15-10	11.5	.20
87-15-11	12.0	.21
87-15-12	8.0	.11
87-15-13	6.0	.09
87-15-14	2.0	.09
87-15-15	1.5	.16
87-15-16	6.5	.20
87-15-17	3.0	.11
87-15-18	6.0	.25
87-15-19	10.0	.21
87-15-20	2.5	.04
87-23-1	6.0	.08
87-23-2	3.0	.06
87-23-3	9.0	.22
87-23-4	7.5	.10
87-23-5	22.0	.18
87-23-6	4.0	.06
87-23-7	7.0	.20
87-23-8	6.5	.11
87-23-9	6.0	.12
87-23-10	17.5	.47
87-23-11	3.0	.17
87-23-12	26.0	.78
87-23-13	11.5	.46
87-23-17	3.5	.21
87-23-18	3.0	.06
87-23-19	.5	.09
87-23-20	1.0	.11
87-23-21	3.5	.12
87-23-22	2.5	.09
87-23-23	36.5	.71
87-23-24	26.0	.78

SAMPLE#	AG** GM/T	AU** GM/T
87-23-25	1.5	.07
87-23-26	42.0	.39
87-23-27	33.0	.25
87-23-29	215.0	2.63
87-23-30	77.5	1.15
87-23-33	53.0	.58
87-23-35	6.5	.12
87-23-36	141.0	1.20
87-23-37	28.0	.46
87-23-39	17.5	.73
87-23-40	56.5	.78
87-23-42	114.0	2.19
87-23-45	7.5	.18
87-23-46	121.5	1.82
87-23-47	79.0	1.73
87-23-48	18.0	.22
87-23-49	17.5	.13
87-23-51	28.5	.32
87-23-52	16.5	.22
87-23-53	102.0	1.15
87-23-54	18.5	.25
87-23-55	16.0	.26
87-23-56	7.0	.06
87-23-57	21.0	.36
87-23-58	24.0	.28
87-23-59	6.5	.13
87-23-60	168.5	3.82
87-23-61	8.5	.66
87-23-62	2.0	.22
87-23-63	5.5	.90
87-23-64	317.5	5.56
87-23-65	2.0	.42
87-23-66	4.0	.25
87-23-67	1.0	.07
87-23-68	4.0	.07
87-23-69	54.5	.56

SAMPLE#	AG** GM/T	AU** GM/T
87-23-70	18.0	.24
87-24-1	2.0	.02
87-24-2	1.5	.02
87-24-3	1.0	.02
87-24-4	.5	.02
87-24-5	.5	.02
87-24-6	4.0	.04
87-24-7	5.0	.05
87-24-8	5.5	.04
87-24-9	7.5	.12
87-24-10	35.5	.81
87-24-11	107.5	1.52
87-24-12	13.5	1.65
87-24-13	4.0	.09
87-24-14	13.5	.50
87-24-15	2.0	.08
87-24-15 A	6.5	.13
87-24-16	495.0	8.88
87-24-17	13.0	.33
87-24-18	10.5	.36
87-24-19	5.0	.09
87-24-20	4.0	.12
87-24-21	2.5	.10
87-24-22	314.0	3.78
87-24-23	8.0	.19
87-24-24	11.5	.11
87-24-25	5.0	.06
87-24-26	7.0	.14
87-24-27	12.0	.22
87-24-28	8.0	.36
87-24-29	4.5	.11
87-24-30	29.5	2.85
87-24-31	34.0	.45
87-24-32	11.0	.27
87-24-33	126.5	1.95
87-24-34	23.5	.47

SAMPLE#	AG** GM/T	AU** GM/T
87-24-35	10.5	.28
87-24-36	19.5	.33
87-24-37	14.5	.35
87-24-38	25.5	.46
87-24-39	24.0	.58
87-24-40	13.5	.29
87-24-41	1.5	.11

JAIN · **FILE COPY**

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: OCT 26 1987
DATE REPORT MAILED: Oct. 31/87.

ASSAY CERTIFICATE

AG** AND AU** BY FIRE ASSAY. NOV 03 1987
- SAMPLE TYPE: Core

87.11.4

ASSAYER: D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERALS PROJECT-123 File # 87-5153 Page 1

SAMPLE#	AG** GM/T	AU** GM/T
12948	2.0	.08
12949	83.0	2.05
12955	3.0	.28
12956	3.0	.16
12957	3.0	.02
12958	7.5	.13
12959	2.5	.02
12961	17.5	.38
12962	1.0	.04
12967	2.5	.29
12968	1.0	.02
12969	4.0	.12
12970	1.5	.08
12971	.5	.17
12975	1.0	.04
12977	7.0	.09
12978	21.0	.23
12979	5.0	.06
12980	24.5	.10
12981	7.0	.22
12982	5.0	.63
12984	7.5	.06
12989	7.0	.16
12992	11.5	.33
12993	12.0	.20
12995	10.5	.18
722-28	642.5	13.71
722-31	91.5	3.22
722-32	52.0	.73
722-34	4.5	1.45
722-43	9.0	.21
722-55	4.0	.12
8723-14	5.5	.10
8723-16	4.5	.11
8723-28	62.5	.94
8723-31	325.5	4.65

SAMPLE#	AG** GM/T	AU** GM/T
8723-32	1.1	.57
8723-34	10.0	4.11
8723-38	.3	.29
8723-41	1.0	.43
8723-43	6.6	3.20
8723-44	.6	.22
8723-50	4.8	1.66

JAM → FILE COPY

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: NOV 19 1987
DATE REPORT MAILED: Dec 1/87

ASSAY CERTIFICATE

- SAMPLE TYPE: Core Fire Assay from ½ A.T.

ASSAYER: D. Toye. DEAN TOYE, CERTIFIED B.C. ASSAYER

ESSO MINERALS PROJECT-123 File # 87-5755

87-12-3

DEC 0 3. 87

SAMPLE#	AG** GM/T	AU** GM/T
715014	14.0	.19
715015	23.0	.22
715016	4.0	.05
715017	9.0	1.11
715018	13.0	.17
715019	186.0	2.82
715020	18.0	.20
715021	95.0	1.14
715022	30.5	.69
715023	18.0	.58
715024	20.5	.86
715025	20.5	.33
715026	32.0	.65
715027	34.0	.83
715028	125.0	2.51
715029	47.0	.89
715030	224.0	3.68
715031	72.5	1.74
715032	79.5	1.31
715033	700.0	12.07
715034	393.0	7.68
715035	33.0	.56
715036	17.5	.97
715037	9.0	.26
715038	18.0	.33
715039	8.5	.52

DDH87_24
DDH87_08
DDH87_03
DDH87_05
DDH87_02
DDH84_11
DDH84_09
DDH84_10
DDH84_19
DDH84_18
DDH87_21
DDH87_10
DDH87_11
DDH87_23
DDH84_16
DDH84_01
DDH87_20
DDH83_07
DDH84_17
DDH84_12
DDH83_06
DDH87_22
DDH83_08
DDH83_09
DDH87_14
DDH87_19
DDH87_13
DDH87_18
DDH84_14
DDH84_02
DDH84_08
DDH84_03
DDH84_15
DDH84_13
DDH87_12
DDH87_15
DDH84_04
DDH87_16
DDH84_05
DDH84_07
DDH84_06
DDH83_03
DDH87_17
DDH83_02
DDH87_09
DDH83_04
DDH83_01
DDH87_08

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,519

ESSO Minerals Canada

Epithermal gold-silver stockwork

SHASTA PROJECT
DRILL HOLE PLAN VIEW

SCALE 1: 1000

0 20 40 60 80 100 M

ALL ZONES | NTS: 94E | NOVEMBER 6 1987

LYNX Geosystems Inc