ASSESSMENT REPORT
DIAMOND DRILLING
TOMMY JACK CREEK PROPERTY

Omineca Mining Division
N.T.S. 94 D/04E

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

By: Del Myers January, 1988

ARIS SUMMARY SHEET

District Geologist, Smithers Off Confidential: 89.04.06

ASSESSMENT REPORT 16943 MINING DIVISION: Omineca

PROPERTY: Tommy Jack Creek
LOCATION: LAT 56 07 54 LONG 127 36 48
UTM 09 6221386 586189
NTS 094D04E
CLAIM(S): Tom,Tom 3,Tom 5
OPERATOR(S): Noranda Ex.
AUTHOR(S): Myers, D.
REPORT YEAR: 1988, 102 Pages
COMMODITIES
SEARCHED FOR: Gold,Silver,Lead,Zinc,Arsenic
GEOLOGICAL
SUMMARY: Lower Cretaceous Bowser Lake Group clastic sediments are intruded by dacitic intrusives and cut by numerous faults. Mineralization consisting of quartz-carbonate veinlets with pyrite-sphalerite-galena-arsenopyrite-chalcopyrite-pyrrhotite-tetrahedrite cut the clastic sediments especially where intruded and faulted.

WORK
DONE: Drilling
DIAD;NQ
Map(s) - 18; Scale(s) - 1:5000,1:250,1:100
SAMP;AU,AG

RELATED
REPORTS: 13778,14631,15515,16062
MINFILE: 094D 031,094D 036

ASSESSMENT REPORT

DIAMOND DRILLING

TOMMY JACK CREEK PROPERTY

AU 1-4, TOM, TOM 2 - 7 CLAIMS

OMINECA MINING DIVISION
BRITISH COLUMBIA

NTS 94 D/ 4E

Latitude	56 deg.	07' N
Longitude	127 deg.	37' W

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

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Del Myers
Project Geologist

WORK UNDERTAKEN 7 JUNE TO 25 SEPT. 1987

REPORT SUBMITTED JANUARY 1988

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SUMMARY

The Tommy Jack Creek property lies on the edge of the Bowser sedimentary basin in northcentral B.C. It is underlain by Bowser Lake Group sandstones, siltstones, and shales which are cut by dacitic intrusives, probably related to the Atna Range Batholith of late Cretaceous age to the south.

Twenty-five diamond drill holes totalling 1690.5 m (5546') were drilled on the Tommy Jack Creek property in 1987. The best results from this program plus ten holes totalling 762 m (2500') drilled in 1986 were;

DDH TJ86- 5	6.6 m	@	4.3 ppm Au	83.6 ppm Ag
DDH TJ87-14	0.6 m	@	31.85 ppm Au	129. ppm Ag
DDH TJ87-23	1.3 m	@	14.69 ppm Au	36.3 ppm Ag

These holes were drilled to test Au-Ag-Pb soil geochemical anomalies.

Mineralization occurs as veins, veinlets, or stockworks of quartz-carbonate with minor to major amounts of pyrite, sphalerite, galena, arsenopyrite, pyrrhotite, chalcopyrite, tetrahedrite, and rarely ruby silvers in the veinlets or as disseminations in nearby rocks. Ankeritic cement is pervasive in the host sediments. This mineralization is usually near faults and dacitic intrusives.

Other follow-up work of soil, rock, and silts anomalies is recommended. Drilling of presently defined targets should be delayed until this follow-up work can be done, then the best targets drilled. Present targets include more soil anomalies and additional drilling around DDH TJ86-5 and DDH TJ87-14.

INTRODUCTION

PURPOSE

Diamond drilling was continued in 1987 on the Tommy Jack Creek property to test more of the soil geochemical anomalies outlined by 1985 sampling.

Line and trail cutting was done to improve access to the grid and drill sites.

LOCATION AND ACCESS

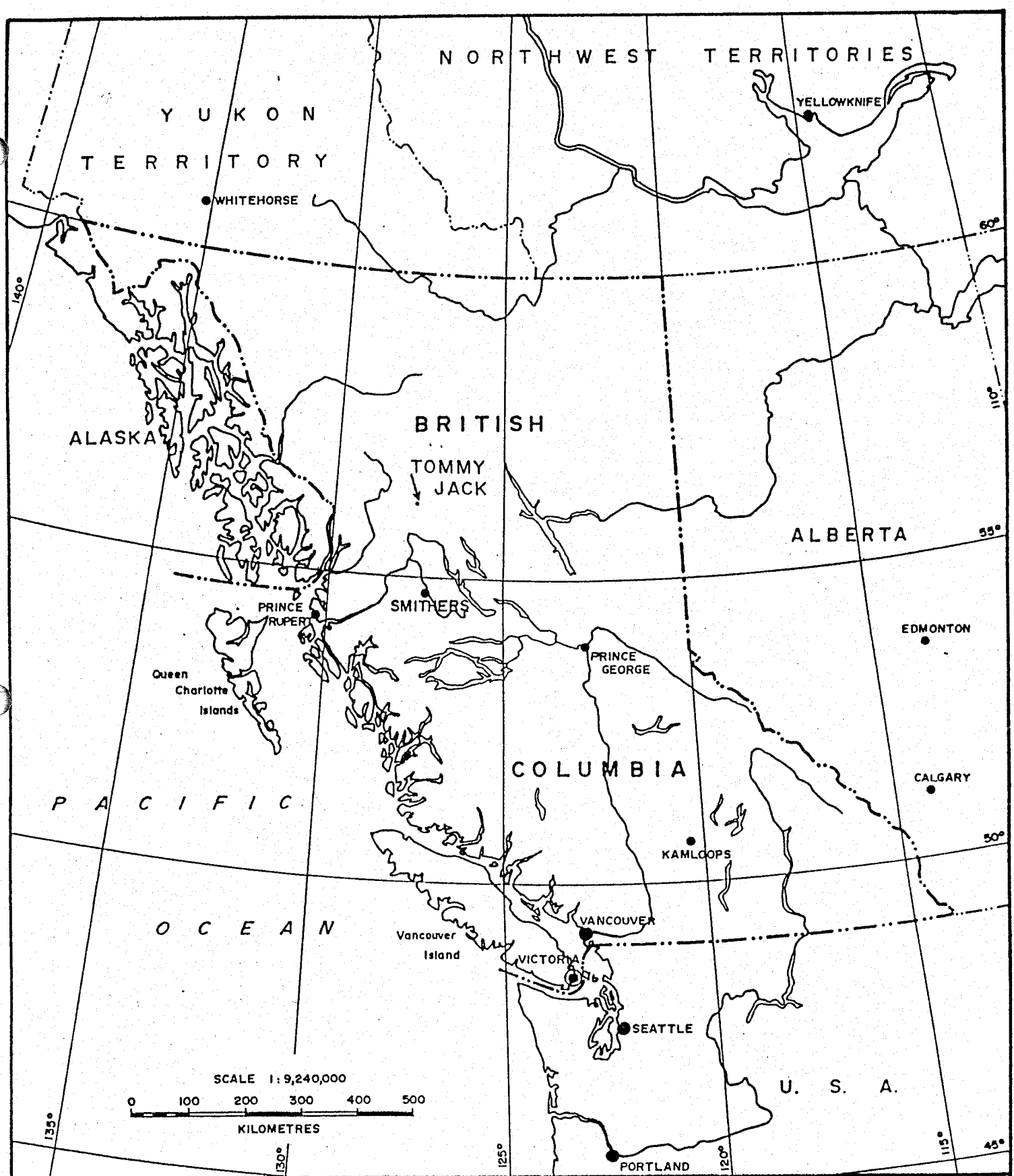
The Tommy Jack Creek property is located 95 km N of Hazelton, B.C. (Figure 1). The property lies along Tommy Jack Creek and covers its confluence with the Sicintine River (Figure 2). The Sicintine River is a tributary of the Skeena River.

The Old Camp, on Tommy Jack Creek, at 10,000 mN, 10,000 mE of the property grid is 750 m above sea level. The baseline climbs from there to 1150 m a.s.l. at High Camp at BL 8100 N. The nearby height on land is 1760 m a.s.l. Tree line in the area is about 1500 m a.s.l.

Access to the property is by helicopter from Smithers, B.C., about 1 hour flying time away. In the past, float planes have landed on Sicintine Lake 25 km to the SE. The nearest runway is below Mosque Mountain on the BC Rail right of way some 30 km N of the property.

The nearest road to the property is a logging road (Salmon River Road) along the east side of the Skeena River. This road was used in 1986 to truck supplies and equipment to a staging area in a clearcut near Bretson Creek. From here, material was slung to the property by helicopter.

In 1987 material was trucked up the Kispiox Valley to the Kispiox-Skeena Forest Service Road and up it for 14.5 km to a shale pit in a large clearcut east of Cullon Creek. Material was slung from there to the property, a distance of about 54 km. Expediting services were provided by CJL Enterprises of Smithers, B.C.



noranda

NORANDA EXPLORATION COMPANY LTD.
Office: Prince George, B.C.

MAP TITLE	LOCATION MAP
PROJECT TITLE	TOMMY JACK PROPERTY
PROJECT NO. 240	SCALE 1:9,240,000

Fig. 1

REVISED	TOMMY JACK PROPERTY
	LOCATION MAP
PROJ. No. 264	SURVEY BY: DEM Jr DATE: Jan 88
N.T.S. 94D	DRAWN BY: SCALE: 1:500,000
DWG. No. Fig 2	NORANDA EXPLORATION
	OFFICE: Prince George BC

PROPERTY

The property consists of 14 claims containing 121 units (about 3025 hectares). Five of these claims were acquired by option from Joyce Warren of Smithers, B.C. The nine adjoining claims were staked by Noranda Exploration.

For purposes of filing assessment work, most of the claims have been put into one of two groups:

the Tom group and
the Tommy Jack group.

The claims are shown in Figure 3 and are listed in Table 1.

A joint venture on the property between Noranda and Goldcap Inc. has been in progress since 1986.

REGIONAL GEOLOGY

The Tommy Jack Creek property is underlain by Bowser Lake Group clastic sediments of Middle to Late Jurassic age (Tipper and Richards, 1976). The sediments regionally are flat lying or gently dipping. They fill a sedimentary basin called the Bowser Basin. The property lies near the eastern limit of the Bowser Basin within the Intermontaine Belt of the Canadian Cordillera. There appears to be considerable deformation of the sediments in the Tommy Jack Creek area, steeply dipping beds are common and recumbent folding was noted on Mt. Tommy Jack.

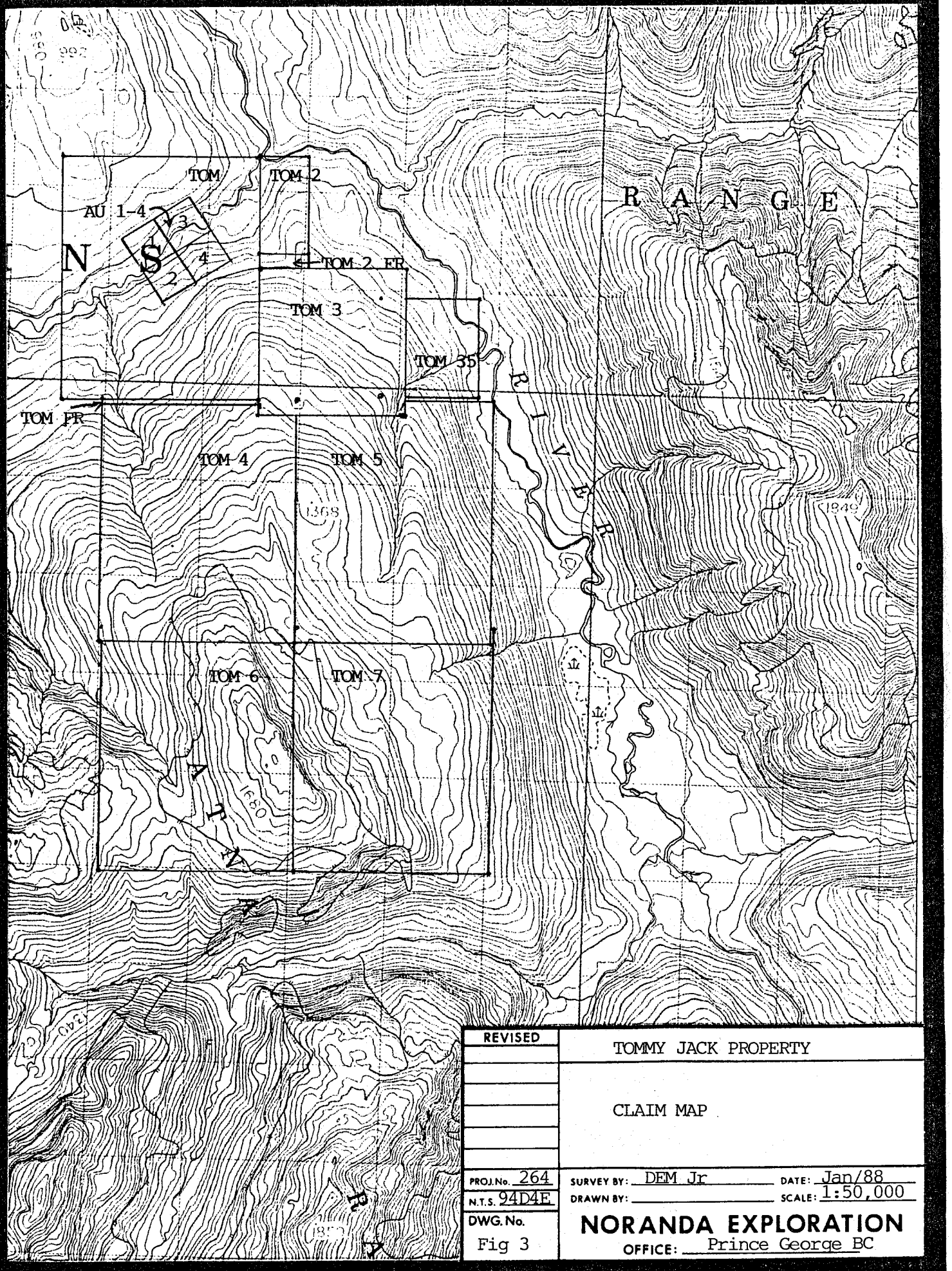
About 10 to 15 km south of the property, these sediments are intruded by early Tertiary intrusives known as the Bulkley Intrusives. These rocks, predominantly quartz monzonites, granodiorites, and quartz diorites, form the core of the Atna Range.

There are no 1:250,000 or more detailed geology maps for the area of the property.

PREVIOUS WORK

Showings in the area were known to Indian trappers, such as Tommy Jack, from Hazelton.

Prospectors Bert Goodrich and Bert Lloyd worked in the area in the 1930's or 1940's with the backing of Maynard Kerr of Vanderhoof. The property was relocated by Kerr and Glen Huck in 1962 or 1963 (Thompson, personal comm.)



REVISED	TOMMY JACK PROPERTY
	CLAIM MAP
PROJ. No. 264	SURVEY BY: DEM Jr — DATE: Jan/88
N.T.S. 94D4E	DRAWN BY: — SCALE: 1:50,000
DWG. No. Fig 3	NORANDA EXPLORATION
	OFFICE: Prince George BC

Table 1. List of claims, Tommy Jack Creek property
NTS 94 D / 04E Omineca M.D.

Record_#	Claim_Name	Record_Date	Type	Units	Group
	Tom 35			4	
6256	Au 1	84/6/12	2P	1	Tom
6257	Au 2	84/6/12	2P	1	Tom
6258	Au 3	84/6/12	2P	1	Tom
6259	Au 4	84/6/12	2P	1	Tom
6726	Tom	84/10/24	MG	20	Tom
7303	Tom 2	85/9/5	MG	2	Tommy Jack
7304	Tom 3	85/9/5	MG	9	Tommy Jack
7578	Tom 4	86/5/1	MG	20	Tom
7579	Tom 5	86/5/1	MG	20	Tommy Jack
7580	Tom 6	86/5/1	MG	20	Tom
7581	Tom 7	86/5/1	MG	20	Tom
9019	Tom Fr.	87/10/20	FR	1	
9020	Tom 2 Fr.	87/10/20	FR	1	

The only work published on the Tommy Jack Creek property was by Canex Aerial Exploration in 1964. Canex did soil geochemistry over a 4800 x 5400 ft. (1460 x 1650 m) area and found extensive Ag, Pb, and As anomalies (Thompson, 1964). Some trenching was done in 1964 on a massive galena vein somewhere on the mountainside. Placer was looking for Cu or Mo deposits and dropped their option on the property.

In December 1968, 3 short holes were diamond drilled near the Old Camp on Tommy Jack Creek (Thompson, personal comm.). Results of the trenching and diamond drilling are not available.

There is no record of other work on the property until 1984 when the property was examined and optioned by Noranda. (Myers, 1985).

A program of prospecting, geological mapping, and soil and silt geochemistry was conducted in 1985 by Noranda on a grid covering an area 2.0 x 3.0 km (Dale and MacArthur, 1985).

In 1986 Noranda and Goldcap drilled ten diamond drill holes to test soil geochemical anomalies. Subeconomic, mineralized, veinlet stockworks were intersected in most of the holes. The best intersection was in DDH TJ86-5 which averaged 4.3 ppm Au and 83.6 ppm Ag over 6.6 m from 21.6 to 28.2 m. This mineralization occurs with two faults.

WORK UNDERTAKEN

Work done in 1987 at Tommy Jack Creek is a continuation of exploration work done from 1984 to 1986 by Noranda.

Personnel and contractors employed on the project are listed in Appendix 1.

Phil's Diamond Drilling of 108 Mile House was contracted to drill 5000 feet (1524 m) of NQ core on the property. A crew of four men was eventually supplied. They used a Longyear Hydro-core Model 28 drill. Drill moves were done with either Bell 206B or a Hughes 500D helicopters of Okanagan Helicopters.

Work began with mobilization and camp set-up beginning on 7 June. High Camp was established at BL 8100 N.

Drill sites were cleared and timbers for the drill were laid. Trails to the drill sites were cut. Two fallers were used for this work, with assistance from the rest of the crew for building the timbered set-ups. In September, one faller cleared the drill sites.

The drill move in was begun 14 June and finished on the 15th. The first hole was begun on 15 June day shift. Six holes totalling 464.5 m (1524') were completed by the evening of 24 June. The day shift driller, Dean Moret, was laying water line that evening before night shift came to the drill. He was attacked and killed by a black bear. Night shift drillers found the body and the bear. They were able to escape to camp after some anxious moments. The bear was killed the following morning, and authorities alerted. The RCMP and Coroner from Stewart and the Inspector of Mines and Wildlife Control Officer from Smithers visited the site that day (25 June) and the camp was temporarily closed.

Drilling resumed on 12 July. Nine more holes were drilled between then and 24 July. The total footage drilled was now 1021.3 m (3351') in 15 holes. The drill was removed from the property on 25 July to a nearby property.

The drill was returned to the property on 5 September. Hole 16 was begun on 10 September. Ten holes were drilled in September bringing the total meters drilled to 1690.5 m (5546') in 25 holes. Drilling was completed on 21 September and the drill was slung out to the Cullon Creek staging site.

A total of 68 shifts were spent moving the drill into the property, drilling, and moving it back out to Smithers. Production averaged 81.6 feet per shift.

Core was logged and split in the field. Core is stored at the drill sites. Split samples of core were assayed in Vancouver for Au and Ag by Bondar-Clegg and Acme.

The camp was closed with some of the gear left behind under cover on 25 September.

RESULTS

DRILLING

One plan (Figure 4) and seventeen vertical sections (Figures 5 to 21) show the twenty-five holes drilled in 1987. Drill logs are included as Appendix 3.

Myers and R. Day logged all the core from 1986 and 1987 and Myers (1986) has made the final interpretation of the 1986 drill sections. Some of his observations were:

1. apparent grid west dips of about 45 degrees are noted for dacitic intrusives, bedding, faults, and mineralization on the section for TJ86-1 to -3.

2. the bedding to core axis angle at the top of hole TJ86-9 implies an apparent grid east dip of 35 or 55 degrees.

Significant diamond drill intersections from both the 1986 and 1987 programs are listed in Table 2. Inspection of this table shows that the widest intersection was 6.6 m wide (TJ86-5), the highest gold grade was 48.5 gmt Au (but only over 0.2 m, TJ87-23), and the highest gold content (width x grade) was 28.4 m gmt Au (TJ86-5).

The highest silver grade was 1380 gmt Ag over 0.4 m in DDH TJ87-16 as was the highest silver content of 553 m gmt Ag, although TJ86-5 had almost as much with 551 m gmt Ag.

No economic analysis has been done on the property by the author, however I feel that values of $200/tonne would be required to justify development over widths of several meters. This translates into grades of 11.4 gmt Au and 735 gmt Ag at US$ 450 for Au, US$ 7 for Ag, and Can$ 0.75/US$. Drilling to date has not indicated this type of potential. Work should be directed toward locating higher grade veins or larger tonnage stockwork zones amenable to open pit mining.

A brief commentary on each of the holes drilled in 1987 follows:

Holes TJ87-1 and -2 (Figure 5) tested Au, Ag, and Pb soil geochemical anomalies at L 9400 N, 9620 to 9720 E. The holes are on a section 40 m uphill from the anomalies to compensate for probable downslope geochemical dispersion.

These two holes were drilled as a fence starting with DDH TJ87-1 at 9624 E and continuing east to the bottom of hole TJ87-2 at 9718 E.

The best mineralization (16.8 to 21.6 m in hole TJ87-1

Table 2. Significant DDH intersections, 1986-1987, Tommy Jack Creek property

Hole	Interval,m	Width,m	gmt Au	gmt Ag	Rank*
TJ86-1	61.6 -62.75	1.15	2.57	12.7	
	78 -79	1.0	3.63	23.0	
TJ86-2	42.2 -45.5	3.3	2.01	35.3	9
	46.7 -47.15	.45	9.60	121.	
	54.6 -55.6	1.0	2.09	2.7	
TJ86-4	24.1 -24.9	0.8	8.90	151.	8
	67.2 -68.1	0.9	4.12	7.6	
TJ86-5	9.8 -11.8	2.0	1.95	29.6	
	21.6 -28.2	6.6	4.30	83.6	1
TJ87-1	12.9 -13.9	1.0	1.89	164.	
	16.8 -21.6	4.8	1.57	23.6	7
TJ87-8	50.1 -51.0	0.9	5.04	37.0	
TJ87-10	8.1 -11.6	3.5	1.00	27.0	
TJ87-11	4.0 - 6.5	2.5	2.54	158.	10
TJ87-14	28.7 -29.3	0.6	31.85	129.	2
	38.2 -39.6	1.4	1.99	5.0	
	59.1 -60.6	1.5	3.27	10.3	
TJ87-15	42.1 -42.7	0.6	6.24	17.5	
	49.8 -50.3	0.5	7.68	27.1	
	56.5 -56.9	0.4	12.9	12.0	
	69.4 -70.0	0.6	4.25	17.6	
TJ87-16	14.6 -15.0	0.4	0.38	1380	
TJ87-18	27.3 -28.0	0.7	3.63	16.1	
TJ87-19	16.4 -16.9	0.5	6.48	289.	
TJ87-20	8.5 -10.2	1.7	4.69	71.3	6
	16.4 -16.7	0.3	7.75	42.5	
TJ87-22	17.2 -17.4	0.2	13.0	46.2	
	52.9 -54.0	1.1	1.98	8.9	
TJ87-23	11.3 -12.6	1.3	14.6	36.3	3
	13.7 -13.9	0.2	48.5	1243	5
	22.3 -23.3	1.0	3.77	80.9	
TJ87-25	4.2 - 4.3	0.1	40.6	274.	
	8.5 - 8.9	0.4	26.1	91.8	4

*Rank by gold content (= width x grade)

occurs as quartz-dolomite?-sulfide veinlets in sand- to claystones with about 9% quartz-dolomite?-sulfide veinlets and 3% pyrite, sphalerite, galena with minor chalcopyrite, tetrahedrite, and pyrrhotite. The veinlets cut the hole (inclined at -45 degrees) at 10 to 50 degrees with the core axis. A possible fault occurs at 20.65 m and may have provided a conduit for mineralizing solutions.

Holes TJ87-3 and -4 tested other soil anomalies on L 8400 N but failed to intersect significant mineralization.

DDH TJ87-5 to -7 (Figures 8 and 9) were drilled east of the baseline to test soil geochemical anomalies on L 8400 N. Little mineralization was intersected in these holes. The best intersection was 1.0 m from 36.2 to 37.2 m in DDH TJ87-5 which graded 1.30 gmt Au and 6.2 gmt Ag in mineralized dacitic intrusive. Three percent quartz-carbonate veinlets contain pyrite, arsenopyrite, sphalerite, and galena along with disseminated pyrite and arsenopyrite noted in the intrusive. The total sulfide content is noted to be about one percent. The veinlets cut the core axis at 40 to 60 degree angles. The intrusive zone is 4.8 m thick and visibly mineralized, but precious metals values are restricted to this one sample.

Hole TJ87-5 contains a distinctive rock type not seen elsewhere on the property to date. Light to medium tan, massive to banded siltstone is interbedded with gray and black clastic sediments and is cut by dacitic intrusives. It is not known whether these tan siltstones have an ankeritic cement as do the other lithologies.

Holes TJ87-8 to -12 tested soil geochemical anomalies on L 8700 N.

Two of the three faults logged in hole TJ87-8 (Figure 10) have mineralization associated with them. The best is 0.9 m of 5.04 gmt Au and 37.0 gmt Ag in quartz veined, pyritic claystone with minor galena.

Hole TJ87-9 (Figures 11 and 12) tested a soil geochemical at 8700 N, 10580 E of 540 ppm Pb and 8.0 ppm Ag. Well mineralized quartz-carbonate veinlets were intersected at the top of the hole.

Additional holes were drilled at steeper inclinations from the same setup (TJ87-10 and -11) and a forth hole was drilled from east to west (TJ87-12). Surprisingly the sphalerite, pyrite, galena mineralization in TJ87-9 had low precious metal values, however holes TJ87-10 and -11 had better values. The best was a section grading 2.54 gmt Au and 158 gmt Ag over 2.5 m in hole TJ87-11. This was in a weathered sandstone (near surface) with 10% quartz-carbonate

veinlets with 1% pyrite and minor galena and sphalerite.

Tan siltstone occurs near the top of holes 87-10 and -11 overlying a gently dipping "salt and pepper" textured sandstone. The tan unit is not logged in hole 87-9, suggesting the unit might be due to alteration. Reexamination of these cores might shed more light on this problem.

Hole TJ87-12 which was drilled under the sections which ran in holes 87-10 and 11 was poorly mineralized. This suggests a flatly dipping zone of mineralization above the "salt and pepper" sandstone unit. Core angles in TJ87-12 and possible correlations between veins in TJ87-9 to -11 agree with this interpretation.

Some dacitic intrusive was intersected below the "salt and pepper" sandstone in hole 87-9.

DDH TJ87-13 (Figure 13) tested a Ag-Pb soil geochemical anomaly at 8600 N, 10,000 E. Two minor mineralized sections were intersected in the bottom of the hole associated with quartz-carbonate veining and a dacitic intrusive.

DDH TJ87-14 and -15 (Figure 14) were drilled to test soil geochemical anomalies on L 8800 N near reference line A. RL A was cut to better locate drilling here and around DDH TJ86-5. Coordinates of all holes in these two areas were redetermined in September 1987 relative to RL A and are used in this report.

Assaying indicates four mineralized sections in TJ87-14. Three are associated with quartz veins and faults and one is a quartz vein in dacitic intrusive.

Five intervals, 0.6 m or less wide, in DDH TJ87-15 had Au-Ag mineralization. One was associated with a fault and veinlets, two were associated with narrow, well mineralized veinlets, and one with a vein and a dacitic intrusive.

Hole TJ87-24 was drilled in September between 87-14 and -15 to further test mineralization in this area. One sample of mineralized dacitic intrusive contained 40.5 gmt Ag and minor gold.

Examination of Figure 14 suggest the following:

1. irregular dip or fault offsets of dacitic intrusive dike,
2. gentle westward dip of several graded units, and
3. possible bedding plane faults with associated veining and Au-Ag mineralization.

It might be noted here that a gentle westward dip is

seen above treeline on Moret Ridge*, 2 km to the south. This maybe the dominant bedding orientation on the property except in locally faulted or folded areas.

DDH TJ87-16 (Figure 15) was the first hole drilled in the September program. It was drilled to test mineralization located by Tom Bell during July in the canyon wall of Unnamed Creek. One core sample (76139) gave a high silver assay of 1380 gmt. A two cm thick galena-sphalerite vein and mineralized, brecciated siltstone and sandstone at the upper contact of a dacitic intrusive were included in this sample. The entire interval from 14.6 to 32.3 m is anomalous in silver, averaging 51.2 gmt Ag over 17.7 m (uncut). Gold assays average about 0.2 gmt over this interval. This mineralization occurs in sandstones and siltstones which are cut by four bodies of dacitic intrusive and bounded top and bottom by faults. Mineralized veinlets in the cliffs in front of collar TJ87-16 strike and dip 340/60 degrees E while bedding in sandstone strikes and dips 338/42 degrees E.

Hole TJ87-17 (Figure 16) was drilled to test a soil geochemical anomaly on L 8200 N. One sample taken of sandstone and siltstone with 1% quartz-carbonate veinlets and a 5 cm quartz-pyrite veinlet with 2% galena assayed 5.18 gmt Au over 0.3 m. It lies about 1 m above a dacite intrusive body.

A geochemical anomaly on L 8850 N was tested by DDH TJ87-18 (Figure 17). Three samples returned interesting Au-Ag values but only over 1 m or less. The best sample was 0.7 m of 3.63 gmt Au and 16.1 gmt Ag in a quartz-carbonate veined fault zone in siltstone and claystone with 3% pyrite, 0.5% galena and sphalerite, and trace arsenopyrite. Two of the three high samples are associated with faults and all are within 8 m of dacitic intrusive.

Holes TJ87-19 to -23 were drilled around hole TJ86-5 to test mineralization found in that hole.

DDH TJ87-19 (Figure 18) was drilled from the same setup as TJ86-5 but at a -60 degree inclination. Only two 0.5 m intersections were found with significant Au-Ag values. The correlation of these two intersections with nearby intersections in hole 86-5 is uncertain. Core angles for dacitic intrusives in hole 87-19 were not noted, so that the reason for no intrusives in hole 86-5 in uncertain. The core should be reexamined with this in mind. Additional sampling of hole 87-19 should be done to make certain that none of the nearby mineralization in hole 86-5 has been missed.

Bedding angles with the core axis are variable and

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* new name, named after Dean Moret, deceased

faults in the holes are numerous on this section suggesting structural complexities.

Hole TJ87-20 was drilled from grid E to W under the intersections in hole 86-5. Unfortunately it is not clear what the extent of this mineralization is or how it correlates with other mineralization on the section. Surprisingly no dacitic intrusive was intersected in hole 87-20.

Hole TJ87-21 was drilled for structural information as well as to test mineralization found in hole TJ87-20. No significant Au-Ag values were obtained in TJ87-21. Angles with the core axis and lithologies suggest an apparent dip here of 60 degrees east. This would suggest a angle of bedding to the core axis of about 75 degrees in hole TJ87-20 which is not recorded even near the top of the hole! If that angle is used down the length of hole TJ87-20, it seems to provide acceptable correlation with lithologies logged in nearby parts of other holes (excepting dacitic intrusives). This orientation does not provide a satisfying correlation of mineralization from hole to hole. Again it appears that this mineralized area is probably structurally complex. Perhaps it is mineralized because it is complex.

Hole TJ87-22 (Figure 19) was drilled on a section 25 m grid south of DDH TJ86-5. The three significant assays from this hole are all associated with faults and two are associated with a dacitic intrusive. Additional samples should probably be taken from this core, both adjacent to the four samples taken and adjacent to unsampled faults.

The section 25 m grid N of hole TJ86-5 was tested by hole TJ87-23 (Figure 20). Three significant Au-Ag sections were assayed. All are associated with faults and/or dacitic intrusive.

Four of the best six drill intersections on the property have been obtained around DDH TJ86-5 (see Table 2). It would seem that further drilling is still warranted in this area.

The final hole of the 1987 program was drilled on a section 25 m N of DDH TJ87-14. Hole TJ87-25 (Figure 21) intersected two well mineralized, narrow (0.1 and 0.4 m) veinlets near surface with core axis angles of about 20 degrees, implying dips of 64 degrees or 24 degrees E if striking at right angles to the drill section.

It is possible that the mineralization of sample 85478 of hole TJ87-14 is also gently eastward dipping even though a gently westward dip of bedding is interpreted. The dacitic intrusive in hole TJ87-25 is much narrower than that intersected in the next section south, making correlation uncertain. Since the second and forth best Au intersections

(see Table 2) were made in this area, some additional drilling is warranted here also.

The possible correlation of the mineralization from the area of hole TJ87-14 to the area of hole TJ86-5 is an interesting idea. There is no support for such a correlation based on the magnetometer survey (Figures 22 and 23). Likewise only the Ag soil geochemistry map (Figure 26) suggests some possibility of this, while the gold and lead soil geochemistry maps (Figures 25 and 27) do not support this hypothesis (although they do not prohibit it either).

LITHOLOGIES

Rock types recognized in outcrop and drill core include:

1. Gray to black clastic sediments ranging from claystone to sandstone with thin conglomerate layers in a few sanstone beds. The rocks are massive to well bedded. Cross bedding and dewatering structures have been noted. Ankeritic cement is common in all the rocks drilled in 1986, which is easily recognized after the rocks have weathered at surface for a month or so.

2. This year a sequence of tan to cream colored siltstones were intersected in holes TJ87-5,-10, and -11. These are also massive to bedded and are sometimes interbedded with gray to black clastics. It is not certain whether these rocks are a new lithotype or a altered gray clastics. These rocks have not been recognized at surface yet.

3. Dacitic hypabyssal intrusive cut both units are and are mineralized in places. There are massive or porphyritic with feldspar phenocrysts to 2 mm or so. Sericitic alteration is common along with quartz-carbonate-sulfide veinlets.

CONCLUSIONS

Significant, but subeconomic, mineralization has been found by diamond drilling in 1986 and 1987. The better intersections are:

DDH TJ86- 5	6.6 m	@	4.3 ppm Au	83.6 ppm Ag
DDH TJ87-14	0.6 m	@	31.85 ppm Au	129. ppm Ag
DDH TJ87-23	1.3 m	@	14.69 ppm Au	36.3 ppm Ag

Intersections in holes TJ86-5 and TJ87-23 are from sections 25 m apart.

Mineralization consists of stockworks of quartz-carbonate veinlets in the hosting clastic sediments and dacitic intrusive. These veinlets and sometimes the wall rocks are mineralized with pyrite, sphalerite, galena, arsenopyrite, pyrrhotite, tetrahedrite, chalcopyrite, and rarely ruby silvers.

Mineralization commonly occurs at or just below zones of broken or clayey core which are interpreted to be faults. These faults were probably important permeability controls.

Dacitic intrusives are also associated with most mineralization.

The lack of marker beds, the repetition of lithological units, the sparsity of drill holes, and the absence of wide, singular, mineralized structures makes interpretation of mineralization, structure, and stratigraphy from DD holes uncertain.

Some local insights were made into structures in 1987. It seems likely that the most common bedding orientation on the property is about 330/30 degrees W. There are probably as many exceptions to this interpretation as there are examples, however. In areas of better mineralization the picture seems to be complex, probably due to faulting and folding.

Strong lead (>500 ppm) soil geochemical anomalies are sometimes good indicators of significant bedrock mineralization, but not always. Holes TJ87-2,-3,-4,-5,-6, -7,-13, and -17 all failed to produce significant intersections, but were drilled to test >500 ppm Pb soil anomalies. In one case, TJ87-5, however, mineralization seen in old trenches is believed to have been missed by the DDH.

A significant zone of silver mineralization was cut by hole TJ87-16, 17.7 m of 51.2 gmt Ag (uncut). This zone is low in gold averaging only about 0.2 gmt.

Analyses of core samples from holes TJ86-1 to -5 indicate weak Cu-Sb mineralization associated with the more obvious Au-Ag-Pb-Zn-As mineralization.

The bedding attitude of 330/30 degrees W is believed to be the most common on the property. This is seen in holes TJ86-1 to -3; TJ87-14,-15, and -24; TJ87-9 to -12; and on Moret Ridge. Holes TJ86-9 and TJ87-21 indicate eastward dips are may define an antiformal axis between TJ86-2 and TJ86-9.

A sequence of tan to cream colored, siliceous siltstones was intersected in hole TJ87-5. Beds are also found in holes TJ87-10 and -11. These rocks are the first distinctive lithology encountered on the property which might provide at large marker unit. They have not yet been searched for in outcrop.

Dacitic intrusives can be very irregular (see Figure 18 for instance).

RECOMMENDATIONS

1. The purpose of future drilling should be to locate higher grade veins or larger stockwork zones than have been drilled to date.

2. Core from holes TJ87-6, -8 to -12 should be reexamined to see if tan siltstones are present.

3. The core from DDH TJ87-19 should be relogged for contact angles of the dacitic intrusives.

4. Core from DDH TJ87-19 and -22 should be sampled more, especially near faults, to look for additional mineralization found in hole TJ86-5.

5. Further drilling is warrented in the areas of holes TJ86-5 and TJ87-14 because the best results to date have been obtained here. Additional soil sampling should probably be done first at both areas.

6. Mapping around hole TJ87-5 should be done to see if the tan siltstones found in that hole can be recognized at surface and used as a marker horizon to help develop a structural picture for the property.

7. Additional soil anomalies remain to be tested, especially to the south of anomalies drilled in 1986 and 1987.

REFERENCES

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Tipper, H.W. and Richards, T.A., 1976. Jurassic Stratigraphy and History of North-Central British Columbia. GSC Bulletin 270, Ottawa, Ont., 73 pp.

APPENDIX 1. Summary of 1987 Field Personnel

Name/Address	Position	Worked on property
Tom Bell Kispiox, B.C.	Prospector	16-25 July 1987
Lyle Carty Prince George, B.C.	Cook/Faller	1-23 Sept. 1987
Rob Day Edmonton, Alberta	Consulting Geologist	7-25 June, 9-28 July, 3-20 Sept.
Dave Denman Prince George, B.C.	Assisstant	1-9 Sept. 1987
Brian Enns Prince George, B.C.	Assisstant	1-20 Sept. 1987
Ed Gelinas Mackenzie, B.C.	Assistant	1-20 Sept. 1987
Peter Gosau Prince George, B.C.	Cook	7-25 June, 9-28 July 1987
Paul Huel Kispiox, B.C.	Prospector	3-9, 22-25 Sept. 1987
Grant Malensek Vancouver, B.C.	Geologist	22-25 Sept. 1987
Del Myers Prince George, B.C.	Project Geologist	7-25 June, 9-23 July, 1-9, 19-25 Sept. 1987
Al Raven Prince George, B.C.	Faller	7-19 June 1987
Ken Sawyer Prince George, B.C.	Assistant	7-25 June, 9-28 July 1987
Nels Walker Prince George, B.C.	Assistant	7-25 June, 9-28 July 1987
Phillip Zelenka Calgary, Alberta	Geologist	7-25 June 1987
Phil's Diamond Drilling 108 Mile House, B.C.	Drilling Contractor	7-25 June 1987 12-24 July 10-21 Sept.
Okanagan Helicopter Smithers, B.C.	Charter Helicopters	for duration of project

APPENDIX 2. Statement of Costs

Drilling contractor	1690.5 m	@	$72.33/m	$122,278
Helicopter	120 hrs.	@	$500/hr.	60,000
Assays	338 samples for Au, Ag	@	$15.25/sample	5,154
Labor	60 MD	@	$200/manday	12,000
Food and accommodation	220 MD	@	$ 20/manday	4,400
Equipment and supplies	220 MD	@	$ 10/manday	2,200
Expediter	3 mo.	@	$500/mo.	1,500
Truck lease	3 mo.	@	$500/mo.	1,500
			total cost	$209,032

unit cost = $209,032 / 1690.5 m = $123.651/m

Meters drilled	Claim	Cost
910.2 m	Tom	$112,547
704.7 m	Tom 3	87,137
75.6 m	Tom 5	9,348
1690.5 m		$209,032

Delbert E. Myers, Jr.
Project Geologist
20 January 1988

APPENDIX 3. Diamond Drill Hole Logs

List of abbreviations used on drill logs:

ank	ankerite	rec	recovery
as	arsenopyrite		
aspy	"	serp	serpentine
		sp	sphalerite
bx	breccia	sph	"
		$	sulfides
carb	carbonate		
cc	calcite	td	tetrahedrite
chl	chlorite	tr	trace
CO3	carbonate		
cpy	chalcopyrite	vnlts	veinlets
dec	decreasing		
deg	degrees		
diss	disseminated		
dol	dolomite		
est	estimated		
gmt	grams per metric ton = ppm		
gn	galena		
graph	graphite		
gy	gypsum		
m	meters		
med	medium		
min	mineralization or minor		
mnr	minor		
no	number		
po	pyrrhotite		
poss	possible		
py	pyrite		
qz	quartz		
qtz	"		

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-1

DATE COLLARED: June 15, 1987 | DATE COMPLETED: June 17, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

LAT: 8360N | ELEV. 1157 m. | DIP: -45 degrees

DEP: 9624E | LENGTH: 77.1 m. | AZIMUTH: 063 degrees

CLAIM: Tom

PAGE 1 of 4

HOLE NO: TJ-87-1

DIP TESTS		
DEPTH	ANGLE REC.	COR.
no tests -	equipment not avail.	

FROM (m)	TO (m)	REC (%)	C	S	S	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
			I	I	I										
0	3.2	0				No recovery - casing									
3.20	6.55	95	x	x		Sandstone, very fine grain, minor carbonate cement, weathered rock adjacent to fractures (limonitic to hematitic), gray.	poorly bedded at 15	trace cc	nil	nil					
6.55	8.85	100	x	x		Sandstone, very fine grain, unweathered, gray	poorly bedded	tr. cc, qz	tr. py	nil					
8.85	10.85	98	x			Siltstone, dark gray, massive, minor graphite (fractured, minor shearing, minor breccia veinlets)	veinlets 80, 65, 45	10 cream qz gray qz, dol, cc	.5 py, po	low	85251	8.85- 9.85	1.00	(.07	1.4
											85252	9.85-10.85	1.00	(.07	1.0
10.85	11.55	100		x		Sandstone, light gray, massive, minor graphitic claystone at base	veinlets 45, 10	6 qz, dol cc	1 py, po sp	low	85253	10.85-11.55	0.70	(.07	2.4
11.55	11.70	100				Felsic intrusive, aphanitic, light gray/tan, dissem. py, dark wisps of ?, possible wisps of tan sericite, softer than nail. May be weak clay alteration or sericite alteration.	contacts 40, 65	tr. dol	.75 py	nil	85254	11.55-11.70	0.15	(.07	1.4
11.70	11.90	100	x	x		Sandstone grading down into siltstone? clay seam	sheared veinlets	15 qz, CO3 $	2 py, po	low	85255	11.70-11.90	0.20	.17	1.7
11.90	12.90	100				Felsic intrusive, aphanitic, light gray/tan, dissem. py.	contacts 20, 30	2 cream silicate 4 qz-carb	.5 py	low	85256	11.90-12.90	1.00	.07	1.0
12.90	16.25	100	x			Siltstone, dark gray and gray, bedded, soft-sediment deformation structures, more veining at top and bottom than in center.	bedded 10-20 tops up	5 qz, dol, $	2 py, gn, sp, cpy tetrahed?	med	85257	12.90-13.90	1.00	1.89	164.6
											85258	13.90-15.25	1.35	.21	1.7
											85259	15.25-16.25	1.00	.51	5.1

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D.D.H. TJ87-1

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-1

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SILTY	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
16.25	16.80	100			x	Sandstone, fine grain, gray, massive	min veinlets @ 30	5 qz-dol-$	1 py, minor gn, sp	low	85260	16.25-16.80	0.55	.14	1.7
16.80	18.40	100	x	x		Siltstone, clayey, dark gray, poorly bedded.	min veinlets @ 30, 20, 10	9 qz-dol-$	4 py minor sp, gn, sp, td	med	85261	16.80-17.40	0.60	.55	13.7
											85262	17.40-18.40	1.00	2.43	6.5
18.40	19.85	100			x	Sandstone, fine and medium grained, poorly bedded, gray.	bedding @ 25 min veinlets @ 30, 50	10 qz-dol-$	2 py 1 sph, gn minor cpy	med	85263	18.40-19.40	1.00	2.40	16.1
											85264	19.40-19.85	0.45	.75	106.6
19.85	21.60	100	x	x		Siltstone and claystone, bedded, dark gray to gray. Possible fault at 20.65m (clay zone)	bedding @ 30 min veinlets @ 25, 50 Fault?	8 qz-dol-$, cc toward bottom	3 py 1 sp, gn minor po near bot.	low	85265	19.85-20.85	1.00	1.51	29.8
											85266	20.85-21.60	0.75	.82	7.2
21.60	24.40	100	x	x		Claystone and siltstone, dark gray, mainly massive, minor graphitic material	veinlets at 30, 50	3.5 qz-dol-$	1 py mainly at top	nil	85267	21.60-22.60	1.00	.34	2.1
24.40	26.25	100		x	x	Siltstone grading down in fine, then medium grain sandstone, poorly bedded, gray	bed at 30	.5 dol-qz	minor py	nil					
26.25	30.40	100	x	x	x	Siltstone (with minor sandstone and claystone) poorly bedded, gray/dark gray	bed at 25	.5 dol-qz min breccia veinlets	minor py tr po, sp	nil					
30.40	31.80	100	x	x		Claystone and siltstone, dark gray, poorly bedded	bed at 40	4 CO3-qz	minor py, po	nil					
31.80	35.10	100		x	x	Siltstone and very fine grain sandstone, dark gray to gray, poorly bedded	veinlets at 10, 25, 70, 150	1 CO3-qz	minor py, po	nil					
35.10	39.10	100				Felsic intrusive, aphanitic with minor sections of white feldspar phenocrysts to 3-4mm, probable sericite alteration, pale greenish gray, pale greenish sericite blebs, dissem py, sph is lighter brown than above mineralization	contacts at irreg, 70 min veinlets @ 50, 40, 15	2 qz-CO3-$	.5 py, sp, gn	low	85268	35.10-36.10	1.00	.07	2.4
											85269	36.10-37.10	1.00	(.07	2.4
											85270	37.10-38.10	1.00	(.07	(0.7
											85271	38.10-39.10	1.00	(.07	1.4
39.10	41.10	100		x	x	Siltstone and fine grain sandstone, poorly bedded, more sandstone toward bottom.	beds @ 25-50	3.5 CO3-qz	minor py tr sp cpy	nil					
41.10	42.50	100			x	Sandstone, fine grain, gray, very poorly bedded.	veinlets at 40, 60	1 CO3-qz	tr py, sp, gn	nil					
42.50	44.95	100		x		Siltstone, gray, poorly bedded	possible fault @ 43.0 with chl?	2 CO3-qz	minor py	nil					

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D.D.H. TJ87-1

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-1 PAGE 3 of 4

FROM (m)	TO (m)	REC (%)	C L A Y	I L I N	S I A D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
44.95	45.80	100			x	Sandstone, fine/medium grain, gray massive	contacts at 50, 40	1 CO3-qz	tr py	nil					
45.80	46.80	100	x	x		Siltstone grading down to claystone, gray to dark gray, massive, minor chl with veinlets.	veinlets at 45-60	3 CO3-qz	tr py	nil					
46.80	48.00	100		x	x	Siltstone grading into sandstone, poorly bedded, dark gray to gray.	bedding @ 50	2 CO3-qz	nil	nil					
48.00	49.50	100	x	x		Claystone and siltstone, bedded, dark gray to gray.	bedding @ 60	4 CO3-qz	tr po sp	nil					
49.50	49.90	100			x	Sandstone, massive, fine grain.	veinlets at 60, 30	3 CO3-qz	nil	nil					
49.90	59.60	100	x	x	x	Mainly siltstone with minor sandstone and claystone, poorly bedded, dark gray to gray, more sulphide toward bottom.	veinlets at 70, 35, 20 poss. fault at 55.4 m	4 qz-dol-$	1 py	nil	85272	58.60-59.60	1.00	.27	1.4
59.60	60.15	100				Brecciated and sheared quartz vein, white quartz with black clayey fragments and partings.	shearing at 10-20	80 qz-CO3-py	2 py	low	85273	59.60-60.15	0.55	.58	1.4
60.15	62.30	100	x	x		Siltstone, clayey at top, dark gray to gray, weakly crackled, qtz vein with po around py.	veinlets at 20, 0, 120, 40	8 qz-CO3-py	2 py, po	low	85274 85275	60.15-61.15 61.15-62.30	1.00 1.15	.21 .31	1.4 1.0
62.30	63.20	100	x	x		Quartz veined siltstone, weakly crackled banded qtz vein at 62.7m.	irreg. veinlets and veinlets at 30, 120, 60	15 qz-dol	1 py	low	85276	62.30-63.20	0.90	(.07	1.0
63.20	69.40	100	x	x	x	Siltstone with lesser sandstone and claystone beds, poorly bedded, dark gray to gray.	bed @ 50 veinlets at 25, 30, 50	2 qz-dol tr chl	.5 py, po	nil					
69.40	73.00	100	x	x	x	Sandstone with claystone and siltstone interbedded, dark gray to gray.	bed at 50 graded bed tops upright	3 qz-dol	minor po	nil					
73.00	73.80	100			x	Sandstone, light gray, medium grain, massive.	veinlets at 0, 20, 110	2 qz-dol	nil	nil					
73.80	75.30	100	x	x		Siltstone grading down into claystone, gray to dark gray, bedded, pyritic at base.	bed at 60	minor CO3 qz	minor py	nil					

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D.D.H. TJ87-1

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-1 PAGE 4 of 4

FROM (m)	TO (m)	REC (%)	CI LI A Y	IS LI A T	IS A L D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
75.30	75.75	100				Felsic intrusive, aphanatic, pale gray to pale greenish gray, vague porphyritic texture, harder that previous intrusives but still probably sericitically altered minor dissem py, mica?, altered to pale colored minerals.	contacts at 80, 75	nil	.25 py	nil					
75.75	77.10	100	x	x		Claystone and siltstone, dark gray, massive, minor graphite.	veinlets at 90	1.5 qz-dol minor chl?	minor py	nil					
77.10						END OF HOLE (253 FEET)									

LOGGED BY: DEL MYERS

Del Myers

PURPOSE: To test soil geochem anomalies at 8400N, 9640E Au 20 ppb Ag 22 & 2.6 ppm Pb 82, 550 ppm
and 8400N, 9660E Au 20 ppb Ag 0.8 ppm Pb 320 ppm

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D.D.H. TJ 87-2

DATE COLLARED: JUNE 17, 1987
DATE COMPLETED: JUNE 18, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: TOM
PAGE 1 of 3
Collar C
HOLE NO: TJ-87-2

FIELD COORDINATES

LAT: 8360N
ELEV. 1159 m.
DIP: -45 degrees
DEP: 9665E
LENGTH: 75.6 m.
AZIMUTH: 060 degrees

DIP TESTS		
DEPTH	ANGLE REC.	ANGLE COR.
no tests -	equipment not avail.	

FROM (m)	TO (m)	REC (%)	C	I	S	L	I	A	L	I	N	I	T	I	D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	3.40	0														No Recovery - casing									
3.4	7.00	100		x	x											Weathered siltstone and fine grained sandstone, dark gray to gray, limonitic along fractures to 3cm from fracture, bedded.	dewatering structures ind. tops up bed @ 0-20	nil	nil	nil					
7.00	10.00	100		x	x											Sandstone and siltstone, fine grain sand, gray to dark gray, poorly bedded.	veinlets at 30, 45	(1 qz-carb	tr py, po	nil					
10.00	12.70	100	x	x	x											Sandstone (fine grained) grading down into siltstone and claystone, gray to dark gray, poorly bedded.	bedding 20-60	tr cc-po	tr po	nil					
12.70	18.90	100		x	x											Sandstone (fine grained) and siltstone, gray to dark gray, poorly bedded.	fractured and sheared veinlets at 50	1 qz-dol-$	.25 po, py tr sp @ 16.45m	nil	85277	16.00-17.00	1.00	(.07)	(0.7)
18.90	21.40	100	x	x												Siltstone and claystone, dark gray, poorly bedded, clayey layers with rounded fragments.	bed at 20	.5 dol-cc-po, minor serp, graph	minor po	nil					
21.40	22.95	100			x											Sandstone with minor silty and clayey interbeds, gray, poorly bedded.	veinlets at 10, 60	minor carb $, serp	nil	nil					
22.95	27.55	100	x	x												Siltstone grading down to claystone, dark gray, poorly bedded.	veinlets at 30, 40, 80	1 cc-qz-dol -$-serp	minor po	nil					
27.55	27.95	100	x													Claystone, sheared, veined, black, graphitic, with brecciated qtz vein at base.	poss. fault at 27.85 m shear at 30-40	10 qz-cc py-c	2 py tr po	low	85278	27.55-27.95	0.40	0.24	5.1

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D.D.H. TJ87-2

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-2

FROM (m)	TO (m)	REC (%)	CILAYI	SILTI	AINDI	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
27.95	30.55	100				Felsic intrusive, light greenish gray, aphanitic, abundant quartz veins at top, pale green sericitic blebs, some quartz flooding and sericite? alteration, disseminated pyrite.	contacts at irreg irreg. vein at 45-30	50% qz-cc-dol at top to 29.5m, 5% below	1 py, tr sp, gn	low	85279	27.95-28.95	1.00	.17	1.0
											85280	28.95-29.95	1.00	.07	1.0
											85281	29.95-30.55	0.60	.07	2.1
30.55	32.65	100		x	x	Coarse siltstone/fine sandstone, gray, massive.	veinlets at irreg, 20,40 110	7% qz-cc-dol	.25% py tr sp	nil					
32.65	35.05	100		x		Siltstone with minor claystone and sandstone, somewhat fractured and faulted.	poss. fault at 34.1m bed at 20	10% cc-qz-dol-po-py	1 po, py	nil	85282	32.65-33.65	1.00	(.07	4.1
35.05	36.50	100			x	Sandstone, fine grain, gray, poorly bedded.	veinlets at 30,20,80	1.5% qz-dol chl?	minor py	nil					
36.50	36.80	100		x		Quartz veined siltstone, sheared vein and breccia filling.	sheared vein at 45	20% qz-cc-dol-$	4 $;py>sp gn>aspy, cpy	med	85283	36.50-36.80	0.30	.93	6.2
36.80	38.00	100		x		Siltstone, gray to dark gray, somewhat fractured & veined, bedding indistinct.	veinlets at 10, 60	4% qz-cc-dol	minor py, po	nil					
38.00	51.50	100	x	x		Claystone and minor siltstone, poorly bedded, dark gray, more sulphides toward base.	veinlets at 30,45,10 poss. fault at 51.0m	3.5% qz-cc-dol-py	1 py, po tr cpy	nil	85284	50.50-51.50	1.00	.31	5.5
51.50	52.20	100			x	Sandstone, mineralized, gray, fractured, deformed.	vein (sheared) at 45	15% qz-cc-chl?-$	4 py	low	85285	51.50-52.20	0.70	.31	3.1
52.20	54.90	100	x	x		Siltstone and claystone, dark gray, massive, fractured and veined.	veinlets at 10,45,60	6% qz-cc-$-chl	2 py	low	85286	52.20-53.20	1.00	.34	5.8
											85287	53.20-54.20	1.00	.34	4.8
											85288	54.20-54.90	0.70	.17	2.4
54.90	55.35	100		x	x	Sandstone, fine grain, gray, poorly bedded.	veinlets at 10,60,90,160	10% qz-carb $	2 py	low	85289	54.90-55.35	0.45	(.07	1.0
55.35	56.05	100	x			Claystone, dark gray/black, vaguely bedded.	veinlets at 70, 120	7% qz-carb py	3 py	low	85290	55.35-56.05	0.70	.27	2.1
56.05	56.70	100		x		Sandstone, fine grain, dark gray to gray poorly bedded.	bed at 70 cr. bedding with tops up	3% qz-carb-$	1 py	nil	85291	56.05-56.70	0.65	.10	1.0
56.70	58.60	100	x	x		Siltstone and claystone, dark gray, poorly bedded, late cc veinlets, minor graphite	bed at 50 sheared vein at 57.4m/40	7% cc-qz-dol-py	2 py	low	85292	56.70-57.70	1.00	.24	1.7
											85293	57.70-58.60	0.90	.27	4.5

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D.D.H. TJ87-2

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-2 PAGE 3 of 3

FROM (m)	TO (m)	REC (%)	CLAY	SILT	ALTN	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
58.60	58.95	100	x	x		Siltstone and claystone, gray to dark gray, bedded.	bed at 70	2% carb-qz-py	1 py	nil					
58.95	59.07	100				Sheared quartz vein, banded white quartz white cc, py, dark gray silt/clay bands and fragments.	shear at 40-50	85% qz-cc-py	10 py	low	85294	58.95-59.07	0.12	.65	6.5
59.07	64.50	100		x		Siltstone with minor fine grain sandstone and claystone, dark gray to gray, poorly bedded.	bed 59.7m/70 vein 3 cm 60.3m/70 vein 4 cm 63.1m/70	4% cc-qz-dol-py-chl	1 py	nil					
64.50	66.95	100			x	Sandstone with minor silty partings, gray, partly bedded.	bed at 40 tops up	3% qz-carb-py	1 py	nil					
66.95	67.95	100	x	x		Siltstone and claystone, dark gray, massive.	veinlets at 40,40,50	4% qz-carb-py	1 py	nil	85295	66.95-67.95	1.00	.07	2.1
67.95	75.60	100		x	x	Siltstone and fine grain sandstone, dark gray to gray, in part bedded.	bed 69.6m/0 bed 74.5m/0	1.5% qz-cc-dol-chl	minor py esp @ top	nil					
75.60						END OF HOLE (248 feet)									

LOGGED BY: DEL MYERS 19 JUNE 1987

Del Myers

Purpose: To test soil anomaly at 8400N,9680E; 300 ppb Au, 5.2 ppm Ag, 710 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. **TJ 87-3**

DATE COLLARED: JUNE 18, 1987 | DATE COMPLETED: JUNE 19, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

LAT: 8362N | ELEV. 1127 m. | DIP: -45 degrees

DEP: 9470E | LENGTH: 76.2 m. | AZIMUTH: 056 degrees

CLAIM: TOM | PAGE 1 of 4 | HOLE NO: TJ-87-3

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	equipment not avail.

FROM (m)	TO (m)	REC (%)	C L A Y	I L A	I I N T	A I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	3.00	0					No recovery - casing									
3.00	5.40	60		x		x	Weathered sandstone and siltstone, broken, Fe stained rock.	bed at 50	1% cc	nil	nil					
5.40	5.85	90				x	Quartz-veined, mineralized sandstone, gray, white and gray quartz, rusty and broken at top.	veinlets at 10 (late), 80 (early)	65% qz-cc-dol-$	nil?	low	85296	5.40- 5.85	0.45	(.07	(0.7
5.85	13.55	100				x	Sandstone, gray, fine grain, massive.	veinlets at 10, 50	1% qz-carb	minor sp	low	85297	9.00-10.00	1.00	(.07	0.7
												85298	12.00-13.00	1.00	(.07	1.7
13.55	13.95	100		x			Siltstone, dark gray, sheared, graphitic	shear at 45	8% qz-carb-py	2 py	low	85299	13.55-13.95	0.40	.75	1.4
13.95	14.10	100				x	Sandstone, gray, fine grain, massive.	veinlet @ 30	2% qz-carb	1 py	nil					
14.10	19.00	100	x	x			Siltstone and claystone, dark gray, poorly bedded to bedded.	bed 16.3m/70 bed 18.5m/70	1.5% cc-qz	1/4 py, po	nil					
19.00	19.25	90	x	x			Quartz veined, sheared claystone and siltstone, graphitic gouge.	poss. fault at 70	30 qz-carb-py	2 py	low	85300	19.00-19.25	0.25	(.07	3.4
19.25	20.20	100	x				Claystone, dark gray, massive.	veinlets at 10, 50, 80	10% carb-serp?-qz	1/2 py tr sp	nil	85301	19.25-20.20	0.95	(.07	1.0
20.20	22.20	100		x	x		Sandstone (fine grain) and siltstone, gray to dark gray, vaguely bedded.	veinlets at 10, 50 bed 22.1m/50	2% dol-qz	nil	nil					
22.20	22.65	100	x	x			Claystone and siltstone, dark gray, vaguely bedded.	veinlet at 40	2% qz-carb	nil	nil					
22.65	25.90	100	x	x	x		Siltstone and fine grained sandstone, grading into claystone, dark gray, poorly bedded.	bed at 65	1.5% carb-serp-$-graphite	1/2 py	nil					

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-3

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-3

FROM (m)	TO (m)	REC (%)	C/L/A/Y	S/I/L/T	S/I/N/D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
25.90	28.65	100		x		Siltstone, dark gray, bedded to massive.	bed at 50 veinlets at 10, 110	4% qz-carb-$, mainly @ bottom	minor py	nil	85302	27.65-28.65	1.00	.07	(0.7
28.65	29.05	100				Felsic intrusive, aphanitic, light greenish gray, possible sericitic alteration, no remaining mafic minerals possible carbonate alteration.	contacts ground (close to 90?)	1% cc	1/4 diss. py	nil					
29.05	31.95	100	x	x		Claystone and siltstone, dark gray, massive.	cc vein 29.45m/70 sheared qz vein 31.85m/60	2.5% qz-dol-cc-$	1/2 py tr sp	nil	85303 85304	29.05-30.05 30.95-31.95	1.00 1.00	(.07 (.07	1.4 1.0
31.95	32.40	100			x	Sandstone, gray, vaguely bedded.	veinlets at 35, 70, 150	2% cc-dol	nil	nil					
32.40	33.50	100		x		Siltstone, dark gray, poorly bedded.	bed at 60	1% cc-dol	nil	nil					
33.50	33.70	100		x		Quartz-carbonate veined siltstone	Vein @ 50-60	60% qz-dol	1 py	low	85305	33.50-33.70	0.20	.07	0.7
33.70	35.40	100	x	x		Claystone and siltstone with minor sandstone, vaguely bedded, dark gray to gray.	sheared vein 34.1m/70-80	6% qz-dol-cc-py	1/2 py	nil					
35.40	35.50	100				Felsic intrusive, aphanatic, light gray.	contacts at 60, 45	3% dol+cc veinlets	minor dissem py	nil					
35.50	36.25	100		x	x	Quartz carbonate veined siltstone, grading into bedded sandstone, dark gray to gray.	bed at 55	10% qz-dol-cc	minor py	nil					
36.25	37.60	100	x	x		Quartz carbonate veined siltstone and claystone, dark gray, sheared.	sheared at 30-45	11% qz-dol cc-py	1/2 py	nil	85306	36.25-37.60	1.35	(.07	1.4
37.60	39.70	100	x	x		Siltstone and claystone, dark gray, poorly bedded.	bed at 45 py-dol vein-let at 150	2% qz-cc-dol-$	1/2 py minor sp	nil	85307 85308	37.60-38.60 38.60-39.70	1.00 1.10	(.07 (.07	2.1 2.4
39.70	41.70	100			x	Sandstone, fine grain, gray, massive.	veinlets at 5, 15, 70	minor	1/2 py	nil					
41.70	41.95	100			x	Sandstone, fine grain, gray, bedded.	bed at 70	1% dol-cc-$	1/2 py	nil					
41.95	45.40	100			x	Sandstone, fine to medium grain, gray to greenish gray, massive to thinly ((1cm) bedded.	bed 43/60	1% dol-cc-qz	minor py tr sp	nil					

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-3

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-3

FROM (m)	TO (m)	REC (%)	C LITHOLOGY	S ALTERATION	S MINERALIZATION	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
45.40	45.65	100	x	x	x	Siltstone and claystone partings in sandstone.	veinlets at 60, 140	2% carb-qz	minor py, cpy	nil					
45.65	46.20	100			x	Sandstone, medium to fine grain, greenish gray, vaguely bedded.	veinlets at 35-45	2% cc-dol	nil	nil					
46.20	46.65	100	x	x		Siltstone and claystone, gray to dark gray.		4% qz-carb	1 py	nil					
46.65	47.20	100			x	Sandstone, gray to greenish gray, fine to medium grain, vaguely bedded, shaley pebbles.	bed at 50	1% carb	2 dissem py	nil					
47.20	50.40	100	x	x	x	Interbedded siltstone, sandstone and claystone, dark gray to gray, bedded, minor graphite.	bed at 60-70 sheared veinlet at 35-25	minor cc-qz-dol	1/2 py	nil					
50.40	51.90	100	x	x		Siltstone and claystone, dark gray, poorly bedded, minor graphite.	bed at 60	1% carb-qz	minor py	nil					
51.90	52.10	100				Quartz-carbonate vein, sheared with clayey partings.	shearing at 55-65	50% qz-dol py	3 py	low	85309	51.90-52.10	0.20	.14	1.7
52.10	53.80	100		x	x	Interbedded siltstone and sandstone, dark gray to gray.	bed at 65	2% dol-qz py	1 py	nil					
53.80	54.60	100	x	x		Siltstone and claystone, dark gray to black, graphitic at bottom.	bed at 55	6% qz-carb-$	4 dissem & veinlet py	low	85310	53.80-54.60	0.80	.14	1.4
54.60	54.85	100				Felsic intrusive, aphanatic, light gray, carbonate veinlets, white/epidote green feldspar laths to 1 x 5mm, graphitic parting.	contacts at 45, 80	3% carb	tr dissem py, cpy	nil	85311	54.60-54.85	0.25	(.07	1.0
54.85	55.50	100	x	x		Claystone and siltstone, black to dark gray, massive, graphitic at top.	veinlets at 60	8% qz-py-carb	4 py minor sp	low	85312	54.85-55.50	0.65	.21	3.4
55.50	56.90	100		x	x	Siltstone grading down into fine grain sandstone, gray, vaguely bedded.	veinlets at 10, 40, 125	3% py-qz-carb	1.5 py	nil	85313	55.50-56.50	1.00	.14	1.0
56.90	58.50	100		x	x	Bedded, fine grain sandstone at top, grading into massive siltstone at base.	bed at 70 veinlets at 10, 25, 120	4% qz-py-dol-cc	2 py veinlets and blebs	nil	85314	56.90-57.90	1.00	.07	1.0
58.50	64.90	100			x	Sandstone, massive, medium grain, light gray; except 50cm of fine grain, gray at top.	dol veinlets @ 10, qz veinlet @ 20	2.5% qz-carb-$	minor py, aspy	nil					

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-3

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-3 PAGE 4 of 4

FROM (m)	TO (m)	REC (%)	CLAY	ISLAND	SILT	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
64.90	70.50	100			x	Sandstone, massive, medium grain, light gray, 5cm conglomerate at bottom.	qz-dol-aspy veinlet @ 5 qz-dol veinlet @ 20	10 qz-dol-$	2 cpy minor py, gn to 68m minor cpy below	low	85315	64.90-66.00	1.10	.31	1.0
											85316	66.00-67.00	1.00	.24	1.4
											85317	67.00-68.00	1.00	.48	1.7
70.50	71.70	100	x	x		Siltstone and claystone, dark gray, massive.	veinlets at 40, 70, 160	10% qz-dol	minor py aspy at bottom	low	85318	70.50-71.70	1.20	(.07	1.7
71.70	73.60	100			x	Sandstone, fine grain, massive to bedded, gray.	bed at 60 veinlets at 0, 20, 120	10% qz-dol-$	1 py, aspy, sp	low	85319	71.70-72.70	1.00	.62	2.7
											85320	72.70-73.60	0.90	(.07	0.7
73.60	76.20	100			x	Sandstone, fine to medium grain, massive light gray to brownish gray.	qz-carb veinlet @ 20	10% qz-dol	nil	low					
76.20						END OF HOLE (250 feet)									

LOGGED BY: DEL MYERS 20 JUNE 1987 Del Myers

Purpose: To test soil geochem anomaly at 8400N, 9500E; 240 ppb Au 10.0 ppm Ag, 700 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-4

DATE COLLARED: June 20, 1987

DATE COMPLETED: June 21, 1987

CORE SIZE: NQ

PROPERT TOMMY JACK

N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

CLAIM: Tom 3

Collar D

LAT: 8379N

ELEV. 1142 m.

DIP: -45 degrees

DEP: 9930E

LENGTH: 75.6 m.

AZIMUTH: 059 degrees

HOLE NO: TJ-87-4

DIP TESTS		
DEPTH	ANGLE REC.	ANGLE COR.
no tests -	equipment not avail.	

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
0	7.30	0				No recovery - casing									
7.30	9.50	90			x	Sandstone, fine/medium grain, gray, massive.	veinlets at 30, 40, 95	2% qz-dol-cc-py	1/4 py	nil					
9.50	9.70	100				Banded quartz-carbonate vein.	banding @ 20	90% qz-dol	1 py	low	85321	9.50- 9.70	0.20	.51	1.0
9.70	10.70	100			x	Sandstone, fine/medium grain, minor sed. pebbles, massive, gray.	veinlets at 20, 130, 155	3% dol-qz-cc	minor py sp, gn	low	85322	9.70-10.70	1.00	<.07	2.4
10.70	11.70	100			x	Quartz veined sandstone, medium grain, gray, massive.	veins at 10-20	50% qz-dol	2 py, mnr aspy	low	85323	10.70-11.70	1.00	.27	1.7
11.70	12.20	100	x	x		Quartz vein and siltstone to claystone.	vein at 10	60 qz-dol-$	2 aspy, py	med	85324	11.70-12.20	0.50	.41	1.4
12.20	12.75	100	x	x		Siltstone grading into claystone, dark gray.	veinlets at 10, 30, 150	5% qz-dol-$	2 py	low	85325	12.20-12.75	0.55	.24	2.7
12.75	12.95	100	x			Claystone and banded quartz veinlets, sheared.	veinlets at 150	40% qz-py	15 py 1 sp, gn	med	85326	12.75-12.95	0.20	3.57	8.2
12.95	14.95	100		x	x	Siltstone grading into sandstone, dark gray to gray, mainly massive.	veinlets at 60, 105	1.5% qz-dol chl	tr py	nil					
14.95	15.70	100		x		Siltstone, dark gray, massive.	veinlets at 150	2% cc-dol	nil	nil					
15.70	16.15	100			x	Sandstone, fine grain, gray, bedded.	bed at 50	10% qz-dol	minor py	nil	85327	15.70-16.15	0.45	<.07	0.7
16.15	16.75	100	x			Claystone, dark gray, massive cc veinlets and qz-dol veinlets.	qz-dol at 60	3 cc-graph, qz-dol	nil	nil					
16.75	17.40	100			x	Sandstone, gray, fine grain, bedded.	bed @ 65-70	3% dol-qz-chl	nil	nil					
17.40	19.00	95	x	x	x	Claystone grading into sandstone, dark gray to gray, massive claystone, broken and weathered. Broken, rusty @ 17.5m-possible fault	veinlets at 40, 80 Fault?	2% cc-qz-dol	minor py	nil					

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-4

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-4

FROM (m)	TO (m)	REC (%)	C L A Y	S I L T	S I A N D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
19.00	22.25	100		x		Siltstone, massive to poorly bedded, gray.	bed at 60	2% qz-cc-dol	tr sp	nil					
22.25	22.45	100				Felsic intrusive, aphanatic, mafic minerals absent or altered, light greenish gray, carbonate and sericite alteration(?).	Lower contact @ 70	nil	nil	nil					
22.45	23.30	100		x	x	Siltstone and sandstone, gray, bedded.	bed at 80	2% qz-carb	nil	nil					
23.30	23.45	100			x	Quartz veined sandstone.	veinlets at 80	30% qz-dol-chl	2 py	low	85328	23.30-23.45	0.15	(.07	1.4
23.45	25.15	100			x	Sandstone, fine to medium grained, gray to greenish gray, mainly massive.	bed 23.5m/90	5% qz-carb-chl	minor py	nil					
25.15	25.50	100			x	Quartz veined sandstone.	min qz vein at 20	30% qz-dol-py	5 py 1 gn	med	85329	25.15-25.50	0.35	.72	7.5
25.50	28.70	100			x	Sandstone, fine to medium grain, gray, minor sed pebbles, massive.	veinlet at 10, 150	7% qz-dol	nil	nil					
28.70	29.60	100			x	Quartz veined sandstone.	veinlets at 10-30	35% qz-dol	minor py	nil	85330	28.70-29.60	0.90	(.07	1.7
29.60	31.05	100			x	Sandstone, gray, fine grained, massive.	veinlets at irreg.	10% qz-dol	minor py	nil	85331 85332	29.60-30.04 30.04-31.05	0.80 0.65	(.07 (.07	1.4 4.5
31.05	32.00	100			x	Sandstone, fine grained, bedded, gray.	bed at 70	1% cc-qz	minor py	nil					
32.00	34.80	100			x	Sandstone, medium grain, minor pebbles at base, vaguely bedded, gray.	bed at 70	2.5% dol-qz-cc-chl	tr py	nil					
34.80	35.55	100		x	x	Quartz veined siltstone and sandstone, dark gray to gray, graphitic, sheared.	qz vein 40-60	30% qz-dol-sulfide-graph-chl	1 py	nil	85333	34.80-35.55	0.75	(.07	1.0
35.55	36.85	100			x	Sandstone with shaley pebbles and partings, gray with black, fine/medium grain.	bed at 70	1% carb-qz	minor py	nil					
36.85	43.25	100			x	Sandstone with conglomeratic layer with bases at 37.5, 37.85, 41.2 and 43.25, probably upright, vaguely bedded	dol-py vein-let @ 20, 165 cc vein @ 40	2% dol-cc-qz-py	1/4 py	nil					
43.25	44.00	100		x	x	Sandstone grading into siltstone, gray to dark gray, bedded.	bed at 80	(1%	minor py	nil					
44.00	45.10	100		x	x	Siltstone and sandstone, dark gray to gray, partly bedded, quartz veined.	bed at 75	11% qz-dol	1/2 py tr cpy	nil	85334	44.00-45.10	1.10	(.07	1.0

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
45.10	46.85	100	x	x		Claystone grading into siltstone, dark gray to gray, massive.	cc veinlet @ 20	5% qz-dol-cc-chl	minor py	nil	76100	46.05-46.85	0.80	<.07	2.1
46.85	48.40	100		x		Siltstone, gray, massive.	qz-carb-py veinlet @ 80	4% qz-carb-$-chl	1 py	low	85335	47.40-48.40	1.00	.07	1.4
48.40	48.80	100		x	x	Quartz veined siltstone and sandstone.	sulfide band at 70, veinlet @ 40	30% qz-py-dol	10 py 1 gn	med	85336	48.40-48.80	0.40	3.84	22.6
48.80	49.95	100			x	Sandstone, deformed, quartz veined.	qz-$ veinlet @ 40, 60	13% qz-py dol	2 py	low	85337	48.80-49.95	1.15	.10	1.0
49.95	55.30	100			x	Sandstone, gray, medium grain, minor sed. pebbles (base of layers @ 52.8m and at 55.3m), vaguely bedded.	veinlet @ 50	4% qz-carb-$	minor py except gn sp @ 52.1	nil	85338 76101	51.50-52.50 54.30-55.30	1.00 1.00	.10 .21	2.1 1.4
55.30	57.50	100	x	x		Siltstone and claystone, dark gray to gray, vaguely bedded.	bed @ 75	2% cc-dol-qz-chl	minor py	nil					
57.50	58.20	100		x	x	Sandstone, bedded, fine grain, more silty toward bottom.	bed @ 80	1% carb-chl	nil	nil					
58.20	58.80	100		x		Siltstone, dark gray, massive.	veinlet @ 50	2% qz-cc-dol-chl	nil	nil					
58.80	60.15	100		x	x	Sandstone grading into siltstone, fine grain, gray, massive.		minor cc-chl	nil	nil					
60.15	60.95	100	x			Claystone, dark gray, vaguely bedded.	bed @ 50	2% qz-dol	tr. py	nil					
60.95	63.85	100	x	x		Siltstone and claystone, poorly bedded, gray to dark gray, minor graphite.	bed @ 55	1% qz-carb	minor py	nil					
63.85	64.30	100	x			Quartz-veined claystone, black.	veinlet @ 65	20% qz-carb-$	7 py 1 sp+aspy	med	85339	63.85-64.30	0.45	2.47	28.8
64.30	65.75	100			x	Sandstone, fine grain, gray, massive.	qz-carb @ 20 carb-py @ 165	2% qz-carb-py	minor py	nil					
65.75	66.20	100	x			Claystone, dark gray, massive.	cc-chl @ 50	5% qz-cc-dol-chl-py	1 py	low	85340	65.75-66.20	0.45	<.07	4.1
66.20	66.55	100		x		Quartz veined siltstone.	qz @ 25	25% qz-dol-py	3 py	low	85341	66.20-66.55	0.35	.82	11.0
66.55	69.50	100		x	x	Siltstone grading into sandstone, fine grain, poorly bedded, dark gray to gray.	bed @ 40	7% qz-dol	minor py tr. sp	nil	85342	68.50-69.50	1.00	<.07	1.0

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-4

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-4

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
69.50	73.10	100	x	x		Siltstone grading into claystone, dark gray, massive.	dol-cc @ 80 qz @ 40 sheared qz @ 60	4% qz-dol-cc-chl	minor py	nil					
73.10	73.90	100		x	x	Sandstone with minor silty partings, greenish gray, poorly bedded.	bed @ 15	1% carb	minor py	nil					
73.90	74.40	100	x	x		Claystone grading into siltstone, poorly bedded, dark gray, graphite.	bed @ 30	2% qz-carb	minor py	nil					
74.40	75.60	100			x	Sandstone, fine grain grading into medium grained, vaguely bedded, gray.	qz-dol @ 20 dol @ 20	1% qz-dol	nil	nil					
75.60						END OF HOLE (248 feet)									

LOGGED BY: DEL MYERS June 21, 1987 Del Myers

Purpose: To test soil geochemical anomaly at L8400N, 9960E; 150 ppb Au, 1.2 ppm Ag, 710 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-5

DATE COLLARED: June 21, 1987 | DATE COMPLETED: June 22, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

LAT: 8376N | ELEV. 1069 m. | DIP: -45 degrees

DEP: 10249E | LENGTH: 75.6 m. | AZIMUTH: 060 degrees

CLAIM: Tom 3 Collar E

PAGE 1 of 3

HOLE NO: TJ-87-5

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	equipment not avail.

FROM (m)	TO (m)	REC (%)	C L A Y	S I L T	S I L T	A I N D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	5.40	0					No recovery - casing									
5.40	5.80	100					Felsic Intrusive	veinlets @ 60-70	5% qz-carb	tr py	nil					
5.80	6.00	100	x				Black claystone	contact @ 70 bedding @ 70	0	tr py	nil					
6.00	8.20	90		x	x		Siltstone - Sandstone	bed @ 60-70 veinlet @ 150-170	1.8% qz-carb	1 py, aspy 0.2	low	85343	6.00- 6.60	0.60	.72	2.4
8.20	14.75	91		x			Light-medium tan siltstone, bedded, cryptocrystaline to fine grained, minor py, po in fractures.	bed @ 40-50 veinlet @ 40 90, 120, 150	1.2% qz-carb	tr py, po	nil					
14.75	18.90	94					Felsic Intrusive	contact @ 80 veinlet @ 10 60, 0	1.5% qz-carb	0.5 py, aspy, gn, sp in veinlets	low	85344	14.75-15.70	0.95	(.07	1.4
												85345	15.70-16.70	1.00	.07	3.1
												85346	16.70-17.70	1.00	.48	6.9
												85347	17.70-18.70	1.00	(.07	2.4
												85348	18.70-18.90	0.20	(.07	1.0
18.90	20.90	90		x			Light to medium tan siltstone	bed @ 50-60 veinlet @ 60 70, 160	3.5%	minor py tr sp, gn in veinlets	nil					
20.90	22.60	88		x			Siltstone, grey, bedded. Fault at 20.9m with minor py, sph, gn for 9 cm.	Fault bed @ 50 veinlets @ 5 150, 130, 140	2.9%	2 py, sp, gn trace	low nil	85349	20.90-21.80	0.90	.10	6.9
22.60	23.10		x				Claystone, black	veinlets @ 140, 120	0.5%							
23.10	24.10		x	x			Siltstone, sandstone, medium grey, bedded.	bed @ 50 veinlet @ 0, 150	4%	0.5 py in veinlets	nil					

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-5

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-5

FROM (m)	TO (m)	REC (%)	CISIS LAIIA YTID	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
24.10	31.60	82	x	Banded siltstone, light to medium tan with dark bands. Trace sph, gn for 3 cm at 26.1m.	bed @ 50-60 veinlet @ 25 60, 140,150	4%	minor py	nil					
31.60	31.90	100	x	Claystone, dark grey-black. Chlorite in veinlets.	bed @ 50 veinlets @ 120	1% qz-carb	trace py	nil					
31.90	33.20	100	x	Siltstone, light to medium tan, some banded veinlets.	bed @ 50 veinlets at 50, 120, 0	1.7% qz-carb-chl	minor py	nil					
33.20	38.00	98		Felsic Intrusive, py aspy, sph, gn in veinlets and disseminated py, aspy.	veinlets @ 40, 50, 60	3% qz-carb	2	high	85350	33.20-34.20	1.00	.07	0.7
							1	med	85351	34.20-35.20	1.00	.10	1.0
							1	med	85352	35.20-36.20	1.00	(.07	2.4
							1	med	85353	36.20-37.20	1.00	1.30	6.2
							1	med	85354	37.20-38.00	0.80	.07	3.4
38.00	46.10	93	x	Siltstone, light to medium tan, some banding, veinlets with minor po, py, chl at 45.1m. Bedding at 0, veinlets at 30.	bed @ 50 veinlets @ 140, 40	3.5 qz-carb	trace	nil					
46.10	46.50	100	x	Claystone - black to dark grey.	veinlets @ 20, 30	1%	nil	nil					
46.50	52.70	94	x	Siltstone, light to medium tan, faint bedding.	bed @ 40-45 veinlets @ 35, 80, 110, 130	1%	minor po, py	nil					
52.70	53.60	100	x	Brecciated siltstone, (fault zone),	Fault	7% qtz	1 py minor sp, aspy	low	85355	52.70-53.60	0.90	.07	2.4
53.60	54.60	95	x	Claystone, black (fault breccia),	breccia cleavage at 150	2% qtz	3 py minor sp	low	85356	53.60-54.60	1.00	(.07	2.4
54.60	55.60	92	x	Siltstone, light to medium tan (brecciated)	veinlets @ 50, 150	3%	2 py minor sp	low	85357	54.60-55.60	1.00	.58	4.1
55.60	57.00	98	x	Sandstone, massive	veinlets @ 15, 70	1%	trace	nil					
57.00	58.20	100	x x	Siltstone-Claystone, bedded Small fault at 57.3m.	Fault, bed @ 50-70 veinlets @ 120	0.5%	0.5 py	nil					
58.20	60.70	88	x x	Sandstone grading to siltstone, minor py	bed @ 50-60 veinlets @ 140	0.8%	trace	nil					

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D.D.H. TJ87-5

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-5

FROM (m)	TO (m)	REC (%)	CLAY	LAIN	SILT	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
60.70	64.10	97	x			Claystone, 20cm qtz vein at 62.6m, brecciated fault zone at 62.6-63.0 m	bed @ 40 veinlets @ 50, 60 Fault	10%	.5 py	low	85358	60.70-61.70	1.00	(.07	2.1
											85359	61.70-62.70	1.00	(.07	0.7
											85360	62.70-63.00	0.30	.10	0.7
64.10	65.40	92	x	x		Claystone grading to Siltstone.	bed @ 50 veinlets @ 40, 170	1%	trace py	nil					
65.40	67.60	100			x	Sandstone	bed @ 50-70 veinlets @ 160	1.5%	minor py in veinlets	nil					
67.60	68.20	88	x			Claystone, black.	bed @ 50 veinlets @ 50	1.6%	minor py	nil					
68.20	70.20	98		x		Siltstone, dark grey, minor py.	bed @ 45-50 veinlets @ 160	0.5%	trace	nil					
70.20	71.50	92	x			Claystone, black, trace sph, gn in veinlet at 70.4m.	veinlets @ 160	1.5%	minor py tr sp, gn	nil					
71.50	74.20	83			x	Sandstone, salt and pepper texture.	bed @ 40-10	0.1%	trace py	nil					
74.20	75.60	86	x			Claystone, py in veinlets	bed @ 50 veinlets @ 50	1%	minor py	nil					
75.60						END OF HOLE (248 feet)									

LOGGED BY: ROB DAY June 22, 1987

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-6

DATE COLLARED: June 22, 1987 | DATE COMPLETED: June 24, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

LAT: 8371N | ELEV. 1053 m. | DIP: -44 degrees

DEP: 10340E | LENGTH: 84.4 m. | AZIMUTH: 060 degrees

CLAIM: Tom 3 Collar F | PAGE 1 of 2 | HOLE NO: TJ-87-6

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	equipment not avail.

FROM (m)	TO (m)	REC (%)	C	S	S	A	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	A S S AU (gmt)	A Y S AG (gmt)
0	8.50	0					No recovery - casing									
8.50	31.10	98				x	Sandstone - medium grey, in part with silty laminations, in part massive. Has a mottled texture when massive.	bed @ 10-15 veinlet @ 50, 60, 130	.5%	trace py	nil					
31.10	33.30	100				x	Sandstone - dark grey, massive.		.5%	trace py	nil					
33.30	39.00	97				x	Sandstone - medium grey in part with silty laminations, in part massive with mottled texture.	bed @ 30-50 X-beds @ 60 veinlet @ 50-60	.5%	trace py in veinlets	nil					
39.00	41.00	100				x	Sandstone - salt & pepper texture, light grey.	beds @ 30-40 decr. to 10 veinlet @ 60	.5%	1 diss py in sample section	low	85361	39.50-50.40	1.00	<.07	<0.7
41.00	44.40	94				x	Sandstone - medium grey, massive with mottled texture.	bed @ 10 veinlet @ 40 110	.5%	tr. py	nil					
44.40	47.70	97				x	Sandstone - salt & pepper texture, light grey	bed @ 20-30	<.5%	tr. diss py	nil					
47.70	50.20	100				x	Sandstone - medium-dark grey, massive with mottled texture.	veinlet @ 40	.1%	nil	nil					
50.20	52.90	100				x	Sandstone - dark grey, massive.	veinlet @ 20	.2%	tr. py	nil					
52.90	62.20	78				x	Sandstone - medium-dark grey with silty laminations, fault at 53.20-53.60 at 30, fault at 60.00-60.20 at 40 degrees.	fault @ 30 veinlet @ 30 bedding @ 40 fault @ 40	.2% overall 30% in faults	tr. py 2 py in faults	low	85362 85363 85364	53.00-53.60 59.90-60.50 61.40-62.20	0.60 0.60 0.80	<.07 .14 <.07	1.4 1.4 1.7
62.20	64.00	100				x	Sandstone - dark grey, massive. Fault at 62.20-63.10m	fault @ 55-65 veinlet @ 55-65	20cm qtz vein @ 62.2	.5% py in fault	low	85365	62.20-63.10	0.90	<.07	<0.7

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-6

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-6 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	CLAY	SILT	LIN	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
64.00	70.10	98			x	Sandstone - light-medium grey with some silty laminations. Some chlorite in fractures.	bedding @ 55-65 veinlet @ 50, 70, 90	.5%	trace py	nil					
70.10	71.00	44				Felsic Intrusive - with qtz-carb veinlets with py and disseminated py.	veinlet @ 30	3%	1.5 py in intrusive	low	85366	70.10-71.00	0.90	(.07	(0.7
										low	85367	71.00-72.00	1.00	(.07	(0.7
71.00	81.80	96				Felsic Intrusive			(dissem)	low	85368	72.00-73.00	1.00	(.07	(0.7
										low	85369	73.00-74.00	1.00	(.07	(0.7
										low	85370	74.00-75.00	1.00	.10	0.7
										low	85371	75.00-76.00	1.00	(.07	(0.7
										low	85372	76.00-77.00	1.00	.14	0.7
							veinlets @ 10, 40	1.5%	minor sph gn	med	85373	77.00-78.00	1.00	.07	0.7
										low	85374	78.00-79.00	1.00	(.07	(0.7
									sph, gn	med	85375	79.00-80.00	1.00	(.07	(0.7
									sph, gn	med	85376	80.00-81.00	1.00	(.07	0.7
										low	85377	81.00-81.80	0.80	(.07	(0.7
81.80	82.40	100			x	Sandstone - salt & pepper texture- massive, light grey.	veinlet @ 60, 30	1.3%	trace py	nil					
82.40	84.40	95			x	Sandstone - medium grey with dark grey laminations. Chlorite in fractures.	bed @ 50-65 veinlet @ 80, 140, 160	1%	trace py po in fractures	nil					
84.40						END OF HOLE (277 feet)									

LOGGED BY: R. DAY June 24, 1987

Del Moore

Purpose: To test soil anomaly at 8400N, 10360E

Au 210 ppb, Ag 2.4 ppm, Pb 500 ppm

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-7

DATE COLLARED: July 13, 1987 | DATE COMPLETED: July 14, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

LAT: 8376N | ELEV. 1015 m. | DIP: -45 degrees

DEP: 10480E | LENGTH: 77.1 m. | AZIMUTH: 060 degrees

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	equipment not avail.

CLAIM: Tom 3 Collar G

PAGE 1 of 3

HOLE NO: TJ-87-7

FROM (m)	TO (m)	REC (%)	C/A	I/T	S/I/L/D	S/A	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASS AU (gmt)	AYS AG (gmt)
0	5.20	0					No recovery - casing									
5.20	5.90	55	x				Claystone - black	veinlet @ 70	.5%	nil	nil					
5.90	8.80	93		x		x	Sandstone-siltstone - light-dark grey	bedding @ 50 veinlets @ 150	1% qtz-carb	minor py in some veinlets	nil					
8.80	12.40	98				x	Sandstone - light grey with silty bands in part chlorite in some veinlets.	bedding @ 50-60 veinlets @ 160	.8% qtz, carb	minor py in vein-lets	nil					
12.40	14.00	93		x			Siltstone - mottled to laminated	bedding @ 60 veinlet @ 60 160	.5% qtz, carb	minor py in some veinlets	nil					
14.00	15.50	100			x		Sandstone - salt & pepper texture, silty laminations in part.	bedding @ 60 veinlets @ 155	1%	minor py in some veinlets	nil					
15.50	17.90	92		x		x	Siltstone-Sandstone - medium grey, minor breccia at 16.8m.	bedding @ 60 veinlet @ 60	1% qtz-carb	tr. py	nil					
17.90	19.20	96		x			Siltstone - dark grey, chlorite in veinlets.	bedding at 70-60 veinlets at 60, 120	1% qtz-carb	minor py tr. gn	nil					
19.20	19.50	100			x		Sandstone - light grey	bedding @ 70 veinlet @ 20 140	5% qtz, carb	tr. py	nil					
19.50	20.90	86		x			Siltstone - medium-dark grey, laminated, fault at 19.5-20.1m (5% veinlets)	bedding @ 50 veinlets at 140 Fault	2% qtz-carb	minor py in fault	nil					

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-7

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-7

FROM (m)	TO (m)	REC (%)	C L A Y	I L T	S I L I D	A I N	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
20.90	22.10	100				x	Sandstone - silty laminations.	bedding @ 40 veinlets at 130	.5% qtz-carb	tr. py	nil					
22.10	22.50	75		x			Siltstone - dark grey.	bedding @ 50 veinlet @ 50	2%	tr. py	nil					
22.50	24.40	95				x	Sandstone - bedded in silty laminations, light-medium grey, chlorite in veinlets	bedding @ 60 veinlets at 75, 145	1% qtz, carb	tr. py	nil					
24.40	26.30	97		x		x	Sandstone-Siltstone - medium-dark grey	bedding @ 60 veinlet @ 60	.5% qtz, carb	tr. py	nil					
26.30	34.50	100				x	Sandstone - medium-light grey with silty laminations, chlorite in veinlets, massive in part.	bedding @ 60 veinlets @ 150, 140	1% qtz, carb	tr. py py in some veinlets	nil					
34.50	52.30	97		x		x	Sandstone-Siltstone - medium-dark grey banded, breccia with minor py at 36.3-37.1m.	bedding @ 60-55 veinlets @ 60, 160, 170	2.8% qtz, carb	minor py & chl in some veinlets	nil					
52.30	59.80	98				x	Sandstone - salt & pepper texture, massive. Fault breccia at 59.1-59.7m	veinlets at 15, 60, 140, 50 Fault	5% qtz, carb	minor py, tr sph in veinlets	low	85378	59.10-59.70	0.60	.14	0.7
59.80	62.90	90		x		x	Siltstone-Sandstone - light-medium grey, bedded.	contact @ 75 bedding @ 55-65	1.5% qtz carb	tr. py	nil					
62.90	63.30	100	x				Claystone - black	veinlets at 60, 65	2% qtz, carb	nil	nil					
63.30	66.00	96				x	Sandstone - light grey, massive in part, banded in part.	bedding @ 55 60, 65 veinlets @ 140	.5% qtz, carb	minor py	nil					
66.00	70.20	95		x			Siltstone - medium-dark grey	bedding @ 70 veinlets @ 120, 160	2% qtz, carb	minor py in some veinlets	nil					
70.20	76.20	?				x	Sandstone - "stockwork" breccia from 70.2-76.2m.	breccia	20% veinlet qtz, carb, chlorite	.2 py, tr. sph, gn, cpy	low	85379	70.20-71.20	1.00	(.07	1.7
												85380	71.20-72.20	1.00	.07	1.4
												85381	72.20-73.20	1.00	.10	5.5
												85382	73.20-74.20	1.00	.17	0.7
												85383	74.20-75.20	1.00	.14	1.4
												85384	75.20-76.20	1.00	(.07	(0.7

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-7

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-7 PAGE 3 of 3

FROM (m)	TO (m)	REC (%)	CALCITE	SILICIFICATION	ALTERATION	MINERALIZATION	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
76.20	77.10	?		x			Siltstone - medium-dark grey	bedding @ 75 veinlets @ 170	.5%	tr. py	nil					
77.10							END OF HOLE (253 feet)									

LOGGED BY: ROB DAY July 14, 1987

Purpose: To test soil anomaly at 8400N, 10500E: 300 ppb Au, 9.2 ppm Ag, 1100 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-8

DATE COLLARED: July 14, 1987 | DATE COMPLETED: July 15, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

CLAIM: Tom 3 Collar J | PAGE 1 of 3

HOLE NO: TJ-87-8

FIELD COORDINATES

LAT: 8704N | ELEV. 998 m. | DIP: -44 degrees

DEP: 10350E | LENGTH: 77.1 m. | AZIMUTH: 060 degrees

DIP TESTS

DEPTH	ANGLE REC.	ANGLE COR.
no tests -		

FROM (m)	TO (m)	REC (%)	C/L/A/Y	S/I/L/T	S/I/A/D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
0	5.50	0				No recovery - casing									
5.50	7.60	90			x	Sandstone - light grey with dark grey banding, silty in part.	bedding @ 50 veinlet @ 60	.5% qtz, carb	tr. py	nil					
7.60	9.00	94	x	x		Siltstone-claystone - dark grey-black	veinlet @ 60	1% qtz,carb	nil	nil					
9.00	9.90	89			x	Sandstone - medium grey, massive	veinlets @ 20, 45	1% qtz,carb	nil	nil					
9.90	10.30	81	x	x		Siltstone grading to claystone - dark grey to black.	veinlets at 140	1% qtz,carb	tr. py in veinlets	nil					
10.30	11.60	100			x	Sandstone - light to medium grey, bedded	bedding @ 60 veinlets at 120, 160	1% qtz,carb	nil	nil					
11.60	12.10	100		x		Siltstone - medium to dark grey	bedding @ 50 veinlets at 130	.5%	nil	nil					
12.10	35.00	97			x	Sandstone - salt & pepper texture, massive in part, bedded in part.	bedding @ 55 veinlets at 150,170,130	4%	minor py in some veinlets						
								8%	1 aspy, .5 py	med	85385	14.60-15.10	0.50	1.78	1.4
						7cm qtz veinlet at 15.50-15.58m		10%	.5 py, tr. sph, aspy	low	85386	15.10-15.80	0.70	.24	1.4
						fault breccia at 15.10-15.80m		3%	2 py with minor sph gn & aspy	low	85387	31.40-32.40	1.00	.24	0.7
										low	85388	32.40-33.40	1.00	.07	1.7
										low	85389	33.40-34.40	1.00	(.07	0.7
										low	85390	34.40-35.00	0.60	(.07	1.0
35.00	36.80	89		x		Siltstone - medium to dark grey	bedding @ 70 veinlets @ 10, 80, 90	1% qtz,carb	tr. py	nil					

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-8

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-8

FROM (m)	TO (m)	REC (%)	C L A Y	S I L T	S I L I N	A I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
36.80	37.00	100	x				Claystone - black	veinlets at 170, 20	10%	nil	nil					
37.00	39.80	100		x	x		Sandstone - light to medium grey, silty in part.	bedding @ 60 veinlets at 30, 10, 60	2% 4%	tr. py 2 py, tr aspy	nil low low	85391 85392	38.20-38.80 38.80-39.80	0.60 1.00	.07 .34	0.7 1.4
39.80	40.90	100	x				Claystone - black	veinlets at 170, 40	1.5% qtz, carb	minor py	nil					
40.90	42.80	95		x	x		Siltstone-Sandstone	bedding @ 70 veinlets @ 160	.5% qtz, carb	minor py in some veinlets	nil					
42.80	45.10	100			x		Sandstone - light to medium grey, mottled texture in part.	bedding @ 60 veinlets @ 20, 140	.2%	tr. py	nil					
45.10	45.80	100		x			Siltstone - medium to dark grey	bedding @ 70 veinlets @ 150, 170	.5%	minor py in some veinlets	nil					
45.80	47.20	100		x	x		Sandstone grading to siltstone	bedding @ 60 veinlets @ 150, 150, 160	1% qtz,carb	minor py in some veinlets	nil					
47.20	47.60	75	x				Claystone - black	veinlets @ 120	3%	2 py	low	85393	47.20-47.60	0.40	.51	1.7
47.60	48.40	88			x		Sandstone - light to medium grey	bedding @ 60 veinlets @ 60, 170	2.5% qtz-carb	1 diss py	low	85394	47.60-48.40	0.80	.45	1.7
48.40	48.80	100	x				Claystone - black, sheared	veinlet @ 70	5% qtz-carb	5 py, minor gn	low	85395	48.40-48.80	0.40	.82	5.8
48.80	50.10	100			x		Sandstone - light to medium grey.	bedding @ 70 veinlets @ 170, 130	3% qtz,carb	5 py minor gn	low low	85396 85397	48.80-49.80 49.80-50.10	1.00 0.30	.99 .72	9.3 6.5
50.10	51.00	78	x				Claystone - fault zone?	veinlet @ 65	50% qtz	8-10 py minor gn	med?	85398	50.10-51.00	0.90	5.04	37.0
51.00	57.00	99			x		Sandstone - light to medium grey, massive in part, bedded in part.	bedding @ 45-50 veinlets @ 35, 50	10% qtz 2% qtz,carb	5 py minor py in vnlts tr. gn	low nil	85399	51.00-51.40	0.40	.45	6.2
57.00	58.90	100		x			Siltstone - medium to dark grey, 5cm qtz vein at 57.9m	veinlets @ 150-160	6%	minor py in vnlts	nil					

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-8

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-8 PAGE 3 of 3

FROM (m)	TO (m)	REC (%)	CLAY	LIAN	SILT	ANDY	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
58.90	59.60	100	x	x			Siltstone - Claystone	veinlets @ 170	1% qtz,carb	minor py in vnlts	nil					
59.60	60.00	75	x				Claystone - black	veinlets @ 170, 80	.2%	tr. py	nil					
60.00	60.40	100			x		Sandstone - light-medium grey	bedding @ 30 veinlets @ 130, 150	2.5% qtz, carb	minor py in some veinlets	nil					
60.40	62.80	96	x	x			Claystone-Siltstone - black-dark grey	bedding @ 40 veinlets @ 40, 70	5% qtz,carb	min py in veinlets tr aspy	nil					
62.80	69.10	100			x		Sandstone - light-medium grey	bedding @ 30 veinlets @ 80, 110, 70	5% qtz-carb	minor py in some veinlets	nil					
69.10	70.30	100	x				Claystone - black, fault zone?	veinlets @ 70	20% qtz, carb	1 py	nil					
70.30	73.50	95	x	x			Siltstone-Claystone - dark grey-black	veinlets @ 60, 170	7% qtz,carb	minor py in vnlts	nil					
73.50	74.60	100			x		Sandstone - medium grey	bedding @ 70 veinlet @ 70	1% qtz,carb	tr. py	nil					
74.60	75.30	100	x	x			Siltstone-Claystone	veinlets @ 75-65	2.5% qtz, carb	tr. py	nil					
75.30	77.10	100			x		Sandstone - medium grey, bedded	bedding @ 75 veinlets @ 130	.5% qtz, carb	tr. py	nil					
77.10							END OF HOLE (253 feet)									

LOGGED BY: ROB DAY July, 1987

Purpose: To test soil geochemical anomaly at 8700N, 10380E: 900 ppb Au, 2 ppm Ag, 260 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-9

DATE COLLARED: July 15, 1987
DATE COMPLETED: July 17, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom 3
Collar K
PAGE 1 of 3
HOLE NO: TJ-87-9

FIELD COORDINATES

LAT: 8700N
ELEV. 960 m.
DIP: -45 degrees
DEP: 10540E
LENGTH: 78.6 m.
AZIMUTH: 060 degrees

DIP TESTS

DEPTH	ANGLE REC.	ANGLE COR.
no tests -		

FROM (m)	TO (m)	REC (%)	C I A	S I L	S A N	S I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	5.20	0					No recovery - casing									
5.20	10.70	64			x		Sandstone - massive, 20cm qtz vein at 8.70-8.90m	veinlets @ 50	8% qtz,carb	20 sph, py, gn	high	85400	6.70- 7.70 (97% rec)	1.00	.27	13.7
										5 sph, py gn	high	85401	7.70- 8.70 (98% rec)	1.00	.07	6.9
										2 py, tr. gn	low	85402	8.70- 8.90 (100% rec)	0.20	.31	2.1
										1 py	low	85403	8.90-10.70 (22% rec)	1.80	.10	5.5
10.70	11.70	80	x				Claystone - black	veinlets @ 70								
11.70	16.00	86		x			Siltstone - medium grey	bedding @ 50 veinlets @ 30, 40	1% qtz,carb	minor py gn in veinlets	nil					
16.00	25.10	98			x		Sandstone - salt & pepper texture, chlorite in fractures. Fault at 16.00-16.50m (minor py)	Fault veinlets @ 30, 70	5% qtz,carb	minor py	low	85404	16.00-17.00	1.00	.24	7.5
									5% qtz,carb	tr sph,gn .2 sph & tr gn in fractures	low	85405	17.00-18.00	1.00	.07	7.2
											low	85406	21.10-22.10	1.00	(.07	6.2
											low	85407	22.10-23.10	1.00	.07	5.5
											low	85408	23.10-24.10	1.00	(.07	9.6
											low	85409	24.10-25.10	1.00	(.07	4.8
25.10	29.00	75		x	x		Siltstone-Sandstone - medium grey-dark grey	veinlets @ 60, 140	1% qtz,carb	tr. sph, py	low	85410	27.00-28.00 (90% rec)	1.00	(.07	3.4
								bedding @ 45			low	85411	28.00-29.00 (47% rec)	1.00	.07	2.4
29.00	30.50	100					Felsic Intrusive - sheared	lower contact @ 30	.5% qtz, carb	1 diss py tr gn, sph	low	85412	29.00-30.00	1.00	(.07	1.4
											low	85413	30.00-30.50	0.50	(.07	(0.7
30.50	38.00	94			x		Sandstone	bedding @ 50 veinlets @ 120, 100, 150	2.5% qtz, carb	tr. py, sph	nil					
38.00	38.80	63	x				Claystone - black	veinlets @ 20, 50	1%	tr. py	nil					

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D.D.H. TJ87-9

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-9

FROM (m)	TO (m)	REC (%)	C/L/A/Y	S/I/L/T	S/A/I/D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
38.80	40.50	65		x	x	Siltstone grading to Sandstone	bedding @ 45 veinlets @ 70, 90	2% qtz,carb	tr. py	nil					
40.50	41.10	67	x			Claystone - black, sheared (fault?)	shears @ 30 fault?	6%	tr. py	nil					
41.10	43.80	70			x	Sandstone - massive	veinlets @ 50, 70, 150	2.5% qtz, carb	tr. py, sph	nil					
43.80	46.60	64				Felsic Intrusive - sheared	upper contact @ 50	2% qtz,carb	.5% diss py, tr gn aspy	low	85414	43.80-44.80	1.00	.14	0.7
										low	85415	44.80-46.60 (44% rec)	1.60	(.07)	(0.7)
46.60	49.30	96		x	x	Sandstone-Siltstone	bedding @ 30 veinlets @ 60, 160	3% qtz,carb	tr. py	nil					
49.30	49.70	100	x			Claystone - black, sheared, graphitic	lower contact @ 50	2%	tr. py	nil					
49.70	54.80	97			x	Sandstone	bedding 0-15 veinlets @ 15, 50, 140	2.5% qtz, carb	nil	nil					
54.80	55.60	81	x	x		Claystone grading to siltstone	frac. @ 10 veinlets @ 30	2%	tr. py	nil					
55.60	56.30	100			x	Sandstone - massive	veinlets @ 60, 120, 140	5% qtz,carb	tr. py	nil					
56.30	57.20	100		x		Siltstone	bedding @ 30 veinlets @ 40, 110, 130	2% qtz,carb	tr. py	nil					
57.20	59.80	92		x	x	Sandstone-Siltstone	bedding @ 40 veinlets @ 40	3.5% qtz, carb	tr. py	nil					
59.80	60.00	100	x			Claystone - black, graphitic	veinlets @ 40, 100	1% qtz,carb	nil	nil					
60.00	64.90	88			x	Sandstone	bedding @ 20 veinlets @ 40, 110	5% qtz,carb	tr. py	nil					
64.90	68.10	88	x	x		Siltstone grading to Claystone	bedding @ 40		tr. py	nil					
							veinlets @ 0, 20, 130	8% qtz carb	3 py	low	85416	66.40-67.10	0.70	(.07)	2.4
									3 py	low	85417	67.10-68.10	1.00	(.07)	1.0

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D.D.H. TJ 87-9

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-9 PAGE 3 of 3

FROM (m)	TO (m)	REC (%)	CALITY	SILIN	SIAD	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
68.10	78.60	89		x		Sandstone - light-medium grey, bedded with silty bands. Minor py at 76.6-76.7m and 77.0-77.1m.	bedding 15 @ top, 60 @ bottom veinlets @ 150, 70, 140 60	5% qtz, carb	1 py tr py otherwise	low	85418	68.10-69.00	0.90	(.07	2.1
78.60						END OF HOLE (258 feet)									

LOGGED BY: ROB DAY July, 1987

Del Bruce

Purpose: To test soil geochemical anomalies at 8700N, 10560E: 10 ppb Au, 2.0 ppm Ag, 530 ppm Pb

8700N, 10580E: 20 ppb Au, 8.0 ppm Ag, 540 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-10

DATE COLLARED: July 17, 1987
DATE COMPLETED: July 17,1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom 3
Collar K
PAGE 1 of 2
HOLE NO: TJ-87-10

FIELD COORDINATES

LAT: 8700N
ELEV. 960 m.
DIP: -60 degrees
DEP: 10540E
LENGTH: 17.7 m.
AZIMUTH: 060 degrees

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	

FROM (m)	TO (m)	REC (%)	C L A Y	I L I N	S I A D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL (recovery)	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	3.20	0				No recovery - casing									
3.20	5.40	68			x	Sandstone, chloritic when fresh, or oxidized.	veinlets @ 30, 80, 150	10%	1 py minor sph gn	low low	85419 85420	3.2-4.2 88% 4.2-5.4 30%	1.00 1.20	(.07 (.07	9.6 11.0
5.40	5.60	100				Quartz vein		100%	3 sph, 2 py 1 gn	high	85421	5.40- 5.60	0.20	.27	9.3
5.60	5.90	100			x	Sandstone	veinlets at 0, 50, 110	10%	1 sph, .5 py	low	85422	5.60- 5.90	0.30	.17	5.8
5.90	6.40	90				Quartz Vein	fractures & late veinlets @ 70	100%	20 sph 2 gn	high	85423	5.90- 6.40	0.50	.31	26.4
6.40	7.40	97	x			Claystone with some fractures healed with sphalerite and galena and quartz carbonate.	fractures at 40, 60, 160	5%	1 sph, .5 py, .5 gn	low	85424	6.40- 7.40	1.00	.58	24.3
7.40	8.10	100		x		Siltstone - fractures healed with sphalerite and galena.	fractures at 50, 70, 140	11.5%	1 gn, 4 sph	med	85425	7.40- 8.10	0.70	.89	14.4
8.10	9.10	100				Quartz vein - minor ruby silver? (cinnabar?) at 9.0m in sphalerite.	sec. vein. at 10	100%	5 sph 2 py .5 gn	high	85426	8.10- 9.10	1.00	1.06	58.7
9.10	11.60	95		x		Siltstone - tan-light brown.	veinlets @ 40, 130, 170 bedding @ 50	4% qtz, carb	2 py minor gn, sph	low low	85427 85428 85429	9.10-10.10 10.10-11.10 11.10-11.60	1.00 1.00 0.50	.24 1.27 1.27	10.3 21.9 11.3
11.60	12.30	100				Quartz vein		100%	3 sph 2 py .5 gn	high	85430	11.60-12.30	0.70	.07	3.8
12.30	13.30	100			x	Sandstone		9% qtz, carb	3 sph min py, gn	med	85431	12.30-13.30	1.00	(.07	2.4

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D.D.H. TJ87-10

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-10 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	CLAY	SILT	ALIN	ADD	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
13.30	13.50	100					Quartz vein	Lower cont. at 70	100%	1 sph	low	85432	13.30-13.50	0.20	.10	7.9
13.50	17.70	97				x	Sandstone - salt & pepper texture, massive.	veinlets at 60, 120, 170	10%	3 sph, .2 gn, tr. py	med	85433	13.50-14.50	1.00	(.07	8.2
											low	85434	14.50-15.00	0.50	(.07	7.5
17.70							END OF HOLE (58 feet)									

LOGGED BY: ROB DAY

Purpose: To test below sphalerite mineralization in Hole TJ-87-9

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-11

DATE COLLARED: July 17, 1987
DATE COMPLETED: July 18, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom 3
PAGE 1 of 2

FIELD COORDINATES

LAT: 8700N
ELEV. 960 m.
DIP: -75 degrees
DEP: 10539E
LENGTH: 36.0 m.
AZIMUTH: 060 degrees

Collar K

HOLE NO: TJ-87-11

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	

FROM (m)	TO (m)	REC (%)	CLAIN	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL (recovery)	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	2.4	0				No recovery - casing									
2.4	6.5	56			x	Sandstone - oxidized	veinlets at 60, 70, 150	10% qtz, carb	1 py, minor gn sph	low	85435	3.0-4.0 80%	1.00	(.07	7.9
										low	85436	4.0-5.0 90%	1.00	.24	370.6
										low	85437	5.0-5.5 83%	0.50	.07	19.5
										low	85438	5.5-6.5 25%	1.00	6.07	30.5
6.5	8.5	83		x		Siltstone - tan to light brown.	bedding @ 40	7% qtz, carb	1 py,	low	85439	6.5-7.5 90%	1.00	.93	20.2
							veinlets at 15, 55		1 sph, .5 gn	low	85440	7.5-8.5 75%	1.00	.07	33.9
8.5	11.8	91		x	x	Siltstone-Sandstone - light brown to light grey, 10cm qtz vein at 9.6-9.7 m. Note: samples 85442-85443 inadvertently combined during splitting	bedding at 15-20 veinlets at 60, 70, 90, 140	3% qtz, carb	.5 sph minor py gn	low	85441	8.5-9.5 100%	1.00	.07	9.3
										low	85442	9.5-10.5 85%	1.00		
										low	85443	10.5-11.5 85%	1.00	.07	6.5
										low	85444	11.5-11.8 100	0.30	(.07	1.7
11.8	12.4	80				Quartz vein		100%	2 py, minor gn, sph	med	85445	11.8-12.4 88%	0.60	.10	1.4
12.4	20.3	95			x	Sandstone - salt & pepper texture, massive.	bedding @ 60 near bottom, veinlets at 100, 150, 70 40 Fault			low	85446	12.4-13.4 90%	1.00	(.07	1.0
										low	85447	13.4-14.9 100	1.00	(.07	2.4
20.3	27.4	92		x	x	Sandstone-Siltstone - light to dark grey "vein fault" at 21.4-21.5m.	bedding @ 35 steepening to 50 veinlets at 80, 160	1% qtz, carb	min sph py, gn in veinlets	low	85448	20.4-21.4 100	1.00	(.07	1.7
										high	85449	21.4-21.5 100	0.10	2.37	18.5
										low	85450	21.5-22.5 100	1.00	(.07	3.8
27.4	27.5	100	x			Claystone - black	Lower cont. @ 50	0%	nil	nil					
27.5	30.5	96		x	x	Sandstone grading to siltstone	veinlets at 65, 0, 10	3% qtz, carb	tr py	nil					

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D.D.H. TJ87-11

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-11 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SILT	ANDY	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
30.5	33.5	92			x		Sandstone	bedding @ 60 veinlets at 60, 120, 160	5% qtz,carb	tr py	nil					
33.5	34.4	78		x			Siltstone - fractured	??	2%	nil	nil					
34.4	36.0	75			x		Sandstone - fractured	?	1%	tr py	nil					
36.0							END OF HOLE (118 feet)									

LOGGED BY: ROB DAY

Purpose: To test intersections of DDH TJ-87-9 and 10 at greater depth.

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-12

DATE COLLARED: July 19, 1987
DATE COMPLETED: July 19, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom 3
PAGE 1 of 2
HOLE NO: TJ-87-12

FIELD COORDINATES

LAT: 8700N
ELEV. 956 m.
DIP: -45 degrees
DEP: 10560E
LENGTH: 31.4 m.
AZIMUTH: 240 degrees

DIP TESTS

DEPTH	ANGLE REC.	ANGLE COR.
no tests -		

FROM (m)	TO (m)	REC (%)	CILAIYSILITIASIINID	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL (recovery)	WIDTH (m)	ASS AU (gmt)	AYS AG (gmt)
0	2.40	0		No recovery - casing									
2.40	5.70	59	x	Sandstone	Lower cont. @ 30 veinlets at 20, 30, 70	1.5% qtz, carb	minor py, sph	nil					
5.70	7.90	97	x	Siltstone - dark to light grey	veinlets 55 bedding 25	1.5% qtz, carb	py, sph, gn in veinlets	nil					
7.90	8.70	100	x	Siltstone - tan to light brown	bedding at 25-30 veinlets at 30, 40, 60	4% qtz, carb	1 py, gn, sph from 8.3 m	low	85451	8.30- 8.70	0.40	2.19	13.4
8.70	9.70	50		Quartz vein	Upper contact @ 35		3 sph, 1 py, 0.5 gn	high	85452	8.70- 9.70	1.00	.21	6.9
9.70	10.50	88	x	Sandstone - medium grey to brown, massive.	veinlets at 32, 20, 35	6% qtz, carb	1 sph, py minor gn	low	85453	9.70-10.50	0.80	.10	11.3
10.50	11.30	88		Quartz vein			1 sph, py gn	low	85454	10.50-11.30	0.80	(.07	9.6
11.30	22.10		x	Sandstone - salt & peppr texture - massive. Note: 30% sph from 12.5-12.7 m.	veinlets at 20, 25, 65, 0, 10	10% qtz, carb	1 sp 1 py	low	85455	11.3-12.3 95%	1.00	(.07	2.1
							5 sp 1 py	high	85456	12.3-13.3 80%	1.00	(.07	10.6
							mnr sp, gn	low	85457	13.3-14.3 80%	1.00	.48	24.7
						3% qtz, carb	mnr py, sp	low	85458	14.3-15.3 90%	1.00	.07	4.8
						1% qtz, carb	mnr py, sp	low	85459	15.3-15.9 92%	0.60	(.07	5.1
						12 qtz, carb	3 py, 1 sp	med	85460	15.9-16.7 100	0.80	.75	59.3
						3% qtz, carb	mnr py, sp	low	85461	16.7-17.7 90%	1.00	(.07	5.8
						2% qtz, carb	mnr py, sp	low	85462	17.7-18.7 100	1.00	(.07	3.8
						5% qtz, carb	1 sp, 0.5 gn	low	85463	18.7-19.7 95%	1.00	(.07	14.7
					veinlets at 15, 40, 20	4% qtz, carb	mnr sp, py	low	85464	19.7-20.7 80%	1.00	(.07	7.9
						3% qtz, carb	mnr sp, py	low	85465	20.7-21.7 65%	1.00	(.07	6.2
					bedding @ 25	5% qtz, carb	mnr sp, py	low	85466	21.7-22.1 100	0.40	(.07	3.1

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-12

PROPERTY: TOMMY JACK

HOLE NO.: TJ-87-12

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
22.10	25.40	85		x	x	Sandstone-siltstone	veinlets at 25, 15, 45	3%	minor py, sp	nil					
25.40	25.60	100	x			Claystone - black, sheared (no significant sulphides on either side of sample)	veinlets at 15, 20	30%	4 py, 1 gn in sample	med	85467	25.40-25.60	0.20	2.16	35.0
25.60	28.70	94		x		Siltstone - medium to dark grey	bedding @ 25 veinlets at 15, 15	0.5%	tr py	nil					
28.70	31.40	81			x	Sandstone	bedding @ 30 veinlets at 30, 65, 115	2% qtz,carb	min py, sph	nil					
31.40						END OF HOLE (103 feet)									

LOGGED BY: ROB DAY

Del Myme

Purpose: To cut mineralization in Holes TJ-87-9 to 11 from another angle.

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. **TJ87-13**

DATE COLLARED: July 20, 1987
DATE COMPLETED: July 21, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom 3
Collar I
PAGE 1 of 3
HOLE NO: TJ-87-13

FIELD COORDINATES

LAT: 8602N
ELEV. 1094 m.
DIP: -45 degrees
DEP: 9980E
LENGTH: 75.6 m.
AZIMUTH: 060 degrees

DIP TESTS

DEPTH	ANGLE REC.	ANGLE COR.
no tests -		

FROM (m)	TO (m)	REC (%)	CI	LI	SI	AI	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	3.40	0					No recovery - casing									
3.40	3.90	100			x		Sandstone - oxidized, massive looking.		0%	nil						
3.90	7.20	100					Felsic Intrusive	veinlets at 20,50,60,110	0.9% qtz, carb	1 diss py minor sph gn in veinlets	nil					
7.20	10.10	90		x			Siltstone - dark to medium grey	veinlets @ 30	0.5%	minor py	nil					
10.10	14.80	89					Felsic Intrusive	veinlets at 30, 40	0.5% qtz, carb	1 diss py tr sph, gn in veinlets	nil					
14.80	22.00	80			x		Sandstone - medium to dark grey	bedding @ 30 veinlets @ 30,70,5	2% qtz,carb	minor py	nil					
22.00	26.40	91		x	x		Sandstone - Siltstone	bedding @ 20 veinlets @ 20, 170	1% qtz,carb	tr py	nil					
26.40	34.10	90			x		Sandstone	bedding 20 @ top, 50 @ bottom. veinlets @ 20, 160	2% qtz,carb	minor py, tr sph in some veinlets	nil					
34.10	34.40	100	x				Claystone - black	veinlets @ 20, 50	5%	minor py	nil					
34.40	36.50	95			x		Sandstone	bedding @ 65-70 veinlets @ 20, 50	1.2% qtz, carb	minor py in some veinlets	nil					

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D.D.H. TJ87-13

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-13

FROM (m)	TO (m)	REC (%)	CALITY	SILICIFICATION	SULPHIDES	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
							veinlets @								
36.50	40.00	96		x		Siltstone	65	1% qtz,carb	tr py	nil					
40.00	43.40	97			x	Sandstone - light to medium grey	bedding @ 65	1% qtz,carb	tr py	nil					
							veinlets @ 65, 150								
43.40	44.90	97		x	x	Siltstone-Sandstone - no sulphide on either side of sample	bedding @ 60 veinlet @ 60	1.5% qtz, carb	tr py 1.5 sph, .5 gn	nil low	85468	44.60-44.90	0.30	(.07	24.3
44.90	45.70	100		x		Siltstone - dark grey	bedding @ 70 veinlets @ 120	4% qtz,carb	minor py	nil					
45.70	45.90	100	x			Claystone - black		10% qtz, carb	2 py	nil					
45.90	60.00	98			x	Sandstone - light to medium grey, bedded.	bedding @ 65 veinlets @ 120, 160, 170	1% 4%	tr py 3 py, tr aspy	nil low	85469	51.60-52.60	1.00	.07	1.0
60.00	62.70	100		x		Siltstone - dark grey, 1cm qtz veinlet near parallel to core in sample 85472.	bedding @ 40 veinlets @ 10, 30	10% qtz, carb	5 diss py tr sph	low low low	85470 85471 85472	60.40-61.30 61.30-62.00 62.00-62.70	0.90 0.70 0.70	.27 (.07 .65	7.9 1.4 5.8
62.70	66.30	100			x	Sandstone	bedding @ 50 veinlets @ 30, 50	10 qtz,carb 2% qtz,carb	5 diss py minor sp, gn tr py	low nil	85473	62.70-63.50	0.80	1.78	5.8
66.30	66.70	100		x	x	Siltstone grading to Sandstone	fractures @ 50	10% qtz, carb	tr py	nil					
66.70	70.30	98			x	Sandstone	bedding @ 50 veinlets @ 50, 140	3% qtz,carb 5% qtz,carb	minor py 3 py	nil low	85474	69.70-70.30	0.60	.21	9.3
70.30	70.60	100				Quartz vein - "bladed" or asicular arsenopyrite.		100%	2 py, minor sph aspy	low	85475	70.30-70.60	0.30	3.81	11.0
70.60	72.70	100			x	Sandstone	bedding @ 60 veinlets @ 50, 60, 145	10%	2 py, tr sph, aspy	low	85476	70.60-71.60	1.00	.55	4.5
72.70	72.90	100				Quartz vein - not sampled			3 py, tr sph	nil					

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D.D.H. **TJ87-13**

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-13 PAGE 3 of 3

FROM (m)	TO (m)	REC (%)	C A Y	I T	S I L	S I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASS AU (gmt)	AYS AG (gmt)
72.90	73.10	100		x			Siltstone	veinlets @ 50, 70		minor py	nil					
73.10	74.20	100					Felsic Intrusive	Lower Contact @ 40	0.5%	1 py	nil					
74.20	75.60	100		x		x	Siltstone - Sandstone	bedding @ 70 veinlets @ 30, 140	3% qtz,carb	minor py tr sph	nil					
75.60							END OF HOLE (248 feet)									

LOGGED BY: ROB DAY

Purpose: To test soil geochemical anomaly at 8600N, 10000E: 60 ppb Au, 12.0 ppm Ag, 530 ppm Pb

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D.D.H. **TJ87-14**

DATE COLLARED: JULY 21, 1987 | DATE COMPLETED: JULY 22, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

CLAIM: Tom | Collar M | PAGE 1 of 2

HOLE NO: TJ-87-14

FIELD COORDINATES

LAT: 8824N | ELEV. 1059 m. | DIP: -45 degrees

DEP: 9802E | LENGTH: 78.6 m. | AZIMUTH: 060 degrees

DIP TESTS

DEPTH	ANGLE REC.	ANGLE COR.
no tests -		

FROM (m)	TO (m)	REC (%)	CISIS LIIA LINI AIAL TIDI	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
0	4.50	0		No recovery - casing									
4.50	18.40	97	x	Sandstone - medium grey, bedded.	bedding 20 @ top, 30 @ bottom, veinlets @ 10, 40, 50	1% qtz, carb	minor py tr gn, sp in some veinlets	nil low	 85477	 17.70-18.40	 0.70	 .38	 2.4
18.40	19.10	100	x x	Claystone grading to Siltstone - 3 cm qtz veinlet with py, gn, sph in footwall Fault at 18.4-18.8 m.	veinlets @ 20	10% qtz, carb	2 py, 2 sp, 1 gn 2 py	high low	85478 85479	18.40-18.80 18.80-19.10	0.40 0.30	2.33 .17	21.9 1.0
19.10	24.50	75	x	Sandstone	bedding @ 40 veinlets @ 40, 120, 150	1.5% qtz, carb	2 py, tr sph minor py, tr sph	low nil	85480	19.10-19.70	0.60	.17	2.4
24.50	28.70	90		Felsic Intrusive	veinlets @ 30	2.3%	minor py sph, gn in some veinlets	low	85481	27.70-28.70	1.00	.38	3.1
28.70	29.30	100		Quartz vein	Lower contact @ 30	100%	8 py, 3 sp 1 gn	high	85482	28.70-29.30	0.60	31.85	129.6
29.30	29.80	100		Felsic Intrusive	veinlets @ 130	10% qtz, carb	0.5 py	low	85483	29.30-29.80	0.50	.27	1.7
29.80	37.60	97	x	Sandstone - massive in part with mottled texture.	veinlets 35 at top, 55 at bottom	3% qtz, carb 5% qtz, carb	1 py, tr sph 1 py, tr aspy	low low	85484 85485	29.80-30.50 30.50-31.00	0.70 0.50	.17 .17	1.4 1.0
						10% qtz, carb	1 py, 0.5 aspy	med	85486	31.00-32.00	1.00	.48	3.1
37.60	41.50	97	x	Siltstone - dark grey, fault at 38.4-39.6 m.	veinlets @ 20, 40, 70 fault	50% in fault, otherwise 1%	minor py in some veinlets 5 py, tr sph, gn	low low	85487 85488	38.20-39.00 39.00-39.60	0.80 0.60	2.13 1.82	4.1 6.2

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D.D.H. TJ87-14

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-14 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	C L A Y	S I L I N	S I A D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL (recovery)	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
41.50	49.00	100			x	Sandstone - massive with "mottled" texture in part.	Upper Contact @ 40 veinlets @ 30, 40, 55, 0	1% qtz, carb	minor py sph, gn, aspy in veinlets	nil					
49.00	49.70	100		x		Siltstone - dark grey	veinlets at 10, 50, 130, 140	1.5%	minor py in some veinlets	nil					
49.70	51.10	100			x	Sandstone - massive	bedding @ 40 veinlets at 20, 40	.5%	minor py	nil					
51.10	54.30	94	x	x		Siltstone grading to claystone, fault at 53.5-54.3 m.	veinlets at 10, 30 fault at 10	10% qtz, carb	2 py, 1 sph, tr gn	low-med	85489	53.50-54.30	0.80	.75	4.8
54.30	59.10	97			x	Sandstone	bedding 25-0 veinlets at 0, 50, 90	4% qtz, carb	minor py	nil					
59.10	61.60	70	x	x		Claystone-Siltstone - fault at 59.1-60.6 m	veinlet @ 10 fault @ 10	40% qtz, carb	5 py, tr. sph	med	85490	59.10-60.00 (22% rec.)	0.90	3.67	10.3
									5 py, tr. sph	med	85491	60.00-60.60 (100% rec.)	0.60	2.67	10.3
									2 py, tr. sph	low	85492	60.60-61.60 (95% rec.)	1.00	.24	2.7
61.60	76.20	95			x	Sandstone	bedding 0-5 veinlets at 0, 55, 65, 80	3% qtz, carb	minor py in some veinlets	nil					
76.20	77.30	100	x	x		Sandstone - Siltsuone	bedding 20-30 veinlets at 30, 135	2.5% qtz carb	minor py	nil					
77.30	78.60	100			x	Sandstone	bedding 20-30 veinlets at 20, 120	1.5% qtz, carb	minor py	nil					
78.60						END OF HOLE (258 feet)									

LOGGED BY: ROB DAY

Purpose: To test soil anomaly at 8800N, 9820E: 1560 ppb Au, 9.4 ppm Ag, 640 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. **TJ 87-15**

DATE COLLARED: July 23, 1987
DATE COMPLETED: July 24, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom
Collar L
PAGE 1 of 3
HOLE NO: TJ-87-15

FIELD COORDINATES

LAT: 8813N
ELEV. 1061 m.
DIP: -45 degrees

DEP: 9742E
LENGTH: 84.7 m.
AZIMUTH: 060 degrees

DIP TESTS

DEPTH	ANGLE REC.	ANGLE COR.
no tests -		

FROM (m)	TO (m)	REC (%)	CLAY	LIA	SILTY	SILTA	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
0	5.10	0					No recovery - casing									
5.10	7.80	100			x	x	Sandstone grading to siltstone	bedding @ 75 veinlets @ 20, 145	1% qtz, carb	tr py	nil					
7.80	13.00	97				x	Sandstone - bedded	bedding @ 30 veinlets at 15, 45, 165, 0	1% qtz, carb	tr py	nil					
13.00	17.20	100			x		Siltstone - laminated	bedding @ 30 veinlets @ 150, 60, 80, 5	1.3% qtz, carb	tr py	nil					
17.20	21.80	100				x	Sandstone	bedding @ 65 veinlets @ 130	1% qtz, carb	tr py	nil					
21.80	26.00	95			x		Siltstone - Sandstone	bedding @ 75 veinlets @ 65, 125, 35, 155	1% qtz, carb	minor py tr sph	nil					
26.00	36.90	97				x	Sandstone - Small fault at 36.5-36.9 m with minor py, tr. sph.	bedding 80 at top, 70 at bottom. veinlets @ 70, 130, 145 top of fault @ 55	1.5% qtz, carb	minor py tr aspy	nil					
36.90	37.60	100			x		Siltstone - massive	veinlets @ 130, 125	2% qtz, carb	tr py	nil					
37.60	42.10	100			x	x	Siltstone-Sandstone - fault 38.2-38.6 m at 35 degrees	bedding @ 70 dec. to 25 veinlets at 70, 80, 20	2.5% qtz, carb	3 py 1 py, tr sph	low low	85493 85494	38.20-38.60 38.60-39.30	0.40 0.70	.69 .34	23.7 8.9

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D.D.H. TJ87-15

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-15 PAGE 2

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
42.10	43.40	88	x	x		Claystone grading to Siltstone - fault at 42.1-42.7 m.	fault veinlets 55-45	15% qtz, carb	7 py 1 gn 2 sp, tr aspy	high	85495	42.10-42.70 (75% rec)	0.60	6.24	17.5
								3%	3 py	low	85496	42.70-43.40	0.70	.69	4.8
43.40	68.10	97			x	Sandstone - bedded, massive in part, med-dark grey	bedding @ 25 veinlet @ 15	1% qtz,carb	3 py	low	85497	43.40-44.40	1.00	.27	1.4
									3 py, tr sph, gn	low	85498	44.40-44.80	0.40	1.06	8.6
									3 py	low	85499	44.80-45.80	1.00	.21	1.4
									3 py	low	85500	45.80-46.80	1.00	.58	1.4
						Note: most py is disseminated in sandstone.			1 py	low	76126	46.80-47.80	1.00	(.07	0.7
									2 py	low	76127	47.80-48.80	1.00	(.07	0.7
									3 py, tr sph	low	76128	48.80-49.80	1.00	.21	1.4
						Note: 2x2cm qtz vein at 15 degrees		40% qtz, carb	15 py + sph gn as	high	76129	49.80-50.30	0.50	7.68	27.1
									1 py	low	76130	50.30-50.80	0.50	.14	1.0
						1.3 cm qtz veinlet at 52.7m, 70% py, tr. gn.	veinlets @ 20		2 py	med	76131	52.50-53.00	0.50	.65	5.8
						1.5 cm qtz veinlet at 56.7m, 20% py, 20% aspy, 2% gn	veinlets @ 30		1 py, 0.5 aspy tr gn	med	76132	56.50-56.90	0.40	12.99	12.0
						fault at 59.9-60.1 m (breccia)	fault		3 py, minor sph gn	med?	76133	59.90-60.10	0.20	.45	5.8
						at 64.0 m	bedding at 25-35	3% qtz,carb	minor py, tr. sph						
							veinlets @ 25, 10, 150								
						at 64.9 m - 2 cm qtz veinlet with 40% py, 5% sph, tr. gn - no sulphides of interest either side.									
68.10	69.40	100		x		Siltstone - massive, dark grey		1% qtz,carb	minor py	nil					
69.40	69.70	100				Felsic Intrusive 1.5 cm qtz veinlet at upper contact	Upper contact @ 25	qtz	4 py in veinlet, 1 py in dyke	low	76134	69.40-69.70	0.30	3.36	9.9
69.70	70.00	100				Quartz Vein	fault		5 py, 2 aspy, 1 sph	high	76135	69.70-70.00	0.30	5.14	25.4
70.00	71.40	100	x			Claystone - small fault from 70.0-70.5 m	veinlets @ 25, 65, 135	6% qtz,carb	3 py, tr. sph, aspy	low	76136	70.00-71.00	1.00	.34	2.1
										low	76137	71.00-71.40	0.40	.75	1.7
71.40	71.80	100			x	Sandstone - massive	veinlets @ 150	1% qtz,carb	minor py in vnlets	nil					

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D.D.H. TJ87-15

PROPERTY: TOMMY JACK

HOLE NO.: TJ-87-15

FROM (m)	TO (m)	REC (%)	CALIA	SILIN	SIAID	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
71.80	71.90	100				Felsic Intrusive			1 py diss	nil					
71.90	75.60	100			x	Sandstone	bedding @ 25 veinlets at 60, 150	1% qtz,carb	minor py	nil					
75.60	83.50					Felsic Intrusive (Note: gn, py, sph in veinlets for 30 cm at top of zone) Drilled through intrusive to check for mineralization in footwall.	Upper contact @ 60 Lower contact @ 70	2.5% qtz, carb	gn, py, sph						
83.50	84.70			x		Siltstone - massive in part	veinlets @ 25 bedding @ 25	0.5%	tr py	nil					
84.70						END OF HOLE (278 feet)									

LOGGED BY: ROB DAY

Purpose: To test soil geochemical anomaly at 8800N, 9740E:
Collar co-ordinates are based on Ref. Line A

320 ppb Au, 6.6 ppm Ag, 330 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-16

DATE COLLARED: DATE COMPLETED: CORE SIZE: NQ PROPERT TOMMY JACK N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

CLAIM: Tom 5
Collar Y

PAGE 1 of 4

LAT: 7299N + 72m @ 360 degrees
ELEV. 1073 m.
DIP: -60 degrees
DEP: 10695E
LENGTH: 75.6 m.
AZIMUTH: 270 degrees

HOLE NO: TJ-87-16

DIP TESTS	
DEPTH	ANGLE REC. / COR.
75.6 m	68.7 deg. / 63 deg.

FROM (m)	TO (m)	REC (%)	CLAY	LIAT	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
0	3.40	0					No recovery - casing									
3.40	7.90	100			x	x	Siltstone-Sandstone - light-med grey, mottled - bedded, 1.5% py, .5% gn at 6.8-7.0 m (4cm veinlet at 6.55m)	bed @ 30-35 veinlets at 50, 60, 65, 110, 130	6% 12% 8%	minor py 2 minor py	low	76138	6.20-7.00	0.80	.07	8.9
7.90	8.10	100	x				Claystone	bed @ 55 veinlets 55	2%	tr py						
8.10	11.90	100			x	x	Sandstone - massive, salt & pepper texture. Fault at 10.9-11.3m.	veinlets at 30, 60, 160 fault @ 30	8%	tr py, sph, gn						
11.90	14.60	100			x	x	Siltstone-Sandstone - light-med grey, bedded.	bed at 40 veinlets at 30, 40, 110	6%	0.5 py						
14.60	15.00	50			x	x	Siltstone-Sandstone - (breccia) Fault contact with intrusive below, 2 cm massive gn, sph at bottom	Breccia Lower contact @ 50		5 gn, sph	med	76139	14.60-15.00	0.40	.38	1384.8
15.00	15.50	100					Hypabyssal Intrusive	Lower contact @ 50	6%	2 sph 1 py, 1 gn	med	76140	15.00-15.50	0.50	.07	22.6
15.50	15.80	100			x	x	Siltstone-Sandstone - chlorite in fractures.	Lower contact @ 50	10%	1.5 sph .5 py, gn	low	76141	15.50-15.80	0.30	(.07	25.4
15.80	19.10	100					Hypabyssal Intrusive	veinlets @ 35, 40	8%	1 sph .5 gn .5 py	low low low	76142 76143 76144	15.80-16.80 16.80-17.80 17.80-18.80	1.00 1.00 1.00	.07 .07 .14	26.4 16.1 55.5
											low	76145	18.80-19.10	0.30	.07	14.1
19.10	21.50	100				x	Sandstone - massive, salt & pepper textures, chlorite in fractures Fault at 21.0-21.5 m.	veinlets @ 50, 60, 130 40, 100 fault	10% 10% 80%	1 sph, gn 4 sp, gn, py	low low med	76146 76147 76148	19.10-20.10 20.10-21.00 21.00-21.50	1.00 0.90 0.50	.07 .07 .10	6.5 6.9 30.5
21.50	22.70	100					Hypabyssal Intrusive - Quartz vein at 22.5-22.7 m.	Contact @ 30	5%	1 py .5 gn spn	low	76149 76150	21.50-22.50 22.50-22.70	1.00 0.20	.24 .31	16.8 10.6

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. **TJ87-16**

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-16

FROM (m)	TO (m)	REC (%)	C L A Y	S I L I N	S I A T	A I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
22.70	25.00	100		x	x		Siltstone-Sandstone - light-med grey chlorite in fractures	bed @ 50 veinlets @ 130,60,50,30	8.5% qtz, carb	1 py .5 sph tr gn cpy	low low low	76176 76177 76178	22.70-23.70 23.70-24.70 24.70-25.00	1.00 1.00 0.30	.14 .10 .07	10.6 7.5 3.4
25.00	32.30	100			x		Sandstone - massive to bedded, in part salt & pepper texture, chlorite in fractures.	bed @ 40-50 veinlets @ 40, 50, 60, 120,130,140	10% qtz, carb	.5 py, .5 sph .5 py, 1 sph 1 sph, .5 py	low low low	76179 76180 76181	25.00-26.00 26.00-27.00 27.00-28.00	1.00 1.00 1.00	.10 .10 .10	9.6 6.5 5.5
										2 sph, .5 py, .5 gn	med	76182	28.00-29.00	1.00	.10	31.5
										1 sph, .5 py, tr gn	low	76183	29.00-30.00	1.00	(.07	9.9
										1 sph, .5 py, tr gn	low	76184	30.00-31.00	1.00	(.07	72.7
										.5 sph .5 py, tr gn	low	76185	31.00-32.00	1.00	(.07	11.3
										2 py, .5 sph tr gn	low	76186	32.00-32.30	0.30	.48	61.0
32.30	34.20	100					Hypabyssal Intrusive	Lower contact @ 80 veinlets @ 20, 50, 90	7% qtz, carb	minor py tr sph						
34.20	35.70	97	x	x			Claystone-Siltstone - black-med grey, brecciated, chloritic	fault at 34.2-35.7m	30% bx qtz, carb	1 py, tr sph						
35.70	37.40	100			x		Sandstone - massive, bedded, chloritic	bed @ 50-60 veinlets @ 30, 50, 160	8% qtz, carb	1 py tr sph						
37.40	40.80	100	x	x			Claystone-Siltstone - chlorite in fractures	bed @ 60 veinlets @ 50, 60	4% qtz, carb chlorite	tr py						
40.80	42.80	100			x		Sandstone - bedded, chlorite in fractures, minor breccia at 41.0 m.	bed @ 60-70 veinlets @ 70, 160 Breccia	3% qtz, carb	tr py						
42.80	43.70	100	x				Claystone	bed @ 70 veinlets @ 20, 40	2% cc with chlorite	nil						
43.70	44.30	100			x		Sandstone - bedded	bed @ 70 veinlets @ 140, 150	3% carb, qtz chl	nil						
44.30	44.70	100	x				Claystone - black	veinlets @ 60, 160	carb	nil						

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-16

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-16 PAGE 3 of 4

FROM (m)	TO (m)	REC (%)	C L A Y	I N T	S I L I C	S I L I N	A L T I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
44.70	48.20	100			x	x		Sandstone-Siltstone - bedded, chlorite in fractures.	bed @ 50-60 veinlets @ 30, 50, 130	carb, qtz	tr py						
48.20	48.60	100	x					Claystone - black	veinlets 70	carb, qtz	nil						
48.60	49.90	100				x		Sandstone - light-med grey	bed @ 10-30 veinlets @ 10, 110	5% carb, qtz	nil						
49.90	50.40	100	x					Claystone - 20 cm vein in fault at 50.2-50.4	veinlets @ 60, 130, 40 fault	40% carb, qtz	nil						
50.40	52.30	100			x	x		Sandstone-Siltstone - chlorite in fractures.	bed @ 50, 60 veinlets @ 60, 70	20% carb, qtz	nil						
52.30	53.40	100	x	x				Claystone grading to Siltstone - chlorite in veinlets and fractures	bed @ 30 veinlets @ 40, 50, 30	5% carb, qtz	nil						
53.40	55.20	100				x		Sandstone-Siltstone - light-med grey, chlorite in fractures. 5 cm vein at 54.9m (fault).	veinlets @ 70, 150	5% carb, qtz	tr py						
55.20	55.70	100	x					Claystone	veinlets @ 20, 60, 140	4% carb, qtz	nil						
55.70	56.70	100			x	x		Sandstone grading to siltstone	bed @ 60 veinlets @ 20, 60	5% carb, qtz	minor py						
56.70	59.10	100	x	x				Claystone grading to Siltstone	bed @ 50-55 veinlets @ 55, 140, 150, 80	7% carb, qtz	.5 py						
59.10	63.30	100			x	x		Sandstone-Siltstone - bedded, light-med grey	bed @ 35-70 veinlets @ 35, 20, 45, 70	3% qtz, carb	tr py						
63.30	64.20	100						Claystone - black, chlorite in fractures	veinlets @ 30, 65, 150	4% carb, qtz	nil						
64.20	64.80	100			x	x		Sandstone-Siltstone - light-dark grey Fault at 64.5-64.8 m.	bed @ 50 veinlets @ 30, 100, 120 fault	20% carb, qtz	nil						
64.80	66.00	100	x	x				Claystone-Siltstone - black-dark grey	frac. @ 40 veinlets 20 breccia	8% carb, qtz	minor py						

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-16

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-16 PAGE 4 of 4

FROM (m)	TO (m)	REC (%)	CALCITE	SILICIFICATION	ALTERATION	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
							Upper								
66.00	72.90	100			x	Sandstone - clay rich matrix	contact @ 30 faulted bed @ 40-65 veinlets @ 65, 85, 110	4% carb, qtz	minor py						
72.90	74.30	100		x	x	Siltstone - Sandstone	bed @ 30-40 veinlets @ 0, 65, 110, 160	8% qtz, carb	tr py						
74.30	75.00	100	x			Claystone	veinlets @ 10, 60, 140	2% qtz, carb	3 py						
75.00	75.60	100		x	x	Siltstone-Sandstone - massive, chlorite in fractures	veinlets @ 50, 35	3% qtz, carb	minor py						
75.60						END OF HOLE (248 feet)									

Note: Strike and dip of veinlets with sph, gn in sandstone o/c below collar at top of cliff by trail to setup 340 deg/60 deg E
(semi massive - massive stringers and pods of sph, gn)
Bedding of sandstone is 338 deg/42 deg E

LOGGED BY: R. DAY

Purpose: Test showing below collar in canyon of Unnamed Creek.

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. **TJ87-17**

DATE COLLARED: Sept. 12, 1987 | DATE COMPLETED: Sept. 12, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

CLAIM: Tom 3 | Collar H | PAGE 1 of 2

LAT: 8175N | ELEV. 1090 m. | DIP: -45 degrees

DEP: 10310E | LENGTH: 75.6 m. | AZIMUTH: 060 degrees

HOLE NO: TJ-87-17

DIP TESTS	DEPTH	ANGLE REC.	ANGLE COR.
	no tests -		

FROM (m)	TO (m)	REC (%)	CLAY	LIAN	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	4.30	0					No recovery - casing									
4.30	12.90	55		x			Claystone - black, oxidized in part, minor silty laminations	bed @ 10-20 veinlets @ 10,40,50,90	.2% qtz, carb	tr py						
12.90	15.90	93			x	x	Sandstone - Siltstone	bed @ 30 veinlets @ 30, 150, 170	1% qtz,carb	nil						
15.90	16.50	100					Hypabyssal Intrusive	Lower contact @ 80	2% qtz,carb	.5 py						
16.50	19.70	97		x		x	Sandstone - Siltstone	bed @ 60,50 veinlets @ 40	7% qtz,carb chlorite	minor py						
19.70	22.50	100					Hypabyssal Intrusive - (dacitic?)	Contacts @ 80 veinlets @ 50, 60	1% qtz,carb	.5 py tr as						
22.50	23.50	100		x			Siltstone - light grey	bed @ 60 veinlets @ 60,65,120,10	2% qtz,carb chlorite	minor py						
23.50	25.50	100				x	Sandstone - light grey, bedded.	bed @ 60, 50 veinlets @ 60, 150	2% qtz,carb	minor py tr sph						
25.50	40.50	100			x	x	Siltstone-Sandstone - bedded, light-med grey	bed @ 80 at top, 70 at bottom veinlets @ 80, 30	.5% qtz, carb	tr py						
40.50	45.70	97		x			Siltstone - massive to laminated, light grey	bed @ 50 veinlets @ 65	.5% qtz, carb chlorite	tr py tr sph						

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-17

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-17 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	C L A Y	S I L I	S I A L	A I N D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
45.70	48.30	100					Hypabyssal Intrusive	veinlets @ 45, 60, 70, 110	1% qtz, carb	.5% py tr sph						
48.30	54.30	100		x			Siltstone - massive to laminated, light grey	bed @ 55 veinlets @ 40, 50, 150	.5% qtz, carb	tr py tr sph						
54.30	61.80	96		x	x		Sandstone-Siltstone - dark grey 5cm veinlet at 61.5m - 50% py, 2% gn	bed @ 55-45 veinlets @ 20, 50, 130	1% qtz, carb	minor py tr gn	low	76187	61.40-61.70	0.30	5.18	15.1
61.80	62.90	100			x		Sandstone - salt & pepper texture, massive.	veinlets @ 40, 160	1% qtz, carb	tr py						
62.90	69.50	100					Hypabyssal Intrusive	veinlets @ 45	.2% qtz, carb	tr py						
69.50	71.20	94		x	x		Sandstone-Siltstone - bedded, med-dark grey	bed @ 50-60 veinlets @ 50, 140	.5% qtz, carb	tr py tr sph						
71.20	75.60	100			x		Sandstone - Salt & pepper texture, massive.	bed @ 60? veinlets @ 30, 40, 60	1% qtz, carb	minor py						
75.60							END OF HOLE - 248 feet									

LOGGED BY: R. Day

Purpose: To test soil geochemical anomaly at 8200N, 10340E: 10 ppb Au, 15.0 ppm Ag, 620 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-18

DATE COLLARED: Sept. 13, 1987
DATE COMPLETED: Sept. 14, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom
Collar N
PAGE 1 of 3
HOLE NO: TJ-87-18

FIELD COORDINATES

LAT: 8849N
ELEV. 1050 m.
DIP: -45 degrees
DEP: 9921E
LENGTH: 86.3 m.
AZIMUTH: 060 degrees

DIP TESTS: no tests -

FROM (m)	TO (m)	REC (%)	CLAY	LIAN	SILT	ANDY	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	AU (gmt)	AG (gmt)
0	6.10	0					No recovery - casing									
6.10	6.30	100					Hypabyssal Intrusive		none	tr py						
6.30	13.90	85			x		Sandstone - light to med grey	bed @ 40 veinlets @ 30, 40, 160	.5% qtz, carb	tr py						
13.90	15.00	95	x	x			Siltstone-Claystone - dark grey-black	bed @ 45 veinlets @ 35, 160	.5% qtz, carb	tr py						
15.00	16.60	75			x		Sandstone - light-med grey, bedded	bed @ 20-30	2% qtz,carb	minor py						
16.60	19.10	100	x	x			Claystone grading to Siltstone Fault @ 17.7-19.0 m	bed @ 40 veinlets @ 0, 30, 40 fault	5% qtz,carb	minor py						
19.10	27.00	94		x	x		Sandstone - Siltstone	bed @ 40-50 veinlets @ 120, 140, 50	1.5% qtz, carb	minor py tr sph, gn in some veinlets						
27.00	28.00	100	x	x			Siltstone-Claystone - Fault 27.3-28.0m - 17cm qtz vein at 27.3m.	bed @ 40 veinlets @ 85; fault	3% qtz,carb 50% qtz, carb	5 py 1 gn	med	76188	27.30-28.00	0.70	3.63	16.1
28.00	30.00	90		x			Siltstone - laminated	bed @ 70 veinlets @ 30, 70, 90, 160	2.5% qtz, carb	tr py						
30.00	33.90	100			x		Sandstone - bedded-massive	bed @ 80 veinlets @ 30, 50, 60, 140 170, 40, 120	5% qtz,carb	3 py, minor sph gn in some veinlets	low low low	76189 76190 76191	31.30-32.30 32.30-33.30 33.30-33.90	1.00 1.00 0.60	.55 .48 .10	14.1 9.6 7.5

NORANDA EXPLORATION COMPANY, LIMITED
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D.D.H. TJ87-18

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-18 PAGE 2 of 3

FROM (m)	TO (m)	REC (%)	CALITH	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
					fault								
33.90	36.10	95	x	Siltstone - light-med grey, massive to laminated. Fault @ 33.9-36.1 m	bed @ 70-80 veinlets @ 30,40,50,70 150	30% from 33.9-36.1 2% onwards	3 py, .5 gn, sph tr as	low low low	76192 76193 76194	33.90-34.90 34.90-35.90 35.90-36.10	1.00 1.00 0.20	.65 .82 3.63	7.9 6.5 16.1
36.10	36.80	100		Hypabyssal Intrusive	veinlets @ 30, 150	2%	tr py						
36.80	39.80		x	Siltstone - light-med grey	bed @ 70-80 veinlets @ 20,30,50,130	3% qtz,carb chlorite	minor py tr sph						
39.80	40.00	100		Hypabyssal Intrusive	veinlet @ 50								
40.00	43.60	100	x x	Claystone-Siltstone - dark grey to black. Fault at 40.0-43.6 m	fault	20% qtz, carb	minor py tr sph						
43.60	45.50	100		Hypabyssal Intrusive	veinlets @ 20, 60, 140	4% qtz,carb chlorite	.5 py tr sph						
45.50	48.40	100	x x	Sandstone-Siltstone - light-med grey	bed @ 60-70 veinlets @ 20,50,70,150	6% qtz,carb chlorite	minor py tr sph,gn						
48.40	49.50	100	x x	Claystone-Siltstone - dark grey-black	veinlets @ 50,60,65,80	2% qtz,carb	tr py, cpy, gn						
49.50	52.60	97	x	Sandstone - massive with salt & pepper texture. Fault at 49.5-49.8 m	fault	2% qtz,carb	minor py tr sph	low	76195	49.50-49.80	0.30	.10	4.5
52.60	56.80	100	x x	Siltstone-Sandstone - bedded	bed @ 75 dec. to 45 veinlets @ 10, 30, 130	1% qtz,carb	tr py						
56.80	57.30	100	x x	Siltstone grading to Claystone Small fault at 57.3 m	veinlets @ 10; fault	10% qtz, carb	tr py						
57.30	71.70	96	x x	Sandstone-Siltstone - breccia from 71.0-71.7 m.	bed @ 40, incr. to 60 veinlets @ 75,80,10,30	2% qtz,carb 30% qtz, carb	tr py 2 py, tr sph	low	76196	71.00-71.70	0.70	.10	3.4
71.70	72.40	100		Hypabyssal Intrusive	veinlets @ 40		0.1 td in fract.	low	76197	71.70-72.40	0.70	.07	(0.7
72.40	76.50	97	x x	Sandstone - breccia from 72.4-74.1 m.	bed @ 60 veinlets @ 40	bx 30% qtz carb 1% qtz,carb	3 py, .5 gn, sph tr py	med low	76198 76199	72.40-73.40 73.40-74.10	1.00 0.70	.65 .45	15.1 19.5

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-18

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-18 PAGE 3 of 3

FROM (m)	TO (m)	REC (%)	CI LI A Y	S I L T	S A I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
76.50	86.30	100			x	Sandstone - massive, salt & pepper texture with disseminated py, aspy (0.5-1%) and py, sph, gn, aspy in veinlets. NOTE: % veinlets decrease to 2% at 85.2 m, no disseminated sulphide in sandstone below 85.2 m.	veinlets @ 10,50,150,30	5% qtz,carb	0.5-1	med	76200	76.50-77.50	1.00	.34	11.3
										med	76201	77.50-78.50	1.00	.21	14.1
										med	76202	78.50-79.50	1.00	.21	7.2
										med	76203	79.50-80.50	1.00	.45	56.6
										med	76204	80.50-81.50	1.00	.14	10.6
										low	76205	81.50-82.50	1.00	.27	5.5
86.30						END OF HOLE (283 feet)									

LOGGED BY: R. DAY

Del Moore

Purpose: To test soil geochemical anomalies at 8850N, 9940E 10 ppb Au, 6.2 ppm Ag, 140 ppm Pb
8850N, 9960E 40 ppb Au, 2.6 ppm Ag, 64 ppm Pb
8850N, 9980E 60 ppb Au, 4.0 ppm Ag, 90 ppm Pb

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. **TJ87-19**

DATE COLLARED: Sept. 14, 1987
DATE COMPLETED: Sept. 15, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom
PAGE 1 of 2
HOLE NO: TJ-87-19

FIELD COORDINATES

LAT: 9140N
ELEV. 960 m.
DIP: -70 degrees
DEP: 9857E
LENGTH: 68.0 m.
AZIMUTH: 060 degrees

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	

FROM (m)	TO (m)	REC (%)	C	S	I	A	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
0	5.00	0					No recovery - casing									
5.00	9.50	94				x	Sandstone - med grey, massive-bedded	bed @ 40-50 veinlets @ 40, 50, 80, 120	4% qtz, carb 50% qtz, carb	tr py 1 sph, 1 gn	med	76206	9.00-9.50	0.50	1.71	155.0
9.50	12.70	90					Hypabyssal Intrusive	veinlets @ 10, 30, 70, 90	5% qtz, carb	minor sph py, gn tr as in veinlets	low	76207	9.50-10.00	0.50	.17	8.2
12.70	12.80	100	x				Claystone	veinlets @ 70								
12.80	13.80	95					Hypabyssal Intrusive	veinlets @ 60	5% qtz, carb	minor py tr as						
13.80	18.90	97	x	x			Claystone grading to Siltstone Fault at 18.1-18.9 m.	bed @ 70 veinlets @ 30, 60, 110	6% qtz, carb	minor py, gn, sph 5 py, gn 2 py, gn	low high med	76208 76209 76210	15.90-16.40 16.40-16.90 18.10-18.90	0.50 0.50 0.80	.79 6.48 .69	12.0 289.7 10.3
18.90	21.20	100					Hypabyssal Intrusive			3 py, tr sph, gn 0.5 py	low	76211	18.90-19.40	0.50	.99	18.5
21.20	21.60	100				x	Sandstone - Upper Contact 30 degrees	bed @ 30 veinlets @ 140	5% qtz, carb	minor py, tr. gn						
21.60	21.80	100					Hypabyssal Intrusive									
21.80	26.30	91		x	x		Siltstone - Sandstone	bed @ 85 veinlets at 15, 65, 70	4% qtz, carb	minor py 1 py,						
26.30	33.30	100					Hypabyssal Intrusive	veinlets @ 10, 70, 80	5% qtz, carb	minor sph gn in some veinlets						

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D.D.H. TJ87-19

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-19 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	CLAY	SILT	SAND	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
33.30	42.30	95		x	x	Siltstone-Sandstone - Fault breccia from 33.3-34.3m.	bed @ 75	2% qtz,carb	2 py, tr gn, sph minor py, tr gn, sph in veinlets	low	76212	33.30-34.30	1.00	.31	3.8
42.30	42.60	100	x			Claystone - black	veinlets @ 10, 40, 170	1% qtz,carb	minor py						
42.60	45.60	100		x		Siltstone - dark grey	bed @ 50 veinlets @ 50, 150	3% qtz,carb chlorite	minor py in veinlets						
45.60	55.60	97			x	Sandstone - bedded, light-med grey.	bed @ 60 veinlets @ 10, 60, 160	1.5% qtz, carb	minor py						
55.60	62.30	95	x	x		Siltstone-Sandstone - light-med grey.	bed @ 55 dec. to 40 veinlets @ 120, 150	1% qtz,carb	minor py in veinlets						
62.30	65.00	89			x	Sandstone - light grey, salt & pepper texture.	veinlets @ 30, 40, 140	6% qtz,carb chlorite	minor py						
65.00	66.70	91	x	x		Claystone grading to Siltstone - black-dark grey.	bed @ 35 veinlets @ 40, 120	2% qtz,carb	minor py						
66.70	68.00	100			x	Sandstone - light-med. grey, mottled texture.	bed @ 35 veinlets @ 35, 75, 100	3% qtz,carb chlorite	tr py						
68.00						END OF HOLE (223 feet)									

LOGGED BY: R. DAY

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. **TJ87-20**

DATE COLLARED: Sept. 15, 1987 | DATE COMPLETED: Sept 16, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

LAT: 9140.6N | ELEV. 950.5 m. | DIP: -45 degrees

DEP: 9907.5E | LENGTH: 63.4 m. | AZIMUTH: 240 degrees

CLAIM: Tom Collar S

PAGE 1 of 2

HOLE NO: TJ-87-20

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	

FROM (m)	TO (m)	REC (%)	C L A Y	S I L T	S I A N D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL (recovery)	WIDTH (m)	A U (gmt)	S A G (gmt)	Y S
0	3.00	0				No recovery - casing										
3.00	4.70	41			x	Sandstone - bedded to massive.	bed @ 30	.5% qtz, carb	minor py							
4.70	8.50	21		x	x	Sandstone-Siltstone - mostly pebbles and rubble.										
8.50	13.90	81		x		Siltstone - Quartz vein at 8.5-9.5m 5 cm massive py, gn at 9.6m	veinlets @ 10, 50 bed @ 50	30% qtz	8 py, gn, sph	low high	76213 76214	8.50- 9.50 (10% rec.) 9.50-10.20 (95% rec.)	1.00 0.70 0.70	1.75 8.91	24.0 139.0	
13.90	15.00	91			x	Sandstone - massive	veinlets @ 30, 40	2% qtz, carb	tr py							
15.00	17.70	89		x		Siltstone - med. grey, quartz vein at 16.4-16.7 m	bed @ 50 veinlets @ 150 QV 10-30	2% qtz, carb	5 py, gn, as minor py	med-high	76215	16.40-16.70	0.30	7.75	42.5	
17.70	27.90	95			x	Sandstone - massive to bedded, salt and pepper textured in part.	bed @ 50 veinlets @ 45, 50, 120, 130, 20, 30	3% qtz, carb	minor py, sph, gn @ 20.5-20.7m							
27.90	28.40	100	x	x		Claystone grading to Siltstone	bed @ 50 veinlets @ 140	2% qtz, carb	tr py							
28.40	41.00	97			x	Sandstone - massive, bedded, salt and pepper texture in part (small fault at 36.4m).	bed @ 60, dec. to 45 veinlets @ 10, 110, 120 150; fault	2% qtz, carb	tr py, sph							
41.00	41.30	100	x			Claystone	veinlets @ 165	10% qtz, carb, chl	tr py							

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D.D.H. **TJ87-20**

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-20 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	CLAY	SILT	ANDY	SILN	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
41.30	45.1	100		x	x		Sandstone-Siltstone - minor py, gn, sph at 43.1-43.2m. Fault at 42.1-42.6m.	bed @ 45 fault	2.5% qtz, carb, chl	minor py tr sph, gn						
45.10	45.40	100	x	x			Claystone grading to Siltstone	bed @ 45 veinlets @ 150	.5% qtz, carb	nil						
45.40	53.30	97			x		Sandstone - massive to bedded.	bed @ 45-40 veinlets @ 70, 120, 140	1% qtz, carb	tr py tr sph, gn in some veinlets						
53.30	57.30	88	x	x			Siltstone-Claystone - med-dark grey, (black)	bed @ 40-70 veinlets @ 0, 60, 70, 90, 130	3% qtz, carb	minor py						
57.30	63.40	95			x		Sandstone - massive to bedded, salt and pepper texture in part, minor py, sph, gn, cpy in one veinlet at 62.3 m.	bed @ 75, dec. to 50 @ bottom. veinlets @ 120, 150	1.5% qtz, carb	tr py						
63.40							END OF HOLE (208 feet)									

LOGGED BY: R. DAY

Purpose: To test mineralization in DDH TJ-86-5 from another direction.

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-21

DATE COLLARED: Sept. 16, 1987
DATE COMPLETED: Sept. 16, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom
Collar S
PAGE 1 of 1
HOLE NO: TJ-87-21

FIELD COORDINATES

LAT: 9140.6N
ELEV. 950.5 m.
DIPL!: -90 degrees
DEP: 9908 E
LENGTH: 13.1 m.
AZIMUTH: --

DIP TESTS: no tests -

FROM (m)	TO (m)	REC (%)	C L A Y	I L I N	S I A D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	3.00	0				No recovery - casing									
3.00	10.70	58			x	Sandstone - massive, bedded.	bed @ 60-65 veinlets @ 5, 60, 140	2% qtz, carb	1 py, tr sph, gn	low	76216	7.60- 8.50 (78% rec.)	0.90	0.65	29.1
									2 py, .5 gn, sph	low-med	76217	8.50- 9.50 (93% rec.)	1.00	0.27	13.0
10.70	13.10			x	x	Siltstone grading to Sandstone - massive with mottled texture.	veinlets @ 10, 20, 30, 40	3% qtz, carb	minor py po in fractures						
13.10						END OF HOLE (43 feet)									

LOGGED BY: R. DAY

Purpose: To obtain structural information on section of DDH TJ-86-5

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. **TJ87-22**

DATE COLLARED: Sept. 17, 1987 | DATE COMPLETED: Sept 18, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

LAT: 9115N | ELEV. 967 m. | DIP: -45 degrees

DEP: 9837.5E | LENGTH: 75.6 m. | AZIMUTH: 060 degrees

CLAIM: Tom Collar R

PAGE 1 of 3

HOLE NO: TJ-87-22

DIP TESTS	
DEPTH	ANGLE REC. / COR.
no tests -	

FROM (m)	TO (m)	REC (%)	CIL A Y	SIL I T	SIL A I D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASS AU (gmt)	AYS AG (gmt)
0	4.00	0				No recovery - casing									
4.00	8.70	85		x		Siltstone - dark grey	bed @ 30 veinlets @ 10, 40, 100	.5% qtz, carb	tr py						
8.70	9.00	95	x			Claystone - black	veinlets @ 30, 120	7% qtz,carb	tr. py						
9.00	13.90	97		x		Siltstone - dark-med grey	bed @ 30 veinlets @ 70, 80, 130	.5% qtz, carb	tr py						
13.90	14.80	100			x	Sandstone - massive Fault at 14.6-14.8 m.	veinlets @ 60, 150 fault	.5% qtz, carb 20% qtz, carb	minor py 2 py, .2 as, sph	med	76218	14.40-14.80	0.40	3.01	32.9
14.80	17.40	100				Hypabyssal Intrusive Fault at 17.2-17.4 m.	fault	.5% qtz, carb 60 qtz, carb	1 py 7 py, sph gn	med-high	76219	17.20-17.40	0.20	13.02	46.2
17.40	18.70	100			x	Sandstone - med grey, massive	veinlets @ 30, 40, 150	1% qtz,carb w. chlorite	tr py						
18.70	22.10	100		x	x	Siltstone - Sandstone	bed @ 40, 60, 40 veinlets @ 130, 160, 0	1% qtz,carb w. chlorite	minor py						
22.10	22.60	100	x	x		Siltstone grading to Claystone	veinlets @ 40, 50, 140	2% qtz,carb w. chlorite	tr py						
22.60	27.50	97		x	x	Sandstone grading to Siltstone at bottom Fault at 23.6-24.2 m	bed @ 55-65 fault	1% qtz,carb	minor py						

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-22

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-22

FROM (m)	TO (m)	REC (%)	C A	S I	S T	S I N D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
								Lower								
27.50	28.30	100					Hypabyssal Intrusive With .7 m at top, .5 m at bottom "Altered" zones with minor pyrite	contact @ 65 Upper contact @ 60	2% qtz,carb	1 py						
28.30	29.80	100		x	x		Siltstone - Sandstone Fault at 29.3 m	bed @ 55 fault	3% qtz,carb	minor py						
29.80	35.00	100			x		Sandstone - Massive to bedded, salt and pepper texture in part.	bed @ 75 veinlets @ 70, 160	4% qtz,carb w. chlorite	tr py						
35.00	35.50	100		x			Siltstone - med grey, massive	veinlets @ 20	1% qtz,carb	nil						
35.50	37.70	100			x		Sandstone - bedded	bed @ 50 veinlets @ 10, 140	8% qtz,carb w. chlorite	tr py						
37.70	42.70	100		x			Siltstone - med grey	bed @ 70 veinlets @ 150, 170	1% qtz,carb w. chlorite	nil						
42.70	44.50	100			x		Sandstone - med grey	bed @ 60 veinlets @ 15, 110, 80, 70	qtz,carb	tr py						
44.50	49.10	100		x	x		Siltstone - Sandstone - Fault at 48.5-48.7m.	bed @ 55-65 veinlets @ 55; fault	1% qtz,carb w. chlorite	minor py						
49.10	51.60	100			x		Sandstone - light-med grey	bed @ 40-55 veinlets @ 20, 75, 140	1% qtz,carb	tr py						
51.60	52.90	100		x	x		Siltstone-Sandstone - bedded	bed @ 40-60 veinlets @ 30, 50, 160	2% qtz,carb	minor py						
52.90	54.00	82		x	x		Siltstone-Claystone - Fault Zone	fault	50% qtz, carb bx	3 py .5 as, gn	high med-high	76220 76221	52.90-53.40 53.40-54.00	0.50 0.60	2.88 1.23	10.2 7.8
54.00	58.40	95		x	x		Siltstone - Sandstone	bed @ 20-55 veinlets @ 60, 110, 140	3% qtz,carb w. chlorite	minor py						
58.40	65.90	95			x		Sandstone - bedded	bed @ 55-60 veinlets @ 65, 110, 150	2% qtz,carb	minor py						

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-22

PROPERTY: TOMMY JACK

HOLE NO.: TJ-87-22

FROM (m)	TO (m)	REC (%)	CLAY	LIGHT	SILICIFICATION	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
65.90	68.30	100	x	x		Siltstone-Claystone - dark grey-black	bed @ 45-35	.5% qtz, carb	tr py						
68.30	73.00	95		x	x	Sandstone - Siltstone	bed @ 40 veinlets @ 40, 100, 130	1% qtz,carb w. chlorite	tr py						
73.00	75.60	100		x		Siltstone - dark-med grey	bed @ 40 veinlets @ 20, 110, 120	.5% qtz, carb	tr py						
75.60						END OF HOLE (248 feet)									

LOGGED BY: R. DAY

Purpose: To test southward extension of mineralization in DDH TJ-86-5.

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. **TJ87-23**

DATE COLLARED: Sept. 18, 1987
DATE COMPLETED: Sept. 19, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom
Collar P
PAGE 1 of 2
HOLE NO: TJ-87-23

FIELD COORDINATES

LAT: 9165N
ELEV. 952.3 m
DIP: -45 degrees
DEP: 9840E
LENGTH: 75.6 m.
AZIMUTH: 060 degrees

DIP TESTS

DEPTH	ANGLE REC.	ANGLE COR.
- no tests -		

FROM (m)	TO (m)	REC (%)	C	S	S	A	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAY AU (gmt)	ASSAY AG (gmt)
0	5.50	0					No recovery - casing									
5.50	12.00	75			x		Sandstone	bed @ 60 veinlets @ 40, 60	2% qtz,carb	minor py 1 py, 1 sph	low	76222	11.30-12.00 (36% rec.)	0.70	4.05	55.5
12.00	12.60	35	x				Claystone Fault at 12.5-12.6 m.	fault 12	50% qtz, carb	2 py, 0.5 aspy	med	76223	12.00-12.60	0.60	27.1	14.0
12.60	15.60	97					Hypabyssal Intrusive 20 cm qtz vein at 13.7-13.9 m with 80% py, sph, gn	veinlets @ 70, 80	2% qtz,carb	minor py, sph, gn in vein. 1 diss py	low low high low low	76224 76225 76226 76227 76228	12.60-13.10 13.10-13.70 13.70-13.90 13.90-14.60 14.60-15.60	0.50 0.60 0.20 0.70 1.00	0.31 0.99 48.50 0.41 0.14	3.4 18.5 1243.0 7.5 1.4
15.60	19.70	97		x			Siltstone	bed @ 35 veinlets @ 35, 65, 135 170	3% qtz,carb	minor py, sph, gn in some veinlets						
19.70	21.10	100		x	x		Siltstone-Sandstone - Small fault at 20.5 m.	bed @ 30-20 veinlets @ 0, 120, 160	4% qtz,carb	tr py						
21.10	45.70	95			x		Sandstone - bedded in part, mostly massive with salt & pepper texture 2% dissem py between veinlets in split section. Small fault at 22.9 m Small fault at 45.7 m	bed @ 50 veinlets @ 120, 130 faults bed 44/20	10% qtz, carb 6% qtz,carb	1 py, tr sph, gn, as 1 py, tr sph, gn	low low	76229 76230	22.30-23.30 23.30-23.80	1.00 0.50	3.77 0.79	80.9 9.3
45.70	46.90	83		x	x		Siltstone - Sandstone	bed @ 60 veinlets @ 40, 50, 60	5% qtz,carb	tr py						

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-23

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-23 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	CLAY	SILT	ANY	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASS AU (gmt)	ASS AG (gmt)
46.90	55.00	95			x	Sandstone - bedded, massive with salt and pepper texture.	bed @ 45-50 veinlets @ 0, 10, 120	4% qtz,carb	tr py						
55.00	56.30	95	x	x		Claystone grading to Siltstone	bed @ 50 veinlets @ 130, 120, 170	8% qtz,carb	minor py in veinlets						
56.30	62.20	81			x	Sandstone - massive 30 cm qtz vein at 59.9 m.	fault 58.6-60.4m	7% qtz,carb w. chlorite	minor py tr sph, gn in veinlets						
62.20	64.9	89	x	x		Siltstone-Sandstone	bed @ 70 veinlets @ 150	2% qtz,carb	minor py						
64.90	70.90	80			x	Sandstone - bedded	bed @ 50-70 veinlets @ 20, 50, 130, 140	3% qtz,carb	minor py tr gn, sph in veinlets						
70.90	75.60	80	x	x		Siltstone-Sandstone Fault at 71.0m with 20 cm qtz vein.	bed @ 50 veinlets @ 10, 50	4% qtz,carb	minor py						
75.60						END OF HOLE (248 feet)									

LOGGED BY: R. DAY

Purpose: To test for northern extension of mineralization in DDH TJ-86-5.

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. TJ87-24

DATE COLLARED: Sept. 19, 1987
DATE COMPLETED: Sept. 20, 1987
CORE SIZE: NQ
PROPERT TOMMY JACK
N.T.S. 94 D/04 E
PROJECT: 264
CLAIM: Tom
Collar M
PAGE 1 of 2
HOLE NO: TJ-87-24

FIELD COORDINATES

LAT: 8824.5N
ELEV. 1059 m.
DIP: -70 degrees
DEP: 9802 E
LENGTH: 60.4 m.
AZIMUTH: 060 degrees

DIP TESTS: DEPTH | ANGLE REC. | ANGLE COR.
no tests -

FROM (m)	TO (m)	REC (%)	CISIS LIIIA AILIN YITID	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
0	2.40	0		No recovery - casing									
2.40	9.90	90	x	Sandstone - bedded, light to med grey with dark grey silty laminations in part	bed @ 60 veinlets @ 20, 60, 110	.5% qtz, carb	minor py in some veinlets						
9.90	13.30	100	xx	Siltstone-Sandstone	bed @ 50 veinlets @ 25, 50, 105	8% qtz,carb	minor py in some veinlets						
13.30	15.40	100	x	Sandstone - bedded, small fault with breccia at 13.7 m.	fault @ 40-30 veinlets @ 50, 10	18% 3% qtz,carb	2 py 0.5 aspy minor py	low	76231	13.50-14.20	0.70	.34	1.7
15.40	17.90	97	xx	Siltstone-Sandstone	bed @ 30 veinlets @ 50, 20, 110	3% qtz,carb	minor py tr gn,sph in vnlts.						
17.90	24.80	95	x	Sandstone - finer grained, med grey to 24.8m.	bed @ 30-20 veinlets @ 20, 40, 160	3.5% qtz, carb	minor py, aspy in veinlets						
24.80	38.80	95	x	Sandstone - light grey, massive, salt & pepper texture with minor bedding.	bed @ 30-20 veinlets @ 20, 40, 160	3.5% qtz, carb	minor py, aspy in veinlets						
38.80	46.30	95		Hypabyssal Felsic Intrusive 20cm qtz vein at 44.3-44.5m	veinlets @ 30 qtz v @ 30	.1 qtz,carb qtz vein .1 qtz,carb	1 py 3 py, gn, aspy 1 py	low high low	76232 76233 76234	44.00-44.30 44.30-44.50 44.50-45.00	0.30 0.20 0.50	.21 .41 .21	2.7 40.5 1.4
46.30	52.30	97	x	Sandstone - massive with salt & pepper texture.	veinlets @ 40, 70, 80	5% qtz,carb	tr py, aspy in veinlets						
52.30	53.20	100	xx	Siltstone grading to Claystone	bed @ 20 veinlet @ 20	1% qtz,carb	minor py						

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-24

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-24 PAGE 2 of 2

FROM (m)	TO (m)	REC (%)	CALCITE	SILICIFICATION	ALTERATION	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
52.30	53.20	100	x	x		Siltstone grading to Claystone	bed @ 20 veinlet @ 20	1% qtz,carb	minor py						
53.20	60.40	97			x	Sandstone - coarse to fine grained, massive with mottled texture in part.	veinlets @ 20,30,60 bed @ 25?	.5% qtz, carb	tr py						
60.40						END OF HOLE (198 feet)									

LOGGED BY: R. DAY

Purpose: To test mineralization below DDH TJ-87-14.

NORANDA EXPLORATION COMPANY, LIMITED
(No Personal liability)

D.D.H. **TJ87-25**

DATE COLLARED: SEPT. 20, 1987 | DATE COMPLETED: SEPT 21, 1987 | CORE SIZE: NQ | PROPERT TOMMY JACK | N.T.S. 94 D/04 E

PROJECT: 264

FIELD COORDINATES

CLAIM: Tom | PAGE 1 of 3

Proposed Collar U

LAT: 8849N | ELEV. 1053 m. | DIP: -44 degrees

HOLE NO: TJ-87-25

DEP: 9802E | LENGTH: 75.6 m. | AZIMUTH: 059 degrees

DIP TESTS	DEPTH	ANGLE REC.	ANGLE COR.
	no tests -		

FROM (m)	TO (m)	REC (%)	C L A Y	S I L I	S I A D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASS AU (gmt)	AYS AG (gmt)
0	4.20	0				No recovery - casing									
4.20	4.30	100				Sulphide rich vein - 60% py, 10% sp, 10% gal & tetrahedrite?	20 degree	100%	80	high	26779	4.20- 4.30	0.10	40.6	274.0
4.30	8.50	100	x	x		Siltstone, minor Claystone - grey, carbonate filled bx at 6.5m.	veinlet 6.5m/56	1% qtz,carb	1 py	nil					
8.50	8.90	100				5 cm thick sulphide rich vein - 75% py, 10% gn & 5% sp at acute angle.	Upper contact @ 20 Lower contact @ 5 veinlet	100%	90	high	26780	8.50- 8.90	0.40	26.1	91.8
8.90	10.60	100		x		Siltstone - massive	10.1/75	1% qtz,carb	tr py	nil					
10.60	19.80	100		x		Siltstone - bedded, minor claystone and fine grained sandstone.	15m/45 bed 18.3m/25 qtz carb bx vein	1% qtz,carb	1 py	nil					
19.80	22.90	100			x	Sandstone - gray, poorly bedded.	21.8m/35 bed	1% qtz,carb	tr py	nil					
22.90	23.90	100		x		Siltstone - bedded	23.75m/20 bed	.5% qtz, carb	tr py	nil					
23.90	24.15	100			x	Sandstone - massive		1% qtz,carb	2 py	nil					
24.15	26.90	100	x	x		Siltstone-Sandstone - poorly bedded	24.25m/30 carb qtz bx vein	1% qtz,carb	1 py, tr gn	nil					
26.90	28.50	100			x	Sandstone - poorly bedded	27.3m/60 qtz carb-py vein	1% qtz,carb	minor py	nil					
28.50	28.75	100				Quartz-Carbonate veinlets - white qtz, cream and pink carbonates, same with sandstone	30 deg vein	50%	minor py	nil	26781	28.50-28.75	0.25	.17	2.4

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-25

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-25

FROM (m)	TO (m)	REC (%)	CLIVAGE	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
28.75	34.20	100	x x x	Siltstone and Sandtone grading into Claystone - grey, poorly bedded	32.9m/30 bed	.5% qtz, carb, sulph	minor py, po	nil					
34.20	34.85	100		Felsic Hypabyssal Intrusive - light greenish grey, very fine grain.	30, 55 deg qtz-carb veinlets	1% carb qtz	1 diss py	nil					
34.85	36.55	100	x x x	Sandstone to Claystone - bedded, very weakly brecciated and contorted.	35.2m/55 qtz carb veinlets	2% qtz,carb	1 py	nil	26782 26783	34.85-35.85 35.85-36.55	1.00 0.70	.17 .48	0.7 0.3
36.55	36.80	100		Felsic Hypabyssal Intrusive - spotted	top contact irregular, 36.8m/60	1% qtz,carb	minor py	nil					
36.80	37.15	100	x	Sandstone			2 py	nil					
37.15	37.25	100	x	Claystone		5% qtz,carb	2 py	nil					
37.25	37.50	100		Felsic Hypabyssal Intrusive - spotted	irreg top contact about 60 deg irreg bottom contact about 45 deg	1% carb,qtz	minor py	nil					
37.50	45.55	100	x x	Siltstone and Claystone - poorly bedded, contorted.	40.6m/10 bed 42.6m/70 sheared vein 44.9m/30 qtz carb veinlet	1% carb,qtz	minor py, po	nil					
45.55	56.50	100	x x	Sandstone and minor Siltstone - poorly bedded.	46.3m/20 bed 48.9m/10 bed 53.9m/30 qtz sp veinlet	1% qtz,carb	minor py tr sp	nil					
56.50	58.00	100	x x	Claystone and Siltstone - poorly bedded, minor graphitic veinlets.	veinlets irregular	1% qtz-carb	minor py	nil					
58.00	60.65	100	x x	Siltstone and Sandstone - poorly bedded	59.5m fault?	2% qtz-carb	minor py	nil					
60.65	70.20	100	x x x	Siltstone? indurated, some sandstone, grades into claystone at base. Massive, grey, vague clasts and black wisps, does not fizz with HCl, grades into next unit.	61.9m/30 sheared vein -let 68m/25 qtz-carb-py-gn veinlet	1.5% qtz carb	min py tr gn	nil					
70.20	71.00	100	x x	Claystone and Siltstone - massive at top poorly bedded at bottom	70.3m/40 sheared vein -lets	7% qtz-carb	2 py	nil	26784	70.20-71.00	0.80	.03	1.7

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

D.D.H. TJ87-25

PROPERTY: TOMMY JACK HOLE NO.: TJ-87-25 PAGE 3 of 3

FROM (m)	TO (m)	REC (%)	CI LI AI YI	SI LI TI	A IN D	DESCRIPTION	STRUCTURE m/deg. WCA	% VEINLETS	% SULPH.	EST. GRADE	SAMPLE NO.	INTERVAL	WIDTH (m)	ASSAYS AU (gmt)	ASSAYS AG (gmt)
71.00	72.75	100	x	x		Siltstone and Sandstone - poorly bedded	72.5m/50 bed	1% carb-qtz	minor py	nil					
72.75	75.60	100	x	x		Sandstone grading into Sandstone and Siltstone - bedded.	72.8m/45 bed 75.3m/25 carb bx zone	1% qtz-carb	minor py	nil					
75.60						End of Hole (248 feet)									

LOGGED BY: DEL MYERS Sept 21, 1987

Del Myers

Purpose: Test section 25 m North of mineralization in Hole TJ-87-14

APPENDIX 4. Analysis Reports

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

DATE RECEIVED: SEPT 28 1987
DATE REPORT MAILED: Oct 8/87

ASSAY CERTIFICATE

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

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

NORANDA EXPLORATION (VAN) PROJECT-264 8710-006 File # 87-4559

	SAMPLE#	AG** OZ/T	AU** OZ/T	Interval	width m	ppm Ag	ppm Au
DDH 87-25	26779	8.01	1.185	4.2-4.3	0.1	274	40.6
	26780	2.68	.762	8.5-8.9	0.4	91.8	26.1
	26781	.07	.005			2.4	0.17
	26782	.02	.005			0.7	0.17
	26783	.01	.014			0.3	0.48
	26784	.05	.001			1.7	0.03
DDH 87-22	76218	.96	.088	14.4 -14.8	0.4	32.9	3.01
	76219	1.35	.380	17.2-17.4	0.2	46.2	13.02
	76220	.30	.084	52.9 - 53.4	0.5	10.2	2.88
	76221	.23	.036	53.4 - 54.0	0.6	7.8	1.23
DDH 87-23	76222	1.62	.118	11.3 - 12.0	0.7	55.5	4.05
	76223	.41	.792	12.0 - 12.6	0.6	14.0	27.1
	76224	.10	.009			3.4	0.31
	76225	.54	.029			18.5	0.99
	76226	36.27	1.416	13.7-13.9	0.2	1243.	48.5
	76227	.22	.012			7.5	0.41
	76228	.04	.004			1.4	0.14
	76229	2.36	.110	22.3 - 23.3	1.0	80.9	3.77
	76230	.27	.023			9.3	0.79
DDH 87-24	76231	.05	.010			1.7	0.34
	76232	.08	.006			2.7	0.21
	76233	1.18	.012			40.5	0.41
	76234	.04	.006			1.4	0.21

why where these samples assayed at Acme and not. Bondar - Clegg ? dm 4 Nov. 87

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 3/87

ASSAY CERTIFICATE

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

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

NORANDA EXPLORATION (VAN) PROJECT-8709-098 264 File # 87-4454

	SAMPLE#	AG** OZ/T	AU** OZ/T	
DDH TJ87-20	76213	.70	.051	8.5-9.5
	76214	4.08	.260	9.5-10.2
	76215	1.24	.226	16.4-16.7
DDH TJ87-21	76216	.85	.019	
	76217	.38	.008	

		Ag ppm	Au ppm	width
TJ87-20	76213	24.0	1.75	1.0 m
	14	139	8.91	0.7 m
	15	42.5	7.75	0.3 m
TJ87-21	76216	29.1	0.651	
	17	13.0	0.274	

Why Acme and not Bondar - Clegg! dm 4 Nov. 87

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REPORT: 427-7697 | Tommy Jack (DM) | PROJECT: 264 | PAGE 1

	SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT			SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT	
	D2 76138	6.2 - 7.0m	0.07	8.9			D2 76203		0.45	56.6	1.0m
16	D2 76139	14.6-15.0m	0.38	1384.8	0.4m		D2 76204		0.14	10.6	
	D2 76140		0.07	22.6	0.5		D2 76205		0.27	5.5	
	D2 76141		<0.07	25.4	0.3	19	D2 76206	9.0-9.5	1.71	155.0	0.5m
	D2 76142		0.07	26.4	1.0		D2 76207		0.17	8.2	
	D2 76143		0.07	16.1	1.0		D2 76208		0.79	12.0	
	D2 76144		0.14	55.5	1.0	19	D2 76209	16.4-16.9	6.48	289.7	0.5m
	D2 76145		0.07	14.1	0.3		D2 76210		0.69	10.3	
	D2 76146		0.07	6.5	1.0		D2 76211		0.99	18.5	
	D2 76147		0.07	6.9	0.9		D2 76212		0.31	3.8	
	D2 76148		0.10	30.5	0.5						
	D2 76149		0.24	16.8	1.0						
	D2 76150		0.31	10.6	0.2						
	D2 76176		0.14	10.6	1.0						
	D2 76177		0.10	7.5	1.0						
	D2 76178		0.07	3.4	0.3						
	D2 76179		0.10	9.6	1.0						
	D2 76180		0.10	6.5	1.0						
	D2 76181		0.10	5.5	1.0						
	D2 76182		0.10	31.5	1.0						
	D2 76183		<0.07	9.9	1.0						
	D2 76184		<0.07	72.7	1.0						
	D2 76185		<0.07	11.3	1.0						
	D2 76186	32.0 -32.3	0.48	61.0	0.3						
17	D2 76187	61.4 - 61.7	5.18	15.1	0.3m						
18	D2 76188	27.3 - 28.0	3.63	16.1	0.7m						
	D2 76189		0.55	14.1							
	D2 76190		0.48	9.6							
	D2 76191		0.10	7.5							
	D2 76192		0.65	7.9							
	D2 76193		0.82	6.5							
18	D2 76194	35.9 - 36.1	3.63	16.1	0.2m						
	D2 76195		0.10	4.5							
	D2 76196		0.10	3.4							
	D2 76197		0.07	<0.7							
	D2 76198		0.65	15.1							
	D2 76199		0.45	19.5							
	D2 76200		0.34	11.3							
	D2 76201		0.21	14.1							
	D2 76202		0.21	7.2							

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TJ 87-12/13
Tommy Jack (BM)

8708-006

REPORT: 427-5628 | PROJECT: 264 | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT		SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT	
D2 76126 TJ87-15		<0.07	0.7		D2 85479 TJ87-14		0.17	1.0	
D2 76127		<0.07	0.7		D2 85480		0.17	2.4	
D2 76128		0.21	1.4		D2 85481		0.38	3.1	
D2 76129		7.68	27.1	49.8-50.3	D2 85482		31.85	129.6	28.7-29.3
D2 76130		0.14	1.0		D2 85483		0.27	1.7	
D2 76131		0.65	5.8		D2 85484		0.17	1.4	
D2 76132		12.99	12.0	56.5-56.9	D2 85485		0.17	1.0	
D2 76133		0.45	5.8		D2 85486		0.48	3.1	
D2 76134	0.6m	3.36	9.9	69.4-69.7	D2 85487	1.4m	2.13	4.1	38.2-39.0
D2 76135	0.6m	5.14	25.4	69.7-70.0	D2 85488	1.4m	1.82	6.2	39.0-39.6
D2 76136		0.34	2.1		D2 85489		0.75	4.8	
D2 76137		0.75	1.7		D2 85490	1.5 m	3.67	10.3	59.1-60.0
D2 85451 TJ87-12		2.19	13.4	8.3-8.7	D2 85491	1.5 m	2.67	10.3	60.0-60.6
D2 85452		0.21	6.9		D2 85492		0.24	2.7	
D2 85453		0.10	11.3		D2 85493 TJ87-15		0.69	23.7	
D2 85454		<0.07	9.6		D2 85494		0.34	8.9	
D2 85455		<0.07	2.1		D2 85495		6.24	17.5	42.1-42.7
D2 85456		<0.07	10.6		D2 85496		0.69	4.8	
D2 85457		0.48	24.7		D2 85497		0.27	1.4	
D2 85458		0.07	4.8		D2 85498		1.06	8.6	44.4-44.8
D2 85459		<0.07	5.1		D2 85499		0.21	1.4	
D2 85460		0.75	59.3	15.9-16.7	D2 85500		0.58	1.4	
D2 85461		<0.07	5.8						
D2 85462		<0.07	3.8						
D2 85463		<0.07	14.7						
D2 85464		<0.07	7.9						
D2 85465		<0.07	6.2						
D2 85466		<0.07	3.1						
D2 85467		2.16	35.0	25.4-25.6					
D2 85468 TJ87-13		<0.07	24.3						
D2 85469		0.07	1.0						
D2 85470		0.27	7.9						
D2 85471		<0.07	1.4						
D2 85472		0.65	5.8						
D2 85473		1.78	5.8	62.7-63.5					
D2 85474		0.21	9.3						
D2 85475		3.81	11.0	70.3-70.6					
D2 85476		0.55	4.5						
D2 85477 TJ87-14		0.38	2.4						
D2 85478		2.33	21.9	10.4-10.8					

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REPORT: 427-5497 | Tommy Jack (DM) | PROJECT: 264 | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT	SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT	
D2 85385	TJ87-8 0.5m	1.78	1.4	D2 85425		0.89	14.4	
D2 85386		0.24	1.4	D2 85426		1.06	59.7	8.1-9.1
D2 85387		0.24	0.7	D2 85427	3.5m	0.24	10.3	9.1-10.1
D2 85388		0.07	1.7	D2 85428		1.27	21.9	10.1-11.1
D2 85389		<0.07	0.7	D2 85429		1.27	11.3	11.1-11.6
D2 85390		<0.07	1.0	D2 85430		0.07	3.8	
D2 85391		0.07	0.7	D2 85431		<0.07	2.4	
D2 85392		0.34	1.4	D2 85432		0.10	7.9	
D2 85393		0.51	1.7	D2 85433		<0.07	8.2	
D2 85394		0.45	1.7	D2 85434		<0.07	7.5	
D2 85395		0.82	5.8	D2 85435	TJ87-11	<0.07	7.9	
D2 85396		0.99	9.3	D2 85436		0.24	370.6	4.0-5.0
D2 85397		0.72	6.5	D2 85437	2.5m	0.07	19.5	5.0-5.5
D2 85398	0.9m	5.04	37.0	D2 85438		6.07	30.5	5.5-6.5
D2 85399		0.45	6.2	D2 85439		0.93	20.2	
D2 85400	TJ87-9	0.27	13.7	D2 85440		0.07	33.9	
D2 85401		0.07	6.9	D2 85441		0.07	9.3	
D2 85402		0.31	2.1	D2 85443 + 85442		0.07	6.5	(in same bag)
D2 85403		0.10	5.5	D2 85444		<0.07	1.7	
D2 85404		0.24	7.5	D2 85445		0.10	1.4	
D2 85405		0.07	7.2	D2 85446		<0.07	1.0	
D2 85406		<0.07	6.2	D2 85447		<0.07	2.4	
D2 85407		0.07	5.5	D2 85448		<0.07	1.7	
D2 85408		<0.07	9.6	D2 85449		2.37	18.5	
D2 85409		<0.07	4.8	D2 85450		<0.07	3.8	
D2 85410		<0.07	3.4					
D2 85411		0.07	2.4					
D2 85412		<0.07	1.4					
D2 85413		<0.07	<0.7					
D2 85414		0.14	0.7					
D2 85415		<0.07	<0.7					
D2 85416		<0.07	2.4					
D2 85417		<0.07	1.0					
D2 85418		<0.07	2.1					
D2 85419	TJ87-10	<0.07	9.6					
D2 85420		<0.07	11.0					
D2 85421		0.27	9.3					
D2 85422		0.17	5.8					
D2 85423		0.31	26.4					
D2 85424		0.58	24.3					

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SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT
D2 85378	DDH TJ87-7	0.14	0.7
D2 85379		<0.07	1.7
D2 85380		0.07	1.4
D2 85381		0.10	5.5
D2 85382		0.17	0.7
D2 85383		0.14	1.4
D2 85384		<0.07	<0.7

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REPORT: 427-4897 | PROJECT: 264 | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT
D2 85361	TJ87-6	<0.07	<0.7
D2 85362		<0.07	1.4
D2 85363		0.14	1.4
D2 85364		<0.07	1.7
D2 85365		<0.07	<0.7
D2 85366		<0.07	<0.7
D2 85367		<0.07	<0.7
D2 85368		<0.07	<0.7
D2 85369		<0.07	<0.7
D2 85370		0.10	0.7
D2 85371		<0.07	<0.7
D2 85372		0.14	0.7
D2 85373		0.07	0.7
D2 85374		<0.07	<0.7
D2 85375		<0.07	<0.7
D2 85376		<0.07	0.7
D2 85377		<0.07	<0.7

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PROJECT: 264 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT
D2 85296	TJ87-3	<0.07	<0.7
D2 85297		<0.07	0.7
D2 85298		<0.07	1.7
D2 85299		0.75	1.4
D2 85300		<0.07	3.4
D2 85301		<0.07	1.0
D2 85302		0.07	<0.7
D2 85303		<0.07	1.4
D2 85304		<0.07	1.0
D2 85305		0.07	0.7
D2 85306		<0.07	1.4
D2 85307		<0.07	2.1
D2 85308		<0.07	2.4
D2 85309		0.14	1.7
D2 85310		0.14	1.4
D2 85311		<0.07	1.0
D2 85312		0.21	3.4
D2 85313		0.14	1.0
D2 85314		0.07	1.0
D2 85315		0.31	1.0
D2 85316		0.24	1.4
D2 85317		0.48	1.7
D2 85318		<0.07	1.7
D2 85319		0.62	2.7
D2 85320		<0.07	0.7
D2 85343	TJ87-5	0.72	2.4
D2 85344		<0.07	1.4
D2 85345		0.07	3.1
D2 85346		0.48	6.9
D2 85347		<0.07	2.4
D2 85348		<0.07	1.0
D2 85349		0.10	6.9
D2 85350		0.07	0.7
D2 85351		0.10	1.0
D2 85352		<0.07	2.4
D2 85353	362-372	1.30	6.2
D2 85354		0.07	3.4
D2 85355		0.07	2.4
D2 85356		<0.07	2.4
D2 85357		0.58	4.1
D2 85358		<0.07	2.1
D2 85359		<0.07	0.7
D2 85360		0.10	0.7

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REPORT: 427-4269 | PROJECT: 264 | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT	
D2 76100	TJ87-4	<0.07	2.1	
D2 76101	"	0.21	1.4	
D2 85251	TJ87-1	<0.07	1.4	
D2 85252		<0.07	1.0	
D2 85253		<0.07	2.4	
D2 85254		<0.07	1.4	
D2 85255		0.17	1.7	
D2 85256		0.07	1.0	
D2 85257	12.9-13.9	1.89	164.6	1.0 m
D2 85258		0.21	1.7	
D2 85259	15.25-16.25	0.51	5.1	1.0
D2 85260		0.14	1.7	
D2 85261	16.8-17.4	0.55	13.7	4.8m @ 1.57 Au
D2 85262	17.4	2.43	6.5	
D2 85263	18.4	2.40	16.1	
D2 85264	19.4	0.75	106.6	23.6 Ag
D2 85265	19.85	1.51	29.8	
D2 85266	20.85-21.6	0.82	7.2	
D2 85267		0.34	2.1	
D2 85268		0.07	2.4	
D2 85269		<0.07	2.4	
D2 85270		<0.07	<0.7	
D2 85271		<0.07	1.4	
D2 85272		0.27	1.4	
D2 85273	59.6-60.15	0.58	1.4	0.55 m
D2 85274		0.21	1.4	
D2 85275		0.31	1.0	
D2 85276		<0.07	1.0	
D2 85277	TJ87-2	<0.07	<0.7	
D2 85278		0.24	5.1	
D2 85279		0.17	1.0	
D2 85280		0.07	1.0	
D2 85281		0.07	2.1	
D2 85282		<0.07	4.1	
D2 85283	36.5-36.8	0.93	6.2	0.3m
D2 85284		0.31	5.5	
D2 85285		0.31	3.1	
D2 85286		0.34	5.8	
D2 85287		0.34	4.8	
D2 85288		0.17	2.4	

SAMPLE NUMBER	ELEMENT UNITS	Au GMT	Ag GMT	
D2 85289	TJ87-2	<0.07	1.0	
D2 85290		0.27	2.1	
D2 85291		0.10	1.0	
D2 85292		0.24	1.7	
D2 85293		0.27	4.5	
D2 85294	58.95-59.07	0.65	6.5	0.12 m
D2 85295		0.07	2.1	
D2 85321	TJ87-4 9.5-9.7	0.51	1.0	0.2
D2 85322		<0.07	2.4	
D2 85323		0.27	1.7	
D2 85324		0.41	1.4	
D2 85325		0.24	2.7	
D2 85326	12.75-12.95	3.57	8.2	0.2
D2 85327		<0.07	0.7	
D2 85328		<0.07	1.4	
D2 85329	25.15-25.4	0.72	7.5	0.35
D2 85330		<0.07	1.7	
D2 85331		<0.07	1.4	
D2 85332		<0.07	4.5	
D2 85333		<0.07	1.0	
D2 85334		<0.07	1.0	
D2 85335		0.07	1.4	
D2 85336	48.4-48.8	3.84	22.6	0.4
D2 85337		0.10	1.0	
D2 85338		0.10	2.1	
D2 85339	63.85-64.3	2.47	28.8	0.45
D2 85340		<0.07	4.1	
D2 85341	66.2-66.55	0.82	11.0	0.35 m
D2 85342		<0.07	1.0	

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APPENDIX 5. Statement of Qualifications

Relevant Training

B.Sc. (1970) Pennsylvania State University
University Park, Pa., USA
Geological Sciences

M.Sc. (1973) University of Toronto
Toronto, Ontario, Canada
Geochemistry

Relevant Experience

1973 - 1980 Exploration and Mine Geologist
Cominco Ltd.
Vancouver and Yellowknife

1980 - 1982 Exploration Geologist
Noranda Exploration Co., Ltd.
Yellowknife, N.W.T.

1982 - 1983 Exploration Geologist
Noranda Exploration Co., Ltd.
Smithers, B.C.

1983 - Exploration Geologist
Noranda Exploration Co., Ltd.
Prince George, B.C.

Professional Affiliations

Fellow, Geological Association of Canada

Member, Association of Professional Engineers, Geologists, and Geophysicists of the Northwest Territories

Member, Canadian Institute of Mining and Metallurgy

Delbert E. Myers, Jr.
Project Geologist
15 January 1988

Statement of Qualifications

I, Robin C. Day, of 441 Parkland Village, Spruce Grove, Alberta, do certify that:

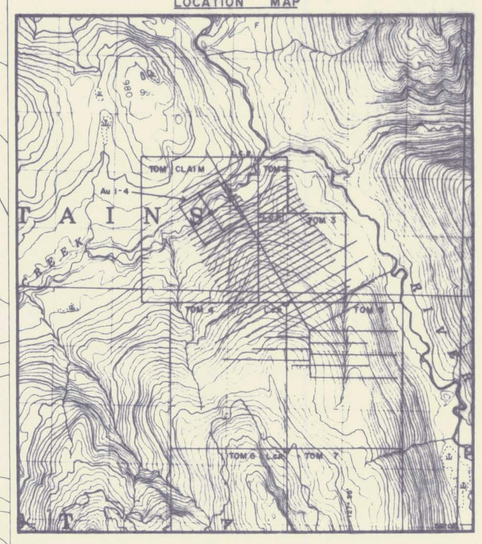
1. I am a graduate of the University of Alberta, where I obtained a B.Sc. (Concentration in Geology) in 1976.

2. I have practiced my profession as a geologist, mostly in British Columbia, Yukon, and Northwest Territories, for the last eleven years.

Robin C. Day

Spruce Grove, Alberta
Dated this 31st day
of December, 1987

LOCATION MAP



TOM

TOM 2

TOM 3

TOM 4

TOM 5

Au 1

Au 2

Au 3

Au 4

OLD CAMP

HIGH CAMP

PUMP

L.C.P

B/L 10,000E

JACK CREEK

TOMMY CREEK

BEAVER CREEK

UNNAMED CREEK

TREE LINE

TJ86-1
TJ86-2,3
TJ86-4
TJ86-5
TJ86-6
TJ86-7
TJ86-8
TJ86-9
TJ86-10
TJ87-1
TJ87-2
TJ87-3
TJ87-4
TJ87-5
TJ87-6
TJ87-7
TJ87-8
TJ87-9,10,11
TJ87-12
TJ87-13
TJ87-14,24
TJ87-15
TJ87-16
TJ87-17
TJ87-18
TJ87-19
TJ87-20,21
TJ87-22
TJ87-23
TJ87-25

+1368 m

LEGEND

- TJ86-2 — 1986-87 Completed D.D.H.'s
- Composite
- Helicopter pad
- Clearing
- Trail
- Swamp
- Pond

Significant DDH intersections, 1986-1987, Tommy Jack Creek property

Hole	Interval,m	Width,m	gmt Au	gmt Ag	Rank*
TJ86-1	61.6 -62.75	1.15	2.57	12.7	
	78 -79	1.0	3.63	23.0	
TJ86-2	42.2 -45.5	3.3	2.01	35.3	9
	46.7 -47.15	.45	9.60	121.	
	54.6 -55.6	1.0	2.09	2.7	
TJ86-4	24.1 -24.9	0.8	8.90	151.	8
	67.2 -68.1	0.9	4.12	7.6	
TJ86-5	9.8 -11.8	2.0	1.95	29.6	
	21.6 -28.2	6.6	4.30	83.6	1
TJ87-1	12.9 -13.9	1.0	1.89	164.	
	16.8 -21.6	4.8	1.57	23.6	7
TJ87-8	50.1 -51.0	0.9	5.04	37.0	
TJ87-10	8.1 -11.6	3.5	1.00	27.0	
TJ87-11	4.0 - 6.5	2.5	2.54	158.	10
TJ87-14	28.7 -29.3	0.6	31.85	129.	2
	38.2 -39.6	1.4	1.99	5.0	
	59.1 -60.6	1.5	3.27	10.3	
TJ87-15	42.1 -42.7	0.6	6.24	17.5	
	49.8 -50.3	0.5	7.68	27.1	
	56.5 -56.9	0.4	12.9	12.0	
	69.4 -70.0	0.6	4.25	17.6	
TJ87-16	14.6 -15.0	0.4	0.38	1380	
TJ87-18	27.3 -28.0	0.7	3.63	16.1	
TJ87-19	16.4 -16.9	0.5	6.48	289.	
TJ87-20	8.5 -10.2	1.7	4.69	71.3	6
	16.4 -16.7	0.3	7.75	42.5	
TJ87-22	17.2 -17.4	0.2	13.0	46.2	
	52.9 -54.0	1.1	1.98	8.9	
TJ87-23	11.3 -12.6	1.3	14.6	36.3	3
	13.7 -13.9	0.2	48.5	1243	5
	22.3 -23.3	1.0	3.77	80.9	
TJ87-25	4.2 - 4.3	0.1	40.6	274.	
	8.5 - 8.9	0.4	26.1	91.8	4

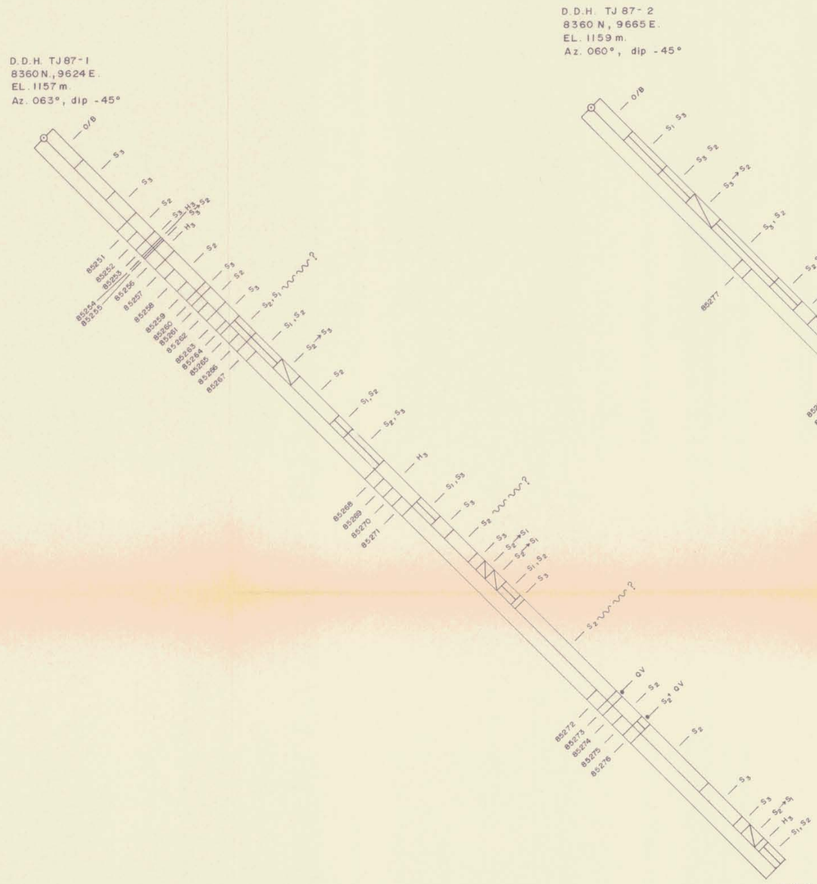
*Rank by gold content (= width x grade)

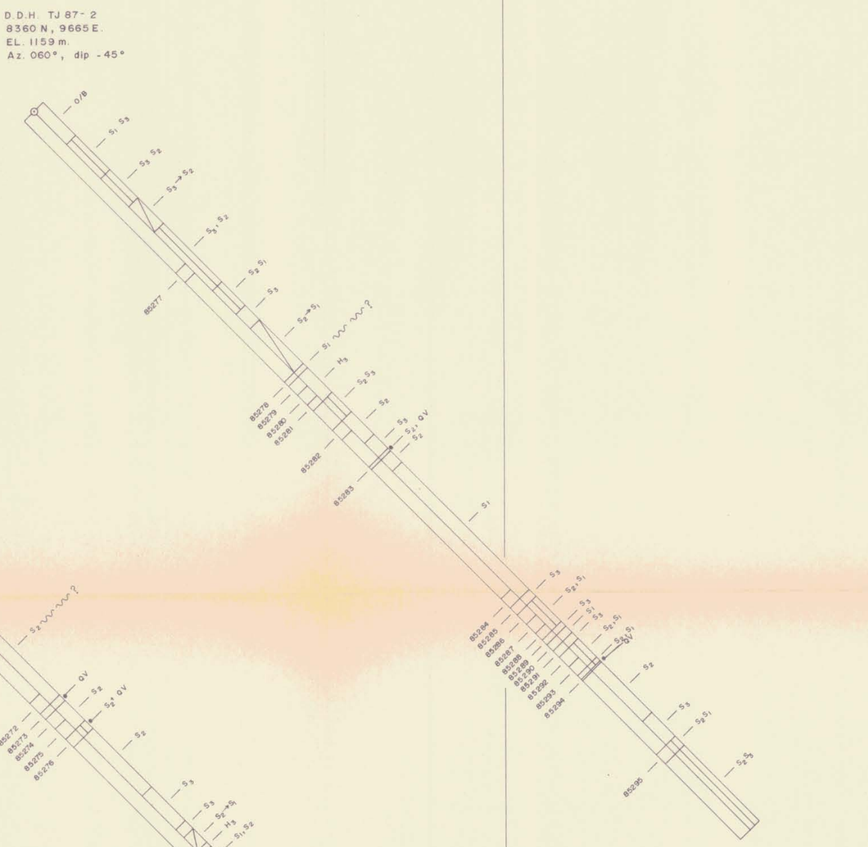
GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,943

0 100 200 300 400 500m.
SCALE 1 5,000

REVISED	TOMMY JACK CREEK PROPERTY
	1986-87 D.D.H. LOCATIONS
PROJ. No. 5-84	SURVEY BY: DEMJ/ DATE: SEPT., 1986, JUNE 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B SCALE: 1:5,000
DWG. No. FIG. 4	NORANDA EXPLORATION
	OFFICE PRINCE GEORGE, B.C.





EL. 1100m.

9700E

1987 TJ D.D.H. LEGEND

ROCK TYPES

- S_1 CLAYSTONE
- S_2 SILTSTONE
- S_3 SANDSTONE
- S_4 CONGLOMERATE
- $S_1 S_2$ CLAY AND SILTSTONE
- $S_2(S_1)$ SILTSTONE AND MINOR CLAYSTONE
- $S_3 \rightarrow S_2$ SANDSTONE GRADING INTO SILTSTONE
- H_3 HYPABYSSAL DACITE INTRUSIVE

- Bx, ▲ breccia
- Cc calcite
- Cr carbonate
- ~~~ fault
- O/B overburden
- QV quartz vein
- * small quartz vein
- $ sulfides

TABLE OF ANALYSES

Sample	From	To	Width,m	PPM Au	PPM Ag	Hole
85251	8.85	9.85	1.00	< 0.07	1.4	TJ87-1
85252	9.85	10.85	1.00	< 0.07	1.0	
85253	10.85	11.55	0.70	< 0.07	2.4	
85254	11.55	11.70	0.15	< 0.07	1.4	
85255	11.70	11.90	0.20	0.17	1.7	
85256	11.90	12.90	1.00	0.07	1.0	
85257	12.90	13.90	1.00	1.89	164.6	
85258	13.90	15.25	1.35	0.21	1.7	
85559	15.25	16.25	1.00	0.51	5.1	
85260	16.25	16.80	0.55	0.14	1.7	
85261	16.80	17.40	0.60	0.55	13.7	
85262	17.40	18.40	1.00	2.43	6.5	
85263	18.40	19.40	1.00	2.40	16.1	
85264	19.40	19.85	0.45	0.75	106.6	
85265	19.85	20.85	1.00	1.51	29.8	
85266	20.85	21.60	0.75	0.62	7.2	
85267	21.60	22.60	1.00	0.34	2.1	
85268	35.10	36.10	1.00	0.07	2.4	
85269	36.10	37.10	1.00	< 0.07	2.4	
85270	37.10	38.10	1.00	< 0.07	< 0.7	
85271	38.10	39.10	1.00	< 0.07	1.4	
85272	58.60	59.60	1.00	0.27	1.4	
85273	59.60	60.15	0.55	0.58	1.4	
85274	59.60	60.15	0.55	0.21	1.4	
85275	60.15	61.15	1.00	0.31	1.0	
85276	61.15	62.30	1.15	< 0.07	1.0	
85277	16.00	17.00	1.00	< 0.07	< 0.7	TJ87-2
85278	27.55	27.95	0.40	0.24	5.1	
85279	27.95	28.95	1.00	0.17	1.0	
85280	28.95	29.95	1.00	0.07	1.0	
85281	29.95	30.55	0.60	0.07	2.1	
85282	32.65	33.65	1.00	< 0.07	4.1	
85283	36.50	36.80	0.30	0.93	6.2	
85284	50.50	51.50	1.00	0.31	5.5	
85285	51.50	52.20	0.70	0.31	3.1	
85286	52.20	53.20	1.00	0.34	5.8	
85287	53.20	54.20	1.00	0.34	4.8	
85288	54.20	54.90	0.70	0.17	2.4	
85289	54.90	55.35	0.45	< 0.07	1.0	
85290	55.35	56.05	0.70	0.27	2.1	
85291	56.05	56.70	0.65	0.10	1.0	
85292	56.70	57.70	1.00	0.24	1.7	
85293	57.70	58.60	0.90	0.27	4.5	
85294	58.95	59.07	0.12	0.65	6.5	
85295	66.95	67.95	1.00	0.07	2.1	

0 5 10 15 20 metres
SCALE 1:250

REVISED

16,943

TOMMY JACK CREEK PROPERTY

VERTICAL SECTION LOOKING 330°
THROUGH D.D.H. TJ 87-1, 2

PROJ. No. 264
N.T.S. 94D/4E
DWG. No.
FIG. 5

SURVEY BY: DEMJr DATE: June 1987
DRAWN BY: S.K.B. SCALE: 1:250

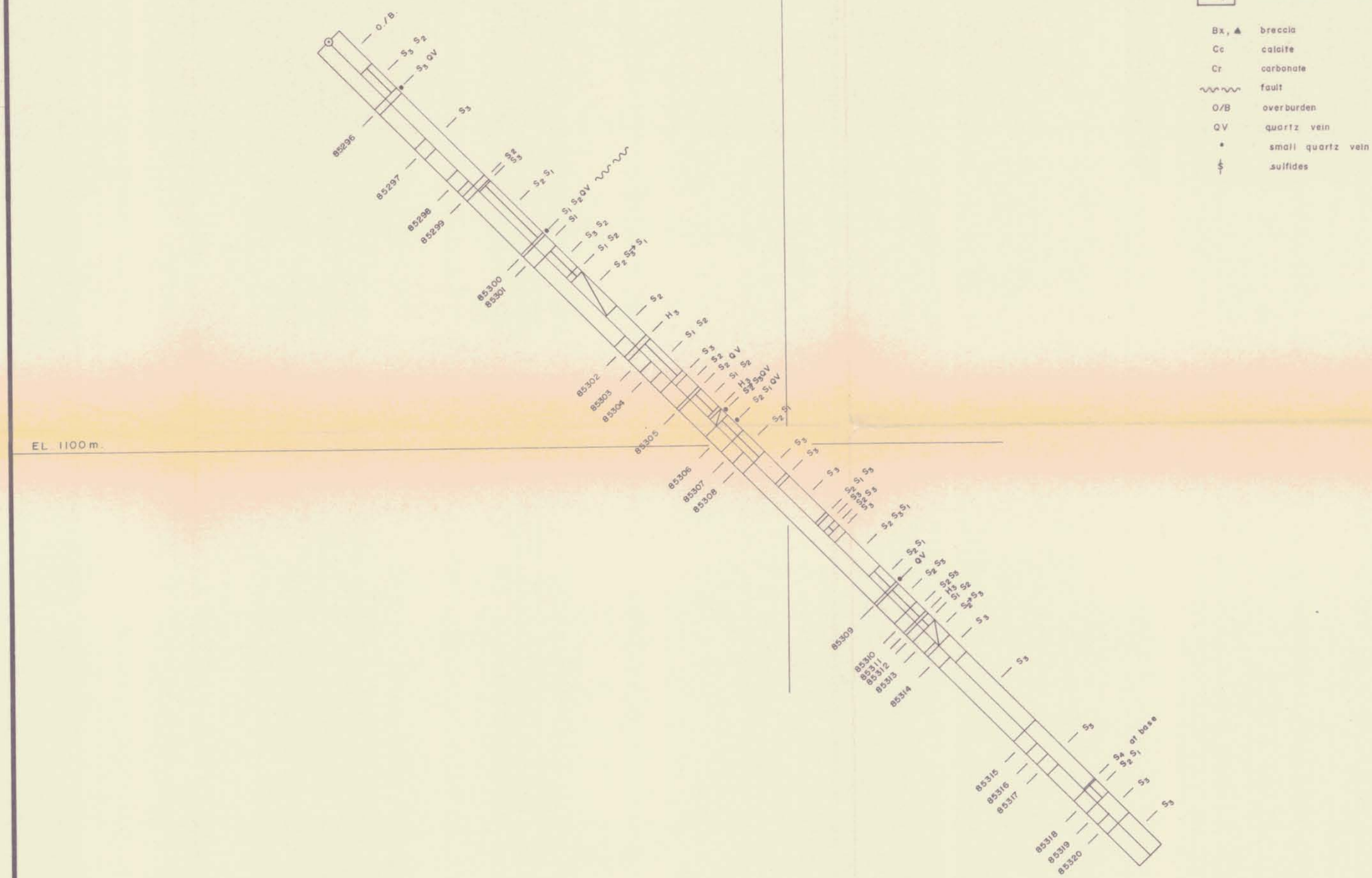
NORANDA EXPLORATION
OFFICE: PRINCE GEORGE, B.C.

VANCAL - 8323

VANCAL 11918

9500E

D.D.H. TJ 87-3
8362 N., 9470 E.
EL. 1127 m
Az. 056°, dip -45°



E.O.H. 76.2 m. (250')

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \rightarrow S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE
Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
•	small quartz vein
$	sulfides

TABLE OF ANALYSES

TJ-87-3

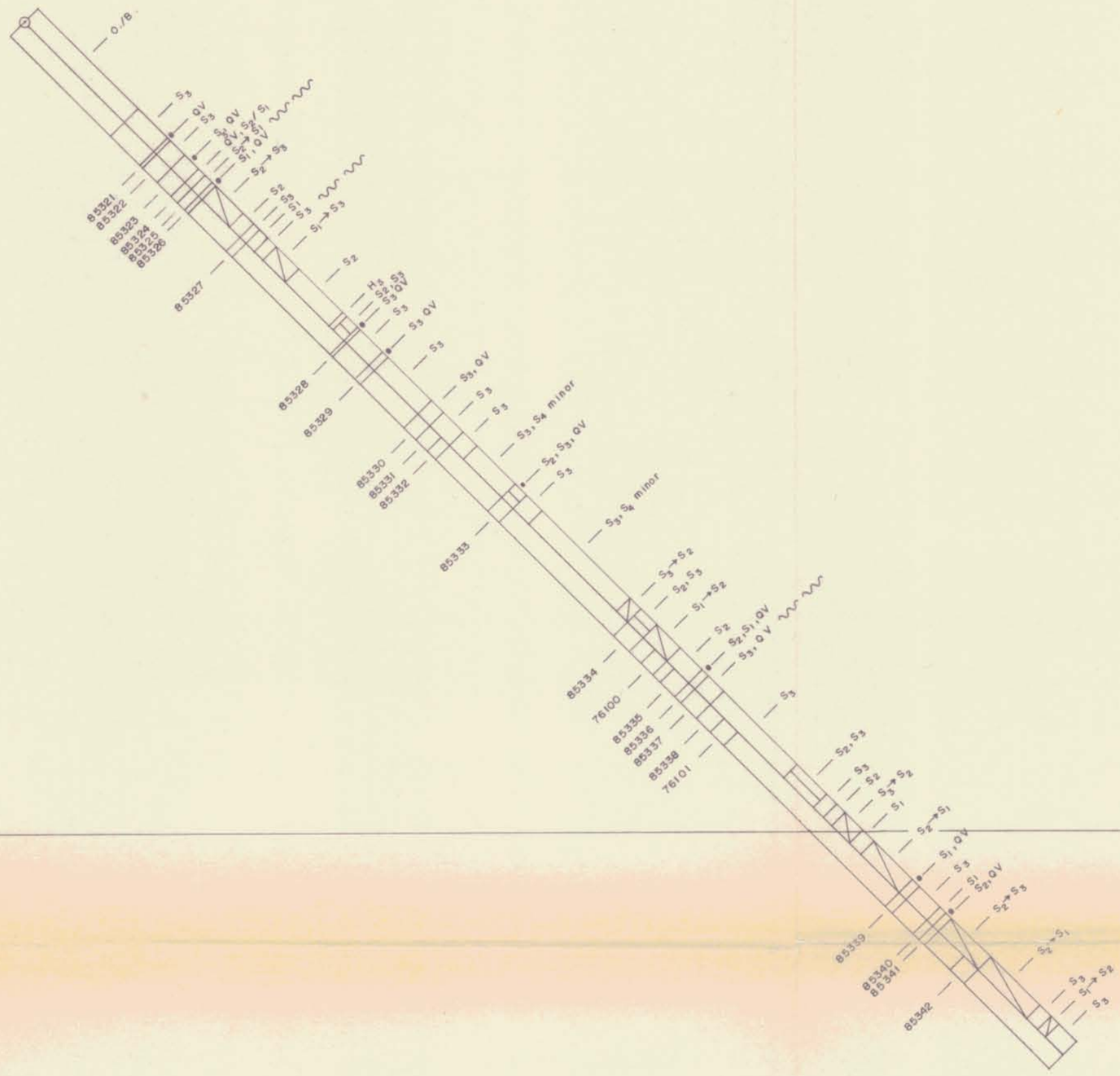
SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (m)	ASSAYS AU (gmt)	AG (gmt)
85296	5.40- 5.85		0.45	(.07)	(0.7)
85297	9.00-10.00		1.00	(.07)	0.7
85298	12.00-13.00		1.00	(.07)	1.7
85299	13.55-13.95		0.40	.75	1.4
85300	19.00-19.25		0.25	(.07)	3.4
85301	19.25-20.20		0.95	(.07)	1.0
85302	27.65-28.65		1.00	.07	(0.7)
85303	29.05-30.05		1.00	(.07)	1.4
85304	30.95-31.95		1.00	(.07)	1.0
85305	33.50-33.70		0.20	.07	0.7
85306	36.25-37.60		1.35	(.07)	1.4
85307	37.60-38.60		1.00	(.07)	2.1
85308	38.60-39.70		1.10	(.07)	2.4
85309	51.90-52.10		0.20	.14	1.7
85310	53.80-54.60		0.80	.14	1.4
85311	54.60-54.85		0.25	(.07)	1.0
85312	54.85-55.50		0.65	.21	3.4
85313	55.50-56.50		1.00	.14	1.0
85314	56.90-57.90		1.00	.07	1.0

0 5 10 15 20 metres
SCALE 1 : 250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87-3
PROJ. No. 264	SURVEY BY: D.E.M.Jr. DATE: JUNE, 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 6	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

B/L 10,000E.

D.D.H. TJ87-4
8379N., 9930E.
EL. 1142 m.
Az. 059 °, dip -45°



E.O.H. 75.6m (248')

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \rightarrow S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

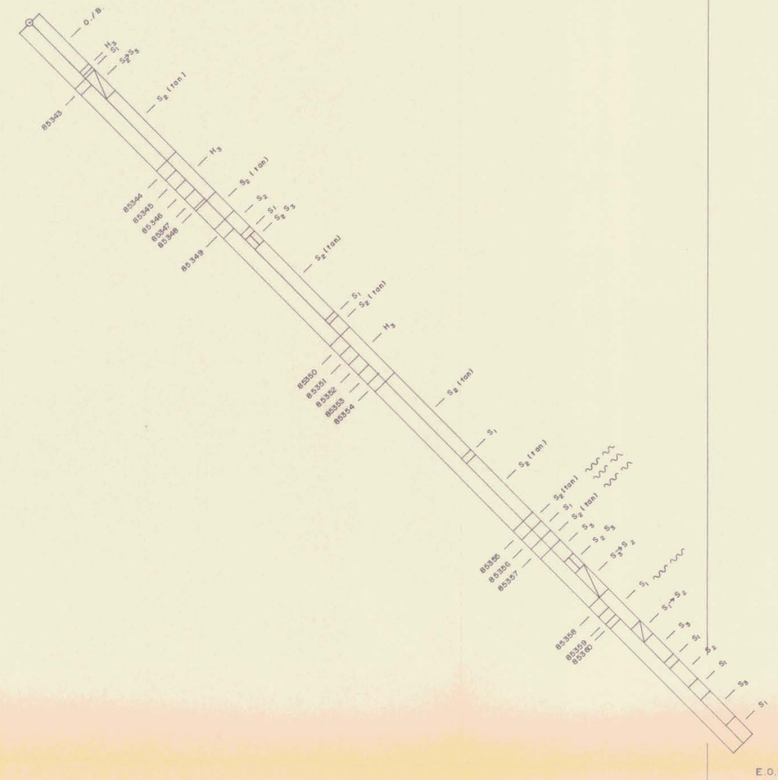
Bx, ▲	breccia
Cc	calcite
Cr	carbonate
∿∿∿	fault
O/B	overburden
QV	quartz vein
•	small quartz vein
$	sulfides

0 5 10 15 20 metres
SCALE 1 : 250

TABLE OF ANALYSES

85321	9.50	9.70	0.20	0.51	1.0	TJ87-4
85322	9.70	10.70	1.00	< 0.07	2.4	
85323	10.70	11.70	1.00	0.27	1.7	
85324	11.70	12.20	0.50	0.41	1.4	
85325	12.20	12.75	0.55	0.24	2.7	
85326	12.75	12.95	0.20	3.57	8.2	
85327	15.70	16.15	0.45	< 0.07	0.7	
85328	23.30	23.45	0.15	< 0.07	1.4	
85329	25.15	25.40	0.25	0.72	7.5	
85330	28.70	29.60	0.90	< 0.07	1.7	
85331	29.60	30.40	0.80	< 0.07	1.4	
85332	30.40	31.05	0.65	< 0.07	4.5	
85333	34.80	35.55	0.75	< 0.07	1.0	
85334	44.00	45.10	1.10	< 0.07	1.0	
76100	46.05	46.85	0.80	< 0.07	2.1	
85335	47.40	48.40	1.00	0.07	1.4	
85336	48.40	48.80	0.40	3.84	22.6	
85337	48.80	49.95	1.15	0.10	1.0	
85338	51.50	52.50	1.00	0.10	2.1	
76101	54.30	55.30	1.00	0.21	1.4	
85339	63.85	64.30	0.45	2.47	28.8	
85340	65.75	66.20	0.45	< 0.07	4.1	
85341	66.20	66.55	0.35	0.82	11.0	
85342	68.50	69.50	1.00	< 0.07	1.0	

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87-4
PROJ. No. 264	SURVEY BY: D.E.M.Jr. DATE: SEPT. 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1 :250
DWG. No. FIG. 7	NORANDA EXPLORATION OFFICE: PRINCE GEORGE, B.C.



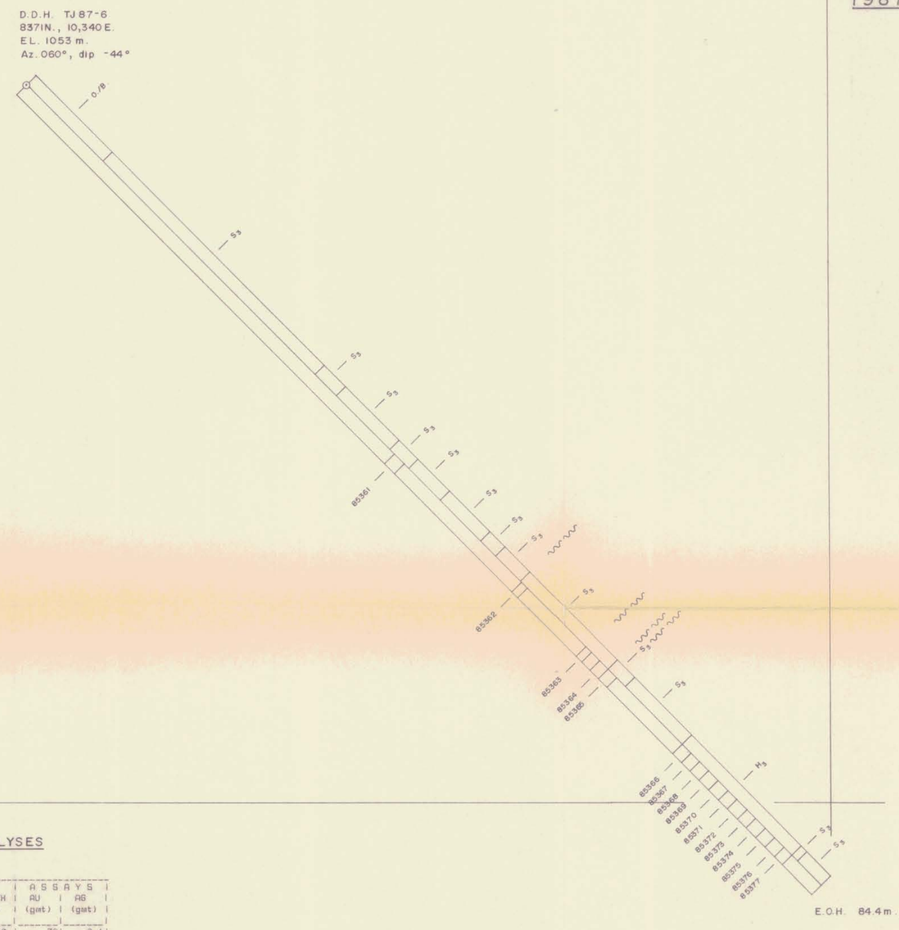


TABLE OF ANALYSES

TJ-87-5

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (m)	ASSAYS AU (gmt)	AG (gmt)
85343	6.00- 6.60		0.60	.72	2.4
85344	14.75-15.70		0.95	(.07)	1.4
85345	15.70-16.70		1.00	.07	3.1
85346	16.70-17.70		1.00	.48	6.9
85347	17.70-18.70		1.00	(.07)	2.4
85348	18.70-18.90		0.20	(.07)	1.0
85349	20.90-21.80		0.90	.10	6.9
85350	33.20-34.20		1.00	.07	0.7
85351	34.20-35.20		1.00	.10	1.0
85352	35.20-36.20		1.00	(.07)	2.4
85353	36.20-37.20		1.00	1.30	6.2
85354	37.20-38.00		0.80	.07	3.4
85355	52.70-53.60		0.90	.07	2.4
85356	53.60-54.60		1.00	(.07)	2.4
85357	54.60-55.60		1.00	.58	4.1
85358	60.70-61.70		1.00	(.07)	2.1
85359	61.70-62.70		1.00	(.07)	0.7
85360	62.70-63.00		0.30	.10	0.7

TJ-87-6

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
85361	39.50-50.40		1.00	(.07)	(0.7
85362	53.00-53.60		0.60	(.07)	1.4
85363	59.90-60.50		0.60	.14	1.4
85364	61.40-62.20		0.80	(.07)	1.7
85365	62.20-63.10		0.90	(.07)	(0.7
85366	70.10-71.00		0.90	(.07)	(0.7
85367	71.00-72.00		1.00	(.07)	(0.7
85368	72.00-73.00		1.00	(.07)	(0.7
85369	73.00-74.00		1.00	(.07)	(0.7
85370	74.00-75.00		1.00	.10	0.7
85371	75.00-76.00		1.00	(.07)	(0.7
85372	76.00-77.00		1.00	.14	0.7
85373	77.00-78.00		1.00	.07	0.7
85374	78.00-79.00		1.00	(.07)	(0.7
85375	79.00-80.00		1.00	(.07)	(0.7
85376	80.00-81.00		1.00	(.07)	0.7
85377	81.00-81.80		0.80	(.07)	(0.7

1987 TJ D.D.H. LEGEND

ROCK TYPES

- S_1 CLAYSTONE
- S_2 SILTSTONE
- S_3 SANDSTONE
- S_4 CONGLOMERATE
- $S_1 S_2$ CLAY AND SILTSTONE
- $S_2(S_1)$ SILTSTONE AND MINOR CLAYSTONE
- S_3+S_2 SANDSTONE GRADING INTO SILTSTONE
- H_3 HYPABYSSAL DACITE INTRUSIVE

Bx, ▲ breccia
Cc calcite
Cr carbonate
fault
O/B overburden
QV quartz vein
small quartz vein
sulfides

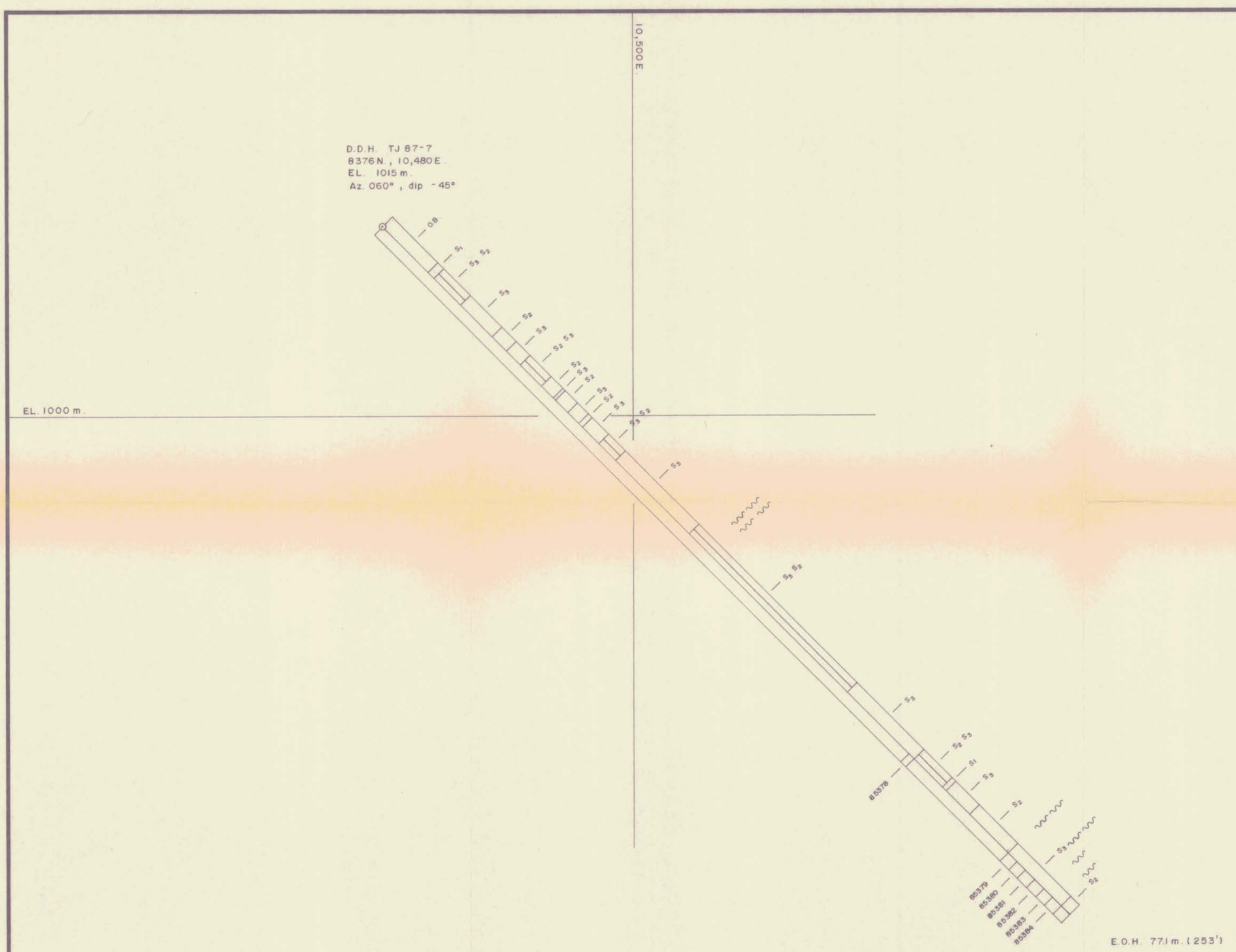
GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,943

0 5 10 15 20 metres
SCALE 1 : 250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87-5,6
PROJ. No. 264	SURVEY BY: R.D. DATE: June 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 8	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL - 8323



1987 TJ D.D.H. LEGEND

ROCK TYPES

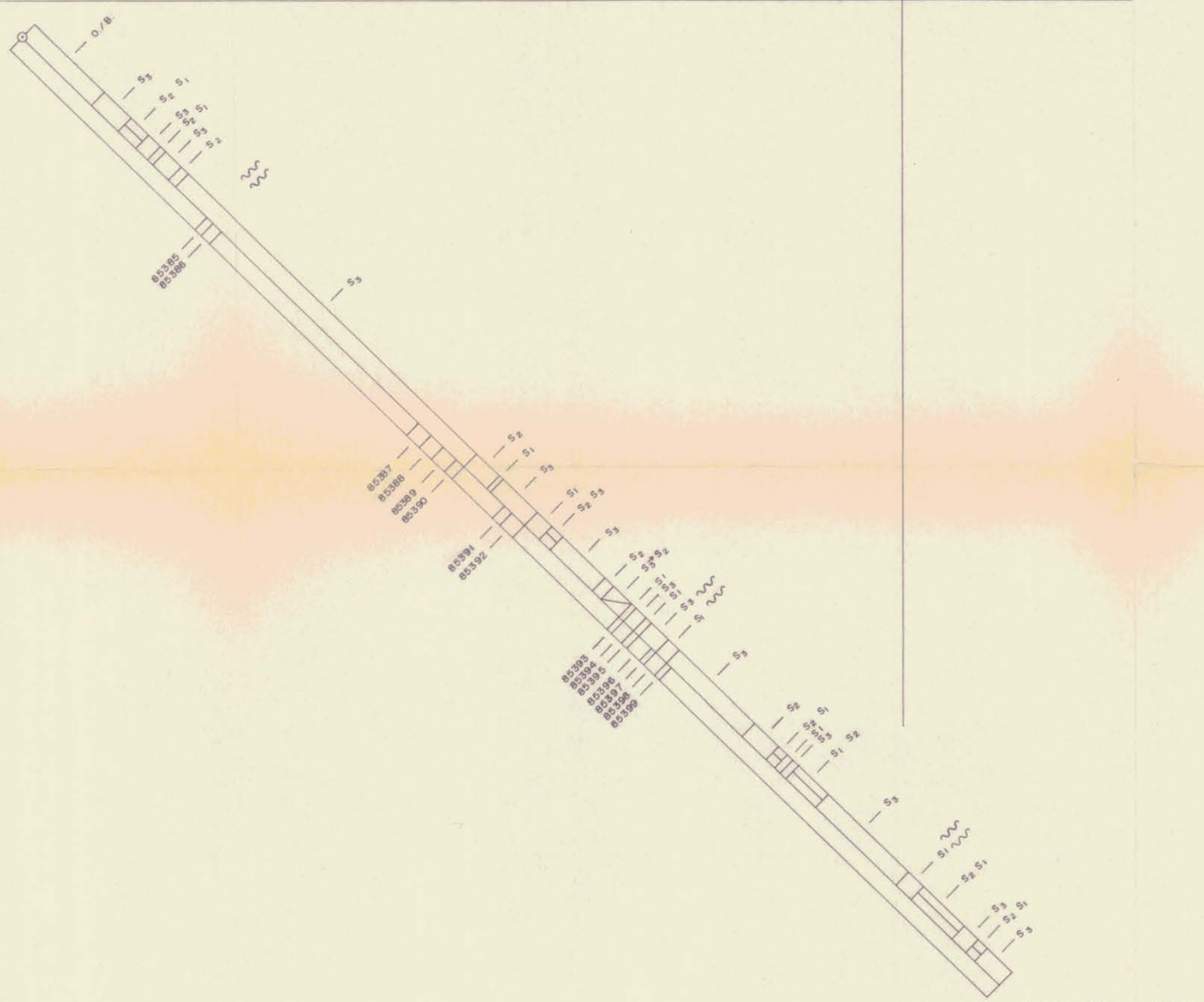
S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \to S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE
Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
*	small quartz vein
$	sulfides

TABLE OF ANALYSES

Sample	From	To	Width,m	Au ppm	Ag ppm	Hole
85378	59.10	59.70	0.60	0.14	0.7	TJ87-7
85379	70.20	71.20	1.00	< 0.07	1.7	
85380	71.20	72.20	1.00	0.07	1.4	
85381	72.20	73.20	1.00	0.10	5.5	
85382	73.20	74.20	1.00	0.17	0.7	
85383	74.20	75.20	1.00	0.14	1.4	
75384	75.20	76.20	1.00	< 0.07	< 0.7	

0 5 10 15 20 metres
SCALE 1 : 250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87-7
PROJ. No. 264	SURVEY BY: R.D. DATE: JUNE, 1987
N.T.S. 94 D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 9	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.



1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
S_3-S_2	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
*	small quartz vein
ǂ	sulfides

TABLE OF ANALYSES

TJ-87-8

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
85385	14.60-15.10		0.50	1.78	1.4
85386	15.10-15.80		0.70	.24	1.4
85387	31.40-32.40		1.00	.24	0.7
85388	32.40-33.40		1.00	.07	1.7
85389	33.40-34.40		1.00	(.07	0.7
85390	34.40-35.00		0.60	(.07	1.0
85391	38.20-38.80		0.60	.07	0.7
85392	38.80-39.80		1.00	.34	1.4
85393	47.20-47.60		0.40	.51	1.7
85394	47.60-48.40		0.80	.45	1.7
85395	48.40-48.80		0.40	.82	5.8
85396	48.80-49.80		1.00	.99	9.3
85397	49.80-50.10		0.30	.72	6.5
85398	50.10-51.00		0.90	5.04	37.0
85399	51.00-51.40		0.40	.45	6.2

0 5 10 15 20 metres
SCALE 1 : 250

REVISED

TOMMY JACK CREEK PROPERTY

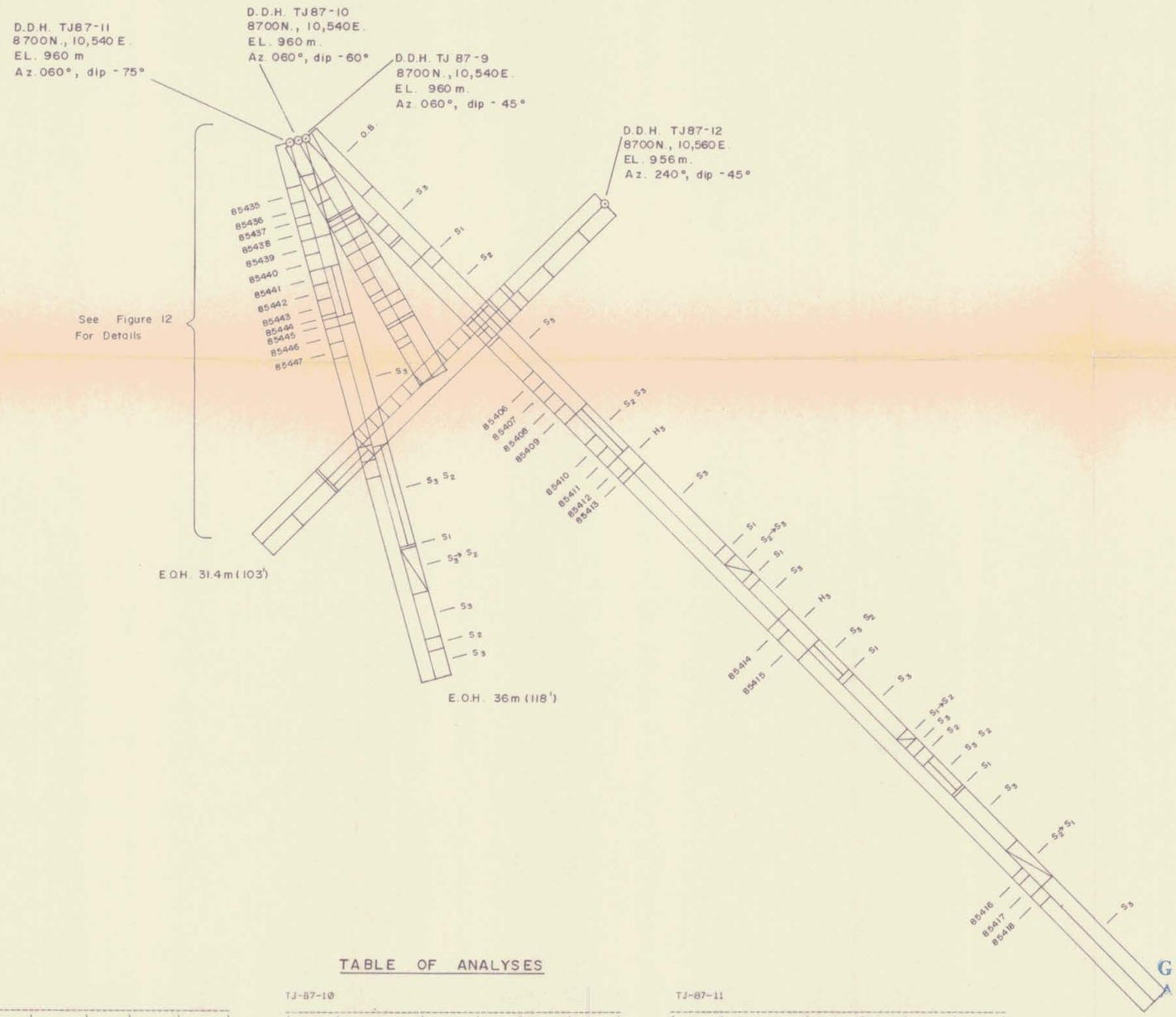
VERTICAL SECTION LOOKING 330°
THROUGH D.D.H. TJ87-8

PROJ. No. 264
N.T.S. 94D/4E
DWG. No. FIG. 10

SURVEY BY: R.D. DATE: JUNE, 1987
DRAWN BY: S.K.B. SCALE: 1:250

NORANDA EXPLORATION
OFFICE: PRINCE GEORGE, B.C.

VANCAL 11919



10,600 E.

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \rightarrow S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
*	small quartz vein
ǂ	sulfides

TABLE OF ANALYSES

TJ-87-12

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
85451	8.30- 8.70		0.40	2.19	13.4
85452	8.70- 9.70		1.00	.21	6.9
85453	9.70-10.50		0.80	.10	11.3
85454	10.50-11.30		0.80	(.07)	9.6
85455	11.30-12.30	95	1.00	(.07)	2.1
85456	12.30-13.30	80	1.00	(.07)	10.6
85457	13.30-14.30	80	1.00	.48	24.7
85458	14.30-15.30	90	1.00	.07	4.8
85459	15.30-15.90	92	0.60	(.07)	5.1
85460	15.90-16.70		0.80	.75	59.3
85461	16.70-17.70	90	1.00	(.07)	5.8
85462	17.70-18.70		1.00	(.07)	3.8
85463	18.70-19.70	95	1.00	(.07)	14.7
85464	19.70-20.70	80	1.00	(.07)	7.9
85465	20.70-21.70	65	1.00	(.07)	6.2
85466	21.70-22.10		0.40	(.07)	3.1
85467	25.40-25.60		0.20	2.16	35.0

TABLE OF ANALYSES

EL. 900 m.

TJ-87-9

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
85400	6.70- 7.70	97	1.00	.27	13.7
85401	7.70- 8.70	98	1.00	.07	6.9
85402	8.70- 8.90		0.20	.31	2.1
85403	8.90-10.70	22	1.80	.10	5.5
85404	16.00-17.00		1.00	.24	7.5
85405	17.00-18.00		1.00	.07	7.2
85406	21.10-22.10		1.00	(.07)	6.2
85407	22.10-23.10		1.00	.07	5.5
85408	23.10-24.10		1.00	(.07)	9.6
85409	24.10-25.10		1.00	(.07)	4.8
85410	27.00-28.00	90	1.00	(.07)	3.4
85411	28.00-29.00	47	1.00	.07	2.4
85412	29.00-30.00		1.00	(.07)	1.4
85413	30.00-30.50		0.50	(.07)	(0.7)
85414	43.80-44.80		1.00	.14	0.7
85415	44.80-46.60	44	1.60	(.07)	(0.7)
85416	66.40-67.10		0.70	(.07)	2.4
85417	67.10-68.10		1.00	(.07)	1.0
85418	68.10-69.00		0.90	(.07)	2.1

TJ-87-10

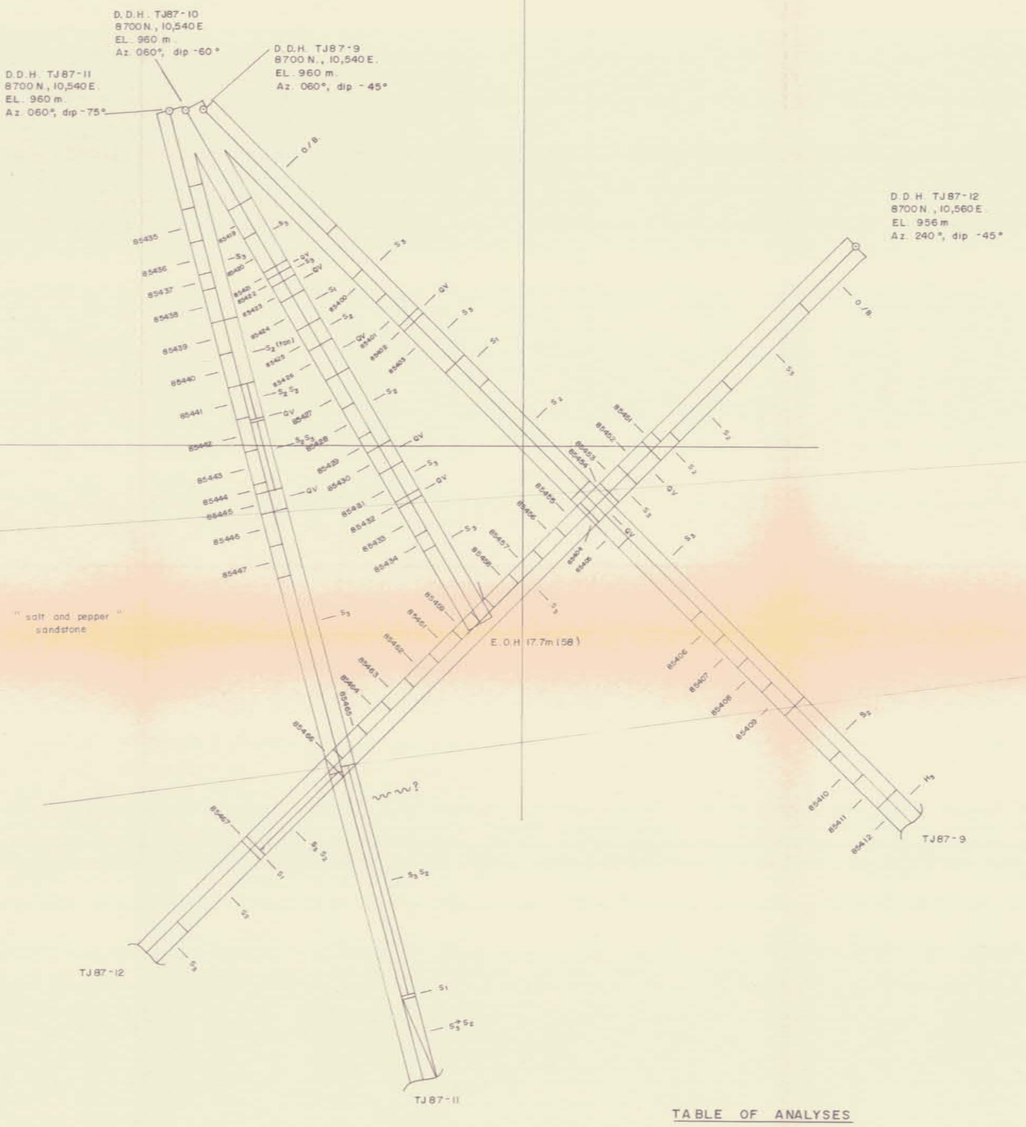
SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
85419	3.20- 4.20	88	1.00	(.07)	9.6
85420	4.20- 5.40	30	1.20	(.07)	11.0
85421	5.40- 5.60		0.20	.27	9.3
85422	5.60- 5.90		0.30	.17	5.8
85423	5.90- 6.40		0.50	.31	26.4
85424	6.40- 7.40		1.00	.58	24.3
85425	7.40- 8.10		0.70	.89	14.4
85426	8.10- 9.10		1.00	1.06	58.7
85427	9.10-10.10		1.00	.24	10.3
85428	10.10-11.10		1.00	1.27	21.9
85429	11.10-11.60		0.50	1.27	11.3
85430	11.60-12.30		0.70	.07	3.8
85431	12.30-13.30		1.00	(.07)	2.4
85432	13.30-13.50		0.20	.10	7.9
85433	13.50-14.50		1.00	(.07)	8.2
85434	14.50-15.00		0.50	(.07)	7.5

TJ-87-11

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
85435	3.00- 4.00	80	1.00	(.07)	7.9
85436	4.00- 5.00	90	1.00	.24	370.6
85437	5.00- 5.50	83	0.50	.07	19.5
85438	5.50- 6.50	25	1.00	6.07	30.5
85439	6.50- 7.50	90	1.00	.93	20.2
85440	7.50- 8.50	75	1.00	.07	33.9
85441	8.50- 9.50		1.00	.07	9.3
85442	9.50-10.50	85	(1.00)		
85443	10.50-11.50	85	(1.00)	.07	6.5
85444	11.50-11.80		0.30	(.07)	1.7
85445	11.80-12.40	88	0.60	.10	1.4
85446	12.40-13.40	90	1.00	(.07)	1.0
85447	13.40-14.30		1.00	(.07)	2.4
85448	20.40-21.40		1.00	(.07)	1.7
85449	21.40-21.50		0.10	2.37	18.5
85450	21.50-22.50		1.00	(.07)	3.8

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87-9,10,11,12
PROJ. No. 254	SURVEY BY: R.D. DATE: JUNE, 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 11	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11919



1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
S_3+S_2	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
*	small quartz vein
$\frac{s}{f}$	sulfides

TABLE OF ANALYSES

TJ-87-9

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gpt)	AG (gpt)
85400	6.70- 7.70	97	1.00	.27	13.7
85401	7.70- 8.70	98	1.00	.07	6.9
85402	8.70- 8.90		0.20	.31	2.1
85403	8.90-10.70	22	1.80	.10	5.5
85404	16.00-17.00		1.00	.24	7.5
85405	17.00-18.00		1.00	.07	7.2
85406	21.10-22.10		1.00	(.07)	6.2
85407	22810-23.10		1.00	.07	5.5
85408	23.10-24.10		1.00	(.07)	9.6
85409	24.10-25.10		1.00	(.07)	4.8
85410	27.00-28.00	90	1.00	(.07)	3.4
85411	28.00-29.00	47	1.00	.07	2.4
85412	29.00-30.00		1.00	(.07)	1.4
85413	30.00-30.50		0.50	(.07)	(0.7)
85414	43.80-44.80		1.00	.14	0.7
85415	44.80-45.60	44	1.60	(.07)	(0.7)
85416	66.40-67.10		0.70	(.07)	2.4
85417	67.10-68.10		1.00	(.07)	1.0
85418	68.10-69.00		0.90	(.07)	2.1

TJ-87-10

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gpt)	AG (gpt)
85419	3.20- 4.20	88	1.00	(.07)	9.6
85420	4.20- 5.40	30	1.20	(.07)	11.0
85421	5.40- 5.60		0.20	.27	9.3
85422	5.60- 5.90		0.30	.17	5.8
85423	5.90- 6.40		0.50	.31	26.4
85424	6.40- 7.40		1.00	.58	24.3
85425	7.40- 8.10		0.70	.09	14.4
85426	8.10- 9.10		1.00	1.06	58.7
85427	9.10-10.10		1.00	.24	10.3
85428	10.10-11.10		1.00	1.27	21.9
85429	11.10-11.60		0.50	1.27	11.3
85430	11.60-12.30		0.70	.07	3.6
85431	12.30-13.30		1.00	(.07)	2.4
85432	13.30-13.50		0.20	.10	7.5
85433	13.50-14.50		1.00	(.07)	8.2
85434	14.50-15.00		0.50	(.07)	7.5

TJ-87-11

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gpt)	AG (gpt)
85435	3.00- 4.00	80	1.00	(.07)	7.9
85436	4.00- 5.00	98	1.00	.24	370.6
85437	5.00- 5.50	83	0.50	.07	19.5
85438	5.50- 6.50	25	1.00	6.07	30.5
85439	6.50- 7.50	98	1.00	.93	20.2
85440	7.50- 8.50	75	1.00	.07	33.9
85441	8.50- 9.50		1.00	.07	9.3
85442	9.50-10.50	85	(1.00)		
85443	10.50-11.50	85	(1.00)	.07	6.5
85444	11.50-11.80		0.30	(.07)	1.7
85445	11.80-12.40	88	0.60	.10	1.4
85446	12.40-13.40	90	1.00	(.07)	1.0
85447	13.40-14.38		1.00	(.07)	2.4
85448	20.40-21.40		1.00	(.07)	1.7
85449	21.40-21.50		0.10	2.57	18.3
85450	21.50-22.50		1.00	(.07)	3.8

TJ-87-12

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gpt)	AG (gpt)
85451	8.30- 8.70		0.40	2.19	13.4
85452	8.70- 9.70		1.00	.21	6.9
85453	9.70-10.50		0.80	.10	11.3
85454	10.50-11.30		0.80	(.07)	9.6
85455	11.30-12.30	95	1.00	(.07)	2.1
85456	12.30-13.30	80	1.00	(.07)	10.6
85457	13.30-14.30	80	1.00	.48	24.7
85458	14.30-15.30	90	1.00	.07	4.8
85459	15.30-15.90	92	0.60	(.07)	5.1
85460	15.90-16.70		0.80	.75	59.3
85461	16.70-17.70	90	1.00	(.07)	5.8
85462	17.70-18.70		1.00	(.07)	3.8
85463	18.70-19.70	95	1.00	(.07)	14.7
85464	19.70-20.70	80	1.00	(.07)	7.9
85465	20.70-21.70	65	1.00	(.07)	6.2
85466	21.70-22.10		0.40	(.07)	3.1
85467	25.40-25.60		0.20	2.16	35.0

0 1 2 3 4 5 6 7 8 metres
SCALE 1 : 100

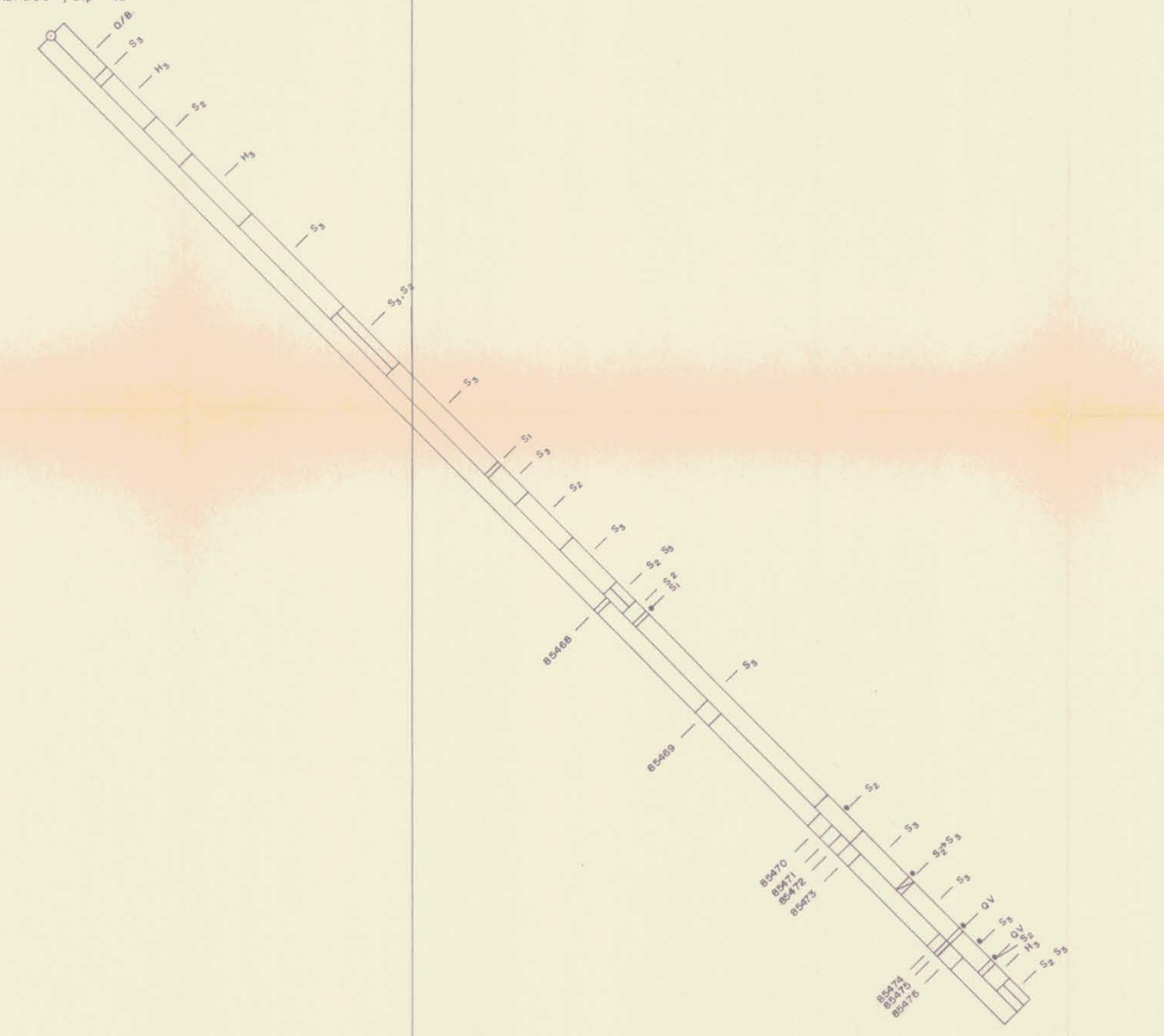
REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87- 9, 10, 11, 12
PROJ. No. 264	SURVEY BY: R.D. DATE: June 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:100
DWG. No. FIG. 12	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL - 8383

B/L 10,000E.

EL. 1100m.

D.D.H. TJ87-13
8602N., 9980E.
EL. 1094m.
Az. 060°, dip -45°



E.O.H. 75.6m. (248')

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 > S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
•	small quartz vein
⚡	sulfides

TABLE OF ANALYSES

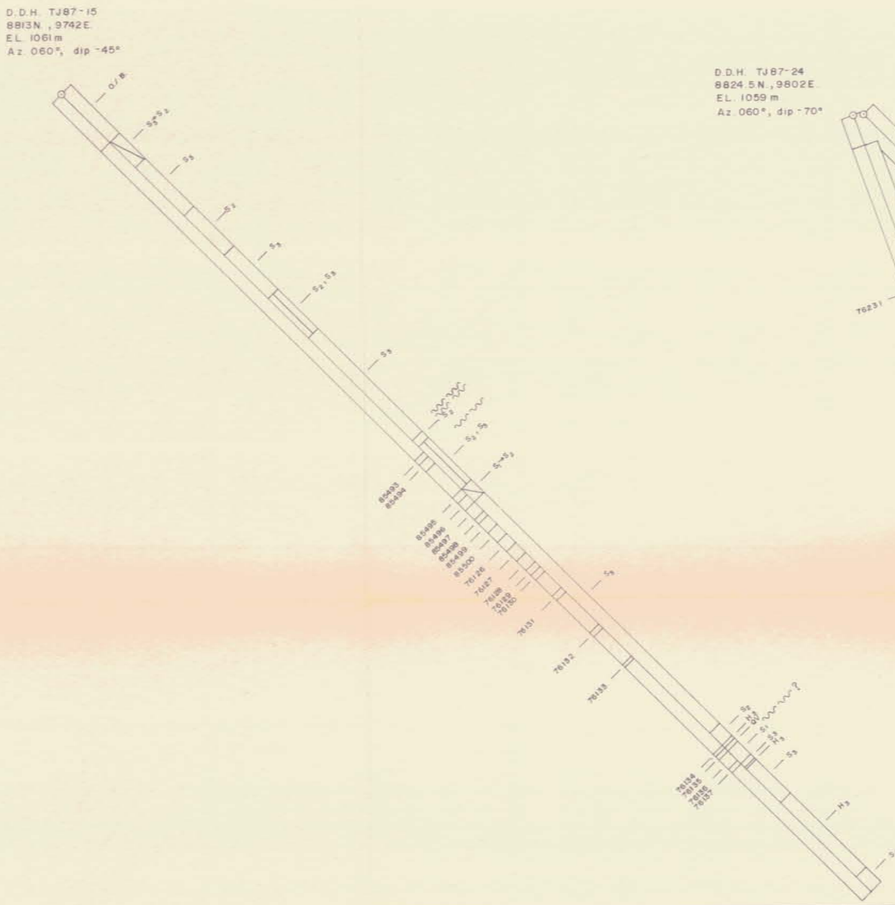
TJ-87-13

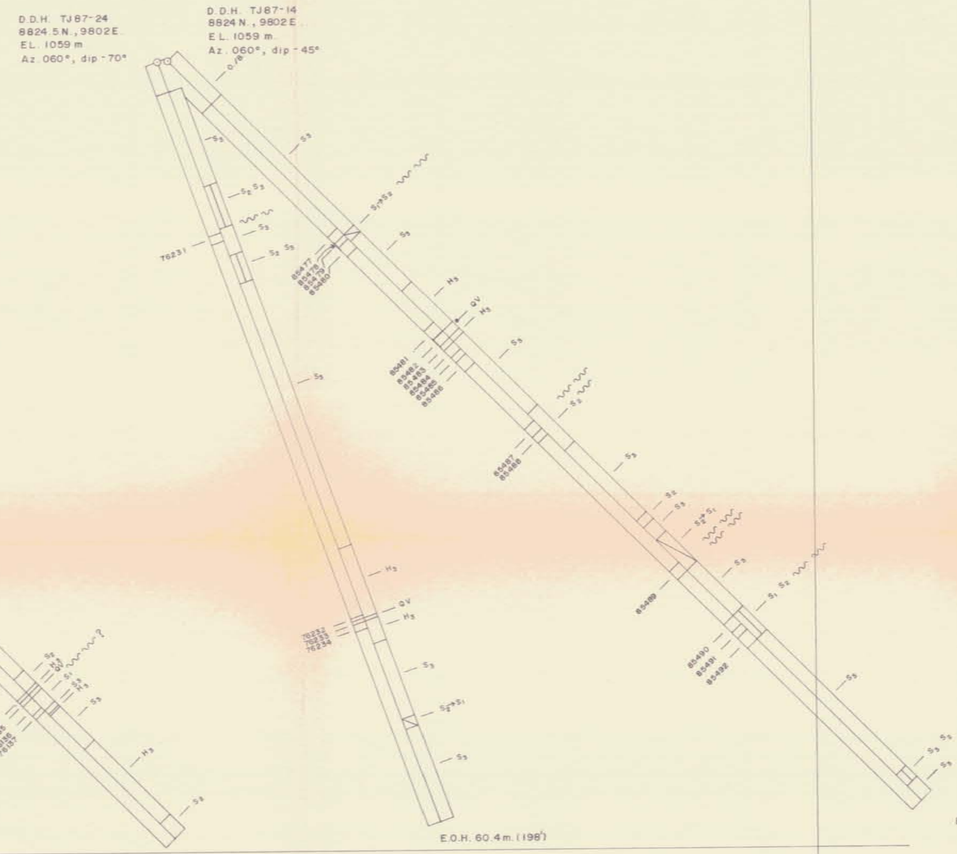
SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
85468	44.60-44.90		0.30	(.07)	24.3
85469	51.60-52.60		1.00	.07	1.0
85470	60.40-61.30		0.90	.27	7.9
85471	61.30-62.00		0.70	(.07)	1.4
85472	62.00-62.70		0.70	.65	5.8
85473	62.70-63.50		0.80	1.78	5)8
85474	69.70-70.30		0.60	.21	9.3
85475	70.30-70.60		0.30	3.81	11.0
85476	70.60-71.60		1.00	.55	4.5

0 5 10 15 20 metres
SCALE 1 : 250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ 87-13
PROJ. No. 264	SURVEY BY: R.D. DATE: JULY, 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 13	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11919





EL. 1000m.

R.L.A. 9850E

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
S_3+S_2	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
*	small quartz vein
$	sulfides

TABLE OF ANALYSES

TJ-87-14

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gpt)	AG (gpt)
85477	17.70-18.40		0.70	.38	2.4
85478	18.40-18.80		0.40	2.33	21.9
85479	18.80-19.10		0.30	.17	1.0
85480	19.10-19.70		0.60	.17	2.4
85481	27.70-28.70		1.00	.38	3.1
85482	28.70-29.30		0.60	31.85	129.6
85483	29.30-29.80		0.50	.27	1.7
85484	29.80-30.50		0.70	.17	1.4
85485	30.50-31.00		0.50	.17	1.0
85486	31.00-32.00		1.00	.48	3.1
85487	38.20-39.00		0.80	2.13	4.1
85488	39.00-39.60		0.60	1.82	6.2
85489	53.50-54.30		0.80	.75	4.8
85490	59.10-60.00	22	0.90	3.67	10.3
85491	60.00-60.60		0.60	2.67	10.3
85492	60.60-61.60	95	1.00	.24	2.7

TJ-87-15

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gpt)	AG (gpt)
85493	38.20-38.60		0.40	.69	23.7
85494	38.60-39.30		0.70	.34	8.9
85495	42.10-42.70	75	0.60	6.24	17.5
85496	42.70-43.40		0.70	.69	4.8
85497	43.40-44.40		1.00	.27	1.4
85498	44.40-44.80		0.40	1.06	8.6
85499	44.80-45.80		1.00	.21	1.4
85500	45.80-46.80		1.00	.58	1.4
76126	46.80-47.80		1.00	(.07)	0.7
76127	47.80-48.80		1.00	(.07)	0.7
76128	48.80-49.80		1.00	.21	1.4
76129	49.80-50.30		0.50	7.68	27.1
76130	50.30-50.80		0.50	.14	1.0
76131	52.50-53.00		0.50	.65	5.8
76132	56.50-56.90		0.40	12.99	12.0
76133	59.90-60.10		0.20	.45	5.8
76134	69.40-69.70		0.30	3.36	9.9
76135	69.70-70.00		0.30	5.14	25.4
76136	70.00-71.00		1.00	.34	2.1
76137	71.00-71.40		0.40	.75	1.7

TJ-87-24

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gpt)	AG (gpt)
76231	13.50-14.20		0.70	.34	1.7
76232	44.00-44.30		0.30	.21	2.7
76233	44.30-44.50		0.20	.41	40.5
76234	44.50-45.00		0.50	.21	1.4

0 5 10 15 20 metres
SCALE 1 250

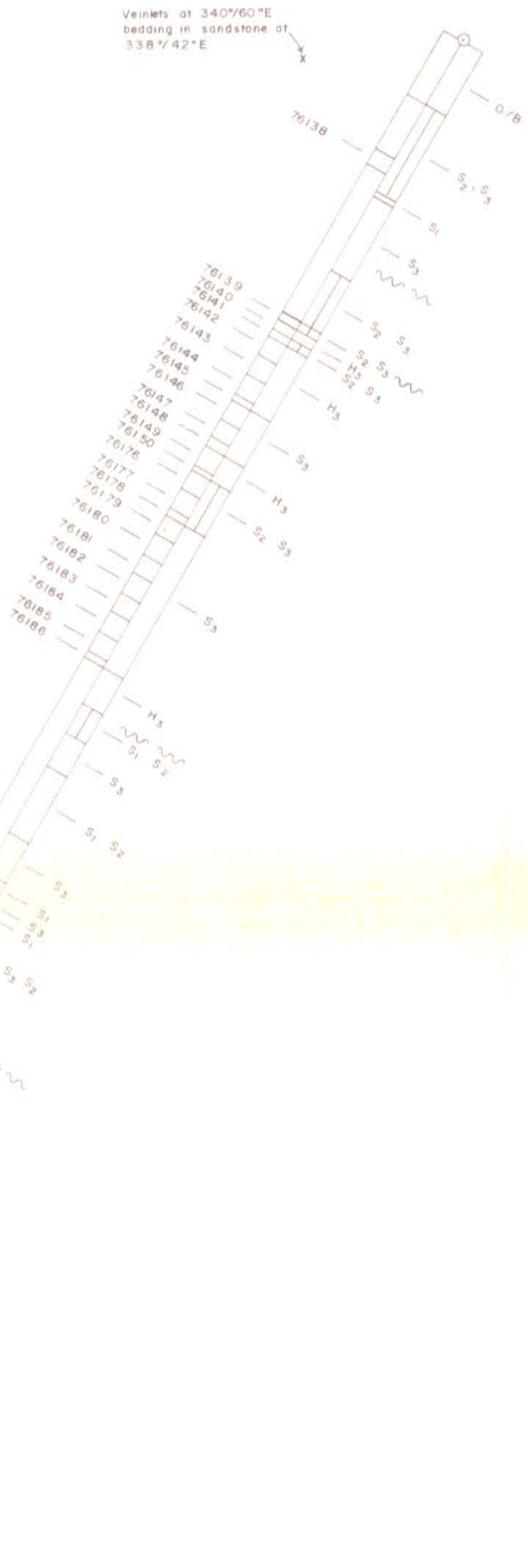
REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87- 14, 15, 24
PROJ. No. 264	SURVEY BY: R.D. DATE: SEPT 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 14	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL - 8323

VANCAL 11918

10,700E

D.D.H. TJ87-16
L7299N, 72mN, 10,695E
EL 1073m
Az 270°, dip -60°



EL 1000m

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
S_1, S_2	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \rightarrow S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
•	small quartz vein
$	sulfides

TABLE OF ANALYSES

TJ 87-16

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76138	6.80-7.00		0.80	.07	8.91
76139	14.60-15.00		0.40	.38	1384.8
76140	15.00-15.50		0.50	.07	22.61
76141	15.50-15.80		0.30	(.07	25.4
76142	15.80-16.80		1.00	.07	26.4
76143	16.80-17.80		1.00	.07	16.1
76144	17.80-18.80		1.00	.14	55.5
76145	18.80-19.10		0.30	.07	14.1
76146	19.10-20.10		1.00	.07	6.5
76147	20.10-21.00		0.90	.07	6.9
76148	21.00-21.50		0.50	.10	30.5
76149	21.50-22.50		1.00	.24	16.8
76150	22.50-22.70		0.20	.31	10.6
76176	22.70-23.70		1.00	.14	10.6
76177	23.70-24.70		1.00	.10	7.5
76178	24.70-25.00		0.30	.07	3.4
76179	25.00-26.00		1.00	.10	9.6
76180	26.00-27.00		1.00	.10	6.5
76181	27.00-28.00		1.00	.10	5.5
76182	28.00-29.00		1.00	.10	31.5
76183	29.00-30.00		1.00	(.07	9.9
76184	30.00-31.00		1.00	(.07	72.7
76185	31.00-32.00		1.00	(.07	11.3
76186	32.00-32.30		0.30	.48	61.0

0 5 10 15 20 metres
SCALE 1 : 250

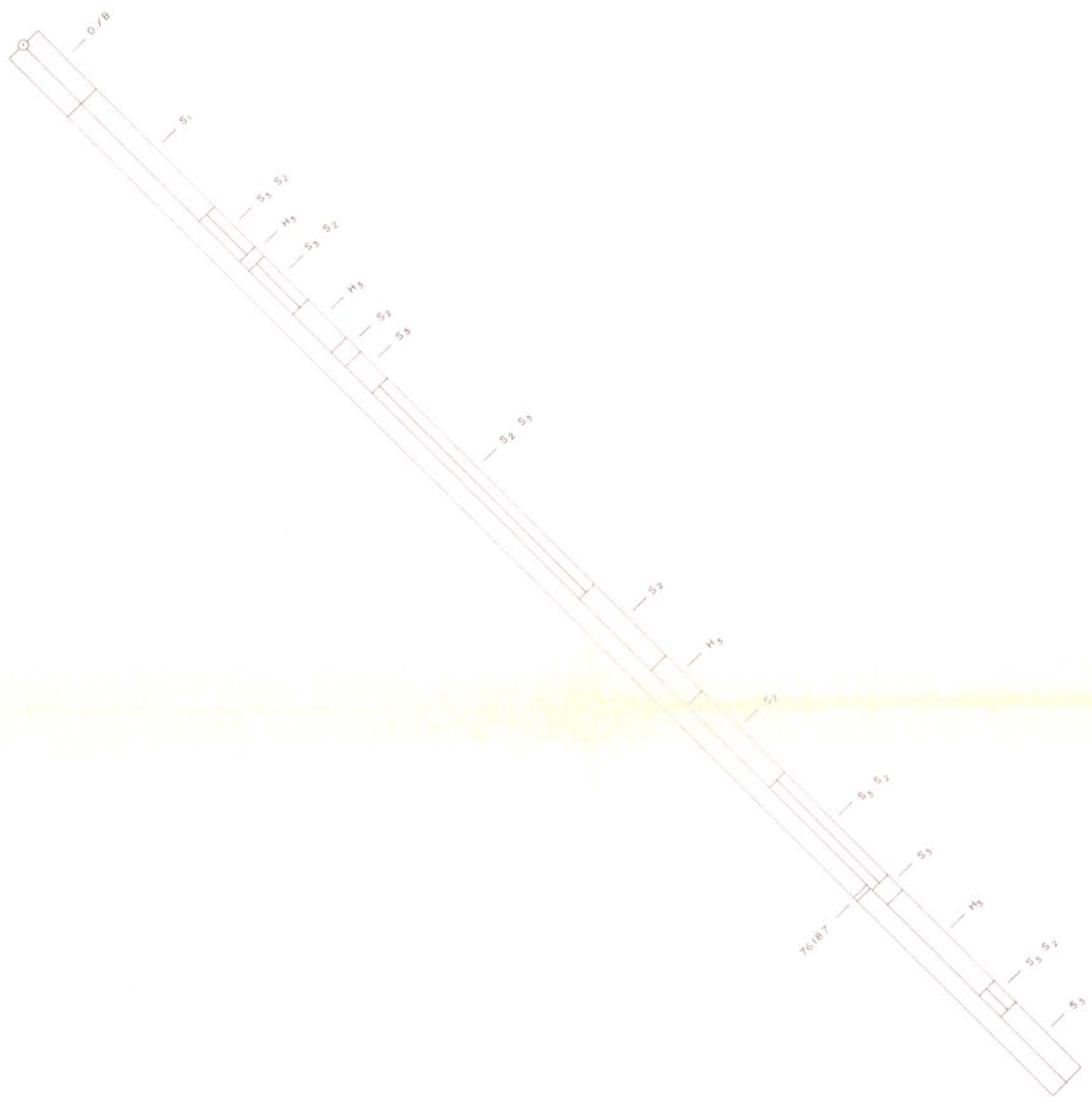
REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 360° THROUGH D.D.H. TJ 87-16
PROJ. No. 264	SURVEY BY R.D DATE SEPT , 1987
N.T.S. 94D/4E	DRAWN BY S.K.B SCALE 1:250
DWG. No. FIG. 15	NORANDA EXPLORATION
	OFFICE PRINCE GEORGE, B.C.

VANCAL 11918

10,300E

EL 1100m

D.D.H. TJ87-17
8175N, 10310E
EL 1090 m
Az 060°, dip -45°



E O H 75.6 m (248')

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \cdot S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
*	small quartz vein
$\S$	sulfides

TABLE OF ANALYSES

TJ 87-17

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76187	61.40-61.70		0.30	5.181	15.11

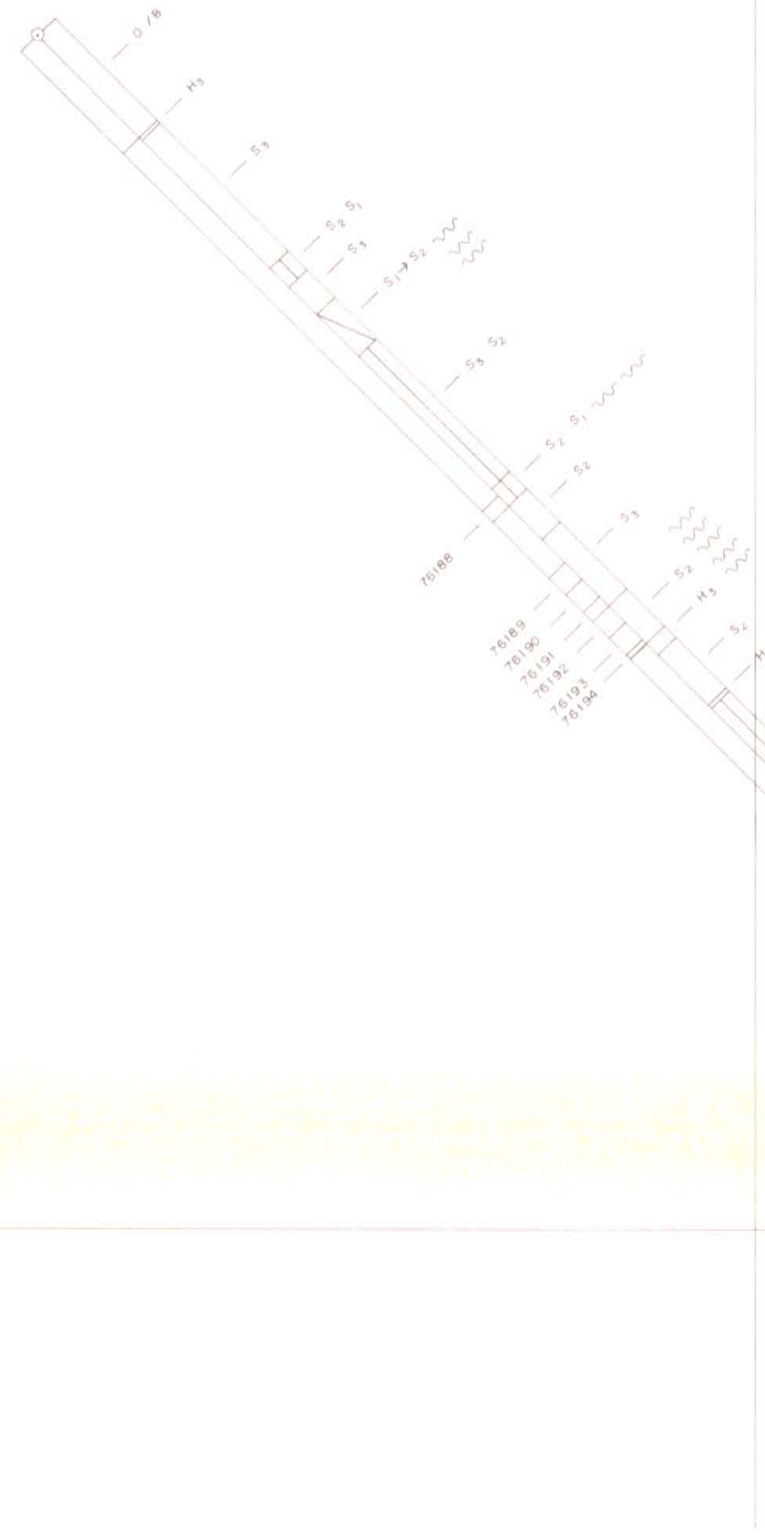
0 5 10 15 20 metres
SCALE 1 : 250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87-17
PROJ. No. 264	SURVEY BY R. D. DATE: JUNE, 1987
N.T.S. 94D/4E	DRAWN BY S. K. B. SCALE: 1:250
DWG. No. FIG. 16	NORANDA EXPLORATION
	OFFICE PRINCE GEORGE, B.C.

VANCAL 11918

9950 E

D.D.H. TJ87-18
8850N, 9920E
EL 1050 m
Az 060°, dip -45°



EL 1000 m

E.O.H. 86.3 m (283')

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
S_3+S_2	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx ▲ breccia
Cc calcite
Cr carbonate
fault
O/B overburden
QV quartz vein
* small quartz vein
sulfides

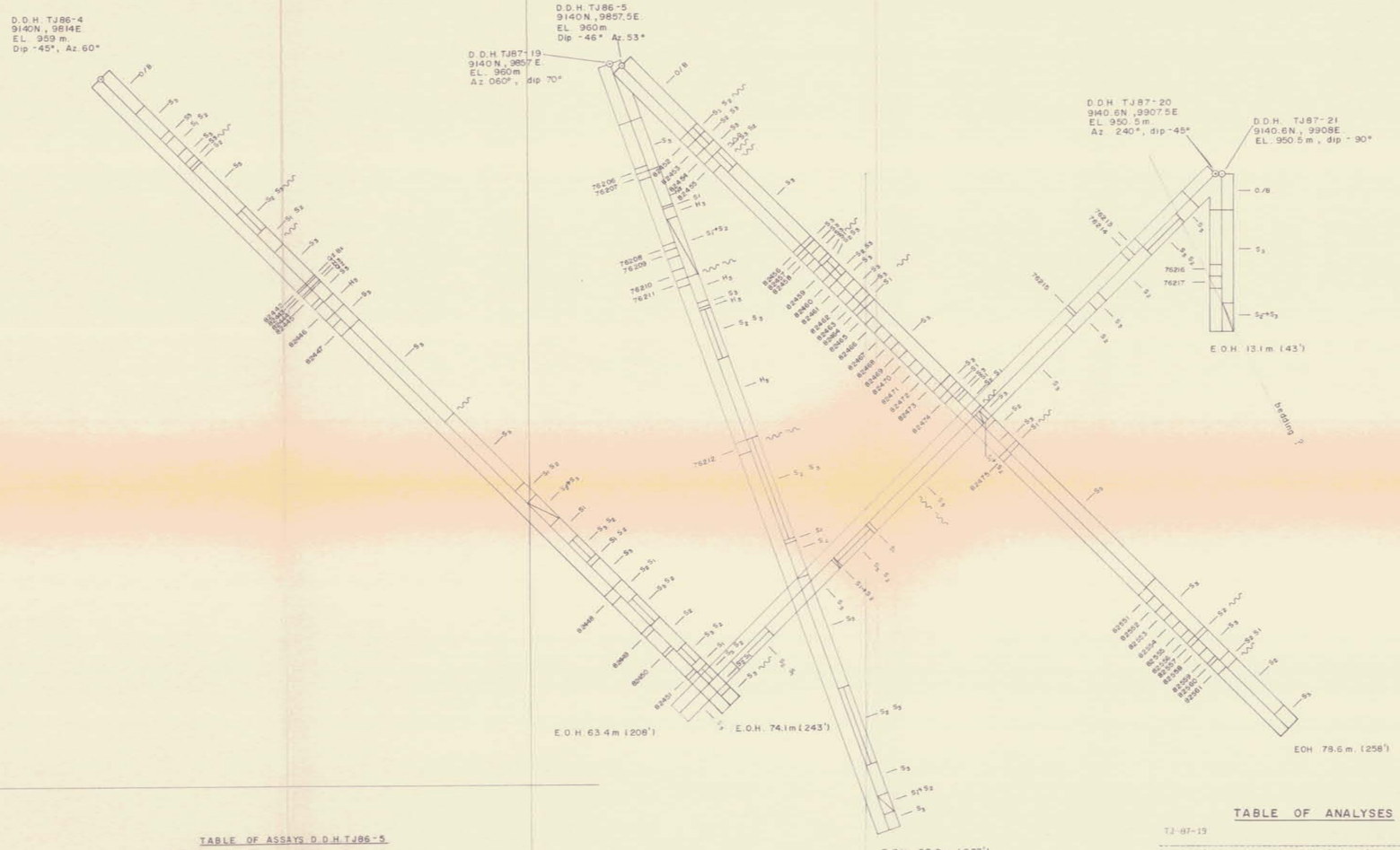
TABLE OF ANALYSES

TJ-87-18

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76188	27.30-28.00		0.70	3.63	16.1
76189	31.30-32.30		1.00	.55	14.1
76190	32.30-33.30		1.00	.49	9.6
76191	33.30-33.90		0.60	.10	7.5
76192	33.90-34.90		1.00	.65	7.9
76193	34.90-35.90		1.00	.82	6.5
76194	35.90-36.10		0.20	3.63	16.1
76195	49.50-49.80		0.30	.10	4.5
76196	71.00-71.70		0.70	.10	3.4
76197	71.70-72.40		0.70	.07	(0.7)
76198	72.40-73.40		1.00	.65	15.1
76199	73.40-74.10		0.70	.45	19.5
76200	76.50-77.50		1.00	.34	11.3
76201	77.50-78.50		1.00	.21	14.1
76202	78.50-79.50		1.00	.21	7.2
76203	79.50-80.50		1.00	.45	56.6
76204	80.50-81.50		1.00	.14	10.6
76205	81.50-82.50		1.00	.27	5.5

0 5 10 15 20 metres
SCALE 1:250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87-18
PROJ. No. 264	SURVEY BY: R.D. DATE: SEPT., 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 17	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.



EL. 900m

TABLE OF ASSAYS D.D.H. TJ86-4

SAMPLE NO.	INTERVAL (metres)	WIDTH (m)	Au gmT	Ag gmT	
82442	24.10 - 24.28	0.18	8.02	219.4	Au Ag
82443	24.28 - 24.70	0.42	1.78	56.6	0.8m 8.9 169
82444	24.70 - 24.90	0.20	24.72	481.3	
82445	24.90 - 25.90	1.00	1.10	14.4	
82446	26.30 - 27.60	1.30	0.31	6.2	
82447	28.40 - 29.40	1.00	0.75	11.0	
82448	60.35 - 61.35	1.00	0.27	3.8	
82449	64.75 - 65.25	0.50	0.65	2.1	
82450	67.20 - 67.50	0.30	5.97	11.3	
82451	69.80 - 70.1	0.30	6.41	12.0	

TABLE OF ASSAYS D.D.H. TJ86-5

SAMPLE NO.	INTERVAL (metres)	WIDTH (m)	Au gmT	Ag gmT			
82452	7.80 - 8.80	1.00	0.55	54.5			
82453	8.80 - 9.80	1.00	0.17	2.1			
82454	9.80 - 10.80	1.00	1.65	17.1	2.0m	Au 1.95	Ag 29.6
82455	10.80 - 11.80	1.00	2.26	42.2			
82456	21.20 - 21.60	0.40	0.41	8.6			
82457	21.60 - 22.10	0.50	3.02	288.3			
82458	22.10 - 22.80	0.70	3.63	79.2			
82459	23.60 - 24.60	1.00	11.66	97.4	9.6m	Au 4.30	Ag 83.6
82460	24.60 - 25.40	0.80	1.20	34.3			
82461	25.40 - 26.40	1.00	6.31	162.9			
82462	26.40 - 27.40	1.00	3.53	52.8			
82463	27.40 - 28.20	0.80	2.37	14.7			
82464	28.20 - 28.70	0.50	0.21	6.5			
82465	28.70 - 29.70	1.00	<0.07	1.0			
82466	29.70 - 30.70	1.00	0.75	14.1			
82467	30.70 - 31.70	1.00	<0.07	1.0			
82468	31.70 - 32.70	1.00	1.75	5.5			
82469	32.70 - 33.70	1.00	0.07	3.1			
82470	33.70 - 34.70	1.00	0.86	8.2			
82471	34.70 - 35.70	1.00	0.07	1.7			
82472	35.70 - 36.70	1.00	0.10	3.8			
82473	36.70 - 37.70	1.00	<0.07	2.1			
82474	38.50 - 39.10	0.60	0.07	4.1			
82475	45.50 - 45.90	0.40	0.17	4.8			
86551	61.90 - 62.90	1.00	<0.07	0.7			
86552	62.90 - 63.90	1.00	<0.07	0.7			
86553	63.90 - 64.90	1.00	0.31	15.8			
86554	64.90 - 65.90	1.00	<0.07	0.7			
86555	65.90 - 66.90	1.00	0.45	17.8			
86556	66.90 - 67.60	0.70	0.55	4.8			
86557	67.60 - 68.00	0.40	0.14	4.1			
86558	68.00 - 69.00	1.00	1.39	14.1			
86559	69.00 - 70.00	1.00	0.14	1.0			
86560	70.00 - 70.30	0.30	<0.07	1.4			
86561	70.30 - 71.30	1.00	0.07	1.4			

TABLE OF ANALYSES

TJ-87-19

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76206	9.00-9.50		0.50	1.71	155.0
76207	9.50-10.00		0.50	.17	8.2
76208	15.90-16.40		0.50	.79	12.0
76209	16.40-16.90		0.50	6.48	285.7
76210	18.10-18.30		0.60	.69	10.3
76211	18.90-19.40		0.50	.99	18.5
76212	33.30-34.30		1.00	.31	3.8

TJ-87-21

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76216	7.60- 8.50	78	0.90	0.65	29.1
76217	8.50- 9.50	95	1.00	0.27	13.0

TJ-87-20

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76213	8.50- 9.50	10	1.00	1.75	24.0
76214	9.50-10.20	95	0.70		
76215	16.40-16.70		0.30	7.75	42.5

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_2 S_3$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲ breccia
Cc calcite
Cr carbonate
fault
O/B overburden
QV quartz vein
* small quartz vein
sulfides

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,943

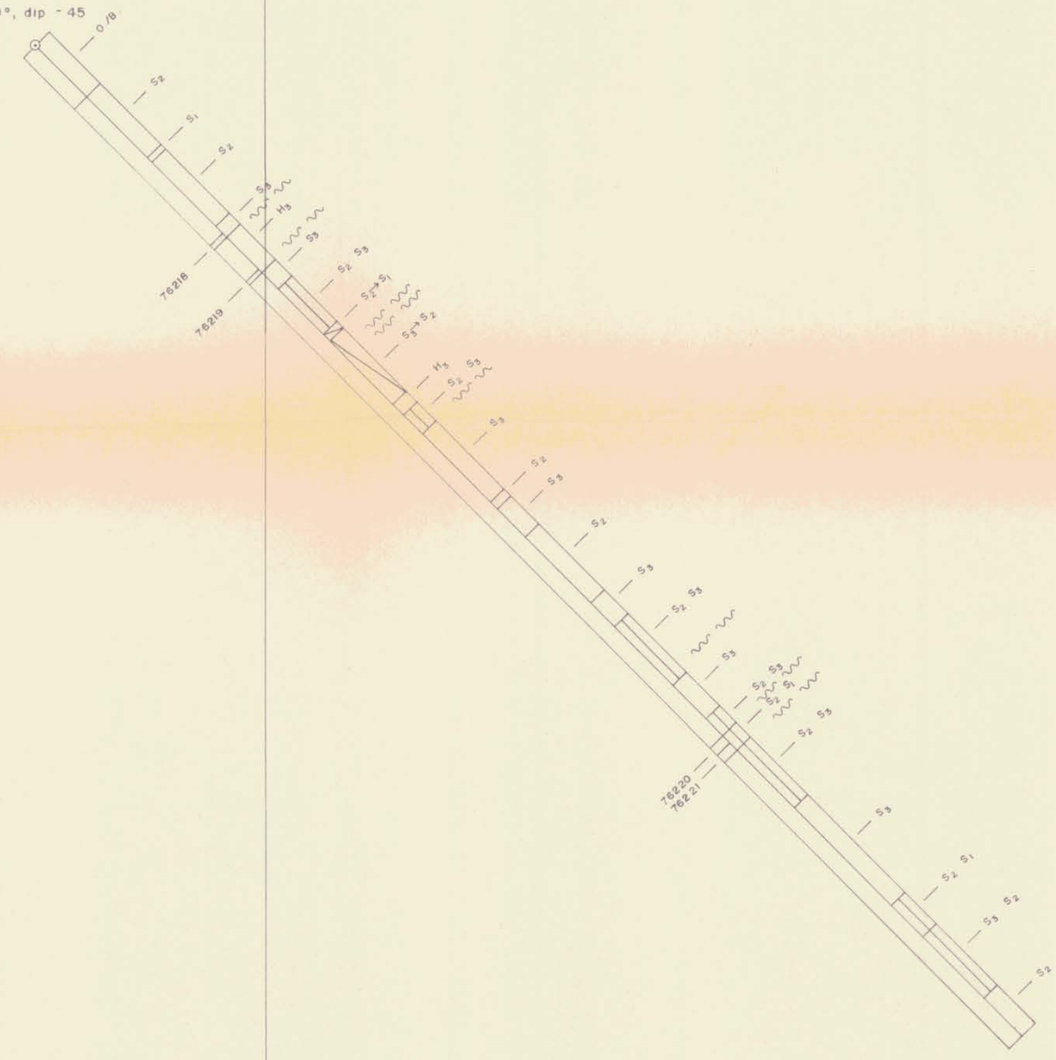
0 5 10 15 20 metres
SCALE 1 : 250

REVISED	TOMMY JACK CREEK PROPERTY
DEMJr., Oct., 1986	
R.D. Sept., 1987	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ87- 4, 5 D.D.H. TJ87-19, 20, 21
PROJ. No. 264	SURVEY BY: R.D. DATE: SEPT., 1986
N.T.S. 94 D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 18	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL - 8823

RLA 9850E

D.D.H. TJ87-22
9115N, 9837.5E
EL. 967m.
Az. 060°, dip -45



E.O.H. 75.6m(248')

EL. 900m

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \rightarrow S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
*	small quartz vein
$\frac{S}{I}$	sulfides

TABLE OF ANALYSES

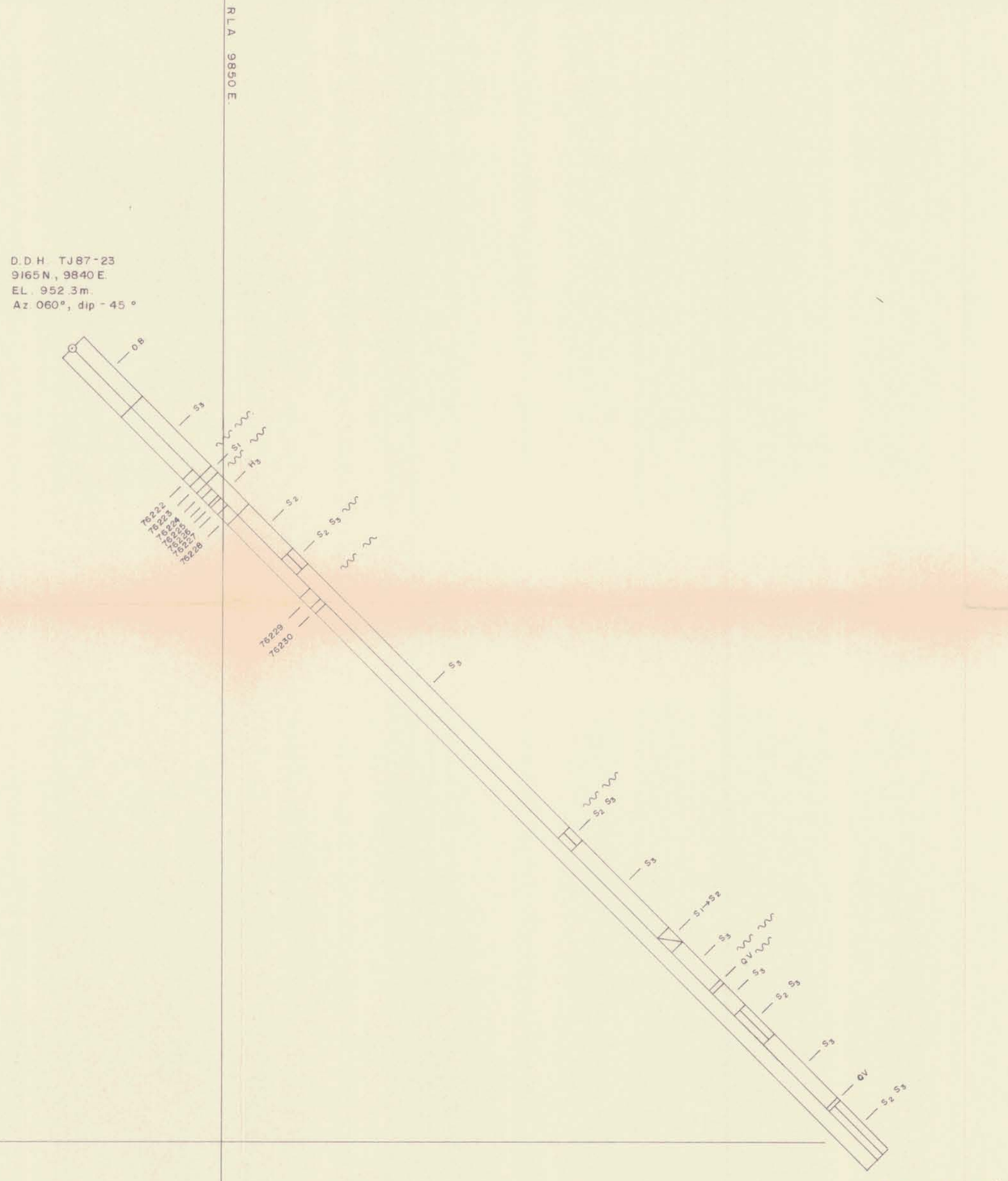
TJ-87-22

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76218	14.40-14.80		0.40	3.01	32.91
76219	17.20-17.40		0.20	13.02	46.21
76220	52.90-53.40		0.50	2.88	10.21
76221	53.40-54.00		0.60	1.23	7.81

0 5 10 15 20 metres
SCALE 1:250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ 87-22
PROJ. No. 264	SURVEY BY: R.D. DATE: SEPT., 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 19	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11919



1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
$S_3 \rightarrow S_2$	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
•	small quartz vein
$\frac{1}{2}$	sulfides

TABLE OF ANALYSES

TJ-87-23

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
76222	11.30-12.00	36	0.70	4.05	55.5
76223	12.00-12.60		0.60	27.1	14.0
76224	12.60-13.10		0.50	0.31	3.4
76225	13.10-13.70		0.60	0.99	18.5
76226	13.70-13.90		0.20	48.50	1243.0
76227	13.90-14.60		0.70	0.41	7.5
76228	14.60-15.60		1.00	0.14	1.4
76229	22.30-23.30		1.00	3.77	80.9
76230	23.30-23.80		0.50	0.79	9.3

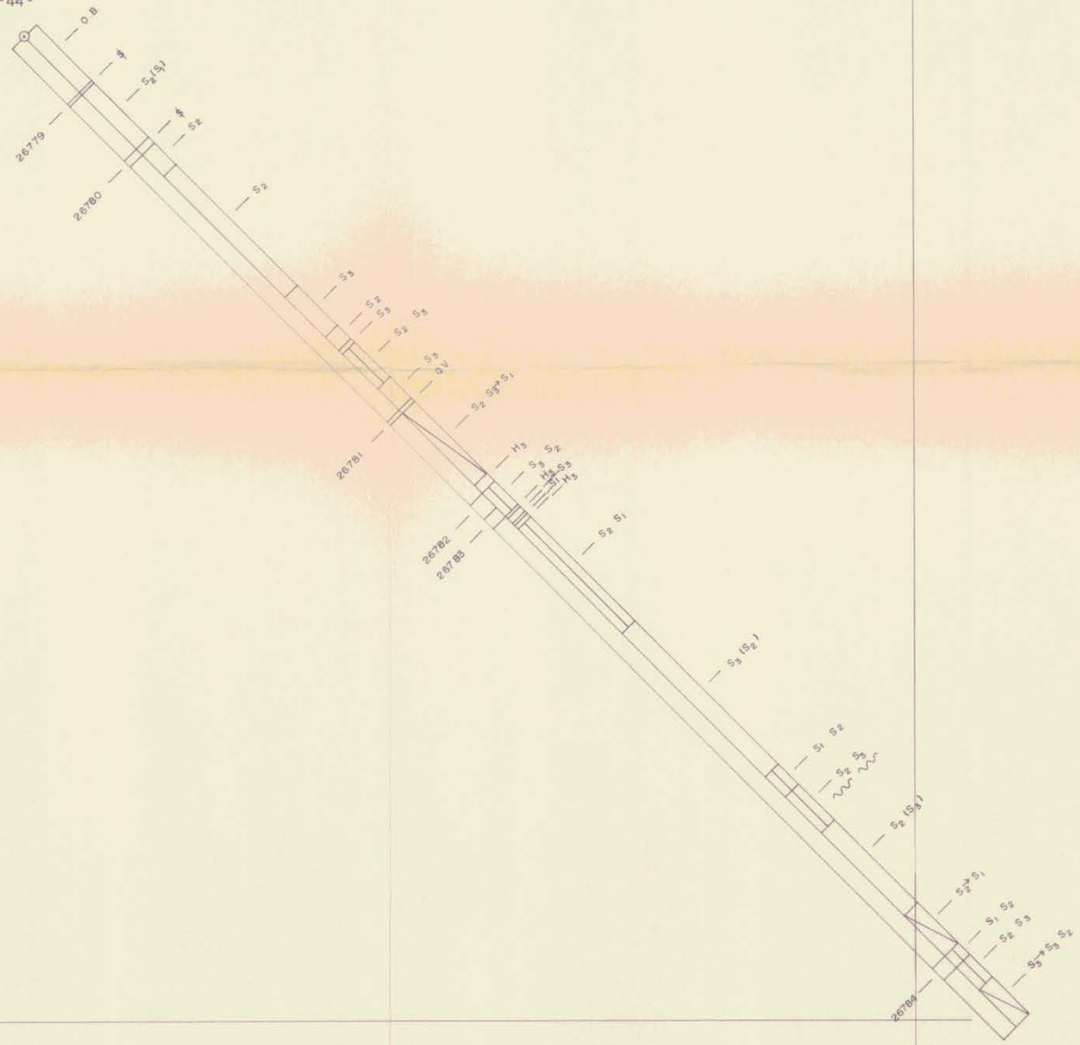
0 5 10 15 20 metres

SCALE 1 : 250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ 87-23
PROJ. No. 264	SURVEY BY: R. D. DATE: SEPT., 1987
N.T.S. 94D/4E	DRAWN BY: S. K. B. SCALE: 1:250
DWG. No. FIG. 20	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11919

D.D.H. TJ 87-25
8849N, 9802E
EL. 1053m
Az 059°, dip -44°



EL 1000m

E.O.H. 75.6m (248')

RLA 9850E

1987 TJ D.D.H. LEGEND

ROCK TYPES

S_1	CLAYSTONE
S_2	SILTSTONE
S_3	SANDSTONE
S_4	CONGLOMERATE
$S_1 S_2$	CLAY AND SILTSTONE
$S_2(S_1)$	SILTSTONE AND MINOR CLAYSTONE
S_3→S_2	SANDSTONE GRADING INTO SILTSTONE
H_3	HYPABYSSAL DACITE INTRUSIVE

Bx, ▲	breccia
Cc	calcite
Cr	carbonate
~~	fault
O/B	overburden
QV	quartz vein
•	small quartz vein
$	sulfides

TABLE OF ANALYSES

TJ-87-25

SAMPLE NO.	INTERVAL	RECOVERY (%)	WIDTH (M)	AU (gmt)	AG (gmt)
26779	4.20- 4.30		0.10	40.6	274.0
26780	8.50- 8.90		0.40	26.1	91.8
26781	28.50-28.75		0.25	.17	2.4
26782	34.85-35.85		1.00	.17	0.7
26783	35.85-36.55		0.70	.48	0.3
26784	70.20-71.00		0.80	.03	1.7

0 5 10 15 20 metres
SCALE 1:250

REVISED	TOMMY JACK CREEK PROPERTY
	VERTICAL SECTION LOOKING 330° THROUGH D.D.H. TJ 87-25
PROJ. No. 264	SURVEY BY: D.E.M.Jr. DATE: NOV. 1987
N.T.S. 94D/4E	DRAWN BY: S.K.B. SCALE: 1:250
DWG. No. FIG. 21	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11919