

GEO TECH.
DO NOT REMOVE

DEMPSTER HIGHWAY

GRAVEL INVESTIGATION '89

TRANSPORTATION ENGINEERING

GR-05-027

1990-88

CAN-1990-88

GR-05-027

TRANSPORTATION
ENGINEERING, S-3

1989

FINAL PROJECT REPORT

DEMPSTER HIGHWAY

GRAVEL INVESTIGATION

KM 0 TO KM 237

1989

Client: Northern Region, W. Gutowski, P. Eng.
Project File: 2141-7
Project Code: 092-240503-9901-89901
Contractor: Klondike Transport
Project Engineer: G. Horel, P. Eng.

Report Prepared by: G. Chapman
D. Andrews
Transportation Engineering
Community & Transportation Services
Government of Yukon
15 March 1990

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Highway 05: Gravel Search 1989

Preliminary photo interpretation by G. Horel, P. Eng. determined sites to be investigated between km 0 and km 247, Dempster Highway. Through rental agreement policy, Klondike Transport was hired to provide test hole excavation equipment at \$140.00/hr, max 100 hours.

A meeting was held with Hahn Indian Band in Dawson City 22 August 1989 to discuss intent of gravel search and concerns of band related to land selection. In attendance were S. Taylor - negotiator, R. Stenstrom - mapper and G. Chapman - Y.T.G. Soils Technician. A reconnaissance trip took place 23 August 1989 by G. Chapman and S. Taylor. Specific concerns of the band were further clarified and would be accommodated in gravel search.

A brief discussion of Land Use Permit was held with N. Wartley, R.M.O. Dawson City 23 August 1989.

PROJECT SUMMARY

Project Summary

- 1989-08-24 Develop access where required.
Equipment - D7 Cat dozer and operator supplied by Transportation Maintenance.
Northern Region: Dozer 17 hours - Operator 20 hours
Complete site access 89-08-26.
- 1989-08-27 Klondike Transport arrived at Ogilvie at 23:00 hours with a Hoehring Bantam C-366 Hoe. Operator B. Duffy supplied own accommodation and Y.T.G. meals at maintenance camp.
- 1989-08-28 Commenced gravel search at km 237.
- 1989-09-08 Completed gravel search at km 01.
05-0237 R.H.S.
Serviced Airstrip - Approx. 400 meters, left and right side of airstrip - north end - Cottonwood & Alder - area previously stripped at north end was not frozen. Area not previously stripped was frozen. August water table was 2.0 m. Material in this area, in general 4" minus clean sandy gravel. Fine material has shale. Recommend stripping to thaw area and possible push piles to handle water problem.
- 05-0226 R.H.S.
Old Access Road to Ogilvie River and old borrow source. Area not previously stripped was frozen at 0.5 m. Test hole at edge of borrow source, previously stripped, indicates 2.75 m of 4 inch minus sandy gravel. Area requires stripping to thaw. Northwestel has test holes on south side of access, borrow pit is on north side of access road.
- 05-0208 R.H.S.
Existing pit approx. 250 m Rt of center - abandoned airstrip north of pit indicates approx 2 -- 3 m of 6 inch minus sandy gravel. Parts of airstrip could be fill. Area with spruce vegetation was frozen silt - could not rip with D7 dozer. Area with cottonwood is sandy gravel. Crush site.
- 05-0194 L.H.S.
Existing garbage dump - old crush pit: Base of existing pit 1.0 m of gravel with water at 0.25 m - area south of pit is frozen at 0.25 m with surface water (muskeg). Pit is exhausted.
- 05-0175 L.H.S.
Existing pit - side borrow - previous crush site: previously stripped area on first bench indicated either rock or frozen at 3.5 m. Area west or outside of clearing is frozen peat moss 0.5 - 2.0 m. Refusal due to frozen material at 2.0 m. Attempted test hole in area with 0.5 m stripped previous year - frozen at 0.5 m. Area requires stripping of all organic which could require greater than one year. 1989 riprap project could deplete useful material in previously stripped area.

05-0163 R.H.S.

Engineer Creek fan: areas previously stripped indicate 2.5 - 3.0 m of twelve inch minus sandy gravel. Test holes not previously stripped were frozen at 1.5 m. There are old borrow pits in this area. Requires stripping to thaw.

05-0150 L.H.S.

Existing pit - south side of Windy Pass - large area previously stripped 4.5 m of 10" minus sandy gravel. Requires no development work.

05-0131 R.H.S.

Well developed pit with 4.5 m of 6" minus sandy gravel. Requires no development work. Note: gravesite 300 m north of existing face.

05-0122 L.H.S.

Three hundred meter pit adjacent to highway. Area previously stripped indicates approx. 4.0 m of 8" minus sandy gravel with odd oversize. Area not previously stripped is frozen at 0.2 m.

05-0106 R.H.S.

Creek borders east and south sides of pit with highway on west side. North end of existing pit has a hump with approx. 20,000 m of 16" minus sandy gravel. Pit is near exhaustion.

05-0087 L.H.S.

Small pit with 2.5 m of 2" minus sandy gravel. Permafrost evident in south face adjacent to highway. Face could create drifting problems in winter.

05-0058 L.H.S.

Existing garbage dump - old borrow source - 4.5 m of 16" minus sandy gravel. Extremely coarse material 500 m south of pit.

05-0050 R.H.S.

Existing pit and crush site: 10 inch minus sandy gravel with approx 10 percent oversize. Majority of oversize in top 2.0 m. Crusher presently working 7.0 m face. Large deposit.

05-0048 R.H.S.

Old borrow source - 4.5 m of 12 inch minus sandy gravel. Maximum 18" approx. 10 percent oversize.

05-0040 R.H.S.

Old borrow pit - 4.0 m of 10 inch minus sandy gravel. Material coarser near surface. Six inch minus below 2.0 m. Area south of pit has 1.0 m of dry silt on surface.

05-0028 R.H.S.

Existing clearing on north side of creek - 4.5 m of 8 inch minus sandy gravel with approx. 10 percent oversize. South side of creek along old trail appears to be same material.

05-0023 L.H.S.
Bedrock.

05-0001 L.H.S.
Existing crush pit. Approx 2.5 m 6" minus sandy gravel area on west
of pit frozen.

Klondike Transport Hours - total 85 at \$140.00/hr

Photo Negative File # 89-45 covers km 237, 226, 208, 194, 175, 163

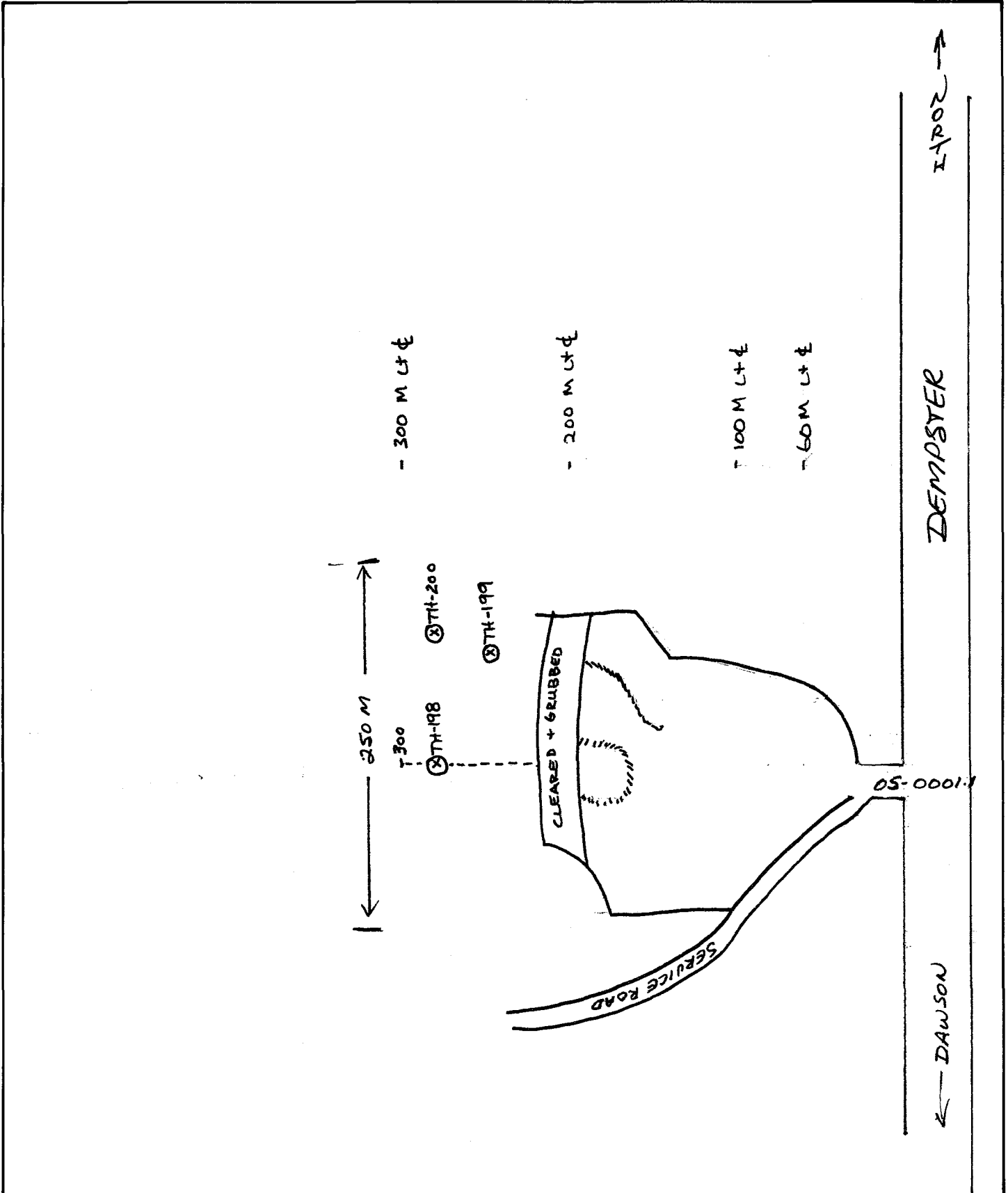
Photo Negative File # 89-46 covers km 150, 131 and 122

Photo Negative File # 89-47 covers km 106, 87, 58, 50, 48, 40, 23 and km 1

Actual photos of pit panorama, test hole material etc. are located in actual pit
files.

APPENDIX "A"

DESIGN SHEET
HIGHWAY ENGINEERING



TITLE		FILE NO. 05-0001 L.H.S.	SHEET	OF
BY G. CHAPMAN	PROJECT HWY 05 GRAVEL SEARCH.		DATE	YY MM DD 89 09 08

NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION		BOREHOLE No. 89-198					
KLONDIKE TRANSPORT		KM 1, 250m LEFT.		Project No: 05-0001					
HOE - KOEHRING BANTAM C-366		CENTER OF EXISTING PIT		ELEVATION 0.00 (m)					
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER		<input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE					
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC	M.C.	LIQUID	▲ % FINES ▲	DEPTH (m)
					20 40 60 80		20 40 60 80	20 40 60 80	
0.0	GRAVEL, LIGHT BROWN								0.0
	GRAVEL, WITH WOOD -GREY								
-1.0	GW -WELL GRADED GRAVEL WITH SAND -4% MOISTURE -6in. MINUS, 10% OVER 8in.								-1.0
-2.0									-2.0
	WATER AT 2.25m		432	GW					
-3.0	END OF HOLE AT 3.0m -SLUFFING DUE TO WATER								-3.0
-4.0									-4.0
-5.0									-5.0
Government of Yukon Transportation Engineering				COMPLETION DEPTH 3.0 m		COMPLETE 89/09/07			
				LOGGED BY GWC		DWG NO.		Page 1 of 1	

PROJECT NUMBER: 05-0001 HOLE NUMBER: 89-198
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: 250M LEFT CENTER OF EXISTING PIT
 LOGGED BY: GWC DATE COMPLETED: 89-09-08

FIELD NO: 432
 LAB NO: 432
 DEPTH: 1.75-2.7
 TYPE: BULK
 8" MINUS

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	88
31.5	---
25.0	69
20.0	---
12.5	47
10.0	---
5.0	32
2.5	---
2.0	---
1.25	17
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	3

M.C. (%): 4

LIMITS

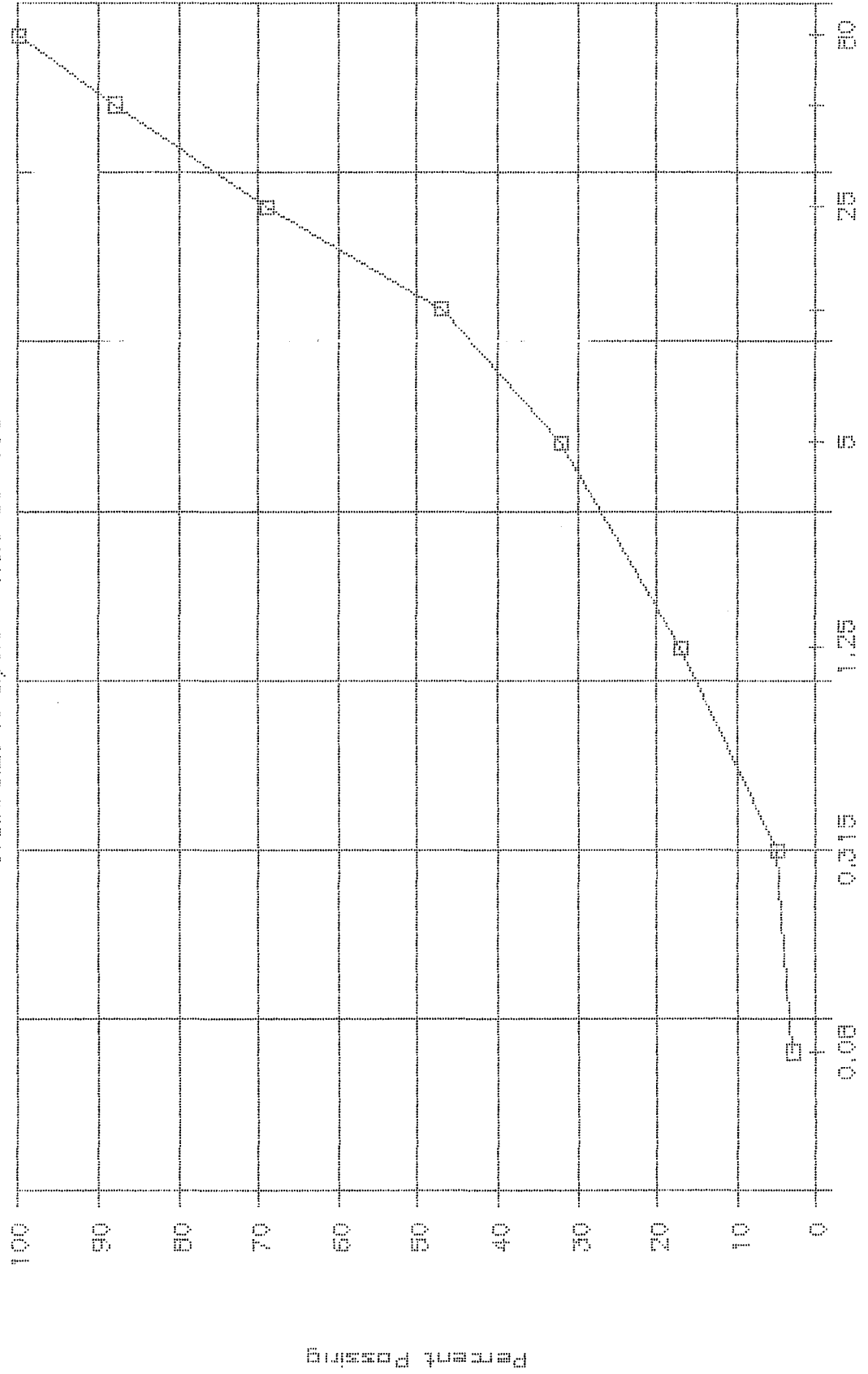
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 68
 % SAND: 29
 % FINES: 3

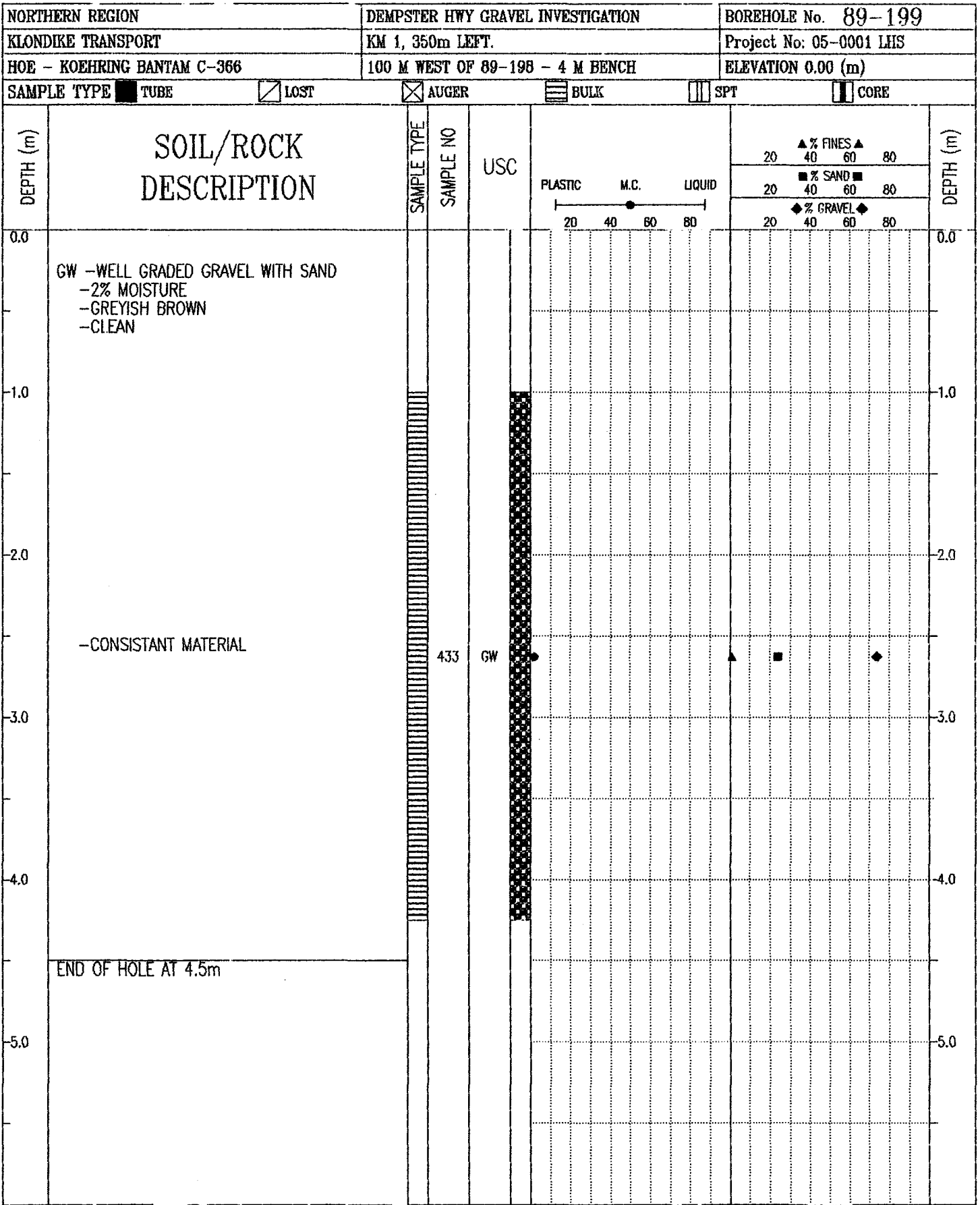
CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 59-13B



□ 5AMP, 432 ◊ 5AMP △ 5AMP X 5AMP



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m

COMPLETE 89/09/08

LOGGED BY SH GWC

DWG NO.

Page 1 of 1

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=====
PROJECT NUMBER:    05=0001                HOLE NUMBER:    89-199
CLIENT:           NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME:     GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT:       BANTAM C-366 KEOHRING
HOLE LOCATION:    KM 1, 350M LEFT
LOGGED BY:        SH                      DATE COMPLETED: 89-09-08
=====

```

```

FIELD NO: 433
LAB NO: 433
DEPTH: 1.0-4.25
TYPE: BULK
6" MINUS

```

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	84
31.5	---
25.0	57
20.0	---
12.5	40
10.0	---
5.0	26
2.5	---
2.0	---
1.25	12
0.840	---
0.630	---
0.420	---
0.315	3
0.160	---
0.150	---
0.080	1

```

M.C. (%): 2

```

```

LIMITS
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

```

```

% GRAVEL: 74
% SAND: 24
% FINES: 1

```

```

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)
=====

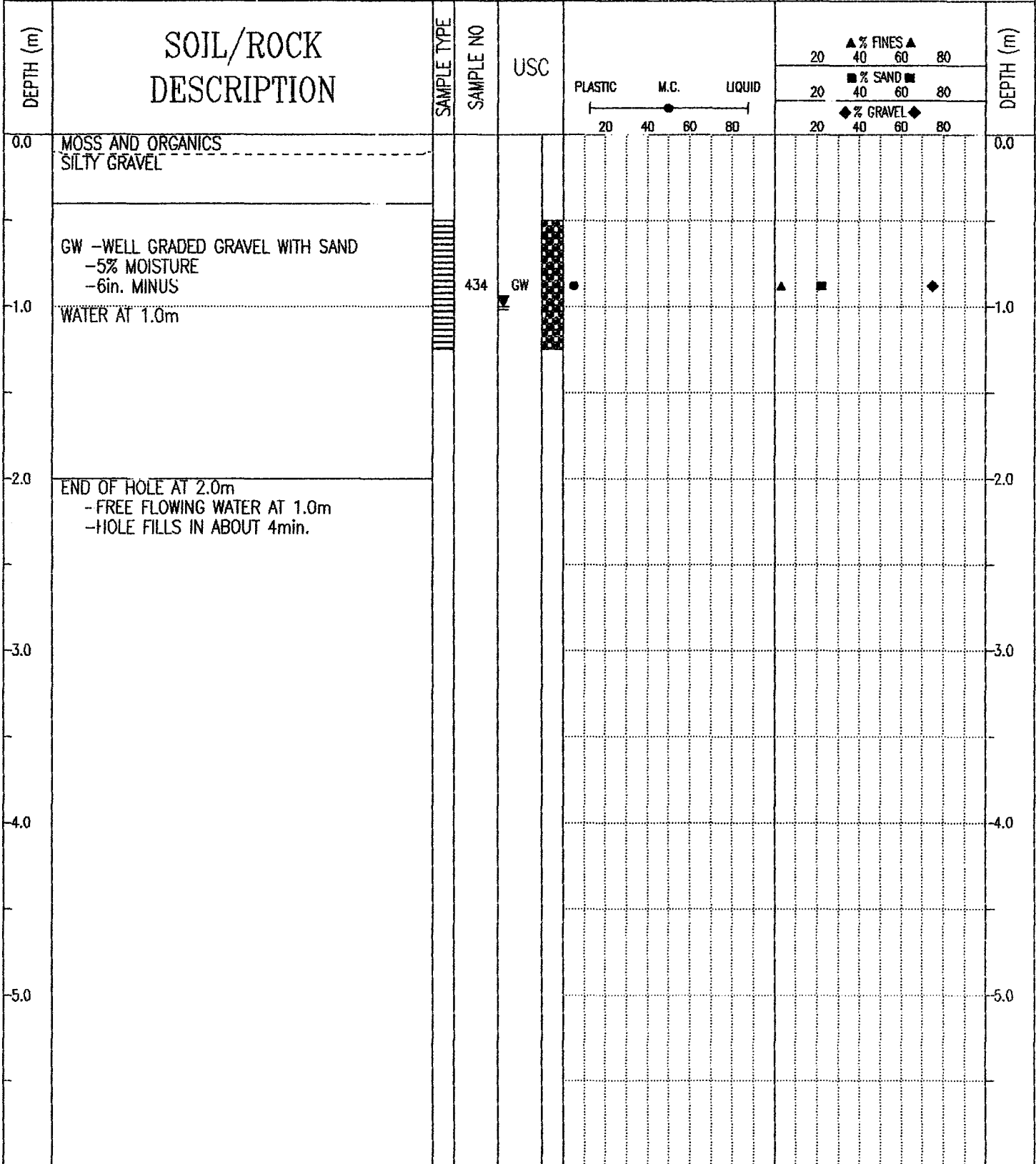
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NORTHERN REGION DEMPSTER HWY GRAVEL INVESTIGATION BOREHOLE No. 89-200

KLONDIKE TRANSPORT KM 1, 550m LEFT. Project No: 05-0001 LHS

HOE - KOEHRING BANTAM C-366 CAT TRAIL ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 2.0 m

COMPLETE 89/09/08

LOGGED BY SH GWC

DWG NO.

Page 1 of 1

```

=====
PROJECT NUMBER: 05=0001           HOLE NUMBER: 89-200
CLIENT:         NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME:   GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT:     BANTAM C-366 KEOHRING
HOLE LOCATION:  KM 1 550M LEFT
LOGGED BY:      SH                 DATE COMPLETED: 89-09-08
=====

```

```

FIELD NO: 434
LAB NO: 434
DEPTH: 0.5-1.25
TYPE: BULK
6" MINUS

```

```

SIEVE | PERCENT
SIZE  | PASSING
-----|-----

```

```

100.0 | --
 80.0 | 100
 50.0 | 96
 31.5 | --
 25.0 | 61
 20.0 | --
 12.5 | 42
 10.0 | --
  5.0 | 25
  2.5 | --
  2.0 | --
 1.25 | 13
 0.840 | --
 0.630 | --
 0.420 | --
 0.315 | 6
 0.160 | --
 0.150 | --
 0.080 | 3

```

```

M.C. (%): 5

```

LIMITS

```

LIQUID: --
PLASTIC: --
P.I.: N.P.

```

```

% GRAVEL: 75
% SAND: 22
% FINES: 3

```

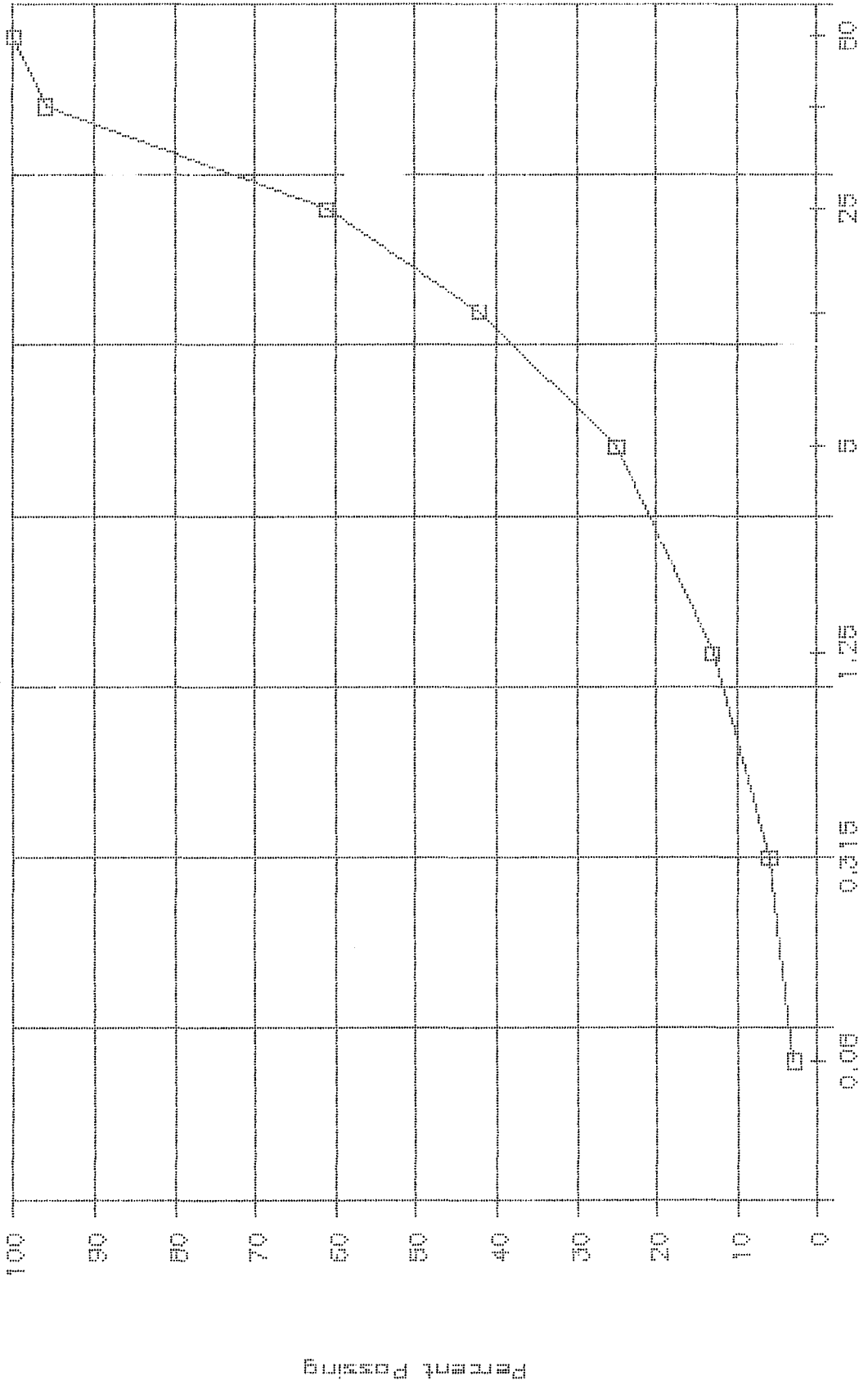
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CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)
=====

```

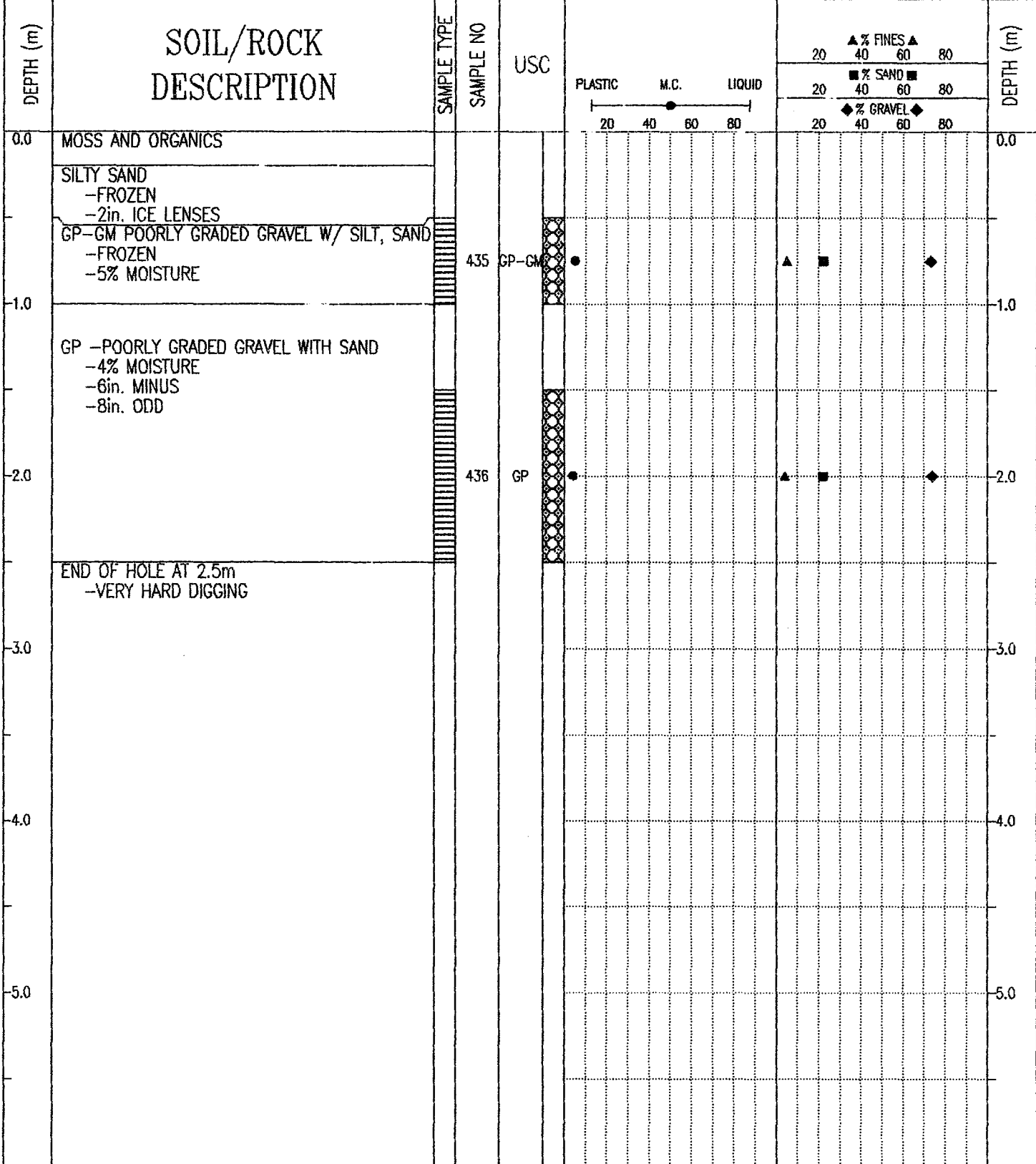
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 59-200



□ SAMP. 434 ◇ SAMP. △ SAMP. × SAMP.

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 2.5 m	COMPLETE 89/09/08	
LOGGED BY SH GWC	DWG NO.	Page 1 of 1

```

=====
PROJECT NUMBER: 05=0001 HOLE NUMBER: 89-201
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 1, 600M LEFT
LOGGED BY: GWC DATE COMPLETED: 89-08-08
=====

```

```

=====
FIELD NO: 435 FIELD NO: 436
LAB NO: 435 LAB NO: 436
DEPTH: 0.5-1.0 DEPTH: 1.5-2.5
TYPE: BULK TYPE: BULK
FROZ FROZ 6" MINUS
=====

```

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--
80.0	100	80.0	100
50.0	79	50.0	88
31.5	--	31.5	--
25.0	57	25.0	56
20.0	--	20.0	--
12.5	41	12.5	39
10.0	--	10.0	--
5.0	27	5.0	26
2.5	--	2.5	--
2.0	--	2.0	--
1.25	17	1.25	16
0.840	--	0.840	--
0.630	--	0.630	--
0.420	--	0.420	--
0.315	10	0.315	8
0.160	--	0.160	--
0.150	--	0.150	--
0.080	5	0.080	4

```

M.C. (%): 5 M.C. (%): 4
=====

```

```

LIMITS LIMITS
LIQUID: -- LIQUID: --
PLASTIC: -- PLASTIC: --
P.I.: N.P. P.I.: N.P.
=====

```

```

% GRAVEL: 73 % GRAVEL: 74
% SAND: 22 % SAND: 22
% FINES: 5 % FINES: 4
=====

```

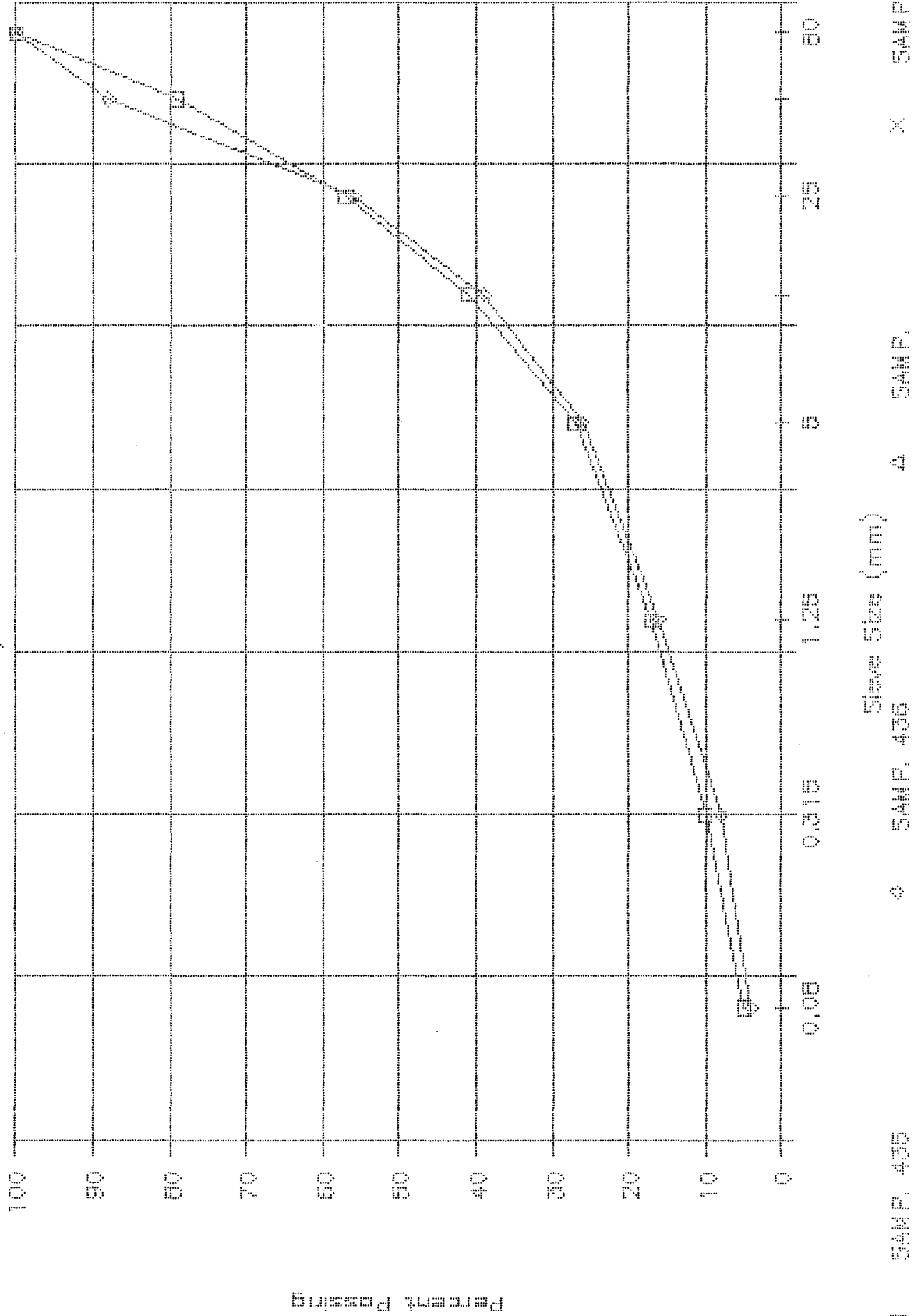
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CLASSIFICATION: CLASSIFICATION:
POORLY GRADED POORLY GRADED
GRAVEL WITH SILT GRAVEL WITH SAND
& SAND (GP-GM) (GP)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 59-201

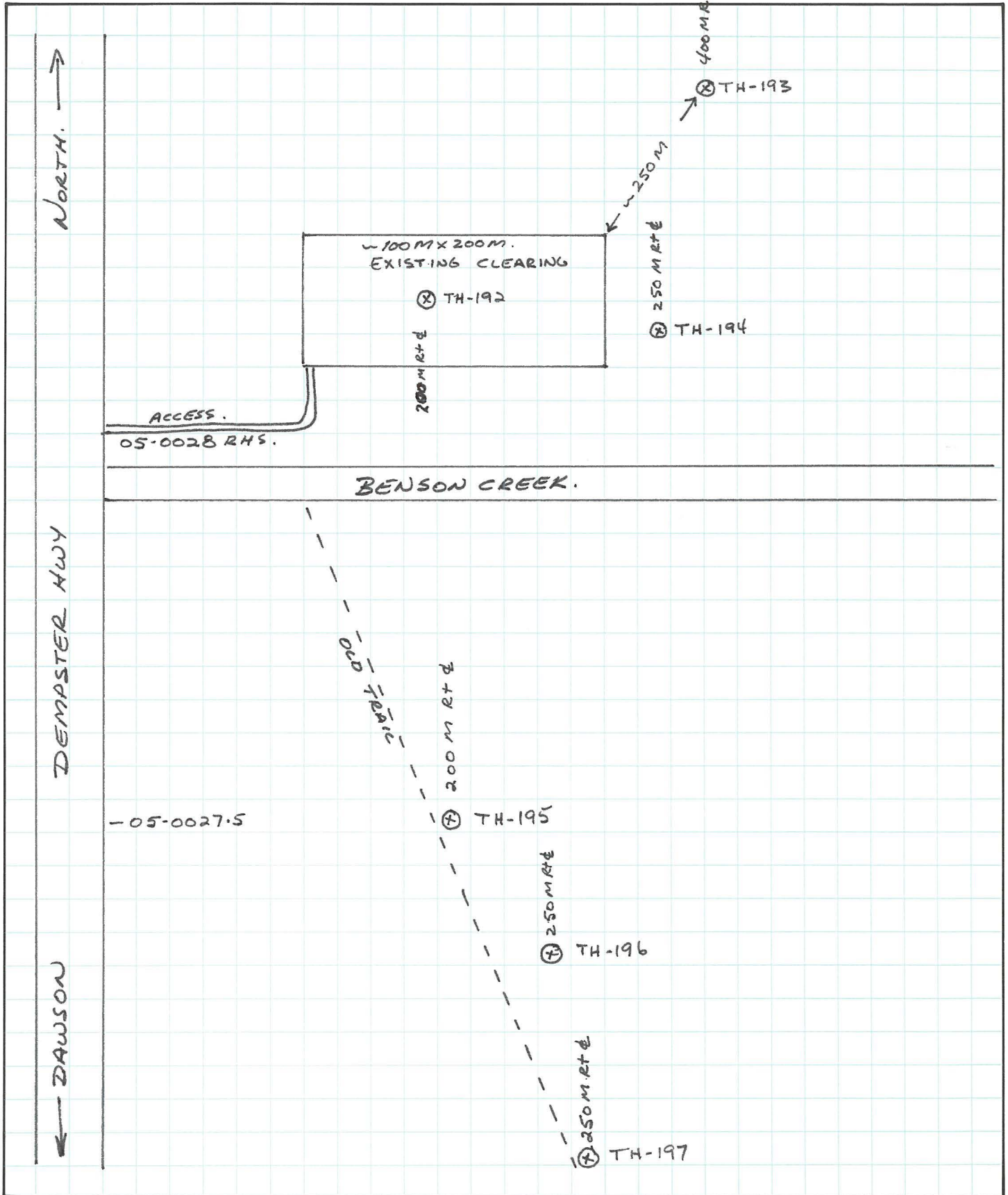


5AMP, 435

5AMP, 435

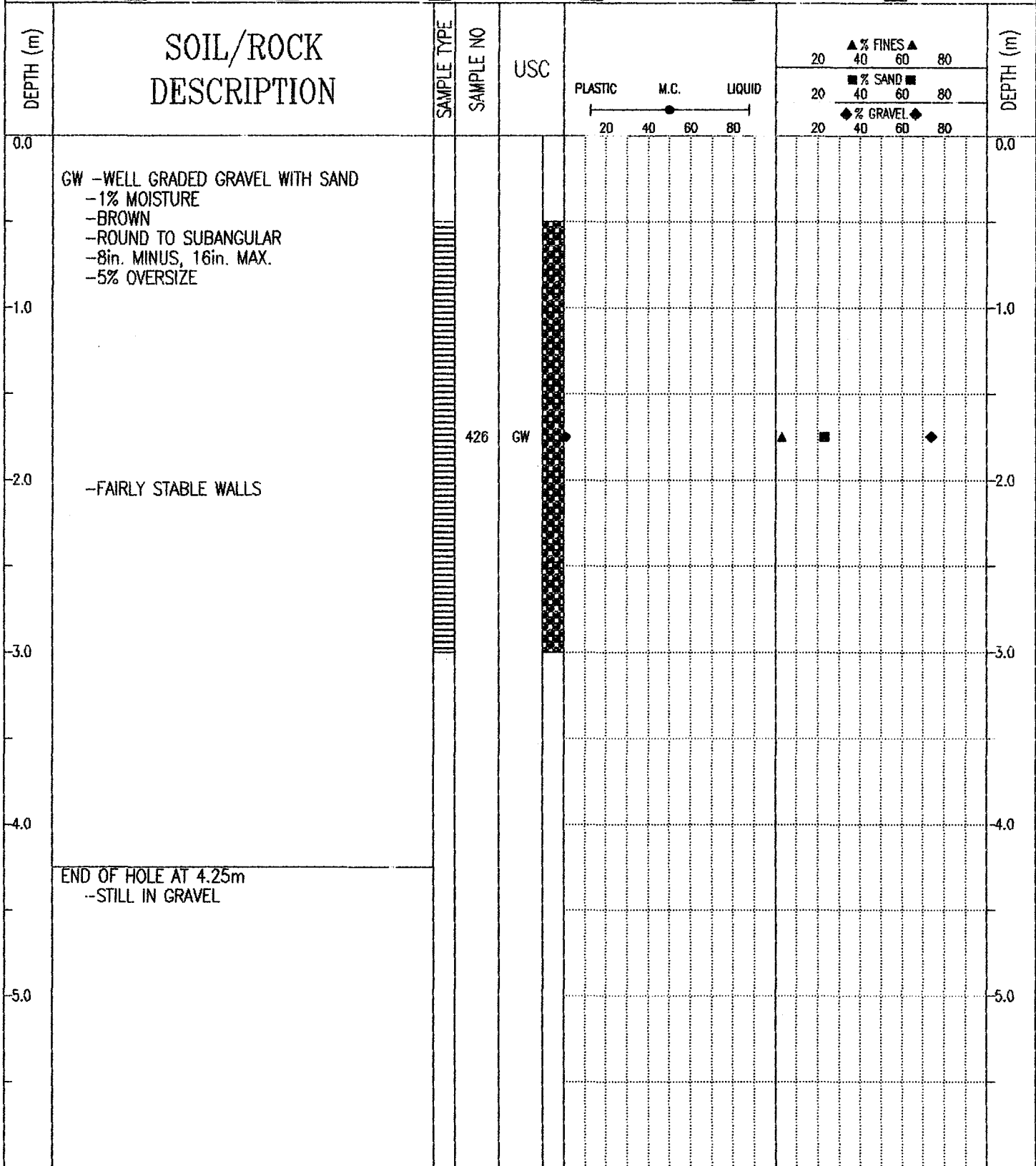
5AMP, 501

5AMP, 501



TITLE		FILE NO. 05-0028 R.H.S.	SHEET	OF
BY G. CHAPMAN	PROJECT HWY 05 - GRAVEL SEARCH.	DATE		YY MM DD 89 09 07

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-192
KLONDIKE TRANSPORT	KM 28, 200m RIGHT OF CENTER, BENSON CK.	Project No: 05-0028 RHS
HOE - KOEHRING BANTAM C-366	CENTER OF EXISTING CLEARING OR PIT	ELEVATION 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m

COMPLETE 89/09/06

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0028 HOLE NUMBER: 89-192
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEHRING
 HOLE LOCATION: KM 28, 200M RT. MID. EXISTING PIT
 LOGGED BY: GWC DATE COMPLETED: 89-09-07

FIELD NO: 426
 LAB NO: 426
 DEPTH: 0.5-3.0
 TYPE: BULK
 5% OVER 16" MAX

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	72
31.5	---
25.0	56
20.0	---
12.5	37
10.0	---
5.0	26
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	3

M.C. (%): 1

LIMITS

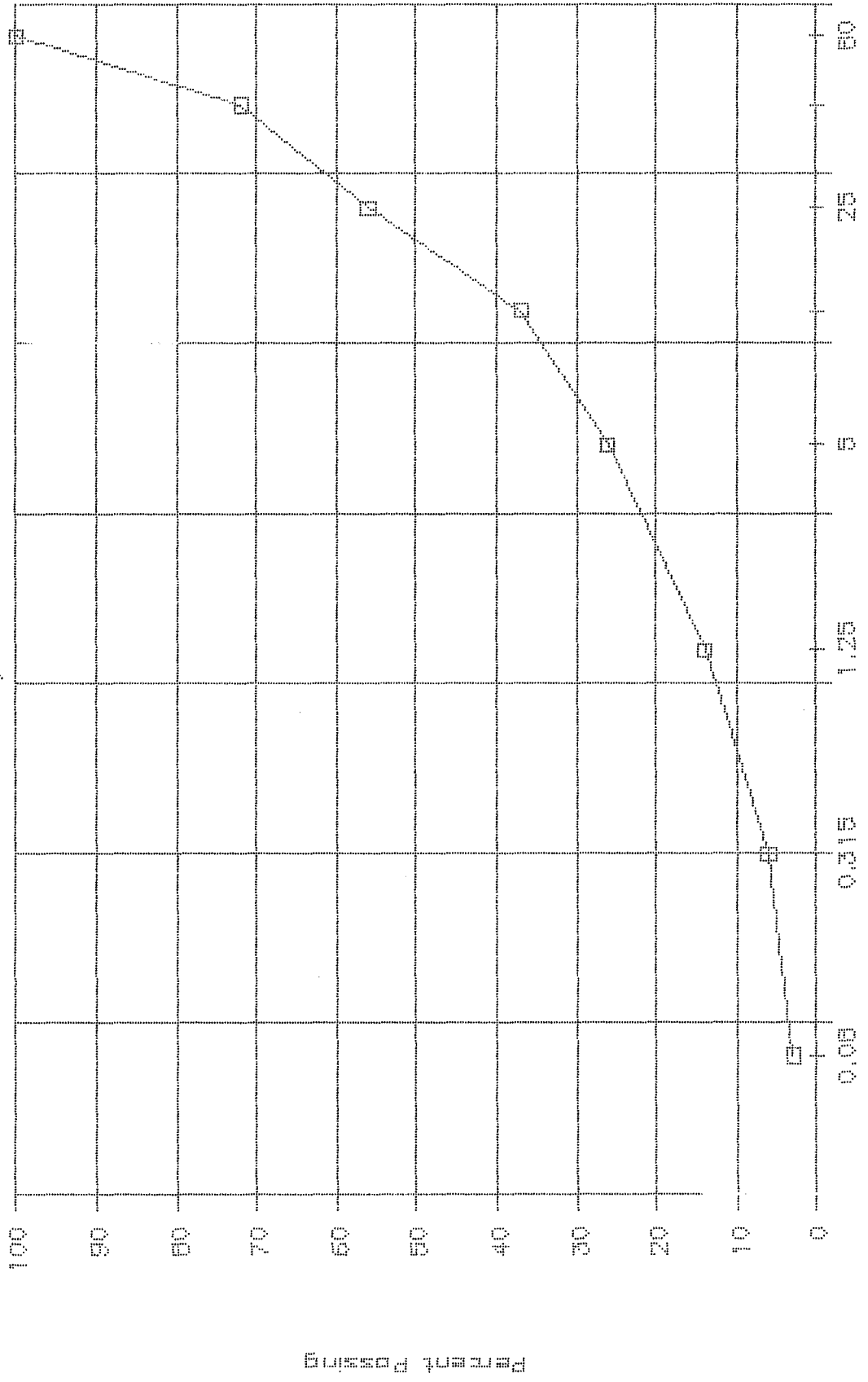
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 74
 % SAND: 23
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

Y.T.G. TRANSPORTATION ENGINEERING

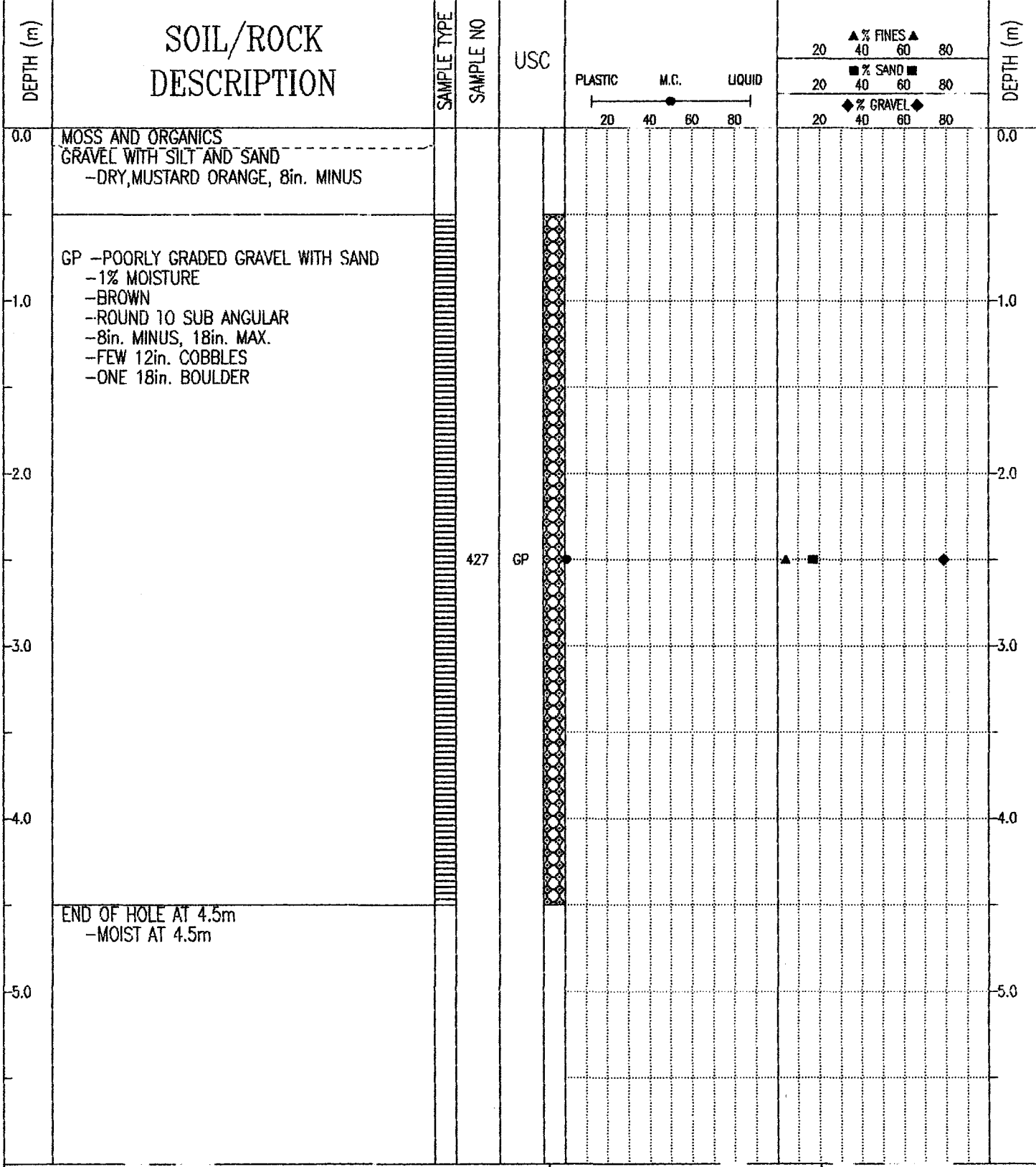
Grain Size Analysis - Hole 59-192



□ 5AMP, 425 ◊ 5AMP △ 5AMP X 5AMP

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89- 193
KLONDIKE TRANSPORT	KM 28, BENSON CREEK	Project No: 05-0028 RHS
HOE - KOEHRING BANTAM C-366	250 M NORTHWEST OF CLEARING OR PIT	ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



```

=====
PROJECT NUMBER: 05-0028 HOLE NUMBER: 89-193
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: 200M NORTHWEST OF 89-192
LOGGED BY: GWC DATE COMPLETED: 89-09-07
=====

```

```

FIELD NO: 427
LAB NO: 427
DEPTH: 0.5-4.5
TYPE: BULK
8" MINUS

```

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	81
31.5	---
25.0	49
20.0	---
12.5	32
10.0	---
5.0	21
2.5	---
2.0	---
1.25	13
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	4

```

M.C. (%): 1

```

LIMITS

```

LIQUID: ---
PLASTIC: ---
P.I.: N.P.

```

```

% GRAVEL: 79
% SAND: 17
% FINES: 4

```

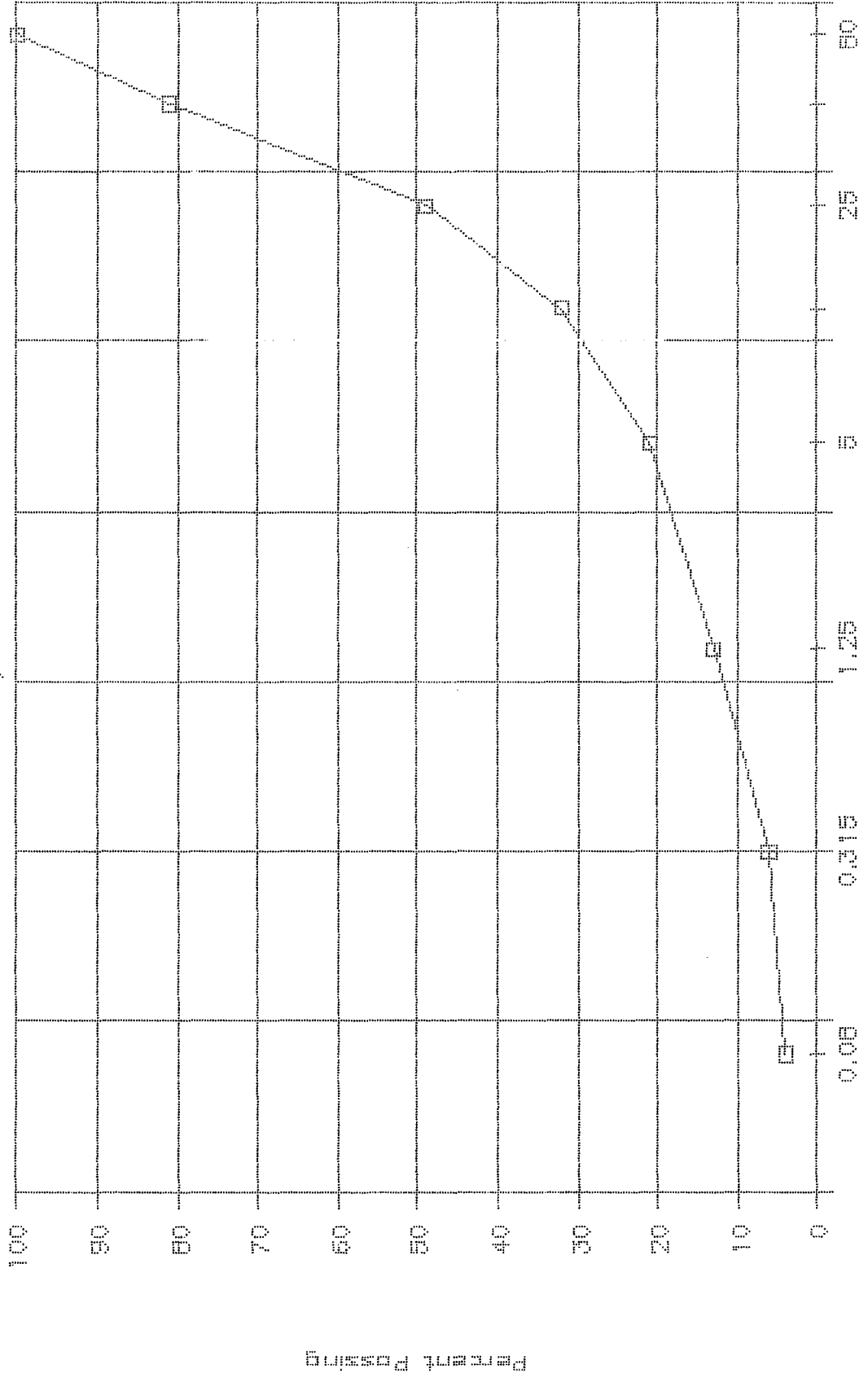
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CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SAND
(GP)
=====

```

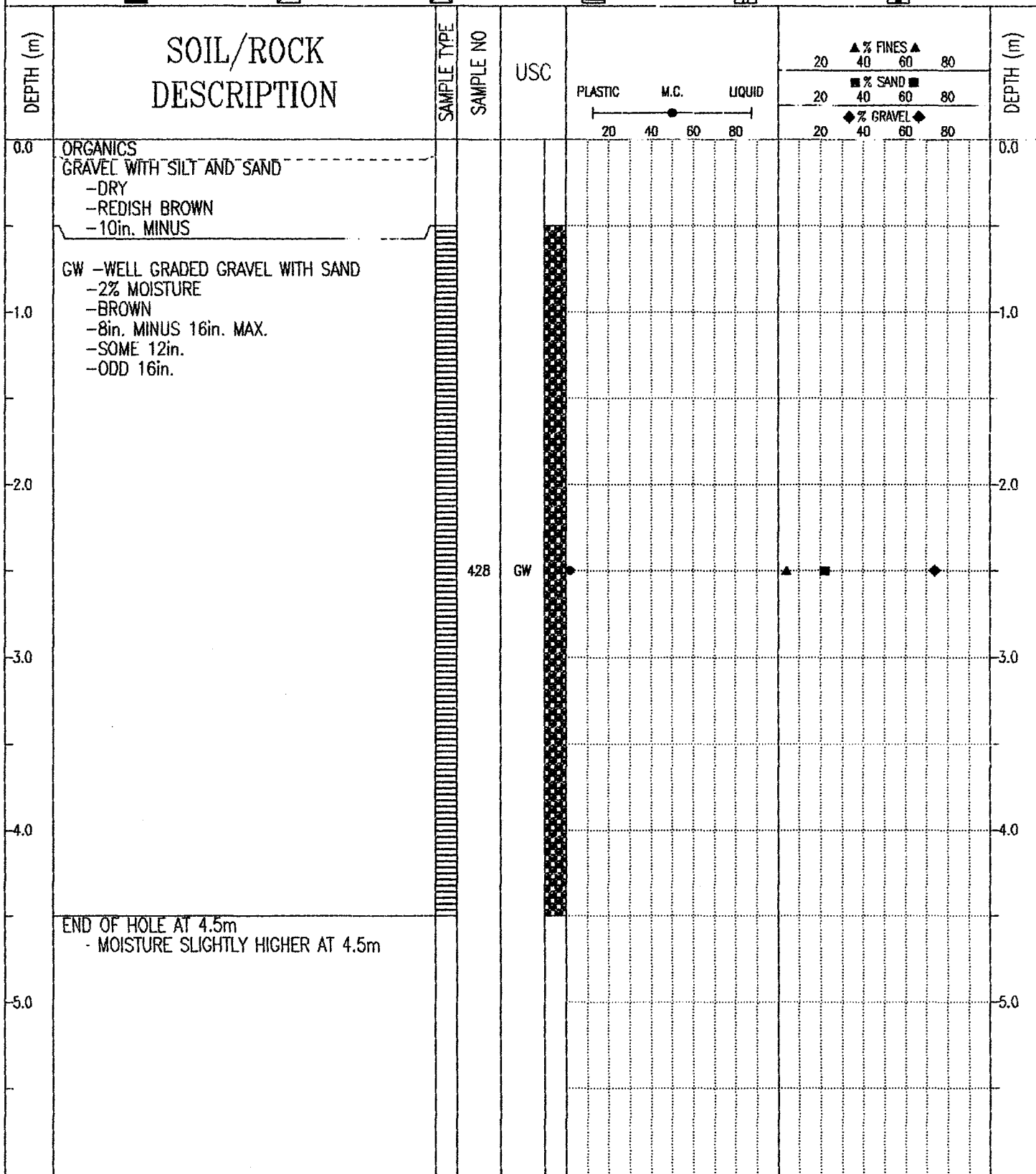
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-193



□ SAMPL. 427 ◆ SAMPL. 4 ▲ SAMPL. X SAMPL.

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89--194
KLONDIKE TRANSPORT	KM 28, 300m RIGHT, BENSON CREEK	Project No: 05-0028 RHS
HOE - KOEHRING BANTAM C-366	50 M EAST OF PIT OR CLEARING	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



PROJECT NUMBER: 05-0028 HOLE NUMBER: 89-194
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 28, 300M RIGHT
 LOGGED BY: GWC DATE COMPLETED: 89-09-07

FIELD NO: 428
 LAB NO: 428
 DEPTH: 0.5-4.5
 TYPE: BULK
 8" MINUS 16"MAX.

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	---
80.0	100
50.0	87
31.5	---
25.0	53
20.0	---
12.5	37
10.0	---
5.0	26
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	4

M.C. (%): 2

LIMITS

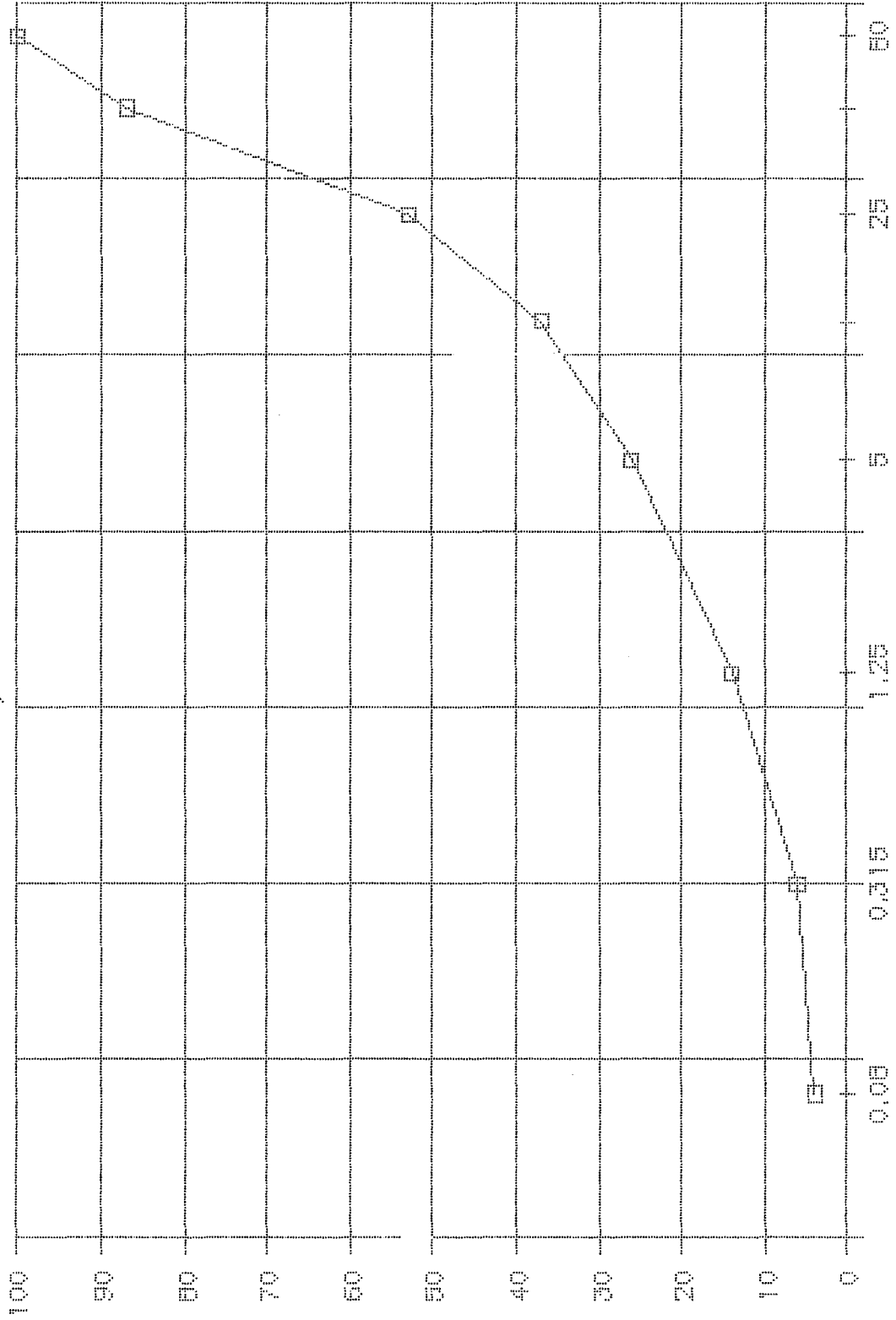
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 74
 % SAND: 22
 % FINES: 4

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

Y.T.G. TRANSPORTATION ENGINEERING

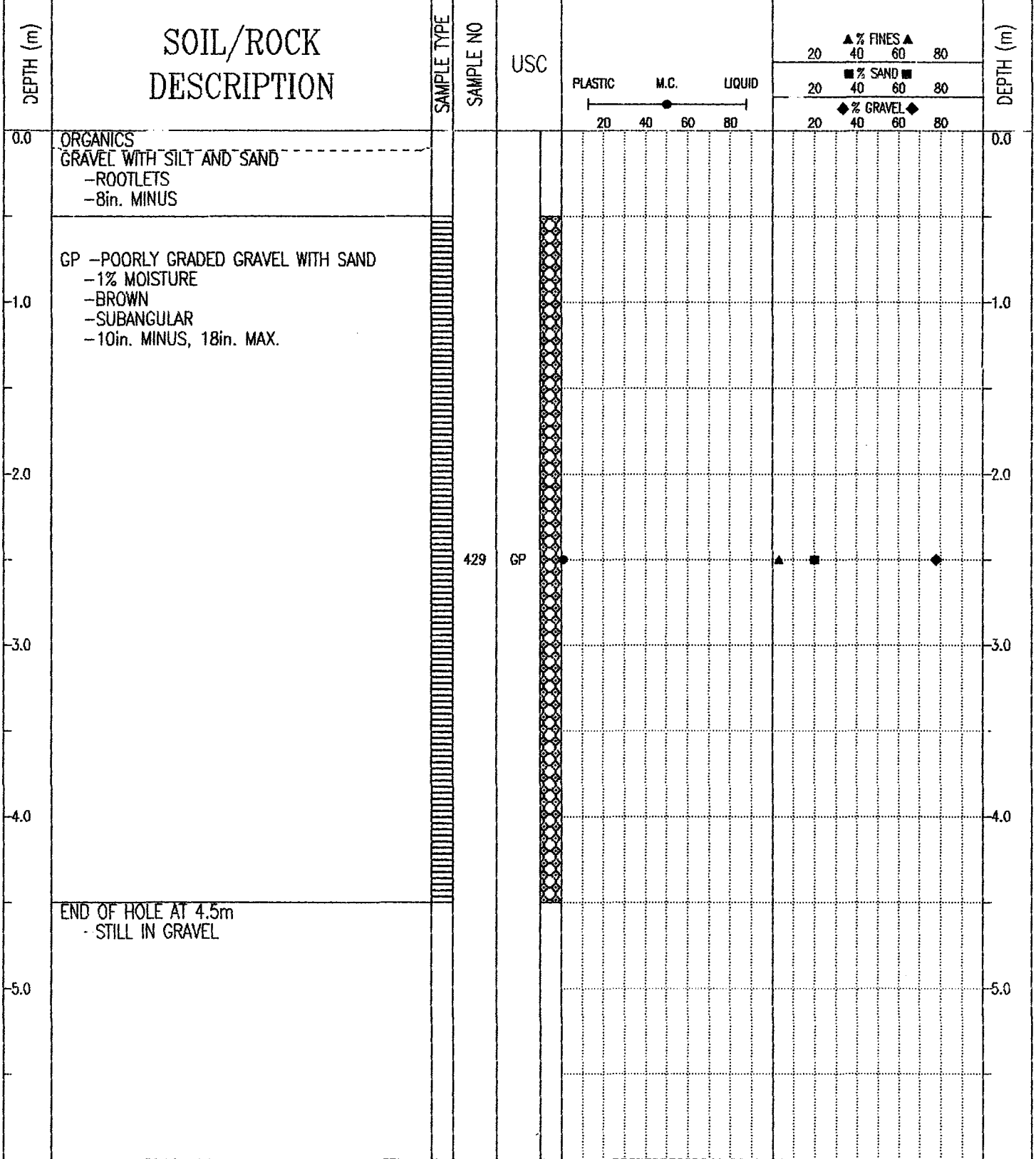
Grain Size Analysis - Hole 55-184



Legend:
 □ SAMPL. 42B
 ◇ SAMPL.
 △ SAMPL.
 X SAMPL.

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-195
KLONDIKE TRANSPORT	KM 28, 200m Rt. 500m SOUTH OF CREEK.	Project No: 05-0028
HOE - KOEHRING BANTAM C-366	BENSON CREEK, OLD ROAD.	ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



PROJECT NUMBER: 05-0028 HOLE NUMBER: 89-195
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEHRING
 HOLE LOCATION: 200M RT., 500M SOUTH OF CREEK
 LOGGED BY: GWC DATE COMPLETED: 89-09-06

FIELD NO: 429
 LAB NO: 429
 DEPTH: 0.5-4.5
 TYPE: BULK
 10"MINUS 18"MAX

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	89
31.5	---
25.0	57
20.0	---
12.5	36
10.0	---
5.0	22
2.5	---
2.0	---
1.25	12
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	3

M.C. (%): 1

LIMITS

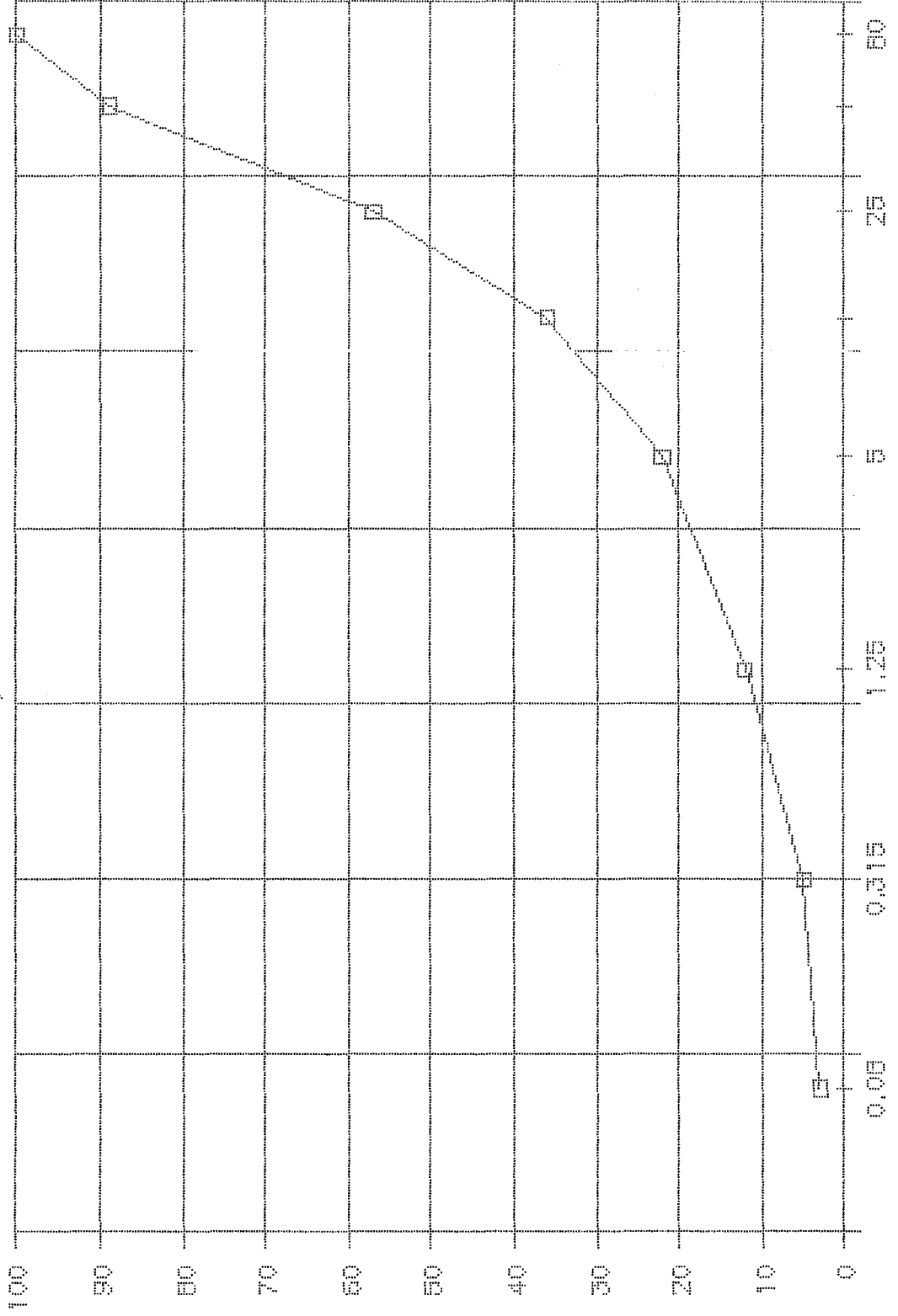
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 78
 % SAND: 20
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 53-155



□ 5AMP, 429 ◇ 5AMP △ 5AMP X 5AMP

PERCENT PASSING

NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION			BOREHOLE No. 89-196							
KLONDIKE TRANSPORT		KM 28, 200m Rt. 600m SOUTH OF CREEK.			Project No: 05-0028 RHS							
HOE - KOEHRING BANTAM C-366		BENSON CREEK, OLD ROAD.			ELEVATION 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> TUBE		<input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER		<input type="checkbox"/> BULK		<input type="checkbox"/> SPT		<input type="checkbox"/> CORE		
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC	M.C.	LIQUID	▲ % FINES ▲ 20 40 60 80 ■ % SAND ■ 20 40 60 80 ◆ % GRAVEL ◆ 20 40 60 80				DEPTH (m)
0.0	ORGANICS GRAVEL WITH SILT AND SAND -6in. MINUS											0.0
-1.0	GP --POORLY GRADED GRAVEL WITH SAND -1% MOISTURE -BROWN -SUBANGULAR -16in> MAX.											-1.0
-2.0			430	GP								-2.0
-3.0												-3.0
-4.0												-4.0
-5.0	END OF HOLE AT 4.5m - STILL IN GRAVEL											-5.0

Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m COMPLETE 89/09/06
 LOGGED BY GWC DWG NO. Page 1 of 1

PROJECT NUMBER: 05-0028 HOLE NUMBER: 89-196
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: 200M RT. 600M SOUTH OF CREEK
 LOGGED BY: GWC DATE COMPLETED: 89-09-07

FIELD NO: 430
 LAB NO: 430
 DEPTH: 0.3-4.0
 TYPE: BULK
 15% OVER 16" MAX

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	—
80.0	100
50.0	73
31.5	—
25.0	37
20.0	—
12.5	27
10.0	—
5.0	18
2.5	—
2.0	—
1.25	12
0.840	—
0.630	—
0.420	—
0.315	6
0.160	—
0.150	—
0.080	3

M.C. (%): 1

LIMITS

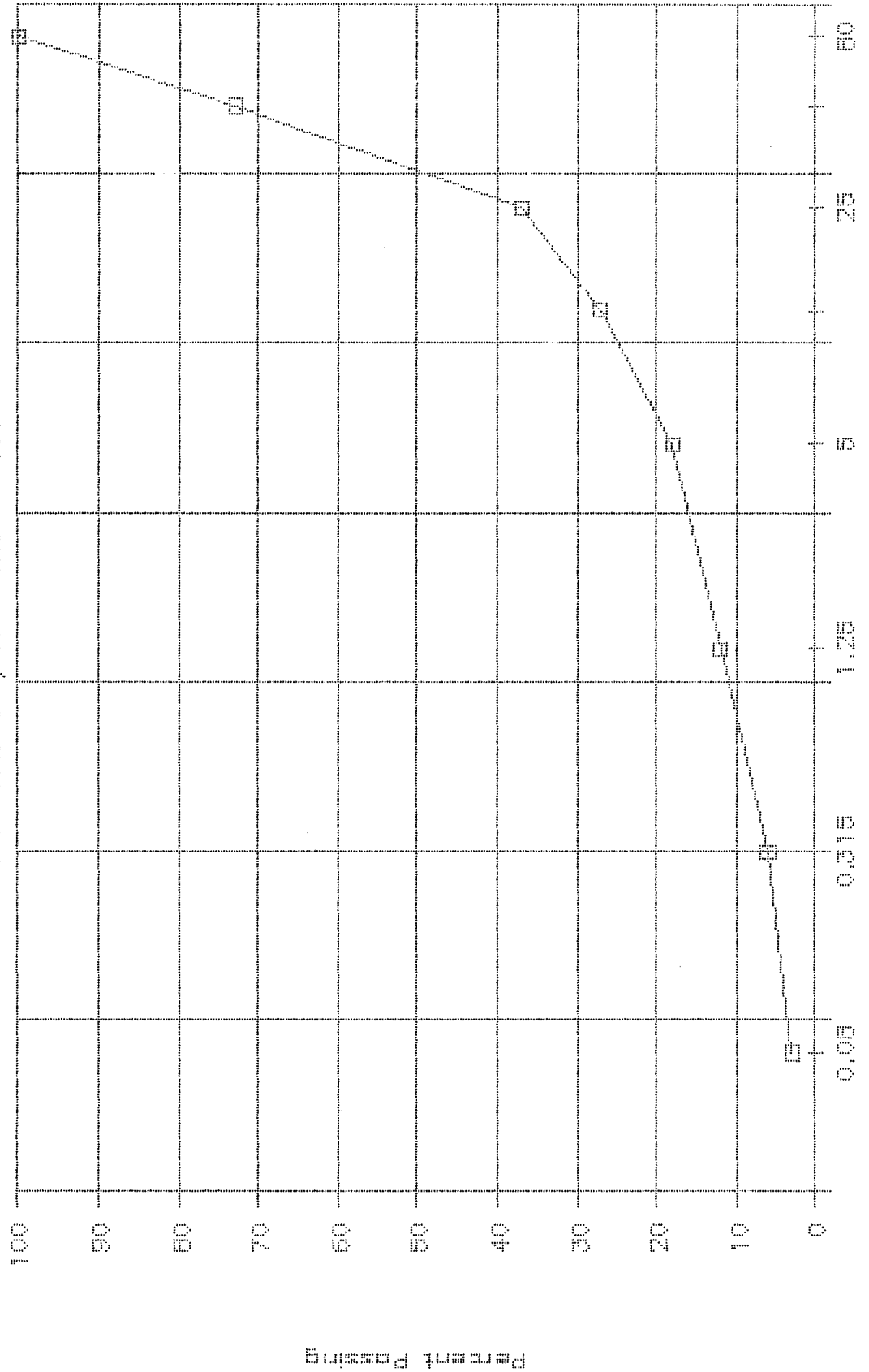
LIQUID: —
 PLASTIC: —
 P.I.: N.P.

% GRAVEL: 82
 % SAND: 15
 % FINES: 3

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

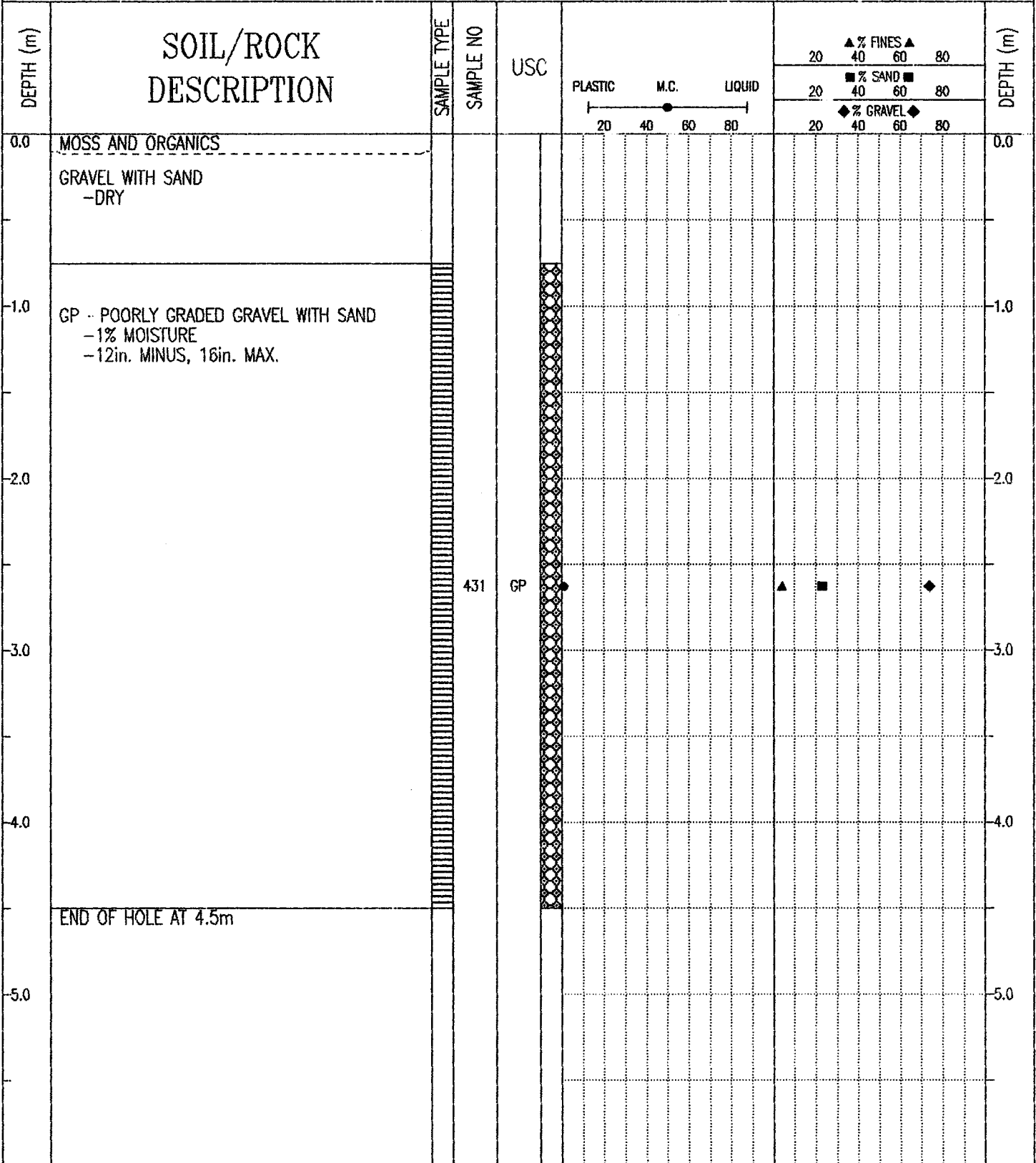
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-196



□ SAMP. 430 ◊ SAMP. △ SAMP. X SAMP.

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-197
KLONDIKE TRANSPORT	KM 28, 250m Rt., 900m SOUTH OF CREEK.	Project No: 05-0028 RHS
HOE - KOEHRING BANTAM C-366	BENSON CREEK, OLD ROAD.	ELEVATION 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> TUBE	<input checked="" type="checkbox"/> LOST	<input checked="" type="checkbox"/> AUGER
	<input type="checkbox"/> BULK	<input type="checkbox"/> SPT
		<input type="checkbox"/> CORE



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m	COMPLETE 89/09/06
LOGGED BY GWC	DWG NO.
	Page 1 of 1

PROJECT NUMBER: 05-0028 HOLE NUMBER: 89-197
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: 900M SOUTH OF CREEK, 250M RIGHT
 LOGGED BY: GWC DATE COMPLETED: 89-09-07

FIELD NO: 431
 LAB NO: 431
 DEPTH: 0.75-4.5
 TYPE: BULK
 12" MINUS 16" MAX

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	---
80.0	---
50.0	100
31.5	---
25.0	57
20.0	---
12.5	40
10.0	---
5.0	26
2.5	---
2.0	---
1.25	15
0.840	---
0.630	---
0.420	---
0.315	7
0.160	---
0.150	---
0.080	4

M.C. (%): 1

LIMITS

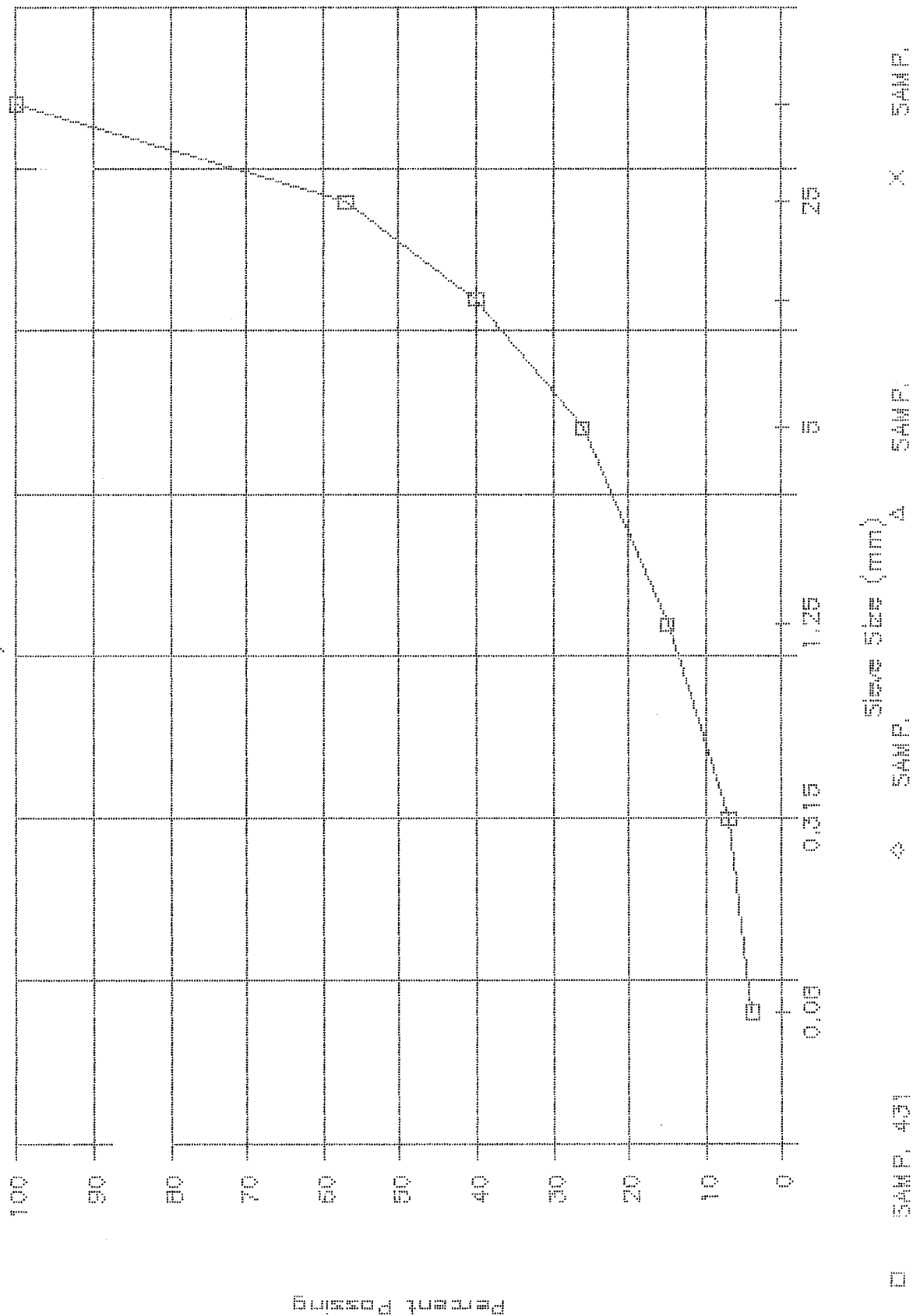
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 74
 % SAND: 23
 % FINES: 4

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-197



□ SAMP. 431

◇ SAMP.

△ Sieve Size (mm)

△ SAMP.

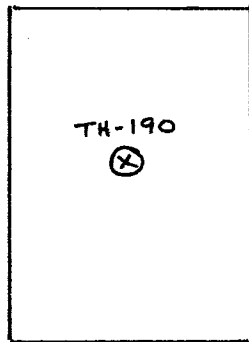
X SAMP.

EAGLE PLAINS
→

PEA SOUP CREEK - Km 40

DEMPSTER

05-0039.5



TH-190
⊗

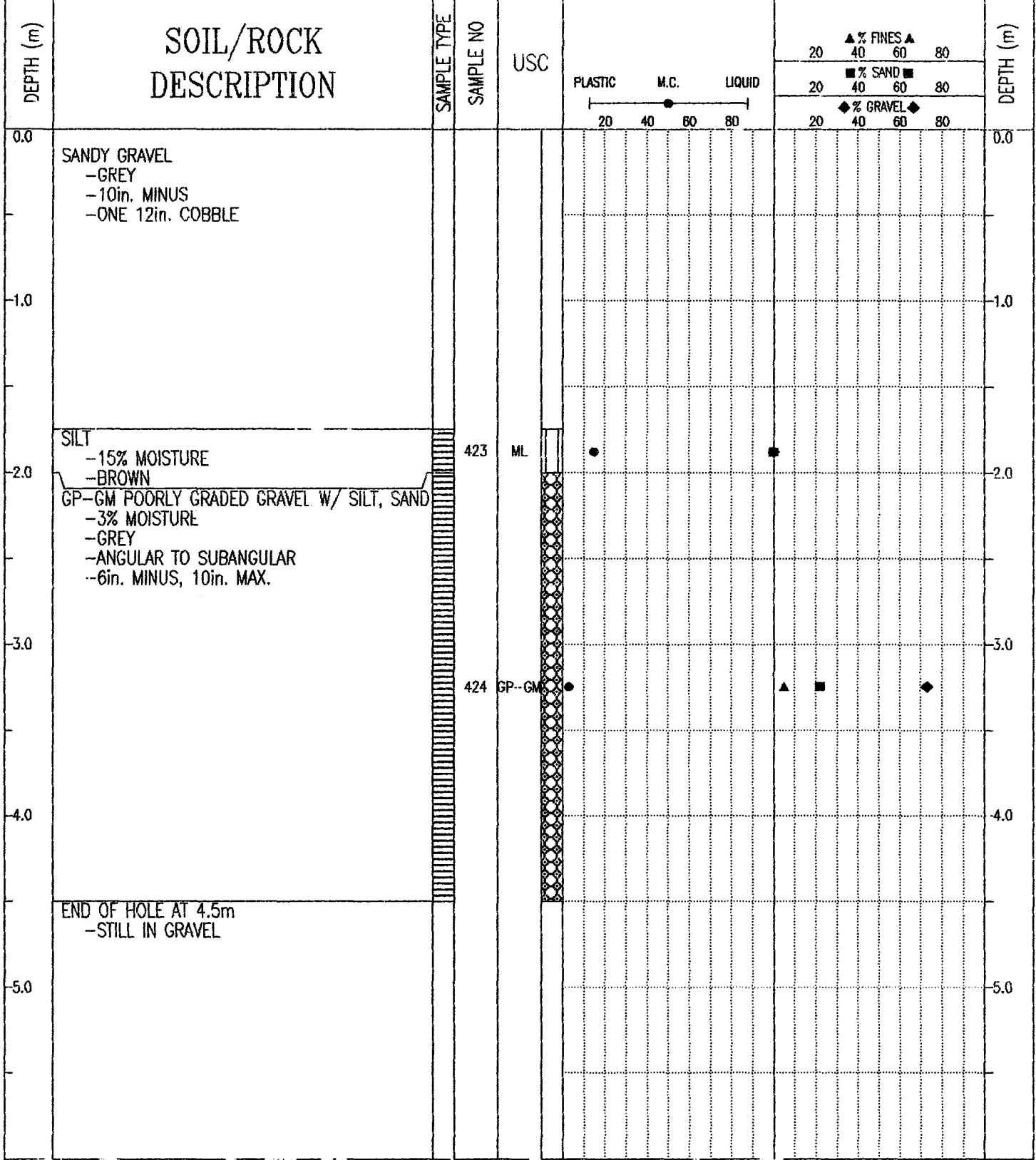
05-039.4

TH-191
⊗

← DAWSON

TITLE		FILE NO. 05-0039.5 RHS.	SHEET OF
BY GARY CHAPMAN	PROJECT HWY 05 GRAVEL SEARCH.	DATE	YY MM DD 89 09 06

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-190
KLONDIKE TRANSPORT	KM 39+500, BASE OF OLD BORROW SOURCE	Project No: 05-0040 RHS
HOE - KOEHRING BANTAM C-366	APPROX. 2m PREVIOUSLY EXCAVATED	ELEVATION 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m	COMPLETE 89/09/06
LOGGED BY GWC	DWG NO.
	Page 1 of 1

PROJECT NUMBER: 05-0040 HOLE NUMBER: 89-120
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 39+500 RIGHT
 LOGGED BY: GWC DATE COMPLETED: 89-09-06

FIELD NO:	423	FIELD NO:	424
LAB NO:	423	LAB NO:	424
DEPTH:	1.75-2.0	DEPTH:	2.0-4.5
TYPE:	BULK	TYPE:	BULK
MOIST BR.	SILT		6" MINUS 10" MAX

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	---	100.0	---
80.0	---	80.0	---
50.0	---	50.0	100
31.5	---	31.5	---
25.0	---	25.0	53
20.0	---	20.0	---
12.5	---	12.5	38
10.0	---	10.0	---
5.0	---	5.0	27
2.5	---	2.5	---
2.0	---	2.0	---
1.25	---	1.25	16
0.840	---	0.840	---
0.630	---	0.630	---
0.420	---	0.420	---
0.315	---	0.315	8
0.160	---	0.160	---
0.150	---	0.150	---
0.080	---	0.080	5

M.C. (%): 15 M.C. (%): 3

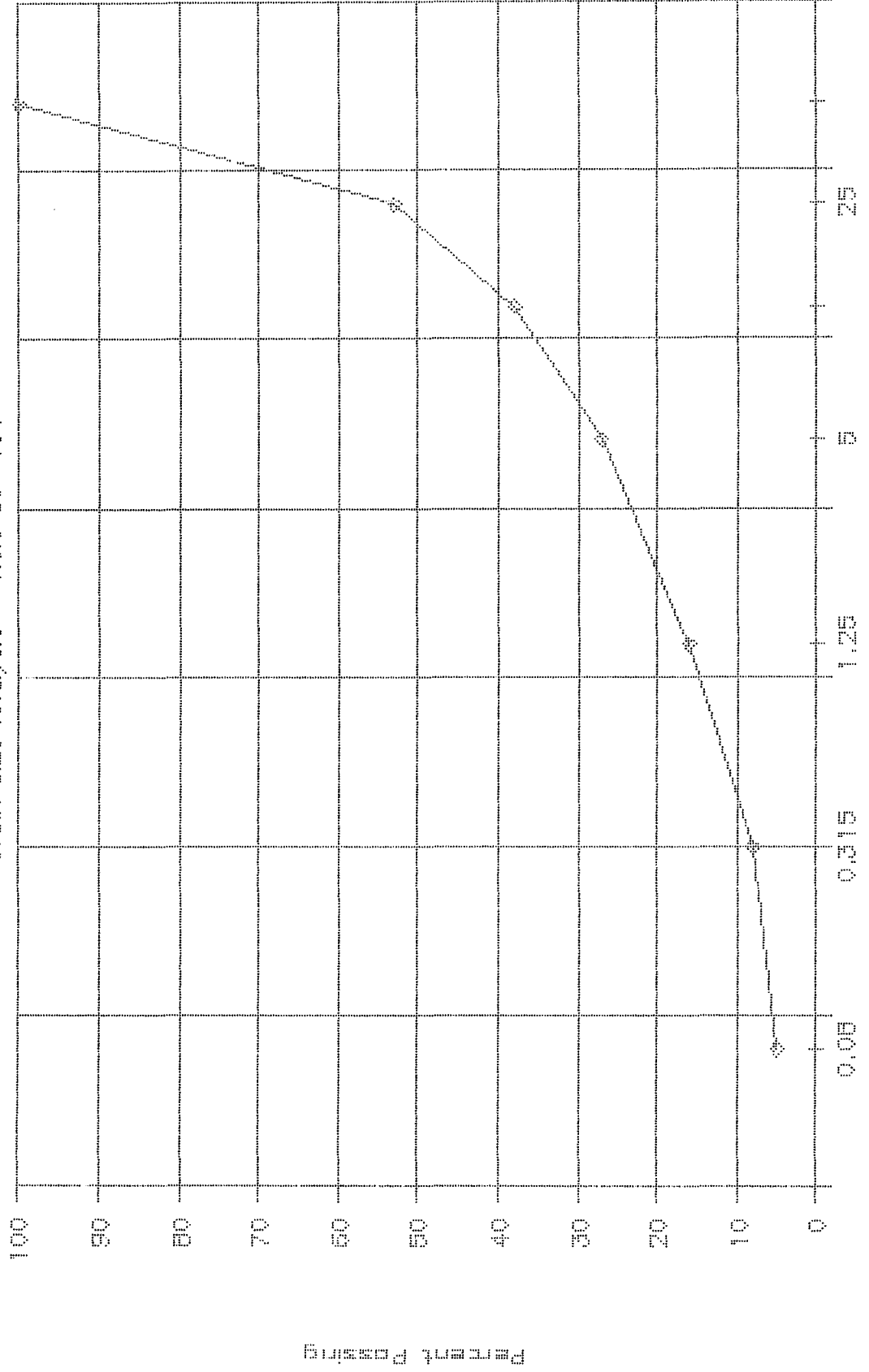
LIMITS		LIMITS	
LIQUID:	---	LIQUID:	---
PLASTIC:	---	PLASTIC:	---
P.I.:	TRACE	P.I.:	N.P.

% GRAVEL:	---	% GRAVEL:	73
% SAND:	---	% SAND:	22
% FINES:	---	% FINES:	5

CLASSIFICATION: POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

Y.T.C. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 89-150



NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION		BOREHOLE No. 89-191								
KLONDIKE TRANSPORT		KM 39+500,CHECKING DEPTH OF OVERBURDEN		Project No: 05-0040 RHS								
HOE - KOEHRING BANTAM C-366		OLD CAT TRAIL - SOUTH OF PIT		ELEVATION 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK		<input type="checkbox"/> SPT <input type="checkbox"/> CORE								
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC M.C. LIQUID			▲% FINES▲ ■% SAND■ ◆% GRAVEL◆			DEPTH (m)	
					20	40	60	80	20	40		60
0.0	LABRADOR TEA AND ORGANICS											0.0
	SILT - DRY - YELLOW											
1.0												1.0
	GW - WELL GRADED GARVEL WITH SAND - 2% MOISTURE - BLACK - ANGULAR											
2.0												2.0
			425	GW								
3.0												3.0
	END OF HOLE AT 3.5m											
4.0												4.0
5.0												5.0
Government of Yukon Transportation Engineering				COMPLETION DEPTH 3.5 m			COMPLETE 89/09/06					
				LOGGED BY GWC			DWG NO.			Page 1 of 1		

PROJECT NUMBER: 05-0040 HOLE NUMBER: 89-191
CLIENT: NOTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEHRING
HOLE LOCATION: KM 39+500, 100M RT. OLD CAT TRAIL
LOGGED BY: GWC DATE COMPLETED: 89-09-06

FIELD NO: 425
LAB NO: 425
DEPTH: 1.5-3.5
TYPE: BULK
BLACK ANGULAR

SIEVE SIZE | PERCENT PASSING

100.0	---
80.0	---
50.0	100
31.5	---
25.0	55
20.0	---
12.5	44
10.0	---
5.0	29
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	3

M.C. (%): 2

LIMITS

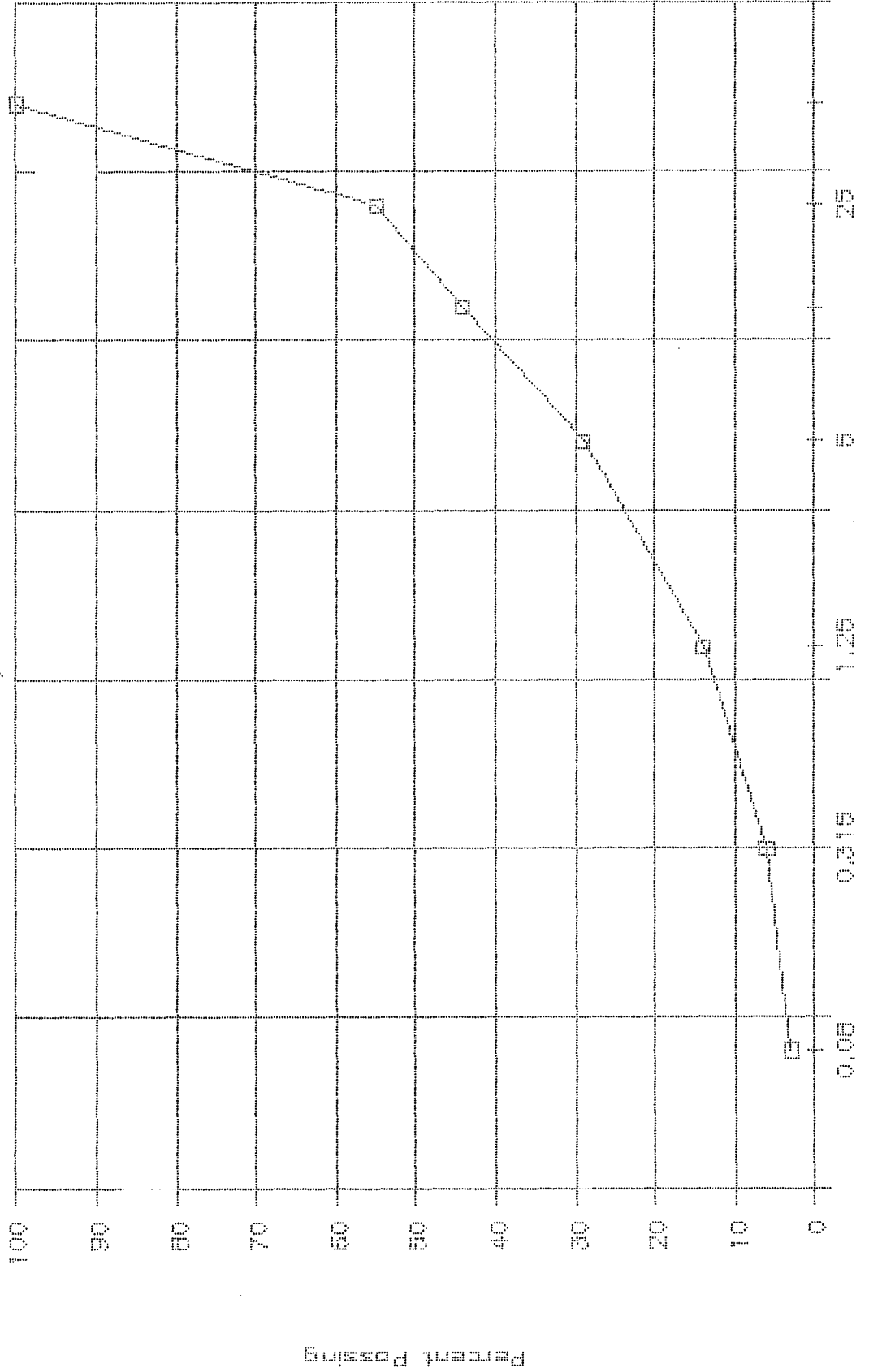
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

% GRAVEL: 71
% SAND: 26
% FINES: 3

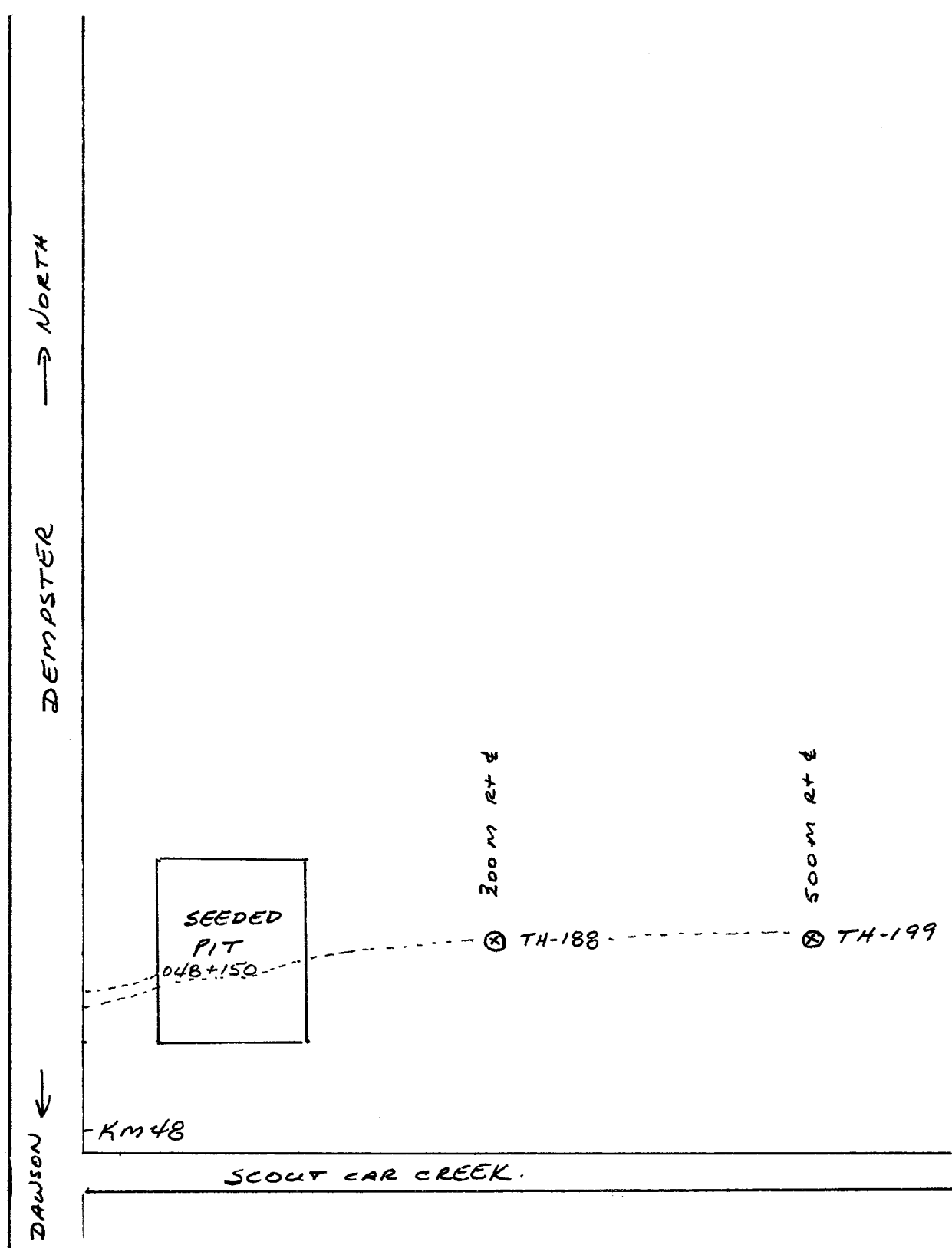
CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 63-151

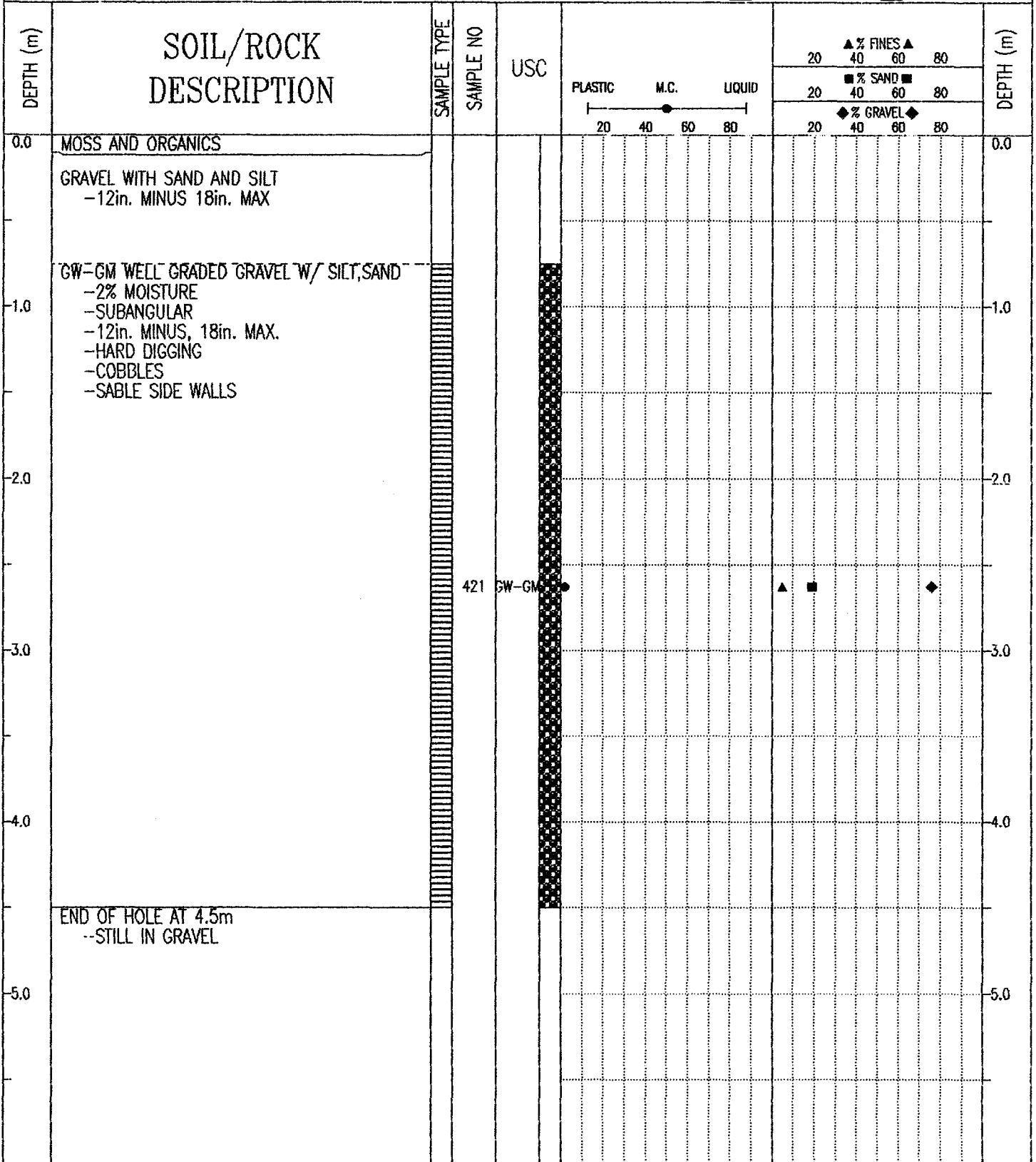


□ SAMP. 425 ◊ SAMP. △ SAMP. × SAMP.



TITLE		FILE NO. 05-0048 RHS	SHEET	OF
BY G. CHAPMAN	PROJECT Hwy 05 - GRAVEL SEARCH.	DATE 89 09 06		

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-188
KLONDIKE TRANSPORT	KM 48-300m RIGHT OF CENTER	Project No: 05-0048 RHS
HOE - KOEHRING BANTAM C-366	150m NORTH OF SCOUT CAR CREEK	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m

COMPLETE 89/09/06

LOGGED BY GWC

DWG NO.

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```

=====
PROJECT NUMBER:      05-0048                HOLE NUMBER:      89-188
CLIENT:              NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME:        GRAVEL SEARCH '89
PROJECT LOCATION:    DEMPSTER HIGHWAY
DRILL UNIT:          BANTAM C-366 KEOHRING
HOLE LOCATION:       KM 48 150M NTH SCOUT CAR, 200M RIGHT (EAST)
LOGGED BY:           GWC                     DATE COMPLETED:  89-09-06
=====

```

```

FIELD NO:      421
LAB NO:        421
DEPTH:         0.75-4.5
TYPE:          BULK
12" MINUS 18" MAX

```

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	85
31.5	---
25.0	49
20.0	---
12.5	36
10.0	---
5.0	24
2.5	---
2.0	---
1.25	12
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	5

```

M.C. (%):      2

```

```

LIMITS
LIQUID:        ---
PLASTIC:       ---
P.I.:          N.P.

```

```

% GRAVEL:      76
% SAND:        19
% FINES:       5

```

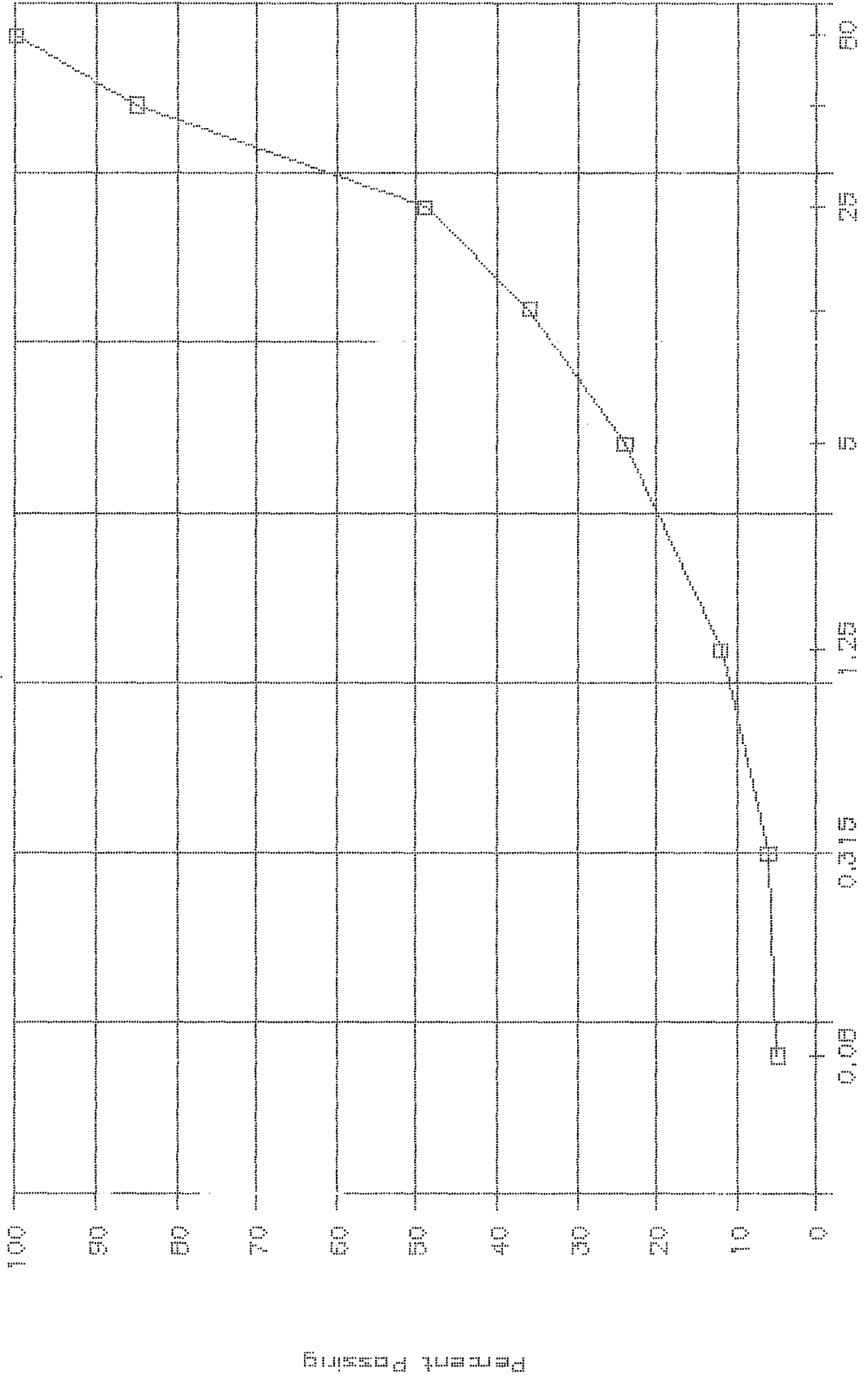
```

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SILT
& SAND (GW-GM)
=====

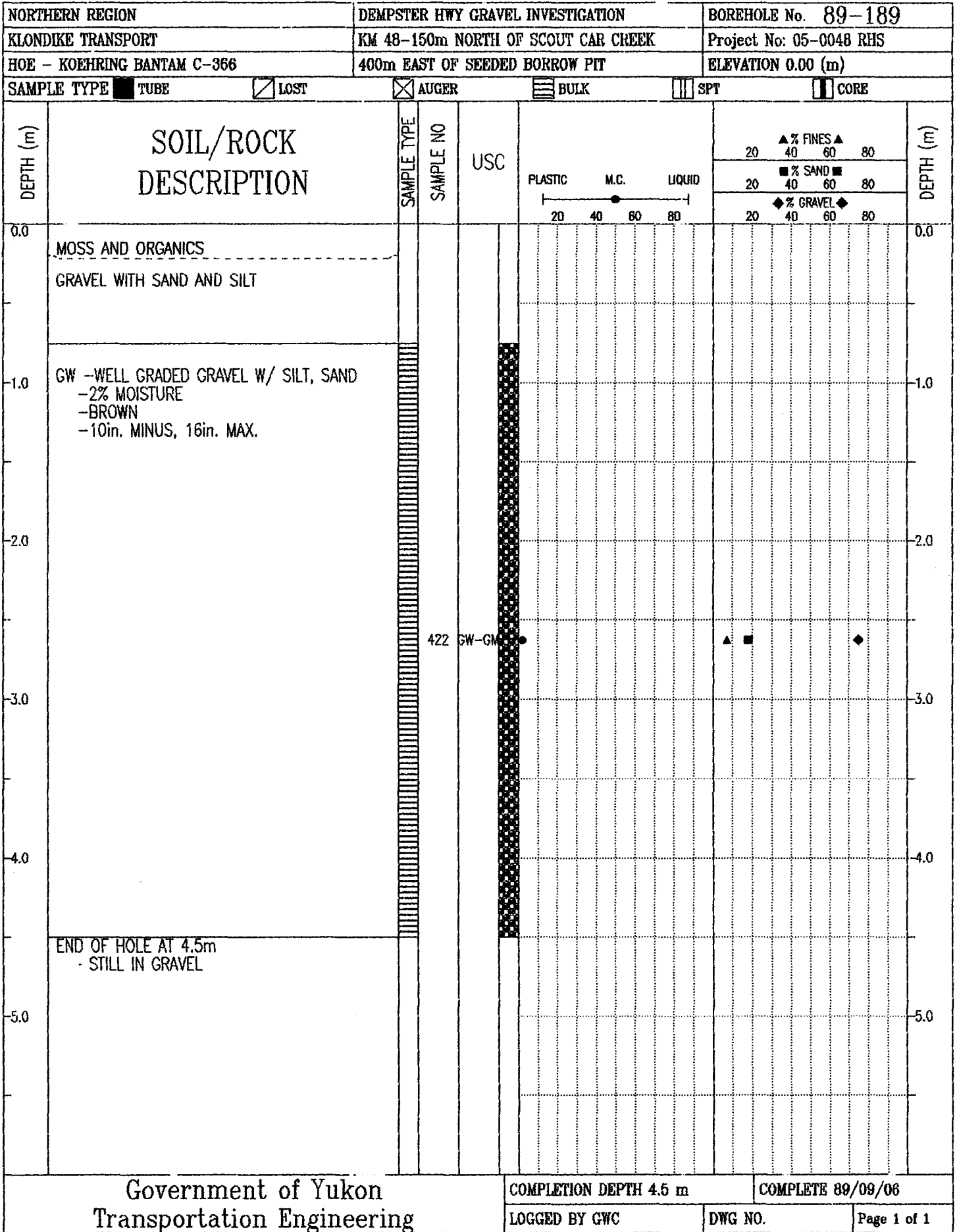
```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 89-188



□ SAMPL. 421 × SAMPL. X



```

=====
PROJECT NUMBER:   05-0048                HOLE NUMBER:   89-189
CLIENT:          NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME:    GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT:      BANTAM C-366 KEOHRING
HOLE LOCATION:   KM 48 500M RIGHT
LOGGED BY:       GWC                     DATE COMPLETED: 89-09-06
=====

```

```

FIELD NO:      422
LAB NO:        422
DEPTH:         0.75-4.5
TYPE:          BULK
10" MINUS, 16" MAX

```

```

SIEVE   | PERCENT
SIZE    | PASSING
-----|-----

```

```

100.0   |  --
 80.0   |  --
 50.0   | 100
 31.5   |  --
 25.0   |  51
 20.0   |  --
 12.5   |  35
 10.0   |  --
  5.0   |  25
  2.5   |  --
  2.0   |  --
  1.25  |  16
  0.840 |  --
  0.630 |  --
  0.420 |  --
  0.315 |  10
  0.160 |  --
  0.150 |  --
  0.080 |   7

```

```

M.C. (%):      2

```

LIMITS

```

LIQUID:        --
PLASTIC:       --
P.I.:          --

```

```

% GRAVEL:      75
% SAND:        18
% FINES:       7

```

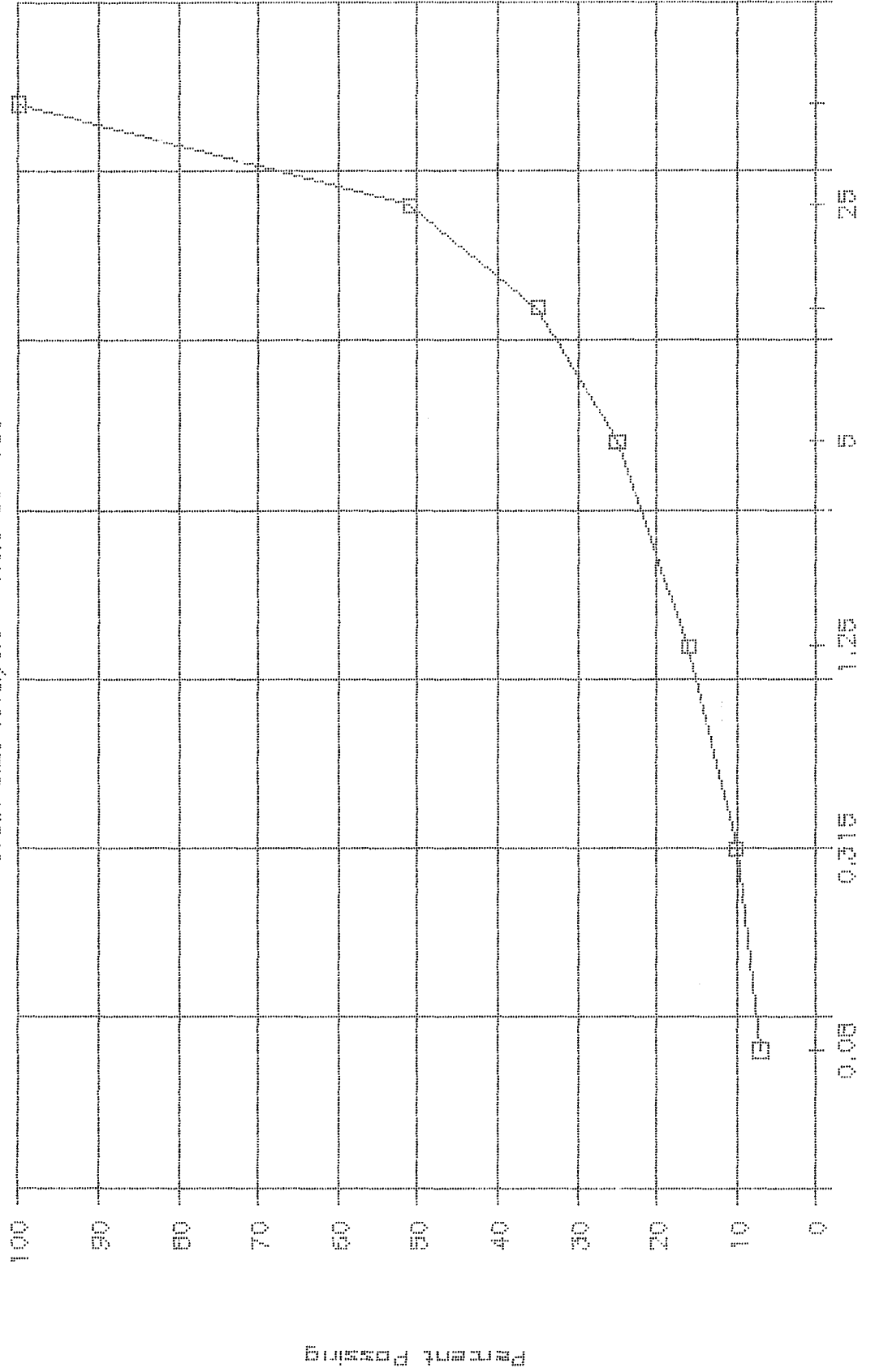
```

CLASSIFICATION:

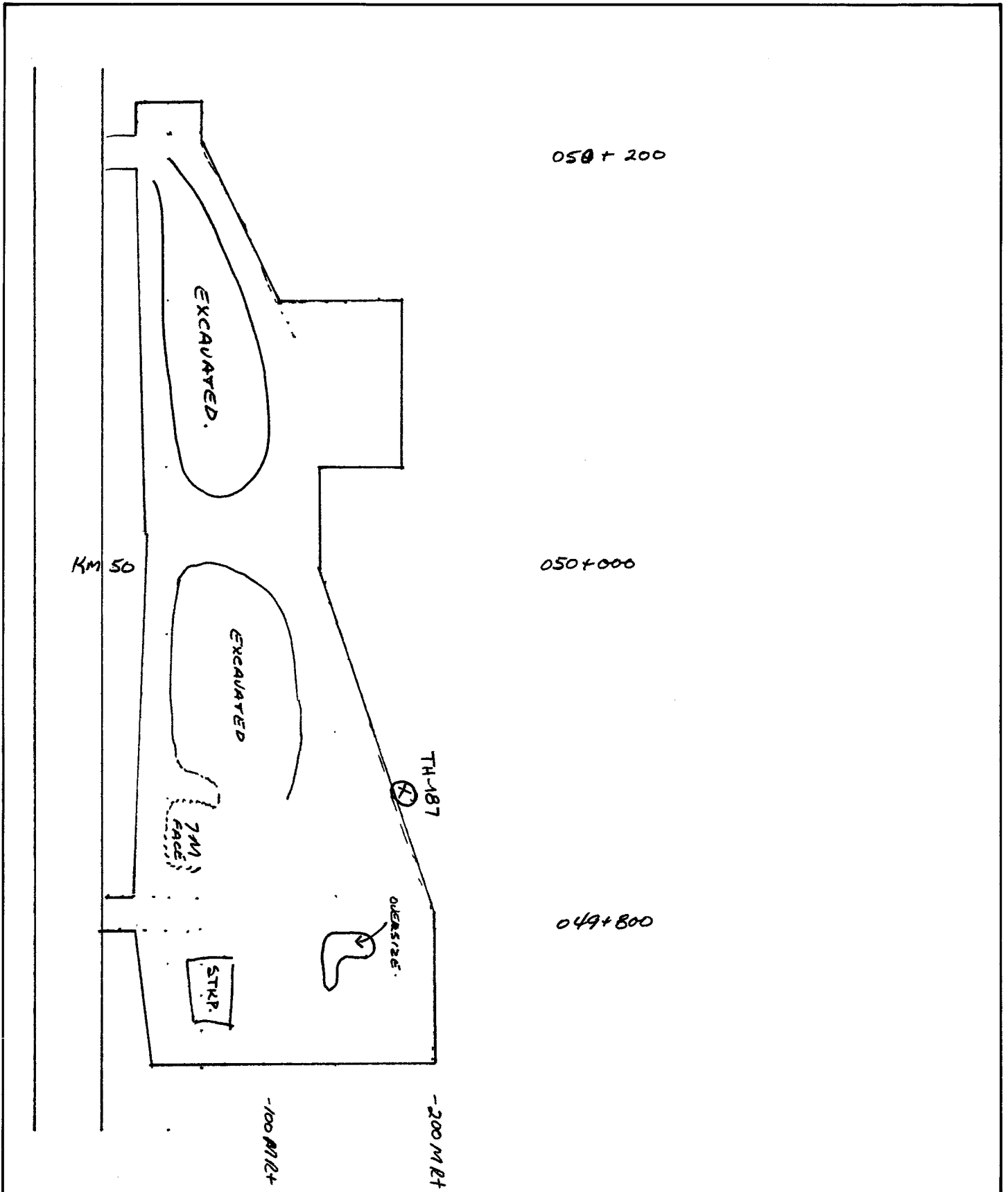
```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole BB-155

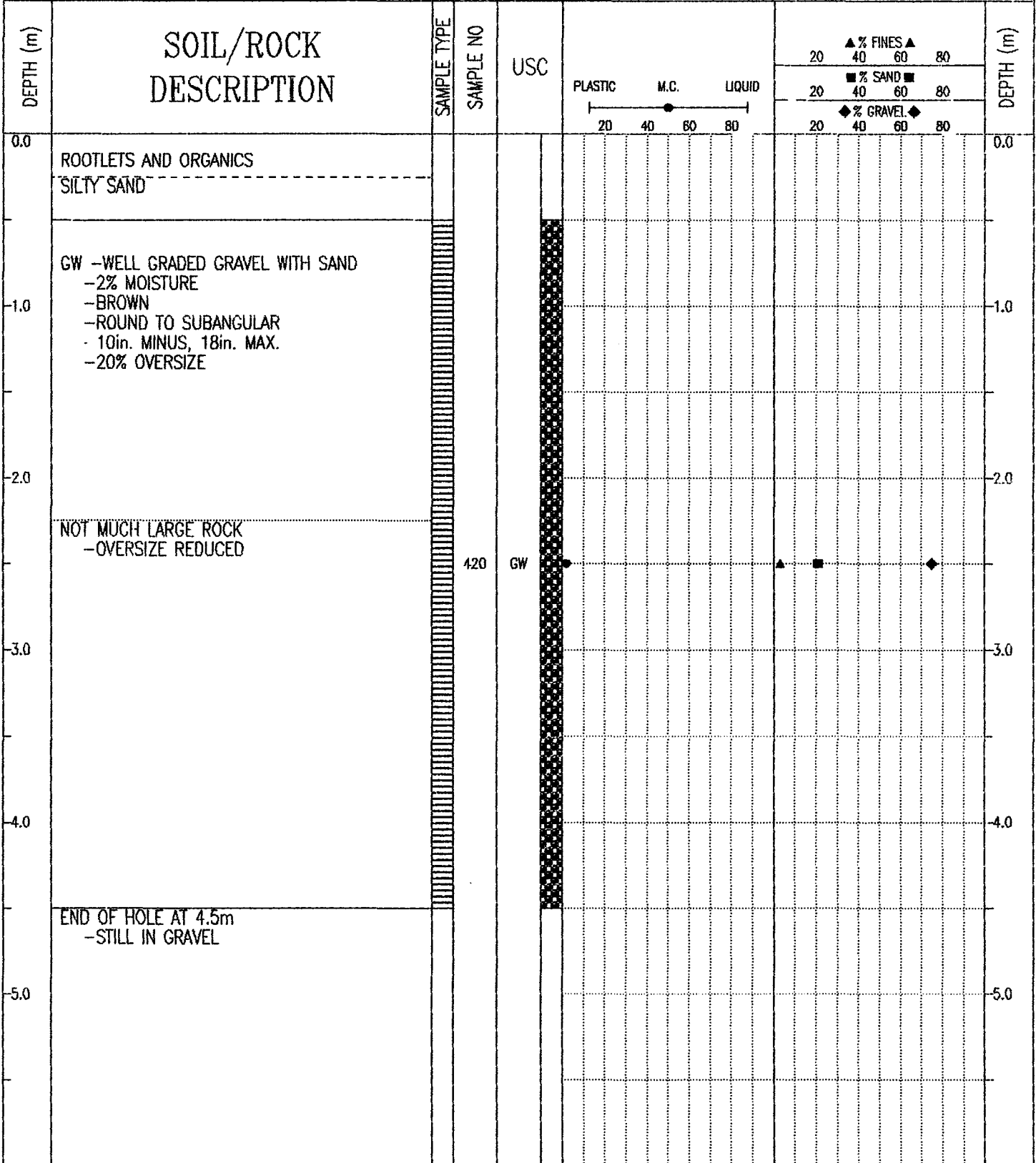


5AMP. 477 5AMP. 5AMP. X 5AMP.



TITLE		FILE NO. 05-0050 R.H.S.	SHEET	OF
BY G. CHAPMAN	PROJECT Hwy 05 - GRAVEL SEARCH.		DATE	YY MM DD 89 09 06

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-187
KLONDIKE TRANSPORT	KM 50 PIT-150m RIGHT OF CENTER-ENTRANCE	Project No: 05-0050 LHS
HOE - KOEHRING BANTAM C-366	20 PERCENT OVERSIZE -TOP 2.25 M	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m

COMPLETE 89/09/06

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0050 HOLE NUMBER: 89-187
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 50 150M RIGHT
 LOGGED BY: GWC DATE COMPLETED: 89-09-06

FIELD NO: 420
 LAB NO: 420
 DEPTH: 0.5-4.5
 TYPE: BULK
 20% OVER, 18" MAX

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	94
31.5	---
25.0	55
20.0	---
12.5	38
10.0	---
5.0	25
2.5	---
2.0	---
1.25	13
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	3

M.C. (%): 2

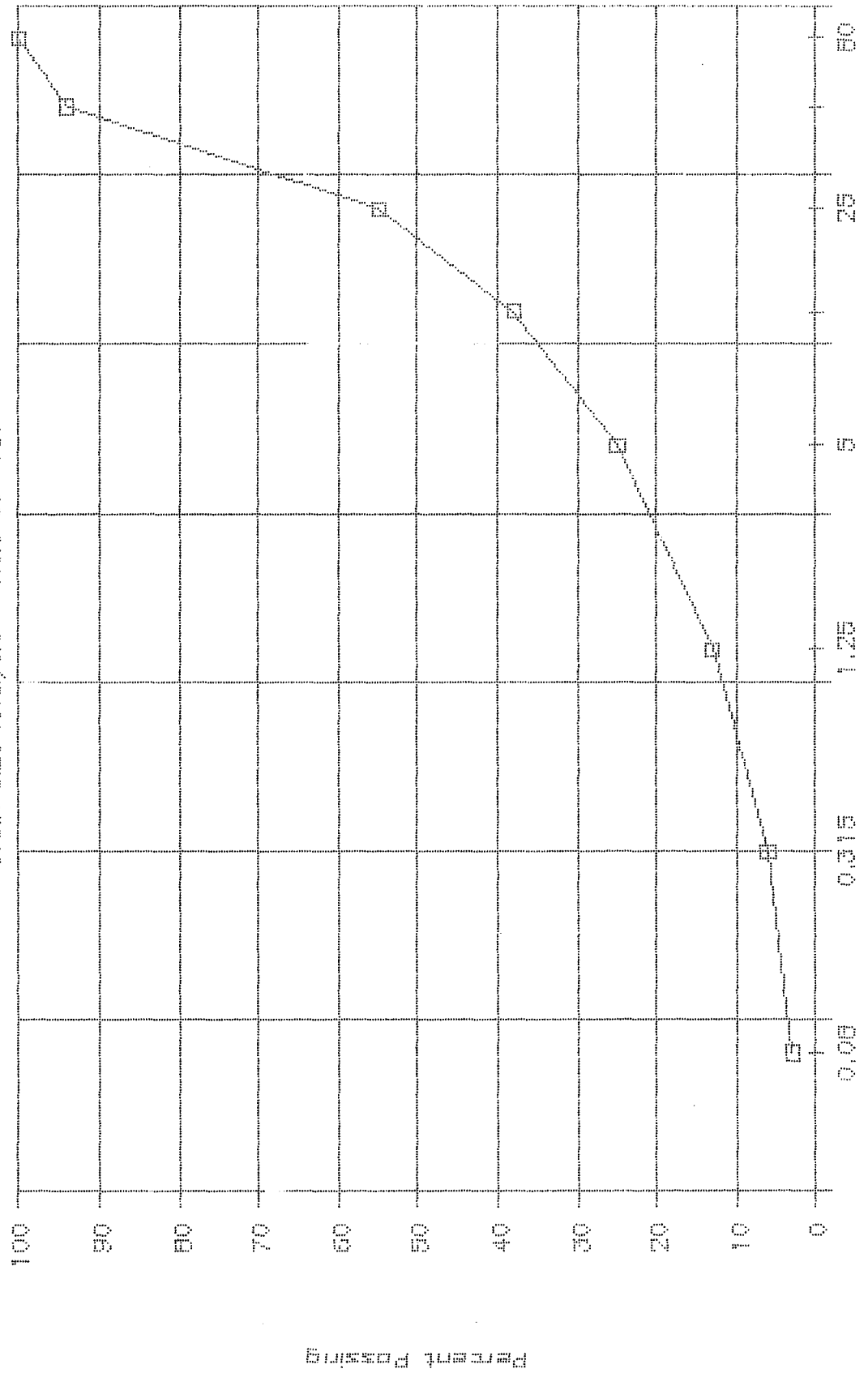
LIMITS
 LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 75
 % SAND: 21
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

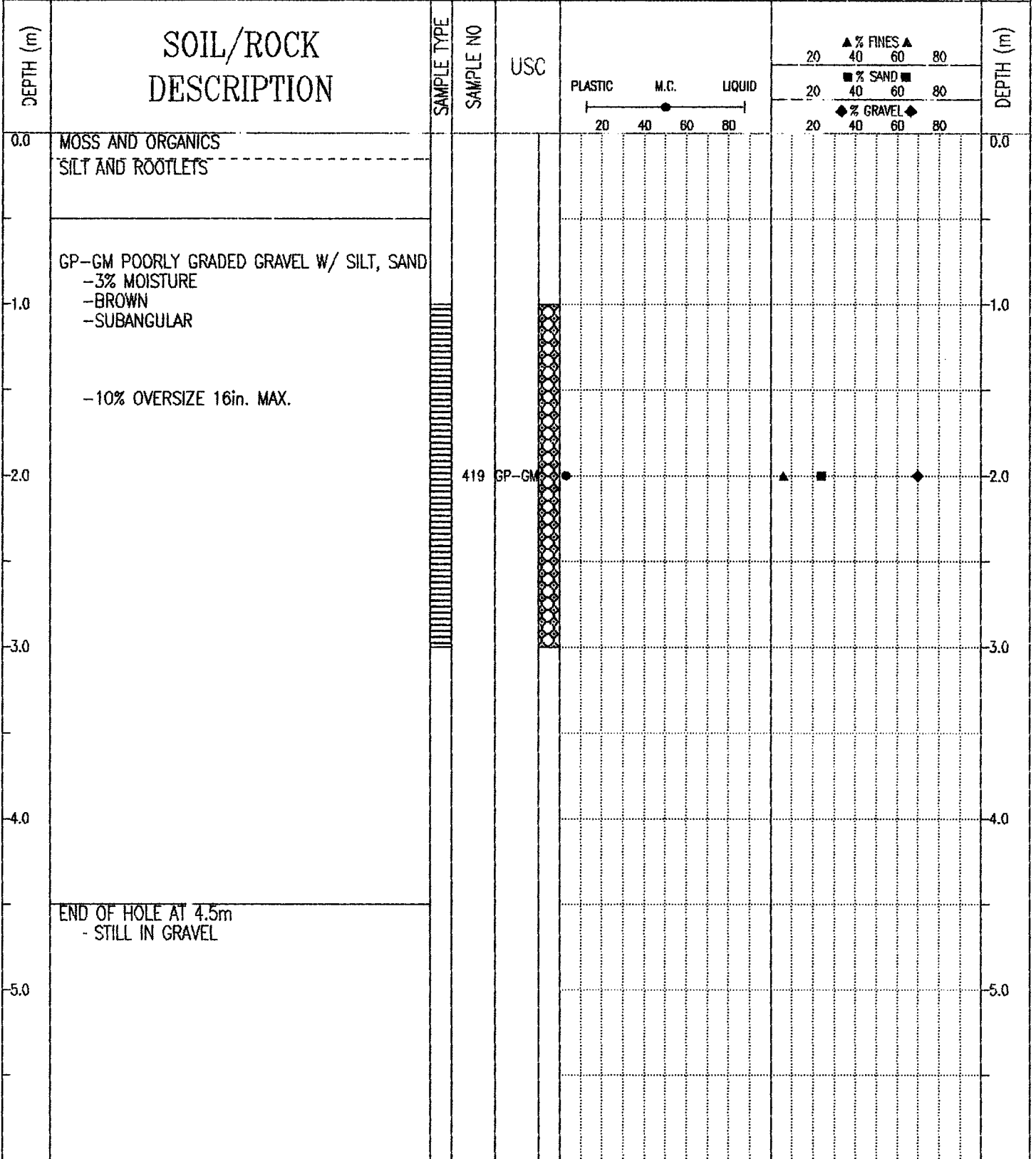
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 33-187



□ SAMP. 420 △ SAMP. × SAMP.

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-185
KLONDIKE TRANSPORT	KM 58 PIT-100m LEFT OF CENTER	Project No: 05-0058 LHS
HOE - KOEHRING BANTAM C-366	25m SOUTH OF CLEARING	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE	<input checked="" type="checkbox"/> LOST	<input checked="" type="checkbox"/> AUGER
	<input type="checkbox"/> BULK	<input type="checkbox"/> SPT
		<input type="checkbox"/> CORE



```

=====
PROJECT NUMBER: 05-0058 HOLE NUMBER: 89-185
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 58, 100M LEFT
LOGGED BY: GWC DATE COMPLETED: 89-09-05
=====

```

```

=====
FIELD NO: 419 419
LAB NO: 419 419
DEPTH: 1.0-3.0 1.0-3.0
TYPE: BULK BULK
10% OVER 16" MAX. 10% OVER 16" MAX
=====

```

SIEVE SIZE	PERCENT PASSING	
100.0	---	---
80.0	100	100
50.0	84	84
31.5	---	---
25.0	66	66
20.0	---	---
12.5	45	45
10.0	---	---
5.0	30	30
2.5	---	---
2.0	---	---
1.25	17	17
0.840	---	---
0.630	---	---
0.420	---	---
0.315	9	9
0.160	---	---
0.150	---	---
0.080	6	6

```

M.C. (%): 3 3
=====

```

```

LIMITS
LIQUID: --- ---
PLASTIC: --- ---
P.I.: N.P. N.P.
=====

```

```

% GRAVEL: 70 70
% SAND: 24 24
% FINES: 6 6
=====

```

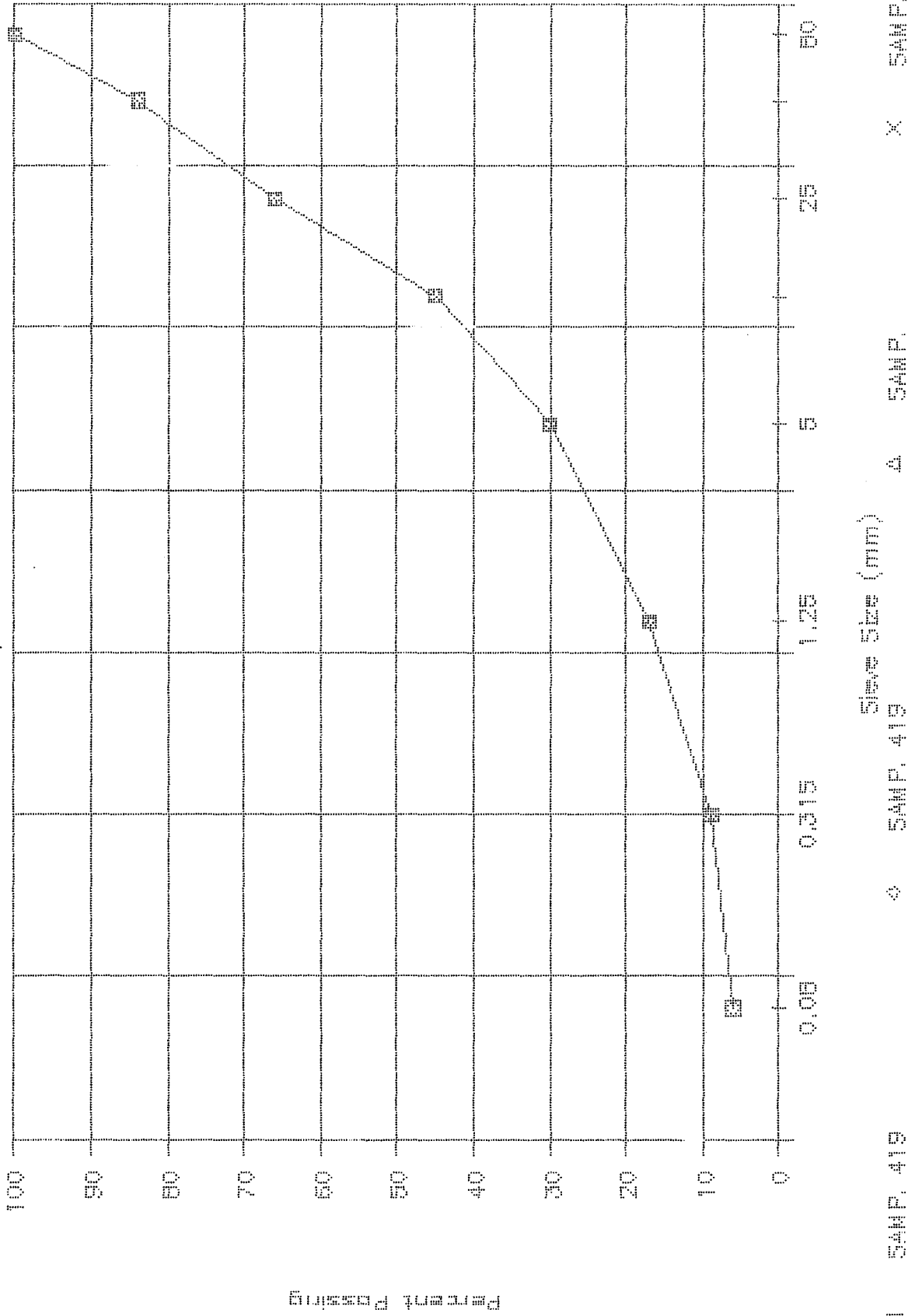
```

CLASSIFICATION:
POORLY GRADED POORLY GRADED
GRAVEL WITH SILT
& SAND (GP-GM)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-155



□ SAMP. 419 ◊ SAMP. 419 Sieve Size (mm) △ SAMP. X SAMP.

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-186
KLONDIKE TRANSPORT	KM57+500, 75m LEFT OF CENTER-CUT LINE	Project No: 05-0057 LHS
HOE - KOEHRING BANTAM C-366	500 M SOUTH OF GARBAGE DUMP	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE	<input checked="" type="checkbox"/> LOST	<input checked="" type="checkbox"/> AUGER
	<input type="checkbox"/> BULK	<input type="checkbox"/> SPT
		<input type="checkbox"/> CORE

DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC	M.C.	LIQUID	SOIL COMPOSITION (%)				DEPTH (m)
								▲ % FINES ▲	■ % SAND ■	◆ % GRAVEL ◆		
0.0	MOSS AND ORGANICS											0.0
0.5	NO SAMPLE -50% OVERSIZE -VERY ROUGH DIGGING -18in. MINUS											0.5
1.0												1.0
1.5												1.5
2.0	END OF HOLE AT 2.0m	<input checked="" type="checkbox"/>	XX	XX								2.0
2.5												2.5
3.0												3.0
3.5												3.5
4.0												4.0
4.5												4.5
5.0												5.0

```

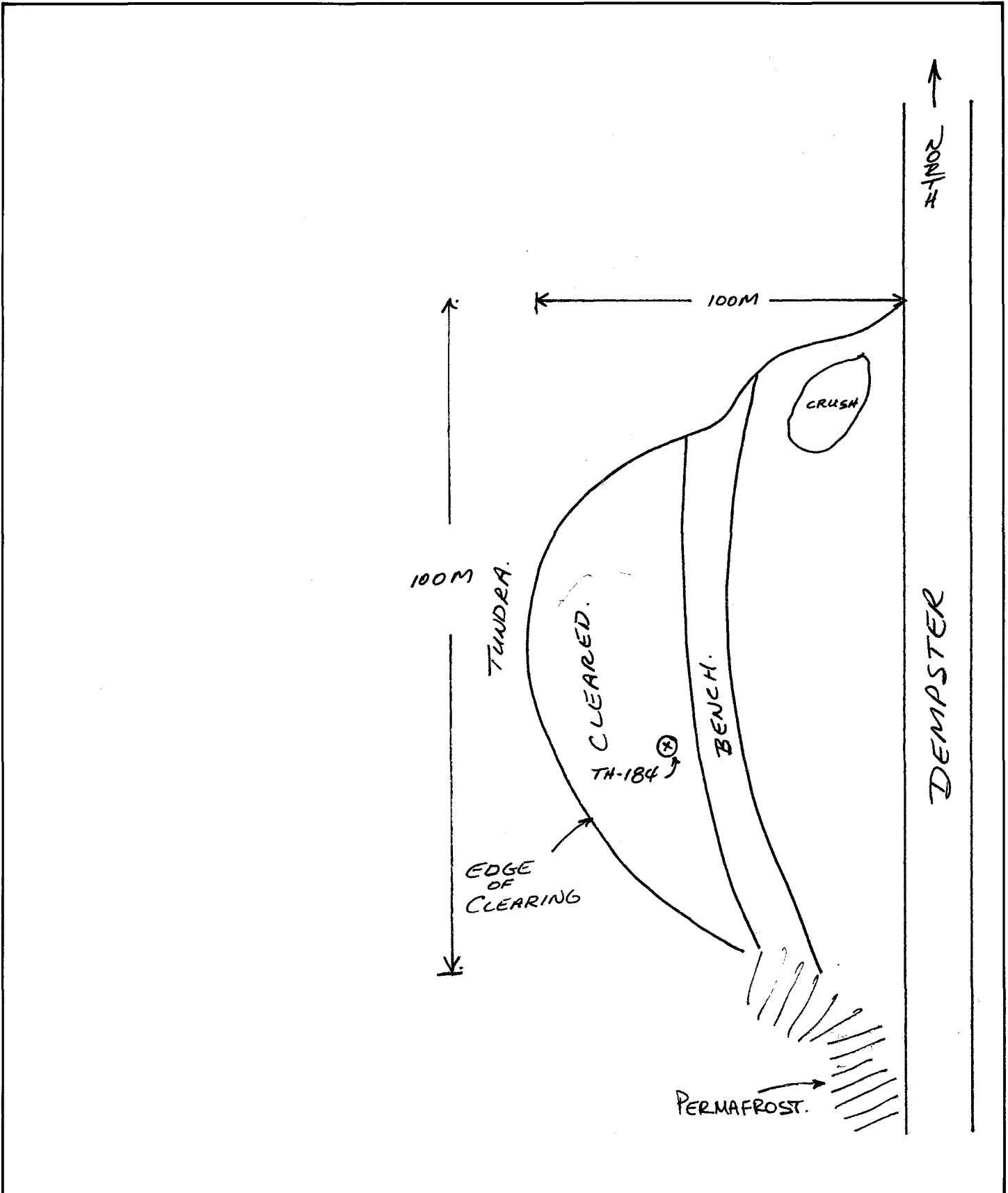
=====
PROJECT NUMBER: 05-0058 HOLE NUMBER: 89-186
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 57+500 75M LEFT
LOGGED BY: GWC DATE COMPLETED: 89-09-05
=====

```

FIELD NO:	ERR	FIELD NO:	FIELD NO:	FIELD NO:			
LAB NO:	NO	LAB NO:	LAB NO:	LAB NO:			
DEPTH:	.2-2.0	DEPTH:	DEPTH:	DEPTH:			
TYPE:	ERR	TYPE:	TYPE:	TYPE:			
50% OVER,	18" MAX						
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	---	100.0	---	100.0	---	100.0	---
80.0	---	80.0	---	80.0	---	80.0	---
50.0	---	50.0	---	50.0	---	50.0	---
31.5	---	31.5	---	31.5	---	31.5	---
25.0	---	25.0	---	25.0	---	25.0	---
20.0	---	20.0	---	20.0	---	20.0	---
12.5	---	12.5	---	12.5	---	12.5	---
10.0	---	10.0	---	10.0	---	10.0	---
5.0	---	5.0	---	5.0	---	5.0	---
2.5	---	2.5	---	2.5	---	2.5	---
2.0	---	2.0	---	2.0	---	2.0	---
1.25	---	1.25	---	1.25	---	1.25	---
0.840	---	0.840	---	0.840	---	0.840	---
0.630	---	0.630	---	0.630	---	0.630	---
0.420	---	0.420	---	0.420	---	0.420	---
0.315	---	0.315	---	0.315	---	0.315	---
0.160	---	0.160	---	0.160	---	0.160	---
0.150	---	0.150	---	0.150	---	0.150	---
0.080	---	0.080	---	0.080	---	0.080	---
M.C. (%) :	0	M.C. (%) :		M.C. (%) :		M.C. (%) :	
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	---	LIQUID:		LIQUID:		LIQUID:	
PLASTIC:	---	PLASTIC:		PLASTIC:		PLASTIC:	
P.I.:	N.P.	P.I.:		P.I.:		P.I.:	
% GRAVEL:	---	% GRAVEL:		% GRAVEL:		% GRAVEL:	
% SAND:	---	% SAND:		% SAND:		% SAND:	
% FINES:	---	% FINES:		% FINES:		% FINES:	
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	

APPENDIX "B"

DESIGN SHEET
HIGHWAY ENGINEERING



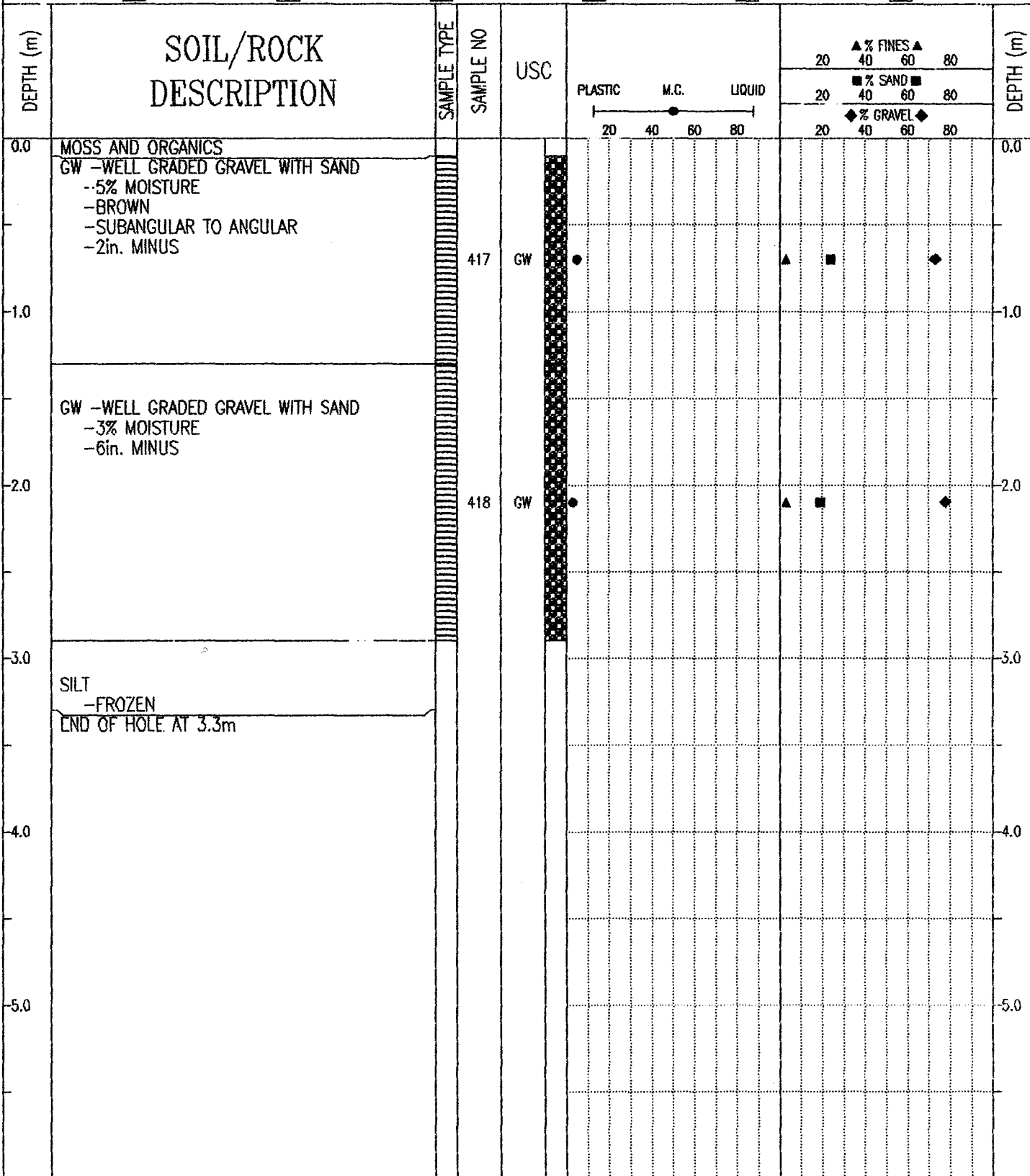
TITLE		FILE NO.	SHEET	OF
		05-0086.5 LHS		
BY	PROJECT	DATE		YY MM DD
G. CHAPMAN	Hwy 05 GRAVEL SEARCH.	89		09 05

NORTHERN REGION | DEMPSTER HWY GRAVEL INVESTIGATION | BOREHOLE No. 89-104

KLONDIKE TRANSPORT | KM 86+500,100m LEFT OF CENTER | Project No: 05-0086 LHS

HOE - KOEHRING BANTAM C-366 | PREVIOUSLY STRIPPED | ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 3.3 m

COMPLETE 89/09/05

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0086 HOLE NUMBER: 89-184
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: EXISTING STOCKPILE
 LOGGED BY: GWC DATE COMPLETED: 89-09-05

FIELD NO:	LAB NO:	DEPTH:	TYPE:	CRUSHPILE
416	416	STOCKPIL	BULK	
417	417	0.1-1.3	BULK	2" MINUS
418	418	1.3-2.9	BULK	6" MINUS

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	--	100.0	--	100.0	--
80.0	--	80.0	--	80.0	100
50.0	--	50.0	100	50.0	78
31.5	--	31.5	--	31.5	--
25.0	100	25.0	73	25.0	46
20.0	99	20.0	--	20.0	--
12.5	81	12.5	43	12.5	34
10.0	--	10.0	--	10.0	--
5.0	56	5.0	27	5.0	22
2.5	--	2.5	--	2.5	--
2.0	--	2.0	--	2.0	--
1.25	34	1.25	13	1.25	12
0.840	--	0.840	--	0.840	--
0.630	--	0.630	--	0.630	--
0.420	--	0.420	--	0.420	--
0.315	19	0.315	5	0.315	5
0.160	--	0.160	--	0.160	--
0.150	--	0.150	--	0.150	--
0.080	12	0.080	3	0.080	3

M.C. (%): 7 M.C. (%): 5 M.C. (%): 3

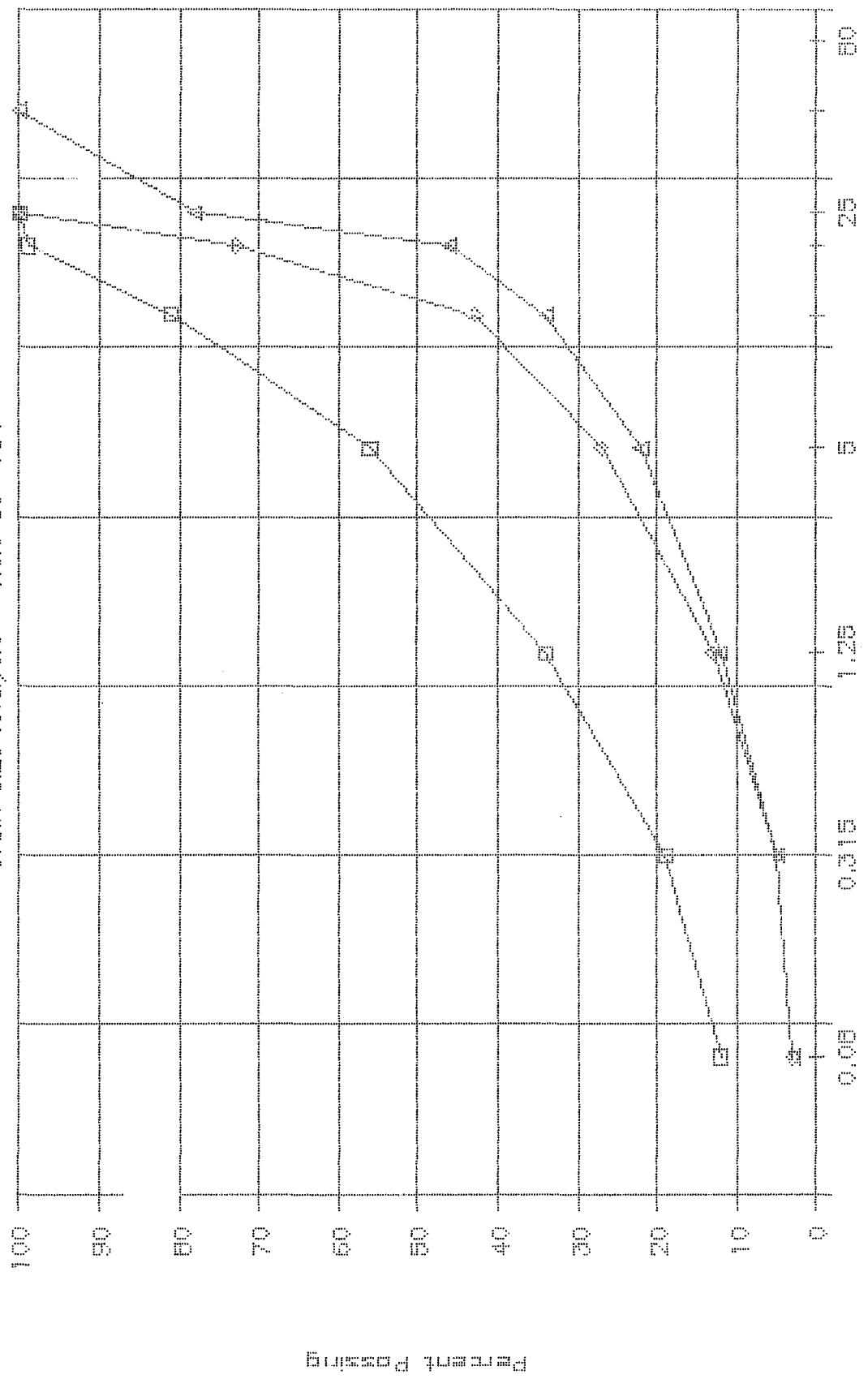
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	44	% GRAVEL:	73	% GRAVEL:	78
% SAND:	44	% SAND:	24	% SAND:	19
% FINES:	12	% FINES:	3	% FINES:	3

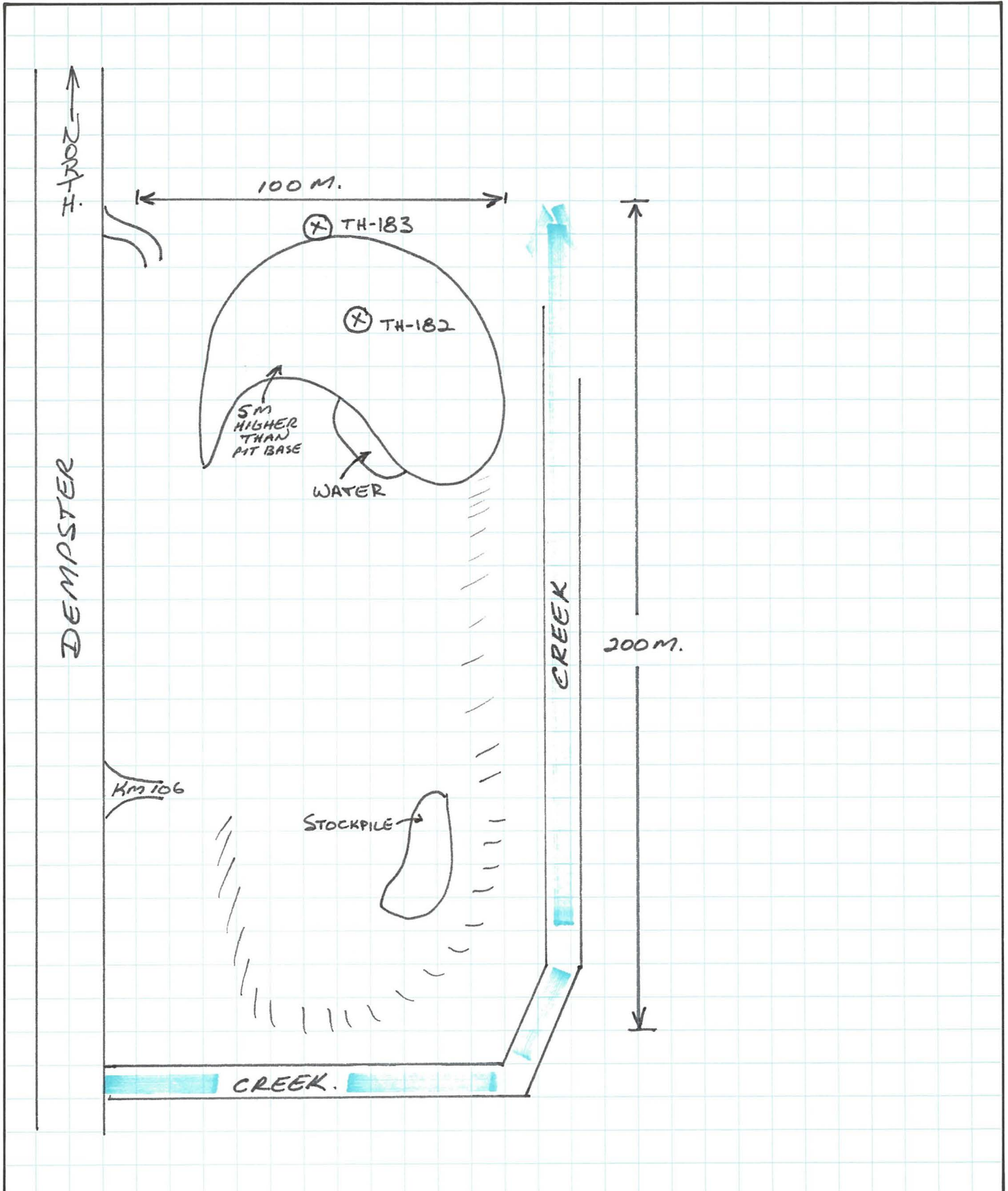
CLASSIFICATION:	POORLY GRADED SAND WITH SILT & GRAVEL (SP-SM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)
-----------------	---	-----------------	-----------------------------------	-----------------	-----------------------------------

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole BB-184

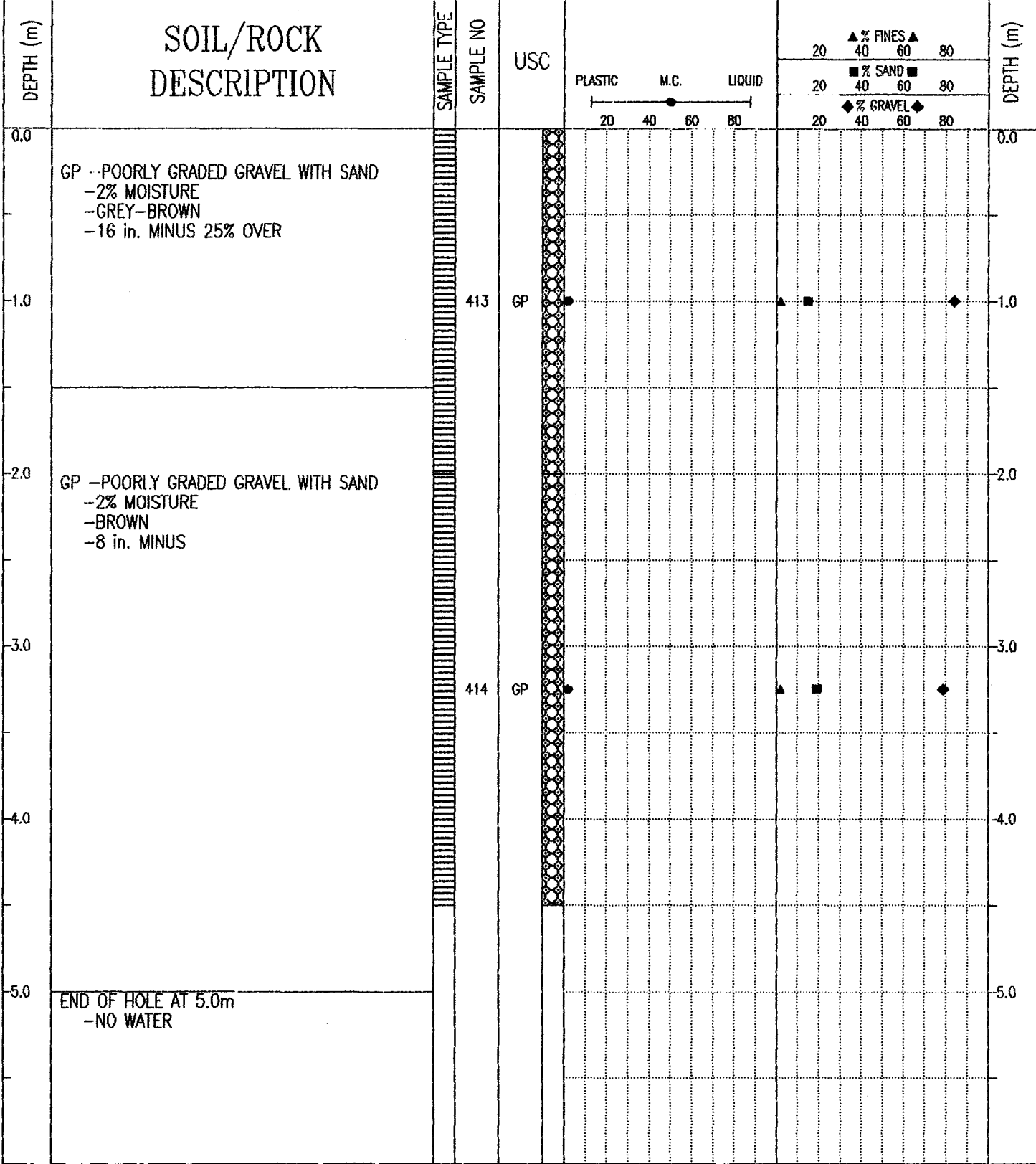


SAMPLE 416
SAMPLE 417
SAMPLE 418



TITLE	FILE NO. 05-0106 R.H.S.	SHEET OF
BY GARY CHAPMAN	PROJECT HWY 05 GRAVEL SEARCH.	DATE YY MM DD 89,09,05

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



```

=====
PROJECT NUMBER:    05-0106                HOLE NUMBER:    89-182
CLIENT:           NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME:     GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT:       BANTAM C-366
HOLE LOCATION:    KM 106, 100M RIGHT
LOGGED BY:        GWC                    DATE COMPLETED: 89-09-05
=====

```

```

=====
FIELD NO:    413    FIELD NO:    414
LAB NO:    413    LAB NO:    414
DEPTH:    0-2.0    DEPTH:    2.0-4.5
TYPE:    BULK    TYPE:    BULK
16" MINUS 30%OVER  8" MINUS
=====

```

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	---	100.0	---
80.0	100	80.0	100
50.0	59	50.0	84
31.5	---	31.5	---
25.0	40	25.0	46
20.0	---	20.0	---
12.5	26	12.5	31
10.0	---	10.0	---
5.0	16	5.0	21
2.5	---	2.5	---
2.0	---	2.0	---
1.25	9	1.25	12
0.840	---	0.840	---
0.630	---	0.630	---
0.420	---	0.420	---
0.315	4	0.315	4
0.160	---	0.160	---
0.150	---	0.150	---
0.080	2	0.080	2

```

M.C. (%):    2    M.C. (%):    2
=====

```

LIMITS		LIMITS	
LIQUID:	---	LIQUID:	---
PLASTIC:	---	PLASTIC:	---
P.I.:	N.P.	P.I.:	N.P.

```

% GRAVEL:    84    % GRAVEL:    79
% SAND:    15    % SAND:    19
% FINES:    2    % FINES:    2
=====

```

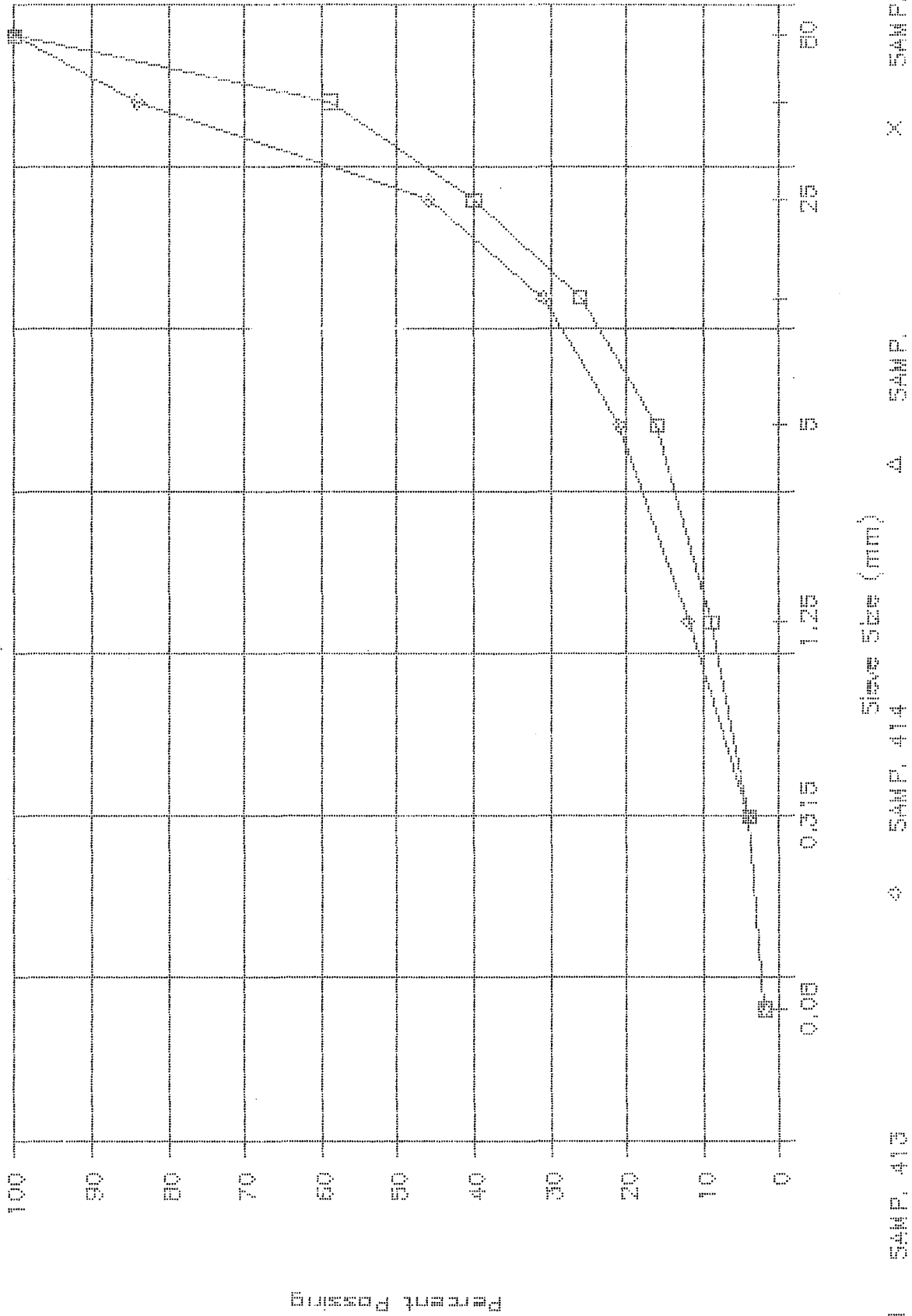
```

CLASSIFICATION:    CLASSIFICATION:
POORLY GRADED    POORLY GRADED
GRAVEL WITH SAND    GRAVEL WITH SAND
(GP)    (GP)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 33-152



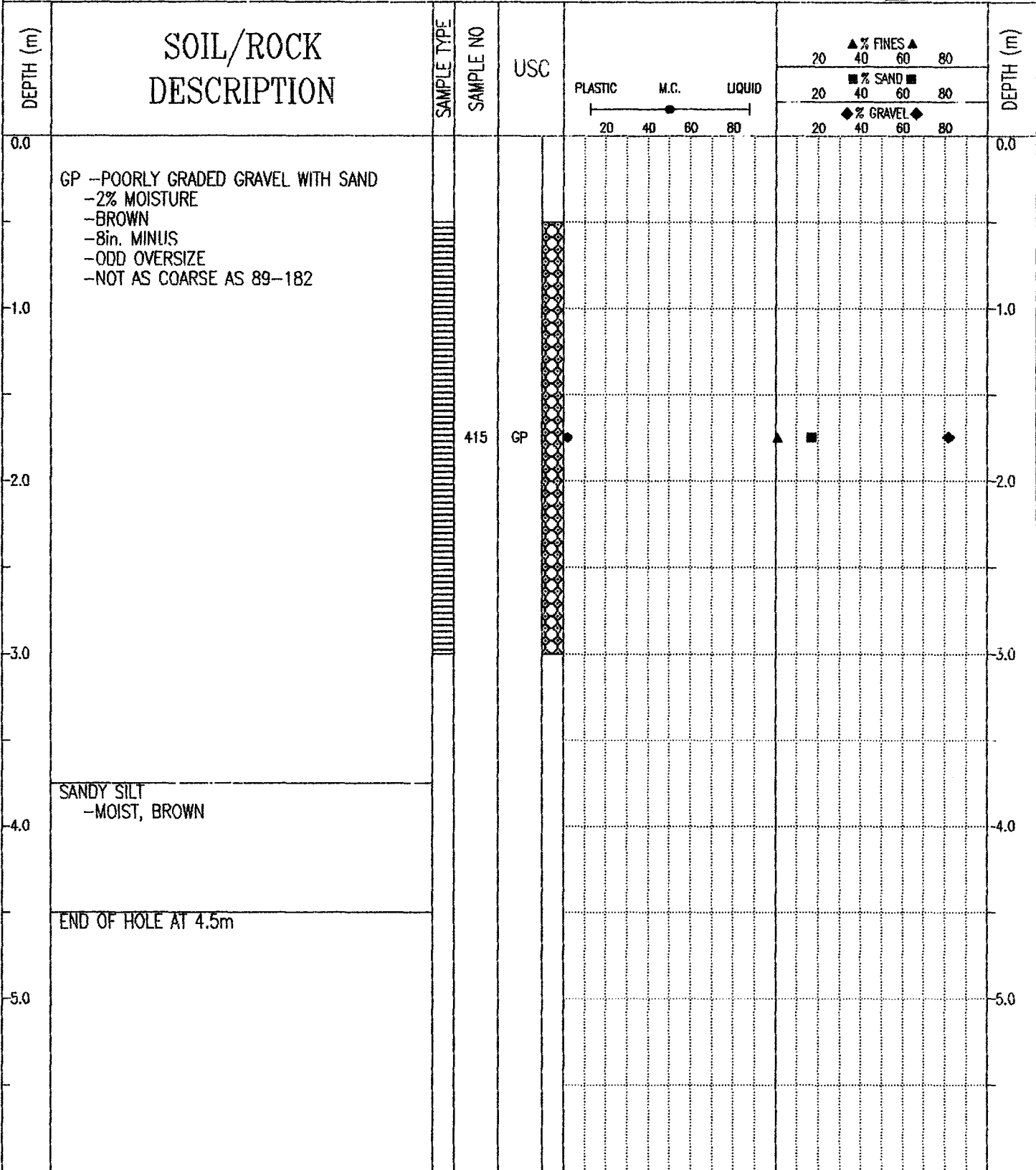
SAMP. 413

SAMP. 414

SAMP.

SAMP.

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-183
KLONDIKE TRANSPORT	KM106 PIT-75m RT CL, 75m NORTH OF 89-182	Project No: 05-0106 RHS
HOE - KOEHRING BANTAM C-366	PIT HAS BEEN RESEDED - SURROUNDING	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



PROJECT NUMBER: 05-0106 HOLE NUMBER: 89-183
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366
HOLE LOCATION: 80M NORTH OF 89-182, 100M RIGHT
LOGGED BY: GWC DATE COMPLETED: 89-09-05

FIELD NO: 415
LAB NO: 415
DEPTH: 0.5-3.0
TYPE: BULK
8" MINUS

SIEVE | PERCENT
SIZE | PASSING

100.0	--
80.0	100
50.0	83
31.5	--
25.0	46
20.0	--
12.5	29
10.0	--
5.0	18
2.5	--
2.0	--
1.25	9
0.840	--
0.630	--
0.420	--
0.315	2
0.160	--
0.150	--
0.080	1

M.C.(%): 2

LIMITS

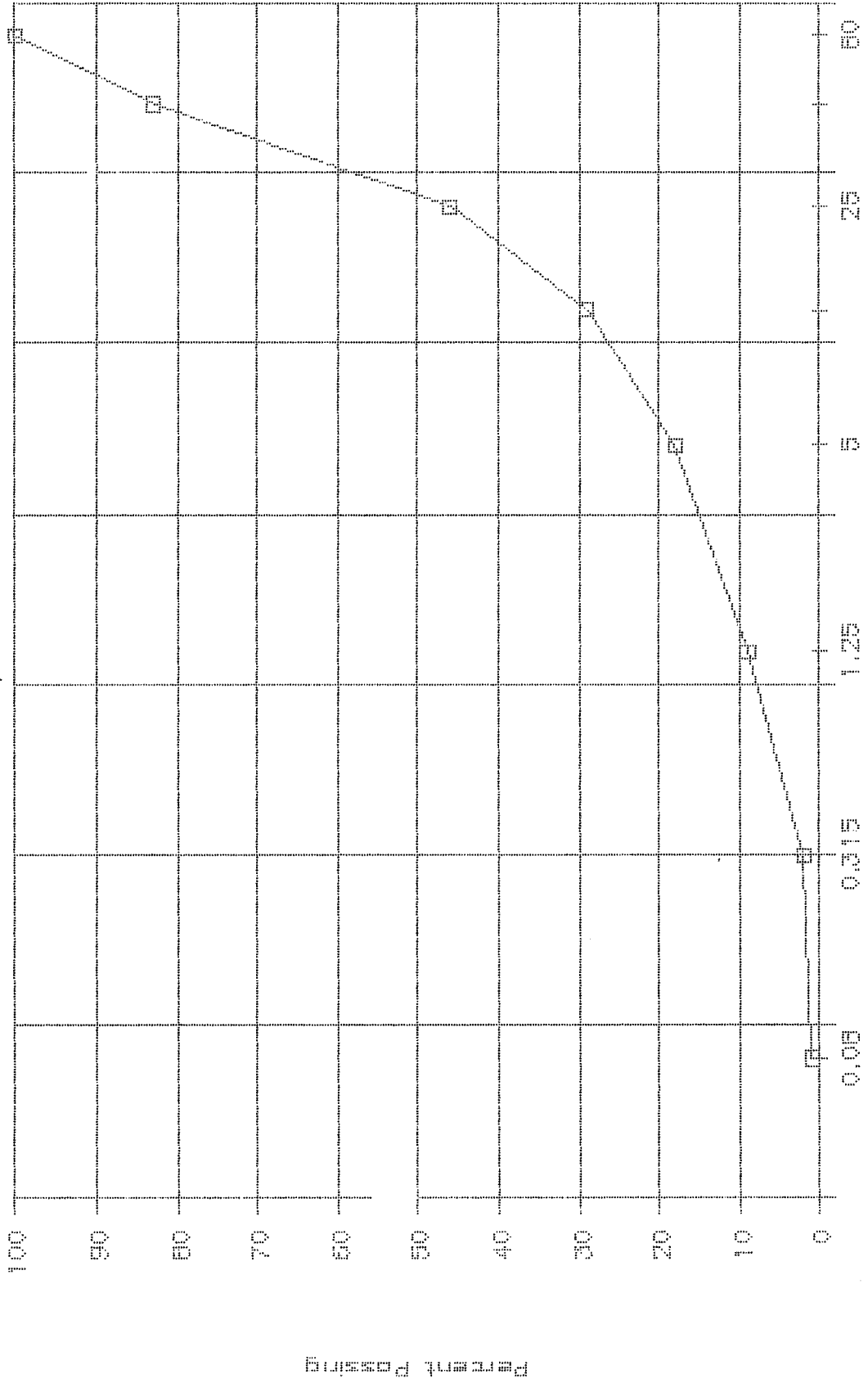
LIQUID: --
PLASTIC: --
P.I.: N.P.

% GRAVEL: 82
% SAND: 17
% FINES: 1

CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SAND
(GP)

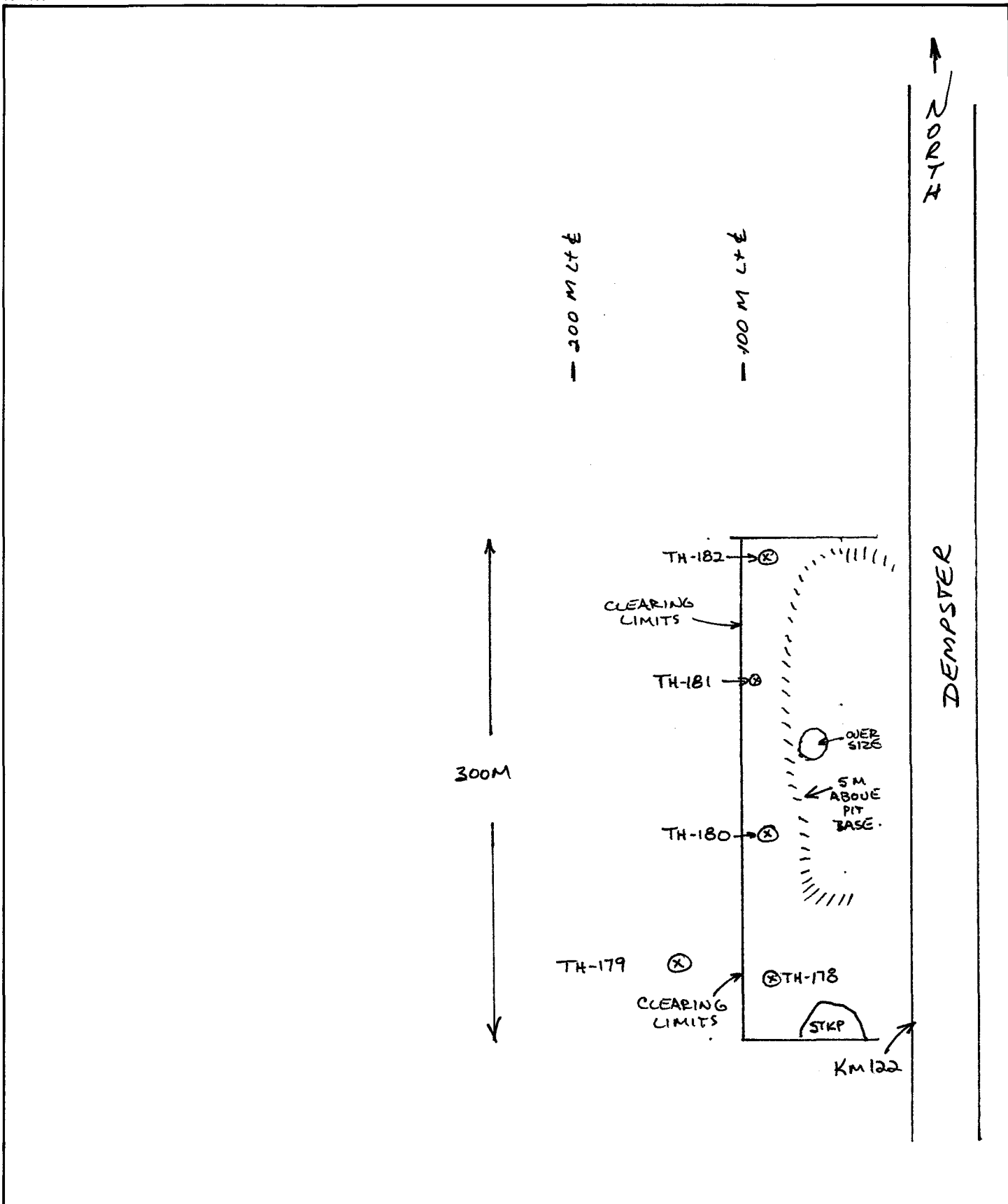
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-103

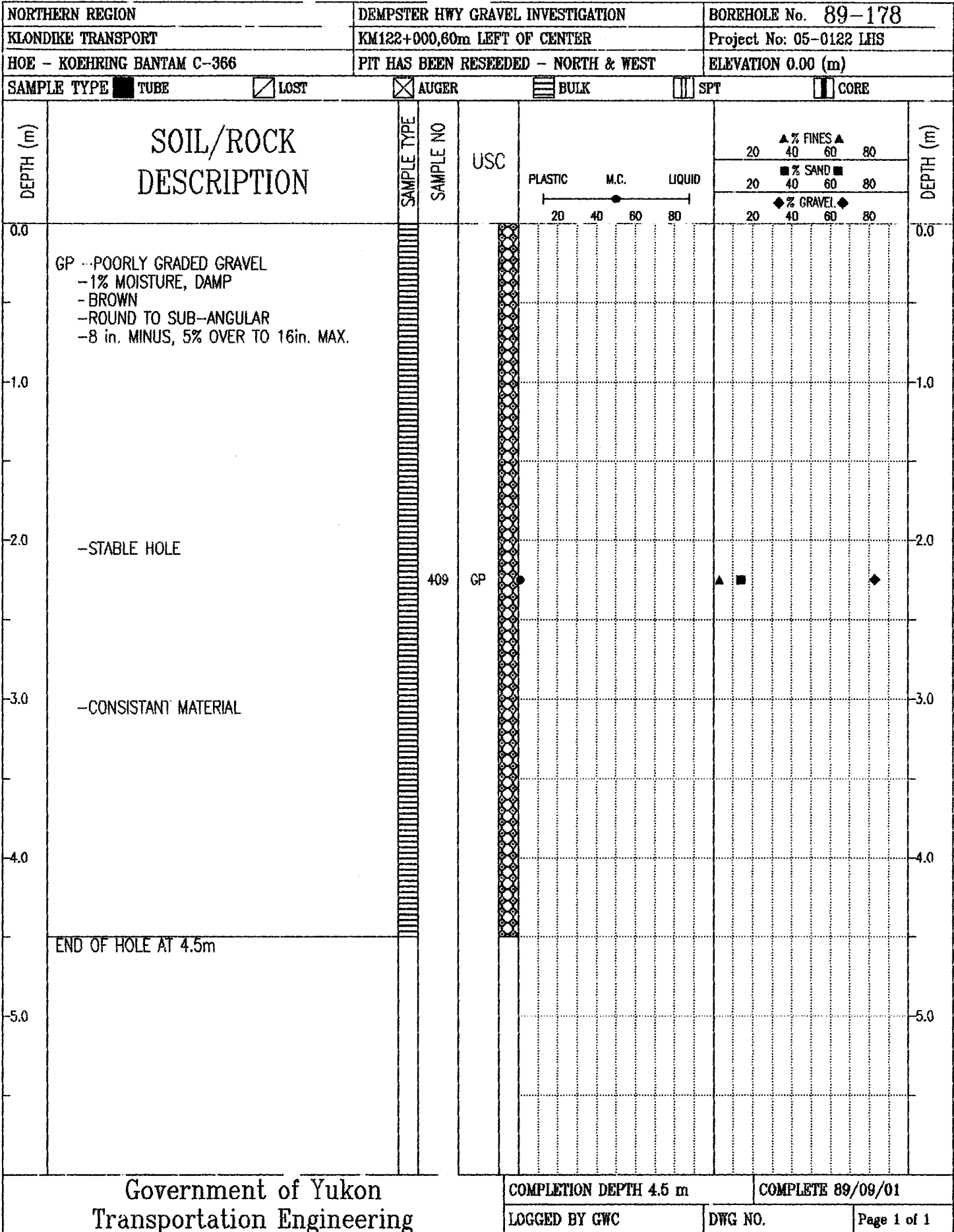


Legend:
 □ SAMP. 415
 ○ SAMP.
 △ SAMP.
 X SAMP.

DESIGN SHEET
HIGHWAY ENGINEERING



TITLE		FILE NO. 05-0122 LHS	SHEET OF
BY G. CHAPMAN	PROJECT HWY 05 GRAVEL SEARCH.	DATE YY MM DD 89 09 01	



```

=====
PROJECT NUMBER: 05-0122 HOLE NUMBER: 89-178
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 122 60M LEFT
LOGGED BY: GWC DATE COMPLETED: 89-09-01
=====

```

```

FIELD NO: 409
LAB NO: 409
DEPTH: 0-4.5
TYPE: BULK
8" MINUS

```

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	80
31.5	---
25.0	42
20.0	---
12.5	26
10.0	---
5.0	17
2.5	---
2.0	---
1.25	11
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	3

```

M.C. (%): 1

```

```

LIMITS
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

```

```

% GRAVEL: 83
% SAND: 14
% FINES: 3

```

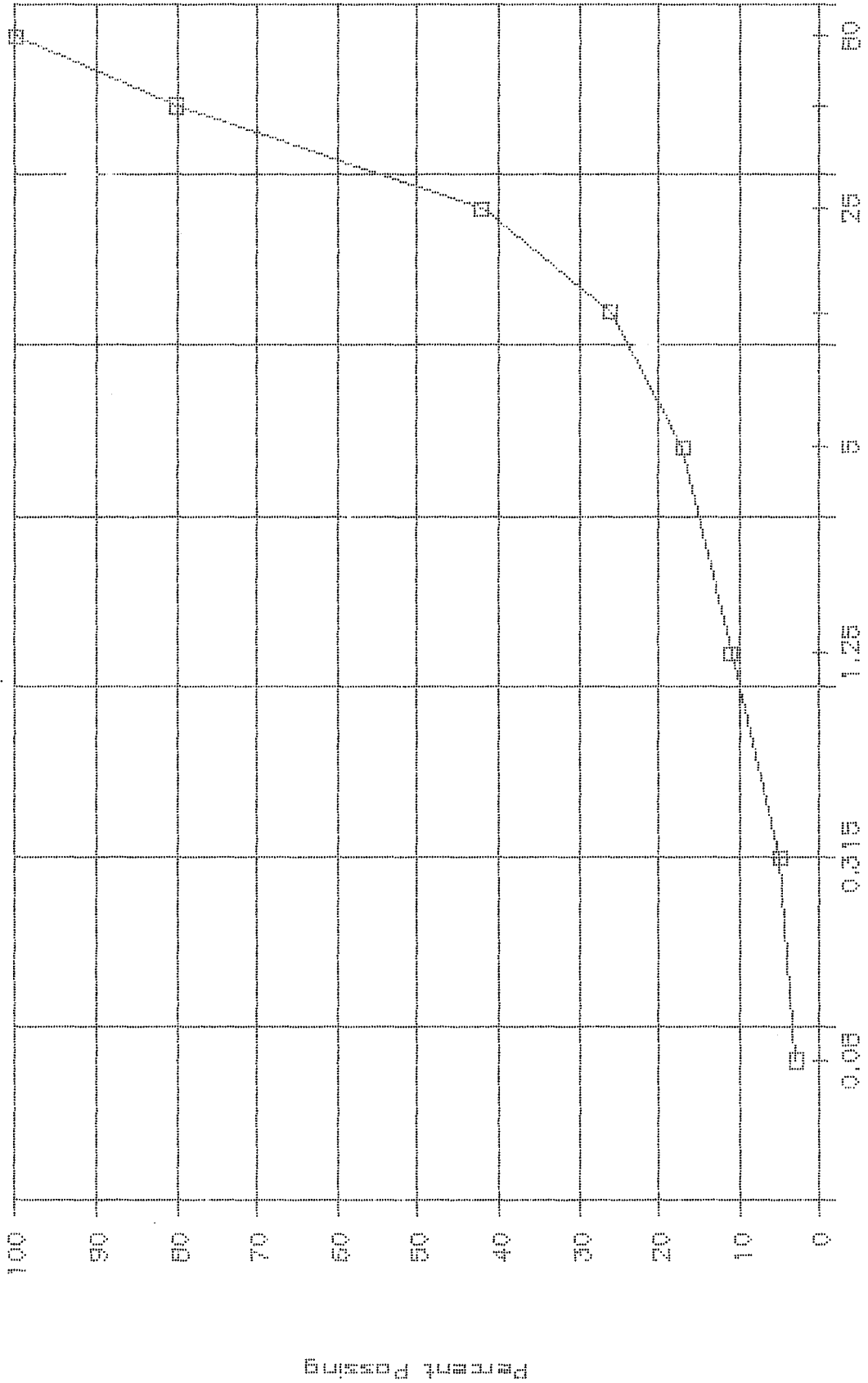
```

CLASSIFICATION:
POORLY GRADED
GRAVEL (GP)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole ES-17B



□ SAMP. 409 ◊ SAMP. △ SAMP. × SAMP.

```

=====
PROJECT NUMBER: 05-0122 HOLE NUMBER: STOCKPILE
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION:
LOGGED BY: GWC DATE COMPLETED: 89-09-01
=====

```

```

=====
FIELD NO: ERR FIELD NO: FIELD NO: FIELD NO:
LAB NO: 409 LAB NO: LAB NO: LAB NO:
DEPTH: DEPTH: DEPTH: DEPTH:
TYPE: BULK TYPE: TYPE: TYPE:
STOCKPILE SAMPLE
=====

```

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	---	100.0	---	100.0	---	100.0	---
80.0	---	80.0	---	80.0	---	80.0	---
50.0	---	50.0	---	50.0	---	50.0	---
31.5	---	31.5	---	31.5	---	31.5	---
25.0	100	25.0	---	25.0	---	25.0	---
20.0	98	20.0	---	20.0	---	20.0	---
12.5	82	12.5	---	12.5	---	12.5	---
10.0	---	10.0	---	10.0	---	10.0	---
5.0	52	5.0	---	5.0	---	5.0	---
2.5	---	2.5	---	2.5	---	2.5	---
2.0	---	2.0	---	2.0	---	2.0	---
1.25	30	1.25	---	1.25	---	1.25	---
0.840	---	0.840	---	0.840	---	0.840	---
0.630	---	0.630	---	0.630	---	0.630	---
0.420	---	0.420	---	0.420	---	0.420	---
0.315	18	0.315	---	0.315	---	0.315	---
0.160	---	0.160	---	0.160	---	0.160	---
0.150	---	0.150	---	0.150	---	0.150	---
0.080	12	0.080	---	0.080	---	0.080	---

```

M.C. (%): 3 M.C. (%): M.C. (%): M.C. (%):
=====

```

LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	---	LIQUID:	---	LIQUID:	---	LIQUID:	---
PLASTIC:	---	PLASTIC:	---	PLASTIC:	---	PLASTIC:	---
P.I.:	N.P.	P.I.:	---	P.I.:	---	P.I.:	---

```

% GRAVEL: 48 % GRAVEL: % GRAVEL: % GRAVEL:
% SAND: 41 % SAND: % SAND: % SAND:
% FINES: 12 % FINES: % FINES: % FINES:
=====

```

```

CLASSIFICATION: CLASSIFICATION: CLASSIFICATION: CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SILT
& SAND (GP-GM)
=====

```

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE

DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC M.C. LIQUID			SOIL COMPOSITION				DEPTH (m)	
					20	40	60	80	▲ % FINES ▲	■ % SAND ■	◆ % GRAVEL ◆		20
0.0	MOIST BROWN MOSS												0.0
	FROZEN ICE RICH SANDY SILT -50% MOISTURE -VISABLE ICE LENSES		410			50	70						
-1.0	FROZEN GRAVEL												-1.0
-2.0	END OF HOLE AT 1.5m -EXTREMELY TOUGH DIGGING												-2.0
-3.0													-3.0
-4.0													-4.0
-5.0													-5.0

PROJECT NUMBER: 05-0122 HOLE NUMBER: 89-179
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 122 85M LEFT
 LOGGED BY: GWC DATE COMPLETED: 89-09-01

FIELD NO: 410
 LAB NO: 410
 DEPTH: 0.15-0.7
 TYPE: BULK
 FROZ ICE RICH SIL

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	---
80.0	---
50.0	---
31.5	---
25.0	---
20.0	---
12.5	---
10.0	---
5.0	---
2.5	---
2.0	---
1.25	---
0.840	---
0.630	---
0.420	---
0.315	---
0.160	---
0.150	---
0.080	---

M.C. (%): 50

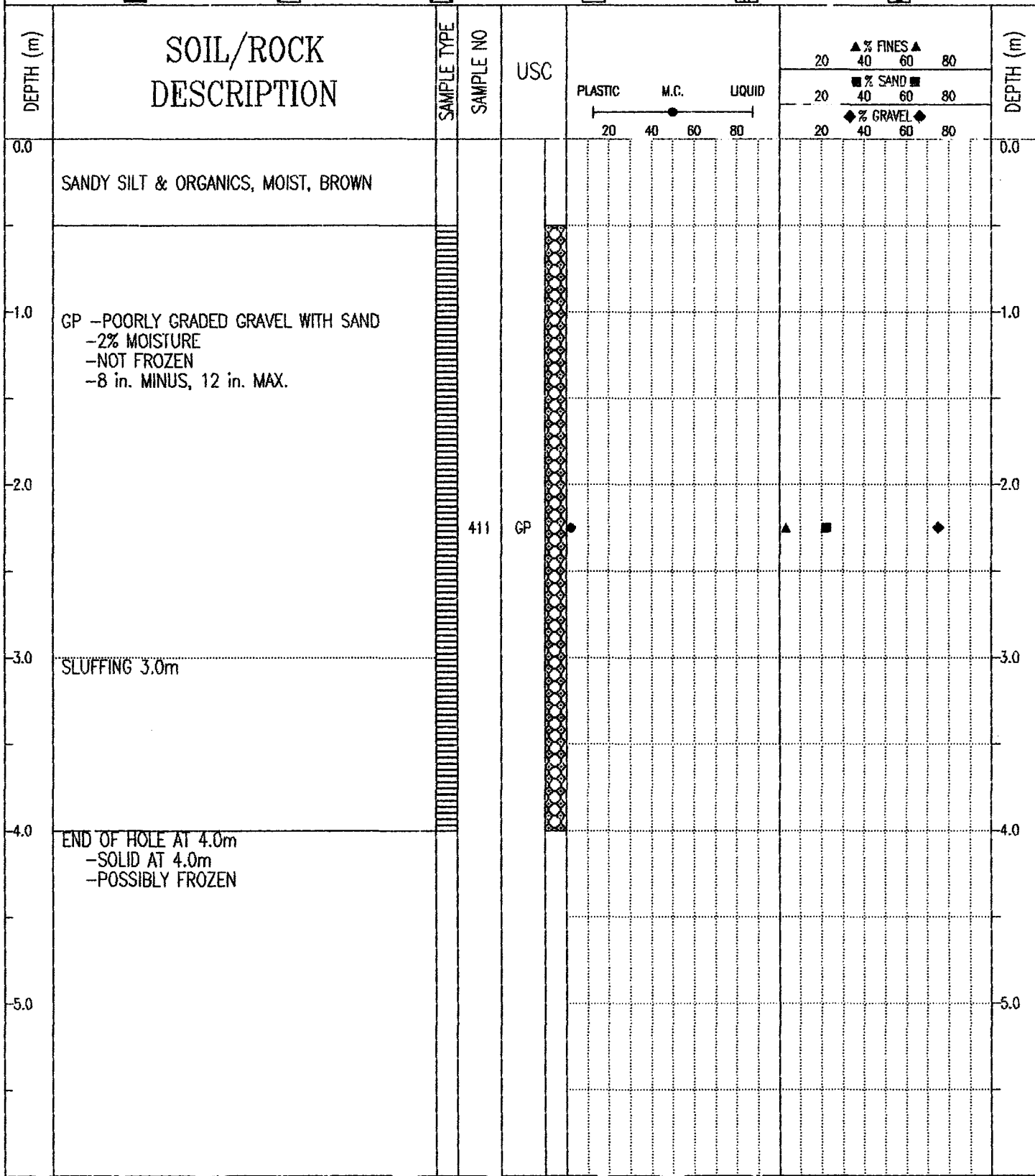
LIMITS

LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: ---
 % SAND: ---
 % FINES: ---

CLASSIFICATION:

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-180
KLONDIKE TRANSPORT	KM 122+075,75m LEFT OF CENTER	Project No: 05-0122 LHS
HOE - KOEHRING BANTAM C-366	PIT HAS BEEN RESEDED - NORTH & WEST	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.0 m COMPLETE 89/09/01

LOGGED BY GWC DWG NO. Page 1 of 1

PROJECT NUMBER: 05-0122 HOLE NUMBER: 89-180
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 122+075, 75M LEFT
LOGGED BY: GWC DATE COMPLETED: 89-09-01

FIELD NO: 411
LAB NO: 411
DEPTH: 0.5-4.0
TYPE: BULK
NOT FROZ 8" MINUS

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	—
80.0	100
50.0	86
31.5	—
25.0	50
20.0	—
12.5	34
10.0	—
5.0	25
2.5	—
2.0	—
1.25	16
0.840	—
0.630	—
0.420	—
0.315	6
0.160	—
0.150	—
0.080	3

M.C. (%): 2

LIMITS

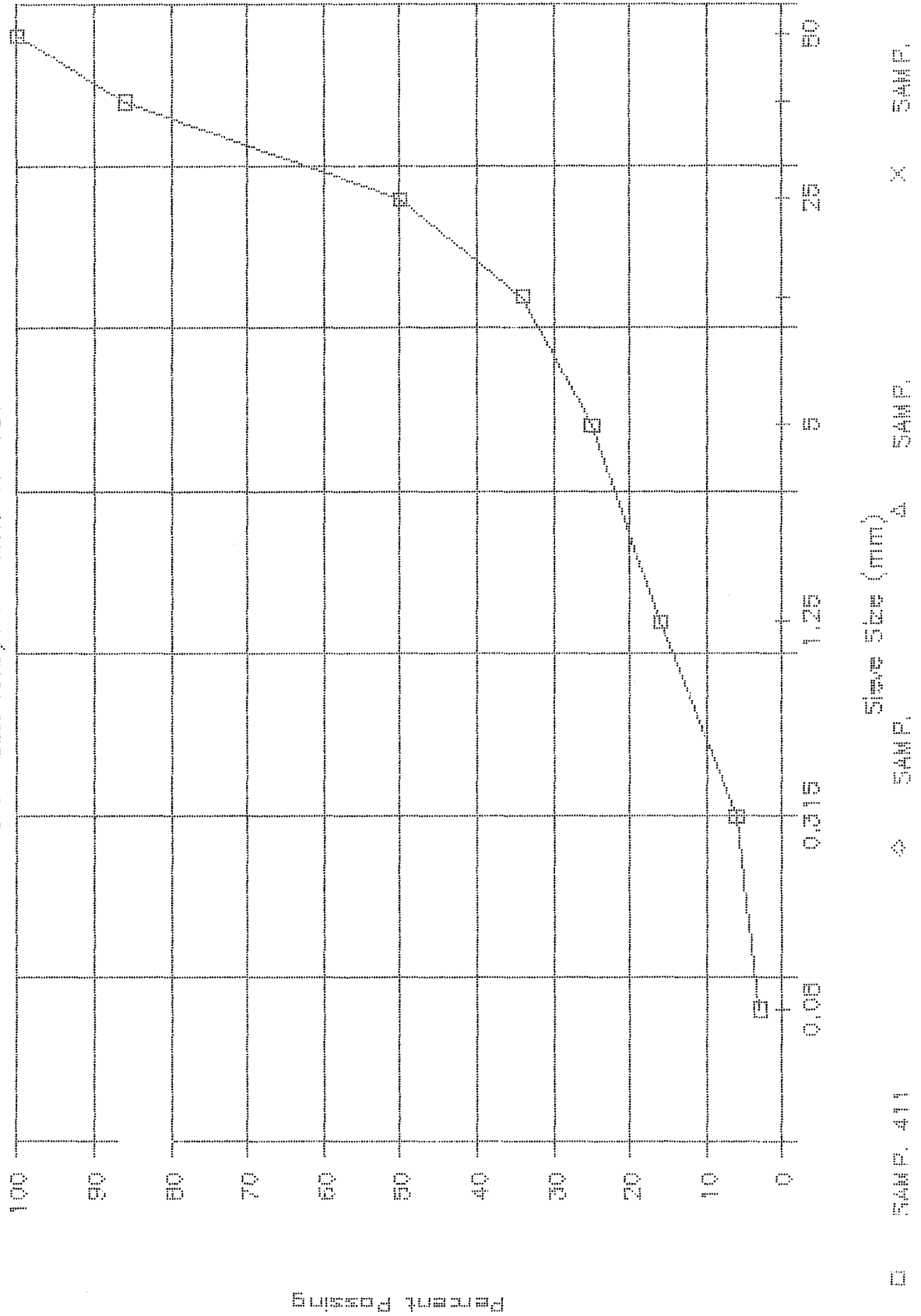
LIQUID: —
PLASTIC: —
P.I.: N.P.

% GRAVEL: 75
% SAND: 22
% FINES: 3

CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SAND
(GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 53--150



NORTHERN REGION

DEMPSTER HWY GRAVEL INVESTIGATION

BOREHOLE No. 89-181

KLONDIKE TRANSPORT

KM 122+150,75m LEFT OF CENTER

Project No: 05-0122 LHS

HOE - KOEHRING BANTAM C-366

PIT HAS BEEN RESEDED - NORTH & WEST

ELEVATION 0.00 (m)

SAMPLE TYPE TUBE

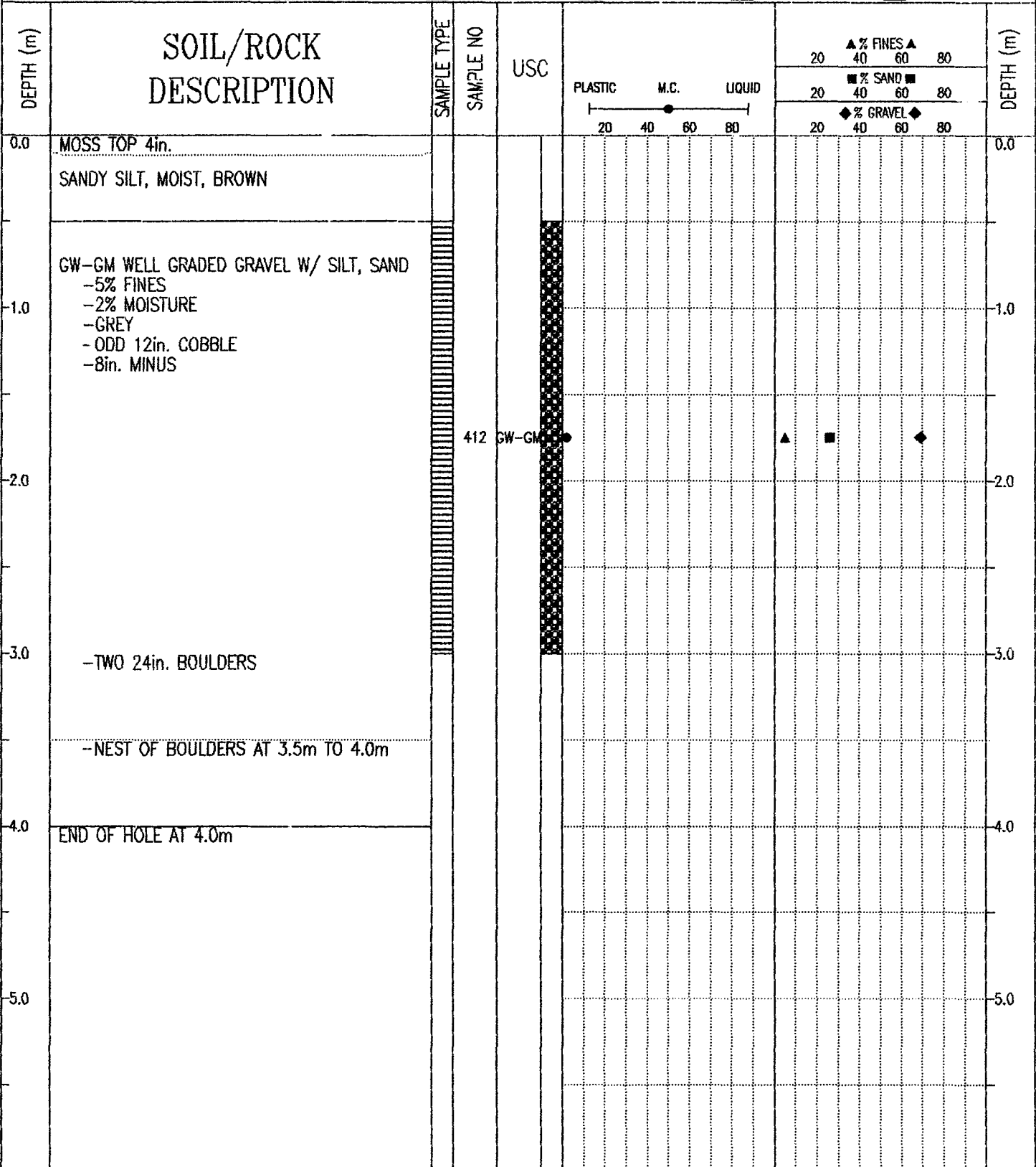
LOST

AUGER

BULK

SPT

CORE



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.0 m

COMPLETE 89/09/01

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0122 HOLE NUMBER: 89-181
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 122+150 75M LEFT
 LOGGED BY: GWC DATE COMPLETED: 89-09-01

FIELD NO: 412
 LAB NO: 412
 DEPTH: 0.5-3.0
 TYPE: BULK
 NOT FROZ 8" MINYS

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	95
31.5	---
25.0	61
20.0	---
12.5	42
10.0	---
5.0	31
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	5

M.C. (%): 2

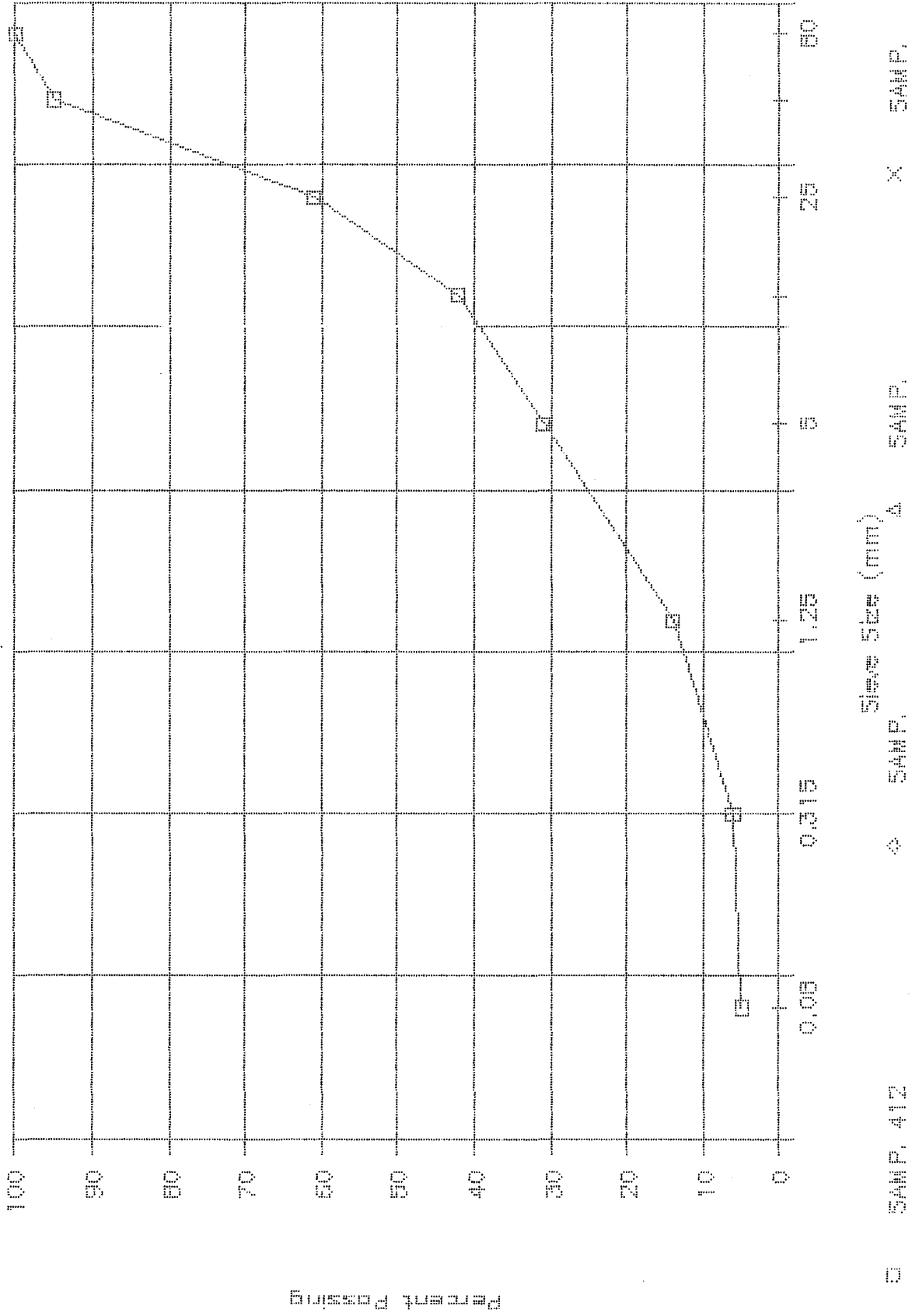
LIMITS
 LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 69
 % SAND: 26
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 53--181



□ SAMP. 412

APPENDIX "C"

APP C

NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION			BOREHOLE No. 89-177			
KLONDIKE TRANSPORT		KM 131-CACHE CREEK PIT			Project No: 05-0131 RHS			
HOE - KOEHRING BANTAM C-366		25m BACK OF FACE-6m FACE			ELEVATION 0.00 (m)			
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE								
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC M.C. LIQUID 			DEPTH (m)
					▲ % FINES ▲ 20 40 60 80 ■ % SAND ■ 20 40 60 80 ◆ % GRAVEL ◆ 20 40 60 80			
0.0	GP-GM POORLY GRADED GRAVEL W/ SILT,SAND -2% MOISTURE, DAMP - BROWN -SUB-ANGULAR							0.0
-1.0								-1.0
-2.0	-STABLE WALLS -GOOD DIGGING		407	GP-GM	50	25	75	-2.0
-3.0	-CONSISTANT MATERIAL							-3.0
-4.0								-4.0
-5.0	END OF HOLE AT 4.5m							-5.0

Government of Yukon
Transportation Engineering

COMPLETION DEPTH 4.5 m COMPLETE 89/08/31
 LOGGED BY GWC DWG NO. Page 1 of 1

```

=====
PROJECT NUMBER: 05-0131 HOLE NUMBER: 89-177
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 131, CACHE CREEK PIT
LOGGED BY: GWC DATE COMPLETED: 89-08-31
=====

```

```

=====
FIELD NO: 407
LAB NO: 407
DEPTH: 0-4.5
TYPE: BULK
6M ABOVE PIT BASE
=====

```

```

SIEVE | PERCENT
SIZE | PASSING
-----

```

```

100.0 | ---
80.0 | 100
50.0 | 87
31.5 | ---
25.0 | 62
20.0 | ---
12.5 | 38
10.0 | ---
5.0 | 25
2.5 | ---
2.0 | ---
1.25 | 16
0.840 | ---
0.630 | ---
0.420 | ---
0.315 | 12
0.160 | ---
0.150 | ---
0.080 | 7
=====

```

```

M.C. (%): 2
=====

```

LIMITS

```

LIQUID: ---
PLASTIC: ---
P.I.: N.P.
=====

```

```

% GRAVEL: 75
% SAND: 18
% FINES: 7
=====

```

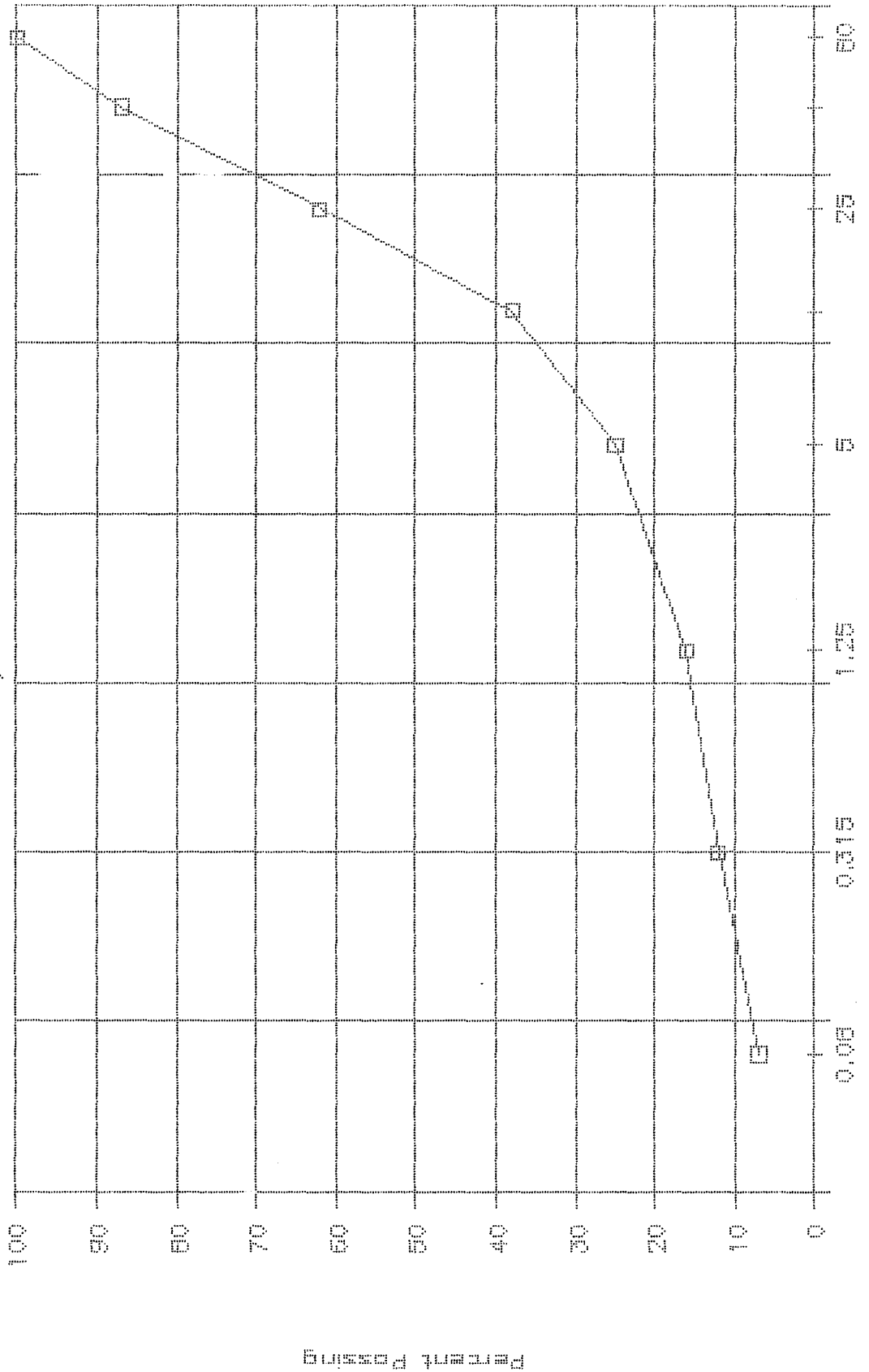
```

CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SILT
& SAND (GP-GM)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

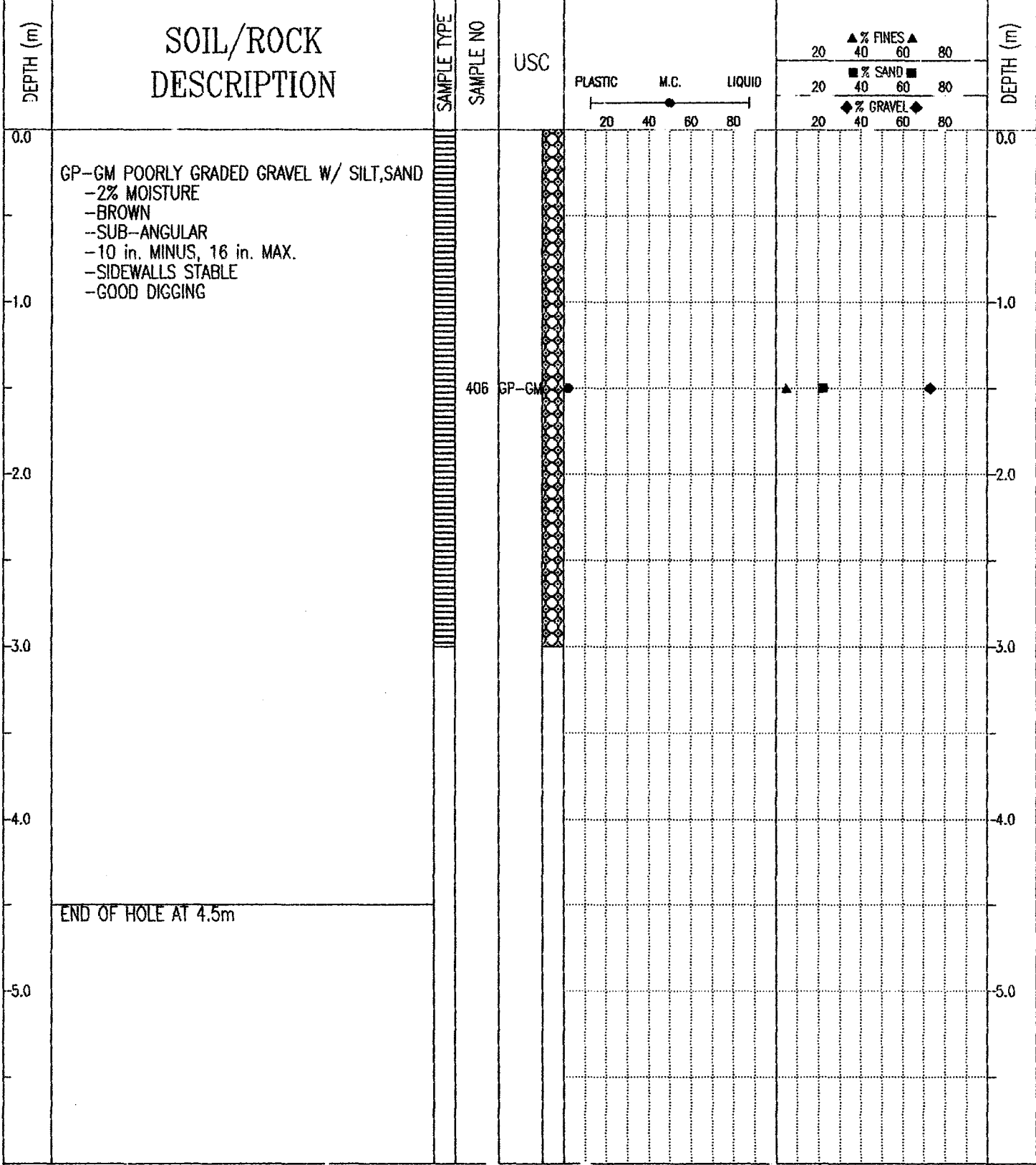
Grain Size Analysis -- Hole BB-177



○ SAMPL. 407 ◊ SAMPL. △ SAMPL. × SAMPL.

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-176
KLONDIKE TRANSPORT	KM 150 PIT-150m It cl-25m BACK OF FACE	Project No: 05-0150 LHS
HOE - KOEHRING BANTAM C-366	SOUTH OF WINDY PASS	ELEVATION 0.00 (m)

SAMPLE TYPE	<input checked="" type="checkbox"/> TUBE	<input type="checkbox"/> LOST	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK	<input type="checkbox"/> SPT	<input type="checkbox"/> CORE
-------------	--	-------------------------------	---	-------------------------------	------------------------------	-------------------------------



Government of Yukon Transportation Engineering	COMPLETION DEPTH 4.5 m	COMPLETE 89/08/31
LOGGED BY GWC	DWG NO.	Page 1 of 1

```

=====
PROJECT NUMBER: 05-150 HOLE NUMBER: 89-176
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 150 LEFT
LOGGED BY: GWC DATE COMPLETED: 89-08-31
=====

```

```

FIELD NO: 406
LAB NO: 406
DEPTH: 0-3.0
TYPE: BULK
NOT FROZ 10" MINU

```

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	---
50.0	100
31.5	---
25.0	55
20.0	---
12.5	37
10.0	---
5.0	27
2.5	---
2.0	---
1.25	19
0.840	---
0.630	---
0.420	---
0.315	11
0.160	---
0.150	---
0.080	5

```

M.C. (%): 2

```

LIMITS

```

LIQUID: ---
PLASTIC: ---
P.I.: N.P.

```

```

% GRAVEL: 73
% SAND: 22
% FINES: 5

```

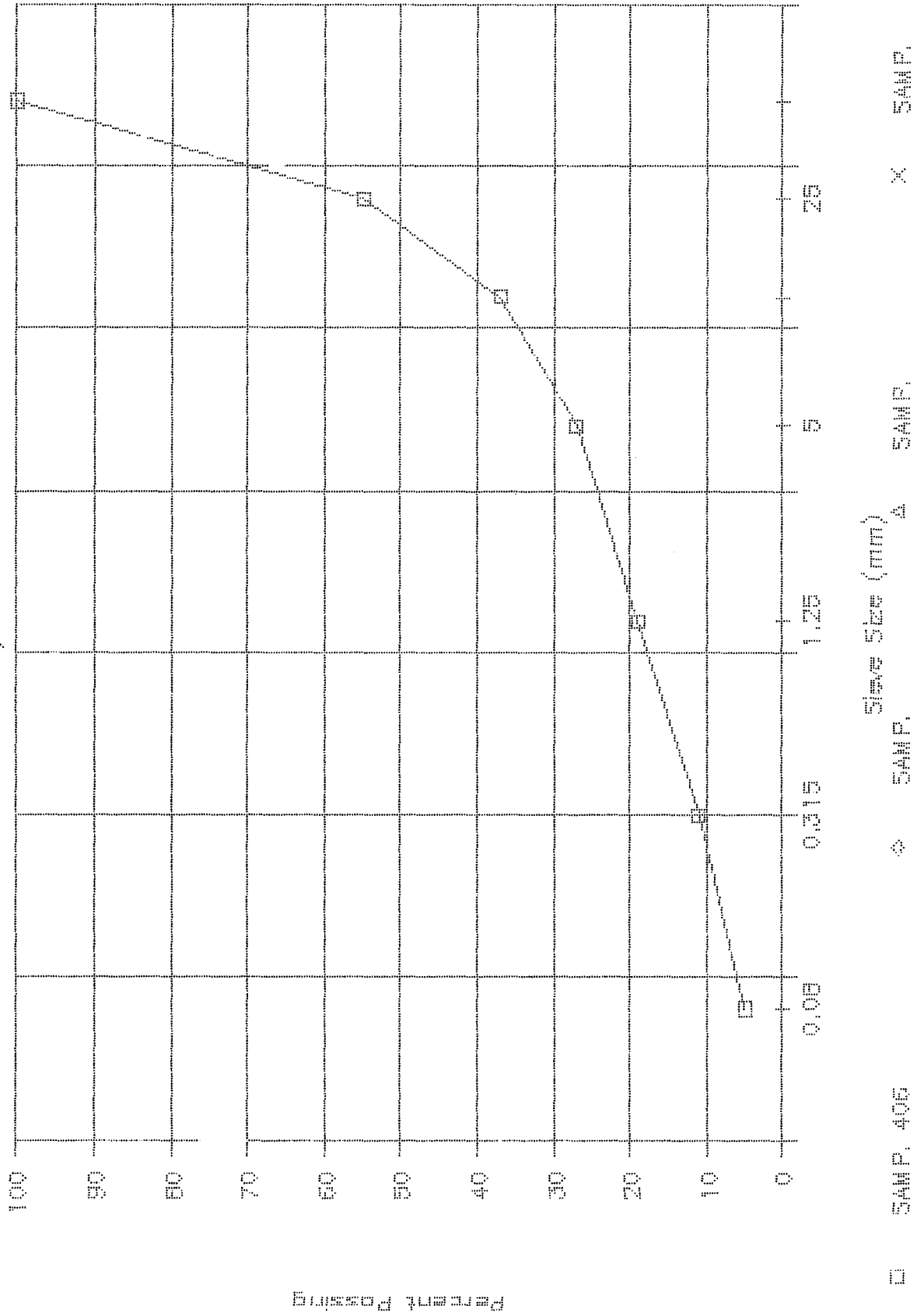
```

CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SILT
& SAND (GP-GM)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 23-175



5AMP. 405

5AMP.

5AMP.

X

5AMP.

APPENDIX "D"

APU

NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION		BOREHOLE No. 89-170					
KLONDIKE TRANSPORT		KM 163, 100m RIGHT OF CENTER		Project No: 05-0163 RHS					
HOE - KOEHRING BANTAM C-366		ENGINEER CREEK FAN		ELEVATION 0.00 (m)					
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER		<input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE					
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC	M.C.	LIQUID	▲ % FINES ▲	DEPTH (m)
0.0	BROWN PEAT MOSS								0.0
-1.0	GW -WELL GRADED GRAVEL WITH SAND -3% MOISTURE -BLACK -12 in. MINUS		402	GW					-1.0
-2.0	FROZEN AT 2.0m								-2.0
-2.25	END OF HOLE AT 2.25m								-2.25
-3.0									-3.0
-4.0									-4.0
-5.0									-5.0

Government of Yukon
Transportation Engineering

COMPLETION DEPTH 2.3 m COMPLETE 89/08/30
 LOGGED BY GWC DWG NO. Page 1 of 1

```

=====
PROJECT NUMBER: 05-0163 HOLE NUMBER: 89-170
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEHRING
HOLE LOCATION: KM 163 100M RIGHT
LOGGED BY: GWC DATE COMPLETED: 89-08-30
=====

```

```

FIELD NO: 402
LAB NO: 402
DEPTH: 0.25-2.0
TYPE: BULK
BLACK 12" MINUS

```

```

SIEVE | PERCENT
SIZE | PASSING
-----|-----

```

100.0	---
80.0	100
50.0	89
31.5	---
25.0	55
20.0	---
12.5	33
10.0	---
5.0	21
2.5	---
2.0	---
1.25	10
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	2

```

M.C. (%): 3

```

LIMITS

```

LIQUID: ---
PLASTIC: ---
P.I.: N.P.

```

```

% GRAVEL: 79
% SAND: 19
% FINES: 2

```

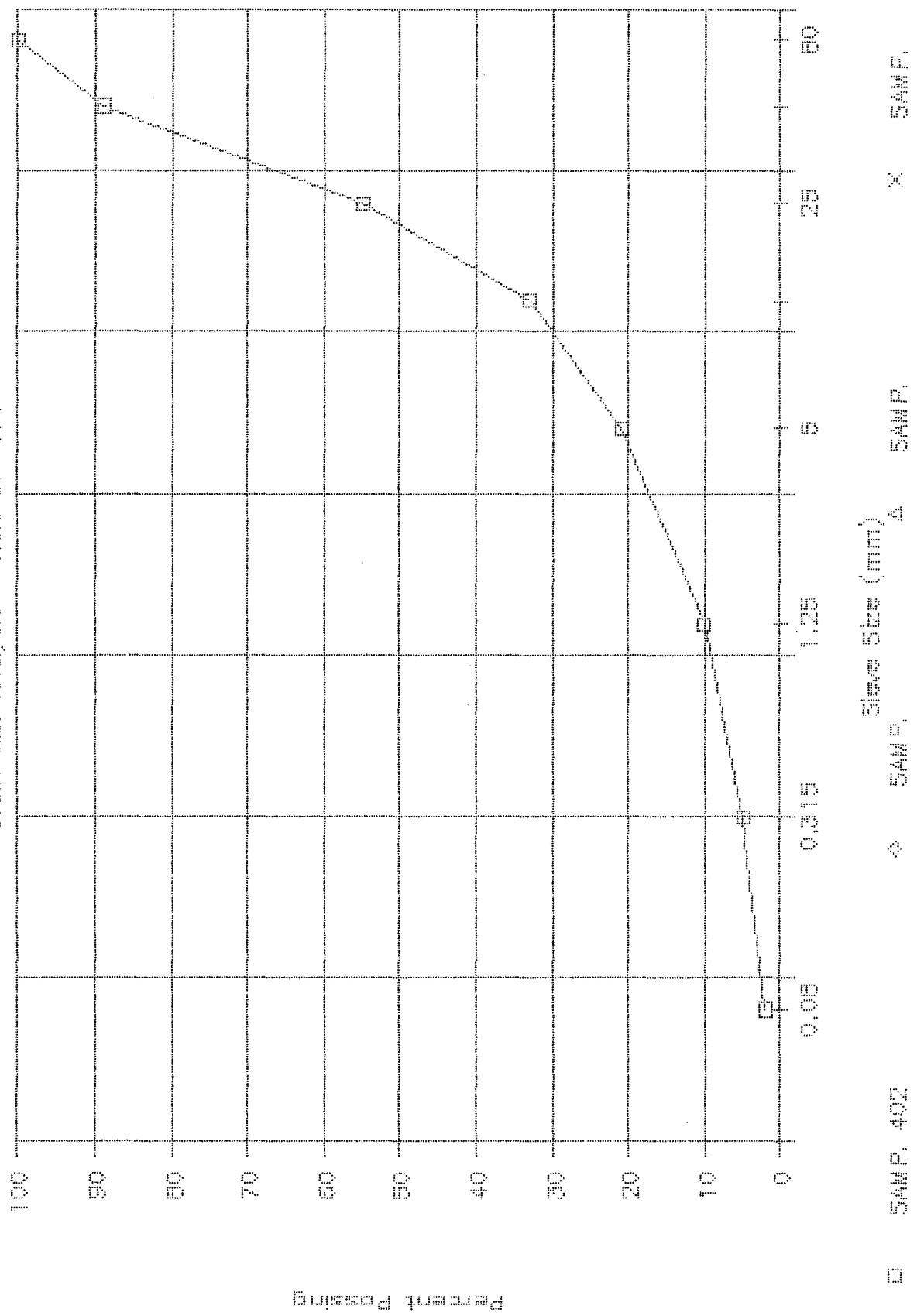
```

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 53-170



□ 5AMP, 40Z

△ 5AMP

△ 5AMP

△ 5AMP

X 5AMP

NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION		BOREHOLE No. 89-171							
KLONDIKE TRANSPORT		KM 162+800 , 75m RIGHT OF CENTER		Project No: 05-0163 RHS							
HOE - KOEHRING BANTAM C-366		200 M SOUTH OF 89-170		ELEVATION 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER		<input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE							
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC	M.C.	LIQUID	▲ % FINES ▲	■ % SAND ■	◆ % GRAVEL ◆	DEPTH (m)
					20 40 60 80	20 40 60 80	20 40 60 80	20 40 60 80	20 40 60 80	20 40 60 80	
0.0	BROWN MOSS										0.0
	GW -WELL GRADED GRAVEL -4% MOISTURE -BLACK -6 in. MINUS		403	GW							
	FROZEN AT 1.3m										
	END OF HOLE AT 1.5m										
-1.0											-1.0
-2.0											-2.0
-3.0											-3.0
-4.0											-4.0
-5.0											-5.0
Government of Yukon Transportation Engineering				COMPLETION DEPTH 1.5 m		COMPLETE 89/08/30		LOGGED BY GWC		DWG NO. Page 1 of 1	

PROJECT NUMBER: 05-0163 HOLE NUMBER: 89-171
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 162+800 75M RIGHT
 LOGGED BY: GWC DATE COMPLETED: 89-08-30

FIELD NO: 403
 LAB NO: 403
 DEPTH: 0.2-1.5
 TYPE: BULK
 FROZ BLACK 6" MIN

SIEVE SIZE	PERCENT PASSING
100.0	—
80.0	100
50.0	89
31.5	—
25.0	61
20.0	—
12.5	34
10.0	—
5.0	16
2.5	—
2.0	—
1.25	7
0.840	—
0.630	—
0.420	—
0.315	3
0.160	—
0.150	—
0.080	1

M.C. (%): 4

LIMITS

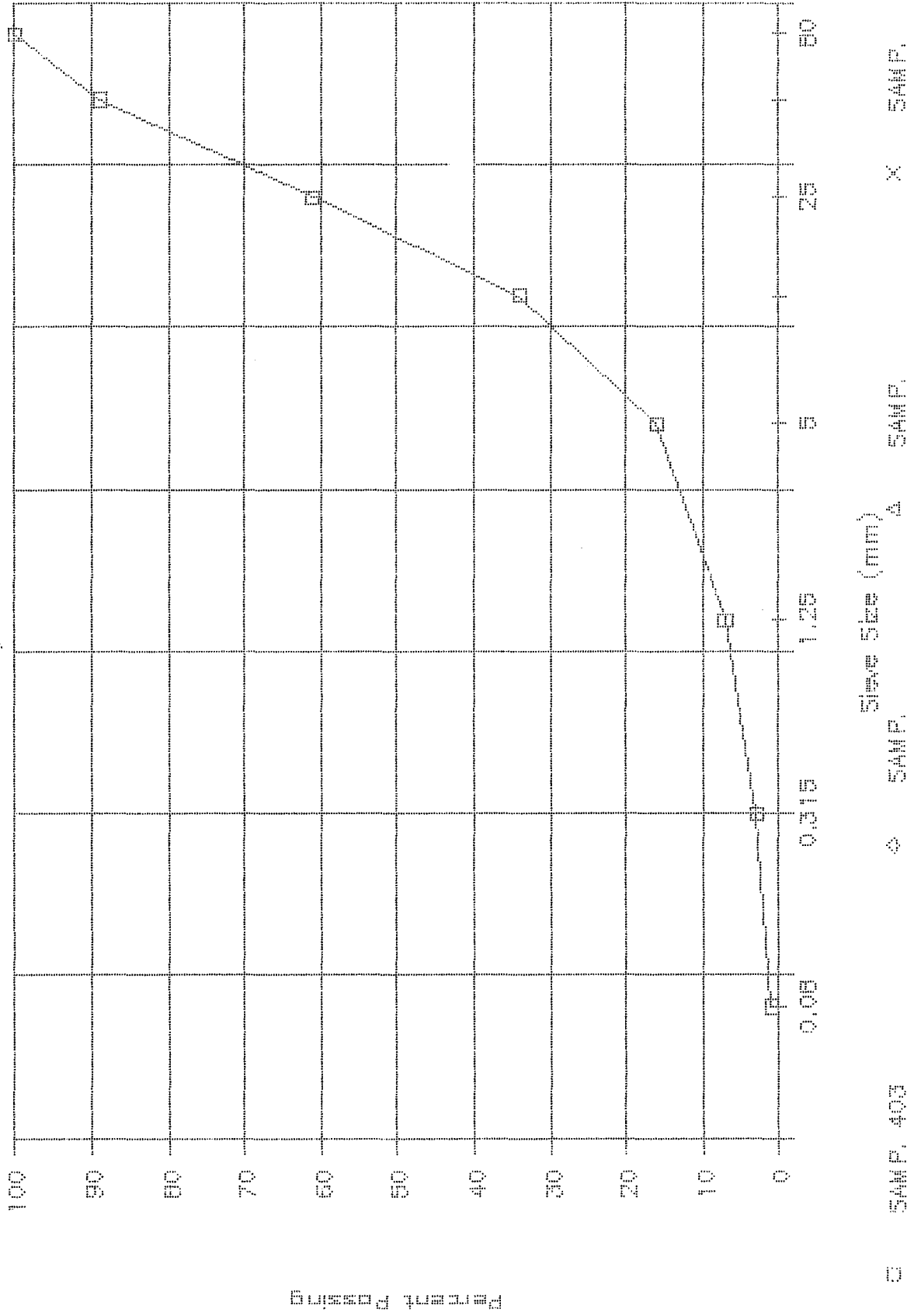
LIQUID: —
 PLASTIC: —
 P.I.: N.P.

% GRAVEL: 84
 % SAND: 14
 % FINES: 1

CLASSIFICATION:
 WELL-GRADED
 GRAVEL (GW)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-171



NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION		BOREHOLE No. 89--172		
KLONDIKE TRANSPORT		KM 162+600, 50m RIGHT OF CENTER		Project No: 05-0163 RHS		
HOE - KOEHRING BANTAM C-366		200 M SOUTH OF 89-171		ELEVATION 0.00 (m)		
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK		<input type="checkbox"/> SPT <input type="checkbox"/> CORE		
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC M.C. LIQUID 20 40 60 80	▲ % FINES ▲ 20 40 60 80
					20 40 60 80	■ % SAND ■ 20 40 60 80
0.0	BROWN MOSS					
0.0 - 1.0	GP - POORLY GRADED GRAVEL WITH SAND - 3% MOISTURE - BLACK - 10 in. MINUS		404	GP		
1.75	FROZEN AT 1.75m					
2.0	END OF HOLE AT 2.0m					
3.0						
4.0						
5.0						

Government of Yukon
Transportation Engineering

COMPLETION DEPTH 1.8 m

COMPLETE 89/08/30

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0163 HOLE NUMBER: 89-172
 CLIENT: NORTHERN REGION W. GUTOWSKI P. ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 162+600 50M RIGHT, 75M RIGHT KMPOST 162
 LOGGED BY: GWC DATE COMPLETED: 89-08-30

FIELD NO: 404	FIELD NO: 404
LAB NO: 404	LAB NO: 404
DEPTH: 0.6-1.4	DEPTH: 0.6-1.4
TYPE: BULK	TYPE: BULK
BLACK 10" MINUS	BLACK 10" MINUS

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	---	100.0	---
80.0	100	80.0	100
50.0	76	50.0	76
31.5	---	31.5	---
25.0	52	25.0	52
20.0	---	20.0	---
12.5	35	12.5	35
10.0	---	10.0	---
5.0	23	5.0	23
2.5	---	2.5	---
2.0	---	2.0	---
1.25	14	1.25	14
0.840	---	0.840	---
0.630	---	0.630	---
0.420	---	0.420	---
0.315	6	0.315	6
0.160	---	0.160	---
0.150	---	0.150	---
0.080	3	0.080	3

M.C. (%): 3 M.C. (%): 3

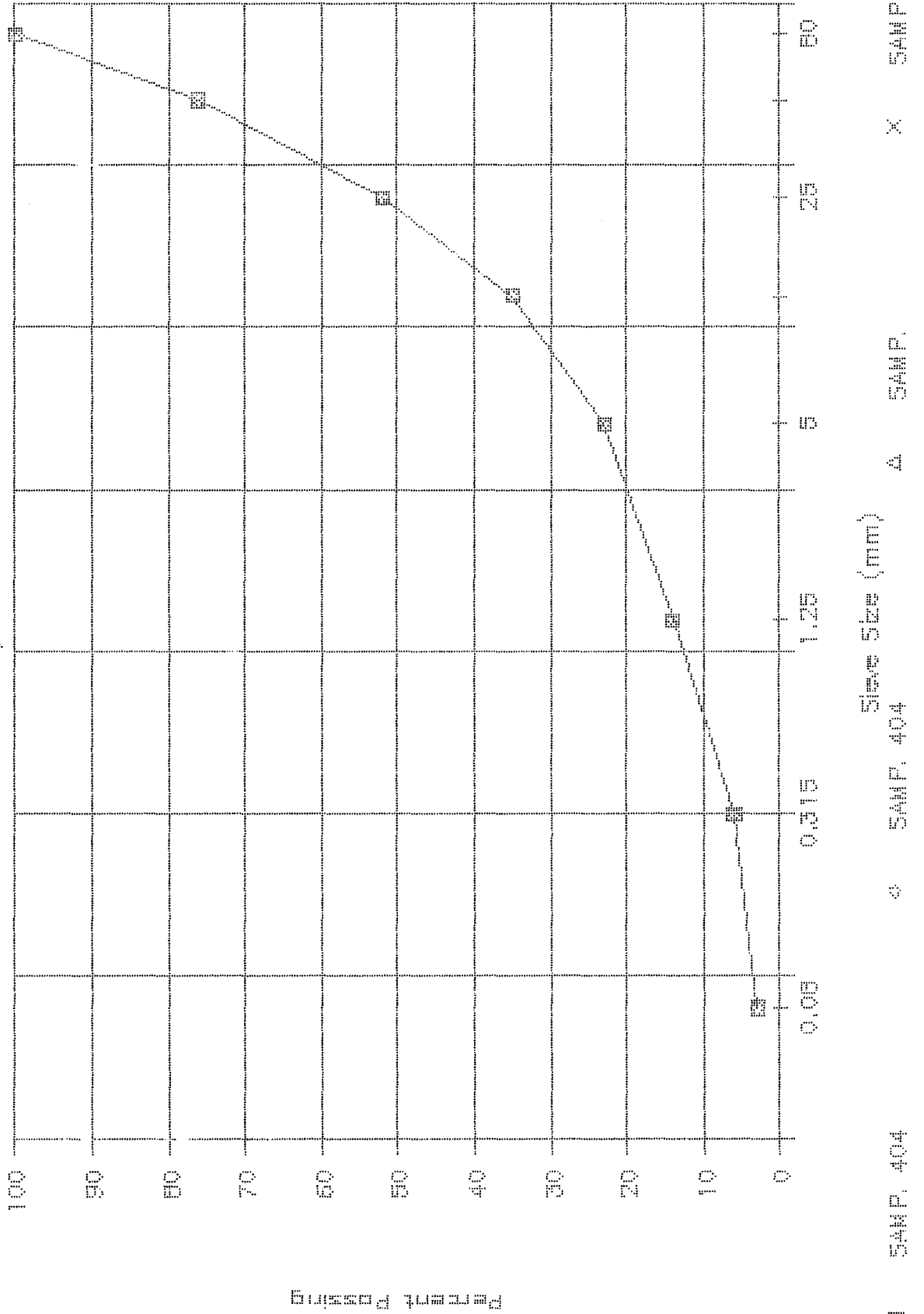
LIMITS	LIMITS
LIQUID: ---	LIQUID: ---
PLASTIC: ---	PLASTIC: ---
P.I.: N.P.	P.I.: N.P.

% GRAVEL: 77	% GRAVEL: 77
% SAND: 20	% SAND: 20
% FINES: 3	% FINES: 3

CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED	POORLY GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND
(GP)	(GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-17Z



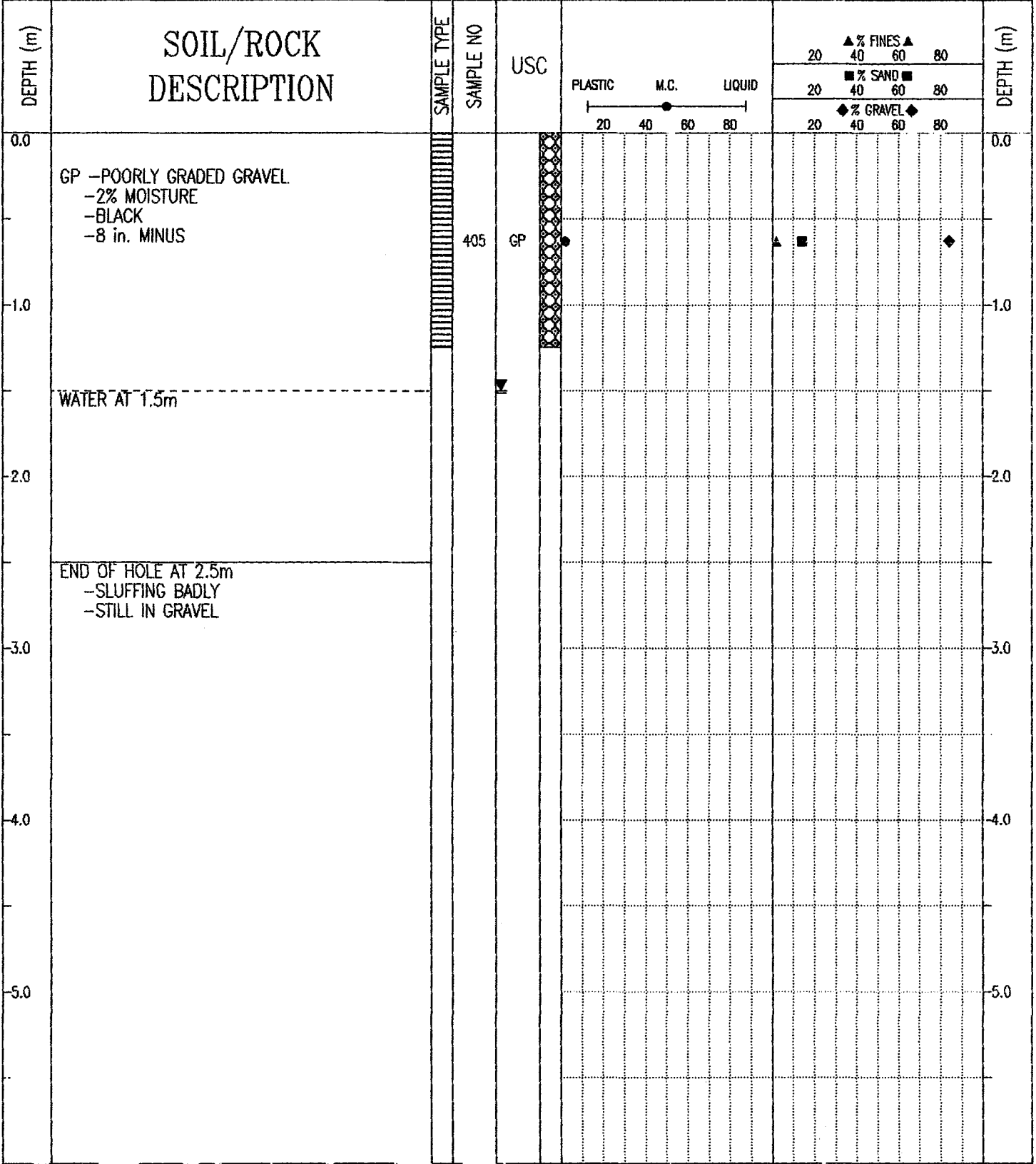
□ SAMPL. 404 ○ SAMPL. 404 Δ SAMPL. 404 X SAMPL. 404

NORTHERN REGION DEMPSTER HWY GRAVEL INVESTIGATION BOREHOLE No. 89-173

KLONDIKE TRANSPORT KM 162+300, 100m RIGHT OF CENTER Project No: 05-0163 RHS

HOE - KOEHRING BANTAM C-366 OLD BORROW PIT - NOT FROZEN - STRIPPED ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



Government of Yukon
 Transportation Engineering

COMPLETION DEPTH 2.5 m COMPLETE 89/08/31

LOGGED BY GWC DWG NO. Page 1 of 1

PROJECT NUMBER: 05-0163 HOLE NUMBER: 89-173
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 162+300 100M RIGHT, OLD BORROW PIT
 LOGGED BY: GWC DATE COMPLETED: 89-08-31

FIELD NO: 405
 LAB NO: 405
 DEPTH: 0-1.25
 TYPE: BULK
 BLACK 8" MINUS

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	86
31.5	--
25.0	57
20.0	--
12.5	31
10.0	--
5.0	16
2.5	--
2.0	--
1.25	9
0.840	--
0.630	--
0.420	--
0.315	5
0.160	--
0.150	--
0.080	2

M.C. (%): 2

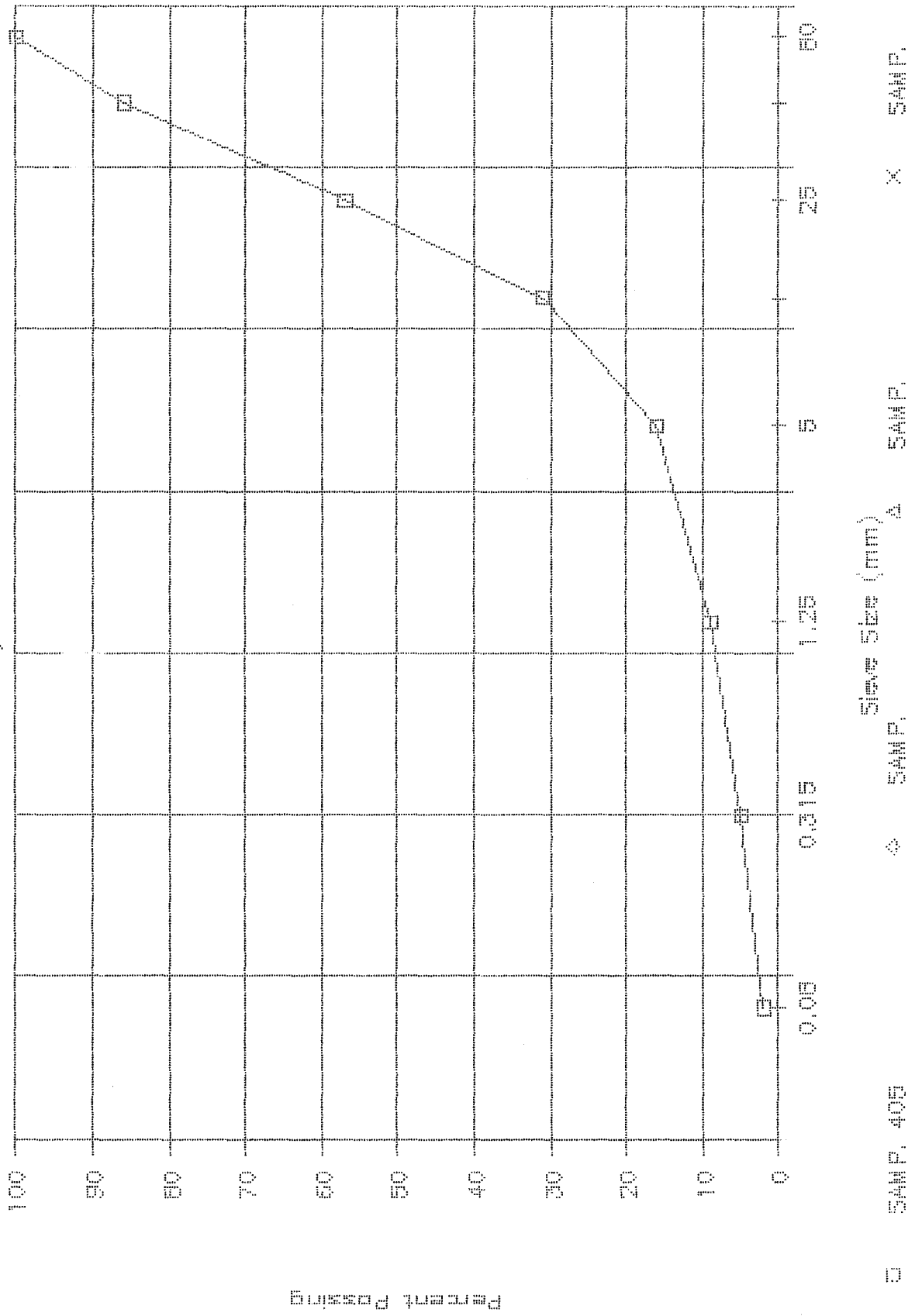
LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 84
 % SAND: 14
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL (GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 09-173



□ SAMP. 405

⊕ SAMP.

△ SAMP.

△ SAMP.

× SAMP.

× SAMP.

NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION			BOREHOLE No. 89-174							
KLONDIKE TRANSPORT		KM 174+700, 125m LEFT OF CENTER			Project No: 05-0175 RHS							
HOE - KOEHRING BANTAM C-366		1989 RIP RAP BORROW PIT-OLD CRUSH SITE			ELEVATION 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> TUBE		<input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER		<input type="checkbox"/> BULK		<input type="checkbox"/> SPT		<input type="checkbox"/> CORE		
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC	M.C.	LIQUID	▲ % FINES ▲				DEPTH (m)
								20	40	60	80	
								■ % SAND ■				
								20	40	60	80	
								◆ % GRAVEL ◆				
								20	40	60	80	
0.0	PEAT MOSS -ICE RICH -BROWN											0.0
-1.0												-1.0
-2.0	END OF HOLE AT 2.0m -73 min. TO DIG 2.0m -NO SAMPLE TAKEN											-2.0
-3.0												-3.0
-4.0												-4.0
-5.0												-5.0

Government of Yukon
Transportation Engineering

COMPLETION DEPTH 2.0 m

COMPLETE 89/08/31

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0175 HOLE NUMBER: 89-174
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEHRING
 HOLE LOCATION: KM 174.7 125M LEFT, 100M NORTH OF PIT
 LOGGED BY: GWC DATE COMPLETED: 89-08-31

FIELD NO:	ERR	FIELD NO:	FIELD NO:	FIELD NO:
LAB NO:		LAB NO:	LAB NO:	LAB NO:
DEPTH:		DEPTH:	DEPTH:	DEPTH:
TYPE:	ERR	TYPE:	TYPE:	TYPE:
NO SAMPLE				

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
------------	-----------------	------------	-----------------	------------	-----------------	------------	-----------------

100.0	---	100.0		100.0		100.0	
80.0	---	80.0		80.0		80.0	
50.0	---	50.0		50.0		50.0	
31.5	---	31.5		31.5		31.5	
25.0	---	25.0		25.0		25.0	
20.0	---	20.0		20.0		20.0	
12.5	---	12.5		12.5		12.5	
10.0	---	10.0		10.0		10.0	
5.0	---	5.0		5.0		5.0	
2.5	---	2.5		2.5		2.5	
2.0	---	2.0		2.0		2.0	
1.25	---	1.25		1.25		1.25	
0.840	---	0.840		0.840		0.840	
0.630	---	0.630		0.630		0.630	
0.420	---	0.420		0.420		0.420	
0.315	---	0.315		0.315		0.315	
0.160	---	0.160		0.160		0.160	
0.150	---	0.150		0.150		0.150	
0.080	---	0.080		0.080		0.080	

M.C. (%) :	---	M.C. (%) :		M.C. (%) :		M.C. (%) :	
------------	-----	------------	--	------------	--	------------	--

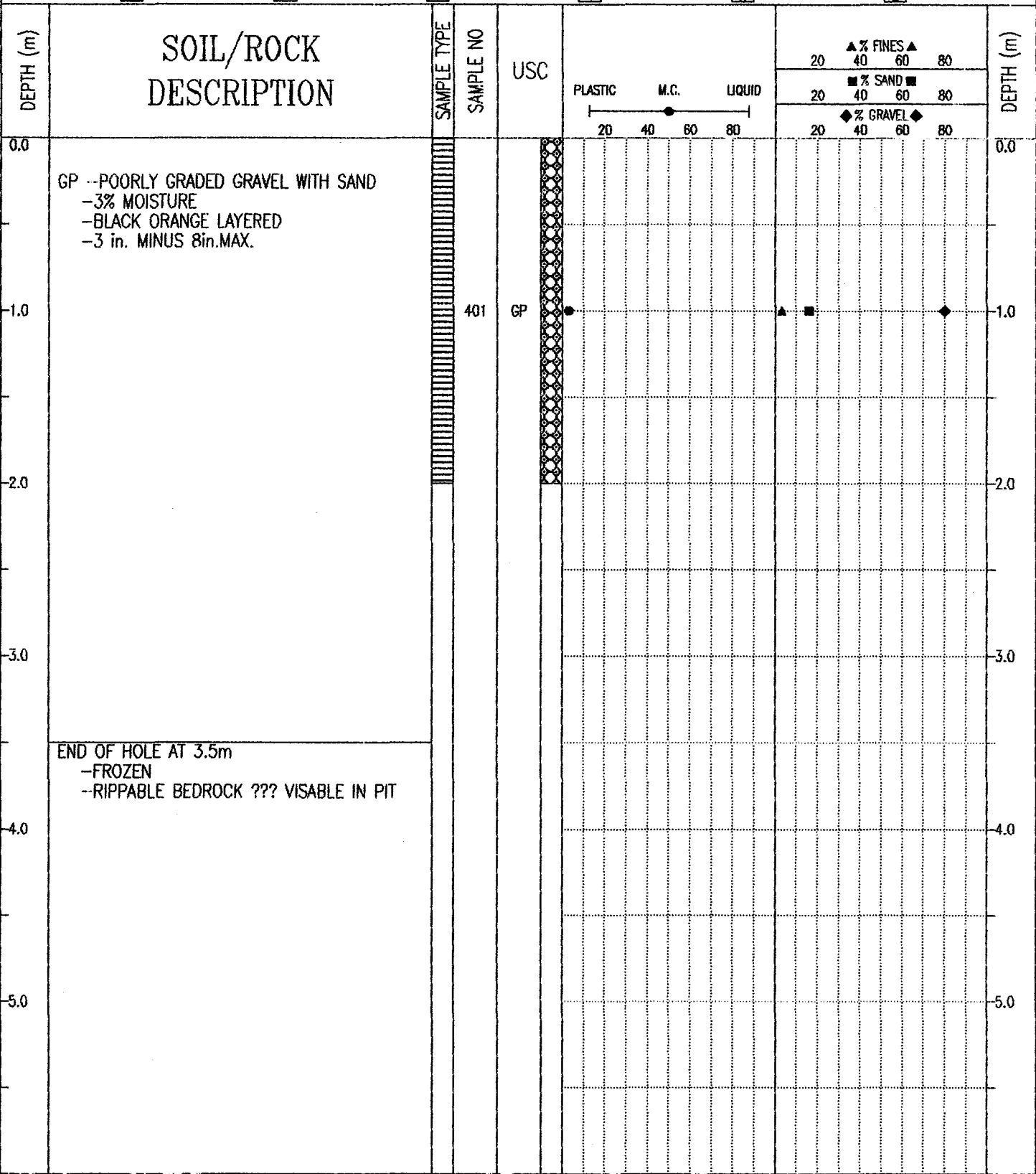
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	---	LIQUID:		LIQUID:		LIQUID:	
PLASTIC:	---	PLASTIC:		PLASTIC:		PLASTIC:	
P.I.:	---	P.I.:		P.I.:		P.I.:	

% GRAVEL :	---	% GRAVEL :		% GRAVEL :		% GRAVEL :	
% SAND :	---	% SAND :		% SAND :		% SAND :	
% FINES :	---	% FINES :		% FINES :		% FINES :	

CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
-----------------	--	-----------------	--	-----------------	--	-----------------	--

NORTHERN REGION		DEMPSTER HWY GRAVEL INVESTIGATION		BOREHOLE No. 89-175							
KLONDIKE TRANSPORT		KM 174+700, 150m LEFT OF CENTER		Project No: 05-0175 RHS							
HOE - KOEHRING BANTAM C-366		1989 RIP RAP BORROW PIT-OLD CRUSH SITE		ELEVATION 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> TUBE		<input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER							
				<input type="checkbox"/> BULK							
				<input type="checkbox"/> SPT							
				<input type="checkbox"/> CORE							
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC M.C. LIQUID			▲ % FINES ▲			DEPTH (m)
					20	40	60	80	20	40	
0.0	PEAT MOSS --BROWN										0.0
	FROZEN										
-1.0											-1.0
	END OF HOLE AT 1.25m										
-2.0											-2.0
-3.0											-3.0
-4.0											-4.0
-5.0											-5.0
Government of Yukon Transportation Engineering				COMPLETION DEPTH 1.3 m			COMPLETE 89/08/31				
				LOGGED BY GWC			DWG NO.		Page 1 of 1		

NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-169
KLONDIKE TRANSPORT	KM 175 LHS ADJACENT HWY 05	Project No: 05-0175 RHS
HOE - KOEHRING BANTAM C-366	89-169 - FIRST BENCH - PREVIOUSLY STRIP	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



PROJECT NUMBER: 05-0175 HOLE NUMBER: 89-169
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 175 75M LEFT OF CENTERLINE
 LOGGED BY: GWC DATE COMPLETED: 89-08-30

FIELD NO: 401
 LAB NO: 401
 DEPTH: 0-2.0
 TYPE: BULK
 BLACK-ORANGE 3"

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	100
50.0	83
31.5	---
25.0	59
20.0	---
12.5	34
10.0	---
5.0	20
2.5	---
2.0	---
1.25	11
0.840	---
0.630	---
0.420	---
0.315	6
0.160	---
0.150	---
0.080	3

M.C. (%): 3

LIMITS

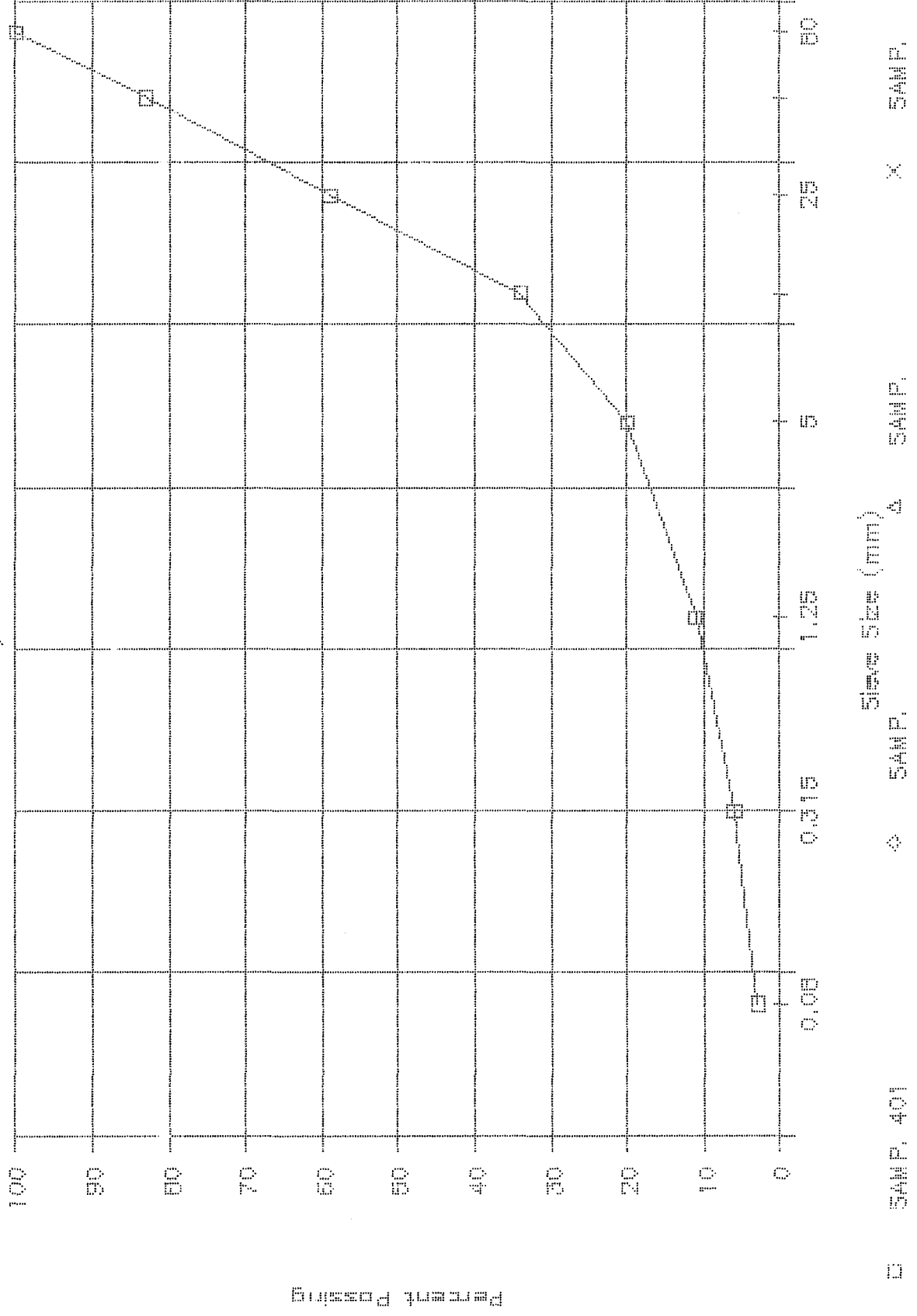
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 80
 % SAND: 16
 % FINES: 3

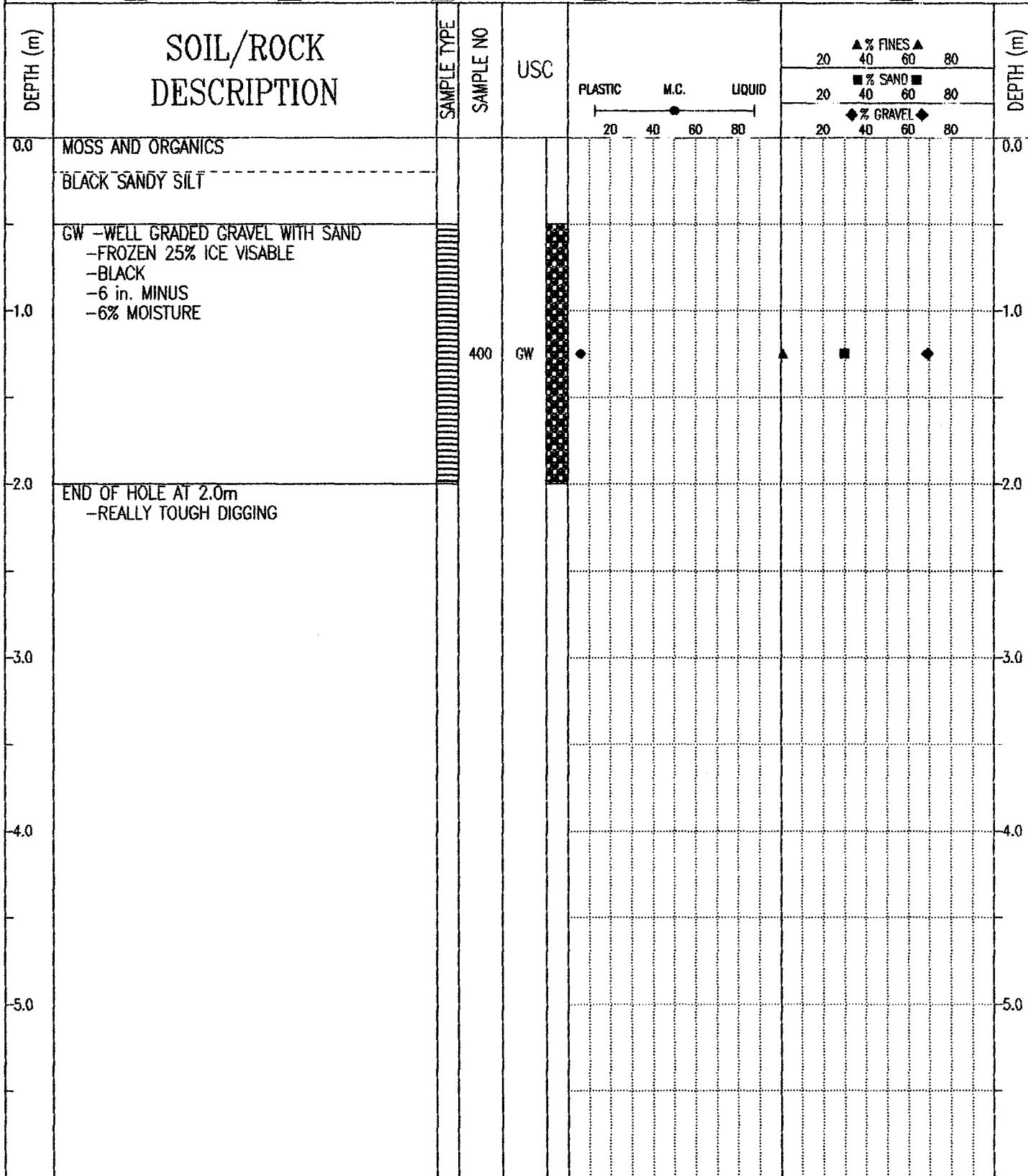
CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 55-155



NORTHERN REGION	DEMPSTER HWY GRAVEL INVESTIGATION	BOREHOLE No. 89-168
KLONDIKE TRANSPORT	KM 193 , 100 M LEFT OF CENTER	Project No: 05-193 LHS
HOE - KOEHRING BANTAM C-366	OPPOSITE SIDE FROM CAMPGROUND	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



PROJECT NUMBER: 05-0193 HOLE NUMBER: 89-168
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEHRING
HOLE LOCATION: KM 193 100M LEFT OF CENTERLINE
LOGGED BY: GWC DATE COMPLETED: 89-08-30

FIELD NO: 400
LAB NO: 400
DEPTH: 0.5-2.0
TYPE: BULK
FROZEN 6" MINUS

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	---
50.0	100
31.5	---
25.0	75
20.0	---
12.5	54
10.0	---
5.0	31
2.5	---
2.0	---
1.25	10
0.840	---
0.630	---
0.420	---
0.315	1
0.160	---
0.150	---
0.080	1

M.C.(%): 6

LIMITS

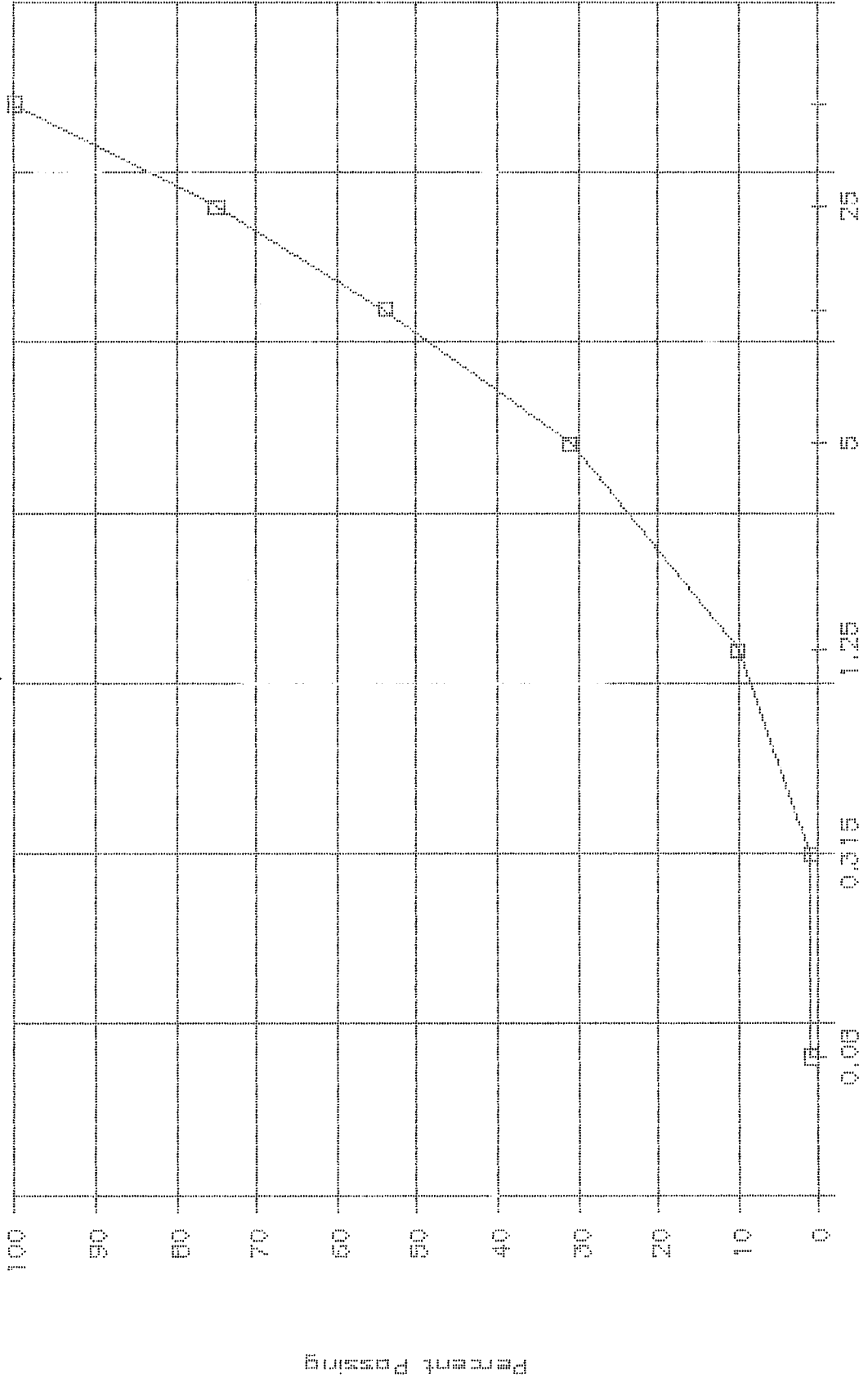
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

% GRAVEL: 69
% SAND: 30
% FINES: 1

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 53-15B



□ 5AMP, 400 ◊ 5AMP, △ 5AMP, × 5AMP,

NORTHERN REGION	DEMPSTER HWY GRAVEL SEARCH	BOREHOLE No. 89-166
KLONDIKE TRANSPORT	KM 194 EXISTING PIT AND GARBAGE DUMP	Project No: 05-194 LHS
HOE-KOEHRING BANTAM C-366	75 M SOUTH OF EXISTING PIT	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE	<input checked="" type="checkbox"/> LOST	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK
		<input type="checkbox"/> SPT
		<input type="checkbox"/> CORE

DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC	M.C.	LIQUID	SOIL COMPOSITION (%)				DEPTH (m)
								▲ % FINES ▲	■ % SAND ■	◆ % GRAVEL ◆		
0.0	MOSS AND ORGANICS											0.0
	FROZEN 50 TO 70% ICE VISABLE -BLACK SANDY SILT (MUCK)											
-1.0	END OF HOLE AT 0.60m -TOUGH DIGGING -LIFTING HOE 4 FEET OFF GROUND -NO SAMPLE TAKEN											-1.0
-2.0												-2.0
-3.0												-3.0
-4.0												-4.0
-5.0												-5.0

Government of Yukon
Transportation Engineering

COMPLETION DEPTH 0.6 m

COMPLETE 89/08/29

LOGGED BY GWC

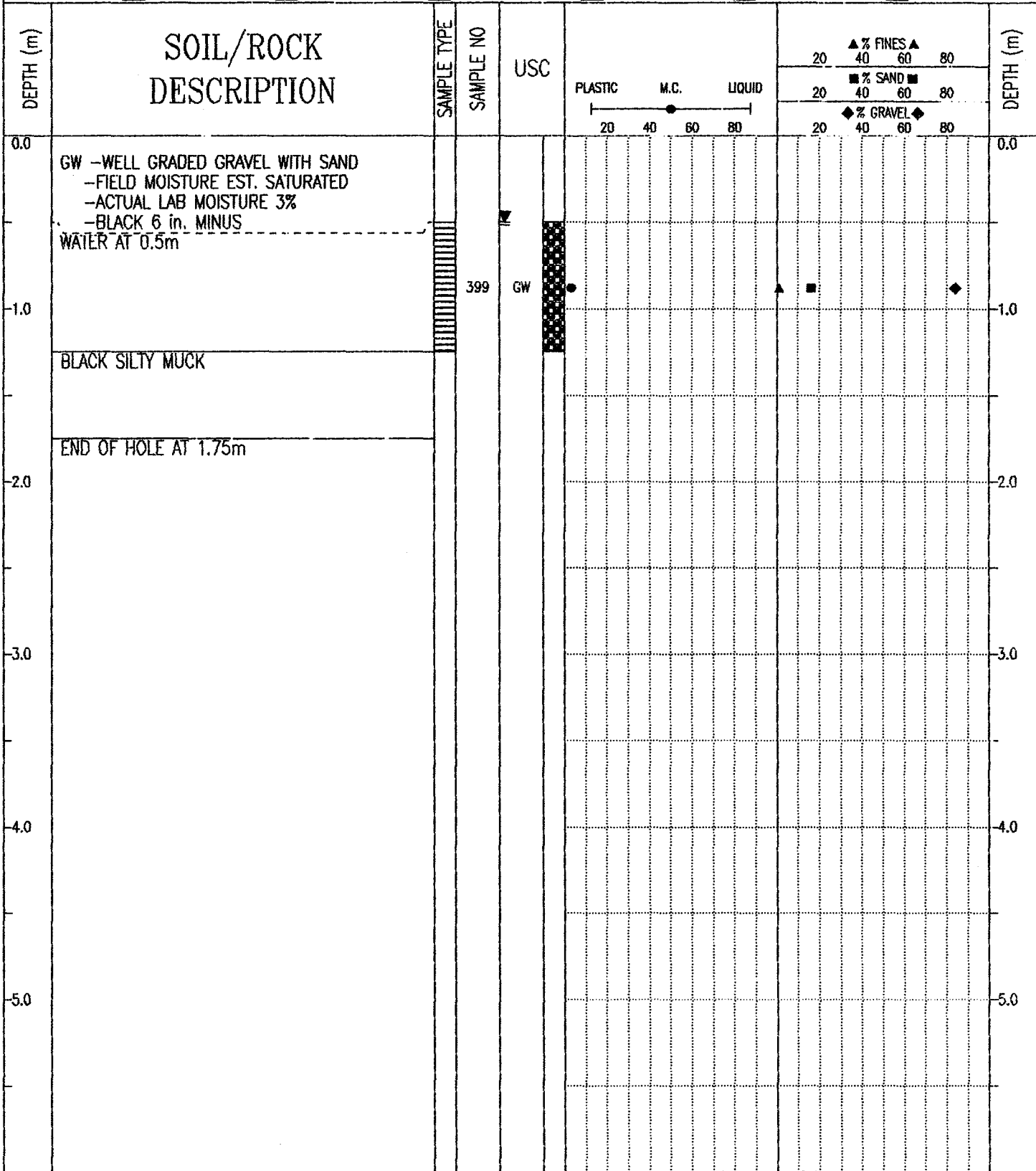
DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0194 HOLE NUMBER: 89-166
 CLIENT: NORTHERN REGION, W. GUTOWSKI P. ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: 75M SOUTH OF EXISTING PIT
 LOGGED BY: GWC DATE COMPLETED: 89-08-30

FIELD NO: ERR		FIELD NO:		FIELD NO:		FIELD NO:	
LAB NO:		LAB NO:		LAB NO:		LAB NO:	
DEPTH:		DEPTH:		DEPTH:		DEPTH:	
TYPE: ERR		TYPE:		TYPE:		TYPE:	
NO SAMPLE							
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	---	100.0		100.0		100.0	
80.0	---	80.0		80.0		80.0	
50.0	---	50.0		50.0		50.0	
31.5	---	31.5		31.5		31.5	
25.0	---	25.0		25.0		25.0	
20.0	---	20.0		20.0		20.0	
12.5	---	12.5		12.5		12.5	
10.0	---	10.0		10.0		10.0	
5.0	---	5.0		5.0		5.0	
2.5	---	2.5		2.5		2.5	
2.0	---	2.0		2.0		2.0	
1.25	---	1.25		1.25		1.25	
0.840	---	0.840		0.840		0.840	
0.630	---	0.630		0.630		0.630	
0.420	---	0.420		0.420		0.420	
0.315	---	0.315		0.315		0.315	
0.160	---	0.160		0.160		0.160	
0.150	---	0.150		0.150		0.150	
0.080	---	0.080		0.080		0.080	
M.C. (%)	---	M.C. (%)		M.C. (%)		M.C. (%)	
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	---	LIQUID:		LIQUID:		LIQUID:	
PLASTIC:	---	PLASTIC:		PLASTIC:		PLASTIC:	
P.I.:	---	P.I.:		P.I.:		P.I.:	
% GRAVEL:	---	% GRAVEL:		% GRAVEL:		% GRAVEL:	
% SAND:	---	% SAND:		% SAND:		% SAND:	
% FINES:	---	% FINES:		% FINES:		% FINES:	
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	

NORTHERN REGION	DEMPSTER HWY GRAVEL SEARCH	BOREHOLE No. 89-167
KLONDIKE TRANSPORT	KM 194, 150 M LEFT OF CENTER	Project No: 05-194 LHS
HOE-KOEHRING BANTAM C-366	CENTER OF EXISTING PIT	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



PROJECT NUMBER: 05-0194 HOLE NUMBER: 89-167
 CLIENT: NORTHERN REGION, W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: 150M LEFT CENTRELINE, EXISTING PIT.
 LOGGED BY: GWC DATE COMPLETED: 89-08-30

FIELD NO:	399	399
LAB NO:	399	399
DEPTH:	0.5-1.25	0.5-1.25
TYPE:	BULK	BULK
BLACK 6" MINUS		BLACK 6" MINUS

SIEVE SIZE	PERCENT PASSING	
100.0	---	---
80.0	100	100
50.0	75	75
31.5	---	---
25.0	52	52
20.0	---	---
12.5	33	33
10.0	---	---
5.0	16	16
2.5	---	---
2.0	---	---
1.25	5	5
0.840	---	---
0.630	---	---
0.420	---	---
0.315	1	1
0.160	---	---
0.150	---	---
0.080	1	1

M.C. (%): 3 3

LIMITS

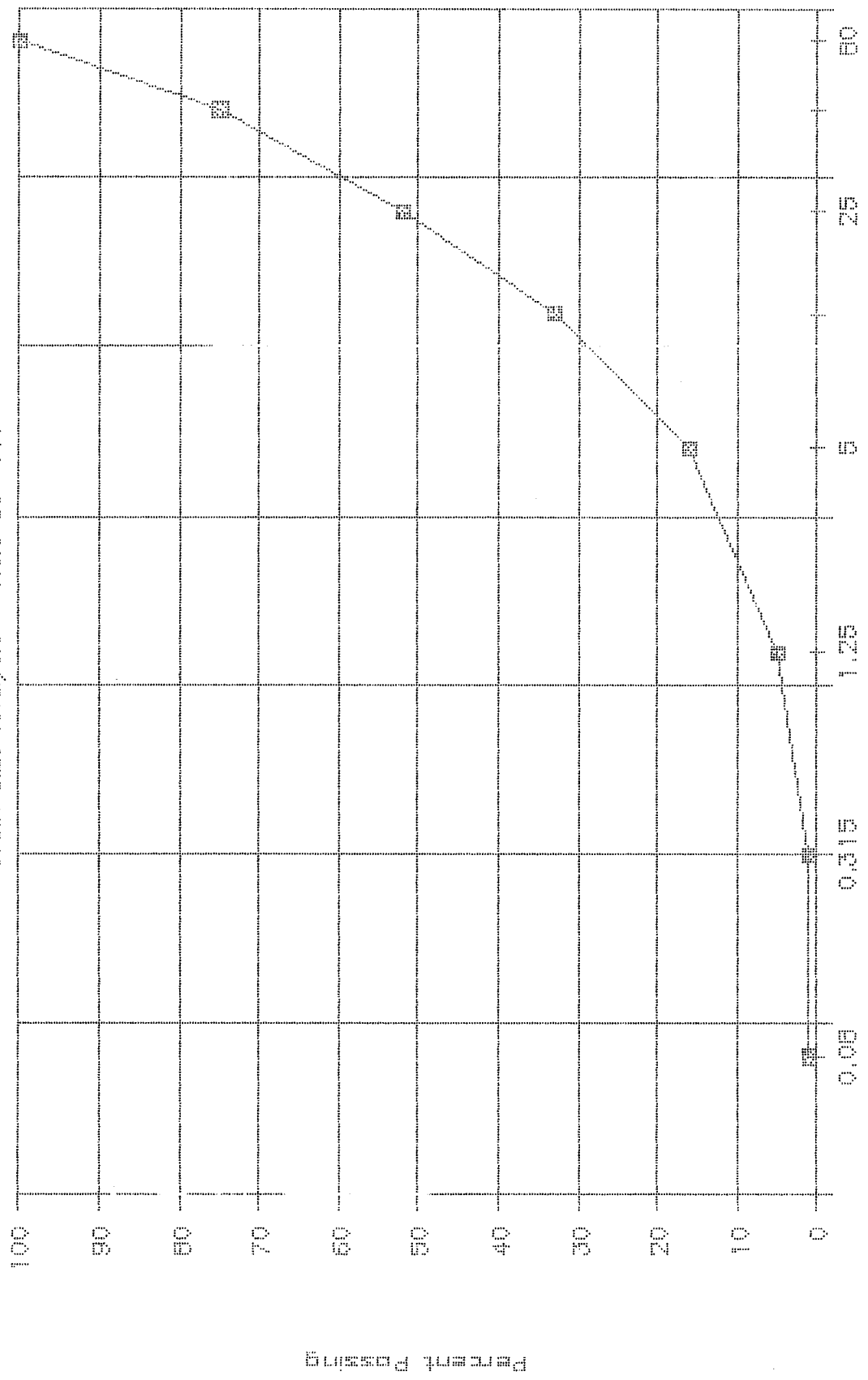
LIQUID:	---	---
PLASTIC:	---	---
P.I.:	N.P.	N.P.

% GRAVEL:	84	84
% SAND:	16	16
% FINES:	1	1

CLASSIFICATION:
 WELL-GRADED WELL-GRADED
 GRAVEL WITH SAND
 (GW)

Y.T.G. TRANSPORTATION ENGINEERING

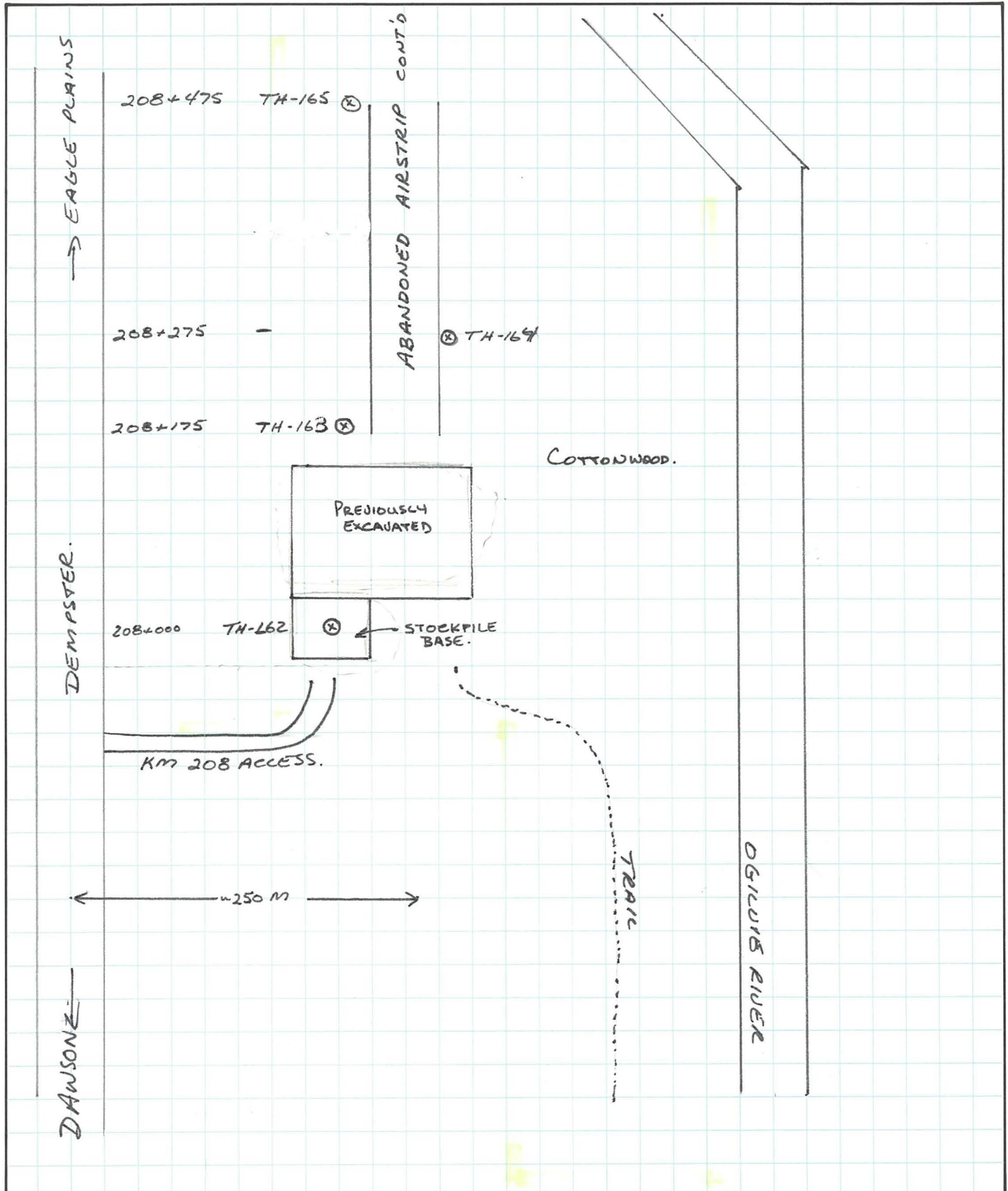
Grain Size Analysis - Hole 55-167



□ SAMP. 358 ◊ SAMP. 359 ▲ SAMP. × SAMP.

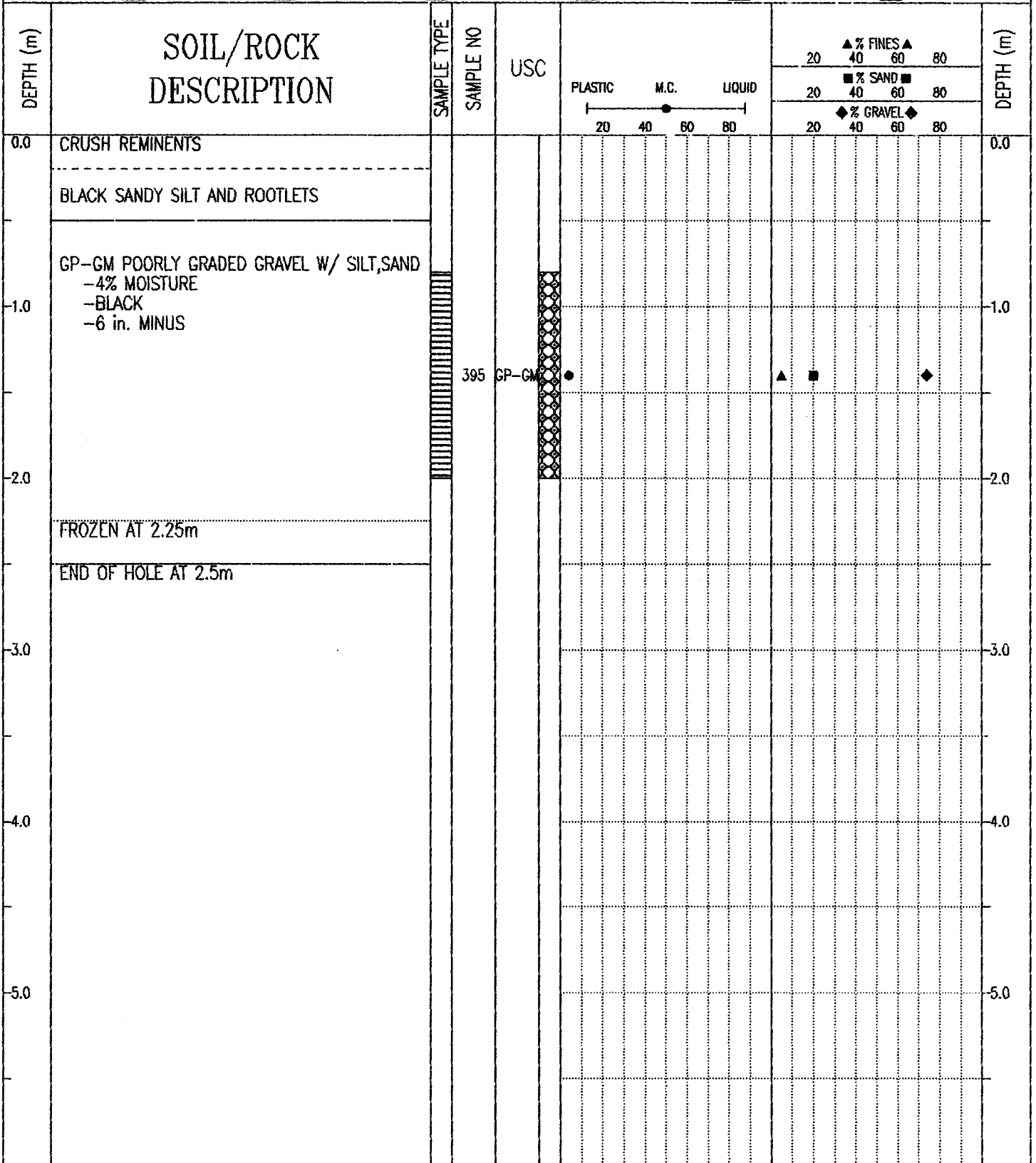
APPENDIX E

DESIGN SHEET
HIGHWAY ENGINEERING



TITLE		FILE NO.	SHEET	OF
		05-0208 RHS		
BY	PROJECT	DATE		
G. CHAPMAN	HWY 05 - GRAVEL SEARCH.	YY	MM	DD
		89	08	28

NORTHERN REGION	DEMPSTER HWY GRAVEL SEARCH	BOREHOLE No. 89-162
KLONDIKE TRANSPORT	KM 208 EXISTING CRUSH PIT, RIGHT.	Project No: 05-0208
HOE-KOEHRING BANTAM C-366	BASE OF OLD STOCKPILE.	ELEVATION 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input checked="" type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input checked="" type="checkbox"/> CORE		



PROJECT NUMBER: 05-0208 HOLE NUMBER: 89-162
 CLIENT: NORTHERN REGION, W.GUTOWSKI, P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEHRING
 HOLE LOCATION: KM 208 EXISTING CRUSH SITE, BASE STOCKPILE
 LOGGED BY: GWC DATE COMPLETED: 89-08-29

FIELD NO: 395
 LAB NO: 395
 DEPTH: .8-2.0
 TYPE: BULK
 BLACK 6" MINUS

SIEVE SIZE	PERCENT PASSING
100.0	—
80.0	100
50.0	79
31.5	—
25.0	54
20.0	—
12.5	39
10.0	—
5.0	26
2.5	—
2.0	—
1.25	16
0.840	—
0.630	—
0.420	—
0.315	11
0.160	—
0.150	—
0.080	5

M.C. (%): 4

LIMITS

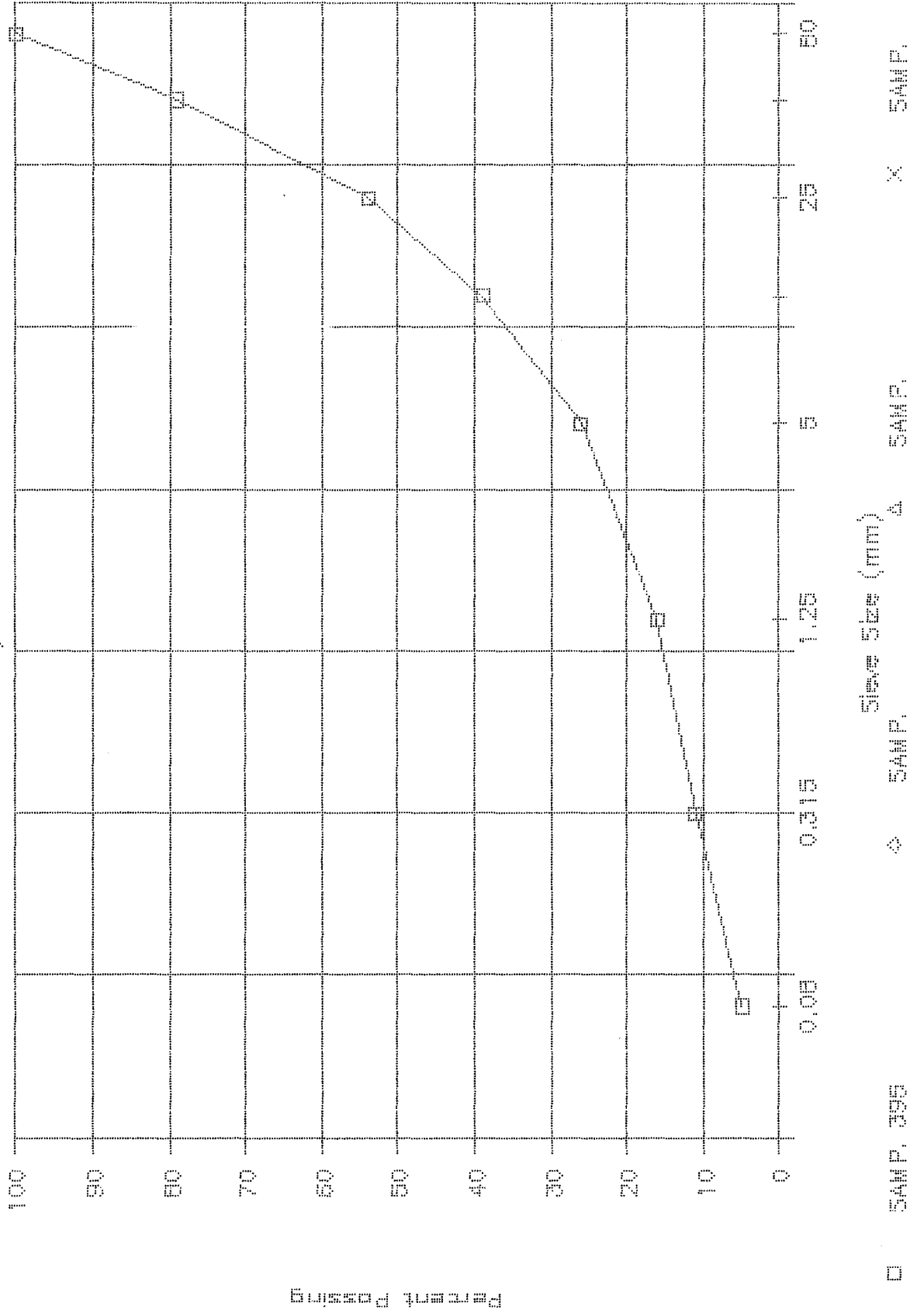
LIQUID: —
 PLASTIC: —
 P.I.: N.P.

% GRAVEL: 74
 % SAND: 20
 % FINES: 5

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SILT
 & SAND (GP-GM)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 03-162



□ SAMP. 035

◇ SAMP.

△ Sieve Size (mm)

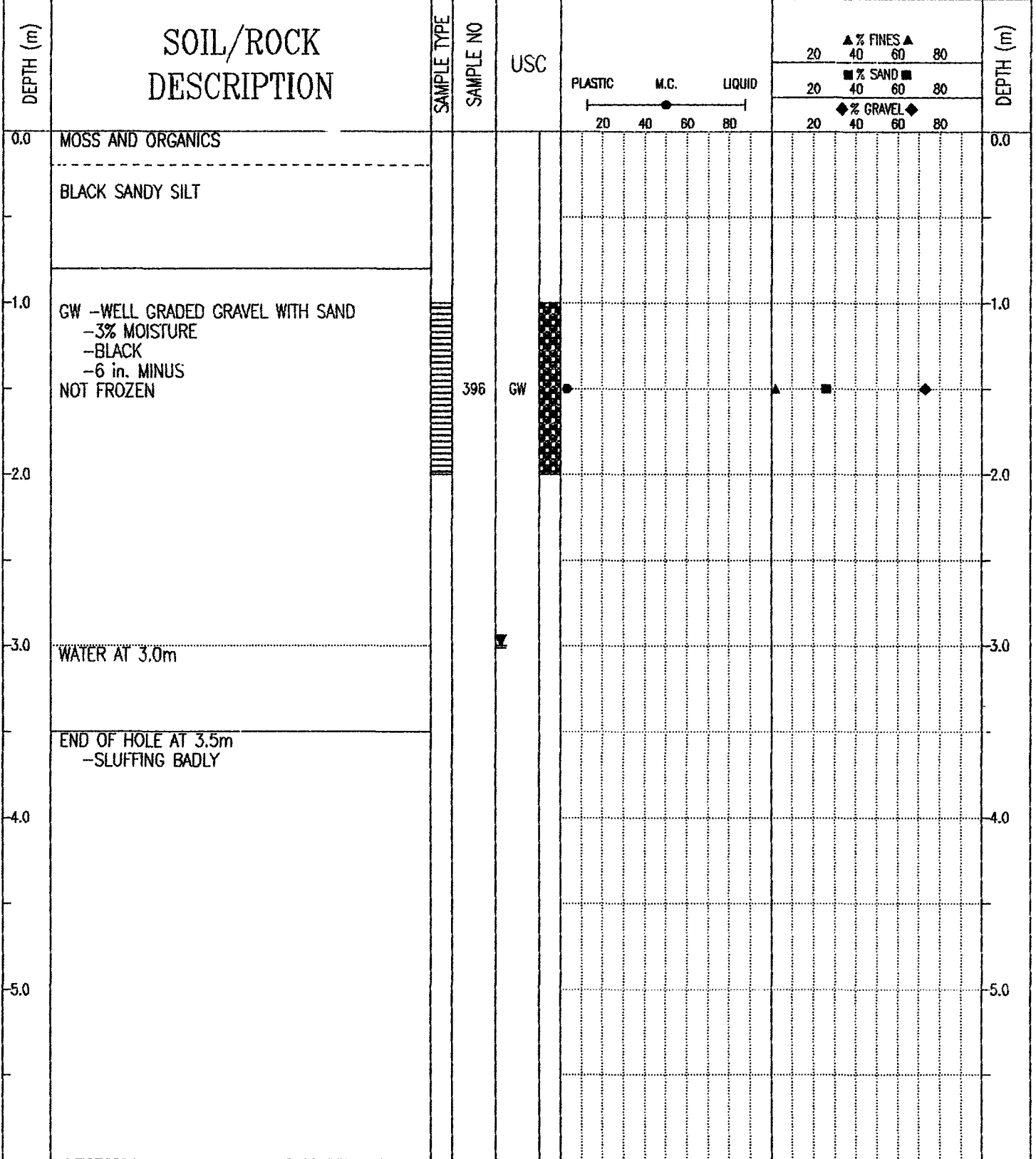
△ SAMP.

X

△ SAMP.

NORTHERN REGION	DEMPSTER HWY GRAVEL SEARCH	BOREHOLE No. 89-163
KLONDIKE TRANSPORT	KM 208+100,250 M RIGHT	Project No: 05-0208
HOE-KOEHRING BANTAM C-366	75 M NORTH OF EXISTING PIT	ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 3.5 m

COMPLETE 89/08/29

LOGGED BY GWC

DWG NO.

Page 1 of 1

```

=====
PROJECT NUMBER: 05-0208 HOLE NUMBER: 89-163
CLIENT: NORTHERN REGION, W.GUTOWSKI, P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 208+100, 250M RT. CLINE, 75M NTH PIT
LOGGED BY: GWC DATE COMPLETED: 89-08-29
=====

```

```

FIELD NO: 396
LAB NO: 396
DEPTH: 1.0-2.0
TYPE: BULK
BLACK 6" MINUS

```

SIEVE SIZE	PERCENT PASSING
100.0	--
80.0	100
50.0	82
31.5	--
25.0	60
20.0	--
12.5	39
10.0	--
5.0	27
2.5	--
2.0	--
1.25	17
0.840	--
0.630	--
0.420	--
0.315	4
0.160	--
0.150	--
0.080	2

```

M.C. (%): 3

```

```

LIMITS
LIQUID: --
PLASTIC: --
P.I.: N.P.

```

```

% GRAVEL: 73
% SAND: 26
% FINES: 2

```

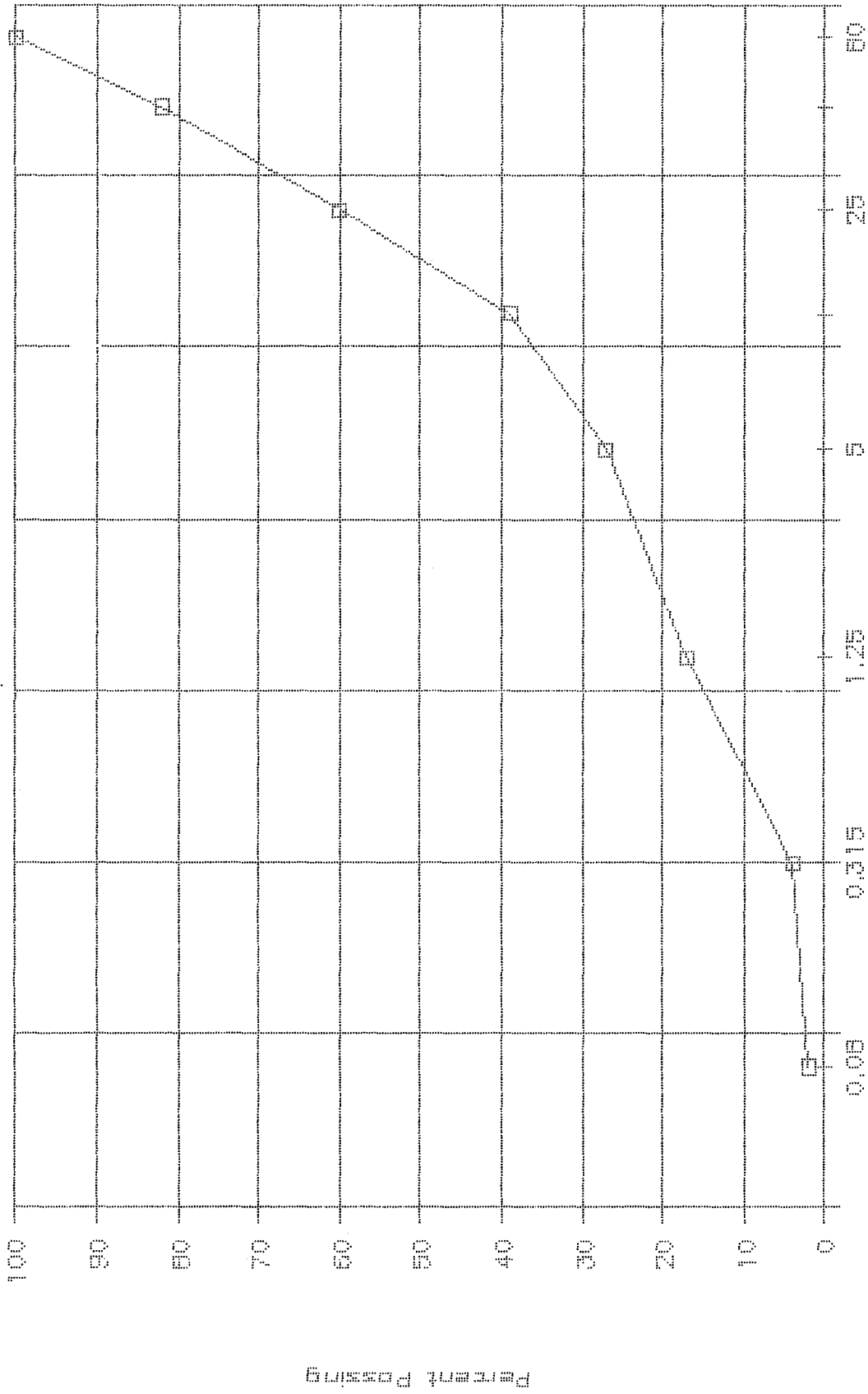
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CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 88-163



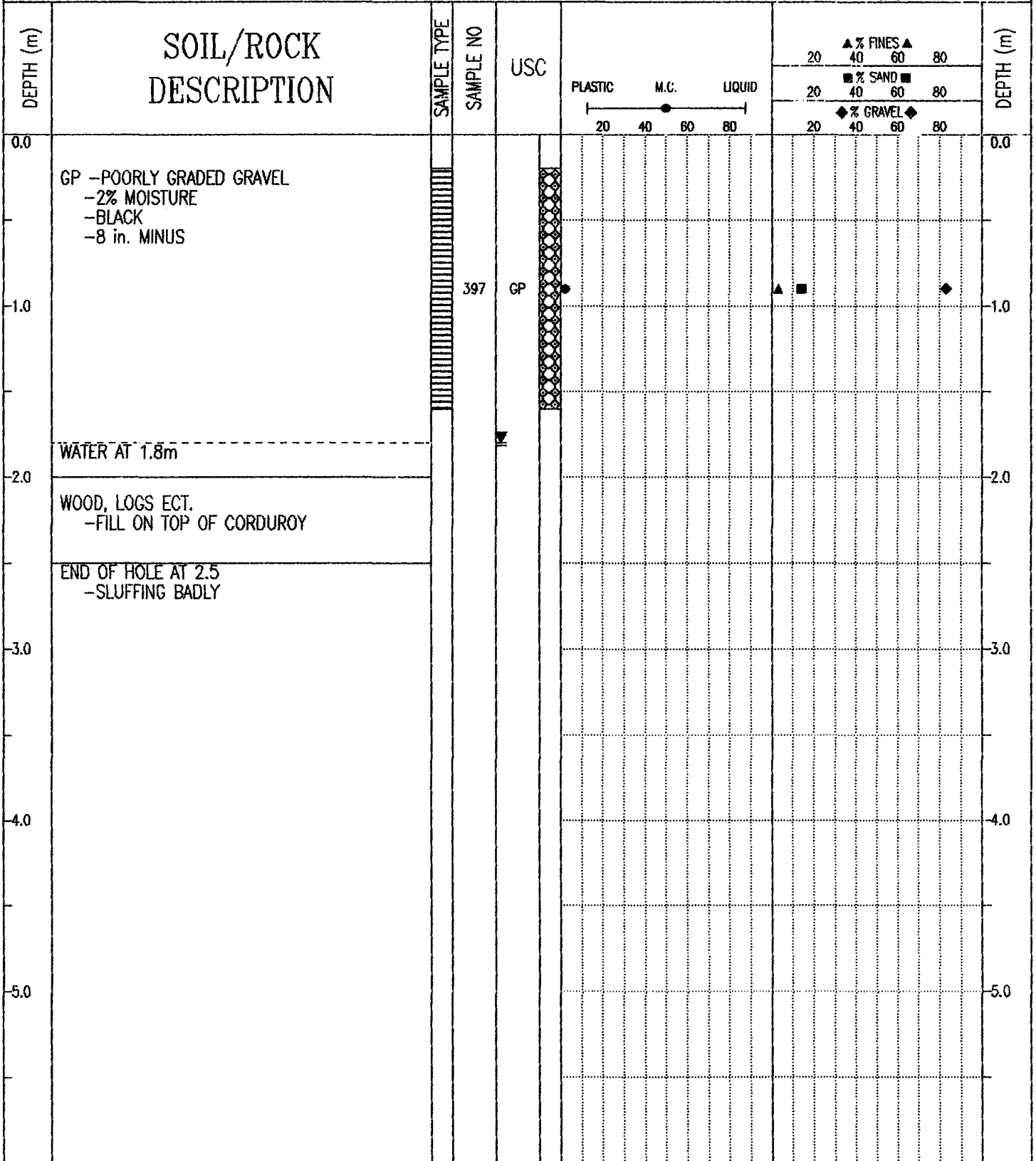
□ SAMP. 386 ◊ SAMP. △ SAMP. × SAMP.

NORTHERN REGION DEMPSTER HWY GRAVEL SEARCH BOREHOLE No. 89-164

KLONDIKE TRANSPORT KM 208+200 , 250 M RIGHT OF CENTER Project No: 05-0208

HOE-KOEHRING BANTAM C-366 100 M NORTH OF 89-163 ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 2.5 m

COMPLETE 89/08/29

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0208 HOLE NUMBER: 89-164
CLIENT: NORTHERN REGION, W.GUTOWSKI, P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: KM 208+200, 250M RT. CL. OLD AIRSTRIP
LOGGED BY: GWC DATE COMPLETED: 89-08-29

FIELD NO: 397
LAB NO: 397
DEPTH: .2-1.6
TYPE: BULK
BLACK 8" MINUS

SIEVE SIZE | PERCENT
| PASSING

100.0	---
80.0	---
50.0	100
31.5	---
25.0	49
20.0	---
12.5	28
10.0	---
5.0	17
2.5	---
2.0	---
1.25	11
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	3

M.C. (%): 2

LIMITS

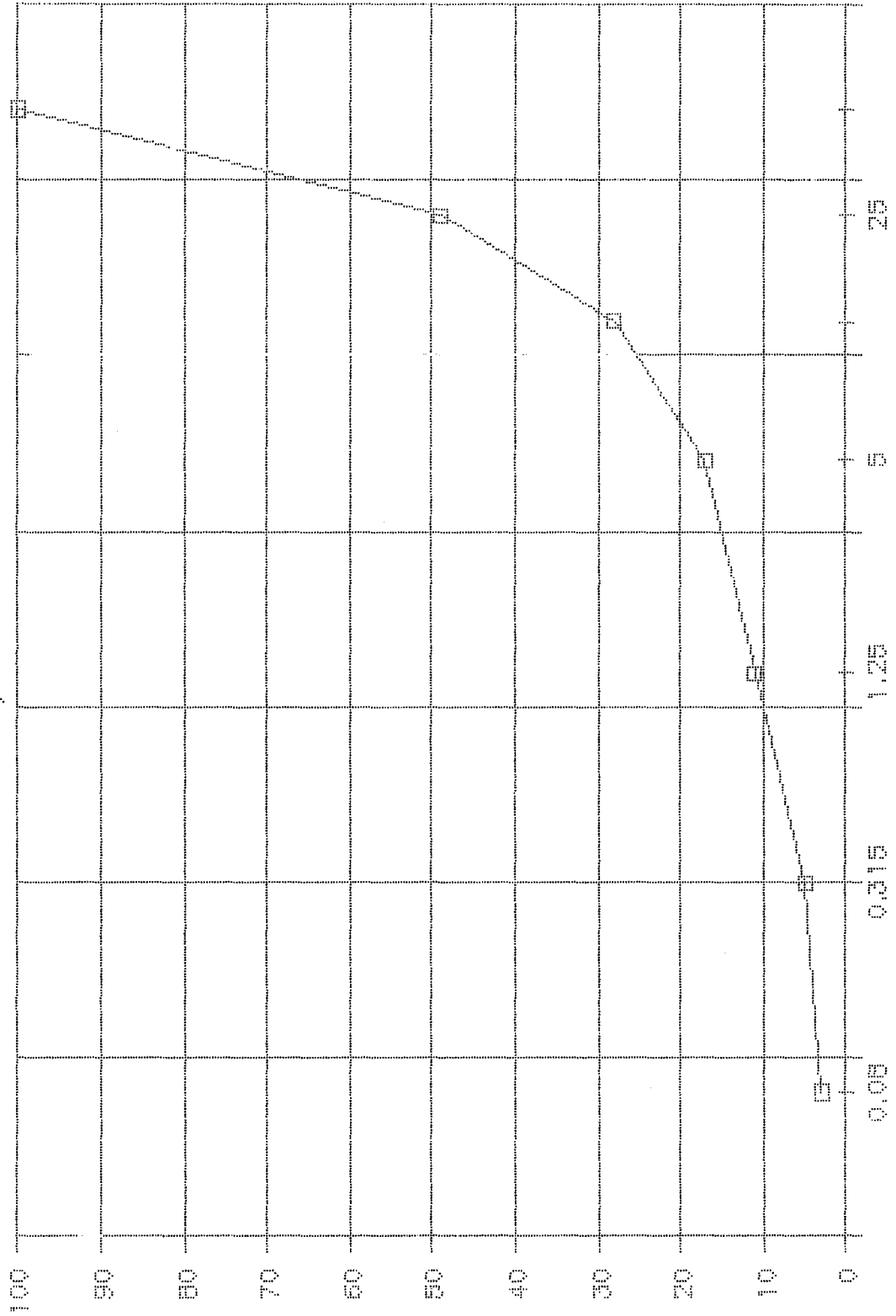
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

% GRAVEL: 83
% SAND: 14
% FINES: 3

CLASSIFICATION:
POORLY GRADED
GRAVEL (GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 29--164



5AMP. 397 5AMP. 5AMP. X 5AMP.

PERCENT PASSING

NORTHERN REGION		DEMPSTER HWY GRAVEL SEARCH		BOREHOLE No. 89-165			
KLONDIKE TRANSPORT		KM 208 ABANDONED AIRSTRIP		Project No: 05-208 RHS			
HOE-KOEHRING BANTAM C-366		WEST SIDE OF AIRSTRIP		ELEVATION 0.00 (m)			
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST		<input checked="" type="checkbox"/> AUGER		<input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE			
DEPTH (m)	SOIL/ROCK DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	PLASTIC M.C. LIQUID 	▲ % FINES ▲ 20 40 60 80 ■ % SAND ■ 20 40 60 80 ◆ % GRAVEL ◆ 20 40 60 80	DEPTH (m)
					GW -WELL GRADED GRAVEL WITH SAND -3% MOISTURE -BLACK -4 in. MINUS -8 in. MAX.	GW 398	
0.0							0.0
-1.0							-1.0
-2.0							-2.0
-3.0	WATER AT 3.0m -MATERIAL COARSER 12 in. MAX.						-3.0
-4.0	END OF HOLE AT 3.5m						-4.0
-5.0							-5.0
Government of Yukon Transportation Engineering				COMPLETION DEPTH 3.0 m		COMPLETE 89/08/29	
				LOGGED BY GWC		DWG NO.	
						Page 1 of 1	

PROJECT NUMBER: 05-0208 HOLE NUMBER: 89-165
CLIENT: NORTHERN REGION, W.GUTOWSKI, P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEHRING
HOLE LOCATION: KM 208+400, LEFT SIDE OF AIRSTRIP
LOGGED BY: GWC DATE COMPLETED: 89-08-29

FIELD NO: 398
LAB NO: 398
DEPTH: 0.2-2.0
TYPE: BULK
BLACK 4" MINUS

SIEVE | PERCENT
SIZE | PASSING

100.0	---
80.0	---
50.0	100
31.5	---
25.0	61
20.0	---
12.5	43
10.0	---
5.0	26
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	3

M.C. (%): 3

LIMITS

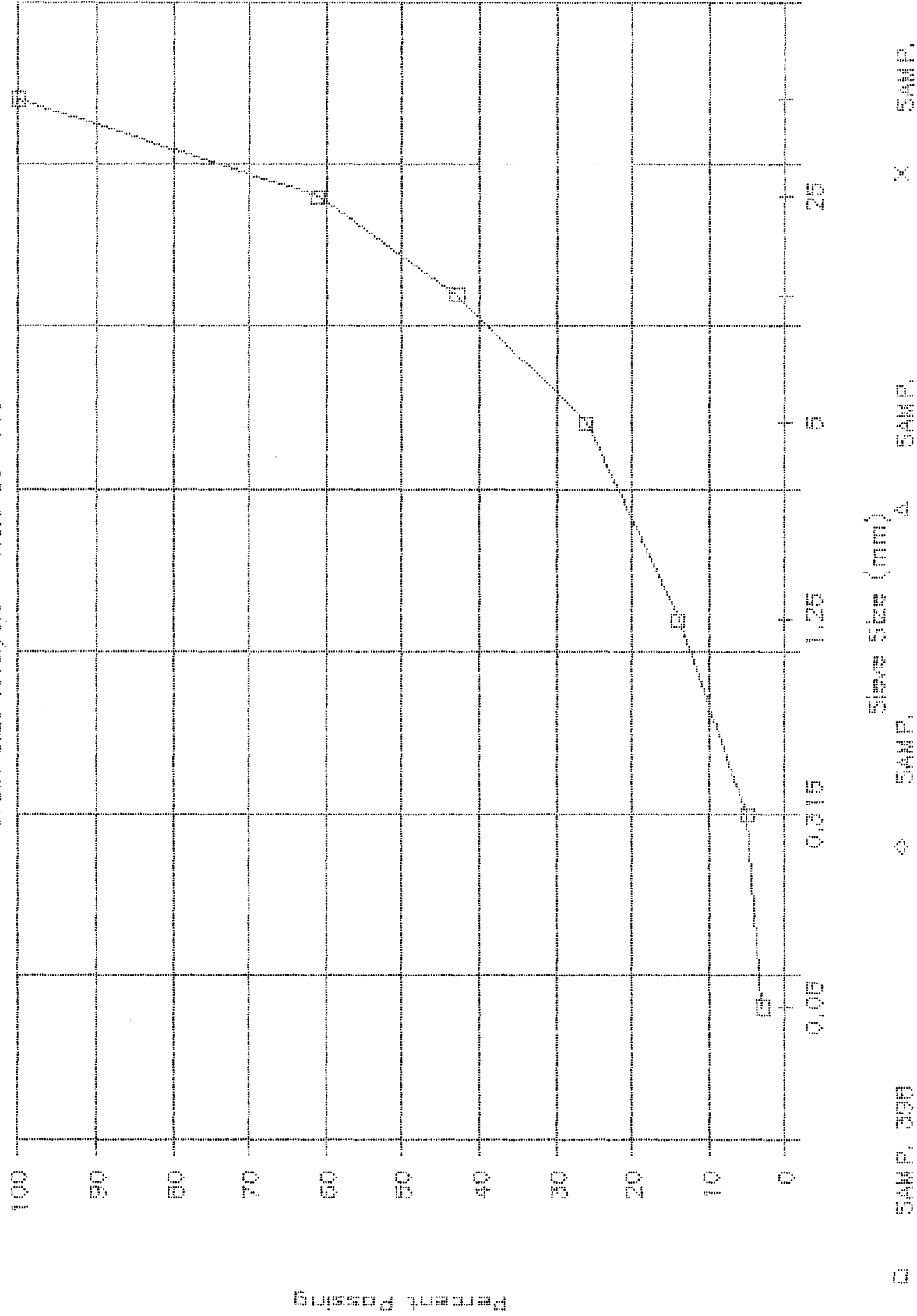
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

% GRAVEL: 74
% SAND: 24
% FINES: 3

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 33-165



□ SAMP. 33B

◇ SAMP.

△ Sieve Size (mm)

△ SAMP.

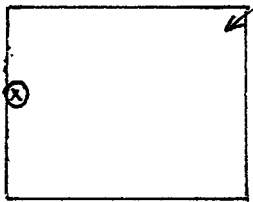
× SAMP.

APPROX. LOCATIONS.

← EAGLE PLAINS.
DEMPSTER.
DAWSON →

05-0226.5

TH-161

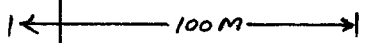


NOT FROZEN
OVERGROWN.
OLD BORROW PIT.
~ 75x75M
~ 2.75 M EXCAVATION.

RIVER ACCESS. - 05-0226 RHS

TH-160 A. (X)

05-0225+950 R.H.S.

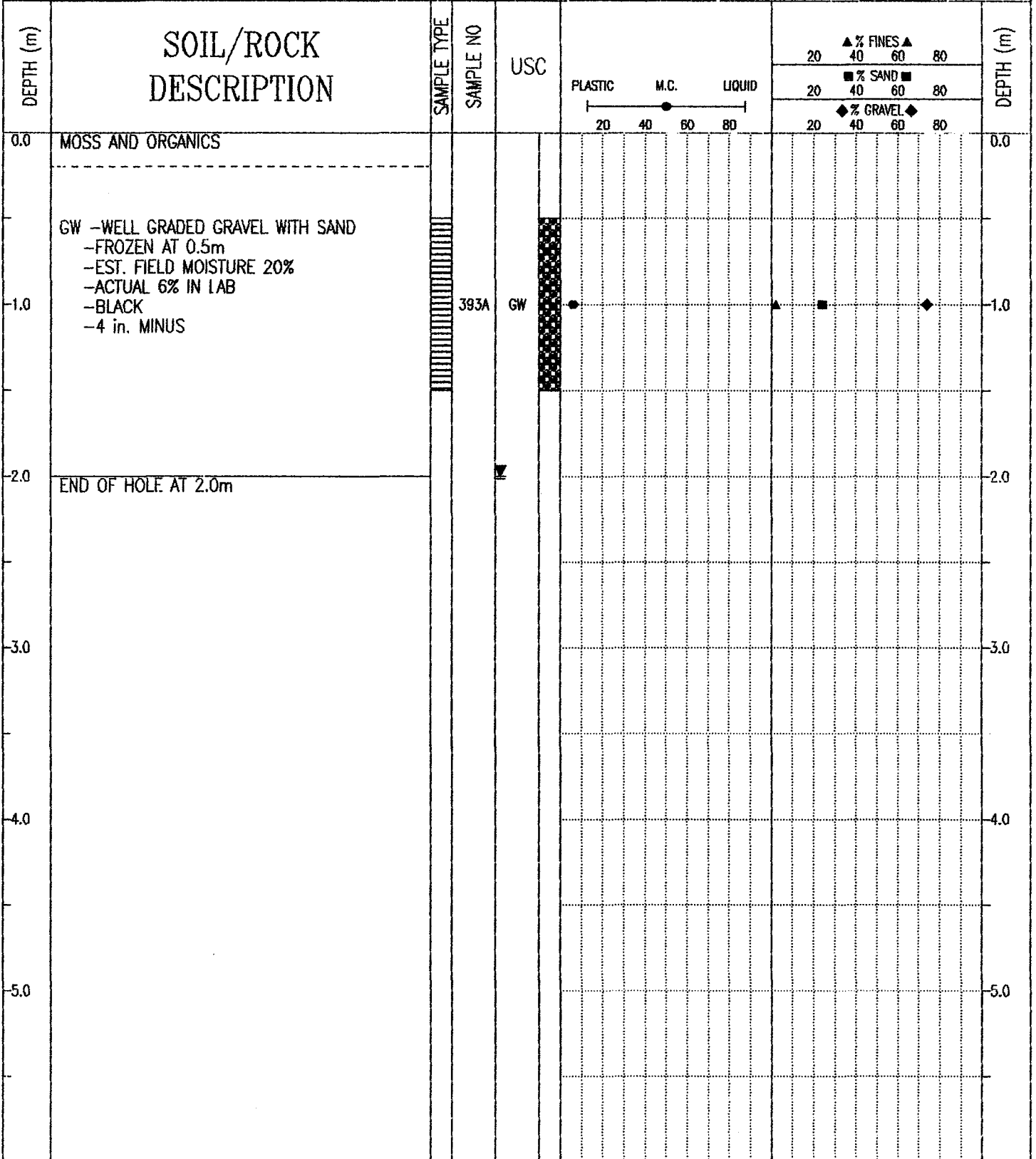


(X) N.W.TEL

(X) N.W.TEL

TITLE		FILE NO. 05-0226 RHS.	SHEET OF
BY G. CHAPMAN	PROJECT HWY 05 - GRAVEL SEARCH.	DATE 89 08 29	

NORTHERN REGION	DEMPSTER HWY GRAVEL SEARCH '89	BOREHOLE No. 89-160A
KLONDIKE TRANSPORT	KM 226, 100m RIGHT, RIVER ACCESS KM 226.	Project No: 05-0226
HOE-KOHRING BANTAM C-366	EVIDENCE OF NW TEL INVESTIGATION	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	COMPLETION DEPTH 2.0 m	COMPLETE 89/08/29
	LOGGED BY GWC	DWG NO.

PROJECT NUMBER: 05-0226 HOLE NUMBER: 89-160A
CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: 100M EAST OF CENTERLINE
LOGGED BY: GWC DATE COMPLETED: 89-08-29

FIELD NO: 393
LAB NO: 393A
DEPTH: 0.5-1.5
TYPE: BULK
BLACK 4" MINUS

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	---
80.0	100
50.0	86
31.5	---
25.0	60
20.0	---
12.5	40
10.0	---
5.0	26
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	4
0.160	---
0.150	---
0.080	2

M.C. (%): 6

LIMITS

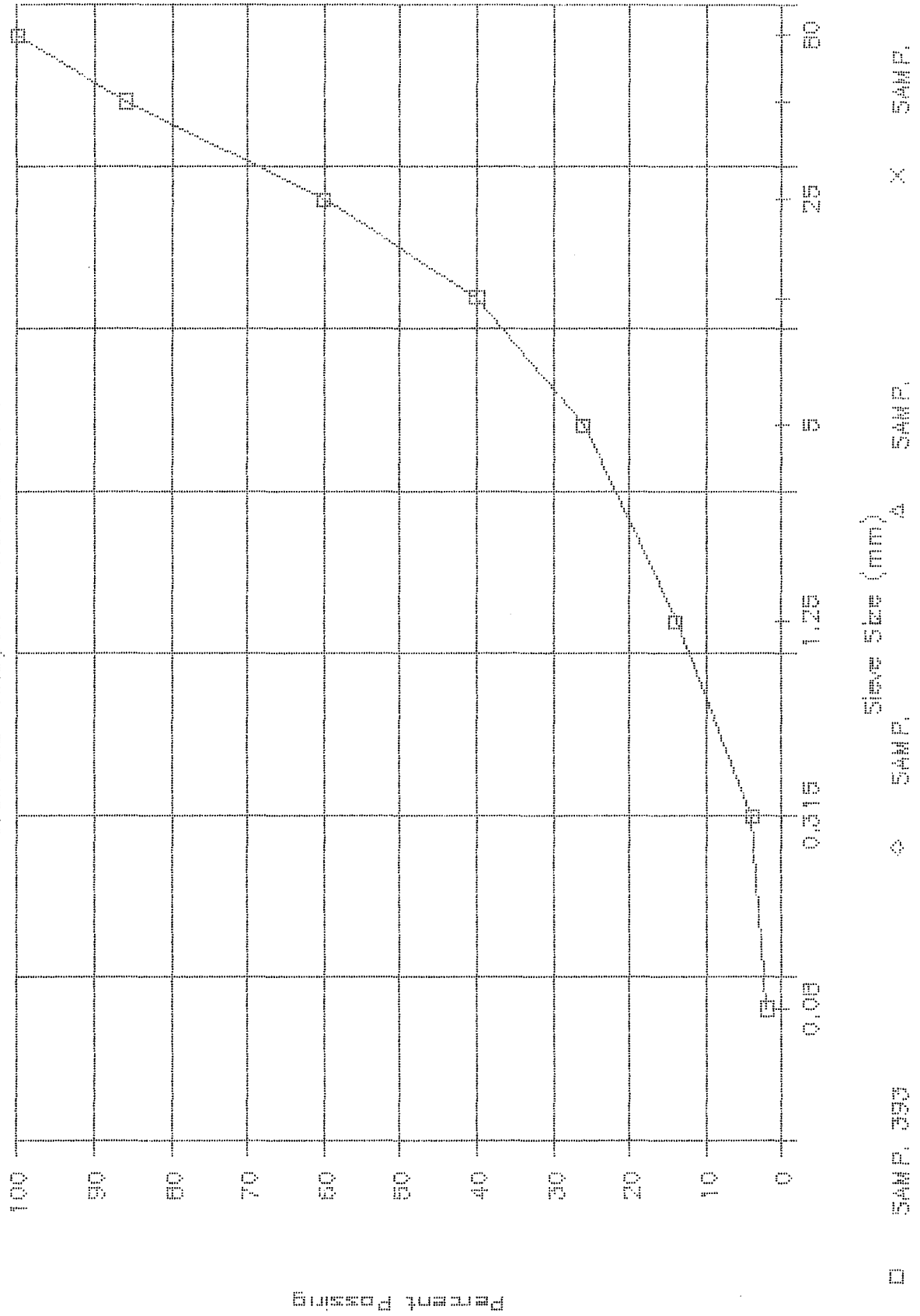
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

% GRAVEL: 74
% SAND: 24
% FINES: 2

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)

Y.T.G. TRANSPORTATION ENGINEERING

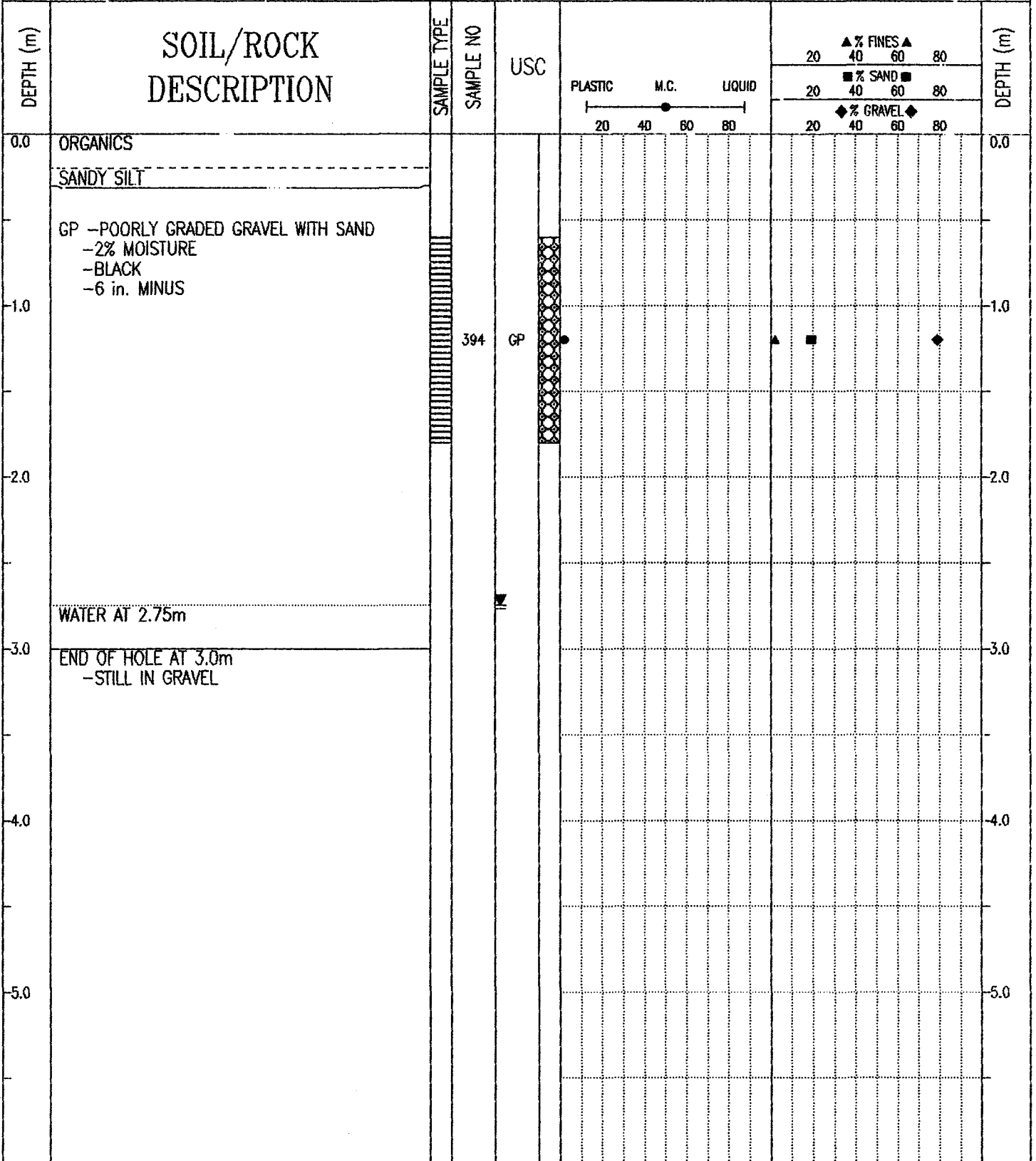
Grain Size Analysis - Hole BS-150A



SAMP. 393

SAMP. 5AMP.

NORTHERN REGION	DEMPSTER HWY GRAVEL SEARCH	BOREHOLE No. 89-161
KLONDIKE TRANSPORT	KM 226+050 RHS, 100m Rt.	Project No: 05-0226
HOE-KOEHRING BANTAM C-366	25m LEFT OF OLD ACCESS ROAD.	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 3.0 m

COMPLETE 89/08/29

LOGGED BY GWC

DWG NO.

Page 1 of 1

PROJECT NUMBER: 05-0226 HOLE NUMBER: 89-161
 CLIENT: NORTHERN REGION W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 226+050 100M RIGHT OLD BORROW
 LOGGED BY: GWC DATE COMPLETED: 89-08-29

FIELD NO: 394
 LAB NO: 394
 DEPTH: 0.6-1.8
 TYPE: BULK
 BLACK 6" MINUS

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	--
80.0	100
50.0	89
31.5	--
25.0	56
20.0	--
12.5	34
10.0	--
5.0	21
2.5	--
2.0	--
1.25	13
0.840	--
0.630	--
0.420	--
0.315	4
0.160	--
0.150	--
0.080	2

M.C. (%): 2

LIMITS

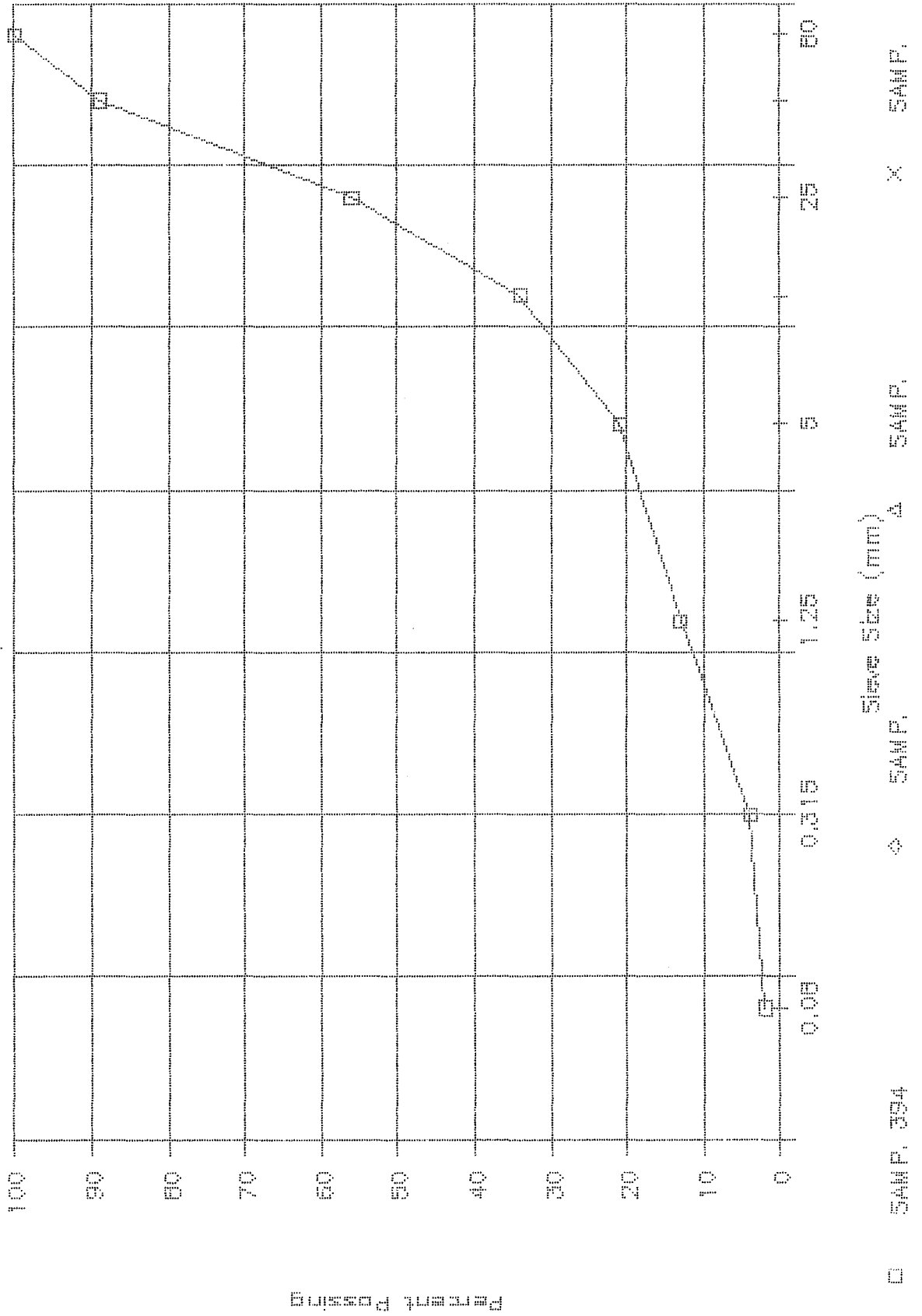
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 79
 % SAND: 19
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 59--161



PERCENT PASSING

□ SAMP. 394

◇ SAMP.

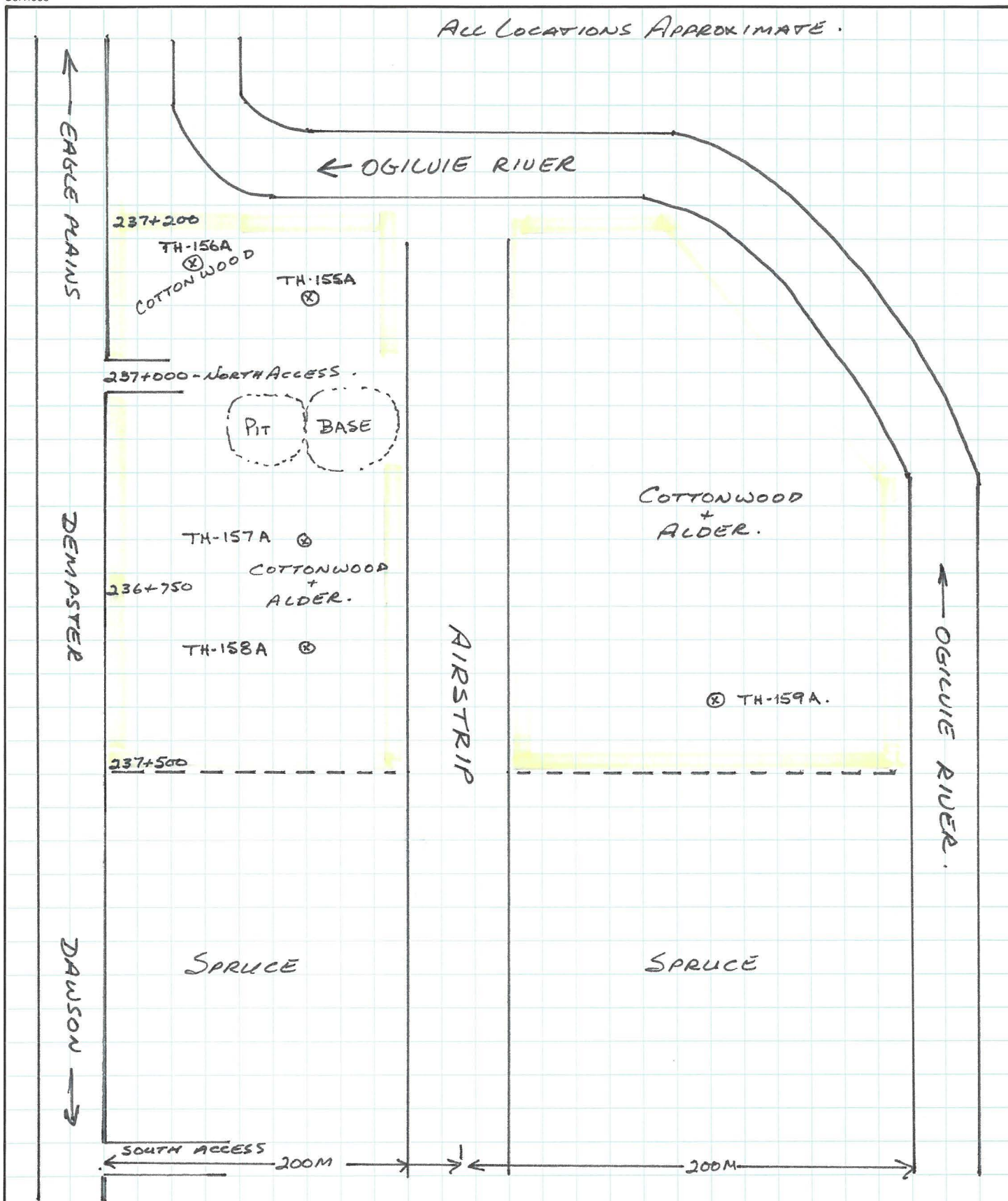
△ SAMP.

△ SAMP.

X SAMP.

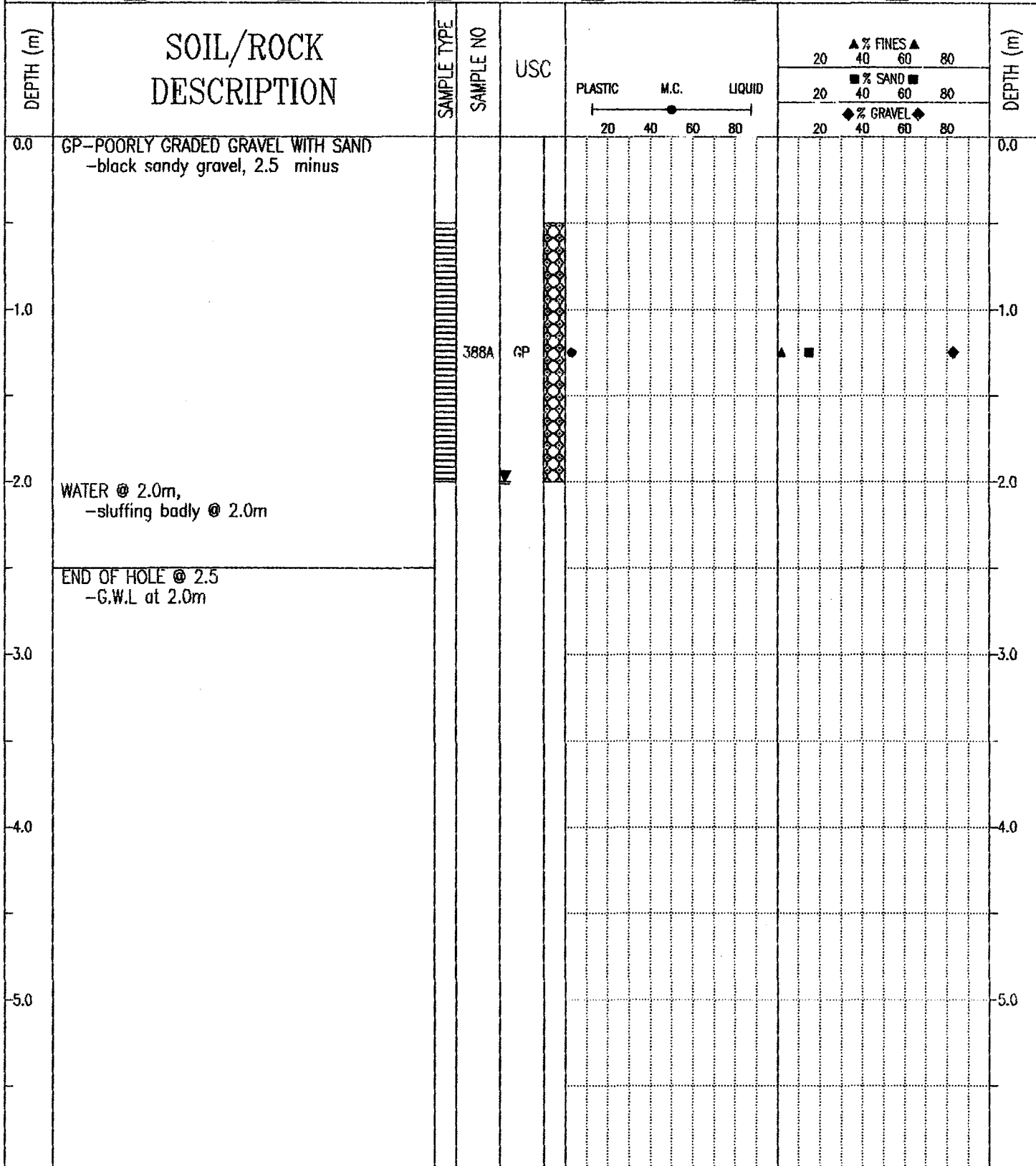
□ SAMP.

ALL LOCATIONS APPROXIMATE.



TITLE		FILE NO. 01-0237 RHS	SHEET 1 OF
BY G. CHAPMAN	PROJECT HWY 05 - GRAVEL INVESTIGATION	DATE 89 08 28	

DEMPSTER HWY GRAVEL SEARCH	KM 237+050 RHS, 75m LEFT OF AIRSTRIP	BOREHOLE No. 89-155A
NORTHERN REGION	NORTH END OF AIRSTRIP	Project No: 05-0237
KLONDIKE TRANSPORT	HOE-KOEHRING BANTAM C-366	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE	<input checked="" type="checkbox"/> LOST	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK
		<input type="checkbox"/> SPT
		<input type="checkbox"/> CORE



PROJECT NUMBER: 05-0237 HOLE NUMBER: 89-155A
 CLIENT: NORTHERN REGION, W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 237+050 RHS, 75M LEFT OF AIRSTRIP.
 LOGGED BY: GWC DATE COMPLETED: 89-08-28

FIELD NO: 388
 LAB NO: 388A
 DEPTH: 0.5-2.0
 TYPE: BULK
 2.5 IN. MINUS

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	---
80.0	100
50.0	94
31.5	---
25.0	51
20.0	---
12.5	30
10.0	---
5.0	17
2.5	---
2.0	---
1.25	11
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	2

M.C.(%): 3

LIMITS

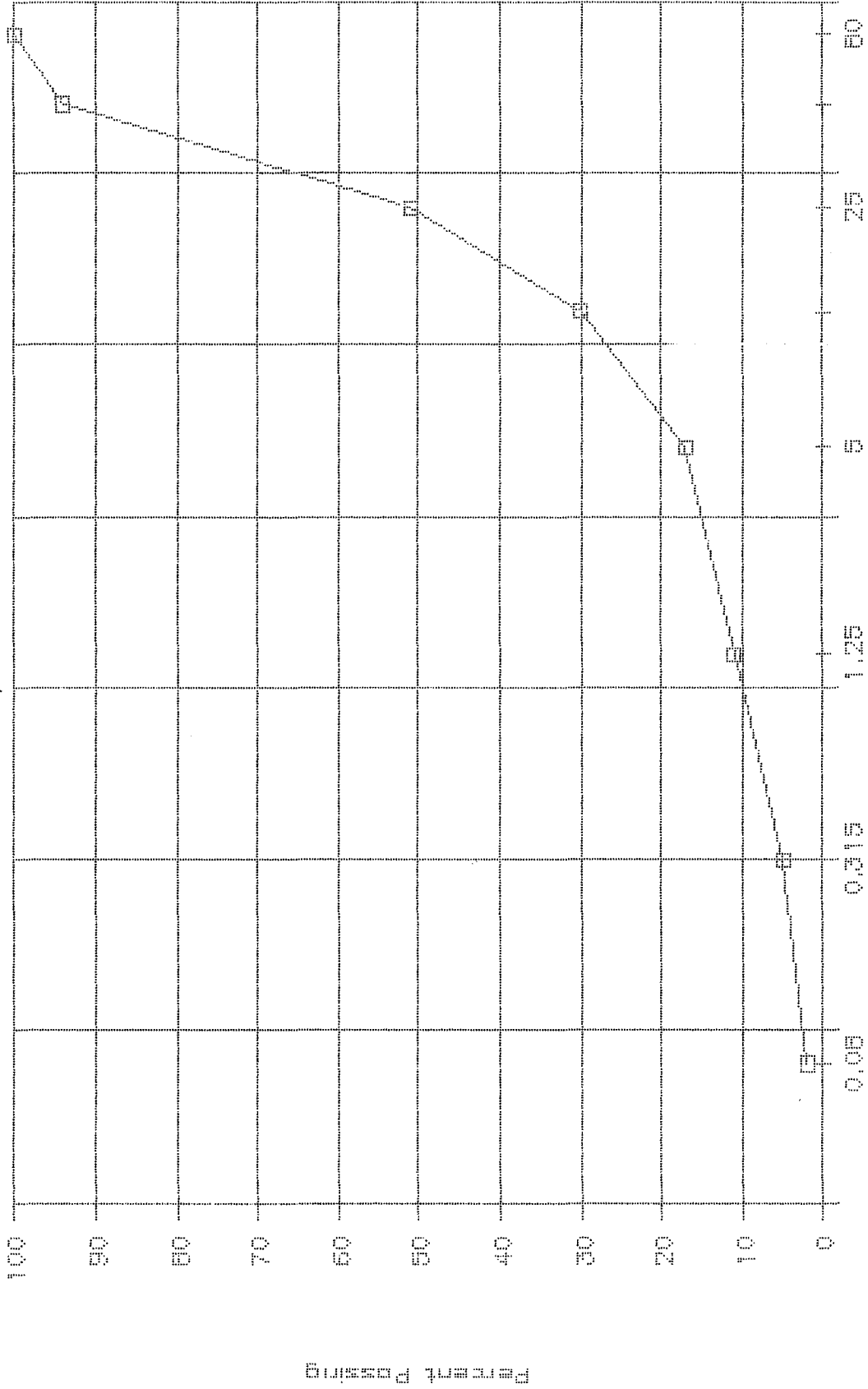
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 83
 % SAND: 15
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

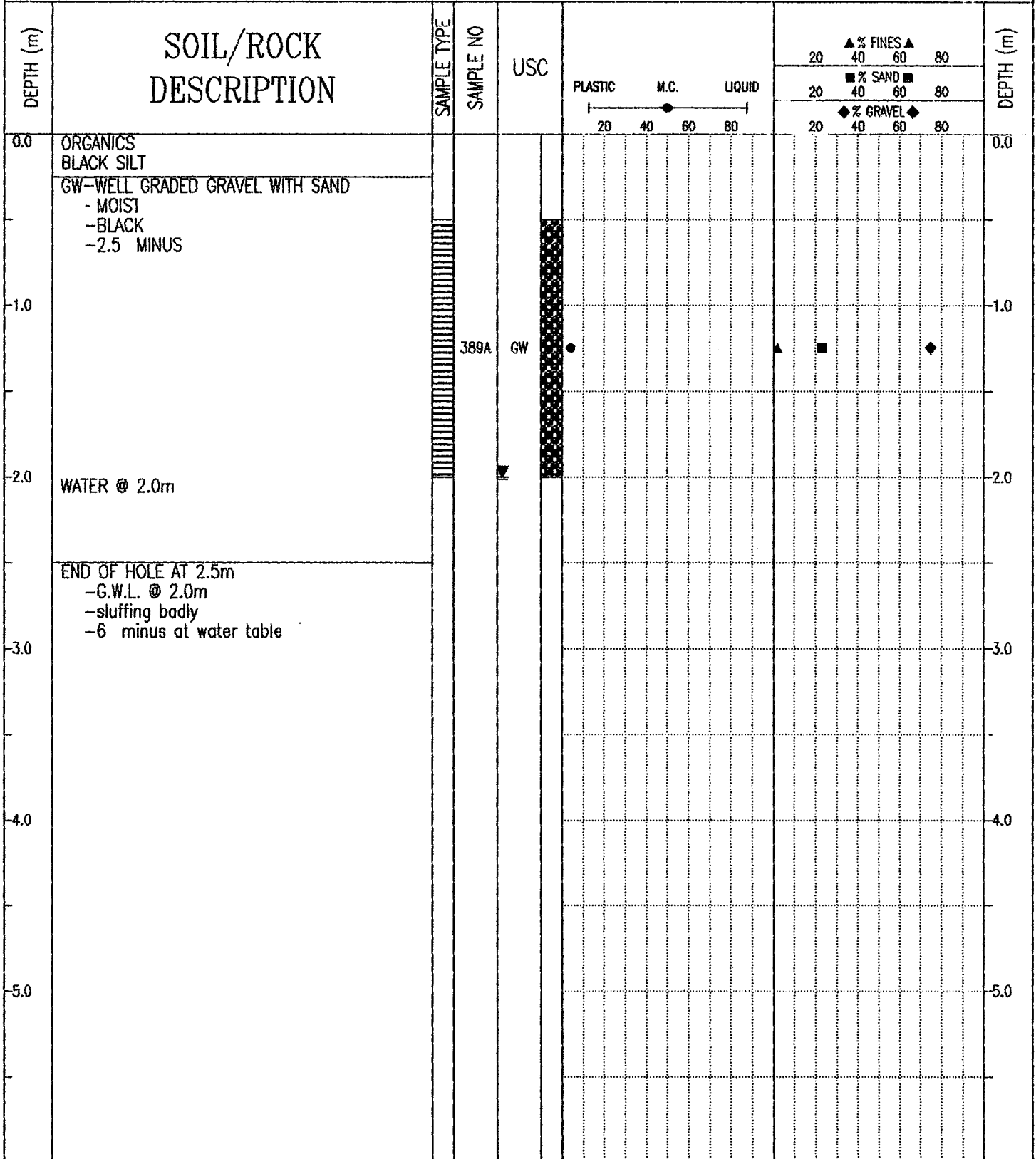
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 59-155A



□ SAMP. 300 ◇ SAMP. △ SAMP. × SAMP.

DEMPSTER HWY GRAVEL SEARCH	KM 237+100 RHS, 150m LEFT OF AIRSTRIP	BOREHOLE No. 89-156A
NORTHERN REGION	NORTH END OF AIRSTRIP	Project No: 05-0237
KLONDIKE TRANSPORT	HOE-KOEHRING BANTAM C-366	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



PROJECT NUMBER: 05-0237 HOLE NUMBER: 89-156A
 CLIENT: NORTHERN REGION, W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 237+100 RHS, 150M LEFT OF AIRSTRIP.
 LOGGED BY: GWC DATE COMPLETED: 89-08-28

FIELD NO: 389
 LAB NO: 389A
 DEPTH: 0.5-2.0
 TYPE: BULK
 BLACK 2.5 IN. MIN

SIEVE SIZE	PERCENT PASSING
------------	-----------------

100.0	---
80.0	---
50.0	100
31.5	---
25.0	53
20.0	---
12.5	38
10.0	---
5.0	25
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	4
0.160	---
0.150	---
0.080	2

M.C. (%): 4

LIMITS

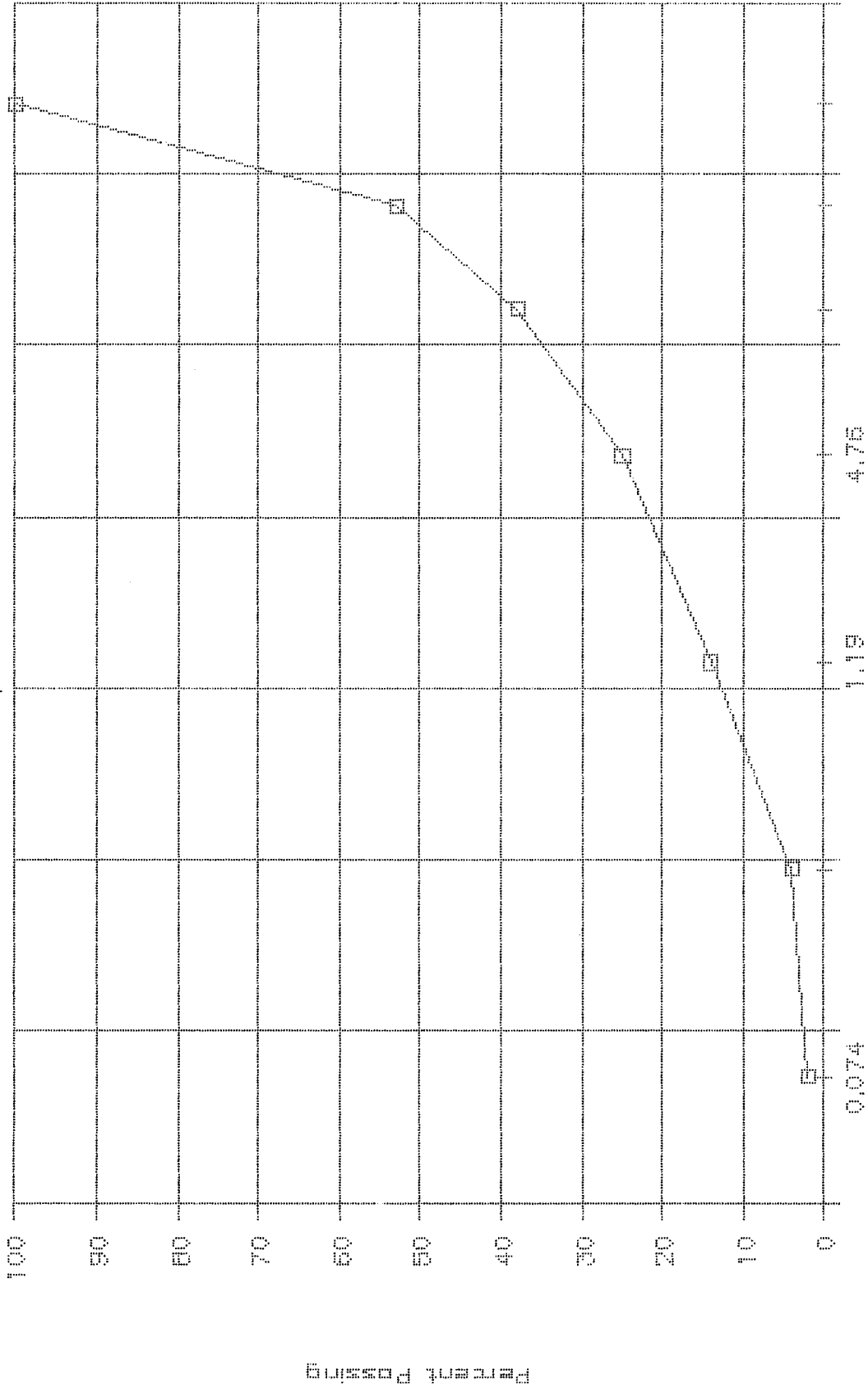
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 75
 % SAND: 23
 % FINES: 2

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

Y.T.G. TRANSPORTATION ENGINEERING

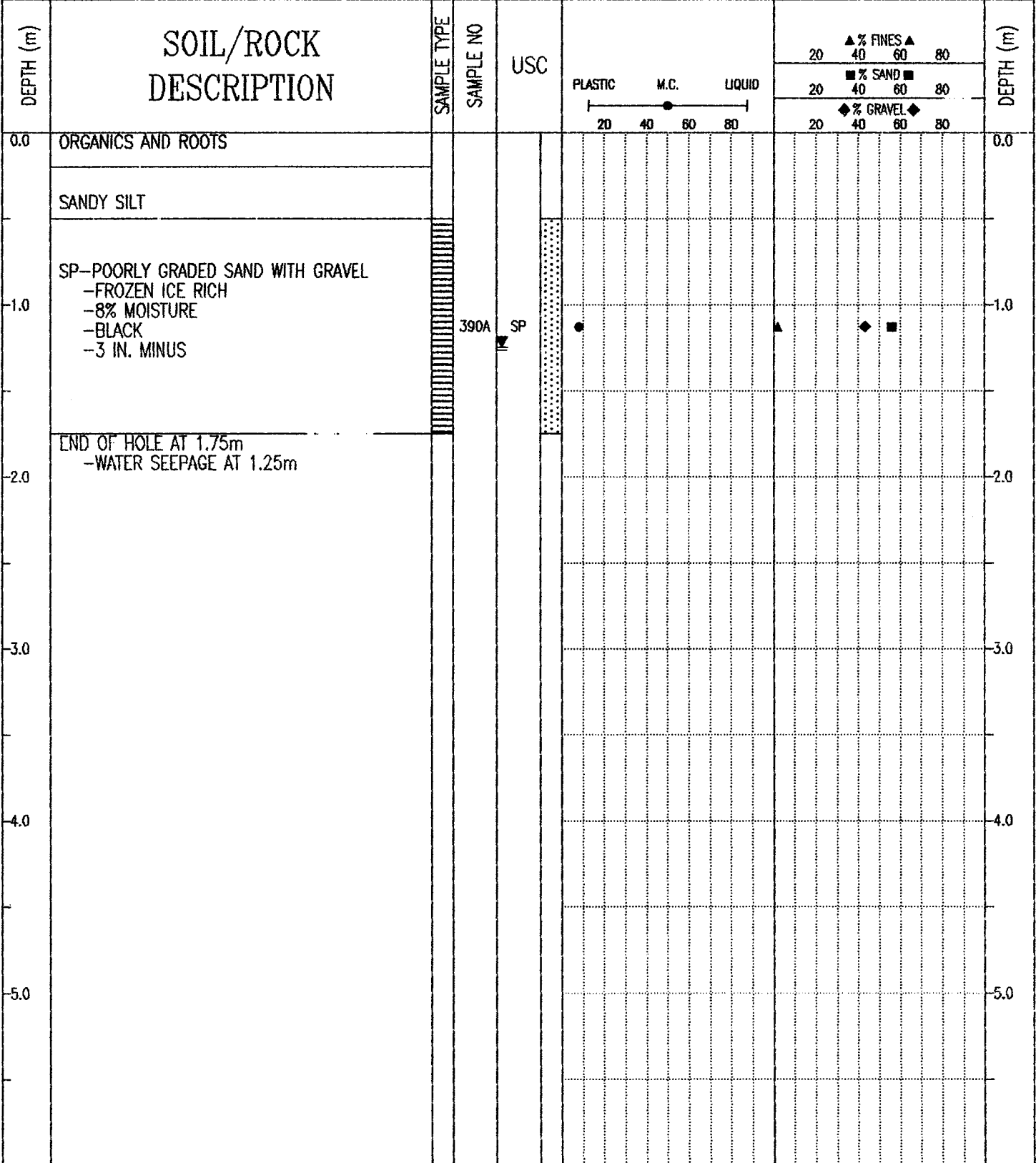
Grain Size Analysis -- Hole 09-155A



□ SAMP. 358 ◊ SAMP. △ SAMP. × SAMP.

DEMPSTER HWY GRAVEL SEARCH	KM 236+900 RHS, 75m LEFT OF AIRSTRIP	BOREHOLE No. 89-157A
NORTHERN REGION	100 M SOUTH OF 89-156A & OLD PIT	Project No: 05-0237 RHS
KLONDIKE TRANSPORT	HOE-KOEHRING BANTAM C-366	ELEVATION 0.00 (m)

SAMPLE TYPE TUBE LOST AUGER BULK SPT CORE



PROJECT NUMBER: 05-0237 HOLE NUMBER: 89-157A
 CLIENT: NORTHERN REGION, W.GUTOWSKI P.ENG.
 PROJECT NAME: GRAVEL SEARCH '89
 PROJECT LOCATION: DEMPSTER HIGHWAY
 DRILL UNIT: BANTAM C-366 KEOHRING
 HOLE LOCATION: KM 236+900, 75M LEFT OF AIRSTRIP, 100M SOUTH OF PIT.
 LOGGED BY: GWC DATE COMPLETED: 89-08-28

FIELD NO: 390
 LAB NO: 390A
 DEPTH: 0.5-1.75
 TYPE: BULK
 FROZEN ICE RICH

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	---
50.0	100
31.5	---
25.0	92
20.0	---
12.5	80
10.0	---
5.0	57
2.5	---
2.0	---
1.25	27
0.840	---
0.630	---
0.420	---
0.315	4
0.160	---
0.150	---
0.080	2

M.C. (%): 8

LIMITS

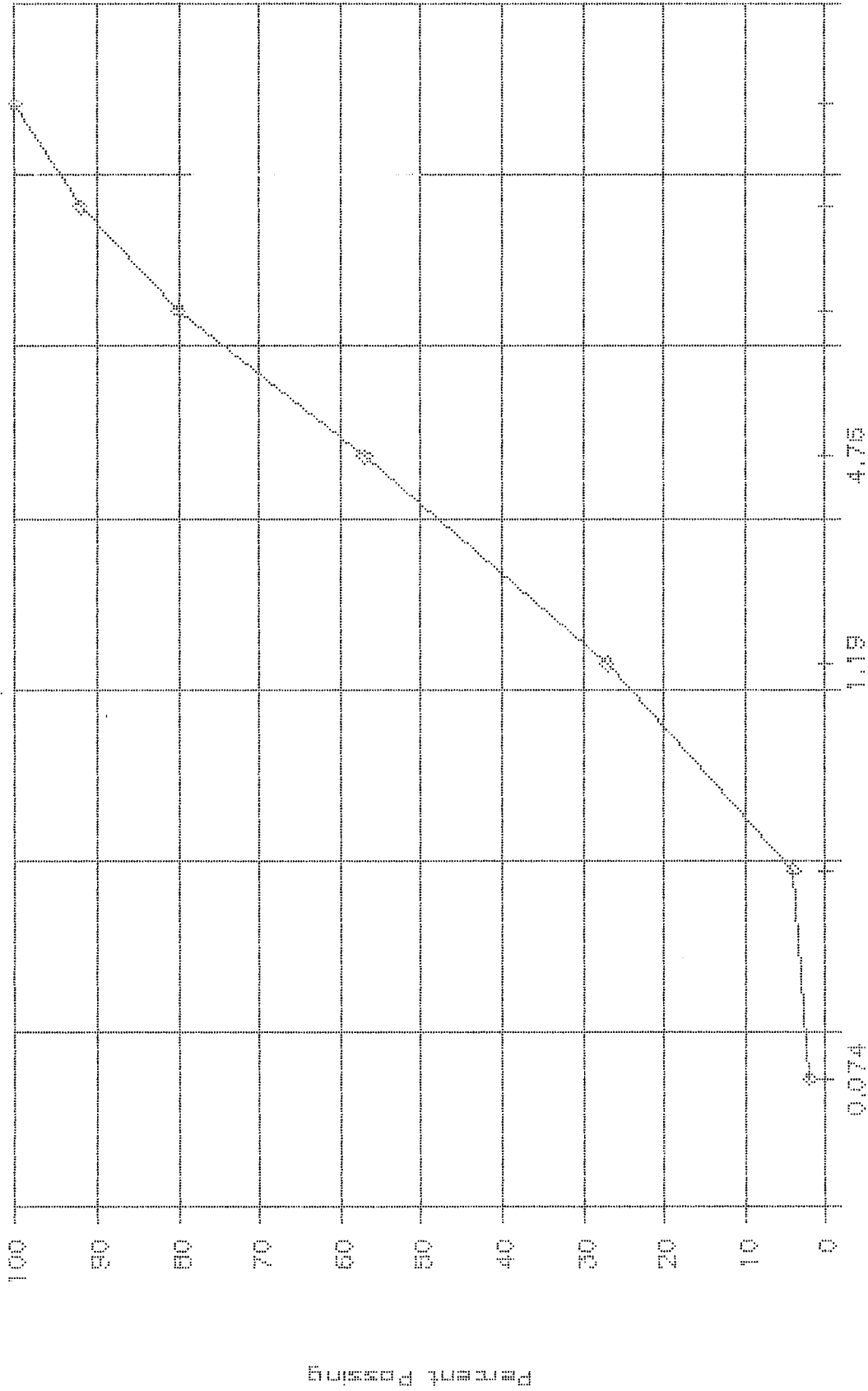
LIQUID: ---
 PLASTIC: ---
 P.I.: N.P.

% GRAVEL: 43
 % SAND: 56
 % FINES: 2

CLASSIFICATION:
 POORLY GRADED
 SAND WITH GRAVEL
 (SP)

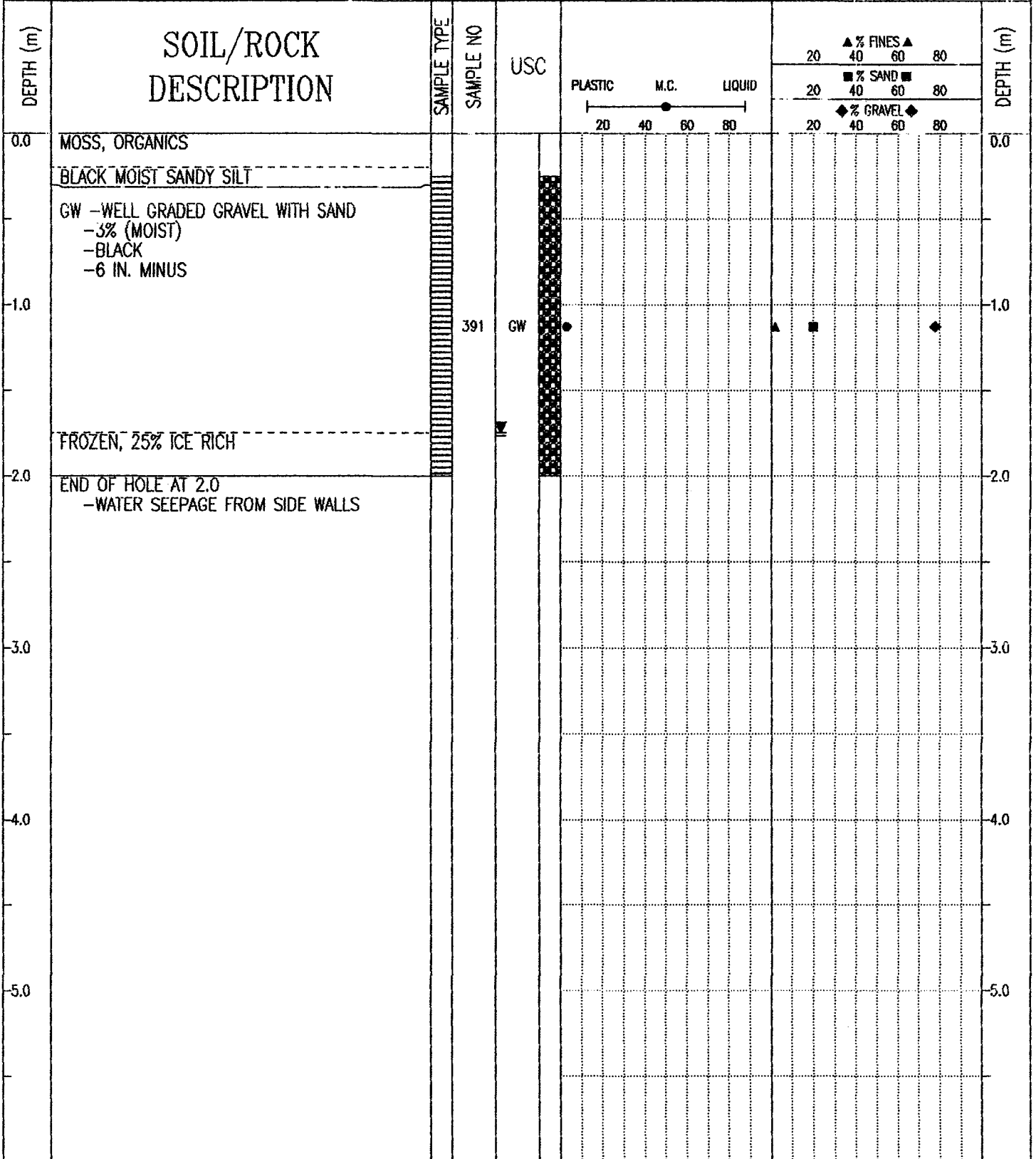
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole 55-157A



5 SAMP. 350 6 SAMP. 350 7 SAMP. 350 8 SAMP. 350 9 SAMP. 350 10 SAMP. 350 11 SAMP. 350 12 SAMP. 350 13 SAMP. 350 14 SAMP. 350 15 SAMP. 350 16 SAMP. 350 17 SAMP. 350 18 SAMP. 350 19 SAMP. 350 20 SAMP. 350 21 SAMP. 350 22 SAMP. 350 23 SAMP. 350 24 SAMP. 350 25 SAMP. 350 26 SAMP. 350 27 SAMP. 350 28 SAMP. 350 29 SAMP. 350 30 SAMP. 350 31 SAMP. 350 32 SAMP. 350 33 SAMP. 350 34 SAMP. 350 35 SAMP. 350 36 SAMP. 350 37 SAMP. 350 38 SAMP. 350 39 SAMP. 350 40 SAMP. 350 41 SAMP. 350 42 SAMP. 350 43 SAMP. 350 44 SAMP. 350 45 SAMP. 350 46 SAMP. 350 47 SAMP. 350 48 SAMP. 350 49 SAMP. 350 50 SAMP. 350 51 SAMP. 350 52 SAMP. 350 53 SAMP. 350 54 SAMP. 350 55 SAMP. 350 56 SAMP. 350 57 SAMP. 350 58 SAMP. 350 59 SAMP. 350 60 SAMP. 350 61 SAMP. 350 62 SAMP. 350 63 SAMP. 350 64 SAMP. 350 65 SAMP. 350 66 SAMP. 350 67 SAMP. 350 68 SAMP. 350 69 SAMP. 350 70 SAMP. 350 71 SAMP. 350 72 SAMP. 350 73 SAMP. 350 74 SAMP. 350 75 SAMP. 350 76 SAMP. 350 77 SAMP. 350 78 SAMP. 350 79 SAMP. 350 80 SAMP. 350 81 SAMP. 350 82 SAMP. 350 83 SAMP. 350 84 SAMP. 350 85 SAMP. 350 86 SAMP. 350 87 SAMP. 350 88 SAMP. 350 89 SAMP. 350 90 SAMP. 350 91 SAMP. 350 92 SAMP. 350 93 SAMP. 350 94 SAMP. 350 95 SAMP. 350 96 SAMP. 350 97 SAMP. 350 98 SAMP. 350 99 SAMP. 350 100 SAMP. 350

DEMPSTER HWY GRAVEL SEARCH	KM 236+800 RHS, 75m LEFT OF AIRSTRIP.	BOREHOLE No. 89-158A
NORTHERN REGION	200 M SOUTH OF 89-156A & OLD PIT.	Project No: 05-0237 RHS
KLONDIKE TRANSPORT	HOE-KOEHRING BANTAM C-366	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



PROJECT NUMBER: 05-0237 HOLE NUMBER: 89-158A
CLIENT: NORTHERN REGION, W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEHRING
HOLE LOCATION: KM 236+800 75M LT. OF AIRSTRIP, 200M SOUTH OF PIT
LOGGED BY: GWC DATE COMPLETED: 89-08-28

FIELD NO: 391
LAB NO: 391A
DEPTH: .25-2.0
TYPE: BULK
BLACK 6" MINUS

SIEVE SIZE	PERCENT PASSING
---------------	--------------------

100.0	---
80.0	100
50.0	83
31.5	---
25.0	52
20.0	---
12.5	36
10.0	---
5.0	22
2.5	---
2.0	---
1.25	12
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	2

M.C. (%): 3

LIMITS

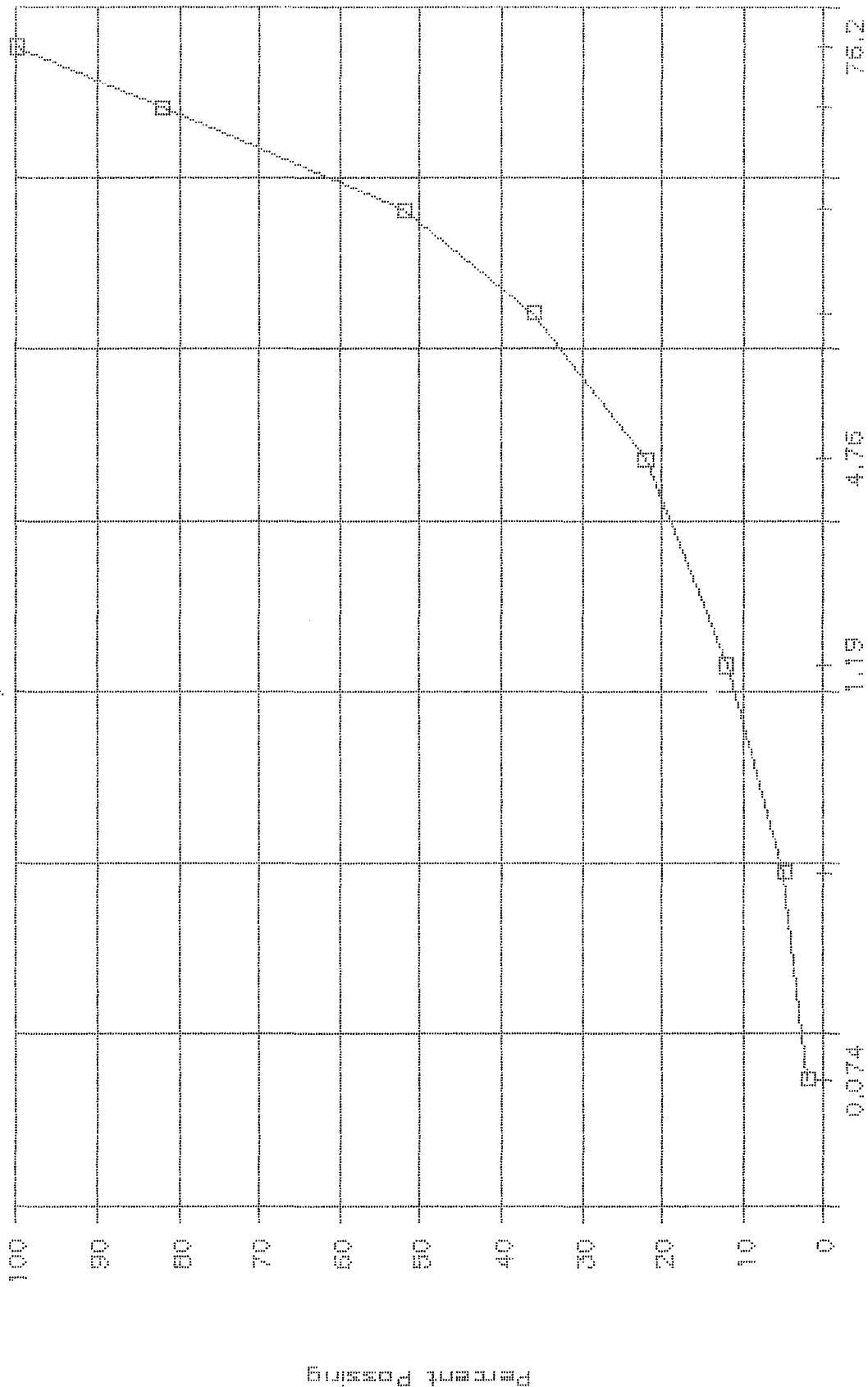
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

% GRAVEL: 78
% SAND: 20
% FINES: 2

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)

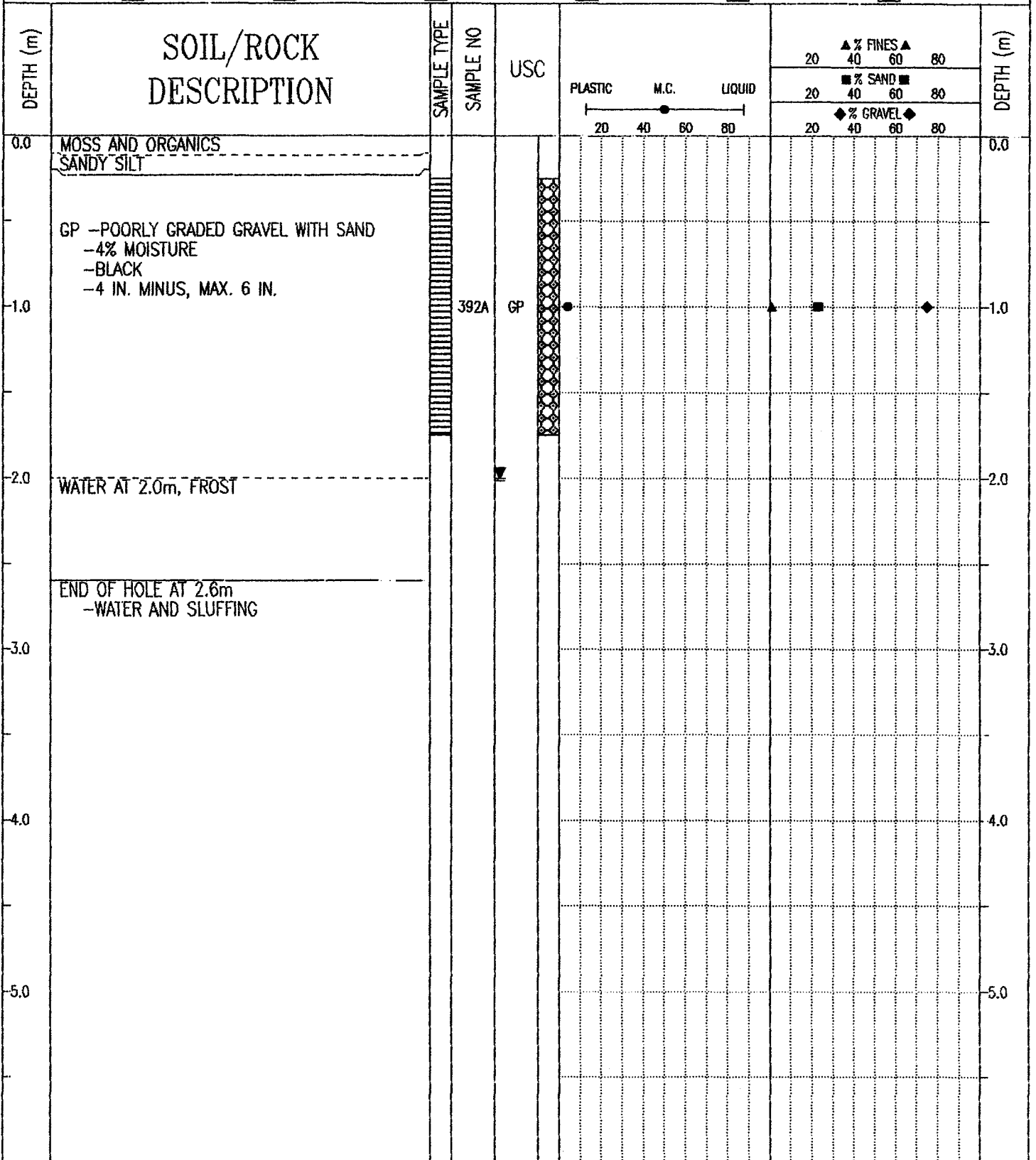
Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis - Hole B3-150A



□ SAMP. 391 ◊ SAMP. △ SAMP. X SAMP.

DEMPSTER HWY GRAVEL SEARCH	KM 236+750 RHS, 100m RIGHT OF AIRSTRIP.	BOREHOLE No. 89-159A
NORTHERN REGION	250M SOUTH OF 89-158A & OLD PIT.	Project No: 05-0237 RHS
KLONDIKE TRANSPORT	HOE-KOEBRING BANTAM C-366	ELEVATION 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> TUBE <input checked="" type="checkbox"/> LOST <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> SPT <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

COMPLETION DEPTH 2.6 m	COMPLETE 89/08/28
LOGGED BY GWC	DWG NO.
	Page 1 of 1

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=====
PROJECT NUMBER: 05-0237 HOLE NUMBER: 89-159A
CLIENT: NORTHERN REGION, W.GUTOWSKI P.ENG.
PROJECT NAME: GRAVEL SEARCH '89
PROJECT LOCATION: DEMPSTER HIGHWAY
DRILL UNIT: BANTAM C-366 KEOHRING
HOLE LOCATION: 250M SOUTH OF EX. PIT, 100M EAST OF RUNWAY
LOGGED BY: GWC DATE COMPLETED: 89-08-29
=====

```

```

FIELD NO: 392
LAB NO: 392A
DEPTH: .5-1.75
TYPE: BULK
BLACK 4" MINUS

```

SIEVE SIZE	PERCENT PASSING
100.0	---
80.0	---
50.0	100
31.5	---
25.0	64
20.0	---
12.5	39
10.0	---
5.0	25
2.5	---
2.0	---
1.25	14
0.840	---
0.630	---
0.420	---
0.315	5
0.160	---
0.150	---
0.080	1

```

M.C. (%): 4

```

```

LIMITS
LIQUID: ---
PLASTIC: ---
P.I.: N.P.

```

```

% GRAVEL: 75
% SAND: 23
% FINES: 1

```

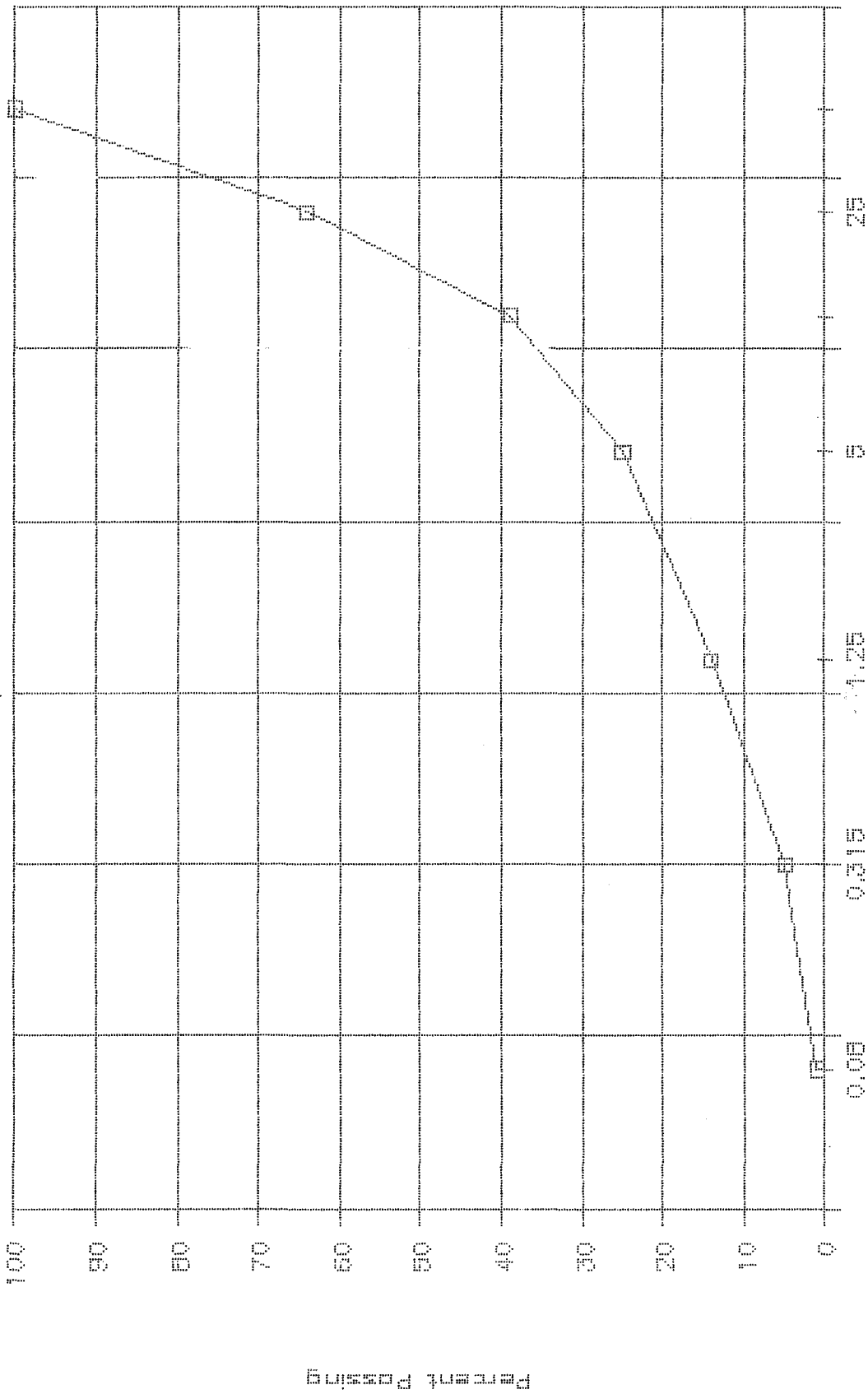
```

CLASSIFICATION:
POORLY GRADED
GRAVEL WITH SAND
(GP)
=====

```

Y.T.G. TRANSPORTATION ENGINEERING

Grain Size Analysis -- Hole 53--153A



□ SAMP. 352 ◇ SAMP. ▲ SAMP. × SAMP.