

PD-NCB Consultants Limited



In association with

Wright Engineers Ltd & Golder Associates

Report No.2

**Preliminary Report on
Hat Creek Openpit No.1**

Volume II

to

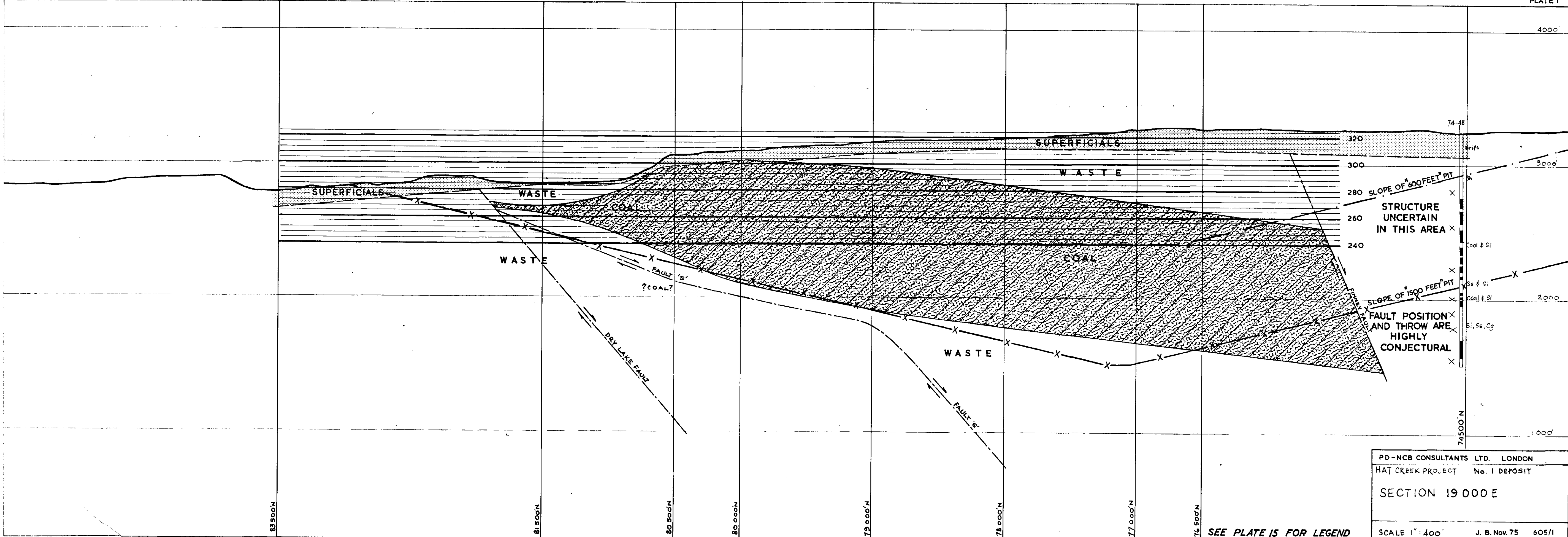
British Columbia Hydro and Power Authority

LIST OF PLATES

- Plate 1 - Section 19,000 E
- Plate 2 - Section 19,500 E
- Plate 3 - Section 20,000 E
- Plate 4 - Section 20,500 E
- Plate 5 - Section 77,000 N
- Plate 6 - Section 78,000 N
- Plate 7 - Section 79,000 N
- Plate 8 - Section 80,000 N
- Plate 9 - Section 80,500 N
- Plate 10 - Section 81,500 N
- Plate 11 - Isopachytes of Superficial Deposits
- Plate 12 - Contours at Base of Superficial Deposits
- Plate 13 - Isopachytes of Total Overburden
- Plate 14 - Contours at Top of Coal
- Plate 15 - Legend of Symbols used on Geological Plans and Sections
- Plate 16 - Location of Mudslides, Creek Diversion and Road Re-Routing
- Plate 17 - Stages of Pit Development to 1,500-ft Elevation (Surface Intercepts)
- Plate 18 - Proposed Bench Arrangement using 150-ton Trucks and Working Bench Overall Slope
- Plate 19 - Main Incline Conveyor and Haul Road Arrangement
- Plate 20 - Cumulative Volumes of Waste versus Cumulative Tonnage of In situ Coal
- Plate 21 - Coal Requirements for a 3 x 750-MW Power Station - Yearly Waste Removal - Yearly Stripping Ratio
- Plate 22 - Cumulative Coal Requirements for a 3 x 750-MW Power Station and Cumulative Waste Removal
- Plate 23 - Construction Schedules

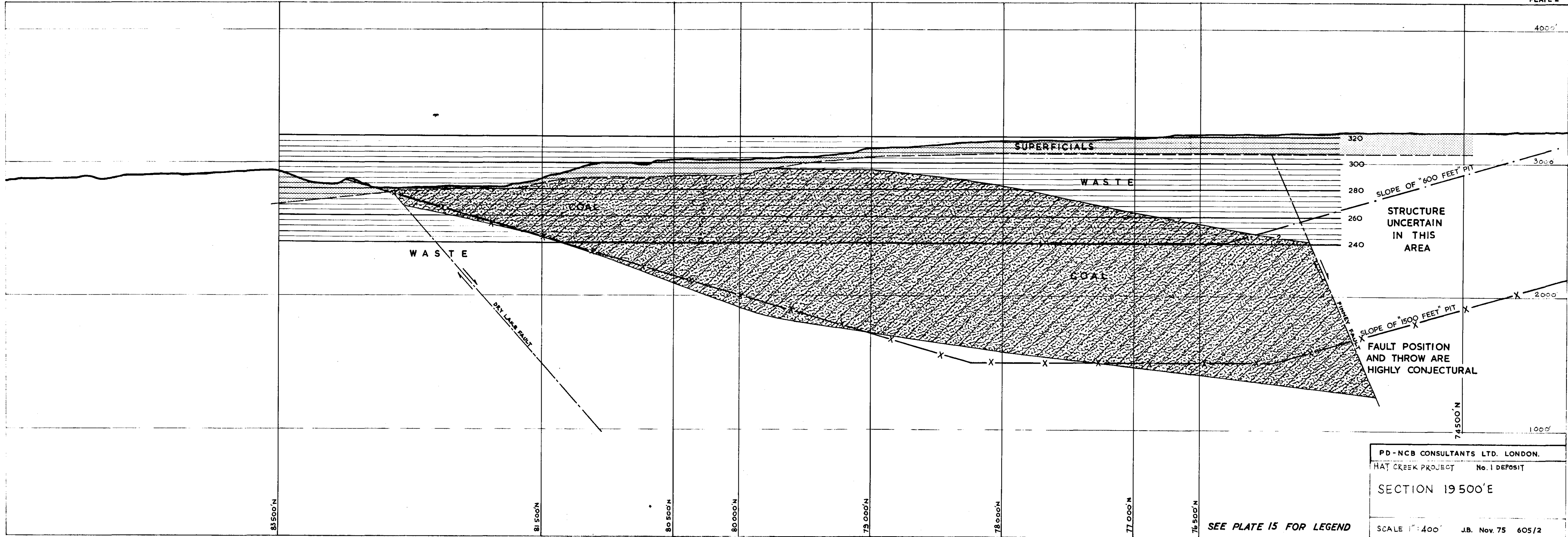
*OPEN PIT No. 1
VOL. 2.*

- Plate 24 - Mean Haulage Distances
- Plate 25 - Total Drilling Hours
- Plate 26 - Total Shovel Hours
- Plate 27 - Total Truck Hours
- Plate 28 - Machinery Requirements
- Plate 29 - Schematic In-Pit Breaker Feeder Transfer Station
- Plate 30 - Schematic Line Diagram of Proposed Stockpiling Arrangement
- Plate 31 - Proposed Conveyor - Stockpile and Waste Dump Layout
- Plate 32 - Conceptual HT Power Distribution - Ultimate Pit
- Plate 33 - Plan of Superficials, Pit Waste and Ash Disposal Areas - 600-ft Pit
- Plate 34 - Plan of Superficials, Pit Waste and Ash Disposal Areas - 1,500-ft Pit
- Plate 35 - Schematic Line Diagram of Proposed Waste Disposal Scheme
- Plate 36 - Shops and Warehouse
- Plate 37 - Change House
- Plate 38 - Administration Building
- Plate 39 - Core Shed
- Plate 40 - Senior Staff Camp
- Plate 41 - Work Force Camp
- Plate 42 - Corporate Overhead Rates
- Plate 43 - Variation of Production Cost with Instantaneous Stripping Ratio
- Plate 44 - Production Cost and Uniform Selling Price (Uninflated, 1975 prices)
- Plate 45 - Opportunity Values for Coal and Lignite
- Plate 46 - Variation of Break-even Stripping Ratio with Production Cost at Various Selling Prices



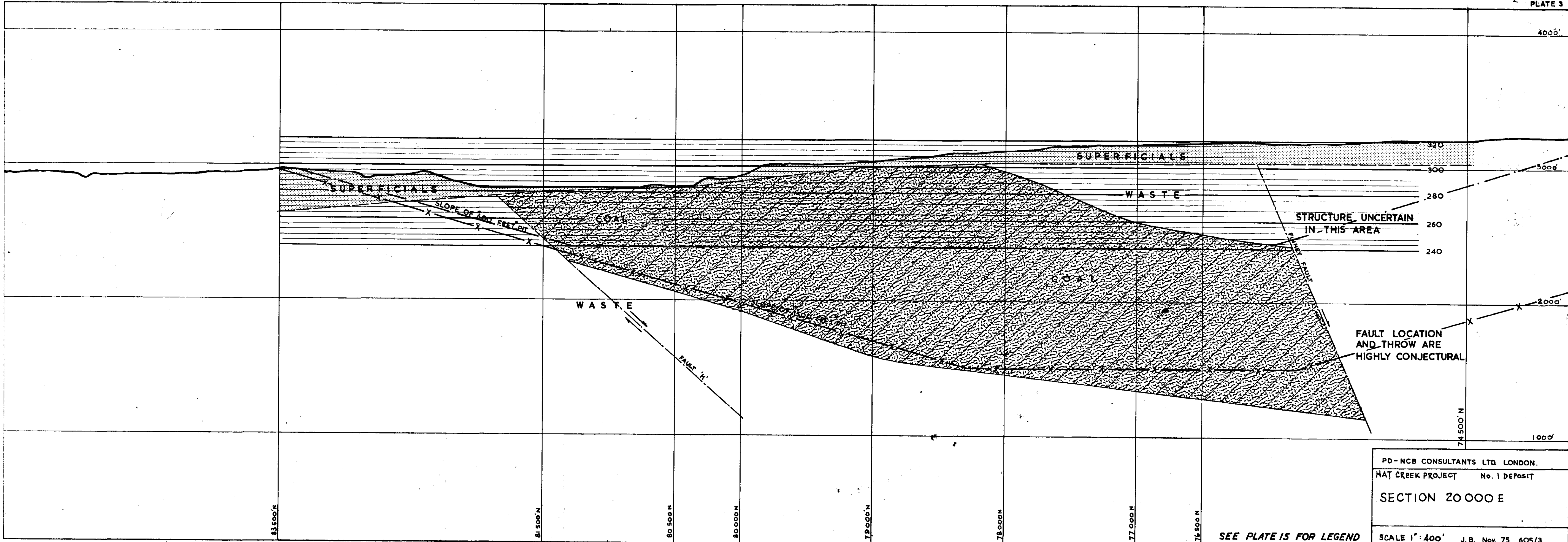
PD-NCB CONSULTANTS LTD. LONDON	
HAT CREEK PROJECT	No. 1 DEPOSIT
SECTION 19 000 E	
SCALE 1" = 400'	J. B. Nov. 75 605/1

SEE PLATE 15 FOR LEGEND

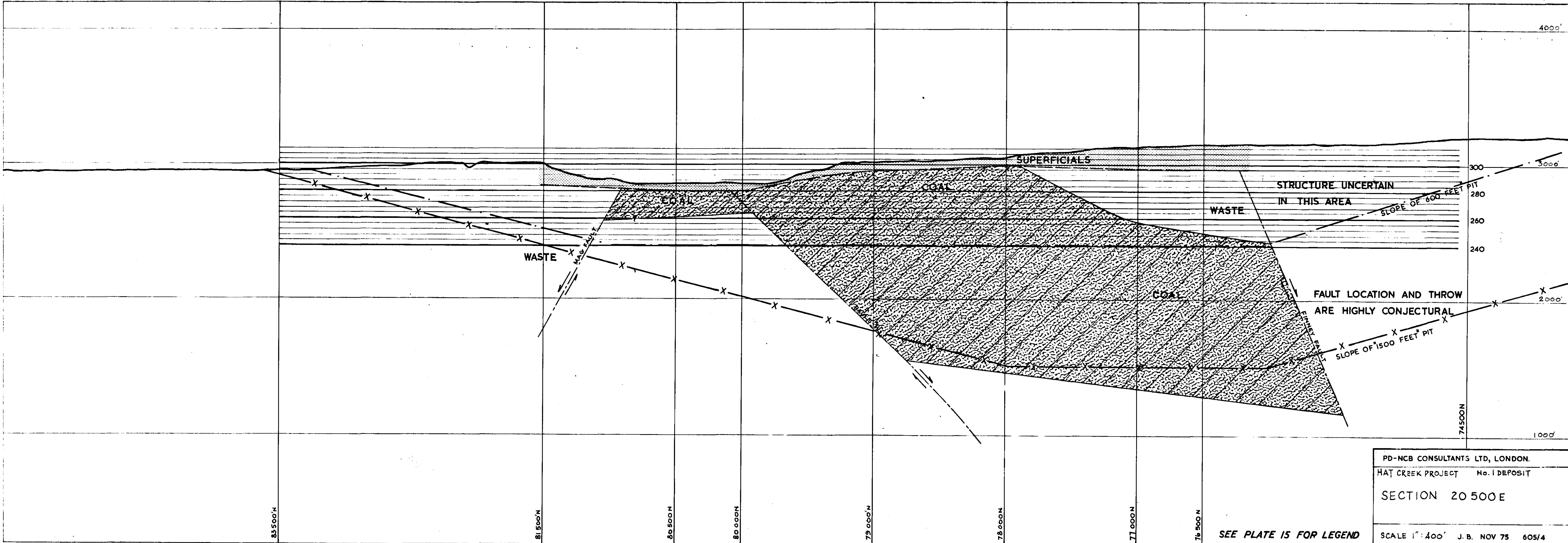


PD-NCB CONSULTANTS LTD. LONDON.
 HAT CREEK PROJECT No. 1 DEPOSIT
 SECTION 19 500'E
 SCALE 1"=400' J.B. Nov. 75 605/2

SEE PLATE 15 FOR LEGEND

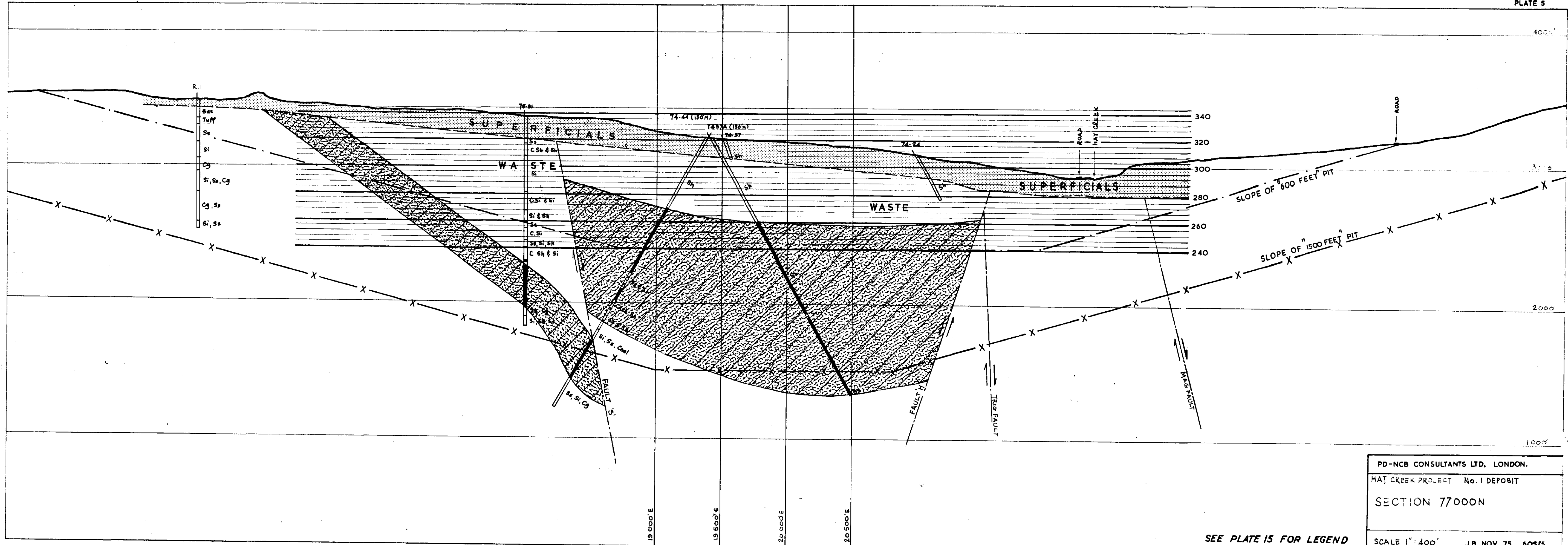


PD-NCB CONSULTANTS LTD. LONDON.
 HAT CREEK PROJECT No. 1 DEPOSIT
 SECTION 20 000 E
 SCALE 1" : 400' J.B. Nov. 75 605/3



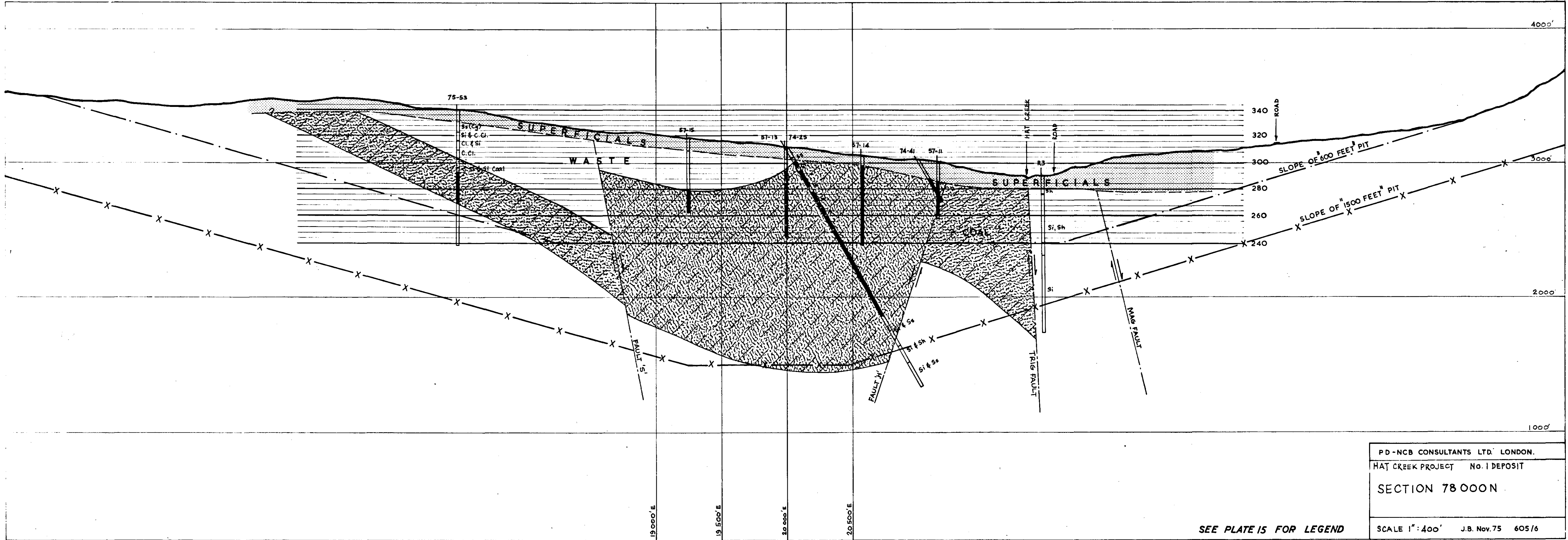
PD-NCB CONSULTANTS LTD, LONDON.	
HAT CREEK PROJECT	No. 1 DEPOSIT
SECTION 20 500 E	
SCALE 1" = 400'	J. B. NOV 75 605/4

SEE PLATE 15 FOR LEGEND



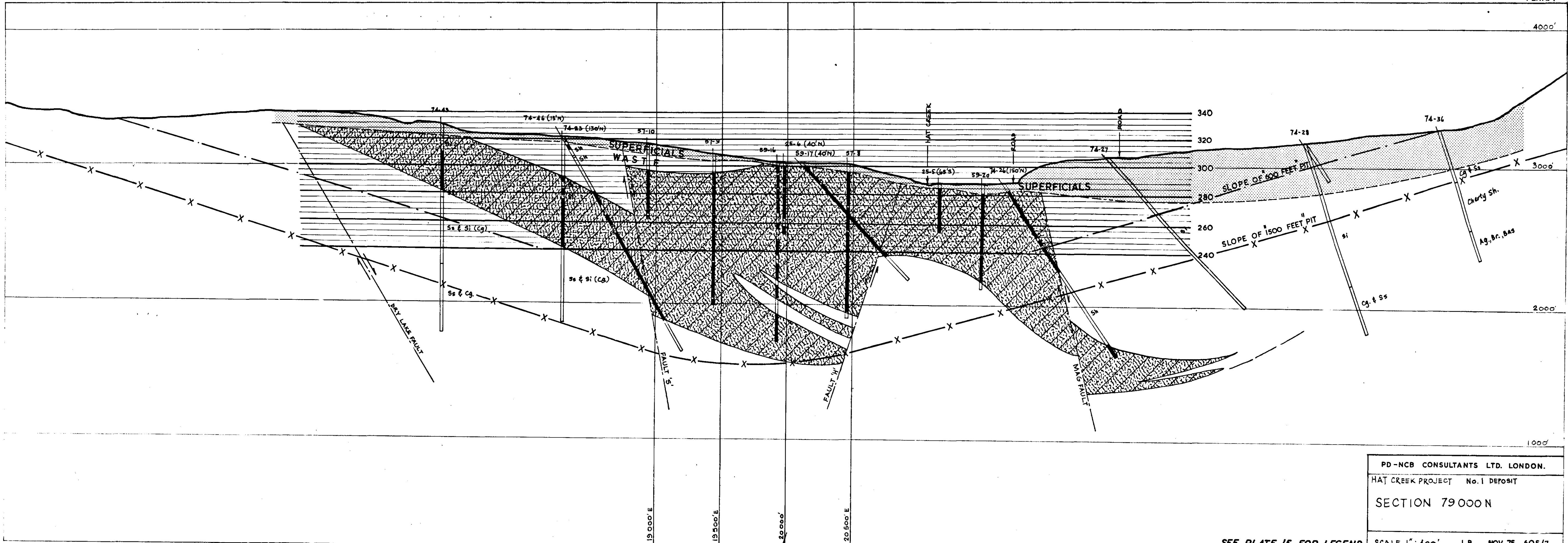
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 MAT CREEK PROJECT No. 1 DEPOSIT
 SECTION 77000N
 SCALE 1" : 400' J.B. NOV 75 605/5

SEE PLATE 15 FOR LEGEND



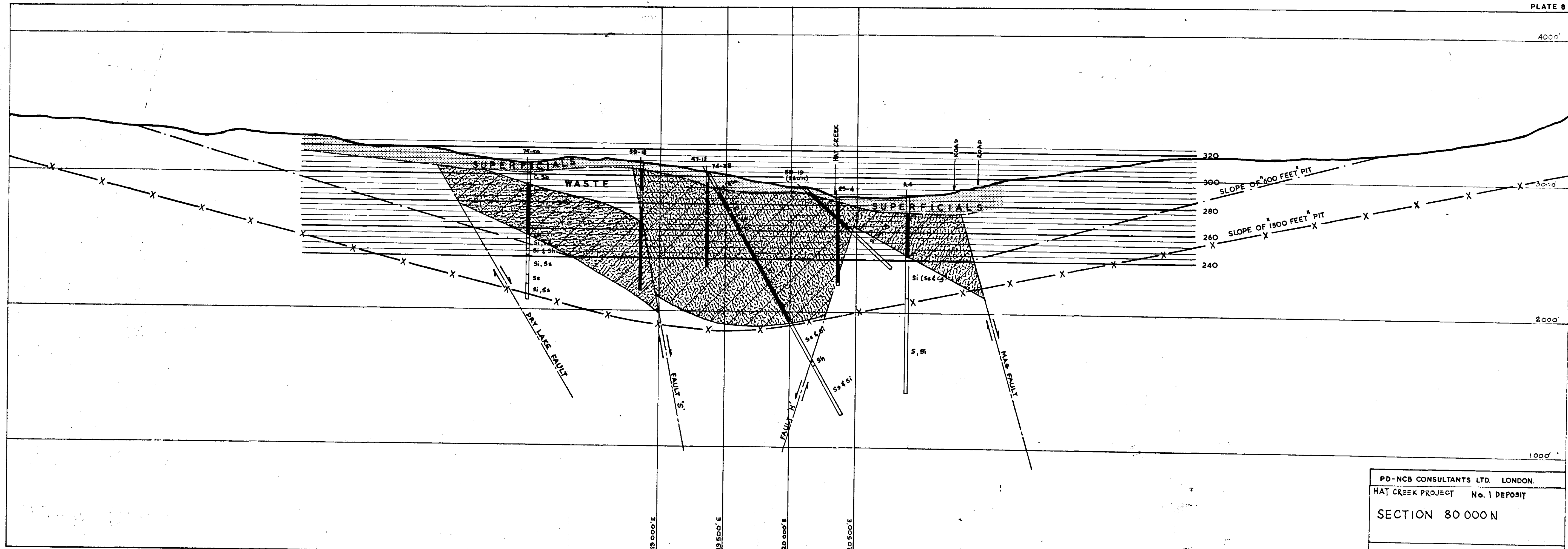
PD-NCB CONSULTANTS LTD. LONDON.
HAT CREEK PROJECT No. 1 DEPOSIT
SECTION 78 000N
SCALE 1" : 400' J.B. Nov. 75 605/6

SEE PLATE 15 FOR LEGEND



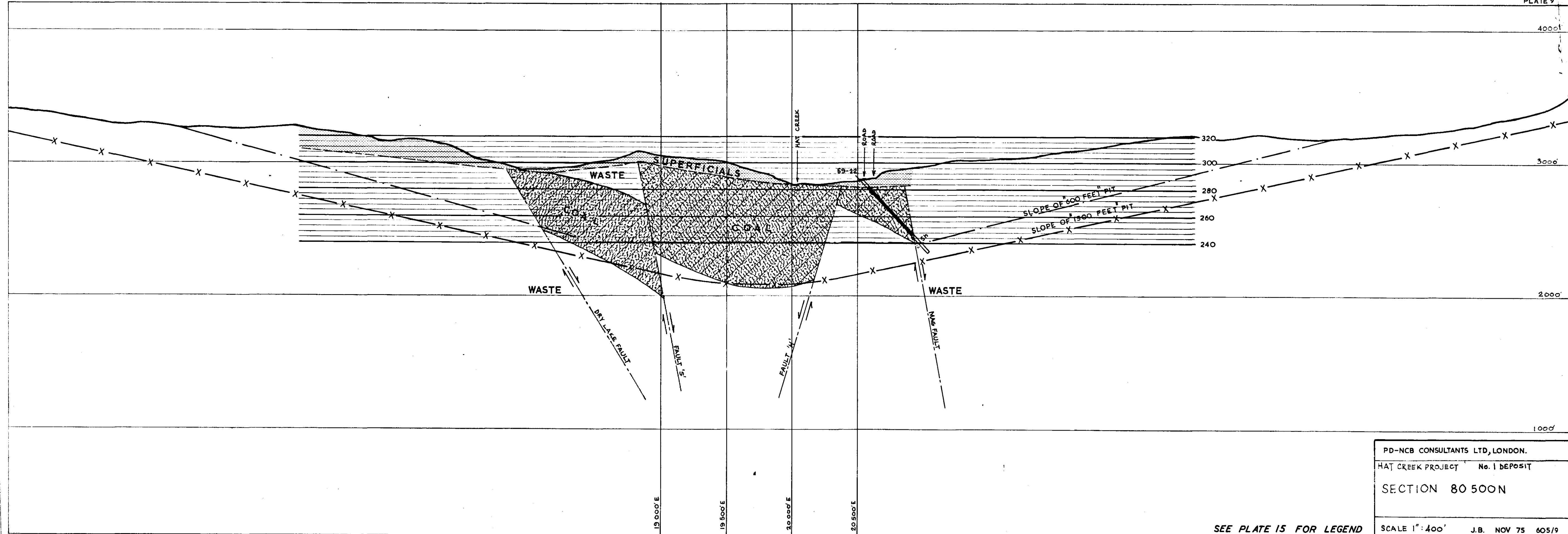
PD-NCB CONSULTANTS LTD. LONDON.
 HAT CREEK PROJECT No. 1 DEPOSIT
 SECTION 79 000 N
 SCALE 1" = 400' J.B. NOV. 75 60517

SEE PLATE 15 FOR LEGEND



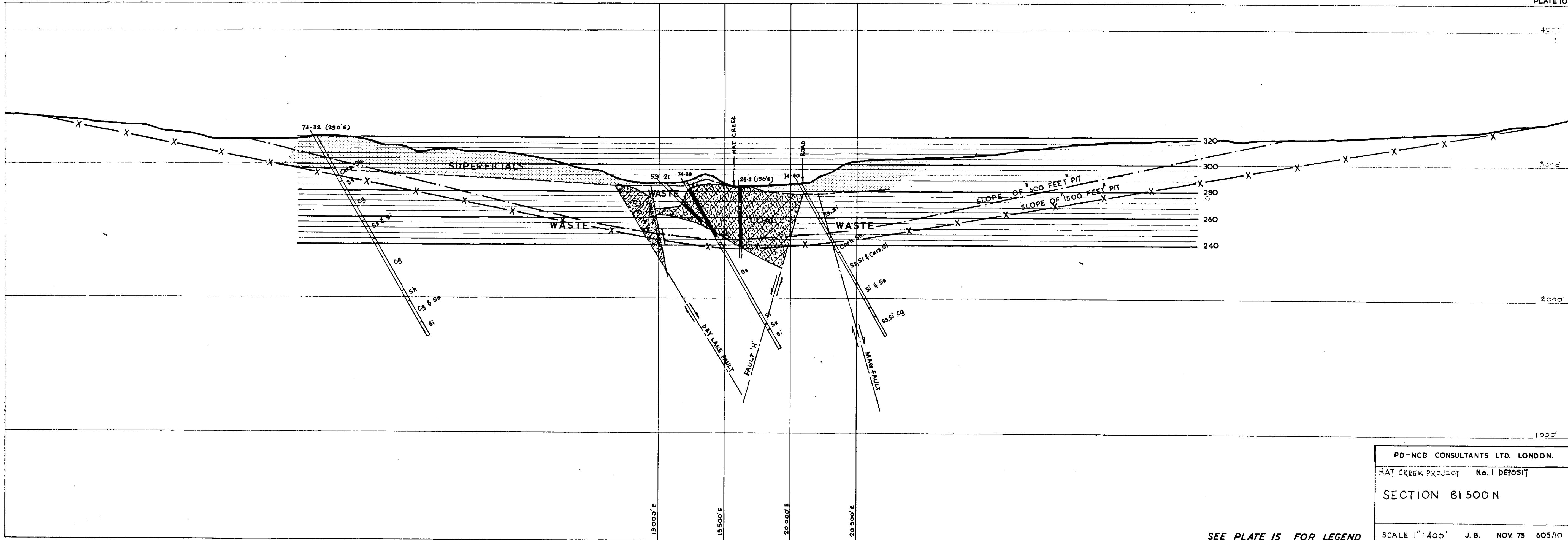
SEE PLATE 15 FOR LEGEND

PD-NCB CONSULTANTS LTD. LONDON.
HAT CREEK PROJECT No. 1 DEPOSIT
SECTION 80 000 N
SCALE 1" : 400' J.B. Nov. 75 605/8



SEE PLATE 15 FOR LEGEND

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HAT CREEK PROJECT No. 1 DEPOSIT
SECTION 80 500N
SCALE 1" : 400' J.B. NOV 75 605/9

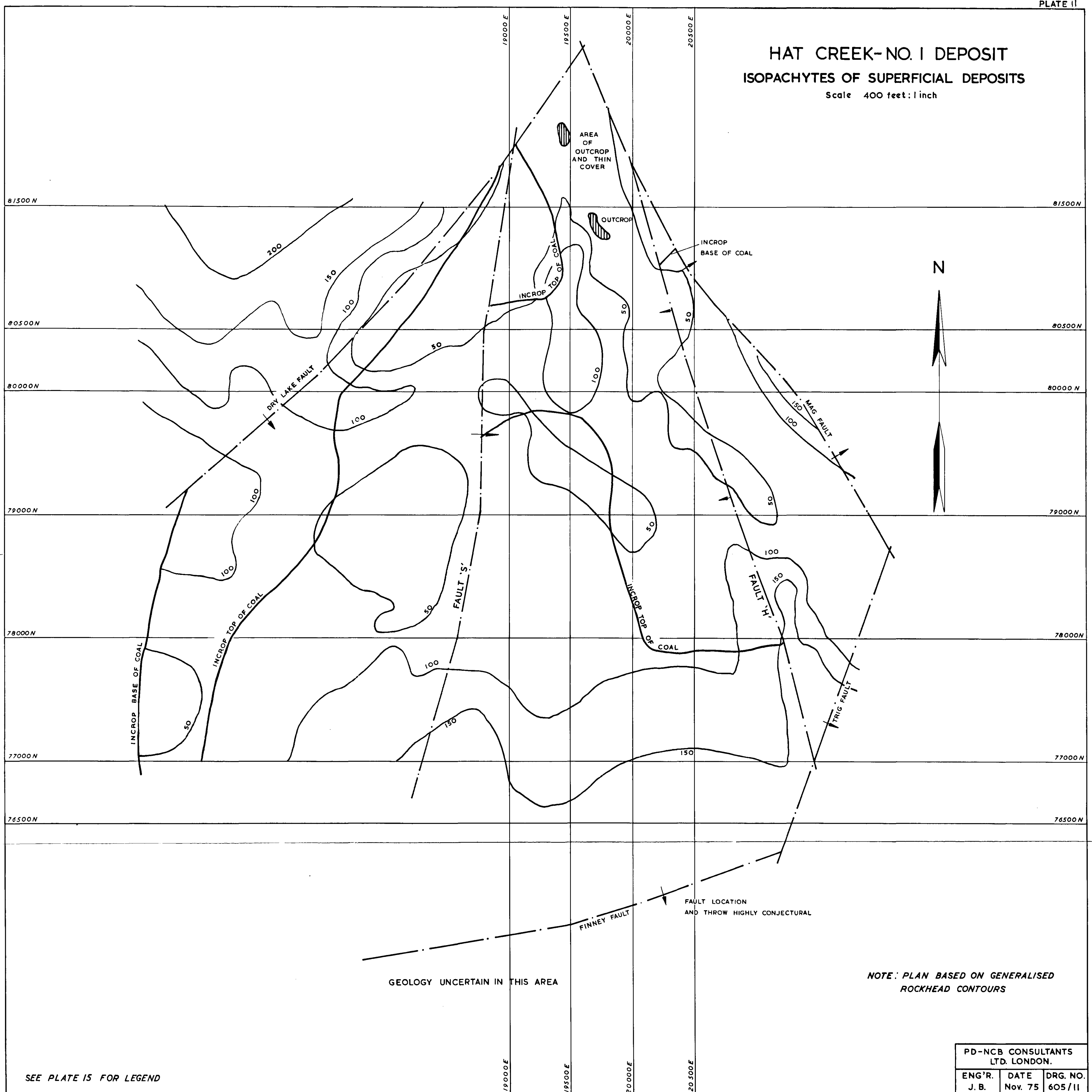


SEE PLATE 15 FOR LEGEND

PD-NCB CONSULTANTS LTD. LONDON.
HAT CREEK PROJECT No. 1 DEPOSIT
SECTION 81500 N
SCALE 1" = 400' J.B. NOV. 75 605/10

HAT CREEK-NO. 1 DEPOSIT ISOPACHYTES OF SUPERFICIAL DEPOSITS






Scale 400 feet: 1 inch



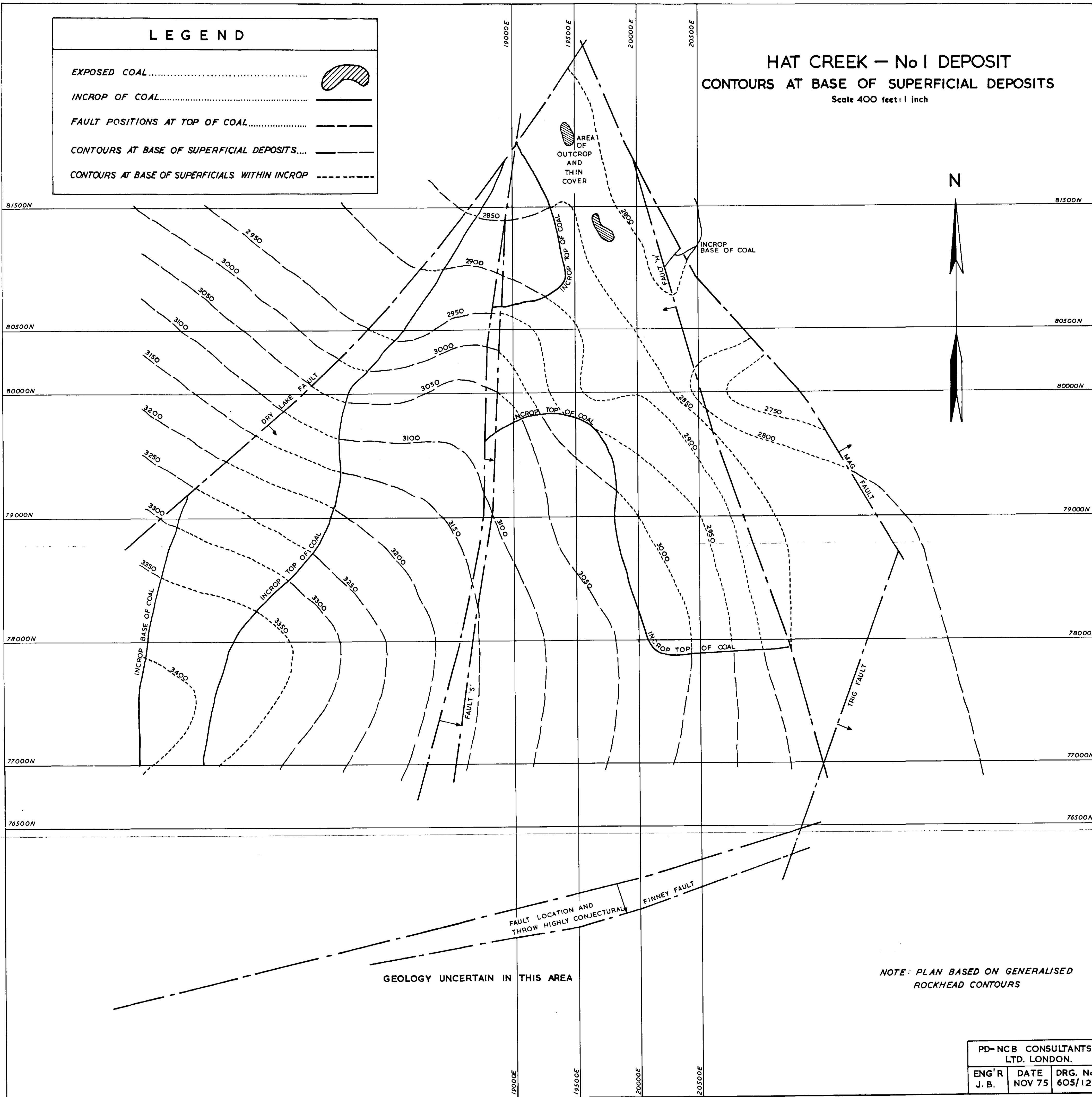
SEE PLATE 15 FOR LEGEND

PD-NCB CONSULTANTS LTD. LONDON.		
ENG'R. J. B.	DATE Nov. 75	DRG. NO. 605/11

LEGEND

EXPOSED COAL.....	
INCROP OF COAL.....	
FAULT POSITIONS AT TOP OF COAL.....	
CONTOURS AT BASE OF SUPERFICIAL DEPOSITS....	
CONTOURS AT BASE OF SUPERFICIALS WITHIN INCROP	

HAT CREEK - No 1 DEPOSIT
 CONTOURS AT BASE OF SUPERFICIAL DEPOSITS
 Scale 400 feet: 1 inch

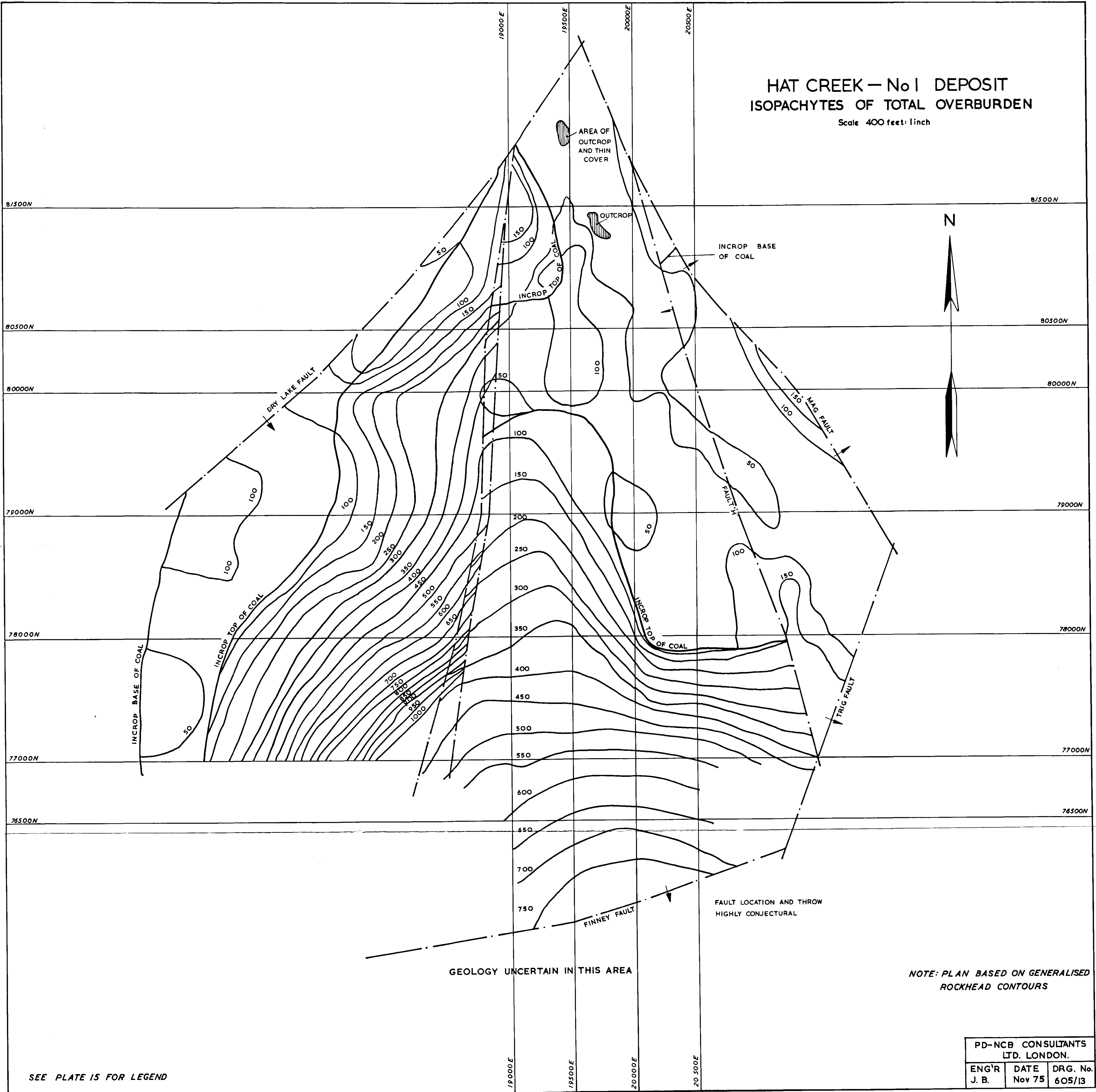


NOTE: PLAN BASED ON GENERALISED
 ROCKHEAD CONTOURS

PD-NCB CONSULTANTS LTD. LONDON.		
ENG'R J. B.	DATE NOV 75	DRG. No. 605/12

HAT CREEK — No 1 DEPOSIT ISOPACHYTES OF TOTAL OVERBURDEN

Scale 400 feet: 1 inch








SEE PLATE 15 FOR LEGEND

NOTE: PLAN BASED ON GENERALISED
ROCKHEAD CONTOURS

PD-NCB CONSULTANTS LTD. LONDON.		
ENG'R J. B.	DATE Nov 75	DRG. No. 605/13

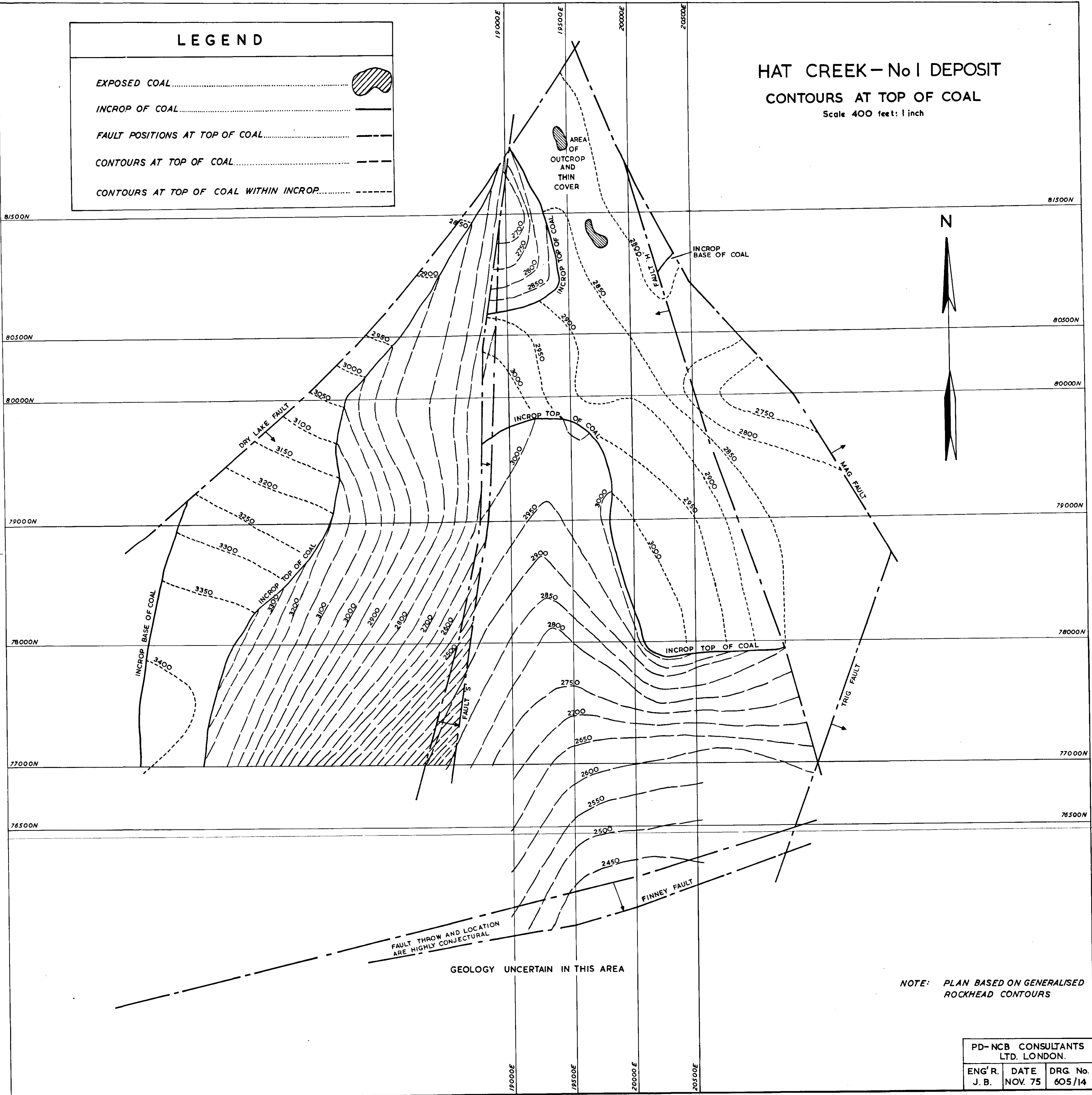
LEGEND

EXPOSED COAL.....	
INCROP OF COAL.....	
FAULT POSITIONS AT TOP OF COAL.....	
CONTOURS AT TOP OF COAL.....	
CONTOURS AT TOP OF COAL WITHIN INCROP.....	

HAT CREEK - No 1 DEPOSIT

CONTOURS AT TOP OF COAL



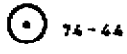

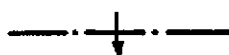




Scale 400 feet: 1 inch



NOTE: PLAN BASED ON GENERALISED ROCKHEAD CONTOURS

PD-NCB CONSULTANTS LTD. LONDON.		
ENG'R. J. B.	DATE NOV. 75	DRG. No. 605/14

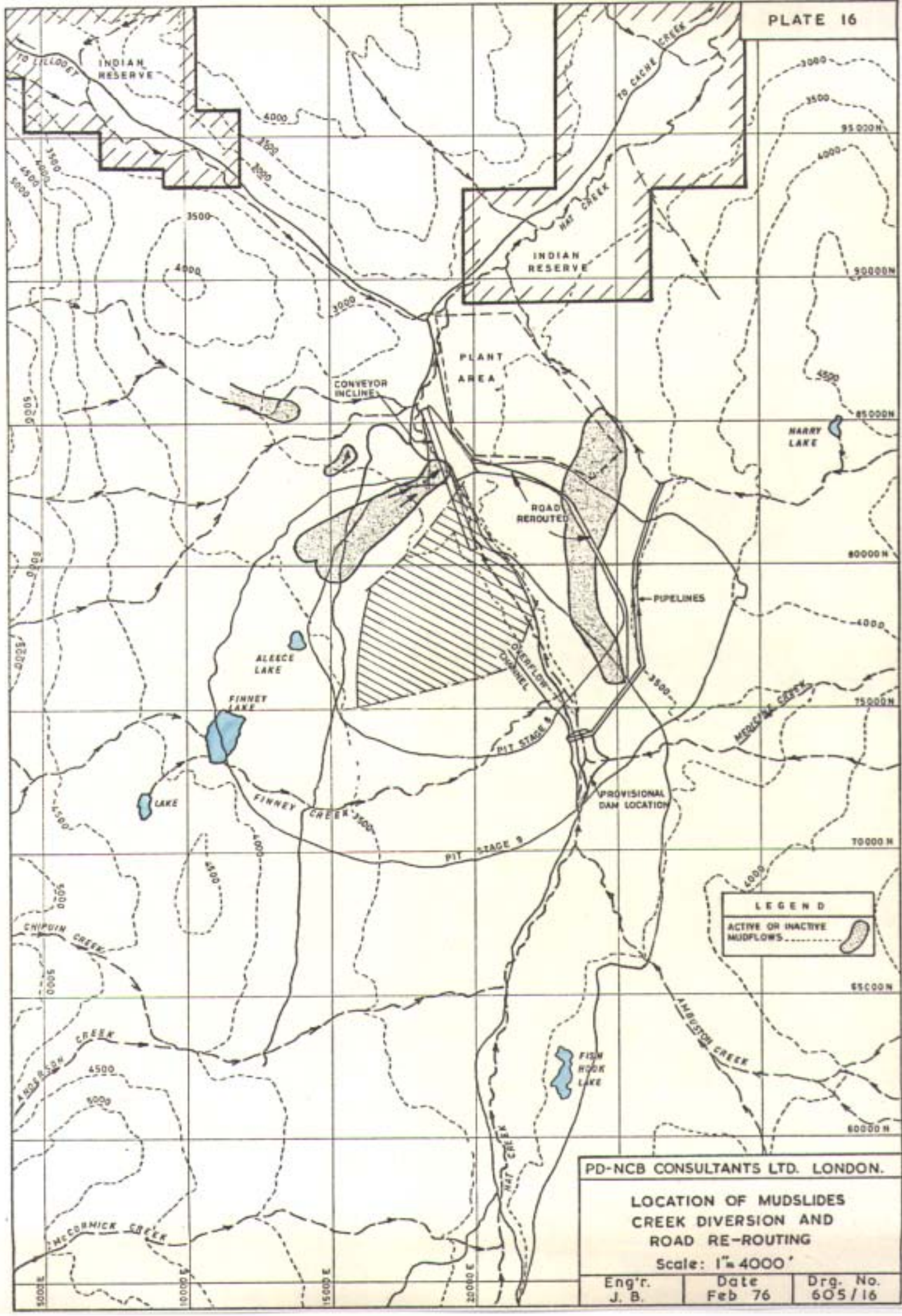
LEGEND OF SYMBOLS USED ON GEOLOGICAL PLANS AND SECTIONS

- Coal 
- Superficial deposits 
- Borehole on plan with reference no. 
- Borehole on section with reference no. 
- Fault on plan with direction of downthrow 
- Fault on section with direction of throw 
- Contours within area of incrop 
(value in feet above datum)
- Contours outside area of incrop 
(value in feet above datum)
- Isopachytes (value in feet) 

ABBREVIATIONS

- Ss = Sandstone
- Carb = Carbonaceous
- Sh = Shale
- Cl = Claystone
- Sl = Siltstone
- Ag = Agglomerate
- Cg = Conglomerate
- Br = Breccia
- C = Coaly
- Bas = Basalt

PD-NCB Consultants Ltd. London.		
Eng'r J. B.	Date Mar. 76	Drg. No. 605/15

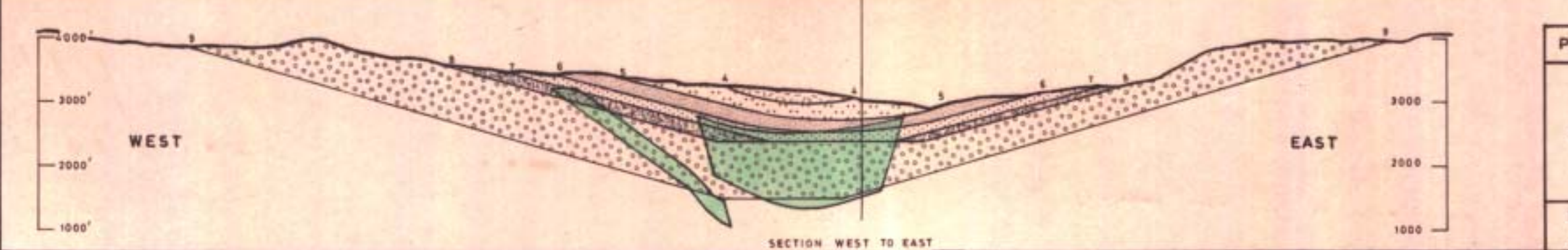
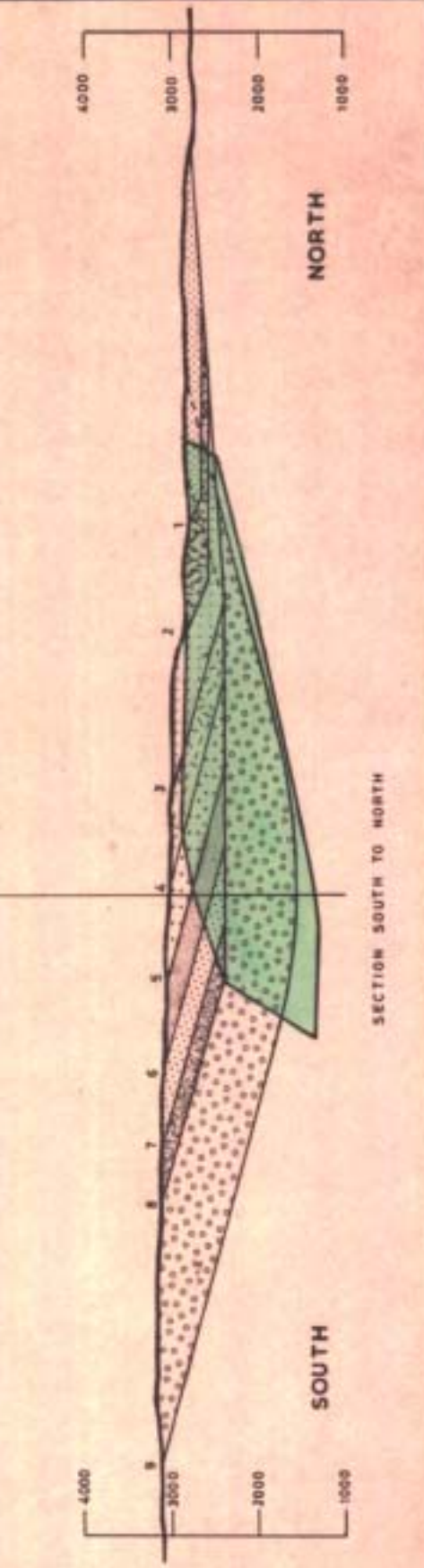
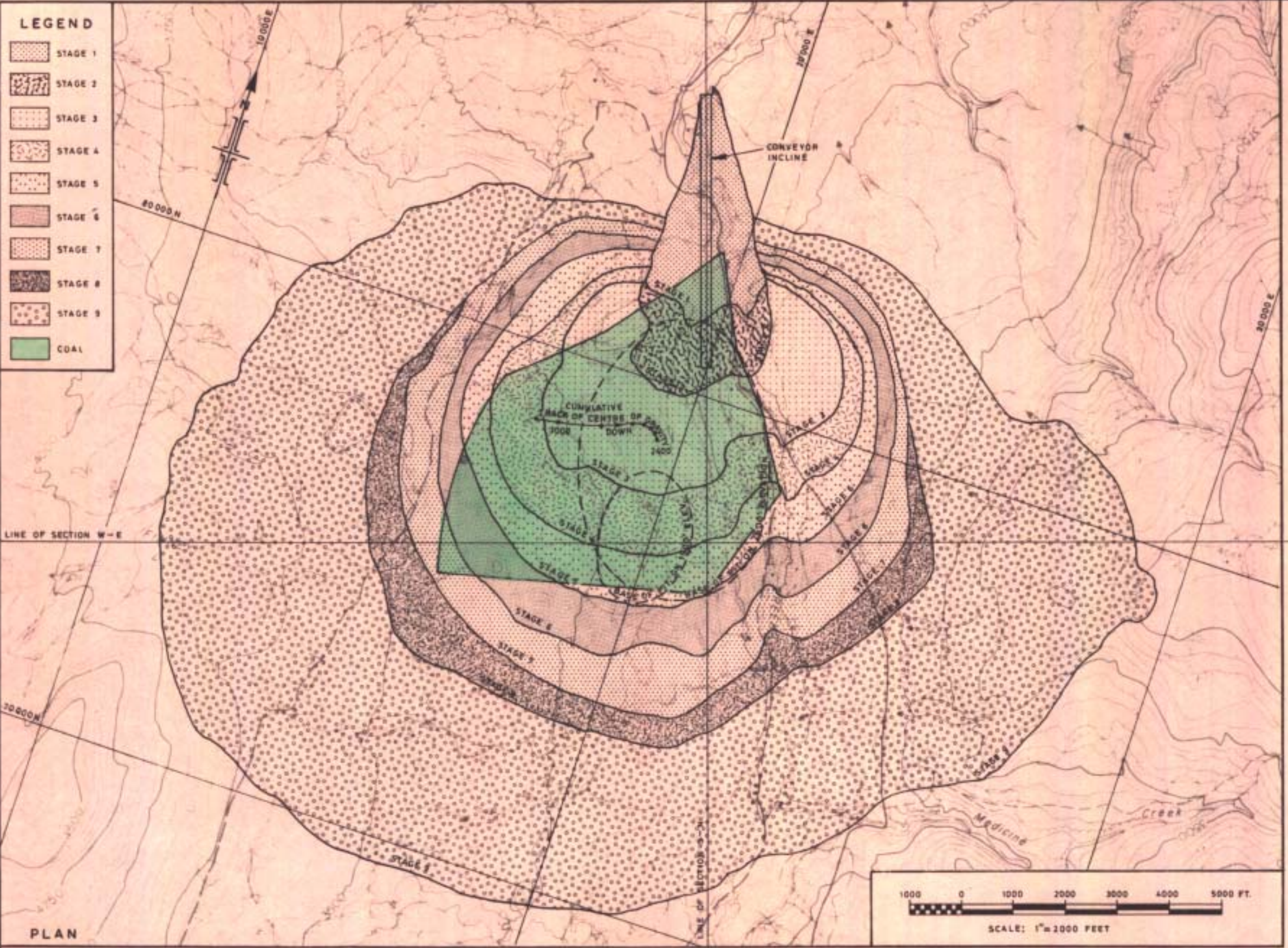


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**LOCATION OF MUDSLIDES
CREEK DIVERSION AND
ROAD RE-ROUTING**

Scale: 1" = 4000'

Eng'r. J. B.	Date Feb 76	Dwg. No. 605/16
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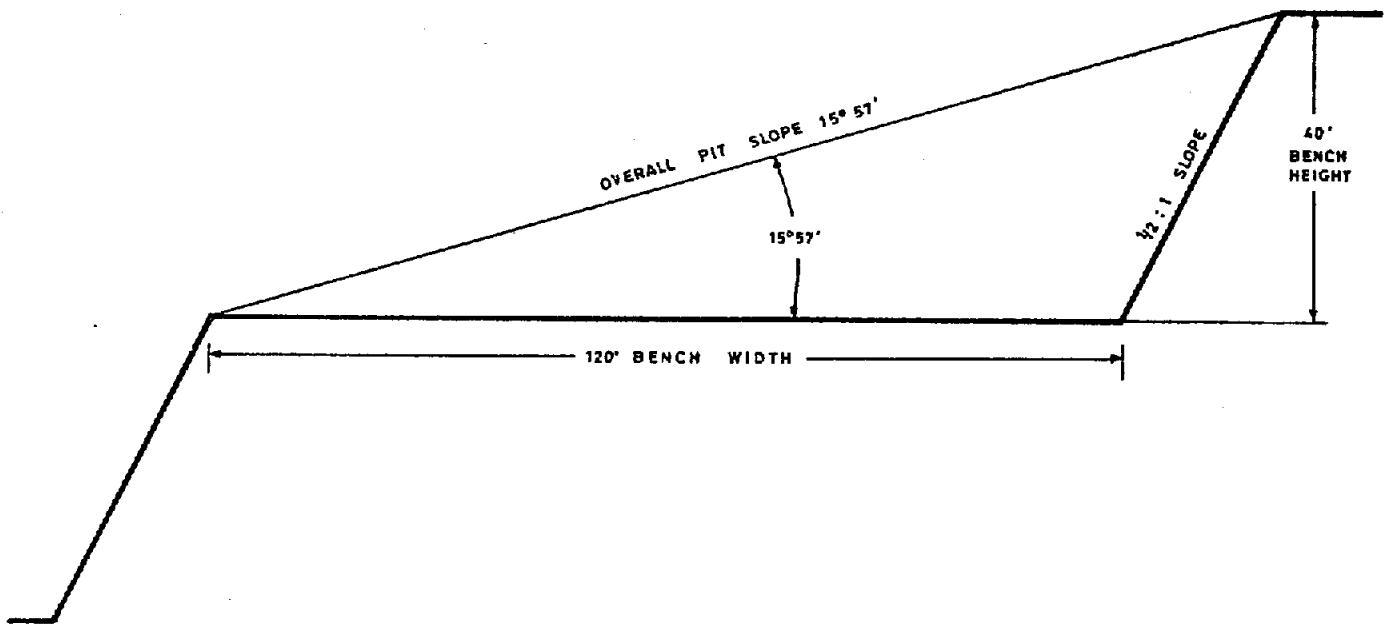
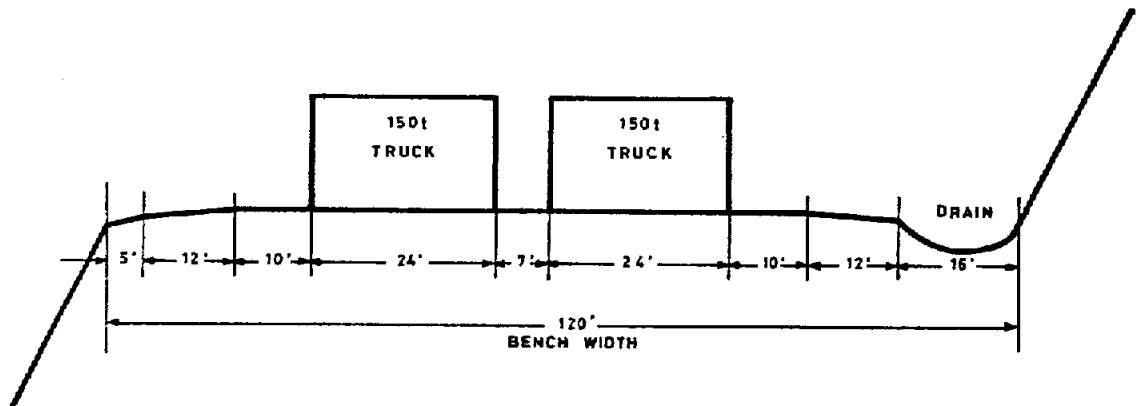


PD-NCB CONSULTANTS LTD. LONDON.

HAT CREEK No. 1 DEPOSIT
STAGES OF PIT DEVELOPMENT
TO 1500 FEET ELEVATION
(SURFACE INTERCEPTS)

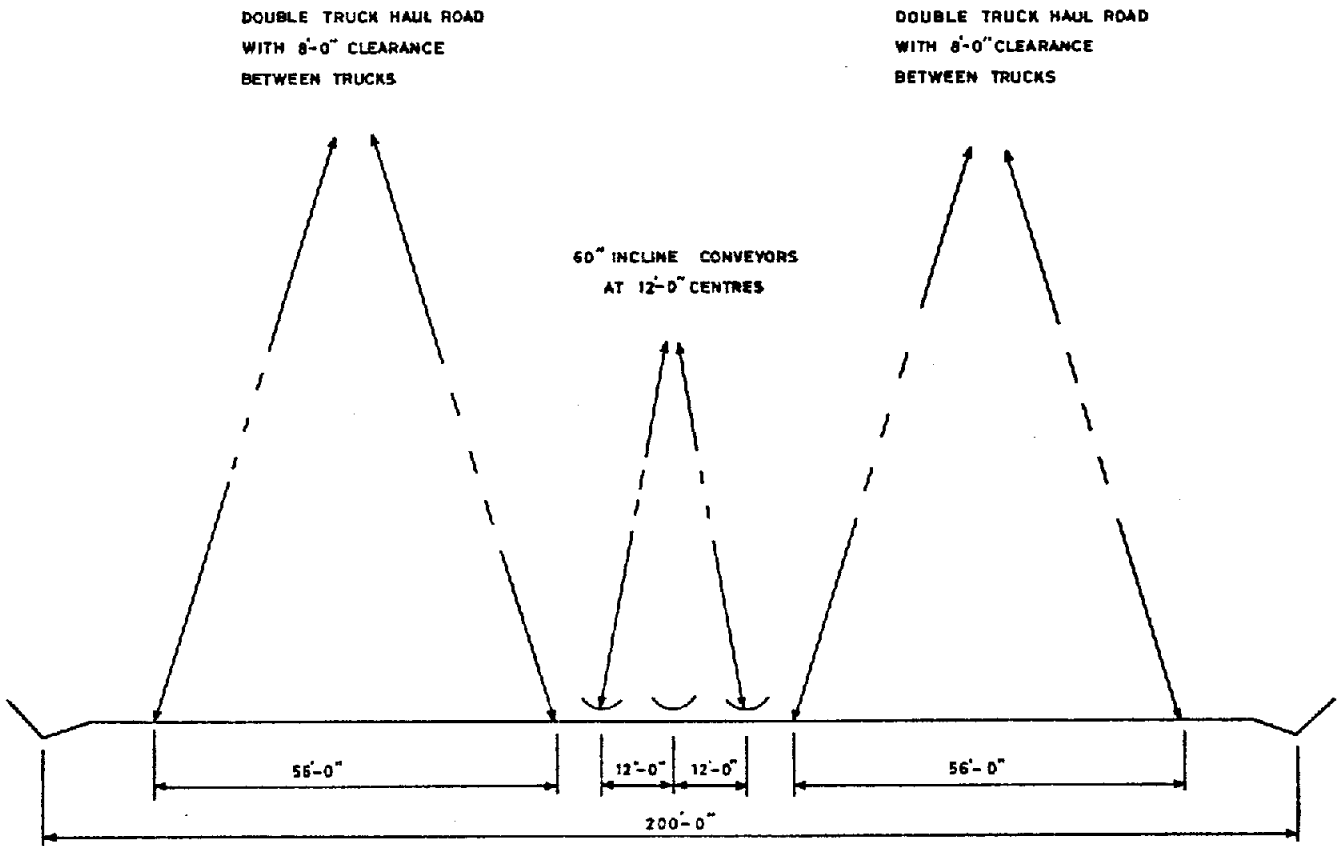
Eng'r. J. B.	Date Feb 1976	Drg. No. 605/17
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PROPOSED BENCH ARRANGEMENT USING 150 TON TRUCKS
AND WORKING BENCH OVERALL SLOPE



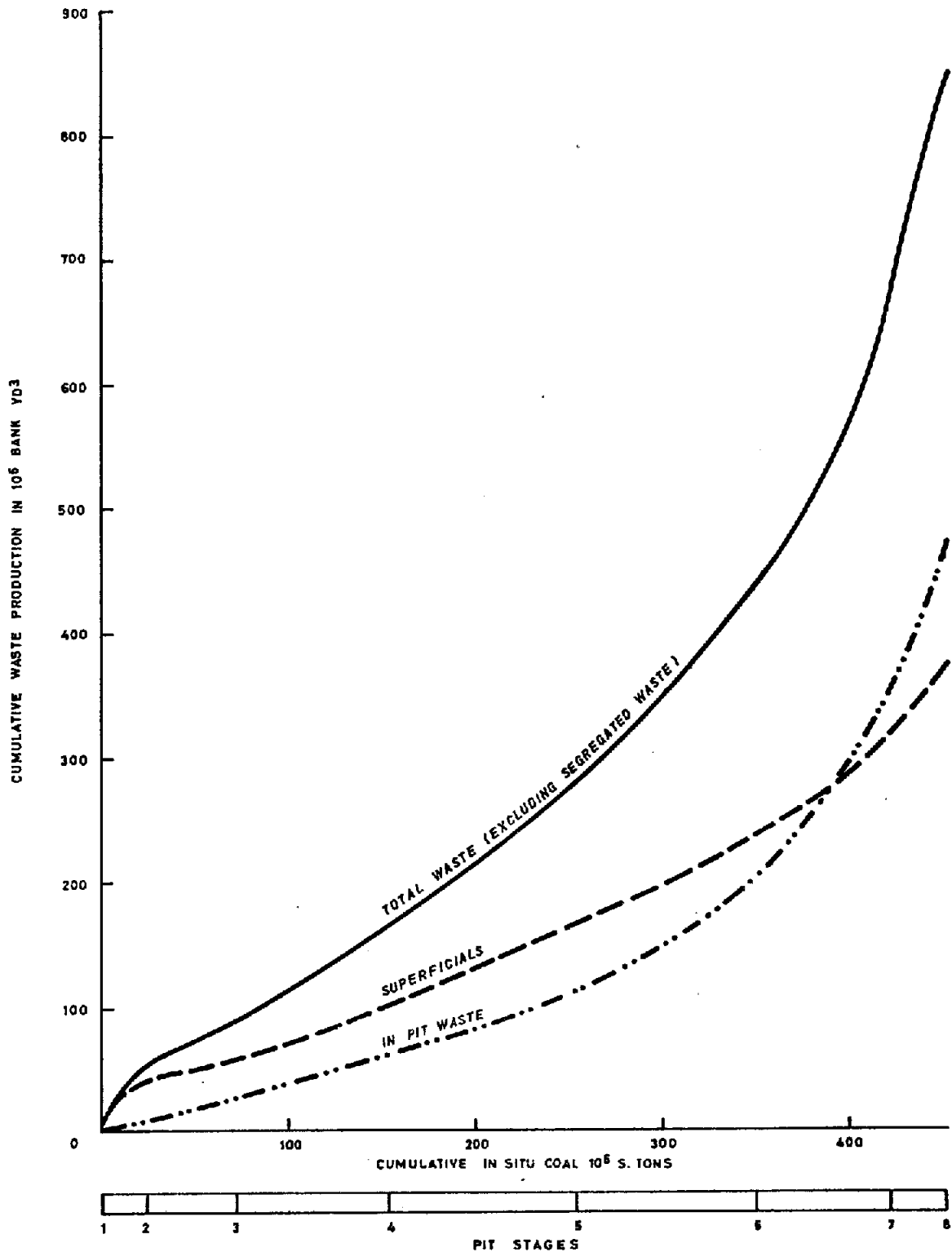
PD-NCB Consultants Ltd. London.		
Eng'r. J. B.	Date Oct 75	Drg. No. 605/18

MAIN INCLINE- CONVEYOR AND HAUL ROAD ARRANGEMENT



PD-NCB Consultants Ltd., London.		
Eng r. W.Y.	Date Feb 76	Drg. No. 605/19

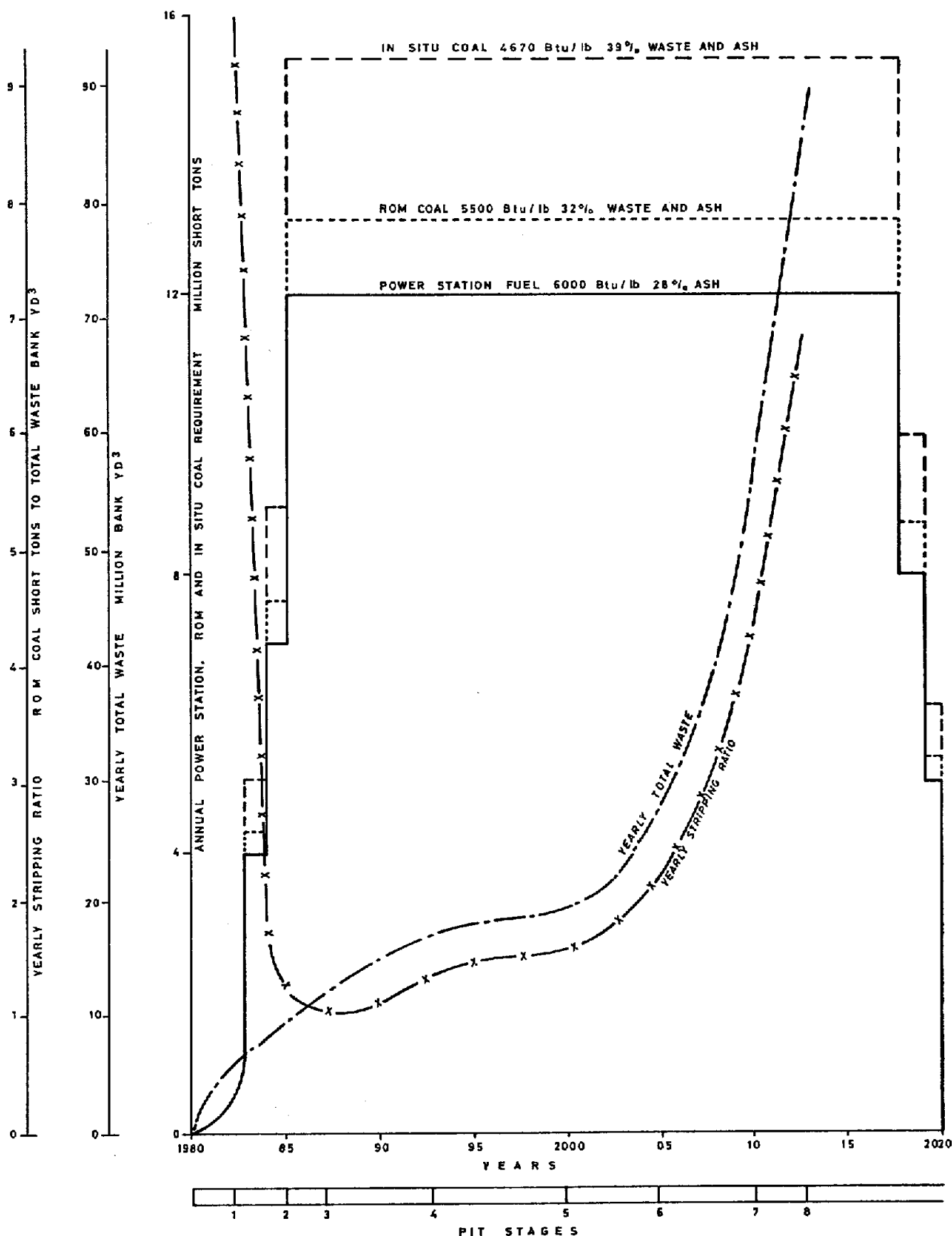
CUMULATIVE VOLUMES OF WASTE
VERSUS CUMULATIVE TONNAGE OF IN SITU COAL



PD-NCB Consultants Ltd
London.

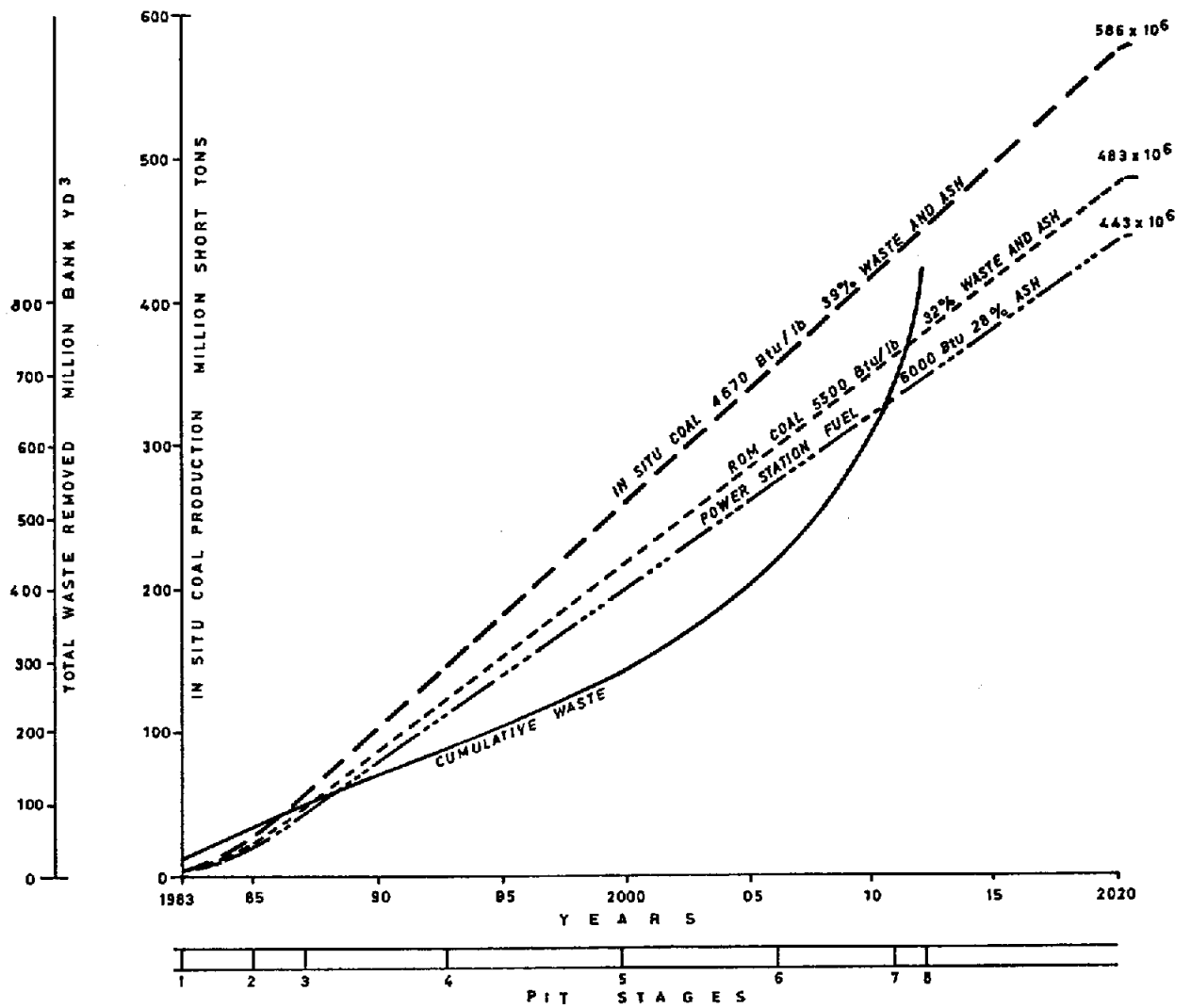
Eng'r M.A	Date Mar 76	Drg. No. 605/20
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COAL REQUIREMENTS FOR A 3 x 750 MW POWER STATION
 YEARLY WASTE REMOVAL
 YEARLY STRIPPING RATIO



PD-NCB Consultants Ltd., London		
Eng'r. J. B.	Date Aug. 76	Drg. No. 605/21

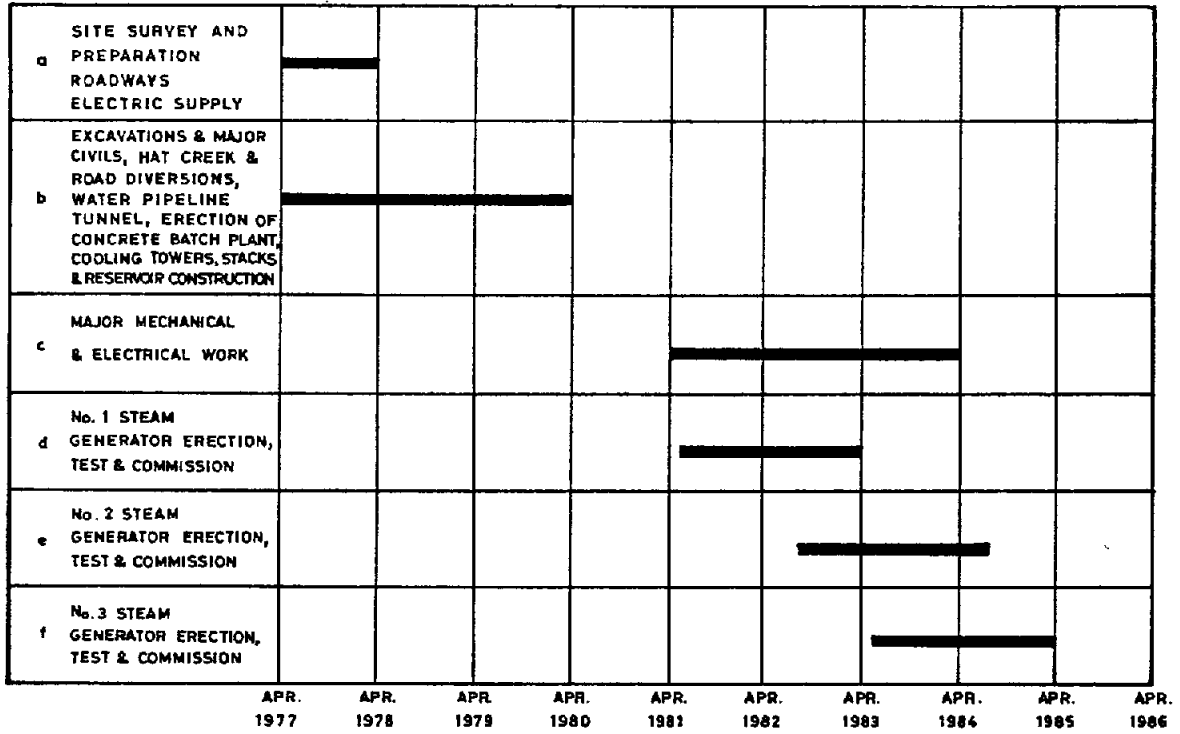
CUMULATIVE COAL REQUIREMENTS FOR A 3 x 750 MW POWER STATION
AND CUMULATIVE WASTE REMOVAL



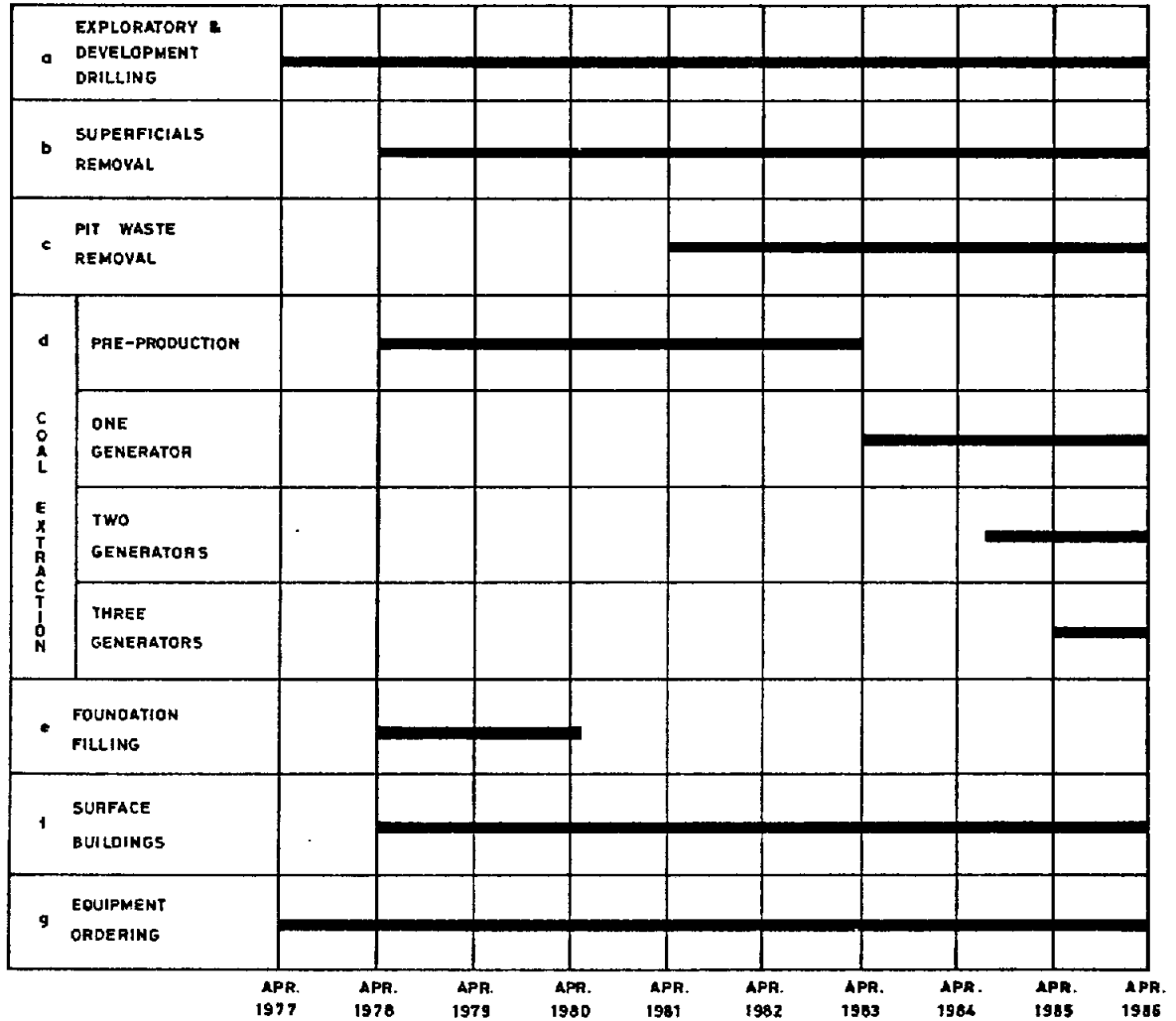
PD-NCB Consultants Ltd, London.		
Eng'r. J. B.	Date Aug. 76	Drg. No. 605/22

CONSTRUCTION SCHEDULES

A. Construction schedule for 3x 750 MW power station

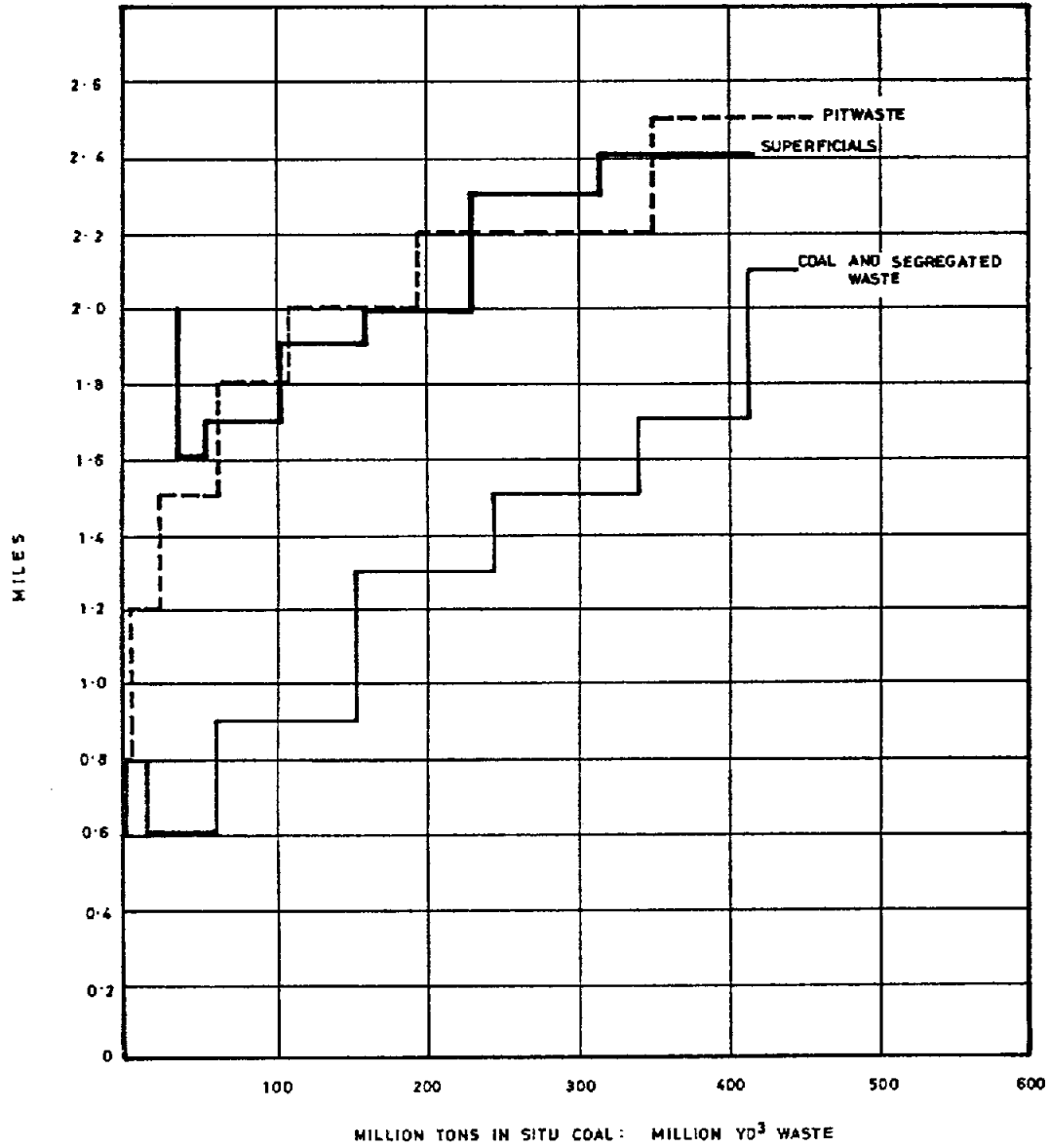


B. Openpit No. 1 development schedule



PD-NCB Consultants Ltd, London.		
Eng'r. M. A.	Date Mar. 76	Drg. No. 605/23

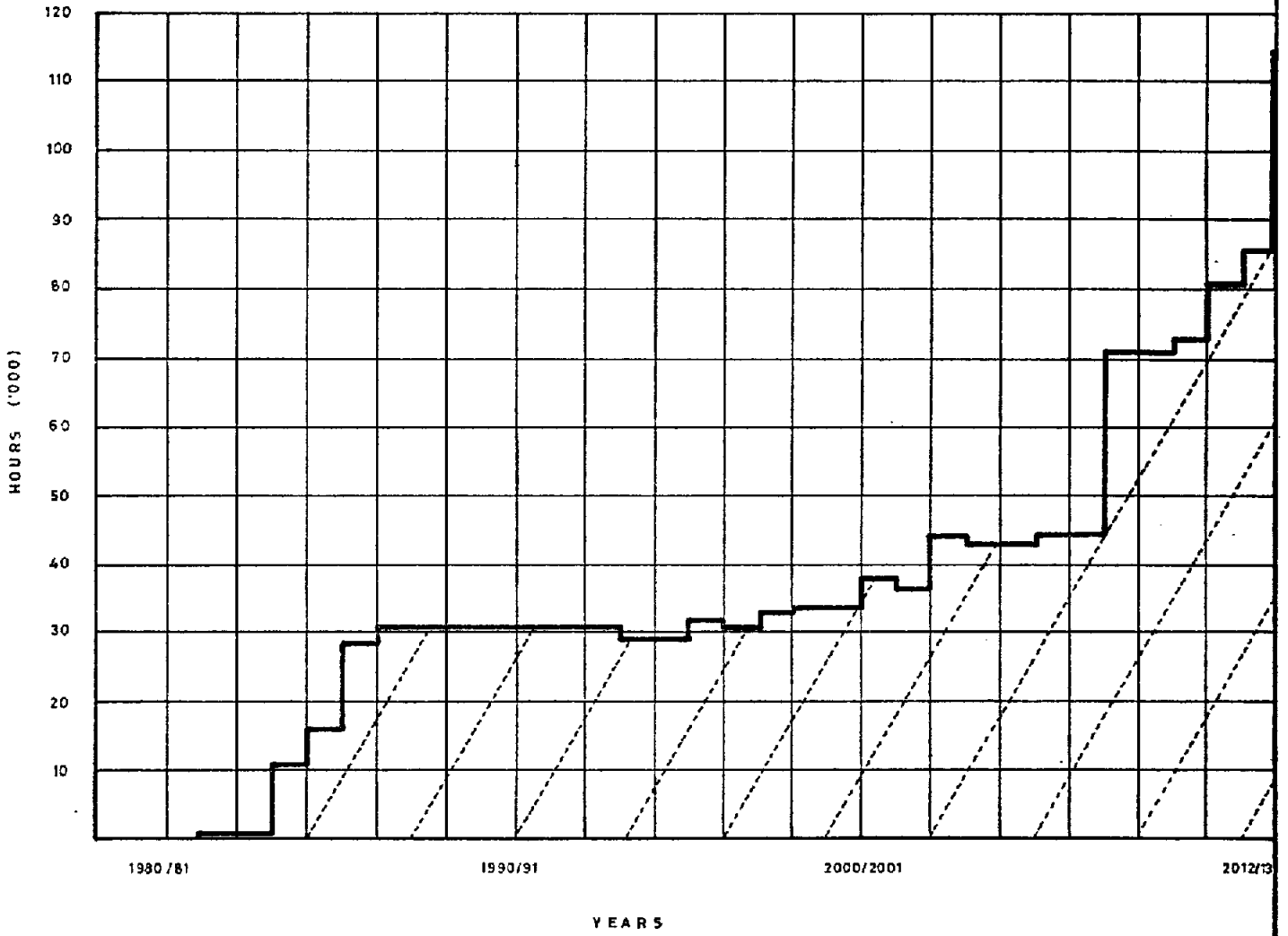
MEAN HAULAGE DISTANCES



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London.

Eng'r. M.A.	Date March 76	Dwg. No. 605/24
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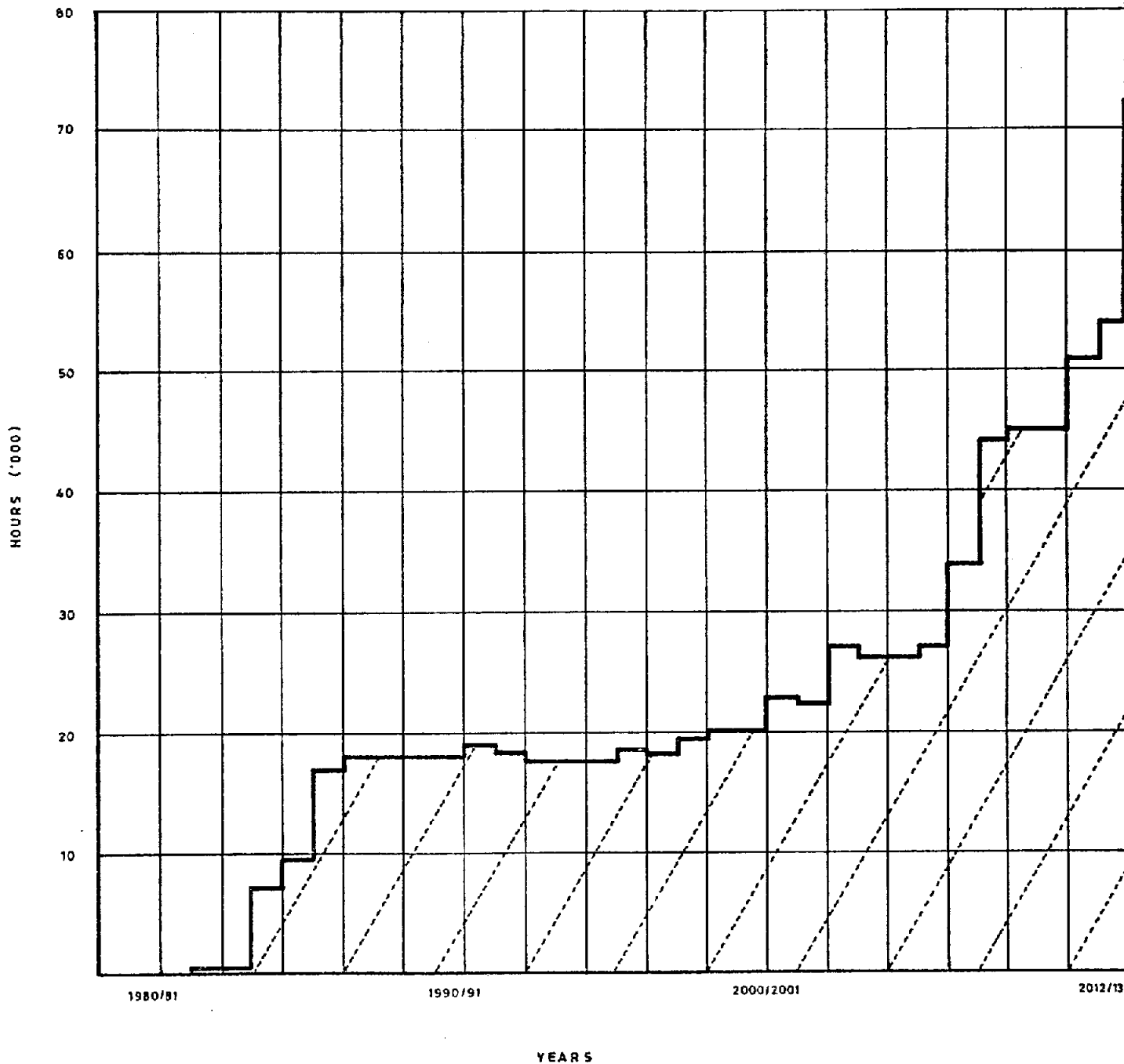
TOTAL DRILLING HOURS



ASSUMED RATE OF PENETRATION - 210 FT. PER HOUR.

PD-NCB Consultants Ltd London.		
Eng'r. M. A.	Date Mar. 76	Drg. No. 605/25

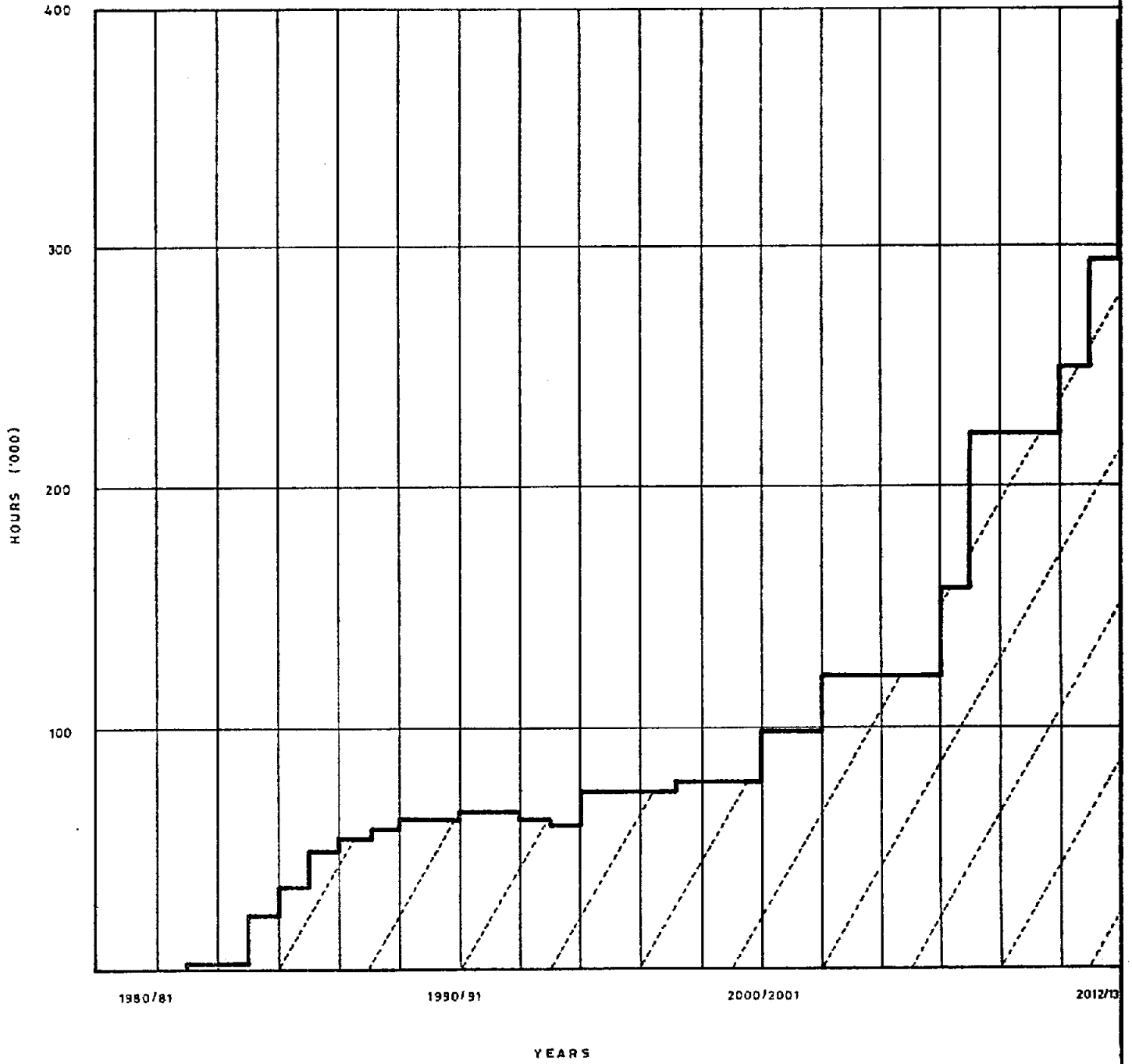
TOTAL SHOVEL HOURS



ASSUMED: PIT WASTE, SOFT;
COAL, MEDIUM HARD

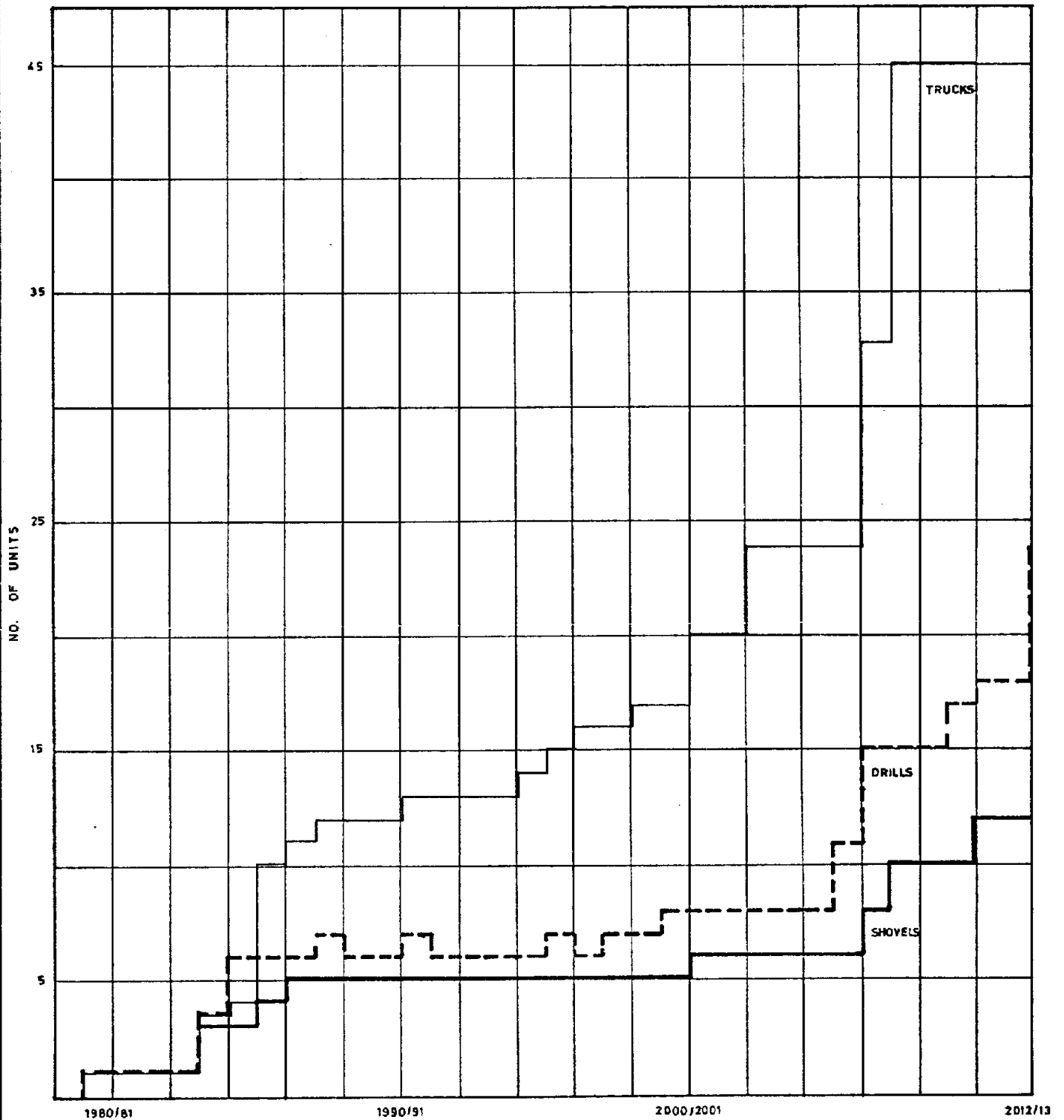
PD-NCB Consultants Ltd. London.		
Eng'r. M. A.	Date Mar. 76	Drg. No. 605/26

TOTAL TRUCK HOURS



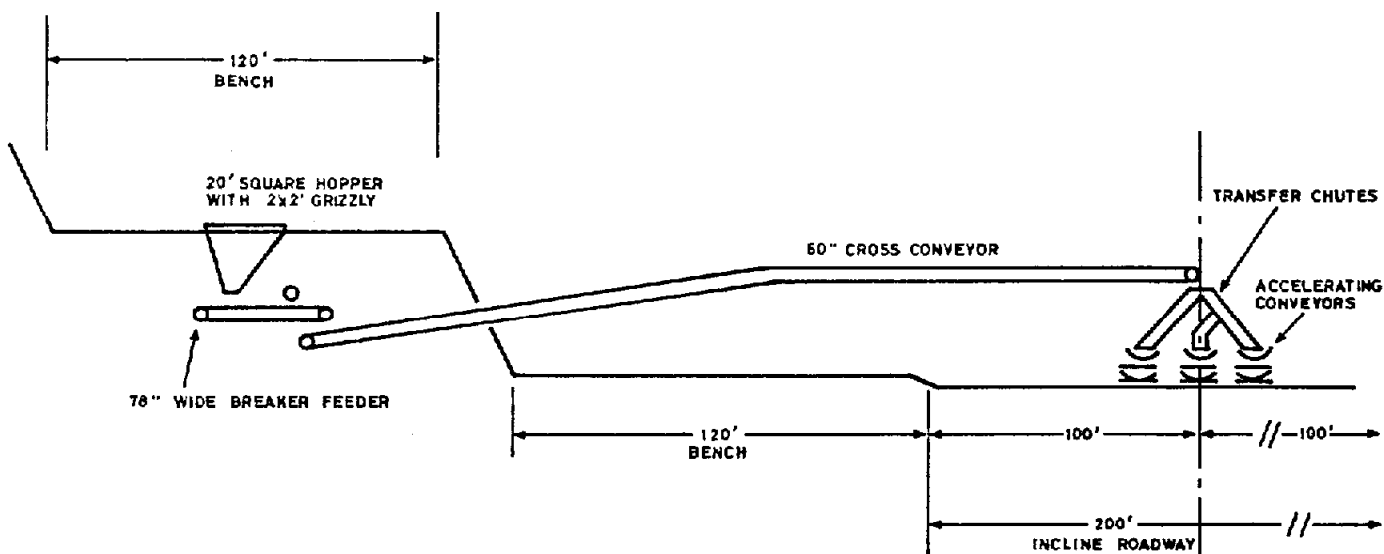
PD-NCB Consultants Ltd. London.		
Eng'r. M. A.	Date Mar. 76	Drg. No. 605/27

MACHINERY REQUIREMENTS

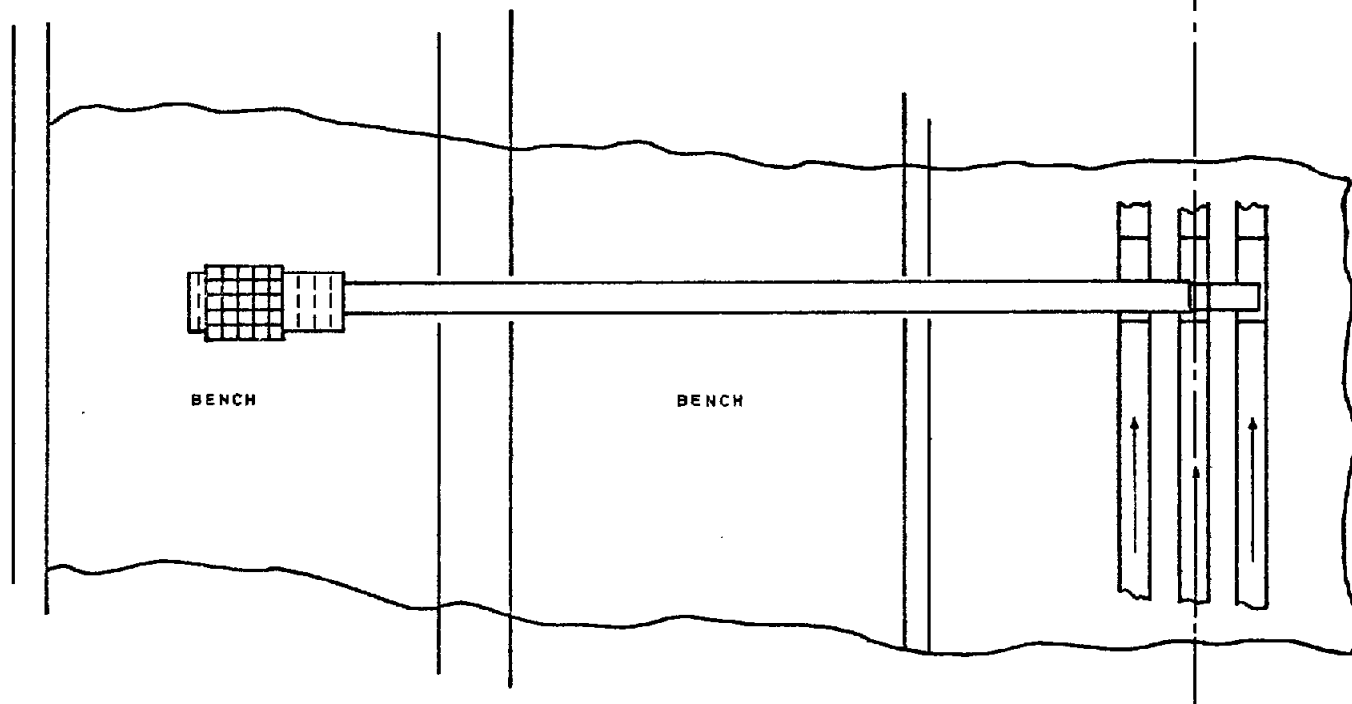


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Eng'r. M.A.	Date. March 76	Dwg. No. 605/28

SCHMATIC IN PIT BREAKER FEEDER TRANSFER STATION



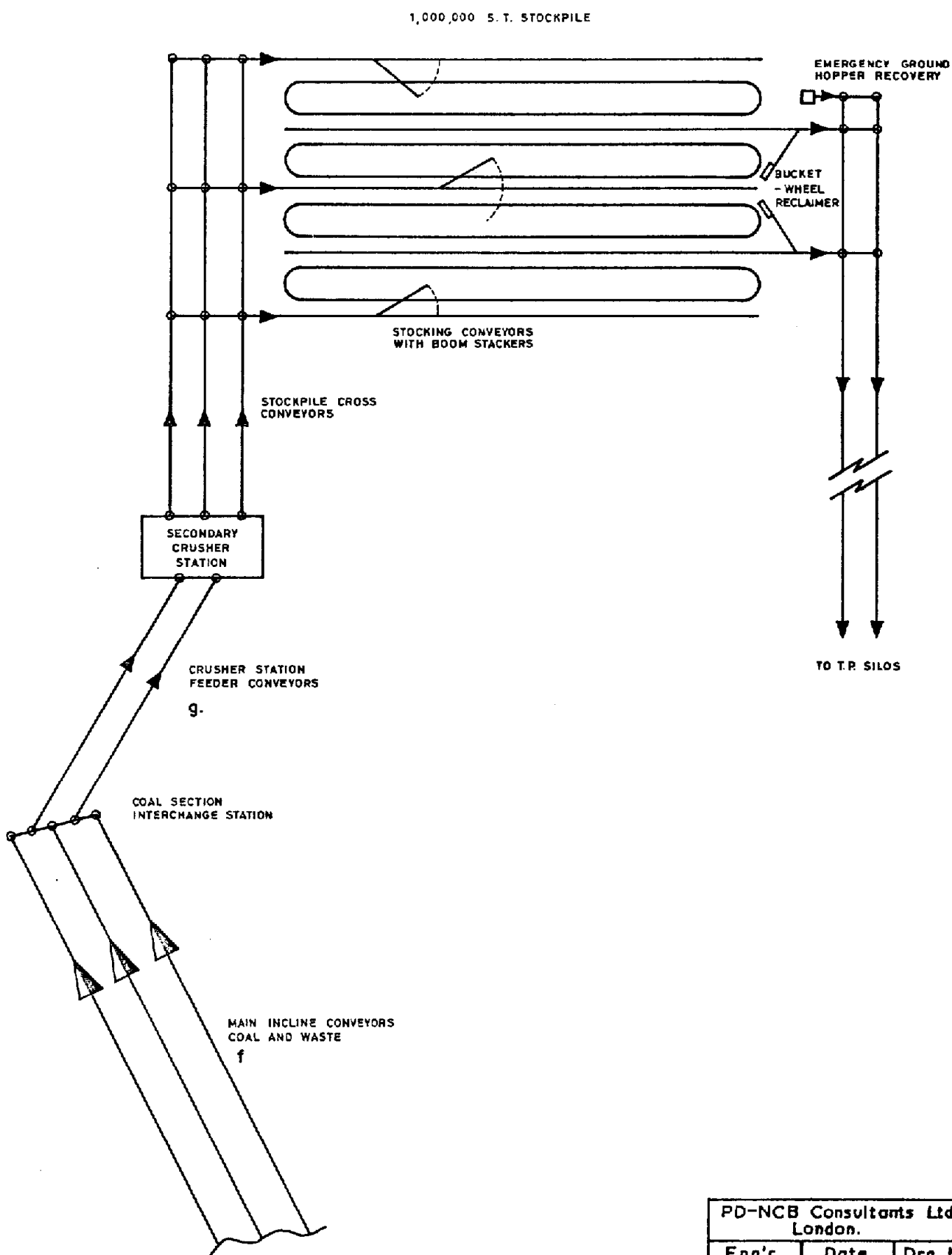
Section



Plan

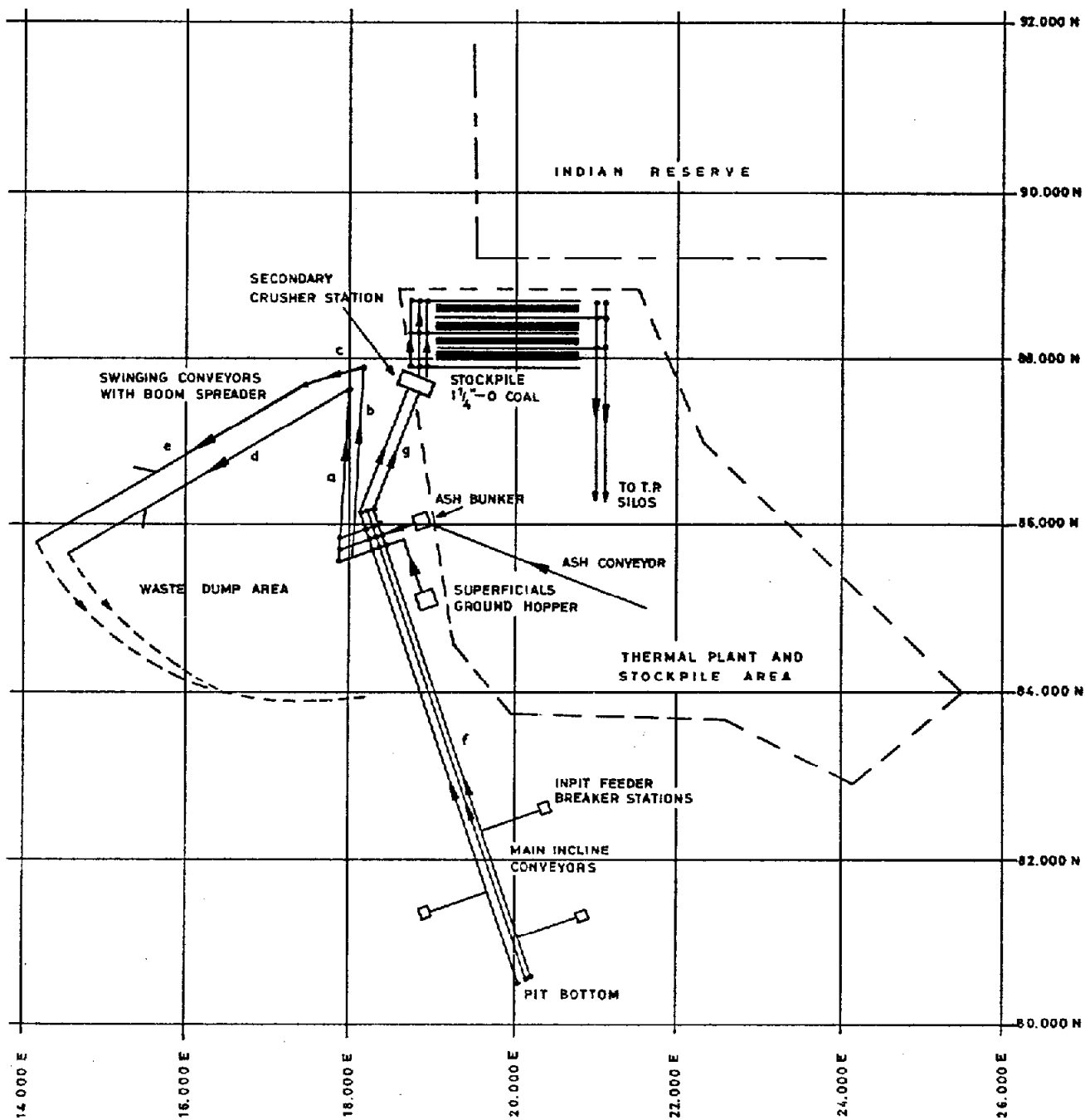
PD-NCB Consultants Ltd London.		
Eng'r. W. Y.	Date April 76	Drg. No. 605/29

SCHMATIC LINE DIAGRAM OF PROPOSED STOCKPILING ARRANGEMENT



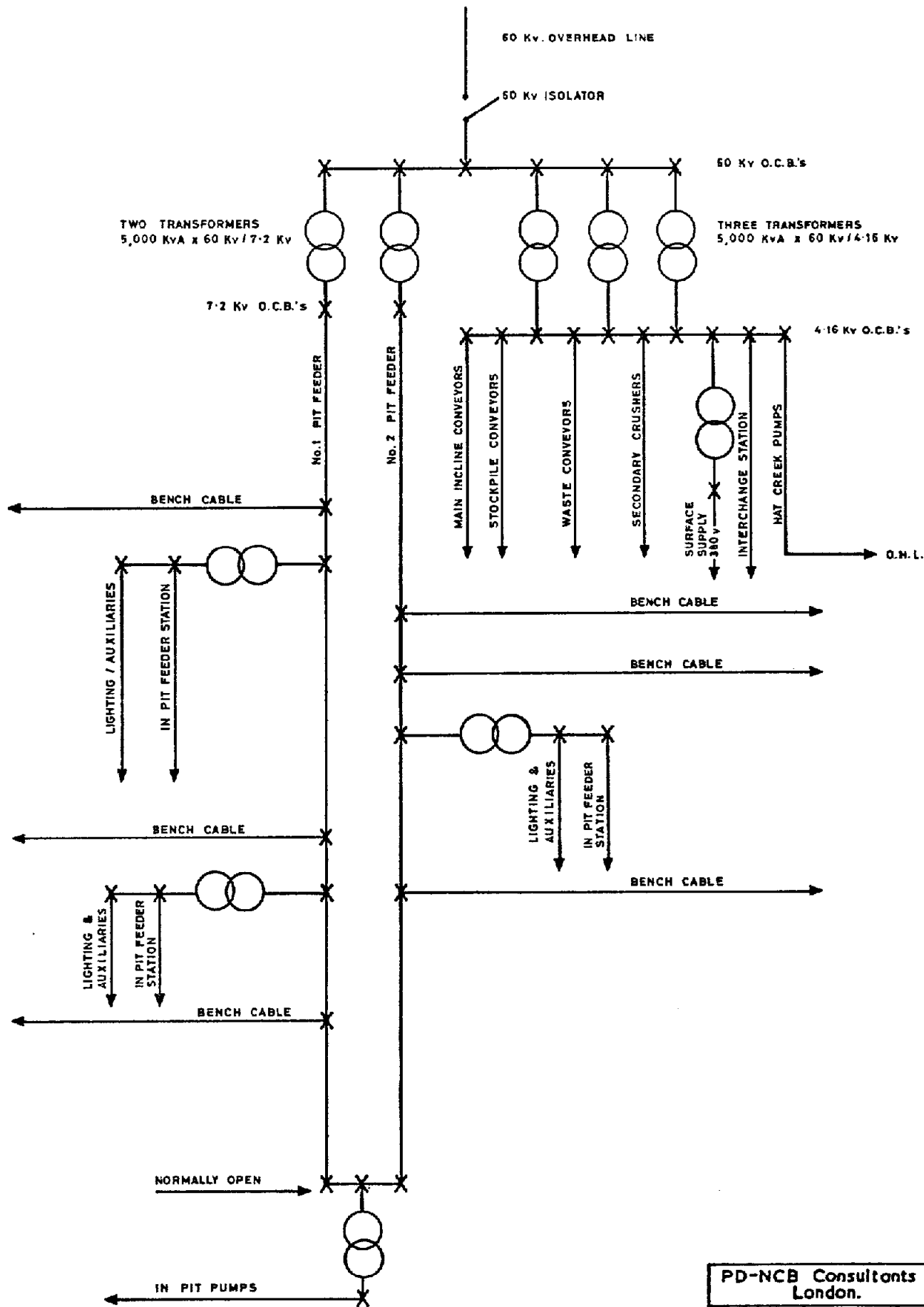
PD-NCB Consultants Ltd London.		
Eng'r. W. Y.	Date April 76	Drg. No. 605/30

PROPOSED CONVEYOR - STOCKPILE AND WASTE DUMP LAYOUT



PD-NCB Consultants Ltd., London		
Eng'r. W. Y.	Date Mar. 76	Drg. No. 605/31

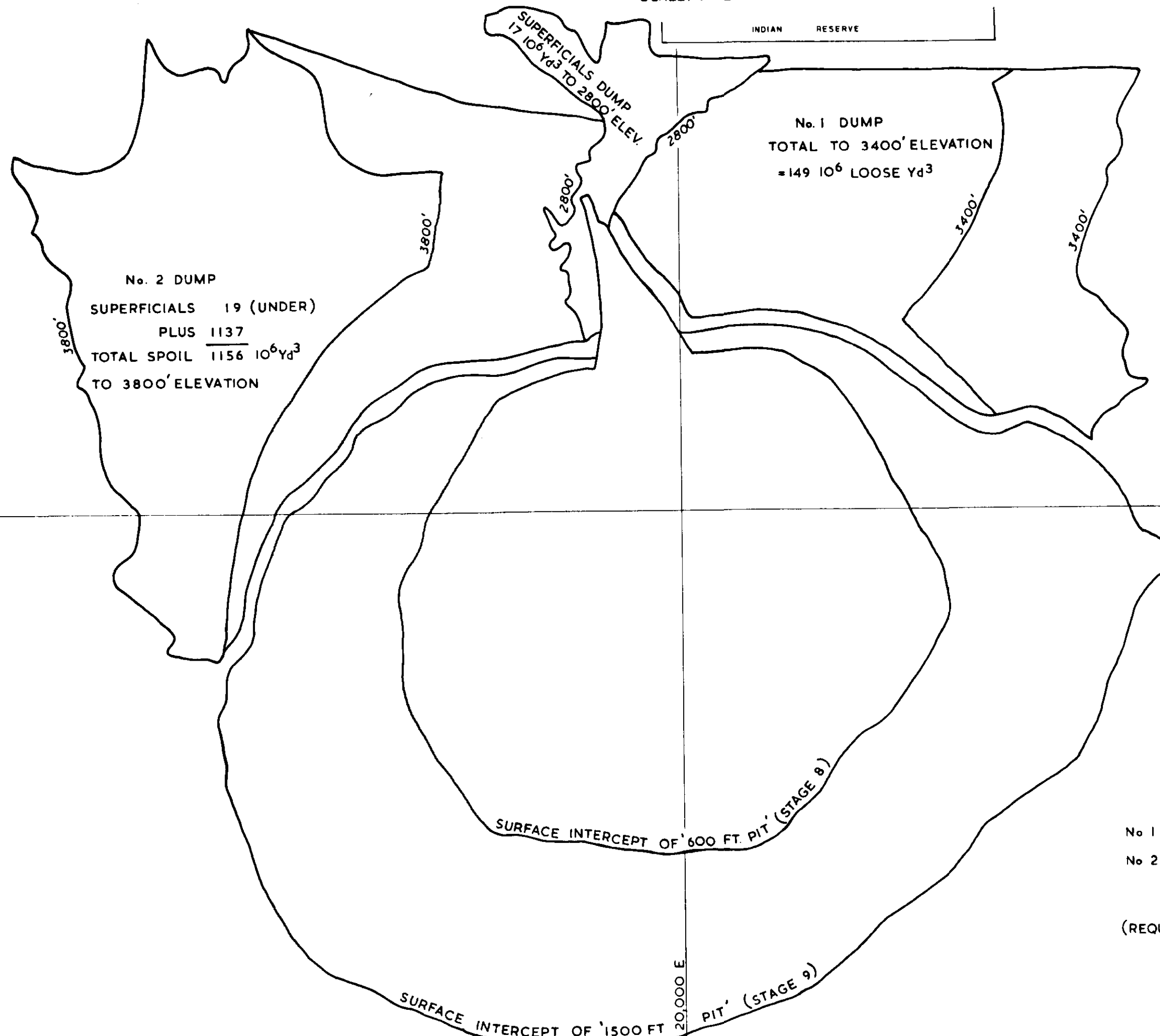
CONCEPTUAL H.T. POWER DISTRIBUTION - ULTIMATE PIT



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Eng'c W. Y.	Date April 76	Drg. No. 605/32

PLAN OF SUPERFICIALS PIT WASTE AND ASH DISPOSAL AREAS
 600 FT. PIT
 SCALE: 1" = 2000'

INDIAN RESERVE



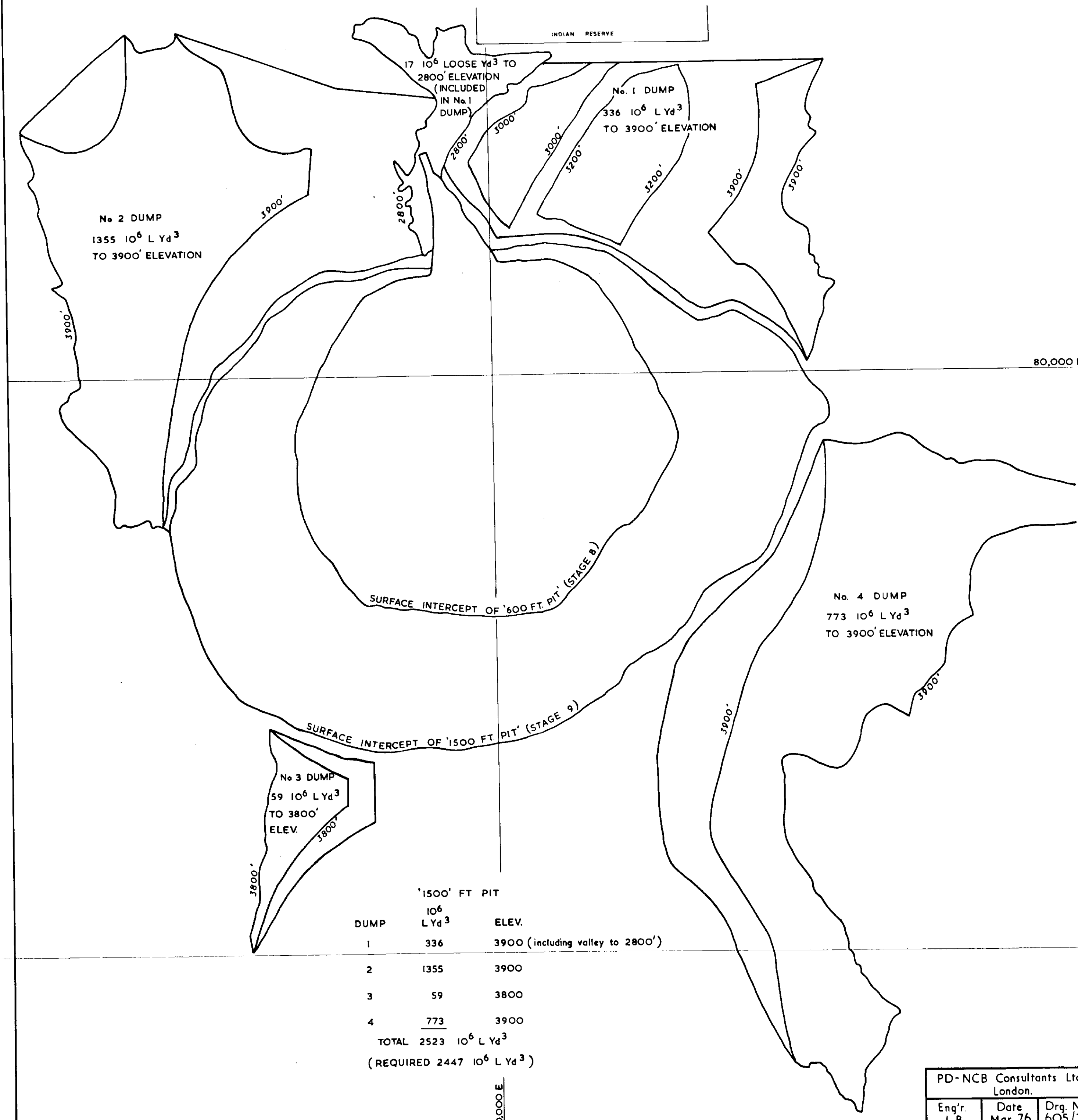
600' FT PIT

	10 ⁶ L Yd ³	ELEV.
No 1 DUMP	149	3400 (includes valley to 2800')
No 2 DUMP	1156	3800
TOTAL	1305	

(REQUIRED 1267 10⁶ L.Yd³)

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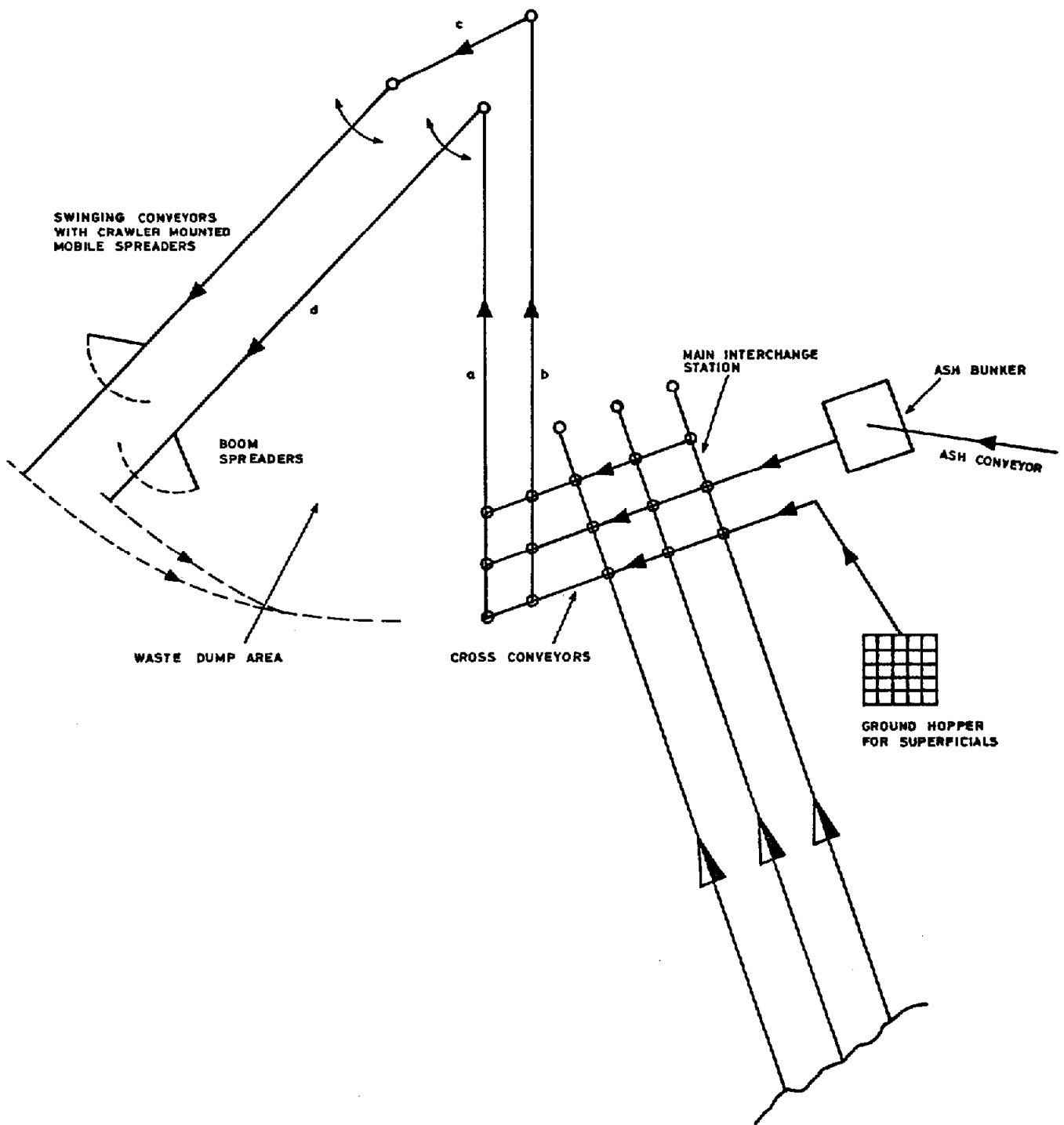
PLAN OF SUPERFICIALS PIT WASTE AND ASH DISPOSAL AREAS
1500 FT. PIT
SCALE: 1" = 2000'



'1500' FT PIT		
DUMP	10 ⁶ LYd ³	ELEV.
1	336	3900 (including valley to 2800')
2	1355	3900
3	59	3800
4	773	3900
TOTAL		2523 10 ⁶ LYd ³
		(REQUIRED 2447 10 ⁶ LYd ³)

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London.
Eng'r. J. B. Date Mar. 76 Drg. No. 605/34

SCHMATIC LINE DIAGRAM OF PROPOSED WASTE DISPOSAL SCHEME

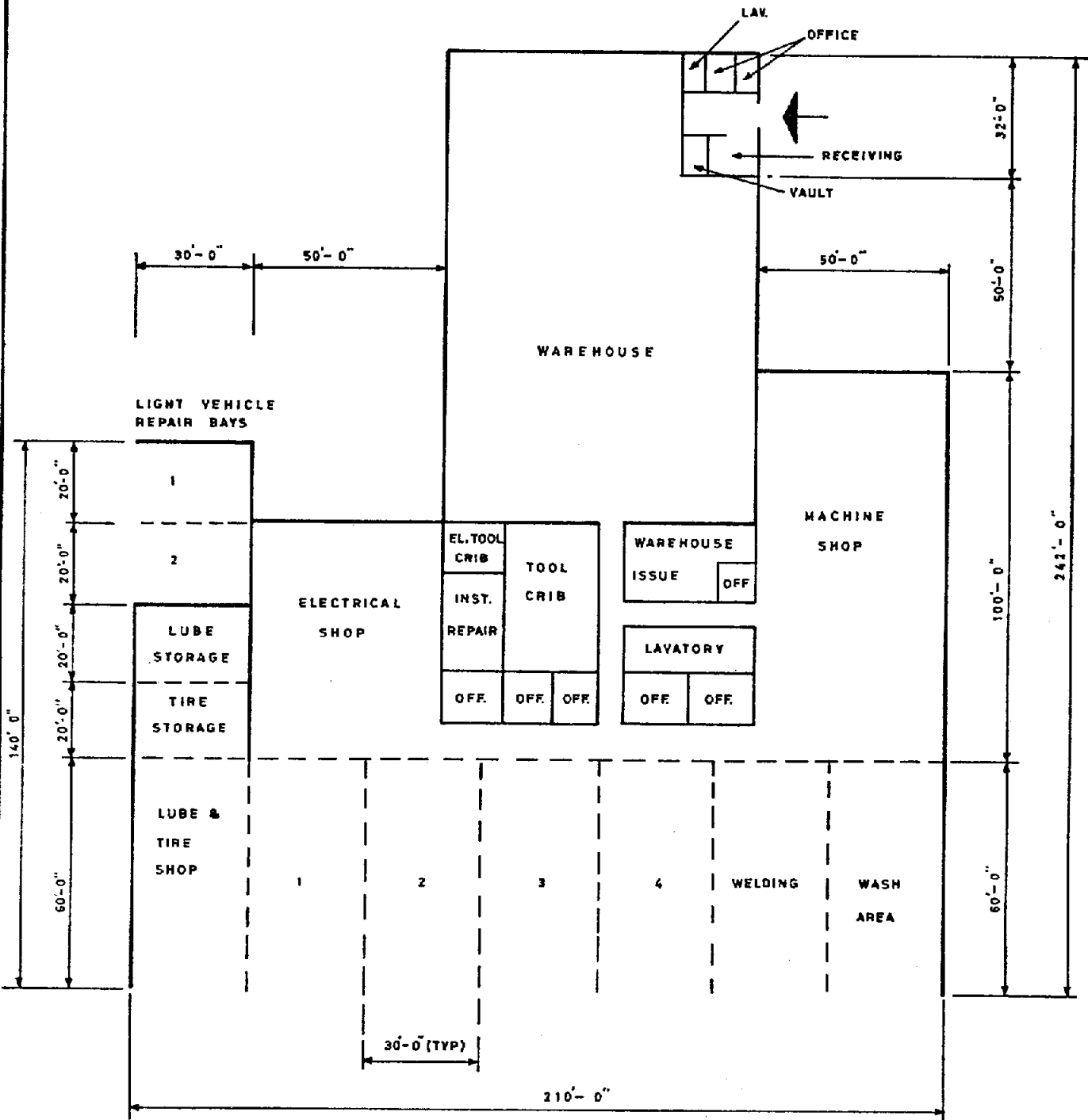


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London.

Eng'r. W. Y.	Date. April 76	Drg. No. 605/35
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SHOPS AND WAREHOUSE

Scale: 1" = 40' 0"

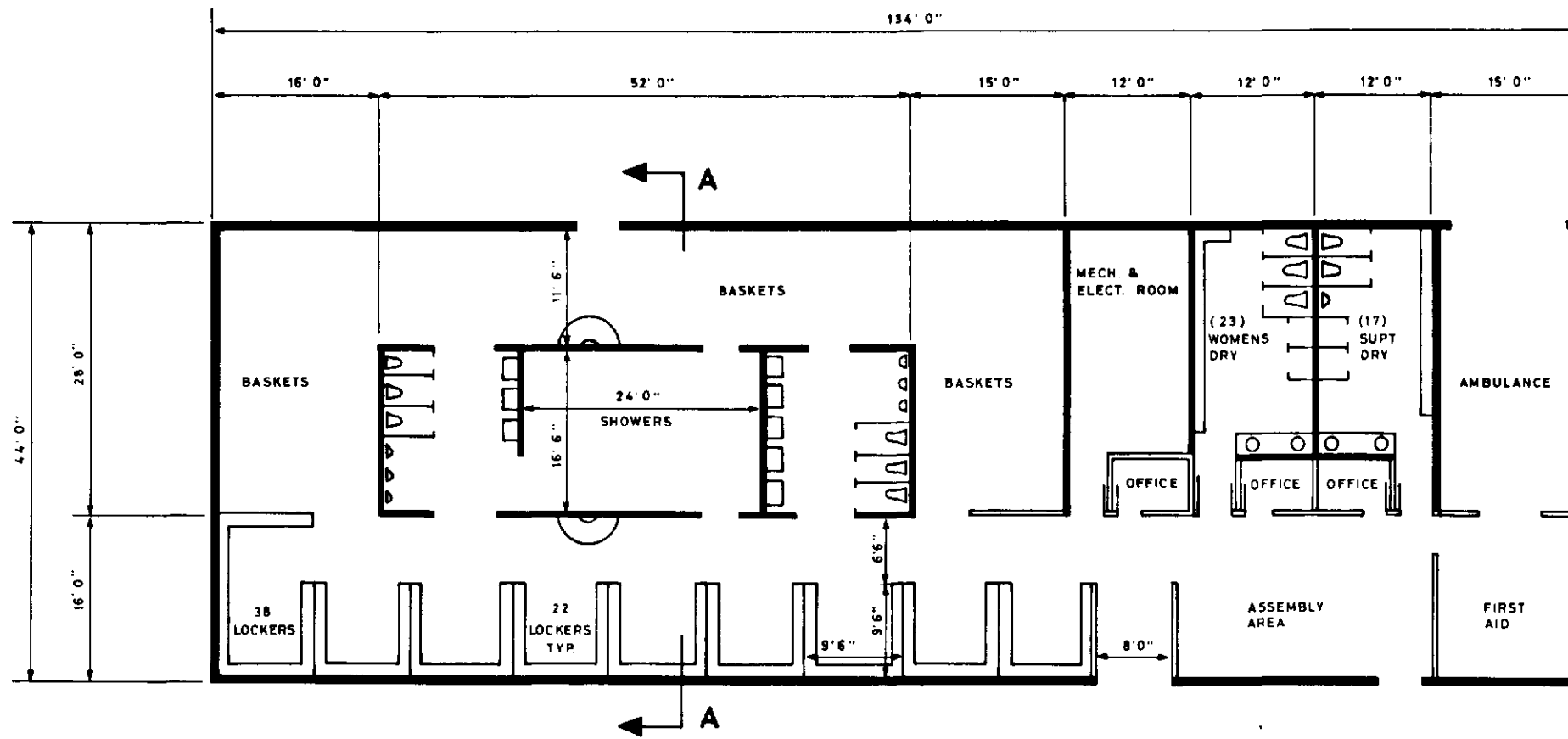


COPIED FROM WRIGHT ENGINEERS LTD. DRAWING

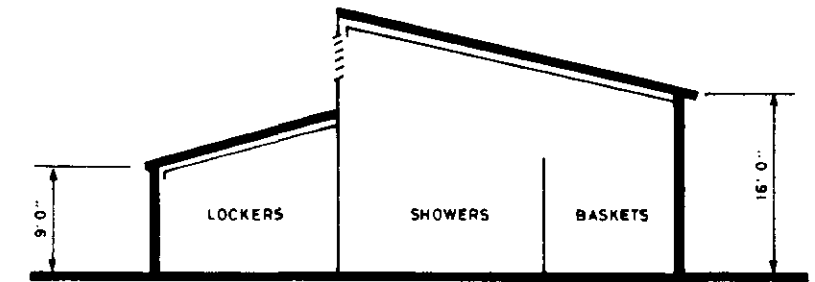
PD-NCB Consultants Ltd, London.		
Eng'r J.B.	Date April 76	Dwg. No. 605/36

CHANGE HOUSE - 247 WORK FORCE

SCALE 1/16" = 1'-0"



PLAN

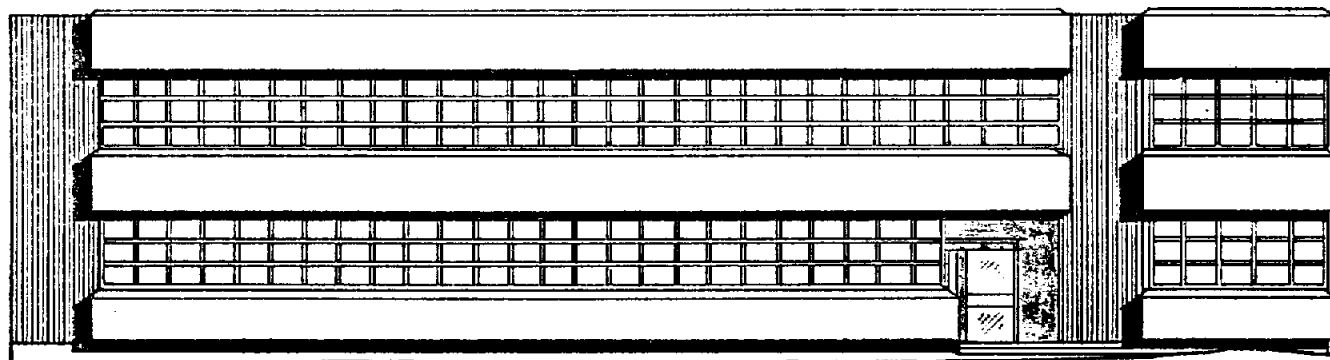


SECTION A-A

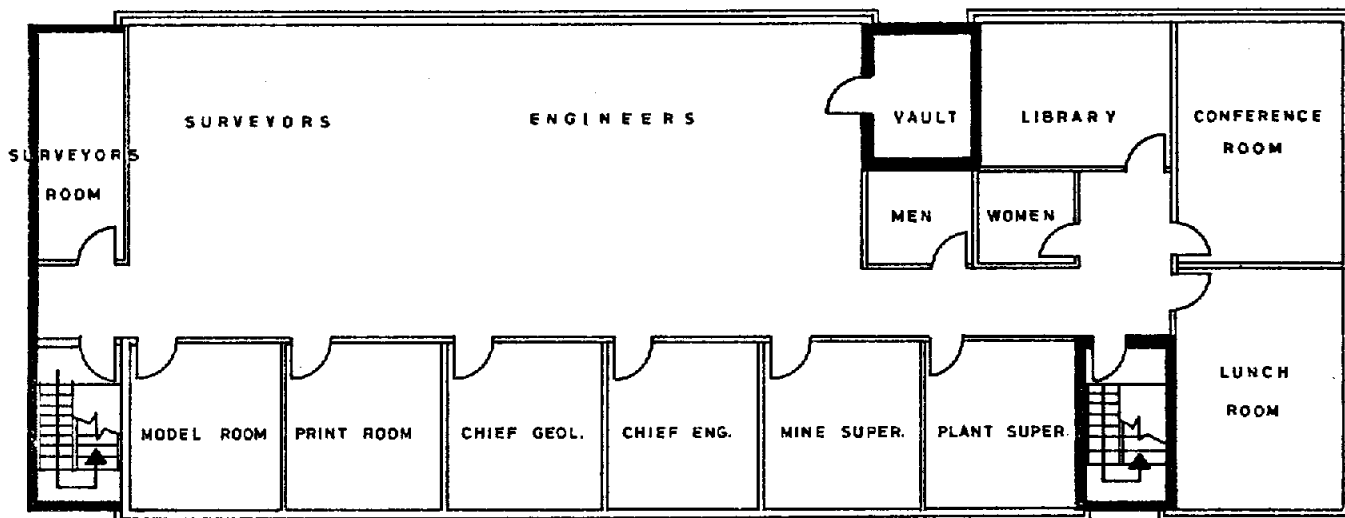
PD-NCB Consultants Ltd. London.		
Eng'r. J. B.	Date April 76	Drg. No. 605/37

ADMINISTRATION BUILDING

Scale: 1/16" = 1'-0"

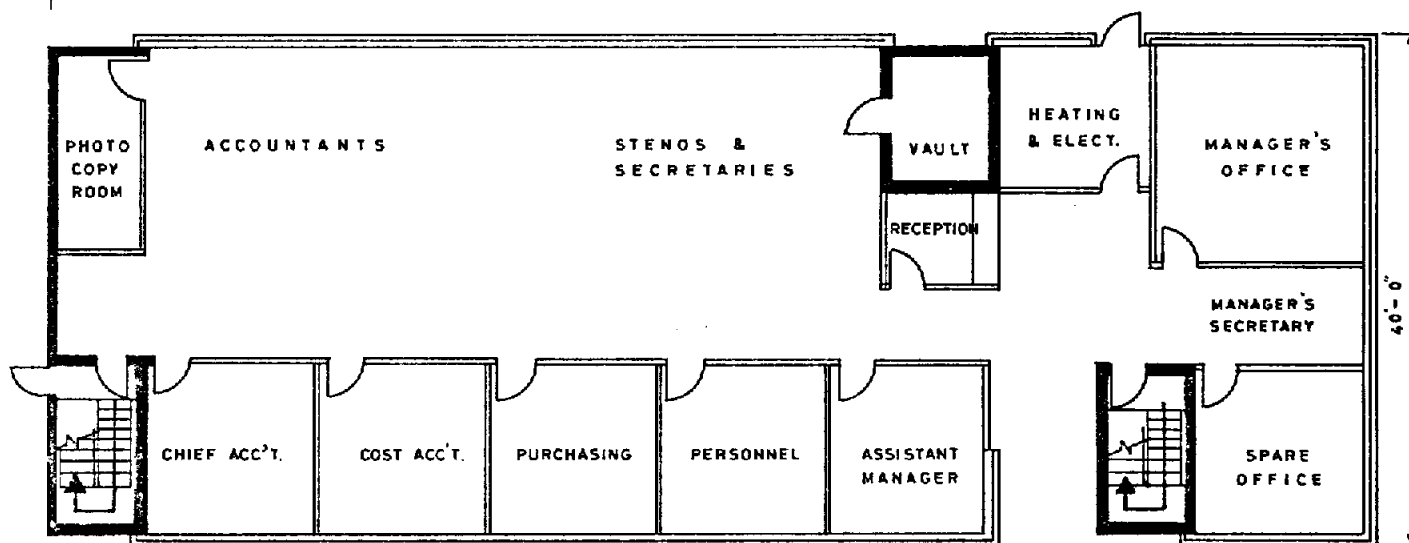


FRONT ELEVATION



SECOND FLOOR PLAN

108'-0"



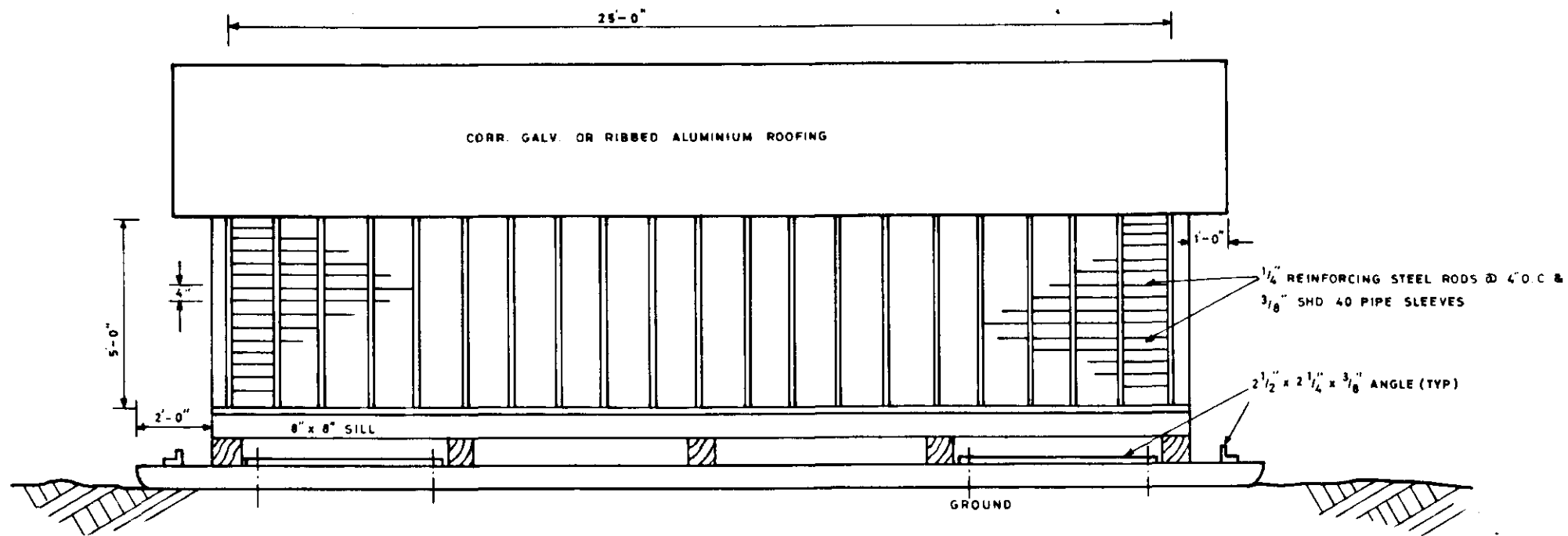
GROUND FLOOR PLAN

PD-NCB Consultants Ltd., London.

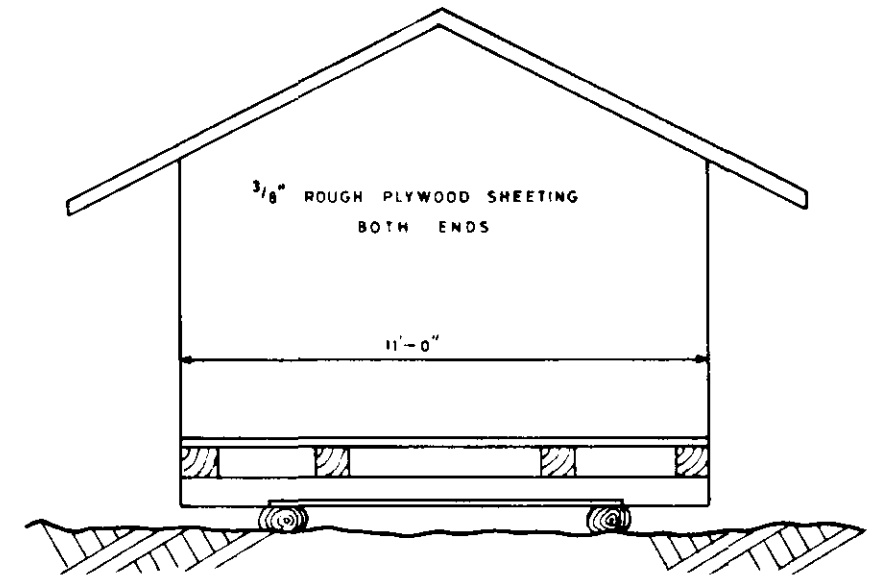
Eng'r. J. B.	Date April 76	Drg. No. 605/38
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CORE SHED

Scale: 1/4" = 1'-0"



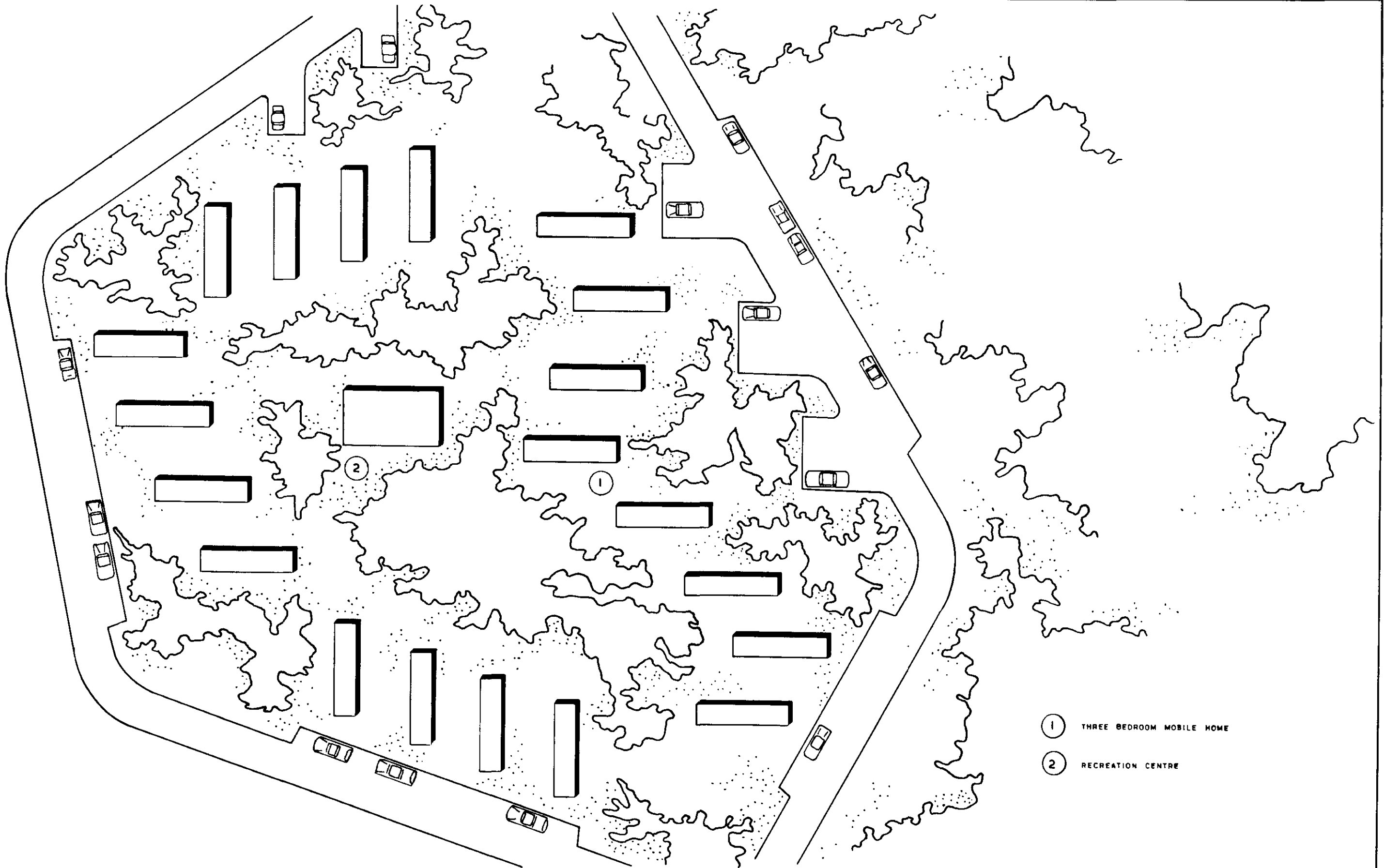
SIDE ELEVATION



END ELEVATION

SENIOR STAFF CAMP - 60 MEN

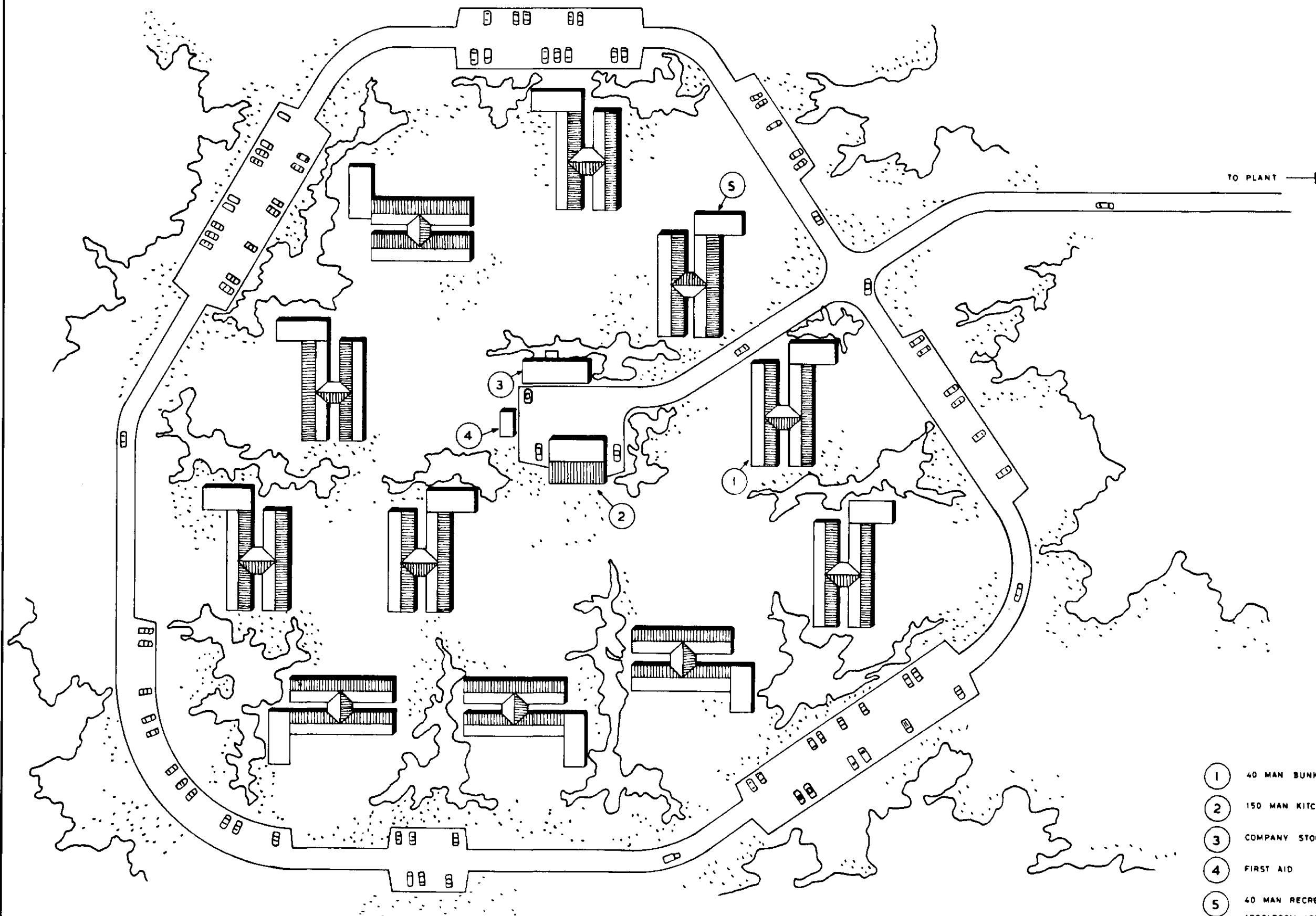
Scale: 1" = 50'



- ① THREE BEDROOM MOBILE HOME
- ② RECREATION CENTRE

WORKFORCE CAMP - 440

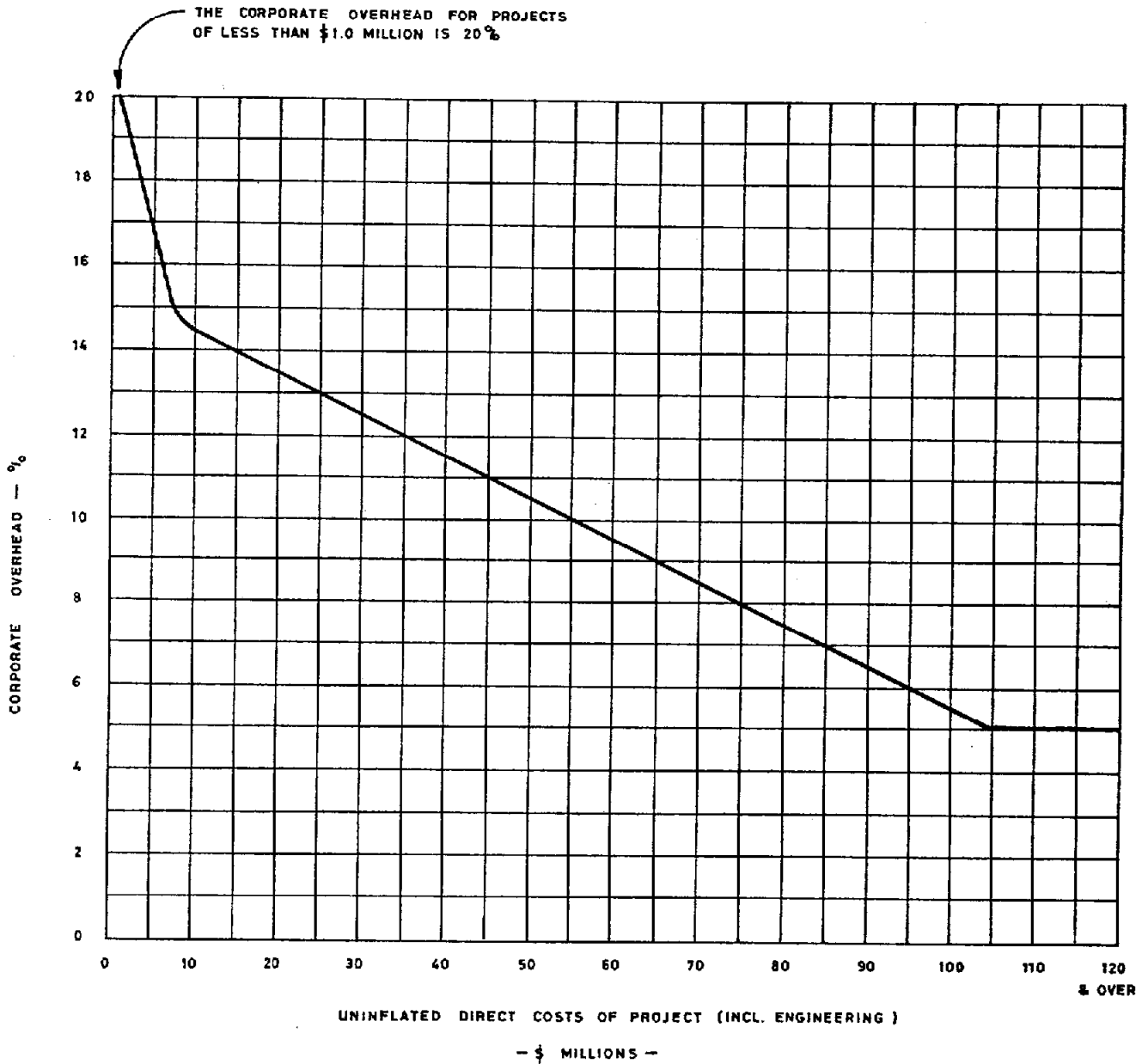
Scale: 1" = 100'



- ① 40 MAN BUNKHOUSE COMPLEX
- ② 150 MAN KITCHEN-DINER
- ③ COMPANY STORE
- ④ FIRST AID
- ⑤ 40 MAN RECREATION COMPLEX (POOLROOM, LOUNGE AREA.)

PD-NCB Consultants Ltd., London.		
Eng'r. J. B.	Date April 76	Drg. No 605/41

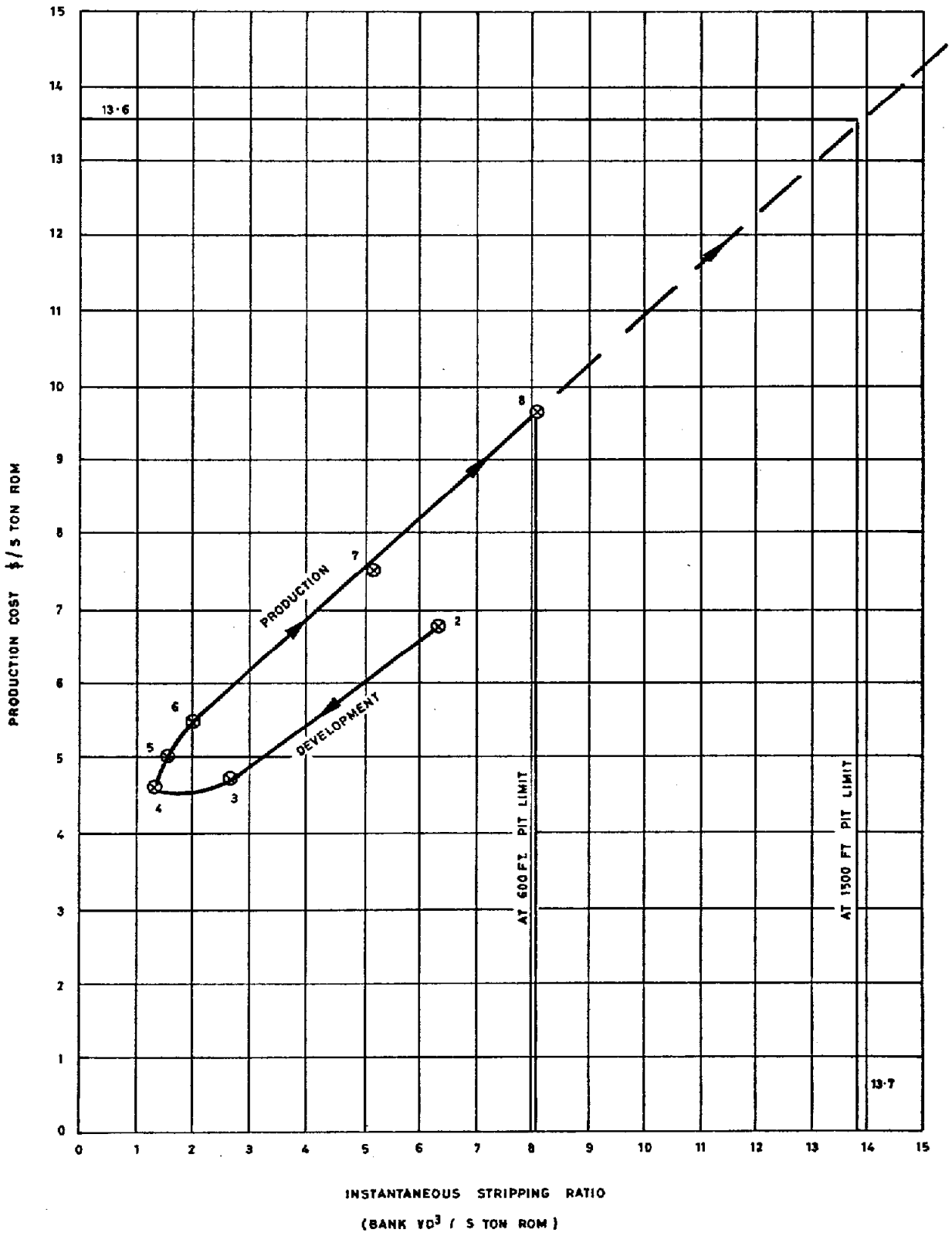
CORPORATE OVERHEAD RATES



CORPORATE OVERHEAD (TO THE NEAREST 0.5%) TO BE ADDED TO THE UNINFLATED DIRECT COSTS OF PROJECTS TO OBTAIN THE TOTAL COSTS BEFORE INTEREST DURING CONSTRUCTION AND BEFORE INFLATION.

PD-NCB Consultants Ltd., London.		
Eng'r. S.C.B.	Date April 76	Drg. No. 605/42

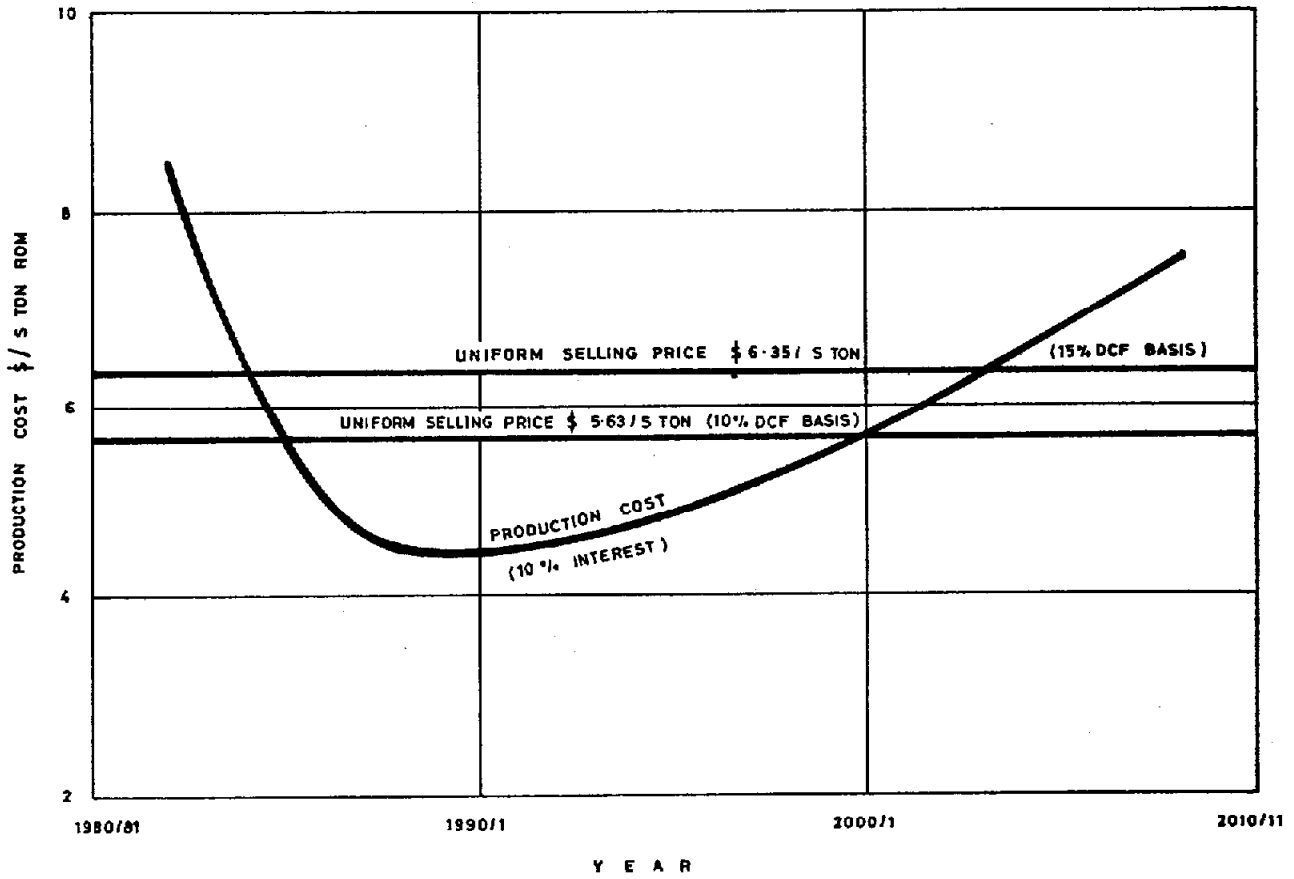
VARIATION OF PRODUCTION COST
WITH INSTANTANEOUS STRIPPING RATIO



PD-NCB Consultants Ltd,
London.

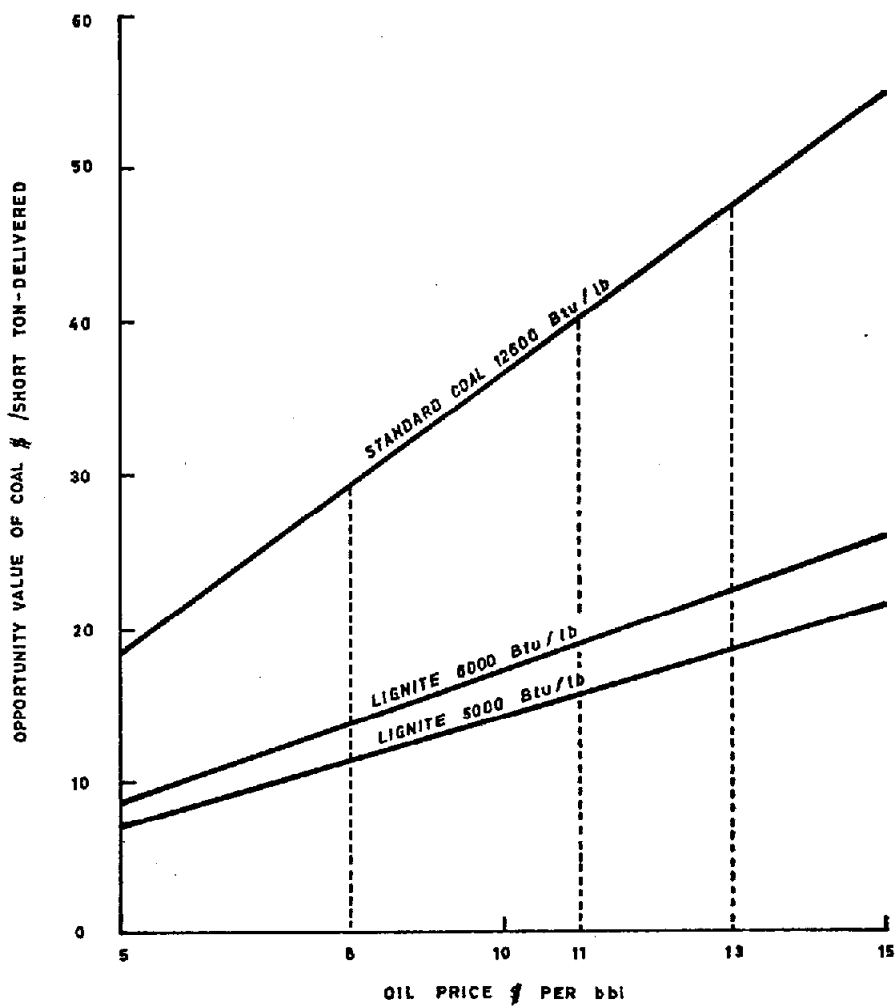
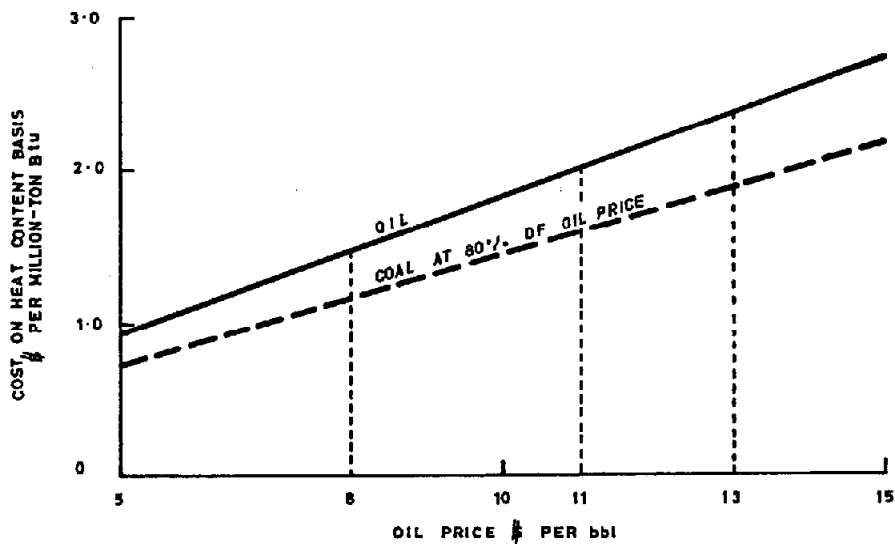
Eng'r. S. C. B.	Date April 76	Drg. No. 605/43
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PRODUCTION COST AND UNIFORM SELLING PRICE
 (Uninflated, 1975 prices)
 From Tables XXIV and XXV



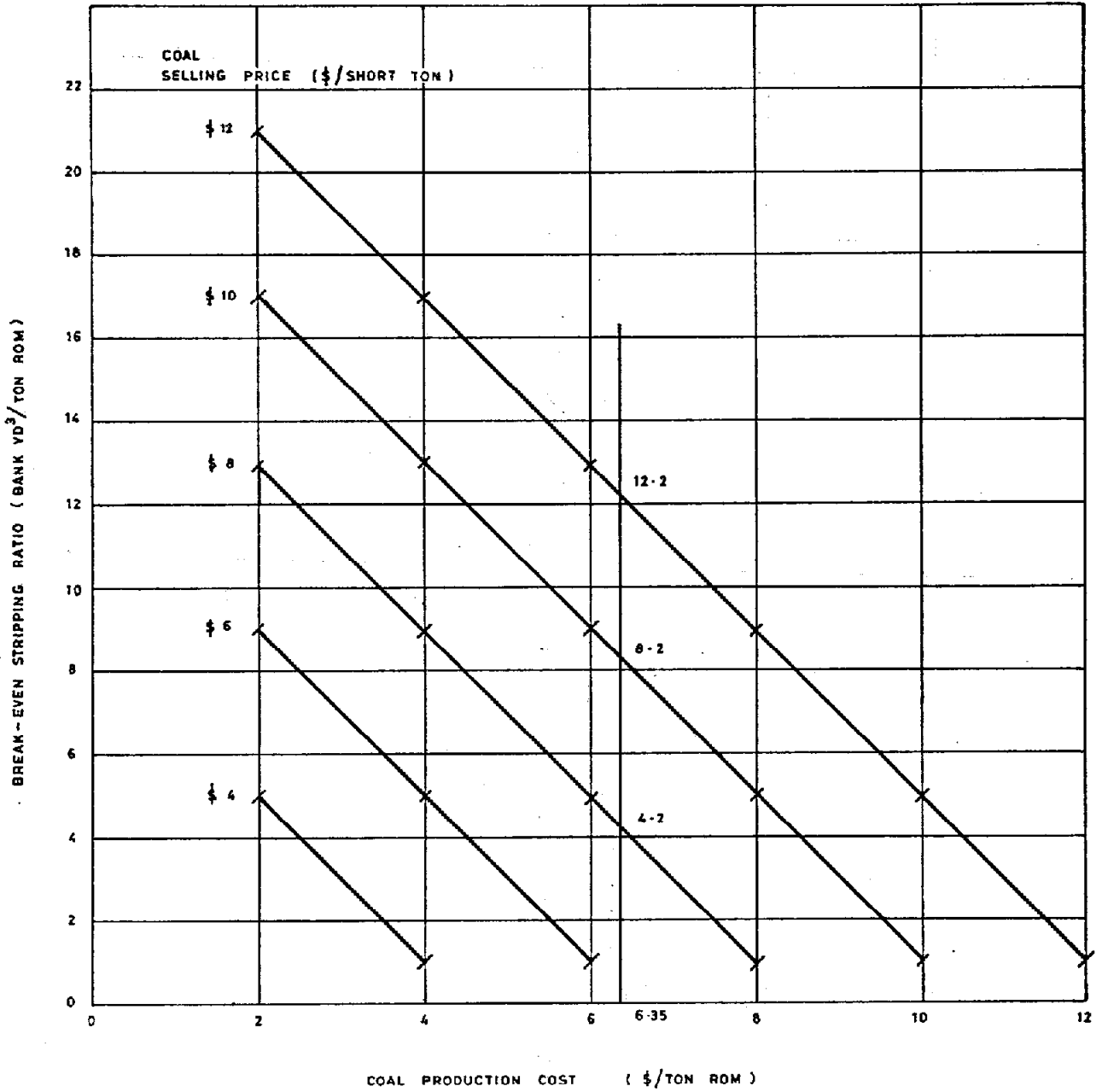
PD-NCB Consultants Ltd., London		
Eng'r. M. A.	Date April 76	Drg. No. 605/44

OPPORTUNITY VALUES FOR COAL AND LIGNITE



PD-NCB Consultants Ltd. London.		
Eng'r. A.J.K.G.	Date Mar. 76	Drg. No. 605/45

VARIATION OF BREAK-EVEN STRIPPING RATIO
WITH PRODUCTION COST AT VARIOUS SELLING PRICES



PD-NCB Consultants Ltd
London.

Eng'r. M. A.	Date April 76	Drg. No. 605/46
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