NGRC
BOREHOLE RECORDS
ADJUSTMENT FORM

QUARTER SHEET SK45NE

BH REGISTRATION NUMBER 179-200

~~NUMBER NOT USED~~ / ~~LOG MISSING~~

(Delete as appropriate)

RECORDS ENTERED & HELD BY WALLINGFORD

(NGRC FORM 2)

SOUTH NORMANTON COLLIERY

112

SK45/23

Seams worked: Top Hard - 122 yards deep at haft
Dunsil - 147 yards
Waterloo - 182 yards

All sources are surface water.

(1) Top Hard seam - The mainfeeder in this seam is from the Winterbank old workings about 600 or so yards to the north of South Normanton Colliery and normally varies between 100 to 140 gallons per minute.

In very wet periods, however, this may increase by up to 100% a few days after the heavy rainfall.

(2) Other Top Hard water originates in old workings situated to the North-east of the Colliery: the area measures approximately 1700 yards, north to south by 450 yards east to west, the southern end of it being 600 yards to the North-east of South Normanton shafts.

The quantity from this source is about 100 gallons per minute.

The total quantity from both (1) and (2) is probably of the order of 200 to 250 gallons per minute - varying with the weather.

Note: In March, 1952 this quantity was approximately 235 gallons per minute.

Nearly the whole of this water was originally piped from the old workings direct to the Top Hard water lodges at South Normanton Colliery, but of late years the pipe lines have deteriorated owing to the collapse of the Top Hard roads and it now finds its way to the Dunsil level at the Upcast shaft is piped down the shaft to the Waterloo pit bottom and then pumped back to the Top Hard lodges.

(3) The only additional pumping point is in the old Waterloo return, 45's. road, at a position about 800 yards inbye of the shafts, where drainage fills the corner of the old workings to the south. The pump prevents water from rising further and obstructing the return airway and delivers about 40 gallons per minute to the Waterloo pit bottom.

Dunsil Seam

Feeder from the old workings in the Winterbank area, piped to the Waterloo sump is about 25 gallons per minute, and this together with numerous feeders in the upcast shaft is delivered to the Top Hard lodges.

Note: At 7th March, 1952 pumping to the surface from the Top Hard lodges was at the rate of 300 gallons per minute.

8

112/H

SOUTH NORMANTON COLLIERY

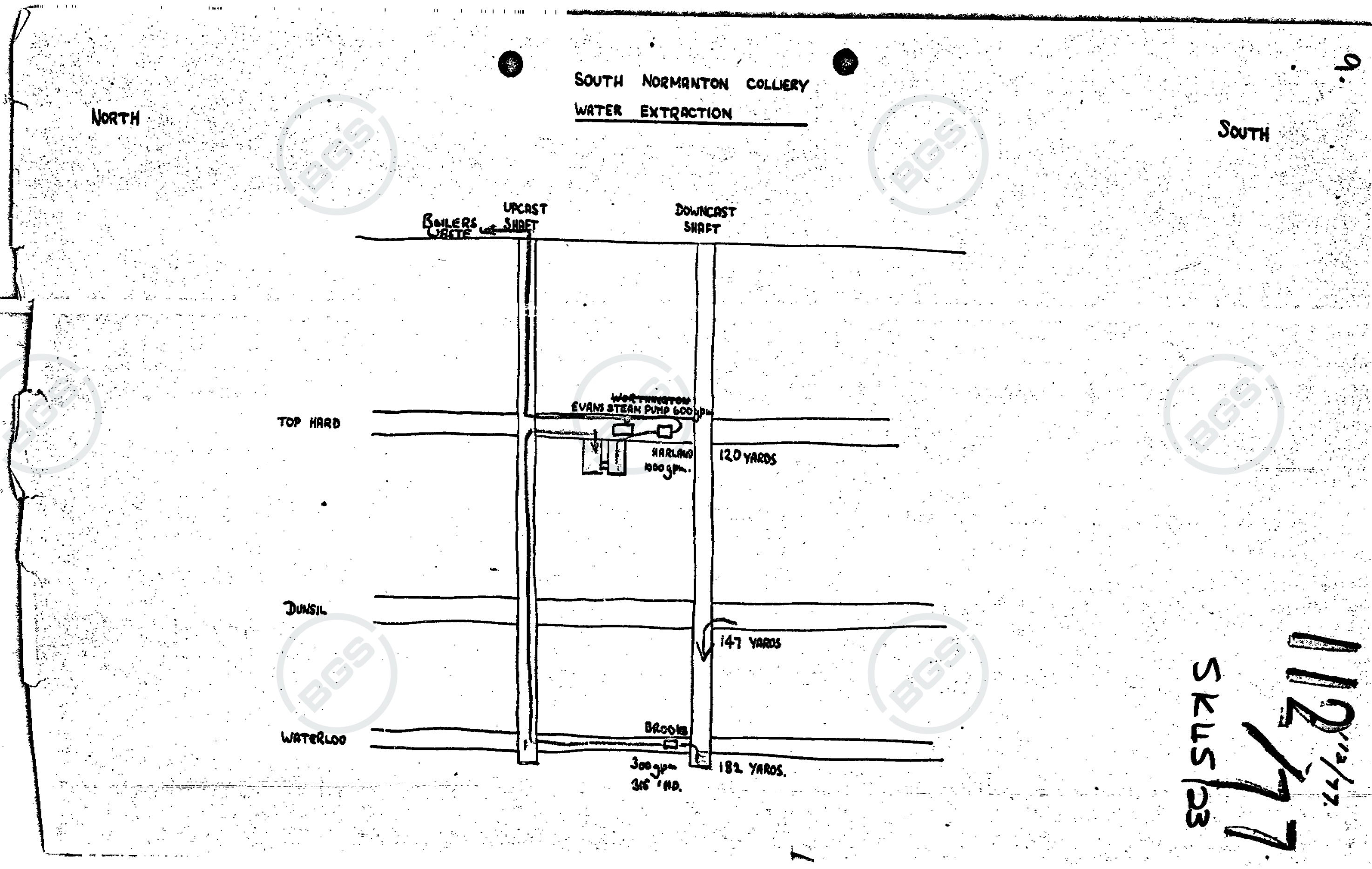
SK45/23

Water is made underground and dealt with as follows :-

Waterloo: A Brooks 300 g.p.m. 315 feet head pump delivers from the shaft bottom to the main pump lodges in the Top Hard. The water is from Waterloo and Dunsil, the Dunsil water being dropped down to Waterloo level.

Top Hard: Water made at this level is taken to two lodges, along with that pumped from the Waterloo. A Harland 1,000 g.p.m. pump, throttled down to approximately 300 g.p.m. then delivers from the lodges to the surface, the water being sent to waste apart from a small quantity used for boiler feed.

A local authority supply is used for drinking purposes, etc.



10

E.M.Div.

NATIONAL COAL BOARD
SCIENTIFIC DEPARTMENT
No. 4 Area.

SK45/23
112/77

Mineral Analysis of Water Sample.

Colliery : South Normanton.

Source: No. 1 Lodge.

Date of Sampling: December/1952. Intended Use:

Conditions at time of Analysis.

Appearance: Opaque. Suspend Matter: 47.2

Appearance after Filtering: Clear & Bright. Iron in susp. Matter: 14.0

Colour: Deep Ochre. Hazen Units Oil: Absent.

pH Value: 7.1

Analysis of Filtered Water.

Calcium(as Ca)	1,582.0
Magnesium(as Mg)	958.6 ?
Iron(as Fe)	-
Sodium(as Na)	6,4949
Silica(as SiO_2)	4.0
Chlorides(as Cl)	13,600.0
Sulphates:(as SO_4)	2,098.6
Nitrates:(as NO_3)	0.72
Total Alkalinity(as $CaCO_3$)	
Total Acidity(as $CaCO_3$)	Absent.
Total Dissolved Solids (Dried @ 180°C)	22124-4

Probable Combinations.

Silica:	4.0
Iron Oxide:	Absent.
Calcium Carbonate:	645.1
Calcium Sulphate:	2,973.7
Calcium Chloride:	1, 243.2
Magnesium Carbonate:	Absent.
Magnesium Sulphate:	Absent.
Magnesium Chloride:	757.7
Magnesium Nitrate:	Absent.
Sodium Carbonate:	Absent.
Sodium Sulphate:	Absent.
Sodium Chloride:	16,500.7
Sodium Nitrate:	Absent.

Total Hardness(as $CaCO_3$)	4,600.0	p.p.m.
Temporary Hardness(as $CaCO_3$)	645.0	p.p.m.
Permanent Hardness(as $CaCO_3$)	3,955.0	p.p.m.
Hardness Due to Calcium(as $CaCO_3$)	3,955.0	p.p.m. ≡ Ca = 1,582.0
Hardness due to Magnesium(as $CaCO_3$)	645.0	p.p.m. ≡ Mg = 157.0

Expressed in parts per Million

Location on N.M.G. E. 446 135. N. 356 955.

Distance and Bearing from shaft: 100' N. 20° W.

Area Chief Scientist
No 4 Area.

Dr. N. M. Potter.
Mr. R. Cooke.
Mr. L. H. Watson. - 2 -
Lab - 2

National Coal Board - East Midlands Division.
No. 4 Area. Scientific Department.

T12
SK45/23 77

Mineral Analysis of Water Sample.

Colliery: South Normanton / Waterloo.

Source: No. 2 Lodge.

Date of Sampling: December, 1952. Intended Use:

Conditions at time of Analysis.

Appearance: Clear. Suspended Matter:

Appearance after filtering: Iron in sus. Matter: Absent.

Colour: 20.0 Hazen Units.

pH. 7.1

Analysis of Filtered Water.		Probable Combinations.	
Calcium (as Ca)	492.0	Silica:	16.0
Magnesium (as Mg)	329.0	Iron Oxide: (fe2O3)	
Iron (as Fe)	Absent.	Calcium Carbonate:	Absent.
Sodium (as Na)	2,484.5	Calcium Sulphate:	1.672.8
Silica (as SiO2)	16.0	Calcium Chloride:	Absent.
Chlorides (as Cl)	4,1500	Magnesium Carbonate:	Absent.
Sulphates (as SO4)	2,0307	Magnesium Sulphate:	1,065.8
Nitrates: (as NO3)	Absent.	Magnesium Chloride:	446.1
Total Alkalinity (as CaCO3)	5.0	Magnesium Nitrate:	Absent.
Total Acidity (as CaCO3)	Absent.	Sodium Carbonate:	Absent.
Total Dissolved Solids (Dried @ 180°C)	9,540	Sodium Sulphate:	Absent.
		Sodium Chloride:	6,310.6
		Sodium Nitrate:	Absent.

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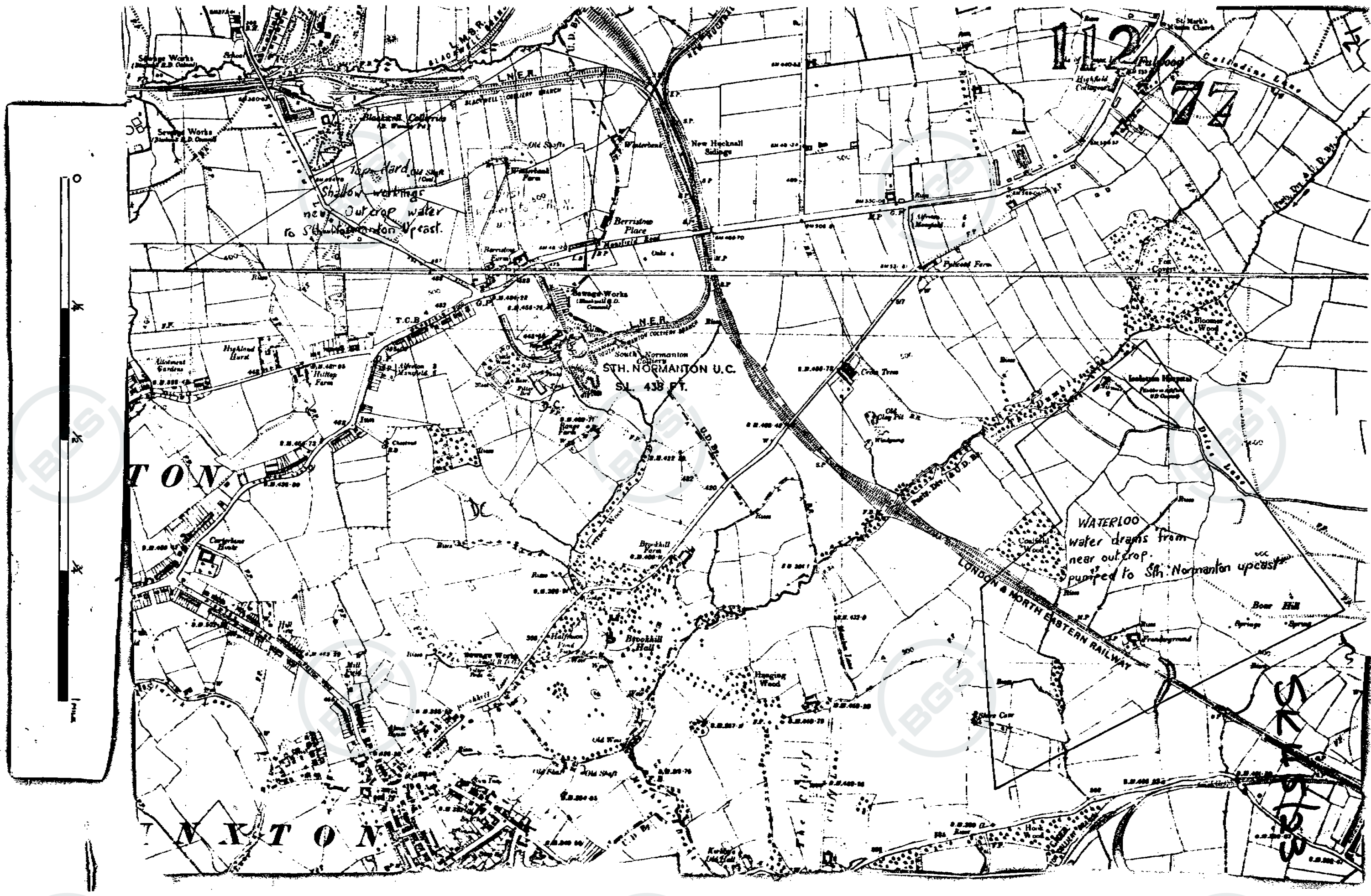
Total Hardness (as CaCO3)	2,584.0	p.p.m. (expressed in parts per million)
Temporary Hardness "	5.0	"
Permanent Hardness "	2,579.0	"
Hardness due to Calcium (as CaCO3)	1,230.0	"
Hardness due to Magnesium "	1,354.0	"

Location on N.M.G. E. 446 195 N. 356 965

Distance and bearing from shaft: 200' N. 75°

Mr. ~~L.H. Watson~~. J. Ineson.
Lab.

Area Chief Scientist,
N.C.B. No. 4 Area.



BGS ID: 223283 : BGS Reference: SK45NE193
British National Grid (27700) : 446170,356930

Coal Commission
John Jackson Esqre
November 25th 1867

6" Derby
1/113
112/80

Coal, Lime & Iron Works.
Clay Cross nr. Chesterfield.
Nov 23rd 1867

My dear Sopton
Coal Commission

At 47 yards deep we at Mill Holes sinking went thro' the Deep hard Coal - Coal 9" / Dirt 3'0 / Coal 3'8" } not very good quality, at 62 yd. the Piper Coal or 3'1" of dirt, but Coal improved