DEPARTMENT OF MINES

SOUTH AUSTRALIA

D.M. 279/54.

Report on

DIAMOND DRILLING OF SHALE FOR CEMENT MANUFACTURE.

SEC. 3035, HD. YATALA, CO. ADELAIDE

(Adelaide Cement Co. Ltd.)

by

GRAHAM WHITTEN.
SENIOR GEOLOGIST.

ENGINEERING GEOLOGY & MINERAL RESOURCES SECTION.
GEOLOGICAL SURVEY

TABLE OF CONTENTS-----

APPENDIX

D.D. Logs 1,2,3,4,5,6,7A,7,&8.

Map Reference	Title	Scale
L54.32	Shale for Cement Manufacture Sec. 3035, 3041, Hd. Yatala.	1" = 100'

Report Reference	Refer also	Date
G.S. 494	G.S. 53	15/5/56.
H.O. 42/103	H.O. 37/71	

DEPARTMENT OF MINES

SOUTH AUSTRALIA

Report on

DIAMOND DRILLING OF SHALE FOR CEMENT MANUFACTURE SEC. 3035, HD. YATALA, CO. ADELAIDE. (Adelaide Cement Co. Ltd.)

1. ABSTRACT

Following Geological mapping by C.J.R. Kingsbury, (1954) and purchase of the property by the Company (1955), 9 Diamond Drill holes proposed by the writer have indicated 4,000,000+ tons of Shale, suitable physically for Cement manufacture.

2. INTRODUCTION

In January, 1954, a request was received from Adelaide Cement Co. Ltd., to locate for Cement manufacture 2,000,000+ tons of Shale northerly from Adelaide, and within 12 miles of Port Adelaide. Mr. Kingsbury, Assistant Geologist, carried out an investigation and in a report G.S. 53 H.O. 37/71, dated 14.4.54 recommended testing of Sections 3035 and 3041, Hd. of Yatala for suitable shale.

Following purchase of 57 acres of Section 3035, the Company in December 1955, requested the Department to lay out a Diamond Drilling Programme to test the deposit, and to begin Drilling as soon as possible after the 1st. March, 1956. A programme of seven holes (numbers 1 - 7A) was therefore laid out to test the area owned by the Company, followed at a later date by two holes (numbers 7 & 8) to test a small area to the south under option to the Company.

3. DIAMOND DRILLING

3.1 Proposals.

The Diamond Drilling programme was laid out by the writer and the holes are shown on Plan L54.32 appended. They were sited to cover the area evenly and to test to Creek level (approx. RL221) Proposed and actual depth and core recovery were:

Hole No.	Proposed Depth	Actual Depth	Core Rec.
1	70'	70'	63.8%
2	70'	69'9"	61 %
3	75'	70'	55.7%
4	90'	90'	60.4
5	75'	70'	53.6
6	60'	60'	65.0%
7a	100'	100'	55.5
7	75'	100'3"	70.5%
8	50'	50'6"	72.7%

3.2 Intersections

Logging of the Diamond Drill holes was carried out by Mr. L.G. Nixon, Assistant Geologist. Detailed logs are attached, a summary of results being:-

Hole No. 1. Interbedded purple and grey limy shale and slate.

" " 2. " " " " " " " "

" " 3. " " " " " " " "
a narrow quartz vein at 20'.

" " 4. Sandstone and Quartz 4'6" to 13'9"; remainder predominently grey shale.

" " 5. Purple and grey slate.

" " 6. 1' quartz vein at 11'; remainder limy slate.

" " 7a. Purple and grey slate.

" " 7. Grey shale and slate.

" " 8. 1'6" of quartz at 43'; remainder purple and brown slate.

4. SUITABILITY OF MATERIAL.

4.1 Physical Suitability.

Siliceous material intersected was less than 1.8% of the footage drilled. Some occurred as $\frac{1}{4}$" veinlets which would be difficult to separate out, but because of their small size may not be objectionable. Two siliceous bands 12"-18" in core length were intersected, (D.D. 6 and 8) and these could probably be avoided in loading. A 10' sandstone bed and a quartz vein intersected in D.D.4 could probably be avoided in quarrying and being in the extreme NE of the area may not be reached for many years.

As a whole, the area appears suitable physically.

4.2 Chemical Suitability;

For Cement making purposes the main requirements are probably (a) uniformity of the deposit, (b) the Ratio of silica to Sesqui oxides, 2.3.-2.8, that is, there should be minimum dilution by quartz and quartzite.

Most needs would be covered by the determination of SiO_2, Al_2O_3, Fe_2O_3, CaO, MgO and loss of ignition with the occasional determination of Na_2O, K_2O, TiO_2, F_2O_5, Mn_2O_3. Based on the Geological log of the Core, splitting limits of approximately 20' have been recommended for each hole for assay by the Company. See individual Diamond Drill logs.

Visually, the shale appears to be fairly consistant in composition.

4.3 General.

While the Diamond Drill core appears suitable physically and chemically for cement manufacture and probably provides a reasonably representative sample, there still remains the possibility that less suitable beds may have been missed in drilling. The dip of the beds is such that a very large drilling programme would be necessary to remove this doubt entirely and such a programme is not warranted.

Should it be considered necessary later, to test more closely, a series of E.W. trenches would probably be the most suitable method of prospecting further. These could be put down to bedrock by a trench digger for approximately 3/- cubic yard.

5. RESERVES.

The possible extent of a "worked out" quarry floor at RL 220 is indicated on the plan allowances having been made for batter (45°), and a safety strip (50') around the fences. Reserves in this area approximate 2,000,000 cubic yards in the solid, that is approximately 2,000,000 long tons.

This more than covers the request listed in January, 1954.

6. CONCLUSION

Nine Diamond Drills holes put down to an average depth of approximately 75', in Section 3035, Hd. of Yatala, have indicated approximately 4,000,000 tons of shale which appears suitable physically for cement manufacture, and is probably suitable chemically. Further testing is probably unnecessary but if required could best be carried out by a trench digger.

GRAHAM WHITTEN
SENIOR GEOLOGIST

ENGINEERING GEOLOGY & MINERAL RESOURCES SECTION

GEOLOGICAL SURVEY.

GFW:BRS
16/5/56

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG

Project	Adelaide Cement Co.	D.M.	279/53.
Hole No.	D.D. 1	Hole Serial No.	DD 22/56
Hundred	Yatala	Plan Reference	L 54 32
County	Adelaide	R. L. of collar	297 5'
Vertical	Depth 70'	Driller	K. D. Bottger R. Leak

Date Drilling commenced 14.3.55. Date Drilling completed. 16.3.56.

Object: To test the suitability of the material for cement manufacture.

Result: Quartz veinlets were not noted in this core. The overburden is probably about two feet passing into weathered iron stained shale. Almost the entire core consisted of interbedded purple and grey slates slightly limy.

Log Comprises
Geological log.
Detailed core Recovery.
Remarks.

GEOLOGICAL LOG

From	To	
0	4' 6"	Travertine and shale.
4'6"	11' 9"	Weathered iron stained slate, beds made an angle of 45° the length of the core.
11' 9"	14' 9"	Clay light greenish iron stained.
14' 9"	19' 5"	Iron stained weathered slate brown in colour. Beds made an angle of 45° the length of the core.
19' 5"	21'	Purple - chocolate clayey slate very weathered.
21'	21' 7"	Iron stained purple - chocolate sandy slate.
21'7"	31' 7"	Light coloured weathered slates.
31' 7"	35' 3"	As above but at 33'7" a sandstone bed and unweathered slate are interbedded.
35' 3"	43'	Grey slates with cleavage fractures which all iron stained and usually have a purple band parallel to the cleavage plane and about 1/10 inch away from it. Sometimes this purple band occurs on both sides of the cleavage plane.
43'	52'	Purple slates predominate beds of grey slate interbedded. Beds made an angle of 70° to the length of the core.

From	To	
52'	70'	Interbedded purple and grey slates beds, made an angle of 70° to the length of the core.
		Two directions of cleavage iron stained along the cleavage planes and colouring the grey slates purple locally.

DETAILS OF CORE RECOVERY.

Hole No. 1

From	To	Core Recovery
0"	4' 6"	9"
4' 6"	8' 9"	8½"
8' 9"	11' 9"	13½"
11' 9"	14' 9"	9½"
14' 9"	18' 2"	29"
18' 2"	21' 0"	28½"
21' 0"	24' 0"	20½"
24' 0"	26' 4"	24"
26' 4"	31' 7"	40"
31' 7"	35' 3"	7"
35' 3"	41' 9"	77½"
41' 9"	52' 0"	90"
52' 0"	55' 7"	29"
55' 7"	65' 9"	112"
65' 9"	70'	38½"

= 536.5"
= 44.7 ft.
= 63.8%

REMARKS

It is suggested that the core be split and sent for assay in the following sections.

0 - 4' 6"
4' 6" - 21' 7"
21' 7" - 35' 3"
35' 3" - 70'

Logged by L.G. Nixon.

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG.

Project: Adelaide Cement Co. **D.M.** 279/54

Hole No. DD 2 **Hole Serial No. DD** 19/56

Hundred. Yatala **Plan Reference** L 54 32

County. Adelaide **R. L. of Collar** 289 (from map contours)

Vertical **Depth** 69'9" **Driller.** K.D. Bottger Snapman

Date Drilling commenced. 1.3.56. **Date drilling completed** 8.3.56.

Object: To test suitability of the material for cement manufacture.

Result: Two feet of overburden overlaying weathered slates. No significant quartz veins.

Log Comprises:

Geological Log
Detailed core recovery
Remarks.

GEOLOGICAL LOG

From.	To	
0"	2'	Light red-creamy travertine horizon.
2'	4' 6"	Calcareous clay. Iron staining increases with depth.
4' 6"	8' 3"	White iron stained clay.
8' 3"	13' 6"	White clay.
13' 6"	23' 9"	White to off-white iron stained weathered slates.
23' 9"	33' 3"	Purple slates predominate.
33' 3"	41' 2"	Grey slates, predominate.
41' 2"	42' 8"	Purple, slates predominate.
42' 8"	45'	Grey slates predominate.
45'	49' 4"	Purple slates predominate.
49' 4"	51' 8"	Interbedded purple and grey slates.
51' 8"	69' 9"	Predominantly grey slates. Cleavage fractures are iron stained. Beds made an angle of 45° to the length of the core.

From.	To	Core Recovery
0"	2'	4"
2'	4' 6"	8½"
4' 6"	8' 3"	4½"
8' 3"	13' 6"	6"

From	To	Core Recovery
13' 6"	18' 3"	18"
18' 3"	21'	27"
21'	23' 9"	13"
23' 9"	31' 6"	25½"
31' 6"	41'	83½"
41'	45'	35"
45'	51' 8"	82"
51' 8"	58'	69"
58'	59'7"	17"
59' 7"	69' 9"	118"

= 510

= 42.5 ft.

= 61% core recovery

Remarks.

It is suggested the core be split up and sent for assay in the following sections.

0"	4' 6"
4' 6"	23' 9"
23' 9"	41' 2"
41' 2"	69' 9"

Logged by L.G. Nixon.

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG.

Project. Adelaide Cement Co. D.M. 279/54.

Hole No. D.D. 3 Hole Serial No. DD 23/56

Hundred Yatala Section 3035 Plan Reference L. 54 32

County Adelaide R. L. of Collar 293' (from map contours

Vertical Driller K. D. Bottger. R. Leak

Date Drilling commenced. 16.3.56. Date Drilling completed. 20.3.56

Object: To test the suitability of the material for cement manufacture.

Result: Overburden is approximately six feet. Quartz veins noted but were only small and insignificant.

Log: Comprises Geological Log
Details of Core Recovery
Remarks

GEOLOGICAL LOG

From	To	
0"	4' 6"	Travertinised gravel underlain by laterite.
4' 6"	6'	Iron stained creamy - white kaolintic clay.
6'	9' 6"	Iron stained purple slates. Iron staining is concentrated near the top of this portion of the core.
9' 6"	11'10"	Light grey iron stained slates.
11'10"	12' 2"	Yellow-brown clay.
12' 2"	13' 9"	Dark brown - purplish slates.
13' 9"	20' 8"	Creamy weathered slates, slightly iron stained and interbedded with purple slates. At 20' there is a quartz vein and a thin sandstone horizon. Beds make an angle of 38° to the length of the core.
20' 8"	41' 0"	Predominantly grey slates with beds of purple slates. These rocks show slight effervescence with H. cl.
41'	51' 2"	Purple slates.
51' 2"	70'	Grey slates. Effervesce with H cl.

		Core Recovered	Remarks
0"	4' 6"	9"	
4' 6"	6'	9"	
6'	7' 3"	7"	
7' 3"	8' 2"	9"	

From	To	Core Recovered	Remarks
8' 2"	10' 6"	20.5"	
10' 6"	11' 4"	7.5"	
11'4"	12' 2"	8.5"	
12' 2"	13' 9"	2.75"	
13' 9"	20' 0"	16.5"	
20' 0"	27'	74"	
27'	28' 7"	12"	
28' 7"	34'	38.5"	
34'	41'	41"	
41'	50' 8"	67"	
50' 8"	56'	28"	
56'	62' 3"	31.5"	
62' 3"	70' 0"	96"	
	70'	= 39ft.	
		= 55.7% core recovery	

Remarks:

It is suggested that the core be split and sent for assay in the following lengths.

0'	6'
6'	20' 8"
20' 8"	41' 0"
41' 0"	51' 2"
51' 2"	70'

Logged by L.G. Nixon.

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG

Project: Adelaide Cement Co. D.M. 279/54

Hole No. D.D. 4 Hole Serial No. DD 30/56

Hundred: Yatala Plan Reference: L54.32

County: Adelaide R.L. of Collar 311' (from Map Contours

Vertical Depth 90'

Driller: K.D. Bottger, R. Leak

Date Drilling commenced 21/3/56 Date Drilling completed. 23/3/56.

Object: To test the suitability of the material for cement manufacture.

Result: Depth of overburden 5'. Quartz veins and sandstones from 5' to 14'. At depth a 3' wide quartz vein occurs. Sediments mostly slates.

Log Comprises: Geological Log
Details of Core Recovery
Remarks

GEOLOGICAL LOG.

From	To	
0"	4' 6"	White travertine.
4' 6"	9' 6"	Feldspathic quartzite grading into white buck quartz at 5 feet and continuing in quartz to 9'6".
9' 6"	13' 9"	Iron stained clay and fine grained sandstone varying in colour from white to brown with quartz veins.
13' 9"	18' 7"	Light fawny sandy shales with quartz veins. Some clayey material. Slight iron staining.
18' 7"	19' 5"	Weathered (almost a clay) light creamy-brown, slightly iron stained slates.
19' 5"	21' 7"	Grey-fawn silty slates. Cleavage planes iron stained.
21' 7"	23'	Purple slates.
23'	23' 9"	Grey-fawn silty slates.
23' 9"	26'	Purple slates.
26'	27' 6"	Grey-fawn silty slates.
27' 6"	29' 8"	Brown weathered slightly coarser grained sandy-silty slate tending towards a purple slate.

Geological Log (Contd.)

From	To	
29' 8"	32' 8"	Silicified (Breccia?) zone with milky "Buck" quartz and siderite.
32' 8"	39'	Light pinkish-greenish grey slates grading up to silt sized grains. Beds have some lime content and effervesce with H Cl. Beds make an angle of 40° along the length of the core.
39'	40' 4"	Purple slate.
40' 4"	52'	Grey slates predominate with occasional beds of purple slate. Iron stained cleavage planes.
52'	56' 7"	Predominantly purple slates. Occasional vein of quartz with siderite. Rock effervesces slightly in H Cl.
56' 7"	90'	Predominantly grey slates.

DETAILS OF CORE RECOVERY.

From	To	Core Recovered
0"	4' 6"	9.5"
4' 6"	9' 6"	8.5"
9' 6"	13' 9"	10"
13' 9"	16' 2"	3"
16' 2"	18' 7"	3"
18' 7"	22' 9"	24.5"
22' 9"	23' 9"	10"
23' 9"	26' 8"	18.75"
26' 8"	30' 9"	41"
30' 9"	40' 4"	96.5"
40' 4"	46'	38"
46'	51' 9"	64"
51' 9"	61'10"	106"
61'10"	71' 9"	66"
71' 9"	81' 9"	84"
81' 9"	90'	71"
		653.75"
		=54.4 ft.

% Core Recovery - 60.44%

REMARKS

In almost every case where H Cl was poured over bits of core there was slight effervescence, and it is concluded that lime is fairly widespread in the sediments.

It is suggested that the core be split and sent for assay in the following units.

0'	4' 6"
4' 6"	29' 8"
29' 8"	32' 8"
32' 8"	56' 7"
56' 7"	90'.

Logged by L.G. Nixon.

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG

Project: Adelaide Cement Co. D.M. 279/54

Hole No. D.D. 5 Hole Serial No. DD 32/56

Hundred: Yatala Section: 3035 Plan Reference L54.32

County: Adelaide R.L. of Collar:

Vertical Depth: 70' Driller: K.D. Bottger R. Leak

Date Drilling commenced: 26/3/56. Date Drilling Completed: 28/3/56

Object: To test the suitability of the material for cement manufacture.

Result: No quartz veins of any great width were observed in the core. Depth of overburden about five feet.

Log Comprises: Geological Log
Detail of Core Recovery
Remarks

GEOLOGICAL LOG

From	To	
0"	1'	Travertine
1'	4' 6"	Light brown clay.
4' 6"	9' 6"	Weathered light brown slates.
9' 6"	13' 6"	Chocolate weathered slates.
13' 6"	15' 5"	Lighter shales with clay bed from 15'-15'5".
15' 5"	18' 5"	Weathered purple slates.
18' 5"	21' 9"	Unweathered - slightly weathered purple-grey slates
21' 9"	28'	Grey slates
28'	29' 2"	Weathered light brown slates with quartz veinle
29' 2"	40'	Purple slates
40'	47'	Grey slates beds made an angle of 60° to the length of the core.
47'	48'	Grey and purple slates.
48'	70'	Grey slates.

DETAILS OF CORE RECOVERY

From	To	Core Recovered
0"	4' 6"	11"
4' 6"	10' 6"	26.5"
10' 6"	11'10"	11"
11'10"	13'6"	11"
13' 6"	15' 5"	10"
15' 5"	21' 9"	32"
21' 9"	32' 0"	45"
32' 0"	37'10"	32"
37'10"	42' 1"	28.5
42' 1"	45' 2"	32"
45' 2"	48'	27.5
48'	55'	40½"
55'	61' 6"	59½"
61' 6"	70'	84"
		= 450"
		= 37½'
		= 53.6% core recovery

REMARKS

It is suggested that the core be split and sent for assay in the following sections -

0"- 4' 6"

4' 6"- 21' 9"

21' 9"- 40' 0"

40' 0"-70' 0"

Logged by L.G. Nixon.

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG

Project: Adelaide Cement Co. **D.M.** 279/54

Hole No. D.D. 6 **Hole Serial No. DD** 33/56

Hundred Yatala **Section** 3035 **Plan Reference:** L54-32

County Adelaide. **R.L. of Collar** 277.5' (R.L. from Map contours)

Vertical **Depth** 60' **Driller:** K.D. Bottger

Date Drilling commenced 29/3/56. **Date Drilling completed** 4/4/56

Object: To test the suitability of the material for cement manufacture.

Result: Quartz veins were observed but were thin and occupied very little volume compared to the depth drilled. The depth of overburden is probably about 5 feet.

Log Comprises: Geological Log
Details of Core Recovery
Remarks

GEOLOGICAL LOG

From	To	
0"	10' 6"	Travertinised surface about 2' underlain by limy shales greyish in colour with some purple beds, all show weathering. Beds make an angle 74° to the length of the core.
10' 6"	11' 6"	Silicified shale with quartz veins containing iron probably oxidised Siderite.
11' 6"	60'	Grey limy slates. No marked lithologic change from 11'6". Beds make an angle of 50° to the length of the core.

DETAILS OF CORE RECOVERY

From	To	Core Recovered
0"	4' 6"	15"
4' 6"	7'	10.5"
7'	9' 2"	5"
9' 2"	10' 6"	11"
10' 6"	14' 1"	19"
14' 1"	19' 1"	46"
19' 1"	26' 0"	62"

Details of Core Recovery (Contd.)

From	To	Core Recovered
26' 0"	34' 9"	72.75"
34' 9"	44' 5"	71"
44' 5"	54' 9"	109"
54' 9"	60'	46"
		467½"
		= 39 feet

= 65% core recovery.

REMARKS

It is suggested that the core be split up and sent for assay in the following sections

0' - 11' 6"
11'6" - 34' 9"
34'9" - 60'

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG

Project: Adelaide Cement Co. D.M. 279/53

Hole No.: 7A Hole Serial No. D.D. 20-56

Hundred: Yatala Section: 3035 Plan Reference L 54-32

County: Adelaide R.L. of Collar 323' (R.L. from Map Contours)

Vertical Depth 100ft. Driller: K.D. Bottger
R. Leak

Date Drilling commenced 8/3/56. Date Drilling completed 13/3/56

Object: To test the suitability of the material for cement manufacture.

Result: Depth of overburden about 4 feet. Narrow and insignificant quarts veins compared with volume of rock.

Log Comprises: Geological Log

Detailed Core Recovery

Remarks

GEOLOGICAL LOG

From	To	
0"	3' 9"	Travertine and clay
3' 9"	8' 7"	Iron stained clay and weathered shale.
8' 7"	19'	Weathered grey slates.
19'	24'	Grey slates with occasional purple beds.
24'	24' 2"	Greyish clay
24' 2"	26' 6"	Purple slates.
26' 6"	27' 3"	Grey slates
27' 3"	34' 6"	Purple slates interbedded with grey slates.
34' 6"	46'	Grey slates with occasional purple beds making an angle of 60° to the length of the core.
46'	48'	Purple slates
48'	54'	Yellow iron stained clay.
54'	55'	Iron stained quartz vein
55'	78' 1"	Grey slates with some purple beds.
78' 1"	100'	Fine grained slate grey in colour and iron stained. Various gradations to a silty slate in grain size observed.

DETAILS OF CORE RECOVERY

From	To	CORE RECOVERY
0"	3' 9"	5½"
3' 9"	4' 6"	4½"
4' 6"	8' 7"	7"
8' 7"	13'	14"
13' 0"	16' 6"	24"
16' 6"	17'10"	17"
17'10"	23'	59½"
23'	24' 2"	15"
24' 2"	34' 6"	88½"
34' 6"	37' 9"	41"
37' 9"	48' 0"	125"
48' 0"	55' 0"	34"
55' 0"	61' 3"	40"
61' 3"	65'11"	36"
65'11"	75'	9"
75'	78' 1"	7¾"
78' 1"	84' 0"	33"
84'	92'	72"
92'	100'	33¾"
		667½"
		= 55' 6"
		= 55.5%

REMARKS

It is suggested that the core be split and sent for assay in the following sections.

0'	8' 7"
8'7"	27' 3"
27'3"	48'
48'	55'
55'	78'
78'	100'

Logged by L.G. Nixon

DEPARTMENT OF MINES, ADELAIDE

DIAMOND DRILL LOG

Project: ADELAIDE CEMENT CO. D.M. 279/54

Hole No.: D.D. 7 Hole Serial No. D.D. 40/56

Hundred: Yatala Section 3035 Plan Reference: L. 54-32

County: Adelaide R.L. of Collar: 292'

Vertical Depth: 100' 3" Driller: W.G. Noble

Date Drilling commenced: 12/4/56. Date Drilling completed: 20.4.56

Object: To test the suitability of the material for cement manufacture.

Result: Depth of overburden about 6 feet. No quartz veins were seen in the core.

Log comprises: Geological Log
Detailed Core Recovery
Remarks

GEOLOGICAL LOG

From	To	
0'	6'	Travertine and yellow brown clay.
6'	21'	Brown phyllitic slates slightly weathered near the 6' mark.
21'	34'	As above but cleavage fractures more noticeable. Slight effervescence was observed when HCl was poured on the core. Beds make an angle of 35° along the length of the core.
34'	61'	Grey phyllitic slates very limy in parts, i.e. at 52' 6" the effervescence was quite noticeable when HCl was poured on core.
61'	63'	Fawn coloured phyllitic slates.
63'	100'	Grey phyllitic slates.

DETAILS OF CORE RECOVERY

From	To	Core Recovery
0'	6'	4"
6'	13' 6"	3"
13' 6"	15' 9"	10"
15' 9"	17' 9"	19"
17' 9"	18' 5"	6¾"
18' 5"	21' 2"	14½"
21' 2"	24' 9"	35"
24' 9"	30' 4"	45"

DETAILS OF CORE RECOVERY (Contd.)

From	To	Core Recovery
30' 4"	36' 6"	32½"
36' 6"	39' 0"	14"
39' 0"	46' 0"	64"
46' 0"	52' 6"	80"
52' 6"	61' 3"	101¼"
61' 3"	65' 0"	43"
65' 0"	68' 6"	36"
68' 6"	70' 0"	14½"
70' 0"	75' 2"	60"
75' 2"	85' 3"	122"
85' 3"	95' 0"	89"
95' 0"	100' 3"	53½"
		= 847"
		= 70' 7"
		= 70%

REMARKS

It is suggested the core be split and sent for assay in the following sections -

0' - 6'

6' - 34'

34' - 61'

61' - 63'

63' - 83'

83' -100' 3"

Logged by L.G. Nixon

DEPARTMENT OF MINES, ADELAIDE.

DIAMOND DRILL LOG.

Project - Adelaide Cement Co. D.M. - 279/54.

Hole No. - D.D. 8 Hole Serial No. DD. 49/56

Hundred - Yatala - Section - 3035 Plan Reference - L54 - 32

County - Adelaide R.L. of Collar - 568'

Vertical Depth 50' 6" Driller - W.G. Noble, J. Malmon

Date Drilling Commenced- 24.4.56 Date Drilling Completed 27.4.56.

OBJECT:- To test the suitability of the material for cement manufacture.

RESULTS:- Intersected purple and grey brown slate with several small quartz veins.

Log Comprises - Geological Log.
Detailed Core Recovery
Remarks

GEOLOGICAL LOG.

From	To	
0"	14'	Phyllite slates varying in colour from Greenish grey to brown. A small quartz and siderite (?) vein (pencil thickness) occurs at about 12'. Some local bending of beds at around 11'.
14'	15'	Grey slate.
15'	22' 8"	Interbedded fawn-purple and grey phyllitic slates.
22' 8"	26' 6"	Brown phyllitic slates. Quartz and Siderite (?) vein at 24' only pencil thickness.
26' 6"	35' 3"	Grey-brown phyllitic slate.
35' 3"	35' 6"	Porous quartz vein in a sandstone (?) bed.
35' 6"	42' 4½"	Greyish-brown phyllitic slates.
42' 4½"	42'10½"	Purple-brown finely bedded slates with an occassional white bed. Beds make an angle of 71° to the length of the core.
42'10½"	44'4½"	Quartz and Siderite veins in a silicified Sandstone (?).
44' 4½"	44' 9"	Purple-brown finely bedded slates with an occasional white bed. Beds make an angle of 81° to the length of the core.
44' 9"	50' 6"	Grey phyllitic slates, beds dip 80° to the length of the core.

DETAILS OF CORE RECOVERY

From.	To	Core Recovered
0'	2'	9½"
2'	3' 4"	9"
3' 4"	4' 0"	7"
4' 0"	6' 9"	13"

DETAILS OF CORE RECOVERY

From	To	Core Recovered
6' 9"	8' 0"	9"
8' 0"	10' 0"	9"
10' 0"	12' 6"	6½"
12' 6"	15' 0"	9"
15' 0"	17' 8"	25½"
17' 8"	20' 0"	10"
20' 0"	22' 8"	28"
22' 8"	26' 6"	39"
26'6"	31' 3"	57"
31' 3"	38' 2"	75"
38' 2"	41' 0"	18"
41' 0"	42' 7"	20"
42' 7"	44' 9"	23"
44' 9"	50' 6"	73"

= 440½"

= 36' 8½"

= 72.7%

REMARKS

It is suggested that the core be split and sent for assaying in the following Sections:-

0' 20'

20' 42'10½"

42'10½" 44' 4½" - Quartz Siderite (?) vein.

44' 4½" 50' 6"

LOGGED BY L.G. NIXON

Road

CULTIVATED

CULTIVATED

CULTIVATED

SECTION 3035

3

4

1

Pole

Pole

Pole

Homestead
G. E. Boord

VINEYARDS

POWER

Travertine limestone

Shallow quarry

7A

Shale

Hard shale

Terrace

Homestead (Boord)

Scattered outcrops of shale

Shale

Shale

Shale

Terrace

Terrace

Shale

Dolomitic slate

Dolomitic slate

Bridge

Hard shale

Shale

Dry Creek (Average 5 ft. deep)

Shale

Ruin

Travertine limestone

Scattered outcrops of shale

Dolomite

DAIRY

QUARRY
(With quartzite and shale)

Shale

2

CULTIVATED

GRAZING

Walkleys Road

SECTION 3041

Homestead

Grand Junction Road

N

LEGEND

Cement shale

Dolomite and dolomitic slate

Quartzite

Slaty cleavage

Proposed D.D. Hole

Surface contours at 10 ft. intervals

Area over which volume calculated

200 0 200 400 600 800 1000

FEET

Report by C. J. R. Kingsbury 1954
Additions by G. F. Whitten 1956

L. 54-32

S.A. Dept. of Mines