

CLIFFORD HARRIS (SOUTH WEST) (PROPRIETARY) LTD. APPELLANT

and

THE GOVERNMENT OF THE REPUBLIC OF S A

RESPONDENT

IN THE SUPREME COURT OF SOUTH AFRICA

(APPELLATE DIVISION)

In the matter between

CLIFFORD HARRIS (SOUTH WEST)

(PROPRIETARY) LIMITED

APPELLANT

and

THE GOVERNMENT OF THE REPUBLIC

OF SOUTH AFRICA

RESPONDENT

CORAM: TRENGOVE, VAN HEERDEN, BOSHOFF, JACOBS et
SMALBERGER JJA

HEARD: 25 FEBRUARY, 1986

DELIVERED: 24 MARCH, 1986

J U D G M E N T

TRENGOVE, JA/.....

TRENGOVE, JA:

This appeal is about an unsuccessful claim brought by the appellant against the respondent for payment of the sum of R475 200,00 in terms of a contract for the construction of a military airfield at Grootfontein in South West Africa. The question at issue is whether the court a quo (Moll, J, in the Transvaal Provincial Division) erred in holding that the appellant was not entitled to an "extra-over" payment of R3,00 per cubic metre in respect of 158 400 cubic metres of material which had been excavated from borrow pits and used in the construction of earthworks under the contract. The answer to this question turns mainly on the meaning and effect

of/

of certain clauses in the specifications relating to the classification and measurement of "Class 'A' material" excavated from borrow pits for the construction of fills.

The basic facts can be stated as follows:

The appellant carries on business as a firm of civil engineering contractors. On 4 June 1976 the appellant entered into a contract with the respondent for the construction of certain runways and ancillary facilities for a military airfield at Grootfontein. This was a schedule of rates contract. Payment for work executed in terms of the contract was to be made on the basis of measured quantities at the rates stipulated in the Bills of Quantities for each item of work. The contract price in terms of the tender was/

was R9 516 000,00 but as a result of claims for escalation and certain variation orders the contract price ultimately exceeded R10 000 000,00.

The works commenced on 10 February 1976, i.e. before the signing of the formal contract, and were completed on 1 December 1978. The appellant started on the construction of the earthworks in March 1976. In terms of the specifications, the subgrade had to be constructed with suitable material, approved by the Engineer, obtained from cuts and borrow pits. Clause 7-2.1 of the specifications provided that such material had to be classified as falling within the one or other of the following categories, namely:

"(a)/.....

"(a) Class 'A' Material

Material which cannot be loosened by a crawler-tractor with engine, complete with all equipment and accessories as installed, of not less than 180 brake horsepower at the flywheel rated by the B.S. 649 continuous method, and with bare tractor weight (mass) of not less than 36 000 lbs. - 16,33 t (metric), and equipped with a matching parallelogram type ripper using a single tine only.

(b) Class 'B' Material

Material other than Class 'A' as defined above."

Thus, the classification was simply based on the degree of effort required for loosening and excavating material to be used for the construction of the subgrade. Class A material is more difficult to excavate than class B material.

The rate payable in respect of class B material was R1,03

per/

per cubic metre whereas, in the case of class A material, the contractor was entitled to an "extra-over payment" of R3,00 per cubic metre as compensation for the additional costs involved in excavating and handling such material. It was furthermore stated in clause 7-2.1. that if the contractor was unable to provide the necessary equipment for determining the classification of the material, or in the case of a dispute as to the classification, the decision of the Engineer as to such classification would be final.

For the purpose of excavating material from the borrow pits, the appellant used D8 and D9 machines. These machines had more than twice the power of the type

of/

of machine described in clause 7-2.1. of the specifications, which was referred to at the trial as a D7 machine.

The appellant was fully entitled to use the more powerful

machines. However, as these machines were able to ex-

cavate hard material more easily than a D7 machine, the

appellant ran the risk of working in class A material

without realising that it was doing so. After the work

on the construction of fills had been in progress for

some three months, it appeared to the appellant that it

was not achieving the rate of production initially anti-

cipated. At almost the same time, and during a visit to

the site in June 1976, the appellant's managing director,

the witness Ilse, noticed that the machines in the

borrow/

borrow pits were working in hard, calcrete material.

It was also quite clear that the machines were, and

must for some months have been, excavating class A material

from these borrow pits for use in fills. Then, on exa-

mining the interim payment certificate and quantity sche-

dule for the month of May 1976, he found that none of

the said material had at any stage been classified, or

measured, as class A material, and that the appellant had

not received any "extra-over" payment in respect thereof.

According to the payment certificate and quantity schedule

all the material that had thus far been removed from the

borrow pits for fills had been regarded as being class

B material. Ilse stated that he immediately took steps

to/

to bring this matter to the notice of the Resident Engineer, the witness Botes. He said that Botes agreed that the material in question was, in fact, class A material and he undertook to make the necessary adjustments in the payment certificates and quantity schedules for "extra-over" payments in respect of this material. Botes, however, emphatically denied that Ilse ever had any such discussion with him. He said that this particular question was first raised with him by the witness Harris in August 1977, about a month after Harris had taken over from Lilley as the appellant's Contract's Manager. On this particular issue, the learned trial judge rejected Ilse's evidence as improbable and accepted that of Botes.

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He found that the question of class A material, excavated from borrow pits and used for fills, was first raised on behalf of the appellant, by Harris, in August 1977, as Botes had stated, and that at that time about ninety per centum of the work on the construction of the subgrade had already been completed. This finding was not challenged by counsel for the appellant on appeal. It was furthermore common cause that in the payment certificates and quantity schedules for the period March 1976 to August 1977, the material taken from borrow pits and used for fills was, in every instance, described as class B material, and throughout this period the certificates and schedules were countersigned and accepted by the appellant's

representatives/.....

representatives without demur.

When Harris first raised the question of an "extra-over" payment for class A material excavated from borrow pits and used in fills, Botes was not prepared to concede that the said material should have been classified and measured as being class A material. He suggested that Harris take up the matter with the Engineer on the contract, the witness Schutz. Harris proceeded to do so at a site meeting on 25 October 1977 which was attended, among others, by Schutz and Botes. Schutz told Harris that he could not approve of an "extra-over" payment, in terms of the contract, at that late stage. He said that, in his view, material taken from borrow

pits/

pits could not be properly classified or measured as class A material after it had been excavated and placed in fills. He also pointed out that if this question had been raised with him or Botes when class A material was first encountered, the appellant would, without question, have been instructed to open up and exploit other borrow pits where class B material was readily available. The issue was not resolved at this meeting. When it was raised again at subsequent site meetings, Schutz repeated the views he had already expressed. Schutz furthermore accepted that the appellant had indeed incurred considerable costs for which it had not been compensated and he indicated that, although he could not approve of an

"extra-/.....

"extra-over" payment under item 7.3(a) of the Bills of Quantities, he was quite prepared to consider some alternative form of payment by way of a compromise. He suggested paying the appellant for the costs that would have arisen if it had stopped excavating material from the borrow pits when it reached class A material. This would have resulted in an additional payment for overhaul, the re-establishment of other borrow pits and the removal of overburden. This was not acceptable to Harris who made a number of alternative suggestions to which no further reference need now be made. By the beginning of October 1978 the dispute had not yet been settled. The matter was again discussed at a site meeting on 4 October 1978.

At/

At this meeting the parties agreed upon the procedure to be adopted for determining the quantity of class A material that had been removed from the borrow pits and placed in fills. This included a series of tests on the perimeters of the borrow pits with a machine as described in clause 7-2.1. of the specifications.

Pursuant to this agreement the following site instruction was issued and recorded in the Site Instruction Book, on 9 October 1978, namely:

"re: DETERMINING THE QUANTITY OF
CLASS 'A' MATERIAL

Please note that the quantity of class 'A' material will only be determined by doing at least 5 tests with the specified machine (See clause 7-2.1.(a) of the Specifications) and the decision reached this way will be final and binding."

The/

The tests were duly carried out by the appellant's representatives in conjunction with Botes and the quantity of class A material excavated from borrow pits for fills was determined and agreed upon as being 158 400 cubic metres. The appellant thereupon claimed to be entitled to an "extra-over" payment in respect of this material at the rate of R3,00 per cubic metre, but the claim was rejected by Schutz on behalf of the respondent. Hence, the present dispute.

The decision of the trial court was based on a finding that the appellant had not complied with the provisions of the contract relating to the classification and measurement of class A material removed from borrow

pits/

pits for use in fills, and that it was, in any event, estopped from claiming an "extra-over" payment of R3,00 per cubic metre in respect of the 158 400 cubic metres of class A material. It was contended on behalf of the appellant that the learned trial judge erred in coming to this conclusion.

The main question at issue is whether on a proper construction of the contract the classification and measurement of class A material excavated from borrow pits for use in fills should take place prior to the excavation of the material. I have already referred to clause 7-2.1 of the specifications which deals with the classification of such material.

The/

The clauses relating to measurement read as follows:

"Uncompacted Fill 7-4.1

Material excavated from cuts, the road prism or from any other site and placed in stockpiles, or to waste, or for use where no degree of compaction is specified, shall be measured in cubic metres as Class 'B' material in situ before excavation, computed from the cross-section by the method of average end areas, or where this is not possible, the Engineer may compute the volume by taking seventy per cent (70%) of the previously determined struck capacity of each hauling unit. Each unit shall be loaded to at least this predetermined volume of struck capacity.

Compacted Fill - Class 'B' Material 7-4.2

All material excavated from cuts, borrow pits or from any other site and placed as fill material in the subgrade or road connections shall be measured in place in the fill, in cubic metres, as computed from the cross-sections, by the

method/.....

method of average end areas, all as for Class 'B' material, compacted to a minimum of ninety per cent (90%), or where sand is used, to a minimum of one hundred per cent (100%) Modified A.A.S.H.O. density.

Class 'A' Material 7-4.3

Class 'A' material measured as in Clauses 7-4.1 and 7-4.2 but irrespective of the degree of compaction shall in addition be measured by the cubic metre of material 'In-Situ' before excavation, as computed from the cross-sections by the method of average end areas, for the purpose of determining the 'extra over' payment applicable."

The dispute as to when class A material should be measured is essentially concerned with the interpretation of the provisions of clause 7-4.3.

Harris and the witness Robinson, a civil engineer with considerable experience of contracts

involving/

involving the construction of earthworks, gave evidence on the practical implementation of the provisions of the specifications pertaining to the classification and measurement of materials. Robinson was called to testify on behalf of the respondent and his views were supported by both Botes and Schutz. It is clear from the evidence of these expert witnesses that the provisions of clause 7-4.3 cannot be interpreted purely "on internal linguistic considerations" without reference to what are usually described as the "surrounding circumstances", i.e. "matters that were probably present to the minds of the parties when they contracted (but not actual negotiations and similar statements)" (per Schreiner J A in Delmas Milling

Co Ltd./

Co Ltd. v du Plessis 1955 (3) S A 447(A) at 454G).

See also Cinema City (Pty) Ltd. v Morgenstern Family

Estates (Pty) Ltd and Others 1980 (1) S A 796 (A) at

804D - 805E.

The need for the classification and measurement of class A material excavated from borrow pits for use in fills arises only if a contractor intends claiming an "extra-over" payment in respect of such material. Such a payment can obviously not be claimed unless the material has been classified as class A material. In the present instance the contract does not in express terms require the classification to be made prior to the excavation of the material but, as

Robinson/.....

Robinson explained, that was implicit in the definition of class A material in clause 7-2.1. It is clear from his evidence that it is impossible to determine whether material to be classified is in fact class A material once it has been excavated. Class A material is defined in terms of its resistance to penetration by a machine as described in clause 7-2.1. Once the material has been excavated it will in general no longer offer resistance to penetration and consequently it will then not be possible to determine whether it should be classified as class A material. In support of his contention that material can be classified after it has been excavated, counsel for the appellant referred to the tests that were carried out during October

1978. But, as Robinson pointed out, such tests do not provide a sound or reliable basis for classification for there might have been (and in the present instance, probably were) fairly extensive pockets of soft material within the borrow pit area before the material was removed. Harris agreed that it was common practice for a contractor, who in the process of excavation encounters material in a borrow pit which he considers to be class A material, to inform the Resident Engineer (or the Engineer) thereof. In terms of the contract it is then the latter's responsibility to decide on the classification. Harris was under the impression that Botes (or Schutz) had, in fact, been informed when the

appellant's/

appellant's representative on the site first encountered what he regarded as class A material but, as I have mentioned before, the court a quo found that this was not the case. Now, what would have happened had Schutz (or Botes) been told in March 1976 that the appellant had encountered class A material in the borrow pits? Schutz stated that in terms of the authority conferred upon him by clause 6-1.3 of the specifications he would have required the appellant to open up other borrow pits where class B material could readily have been obtained. I have no doubt whatever that he would have done so. I do not believe that any responsible Engineer, in Schutz's position, would have allowed the appellant to excavate class

A material/

A material from the existing borrow pits for use in fills, in respect of which an "extra-over" payment of R3,00 per cubic meter was payable, if a sufficient quantity of class B material could have been obtained from other sources. In the instant case there was no need whatever to use class A material for fills. There was an adequate supply of class B material available. According to the evidence at least 160 000 cubic metres of class B material could have been obtained by opening up other borrow pits within that area.

I now come to the question whether, for the purposes of determining the "extra-over" payment

applicable,/

applicable, class A material should not only be classified, but should also be measured, before excavation.

This question is essentially concerned with the proper interpretation of clause 7-4.3 of the specifications cited above, and more particularly with the meaning of the words "shall in addition be measured by the cubic metre 'In-Situ' before excavation" in the context of that clause. According to the ordinary, grammatical meaning of the words it does seem as if the material in question should be measured before excavation. However, according to the views expressed by the expert witnesses that is not possible where class A material has to be excavated from borrow pits. It was mainly

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for this reason that Harris maintained that the provisions of clause 7-4.3 do not refer to the time at which the material should be measured but to the form or method of measurement. On the other hand, Robinson was of the opinion that the clause dealt both with the time and the method of measuring the material, and he was supported by Schutz and Botes.

In brief, Harris' views on the meaning and effect of clause 7-4.3 can be stated as follows. Clause 7-4.3 must be read with clauses 7-4.1 and 7-4.2. Under clauses 7-4.1 and 7-4.2 class A material is measured on exactly the same basis as class B material. But for the purpose of determining the "extra-over" payment applicable, class/

class A material must, in addition, "be measured by the cubic metre of material 'In-Situ' before excavation."

In the case of material removed from borrow pits, as opposed to cuts, the volume of such material cannot be measured before excavation because the lower horizon of the excavated area has yet to be determined. Thus, the words "measured by the cubic metre 'In-Situ' before excavation" cannot mean that the cubic volume of the material should be measured before excavation. It must have some other meaning. Harris referred, in this regard, to the purpose of the "extra-over" payment which, as has been mentioned before, was to compensate the contractor for the extra effort involved in excavating class

A/

A material. The payment was linked to what Harris described as the solid volume of the material in its natural state, i.e. the volume occupied by the material in situ before excavation. In the context of clause 7-4.3, the words "measured by the cubic metre of material 'In-Situ' before excavation" simply mean, according to Harris, that in computing the "extra-over" payment, the rate of R3,00 per cubic metre had to be applied to the volume of the material in its solid state before excavation. It is plain that this can only be determined after the material has been removed and its lower horizon has been established. Harris was therefore of the view that the process by which the quantity of 158 400 cubic

metres/

metres of class A material had been determined in

October 1978 conformed to the provisions of clause

7-4.3.

Robinson was of the opinion, as I have mentioned before, that the provisions of clause 7-4.3 related to the time at which class A material had to be measured. He emphasised that the in situ volume of such material had to be computed from "the cross-sections by the method of average end areas" as described in clause 7-3.1 of the specifications. For this purpose it was necessary to determine both the upper horizon and the lower horizon of the material to be measured. Robinson explained that as regards

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the measurement of class A material in cuts the provisions of clause 7-4.3 presented no problems. As soon as the Resident Engineer has established that the material to be removed from the cuts is class A material, he will proceed to determine the upper horizon of the material before it is excavated. The volume of that material can then be calculated because the lower horizon is to be determined, not by measurement, but with reference to the specifications and drawings. Thus, in the case of cuts the class A material can be measured in situ prior to excavation. But, as to borrow pits, Robinson agreed with Harris that it was impossible to apply the provisions of clause 7-4.3 literally. He

pointed/

pointed out, however, that in the case of borrow pits there are two phases of measurement. The first is to determine the upper horizon of the material to be excavated. This must be done after the classification of the material as class A material, and before it is excavated. The upper horizon will be at the level where the class A material begins. The second phase would be to establish the lower horizon which, in the case of a borrow pit, is determined by the volume of material ultimately excavated. Thus, according to Robinson, the upper horizon must be fixed prior to the excavation of the material, whereas the lower horizon can, of necessity, only be determined after excavation.

Robinson/

Robinson also explained why it was essential that the upper horizon of class A material should be established prior to the excavation of the material. He said that once the material has been removed one cannot accurately determine what its horizon had been prior to such removal.

A visual examination of the material surrounding the borrow pit and a series of tests along its perimeter - such as the tests that were carried out during October 1978 - would not constitute a sound basis for a reliable or accurate determination of what the upper horizon of the class A material had been prior to the excavation.

An horizon established on data of this nature would, in Robinson's opinion, be unreliable because it is based

on/

on the assumption that there were no aberrations of any consequence in the borrow pit area itself. Robinson stated that in many instances such an assumption would not be justified for one often finds that the true horizon of class A material undulates considerably over a long borrow pit or that there are substantial intrusions or pockets of soft material within the borrow pit area.

Having regard to the provisions of clause 7-3.1 relating to the taking of cross-sections, I am of the opinion that Robinson was correct in stating that for the purpose of calculating the volume of class A material in terms of clause 7-4.3 it was essential to determine the true, as opposed to the theoretical, horizon of the material,

and/

and I am also satisfied that the only way of accurately determining the upper horizon of such material would be to do so before excavation.

To sum up, thus far. For the reasons set out above, I have come to the conclusion that a condition entitling the appellant to an "extra-over" payment under the contract was not fulfilled, viz, the upper horizon of class A material in the borrow pits was not established prior to excavation of that material. In order to bring about fulfilment of the condition the appellant had to inform the Resident Engineer (or the Engineer) when it reached class A material in the borrow pits in respect of which it intended claiming an "extra-over" payment, so that (a) the material/

material could be classified and (b) the upper horizon established. This the appellant failed to do.

The next question is whether in terms of the contract the appellant is, in the circumstances, precluded from claiming payment of the sum of R475 200,00 in respect of the 158 400 cubic metres of class A material which, it is now common cause, was excavated from borrow pits and used in fill. In my judgment it is precluded from doing so. In the particular circumstances of this case it was, in my view, essential that there should be strict compliance with the aforementioned condition.

(cf Wessels, Law of Contract in South Africa, 2nd ed.

vol 1, paras 1335 - 1339 and Christie, The Law of Contract

in/

in South Africa, pp 406 - 407 and the authorities there cited.) Had the appellant taken the necessary steps to bring about such compliance, which it however failed to do, the Resident Engineer (or the Engineer) would not have authorised the removal of class A material from the borrow pits in question and he would have required the appellant to obtain class B material from other borrow pits for this purpose, in which event there would not have been any question of a claim for an "extra-over" payment. Counsel for the appellant contended that it was nevertheless entitled to payment of the aforesaid amount by reason of the site request which was issued pursuant to the agreement reached between Harris and Schutz at

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the site meeting on 4 October 1978, and the results of the tests conducted at the borrow pits in consequence thereof. In my view there is no merit in this contention.

The evidence of the discussions between the parties at the various site meetings, including the meeting of 4 October 1978, establishes conclusively that it was never agreed between the parties that a claim by the appellant for an "extra-over" payment, based on the result of the tests, would be accepted by the Engineer as a valid claim under the contract. In view of my conclusion that the appellant has not established that it has a valid claim for payment of the sum of R475 200,00 under the contract, it is unnecessary to deal with the respondent's plea of

estoppel./

estoppel.

In the result the appeal is dismissed
with costs, including the costs incurred by the em-
ployment of two counsel.

TRENGOVE, JA

VAN HEERDEN JA	)	
	)	
BOSHOFF, JA	)	
	)	CONCUR
JACOBS, JA	)	
	)	
SMALBERGER, JA	)	