

Ottawa, Monday, September 10, 1990

**Appeal No. 2898**

IN THE MATTER OF an appeal heard on November 15 and 16, 1989, pursuant to section 47 of the *Customs Act*, R.S.C., 1970, c. C-40;

AND IN THE MATTER OF a decision of the Deputy Minister of National Revenue for Customs and Excise dated September 25, 1987, with respect to requests for a redetermination filed pursuant to subsection 46(3) of the *Customs Act*.

**BETWEEN**

**SCHLUMBERGER OF CANADA, DIVISION OF  
SCHLUMBERGER CANADA LTD.**

**Appellant**

**AND**

**THE DEPUTY MINISTER OF NATIONAL REVENUE  
FOR CUSTOMS AND EXCISE**

**Respondent**

**DECISION OF THE TRIBUNAL**

The appeal is dismissed.

Robert J. Bertrand, Q.C.  
Robert J. Bertrand, Q.C.  
Presiding Member

Sidney A. Fraleigh  
Sidney A. Fraleigh  
Member

Robert J. Martin  
Robert J. Martin  
Secretary

**UNOFFICIAL SUMMARY**

**Appeal No. 2898**

**SCHLUMBERGER OF CANADA, DIVISION OF  
SCHLUMBERGER CANADA LTD.**

**Appellant**

**and**

**THE DEPUTY MINISTER OF NATIONAL REVENUE  
FOR CUSTOMS AND EXCISE**

**Respondent**

*Customs Tariff -- Tariff classification -- Whether various components of the LOGNET\* Communications Network should be classified under tariff item 49102-1 as "Well logging equipment" or "Parts of all the foregoing" -- Meaning of the expression "well logging."*

*This is an appeal by Schlumberger of Canada, Division of Schlumberger Canada Ltd. (Schlumberger), pursuant to section 47 of the former Customs Act concerning the Customs Tariff classification of various components of the LOGNET\* Communications Network imported into Canada from the United States between April 10 and September 17, 1986. Schlumberger seeks a declaration that the goods in issue are more properly classified under tariff item 49102-1 as "Well logging equipment" or "Parts of all the foregoing." The respondent has classified the goods under tariff item 49104-1 as "Machinery and apparatus for use in exploratory or discovery work in connection with oil or natural gas wells...." The issues are the meaning of the expression "well logging," whether the goods in issue are components of a well logging system and whether the goods in issue are "Well logging equipment" or "Parts of all the foregoing."*

*The appeal is not allowed. The ordinary meaning of the words "logging" and "étude" as found in recognized dictionaries, the evidence and the case law do not support the contentions of Schlumberger. The Tribunal finds that the goods in issue (various components of the LOGNET\* Communications Network) are not components of a well logging system or "Well logging equipment" or "Parts of all the foregoing."*

*Member Arthur B. Trudeau, dissenting, would have concluded that the goods in issue should be classified as "Well logging equipment" or "Parts of all the foregoing" because the LOGNET\* Communications Network forms an integral part of the system and equipment producing well logs.*

*Place of Hearing: Ottawa, Ontario  
Dates of Hearing: November 15 and 16, 1989  
Date of Decision: September 10, 1990*

*Tribunal Members: Robert J. Bertrand, Q.C., Presiding Member  
Arthur B. Trudeau, Member  
Sidney A. Fraleigh, Member*

*Clerk of the Tribunal: J. Rumball*

*Appearances: A. de Lotbinière Panet, Q.C. and G. McCashin, for the appellant  
G. Lester, for the respondent*

**Statute Cited:** *Customs Tariff, R.S.C., 1970, c. C-41, Schedule A, tariff items 49102-1 and 49104-1.*

**Cases Cited:** *Slaight Communications Inc. v. Davidson, [1989] 1 S.C.R. 1038; Shaft Sinkers and U & N Equipment v. The Deputy Minister of National Revenue for Customs and Excise (1968), 4 T.B.R. 156; Metropolitan Bio-Medical Laboratories v. The Deputy Minister of National Revenue for Customs and Excise (1977), 6 T.B.R. 445; Windsor Management Services Ltd. v. The Deputy Minister of National Revenue for Customs and Excise (1978), 6 T.B.R. 674; Deputy Minister of National Revenue (Customs and Excise) v. Kallestad Canada Inc. (1987), 14 C.E.R. 71; Maple Leaf Potato Chips Inc. v. Deputy Minister of National Revenue for Customs and Excise (1965), 3 T.B.R. 270; Bestpipe Limited v. Deputy Minister of National Revenue for Customs and Excise (1970), 5 T.B.R. 58; Robert Bosch (Canada) Ltd. v. The Deputy Minister of National Revenue for Customs and Excise (1985), 10 T.B.R. 110; Matt's Manufacturing Ltd. and Interdome Sales Ltd. v. The Deputy Minister of National Revenue for Customs and Excise (1984), 9 T.B.R. 158; Oilfield Equipment, Tariff Board Reference No. 130, Volume 1, 1963.*

**References Cited:** *The Oxford English Dictionary (Second Edition, Volume VIII, Clarendon Press, Oxford, 1989); Chambers Dictionary of Science and Technology (W & R Chambers Ltd., Edinburgh, 1975); Chambers Science and Technology Dictionary (W & R Chambers Ltd. and Cambridge University Press, 1988, Cambridge - Edinburgh - New York - New Rochelle - Melbourne - Sydney); McGraw Hill Dictionary of Scientific and Technical Terms (McGraw-Hill Book Company, New York - St. Louis - San Francisco, 1989); Glossary of Terms & Expressions Used in Well Logging (Society of Professional Well Log Analysts, 1984); A Dictionary of Petroleum Terms (PETEX, Petroleum Extension Service, Division of Continuing Education, University of Texas, Austin, 1979); Dictionnaire technique des termes utilisés dans l'industrie du pétrole, français-anglais -Technical Dictionary of Terms Used in the Petroleum Industry English-French (Collections des Dictionnaires techniques, Éditions Technip, Paris, 1963); Le Grand Robert de la Langue française (Deuxième Édition, Le Robert, Paris, 1988); Harrap's New Standard French and English Dictionary (Revised Edition, Harrap-London, Bordas-Canada, 1972); The Technical Review (Volume 34, Number 1, April 1986). Petroleum Production Handbook (McGraw-Hill Book Company Inc., New York-Toronto-London, 1962); Robert & Collins English-French Dictionary (Second Edition, Collins Publishers, London, Glasgow & Toronto, 1988).*

**Appeal No. 2898**

**SCHLUMBERGER OF CANADA, DIVISION OF  
SCHLUMBERGER CANADA LTD.**

**Appellant**

**and**

**THE DEPUTY MINISTER OF NATIONAL REVENUE  
FOR CUSTOMS AND EXCISE**

**Respondent**

TRIBUNAL: Robert J. BERTRAND, Q.C., Presiding Member  
Arthur B. TRUDEAU, Member  
Sidney A. FRALEIGH, Member

**REASONS FOR DECISION**

**Reasons for Decision of the Tribunal**

**by: Robert J. Bertrand, Q.C.  
Sidney A. Fraleigh**

**FACTS**

This is an appeal pursuant to section 47 of the former *Customs Act* (the Act) from a decision of the Deputy Minister of National Revenue for Customs and Excise (the Deputy Minister), dated September 25, 1987, on the classification of various components of the LOGNET\* Communications Network.

The proceedings, having been instituted prior to the coming into force of the new *Customs Act* (S.C. 1986, c. 1), are continued under the former Act by virtue of section 169 of the new Act.

The appeal, originally filed with the Tariff Board, is taken up and continued by the Canadian International Trade Tribunal pursuant to section 60 of the *Canadian International Trade Tribunal Act*.

The goods in issue were imported by Schlumberger of Canada, Division of Schlumberger Canada Ltd. (Schlumberger) into Canada from M/A Com Linkabit Inc. of San Diego, California, Satellite Transmission Systems Inc. of Hauppauge, New York, and Schlumberger Satellite Facility of Salida, Colorado, between April 10 and September 17, 1986, under numerous entry numbers.

At the time of entry, Schlumberger's agent, Lawrence Customs Brokers (1970) Ltd. of Calgary, Alberta, claimed tariff item 49102-1 in respect of the goods in issue.

The regional Customs Appraiser redetermined the tariff classification of the goods in issue to be, according to their nature, tariff items 44524-1, 44532-1, 44533-1 and 44603-1.

Pursuant to subsection 46(3) of the Act, Schlumberger requested a redetermination of the tariff classification.

Pursuant to subsection 46(4) of the Act, the Deputy Minister made a decision, on September 25, 1987, classifying the goods in issue under tariff item 49104-1. In his decision, the Deputy Minister stated:

*The "Lognet" components function as a logging data transmission service. They are not considered to be a necessary or integral part of the well logging process. Information received from the industry has confirmed these facts.*

On November 18, 1987, Schlumberger filed a notice of appeal pursuant to section 47 of the Act. Schlumberger contended that the goods in issue should be classified under tariff item 49102-1 as "Well logging equipment" or "Parts of all the foregoing."

The hearing was held in Ottawa on November 15 and 16, 1989.

Counsel for Schlumberger called four witnesses.

The principal witness was Mr. Jacques Desroches, who, until September 1, 1989, when he became a consultant, had spent 17 years in the well logging business with Schlumberger at various places around the world and in different functions. In cross-examination, the witness admitted that he was acting as a consultant for the appellant in this appeal.

The witness explained to the Tribunal what are the various steps that are followed in the process of finding and producing oil and gas and gave his definition of the expression "well logging."

Followed a presentation of slides and of a video illustrating the various steps and components of wireline logging (as performed by Schlumberger) and of the Lognet system.

The following generally describes the testimony of the witness on wireline logging as performed with Schlumberger's well logging equipment:

- downhole tools are lowered in the borehole and slowly pulled up;
- a downhole tool is composed of a part (called *sonde*) that acquires information and of a part (called cartridge) that controls the tool;
- the cartridge also contains a telemetry system (called CTS for Cable Telemetry System);
- the downhole tools are attached to a cable (called wireline), the function of which is mechanical (it supports the tool) and electrical (it contains electrical conductors to convey information up, power down and control down);
- the wireline is anchored at the surface to a rotating drum installed on a truck (called recording truck);

- the information acquired by the *sonde* is transmitted to the cartridge where it is stored in memory as signals in a digital form;
- the CTS modulates and sends the signals selectively or sequentially from the downhole instrumentation via the wireline to the surface instrumentation (called CSU for Cyber Service Unit) installed on the recording truck; and
- the signals are received in the CSU by instrumentation (digital mini-computers, optical film units, magnetic storage devices, display monitors, digital recording instrumentation and other pieces of equipment) that attenuates, demodulates, stores, processes and records the signals received from the downhole instrumentation either in a graphical form on paper or film (for making copies) or in a digital form on tape (for use by the client on his computer).

The witness explained that it is at that stage that the Lognet system enters in operation. He also explained that the Lognet system was designed by Schlumberger with the objective of quickly bringing the information to the user and of making use of the powerful computers in Calgary for a certain percentage of the services.

The following generally describes the testimony of the witness on how the Lognet system (the goods in issue) operates:

- the signals recorded on digital tapes by the instrumentation in the CSU are fed to goods in issue (called SEU for Satellite Electronic Units) that were installed in the CSU for the purposes of the Lognet system;
- the SEU prepare the signals from the digital tapes carrying the logged data by putting the signals in sequence, encrypting the signals and mixing the signals with an intermediate carrier to raise the signals to a radio frequency that is appropriate with transmission via the atmosphere;
- the signals are relayed to a parabolic antenna and radio (goods in issue), standing beside the recording truck and connected to the SEU, and are radioed via a Telesat satellite to a station in Calgary called HUB; and
- at the HUB, goods in issue receive and convert the signals to a lower frequency and retrieve them by removing the intermediate carrier.

The witness explained that the signals are then relayed to the adjoining Calgary Log Interpretation Centre (called CLIC) where the signals are fed to instrumentation (a VAX computer and devices that are not in issue) that processes and outputs logged data either in a graphical form on paper or film (for making copies) or in a digital form on tape (for use by the client on his computer). He then explained that the VAX computer also produces, with the logged data obtained with the Schlumberger Formation MicroScanner (Exhibit A-4), the Schlumberger "FMS Borehole Imaging" (Exhibit A-3).

The other witnesses to testify on Schlumberger's behalf were Mr. Richard James Velhat, who is employed as a Formation Evaluation Specialist by Indian Oil and Gas Canada; Mr. J.L. Earley, who is employed as a Senior Well Log Analyst by Canadian Hunter Explorations; and Mr. William G. MacLeod, who was employed as a Senior Geological Advisor in Formation Evaluation and Exploration by Petro-Canada when he retired.

The witnesses agreed with Mr. Desroches' definition of "well logging" and with his testimony on well logging, the Lognet system and the function of the Lognet system within Schlumberger's well logging system. They also agreed that the Lognet system was designed and dedicated to function as part of Schlumberger's well logging system, was an integral part of it and was necessary for its functioning.

Counsel for the respondent called one witness, Mr. Duncan Smith, who is employed by Canada Oil and Gas Lands Administration as a District Evaluation and Supervising Geologist.

The witness gave his definition of the expression "well logging" and said that logging was a term used in the oil industry that was a little more wide ranging than wireline logging; it also covered, for example, the sample log run by the geologist and the mud log run by logging companies. He also said that there was a very definite distinction between log interpretation and well logging; well logs could be interpreted long after well logging was done.

When referred by counsel for the respondent to Mr. Desroches' definition of "well logging," the witness said that the Lognet system was not involved in the acquisition, the processing or the presentation of subsurface measurements.

He added that the Lognet system did not give additional information that would not otherwise be available, was not well logging equipment and did nothing more than transport logged data when the logging process had ceased.

## ISSUE

The issue is whether various components of the LOGNET\* Communications Network (the goods in issue) should be classified under tariff item 49102-1 as "Well logging equipment" or "Parts of all the foregoing."

## LEGISLATION

The relevant statutory provisions are as follows:

### Customs Tariff

#### *Tariff Items*

*Machinery and apparatus for use in exploratory or discovery work in connection  
with oil or natural gas wells ...*

*49102-1*

*...*

*Well logging equipment;*

*...*

*Parts of all the foregoing*

*49104-1*

*Other than the following ...*

## ARGUMENTS

In the draft preliminary brief submitted to the Tribunal, counsel for Schlumberger made the submission that the expression "well logging" is not defined in the *Customs Tariff*, was not a commonly used expression and therefore its definition ought to be determined by trade usage. The goods in issue were integral to the well logging process and therefore should be classified as "Well logging equipment" or "Parts of all the foregoing" under tariff item 49102-1.

At the hearing, counsel for Schlumberger suggested that Mr. Desroches' definition of the expression "well logging" as being "a technique involving the acquisition, processing and presentation of subsurface measurements from a wellbore" is a proper and reasonable definition of the expression "well logging" when applied under the tariff item to the expression "Well logging equipment."

They argued that the fact that the function of the Lognet system (within Schlumberger's well logging system) was the transmission of data or that such a function could be performed in another manner was not the point. The point was whether the Lognet system was designed, engineered and built to operate as an integral part of Schlumberger's well logging system that was itself designed to operate in a commercial context. They contended that if the Tribunal did find that the goods in issue were designed, engineered and built to operate as an integral part of Schlumberger's well logging system, the goods should be classified as an entirety and they cited several authorities to support their contention.

Counsel for the respondent submitted that the issue was not whether the Lognet system was a system; it was whether it was a piece of well logging equipment or part of a piece of well logging equipment. He submitted that the overall question of fact that the Tribunal had to determine was what part the Lognet system played in well logging.

He argued that the fact that the Lognet system fitted into some kind of global method of operation by Schlumberger was irrelevant, or that the Lognet system is used in connection with equipment defined as well logging equipment was not sufficient by itself to make it part of well logging equipment.

Counsel pointed out that the authorities cited by counsel for Schlumberger did not support Schlumberger's case because the Lognet system was not a stand alone system and the one common thread that can be drawn from those authorities is that they all dealt with component parts put together that ended up as a stand alone system.

## CONSIDERATION OF THE ARGUMENTS

Schlumberger's arguments turned on the meaning of the expression "well logging" and on the meaning of the word "*étude*" as used in the expression "*Matériel d'étude des puits*" in the French version of tariff item 49102-1.

It was contended, firstly, that trade usage must be referred to in interpreting tariff item 49102-1 and classifying the goods at issue because the expression "well logging" was not



defined in the *Customs Tariff* and was not a commonly used expression and, secondly, that the French wording of tariff item 49102-1 appeared to be broader than the English wording because, by its use of the words "*d'étude des puits*," it included explicitly the purpose of well logging, which is to study wells, and that the "study of wells included the evaluation and interpretation of the well and determining its purpose as to its value as a commercial oil or gas well."

Coming from a corporation bearing the name of a pioneer of electrical logging, a technique or method of well logging, the contention that the expression "well logging" is not commonly used is surprising.

It is true, indeed, that the expression "well logging" is not defined in the Act, but it is hardly true that this expression is not a commonly used expression.

A summary search by the Tribunal has yielded five dictionary definitions of the expression "well logging," besides the four definitions submitted by Schlumberger and the definition submitted by the respondent.

The expression "Well logging equipment" appeared for the first time in the *Customs Tariff* in 1964. *An Act to Amend the Customs Tariff* [S.C. 1964-65, c. 7, assented to on May 21, 1964] provided, amongst others, for a new customs duty regime in respect of "Machinery and apparatus for use in exploratory or discovery work in connection with oil or natural gas wells." While such machinery and apparatus had been exempt from customs duty, Parliament, by enacting tariff item 491, submitted the importation of such machinery to customs duty. Parliament, however, specifically exempted well logging equipment.

Evidence submitted by Schlumberger (Exhibit A-13, Tab 4) indicates that the expression "well logging" was in use in 1962. In chapter 43 of Volume II of the Petroleum Production Handbook (McGraw-Hill Book Company Inc., New York-Toronto-London, 1962), a chapter entitled "Electrical Logging" and written by Mr. M.P. Tixier and other officers of the Schlumberger Well Surveying Corporation, it is stated:

*"Well logging" denotes an operation wherein a continuous recording is made, vs. depth, of some characteristic datum of the formations penetrated by a drill hole. The record is called a log. (Emphasis added).*

By 1965, the French Petroleum Institute had already published a multilingual dictionary entitled the Dictionnaire des techniques de diagraphie, forage et production : russe, français, anglais, allemand - Technical Petroleum Dictionary of well-logging, drilling and production terms: Russian, French, English, German.

One cannot assume, because a term is not defined in a statute, that Parliament was not aware of the meaning of that term; more so when a term appears in a provision in connection with a specific exemption from taxation.

The enactment of tariff item 491 was one of the recommendations contained in Volume 1 (entitled "Oilfield Equipment") of the Report by the Tariff Board relative to the Inquiry ordered

on July 8, 1960, by the Minister of Finance respecting machinery and equipment used in the mining industry and in the oil and gas industries (Reference No. 130).

After holding public hearings in Calgary and Ottawa, the Tariff Board transmitted Volume 1 of its report, in English and French, to the Minister of Finance, who tabled it in the House of Commons in October 1963.

A review of the April 29 and May 6, 1964, debates in the House of Commons on oilfield equipment and a comparison of tariff item 491, as enacted by Parliament, with the Tariff Board Report recommendations on this subject, reveal that Parliament has adopted the Tariff Board recommendations, and has done so almost word for word.

The Tariff Board reported as follows about "Well logging equipment" (*Matériel d'étude des puits* in the French version) in Volume 1:

##### 5. Well Logging Equipment

*Logging equipment is used to keep the driller informed of the progress of the drilling operation and of the conditions encountered underground. The logging equipment is usually located in specially designed trucks or trailers and is frequently owned and operated by firms which specialize in logging. The more important methods of logging a well include mud logging, drill stem tests and electrical or radio-active logging. In mud logging, instruments such as gas testers and analyzers are used to detect the presence of gas or oil in the drilling fluid. The drill stem tester, which is a device attached to the drilling string and lowered into the well, yields information on the formation being drilled by measuring flow pressures in the test zone. In electrical logging, sensitive recording instruments sometimes containing radio-active substances, are lowered into the well; their findings are transmitted electrically to indicating and recording instruments on the surface. (Emphasis added)*

The French version uses the words "*méthodes d'étude*" to describe "methods of logging a well" and the words "*instruments indicateurs et enregistreurs*" to describe "well logging equipment on the surface."

It is well established in the jurisprudence that, in the absence of a clear expression to the contrary, words in a statute are to be construed in the sense in which they are ordinarily used, and that, in order to ascertain the ordinary (or common) meaning of a word, resort is had to recognized dictionaries for it is in dictionaries that the ordinary meaning of a word is to be found.

The evidence supports the view that the expression "well logging" is a collocation of two words used to describe the action of "logging a well."

The Oxford English Dictionary (Second Edition, Clarendon Press, Oxford, 1989) defines in Volume VIII the word "logging" in the third sense as follows:

*The process of taking and recording information about something.*

The following quotation used to illustrate that definition supports the view that the word "logging" is indeed used for the expression "well logging:"

*- For .. learning more about the lithology and fluid content of rocks in the walls of a bore-hole, and .. for more accurately fixing the top and bottom contacts of rocks of varying character .. electrical surveying, or electrical logging .. has become common practice. (Field Geol. (ed. 4), 1941, F.H. Lahee, p. 574).*

According to that dictionary, the verb "record" (sense 9. a) means "to set down (a message, etc.) in some permanent form" and the substantive "process" means "a continuous operation or series of operations."

In accordance with the jurisprudence, a review of the testimony and of trade and technical dictionary definitions of "well logging" and "logging" must be made to ascertain whether these expressions have a meaning different from their ordinary meaning.

Relying on no other evidence than the testimony of four witnesses, counsel for Schlumberger contended that some definitions of the expression "well logging" (Exhibit A-13) were outdated.

The Tribunal notes that Schlumberger overlooked the fact that some of the definitions contained in Exhibit A-13 do not come from the latest edition of the books cited.

According to the argument of Schlumberger's counsel, these definitions were said to be outdated because the well logging technology had gone beyond what was implicit in these definitions. Counsel's contention was that the Lognet system was a technological breakthrough that brought about a fully integrated well logging system from downhole at the well site through the CLIC in Calgary, operating in a commercial context.

The Tribunal understood the implication of such contentions to be that the introduction of the Lognet system had changed well logging and, consequently, that these definitions could not include Schlumberger's well logging system.

Testimony has revealed that the Lognet system is a communications system using a small aperture antenna and a satellite to transmit data in a digital form. In this case, transmission is, according to the evidence, radio transmission and radio transmission is hardly new, even in the context of Schlumberger's operations. Indeed, testimony by Mr. Desroches has revealed that, prior to the introduction of the Lognet system in Canada in 1986, Schlumberger had for some time used another communications system for the transmission of data, a system called DART for Digital Analog Radio Transmission.

In this day and age, a technological breakthrough is normally acknowledged in a somewhat short period of time, at least by known technological publications. In the instant matter, a technological breakthrough that would have changed well logging would have also

brought a revision of the definition of the expression "well logging." No independent publications of any sort attesting to a technological breakthrough achieved in well logging by the introduction of the Lognet system were submitted to the Tribunal by Schlumberger.

According to testimony, the Lognet system was commercially introduced in the United States in 1985.

In 1987, two years after the introduction of the Lognet system in the United States, the Society of Petroleum Engineers in the United States published the Petroleum Engineering Handbook, the new edition of the 1962 handbook then called the Petroleum Production Handbook. The Petroleum Engineering Handbook is an extensive update of the 1962 edition. Chapter 49, entitled Electrical Logging, was written by Mr. M. P. Tixier, one of the authors of the 1962 extract submitted by Schlumberger and cited earlier (Exhibit A-13, Tab 4). Chapter 49 discusses the new technology developed over the past 25 years, like magnetic tape recording in a digital form, the use of computers, the availability of computer-processed products a short time after logging is completed at the well site, electronic transmission of log data and computing centre products.

Notwithstanding this new technology, Mr. Tixier's definition of the expression "well logging" is almost identical with the 1962 definition, as the following indicates:

### ***Fundamentals***

*Well logging is an operation involving a continuous recording of depth vs. some characteristic datum of the formations penetrated by a borehole. The record is called a log. In addition, a magnetic tape is usually made. (Emphasis added)*

The Chambers Dictionary of Science and Technology (W & R Chambers Ltd., Edinburgh), first published in 1940, defined in 1975 (Schlumberger submitted an extract of the 1975 edition in Exhibit A-13, Tab 8) "well logging" as follows:

*The recording of the composition and physical properties of the rocks encountered in a borehole, particularly one drilled during petroleum exploration. Well logging includes a variety of techniques, e.g., resistivity log, gamma-ray log, neutron log, spontaneous or self-potential log, temperature log, calliper log, photoelectric log, acoustic velocity log, etc.*

In 1988, three years after the introduction of the Lognet system in the United States, W & R Chambers Ltd. and the Cambridge University Press jointly published a new edition under the name Chambers Science and Technology Dictionary (W & R Chambers Ltd. and Cambridge University Press, 1988, Cambridge - Edinburgh - New York - New Rochelle - Melbourne - Sydney). The definition of "well logging" in the 1988 dictionary is the same as the one in the 1975 dictionary.

The McGraw-Hill Dictionary of Scientific and Technical Terms (McGraw-Hill Book Company, New York - St. Louis - San Francisco), first published in 1974, defined "well logging" in its 1976 edition as follows:

*The technique of analyzing and recording the character of a formation penetrated by a drill hole in mineral exploration and exploitation work.*

In 1989, four years after the introduction of the Lognet system in the United States, the McGraw-Hill Book Company published the Fourth Edition of the McGraw-Hill Dictionary of Scientific and Technical Terms (McGraw-Hill Book Company, New York - St. Louis - San Francisco, 1989). The definition of "well logging" in the 1988 dictionary is the same as the one in the 1974 dictionary.

According to Schlumberger, the correct definition of the expression "well logging" was prepared by Mr. Desroches in collaboration with Mr. MacLeod, another witness for Schlumberger. It states that "well logging" is:

*a technique involving the acquisition, processing and presentation of subsurface measurements from a well bore.*

In referring only to subsurface measurements (i.e., measurements made under the surface), Mr. Desroches and Mr. MacLeod have excluded "mud logging" from their definition of "well logging."

Testimony at the hearing has revealed that mud logging involves the taking and recording of information at the well head (the surface). According to Mr. Smith, a witness for the respondent, in the case of mud logging, there is, for example:

*a mud logger that sits on the well site that analyses the data coming up from the mud in terms of background gas and things like that.*

In the 1984 edition of the Glossary of Terms & Expressions Used in Well Logging, published by the Society of Professional Well Log Analysts ("the foremost authority on well logging" according to Mr. Desroches), the expression "mud logging" is defined as "hydrocarbon well logging."

The Tariff Board Report (Reference No. 130) clearly indicated that mud logging was a method of logging a well.

In cross-examination, Mr. MacLeod was asked to comment on the definition of "well logging" appearing in A Primer of Oilwell Service and Workover, Third Edition, published in 1979 by PETEX. Founded in 1944, PETEX (Petroleum Extension Service, Division of Continuing Education, University of Texas at Austin) also published in 1984, in addition to other titles, the third edition of A Dictionary of Petroleum Terms. Its definition of "well logging" is, in both publications, as follows:

*the recording of information about subsurface geological formations. Logging methods include records kept by the driller, mud and cutting analyses, core analysis, drill stem tests, and electric and radioactivity procedures. See electric well log, mud logging, radioactivity well logging, and sonic logging.*

Mr. MacLeod said that this definition was out of date and added:

*Were such a definition to be written today, it would not only include the recording, which is really the acquisition, it would also include processing and presentation. (Emphasis added)*

However, Mr. MacLeod also said during cross-examination that "a log is nothing more than a record of information versus some other parameter, be it depth, be it time" and that "the well log is the presentation."

One would then think that the acquisition, the presentation and, indeed, the processing of measurements from a well bore are implicitly included in the definition of "well logging" as being "the recording of information about subsurface geological formations."

Today, many instruments are built or calibrated to automatically acquire, process and present information. The most common example of such an instrument is the speedometer in an automobile. Instrumentation at the well site might be more complex, but it is doubtful that such instrumentation would be less efficient than a speedometer when it comes to the processing of information (or "raw data"). It is also unlikely that 10 years ago instrumentation at a well site was not built or calibrated to automatically process information.

Processing, in Mr. Desroches' opinion, "is doing something to that raw measurement." The words "that raw measurement" meant for Mr. Desroches "a physical quantity, whether it be gamma ray counts, a voltage downhole." Mr. Desroches had earlier said that processing "is occurring at many different places: downhole, well site, Calgary."

According to Mr. Earley, "the processing of subsurface measurements from a well bore" means "the conversion of that raw downhole information into something meaningful to a Well Log Analyst."

In response to questions by the Tribunal on raw data, Mr. Earley, who has been a well logger between the years 1973 and 1976, said:

*Even as a [well] logger, I wouldn't see voltage levels or numbers of electrons ... [because raw data] ... would be, even at that point, converted to something: porosity or resistivity.*

and testified that, as a well log analyst, he could understand porosity and resistivity.

Mr. Smith, witness for the respondent, when asked if the log produced at the well site (Exhibit B-2, a field print produced by Schlumberger and submitted by the respondent) was the raw data or some form of processed data, said:

*We never see the raw data. That is what that machine downhole is reading and it, in fact, converts it to usable data before we ever see it.*

In response to questions by the Tribunal as to whether information acquired by the *sonde* and relayed up the logging cable from downhole to the surface instrumentation (CSU) was logged in the raw state, Mr. Earley said:

*To my knowledge, the sensors -- let's call them electrodes, steel electrodes or radioactive detectors -- gather or accumulate this information. Then, to my knowledge, they can either convert that to, say, a porosity, virtually downhole in the tool you see here, or it is also my understanding that the raw information is transmitted up the cable and converted in the surface instrumentation. I think it is probably a combination of both.*

*Q. At the well site?*

*That is true.*

It flows from the above that the processing of raw data into something meaningful to a Well Log Analyst occurs at the well site.

Mr. Desroches, for whom "the presentation of subsurface measurements" occurs at the well site and in Calgary, testified that:

*Presentation refers to all the different ways and techniques of outputting the results. It could be in graphical form, colours, black and white, digital tape, so on.*

According to Mr. Desroches' interpretation of the words "processing" and "presentation," the act of well logging includes Schlumberger's Calgary Log Interpretation Center and ceases there. For Mr. Earley, it includes the Well Log Analyst and ceases in Canadian Hunter Explorations' offices.

In fact, there is nothing in Schlumberger's definition that would prevent someone from arguing that the act of logging a well in a remote area in Northern Canada ceases in some company's headquarters in Tokyo, London or Houston, or that it continues long after the *sonde* and the surface instrumentation have been taken away from the well site.

According to Schlumberger's definition and the meaning given to it by Schlumberger's witnesses, whenever an employee of Petro-Canada, the department of geology in a university, the Department of Energy, Mines and Resources in Ottawa or a provincial department of mines loads a log on a tape in digital form into the in-house computer, there is processing and presentation of subsurface measurements from a well bore and this employee is well logging.

Schlumberger and its witnesses have overlooked an important distinction in contending that there was similarity in the processing occurring at the well site and the processing occurring at the Calgary Log Interpretation Centre. The processing at the well site by the well logging equipment is done for the purpose of logging data, while the processing done at the Calgary Log Interpretation Centre by the VAX computer and other instrumentation is done evidently for other purposes as the data have already been logged.

According to the evidence and on the basis of the trade and technical dictionary definitions, the act of well logging occurs and ceases at the well site.

Counsel for Schlumberger reminded the Tribunal that if the French text of tariff item 49102-1 were, with respect to the wording "Well logging equipment," broader than the English text, the Tribunal, in reconciling the two texts in accordance with paragraph 9 (2) (b) of the *Official Languages Act*, might want to look at a broader definition of "Well logging equipment" than would permit the English text, a definition that would include or give effect to the French text.

The approach to follow when one version of a statutory provision in both official languages appears to be different from the other version was decided by the Supreme Court in *Slight Communications Inc. v. Davidson*, [1989] 1 S.C.R. 1038 as follows:

*First of all, therefore, these two versions have to be reconciled if possible. To do this, an attempt must be made to get from the two versions of the provision the meaning common to them both and ascertain whether this appears to be consistent with the purpose and general scheme of the Code. (The statute in this instance was the Canada Labour Code.)*

In the *Dictionnaire technique des termes utilisés dans l'industrie du pétrole, français-anglais* -Technical Dictionary of Terms Used in the Petroleum Industry, English-French (*Collections des Dictionnaires techniques, Éditions Technip, Paris*), published in 1963 by the French Petroleum Institute, the French term "*diagraphie*" is used to translate the expression "well logging" and is defined as follows:

*Diagraphie. - Well logging, logging, the act of continuously recording some characteristic properties of the formations penetrated by a drill hole.*

*Le Grand Robert de la Langue française* (*Deuxième Édition, Le Robert, Paris, 1988*) defines the term "*diagraphie*" in the second sense as "*ensemble d'enregistrements électriques, acoustiques, gammamétriques effectués au cours des forages*". According to this dictionary, the term "*diagraphie*" was first used in that sense in 1961.

The term was apparently not precise enough as the expression "*diagraphie des sondages*" is used now according to the *Onshore / Offshore Oil and Gas Multilingual Glossary*, a glossary in Danish, German, English, French, Italian and Dutch published in 1979 by Graham & Trotman for the Commission of European Communities.

It is a matter of speculation as to whether the term "*diagraphie*" was current in Canada in 1960-64 or whether the term was considered too restrictive or inappropriate.

It appears, however, that the word "survey" was and still is used in the trade in relation to well logging. In fact, during cross-examination, Mr. MacLeod, who had said that there would be a number of surveys provided by the logging company, was asked:



*What are those surveys? Are they just different logs, or are they quite different creatures?*

and he replied:

*They would be called "well logs" just as that would be called "well logs." This one would generally be referred to as a "resistivity log." The other logs would be referred to as "porosity logs."*

Schlumberger has submitted an extract (Exhibit A-13, Tab 2) of the 1975 Glossary of Terms & Expressions Used in Well Logging published by the Society of Professional Well Log Analysts, in which it is stated, under the expression "well log," that a well log is "the product of a survey operation, also called a survey.... "

The Dictionnaire technique des termes utilisés dans l'industrie du pétrole - Technical Dictionary of Terms Used in the Petroleum Industry (published in 1963 and referred to above) then listed, amongst others, the French word "*étude*" for the English word "survey."

In Volume 1, Part 1 (French-English), of the Harrap's New Standard French and English Dictionary (Revised Edition, Harrap-London, Bordas-Canada, 1972), the word "*étude*" is translated in sense 1(c) by, amongst others, the word "survey."

The Tribunal is, to say the least, surprised that Mr. Desroches, who claimed to be knowledgeable about well logging and about the French and English terms and expressions used in the petroleum industry, was not aware that the word "*étude*" could be used in the sense of "survey" and overlooked the fact that the Society of Professional Well Log Analysts uses the words "survey operation" or "survey" in relation to well logging.

In the 1984 edition of the Glossary of Terms & Expressions Used in Well Logging, the Society of Professional Well Log Analysts ("the leading society of well log analysts" according to Mr. MacLeod), defined the term "survey" as follows:

*(1) To take and record borehole geophysical measurements, the act or performance of a well logging operation. To log a well.*

*(2) The result of a well logging operation, a well log.* (Emphasis added)

If well logging included, as alleged by Mr. Desroches and Schlumberger, "the evaluation and interpretation of the well and determining its purpose as to its value as a commercial oil or gas well," well log analysts would be known as well loggers.

The Tribunal finds that the wording "*Matériel d'étude des puits*" of tariff item 49102-1 is not broader than the wording "Well logging equipment" and that it does not include equipment for the interpretation or evaluation of logs or logged data.

The Tribunal finds Schlumberger's definition of the expression "well logging" unacceptable.

The Tribunal finds that the phrase "to take and record borehole geophysical measurements," as used in the above definition by the Society of Professional Well Log Analysts of the word "survey," constitutes an acceptable meaning of the expression "well logging."

Counsel for Schlumberger argued that the Lognet system contributed to well logging by permitting the production (presentation) of Exhibit A-3 (Schlumberger "FMS Borehole Imaging").

Exhibit A-3 is the only document identified during the hearing that could not be produced at the well site. According to Mr. Desroches, Exhibit A-3 is a well log that could only be produced at the CLIC (rather than at the well site) because of the computer power needed to produce it.

The data used to produce Exhibit A-3 are, according to Mr. Desroches, acquired by a downhole tool called the Formation MicroScanner. Exhibit A-12, published by Schlumberger, gives technical information and specifications (about outputs, operational limitations, applications) concerning the Formation MicroScanner.

The Tribunal notes that Exhibit A-12 does not specify that a useful log of the data acquired by the Formation MicroScanner is not available at the well site because the making of such a log requires considerably more computer power than there is at the well site, or that the Formation MicroScanner should be used in conjunction with the Lognet system.

The Tribunal also notes that Exhibit A-3 does not bear the mention "well log" or "log" found on Schlumberger logs, nor does it have the standard format of a log, whether it is a log like Exhibit A-2 or Exhibit B-2.

Testimony at the hearing and a review of the exhibits have revealed that the words "well log" and "log" are used interchangeably.

In Volume VIII of The Oxford English Dictionary (Second Edition, Clarendon Press, Oxford, 1989), the noun "log" is defined in sense 7. d as follows:

*Any record in which facts about the progress or performance of something are entered in the order in which they become known; e.g. (a) a record of what is found, or how some property varies, at successive depths in drilling a well; a graph or chart displaying this information; ... (Emphasis added)*

A review of the testimony and of technical dictionary definitions reveals that a log is essentially the systematic record of the borehole measurements made.

When asked about Exhibit A-3, Mr. Desroches replied to counsel for Schlumberger:

*What we are trying to do here is imaging, to create an image of the rock, the borehole. That additional step of processing is conducted in Calgary on the VAX computer to produce a detailed image of the borehole.*

When cross-examined on Exhibit A-3, Mr. Desroches said:

*But this type of image, this type of interpretation, the presentation there, is added on. It is not implicitly included in the measurement. (Emphasis added)*

In response to questions by the Tribunal on Exhibit A-3, Mr. Desroches replied:

*What we have here, as you can see, we are trying to put in one dimension the circular nature of the borehole. We have an instrument that has four paths. Those paths, they are very, very fine resolution. Those paths only see those spots in the well. Here, they are not seeing anything. They are not there. So we are only covering that part of the borehole. In between there, we try some extrapolation as to what might be happening between what we have here and here. (Emphasis added)*

The Tribunal finds that Exhibit A-3 is not a log. It is a hybrid creature, partly a reproduction of a log and partly a computer extrapolation, partly a representation of actual measurements and partly a representation of a hypothesis.

Counsel for Schlumberger argued that the Lognet system, being the link between the CSU on the recording truck at the well site (which was undeniably "Well logging equipment" or "Parts of all the foregoing") and the VAX computer at the CLIC (which had been accepted by the Deputy Minister as "Well logging equipment") were components of a well logging system.

In support of their contention, counsel filed Exhibit A-14 in which it is stated that:

*... it is the decision of the Deputy Minister of National Revenue for Customs and Excise, pursuant to subsection 46(4) of the said [Customs] Act, that the subject goods [Data Processing Equipment for a Field Log Interpretation Centre] are classified under tariff item 49102-1, as claimed.*

According to the principal witness for Schlumberger, the VAX computer in Calgary is the data processing equipment referred to above, and installations similar to the Calgary Log Interpretation Centre (CLIC) are called by Schlumberger in the United States "Field Log Interpretation Centres (FLIC)."

Counsel for the respondent advised the Tribunal that his instructions were that the VAX computer had been accepted, not on the basis that it was "Well logging equipment," but on the basis that it came in under other tariff items and was duty-free on that basis.

The VAX computer was not in issue in this appeal and the Tribunal is of the view that the classification of the VAX computer by the respondent is not conclusive. It comes to reason that,

if classifications by the respondent were to be conclusive for the Tribunal, the Tribunal would not have heard Schlumberger's appeal.

Had the VAX computer been in issue, testimony by Mr. Desroches as to the use of the VAX computer (extrapolation of logged data) would probably have brought the Tribunal to consider whether the VAX computer was used for well logging or for log analysis. Other testimony as to the use of the VAX computer in outputting, in the form of a log, data already logged at well site probably would have brought the Tribunal to consider also whether the VAX computer was used to log data or to reproduce logs. A review of the April 1986 issue of The Technical Review (a Schlumberger publication), contained in Appendix B of the respondent's brief and filed in the record as read, probably would have brought the Tribunal to consider whether the VAX computer was also used to control the LOGNET\* Communications Network. Finally, the Tribunal probably would not have considered the location of the VAX computer (whether it is located in Calgary, at the well site or in a logging truck) to be in itself a determinant factor; the determinant factor would be its function.

The Tribunal is of the view that, in order to determine that the Lognet system is a component of a well logging system, one must first review the evidence as to the description and function of the Lognet system.

No documentation (whether produced by Schlumberger or others) describing the Lognet system as a component of a well logging system was submitted to the Tribunal by Schlumberger in support of its contention. In fact, the Tribunal notes that Schlumberger describes the Lognet system in Exhibit A-10 (front page) as Schlumberger's LOGNET\* Communications Network.

Schlumberger has described the LOGNET\* Communications Network in the April 1986 issue of The Technical Review (Volume 34, Number 1) as the development by engineers of a way to deliver logs.

In cross-examination, Mr. Desroches said that he remembered the April 1986 issue and that The Technical Review was "a technical review, the purpose of which is to present to the technical user some of the technical aspects of our instrumentation."

On page 4 of the April 1986 issue, in an article entitled "The LOGNET\* Communications Network: Bringing the Wellsite to the Client," one may read the following:

*The idea for transmitting logs via satellite from the wellsite to the client emerged in long-term engineering plans in the late 1970's.*

...

*The following year, with the founding of Schlumberger's Austin Systems Center, engineers mounted a full-time effort toward developing a way to deliver logs directly to the client.*

...

*The Lognet communications network aims for a simple goal: the rapid delivery of log data and graphics from the wellsite to the client's home or office. In North America, where Schlumberger implemented its own satellite communications*

*network for this purpose, the goal is to deliver log data and graphics within 60 minutes of completing the logging operation.*

Testimony has confirmed that the Lognet system is only a system of transmission of information.

When asked by counsel for Schlumberger why Lognet was developed and what advantage Lognet is to the final user of the well logs, Mr. Desroches replied:

*Time. Time is the critical element. When the drilling rig, which costs a fair amount of money, is idle, once logging is done, the next step is not known until the logs are analyzed. So the rig is waiting. People have to decide what to do next. Do we abandon this hole? Do we go ahead and set the casing?*

*So the data and the complexity of it, as it has grown, make it crucial to move the data in quick manner to the user. (Emphasis added)*

The Tribunal is also of the view that, in order to determine that the Lognet system is a component of a well logging system, one must find that:

- all the components of the system contribute to a single defined function; and
- the single defined function of the system cannot be performed without the function of any one component.

It is evident that the single defined function of a well logging system must be the logging of wells. Well logging being the taking and recording of borehole geophysical measurements, well logging equipment is equipment used to take and record borehole geophysical measurements.

If the logging of a well can be performed without the function of the Lognet system, the Lognet system cannot be a component of a well logging system. In other words, if information about a well can be logged (taken by measurement or scientific observation and recorded in some permanent form) by the downhole instrumentation and the CSU prior to the Lognet system entering into operation, the Lognet system cannot be a component of a well logging system.

In response to questions by the Tribunal, Mr. Desroches agreed that everything that was generated down in the borehole and transmitted up the wireline cable was initially recorded in some manner (on paper, film or digital tape) in the CSU.

The Tribunal notes the following on page two of Exhibit A-10:

*Schlumberger's Lognet satellite communications service can send data directly from the wellsite to multiple locations all over the country - simultaneously. And we can do it in less than one hour after logging. (Emphasis added)*

When asked by counsel for the respondent what time elapses between the downhole information from the borehole being acquired by the CSU and being transmitted through the Lognet system, Mr. Desroches replied:

*It could be a few minutes to one or two hours.*

When asked what would happen if there were bad weather conditions and the satellite was not able to receive the signal from the transmitter at the site, Mr. Desroches replied:

*We would have to look at other means of bringing the data to the customer.*

In arguing that the Lognet system was a component of a well logging system, counsel for Schlumberger referred the Tribunal to Schlumberger's book of authorities and highlighted for the Tribunal the following cases: *Shaft Sinkers and U & N Equipment v. The Deputy Minister of National Revenue for Customs and Excise* (1968), 4 T.B.R. 156; *Metropolitan Bio-Medical Laboratories v. The Deputy Minister of National Revenue for Customs and Excise* (1977), 6 T.B.R. 445; *Windsor Management Services Ltd. v. The Deputy Minister of National Revenue for Customs and Excise* (1978), 6 T.B.R. 674; *Deputy Minister of National Revenue (Customs and Excise) v. Kallestad Canada Inc.* (1987), 14 C.E.R. 71; *Maple Leaf Potato Chips Inc. v. Deputy Minister of National Revenue for Customs and Excise* (1965), 3 T.B.R. 270; *Bestpipe Limited v. Deputy Minister of National Revenue for Customs and Excise* (1970), 5 T.B.R. 58; *Robert Bosch (Canada) Ltd. v. The Deputy Minister of National Revenue for Customs and Excise* (1985), 10 T.B.R. 110; *Matt's Manufacturing Ltd. and Interdome Sales Ltd. v. The Deputy Minister of National Revenue for Customs and Excise* (1984), 9 T.B.R. 158.

Counsel for the respondent correctly pointed out that the authorities cited by counsel for Schlumberger do not support Schlumberger's case. In fact, these authorities support the position of the respondent.

Indeed, in *Shaft Sinkers and U & N Equipment*, for example, the Tariff Board found that "The three major components making up the hoist function as a complete unit for one purpose only, namely that of a hoist." In *Metropolitan Bio-Medical Laboratories*, the Tariff Board found that "There are no non-essential components; if one is taken away, the system does not work." In *Windsor Management Services Ltd.*, the Tariff Board found that "Clearly, the three units are intended to operate as a coordinated entity; if one is removed, the system will not work in the manner for which it was designed." Indeed, any operator of office equipment will attest to the fact that a word processor is useless if the keyboard, the printer or the video display does not work. In *Kallestad Canada Inc.*, the Federal Court found that "Where ... it finds the goods to be a single entity all of whose components contribute to a single defined function, they must be classified under whatever tariff item is appropriate to that entity." In *Maple Leaf Potato Chips Inc.*, the Tariff Board found that "Since the kettle and the heat exchanger are designed for use together as a fryer or cooker, and have no other application, they are each part of a fryer.... " Indeed, of what use would be a fryer if the kettle does not operate? In *Bestpipe Limited*, the Tariff Board found that "Not only is each article essential to making concrete pipe, but so is their combination in a concatenation of operation and function so intimate as to make of the complex combination a single entity of which the pallets and headers are parts." In *Robert Bosch (Canada) Ltd.*, the

Tariff Board found that "the article, consisting of the tuner, pre-amplifier and related apparatus has no use other than as a component of a radio receiving set and is necessary for the functioning of the set." In *Matt's Manufacturing Ltd. and Interdome Sales Ltd.*, the Tariff Board found that the wireline and equipment (i.e., the wireline cable and surface instrumentation) were a unit that was not part of the truck on which it is mounted.

It flows from the testimony and the evidence that the Lognet system is a system of transmission of information, that the Lognet system is not necessary to the operation of the CSU and that the Lognet system only enters into operation once logging is done.

The Tribunal finds that the Lognet system is not a component of a well logging system.

Counsel for Schlumberger argued that the Lognet system was "Well logging equipment" or "Parts of all the foregoing."

It was incumbent upon Schlumberger to demonstrate that the Lognet system was "Well logging equipment" or "Parts of all the foregoing."

The testimony and the evidence have shown that a log is made in the CSU of all the data that are generated down in the borehole and transmitted up the wireline cable to that unit, and that the Lognet system enters in operation to transmit data only when that data have already been logged. Therefore, the Lognet system cannot be involved in well logging.

The Tribunal finds that the Lognet system is not "Well logging equipment" or "Parts of all the foregoing."

## CONCLUSION

The appeal should be dismissed.

Robert J. Bertrand, Q.C.  
Robert J. Bertrand, Q.C.  
Presiding Member

Sidney A. Fraleigh  
Sidney A. Fraleigh  
Member

## DISSENTING VIEWS OF MEMBER TRUDEAU

The issue in this case is whether certain telecommunication devices, referred to by the appellant as LOGNET\* Communications Network, used exclusively to transmit data recorded in the process of well logging, should be classified under tariff item 49102-1 as "Well logging equipment ... Parts of all the foregoing" ("*Matériel d'étude des puits ... Pièces de ce qui précède*" in the French version) or under tariff item 49104-1 as "Machinery and apparatus for use in exploratory or discovery work in connection with oil or natural gas wells ... " a basket provision in the relevant tariff classification.

What has to be determined, essentially, is whether the equipment in issue fits in the category "Well logging equipment," "Parts of all the foregoing" or in the appropriate basket provision mentioned above.

A narrow view of what can qualify as well logging equipment could lead one to conclude that only the equipment that is used to take and record measurements (albeit in terms of electronic data in this day and age) qualifies as well logging equipment. Consequently, all equipment necessary to produce logs or well logs, as described by the expert witnesses, does not qualify because the legislation was intended to cover solely equipment used in the actual performance of well logging and not the display and interpretation of such information.

In my view, that does not appear to be the intent of the legislation, when read in its proper context with full regard to the plain and ordinary meaning of the words in the English and French versions. Furthermore, this view is not supported by the actual classification by Revenue Canada of equipment used in well logging either at the well site or at the Calgary Log Interpretation Centre.

It is necessary to reconcile the English and French versions of the enumerated equipment in question because the French text describes the well logging equipment as "*Matériel d'étude des puits*". The French text, which includes the equivalent of the word study, appears to be of broader scope. The term "the study of wells," as contemplated in the French version on the basis of its plain and ordinary meaning, provides a broader interpretation to the words "well logging" than does the English version, when looked at in isolation. It is also noteworthy that the French version does not employ the words that commonly mean "to log."

The Robert & Collins English-French Dictionary<sup>1</sup> translates "to log" by "*noter, consigner*" or "*enregistrer*". These words are not used in the French version; instead, the word "*étude*" is used. The use of "survey" to translate "*étude*" is not appropriate in this context. Had the legislator intended to use "survey," it would have replaced "logging" in the English version.

In my view, "*étude*" and "logging" are far from having the same and exact meaning.

In the *Slaight Communications Inc.* case, *supra*, at page 1070, the Supreme Court has explained the proper approach to follow in cases where the English and French versions differ in meaning:

*First of all, therefore, these two versions have to be reconciled if possible. To do this, an attempt must be made to get from the two versions of the provision the meaning common to them both and ascertain whether this appears to be consistent with the purpose and general scheme of the ... [statute].*

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1. Second Edition, Collins Publishers, London, Glasgow & Toronto, 1988.



I would therefore give the expression "Well logging equipment" (and "Parts of all the foregoing") its full meaning, consistent with the meaning of "*Matériel d'étude des puits*" as used in the trade, instead of a very narrow definition based on an analysis of each word without regard to the overall context or trade usage of these words. This approach is in no way inconsistent with the purpose and the general scheme of the statute or the enumerated provisions, as it is clear from case law that when an enumerated category is available to classify an item, it should be used over a basket provision.

The appellant provided several definitions of the expression "well logging." All dictionary definitions, in some way, are incomplete or deficient in view of the technological advances that have taken place in this field in recent years, but generally support the broader interpretation developed, using as cornerstone the concept of equipment for the recording and study of data pertaining to wells.

The definition of well logging submitted by the appellant's principal witness, which was attested as being accurate and representative by several expert witnesses and which was not contested by the respondent's witness, is as follows:

*Well logging is a technique involving the acquisition, processing and presentation of subsurface measurements from a well bore.*

The key elements of this definition are that well logging relates to taking subsurface measurements of well bores, processing that information and presenting the information in a form (such as well logs) suitable for subsequent analysis. In my view, log analysis is a function that is clearly distinct from well logging.

The expression "when logging is done," to which referred the witness for the appellant, should be interpreted in its proper context as meaning:

- the completion of the physical act of taking downhole information by the *sonde*;
- bringing the *sonde* up to the surface; and
- having the relevant data stored in the computer.

The witness was clearly referring to only one step when he said: "when logging is done;" he was referring simply to the acquisition of the data. At that stage, all the electronic measurements were in the computer, so to speak. Well logs had not necessarily been produced. Enhanced well logs certainly had not been. The production of well logs was part of the next two steps in the well logging process (the processing and presentation of data stages).

I, therefore, do not attach much importance to the use of that expression, but attach a lot of importance to subsequent evidence relating to the decision-making process relative to the continuation or the cessation of drilling. Those decisions were dependent on the production of well logs and their analysis. Indeed, in the case of enhanced well logs, it was only possible to produce these in Calgary.

A copy of an enhanced version was submitted as Exhibit A-3 and was described by the witness as a computer extrapolation of data that provides borehole imaging. In my view, the definition in Exhibit A-13, Tab 2, and the testimony support the view that what is produced in the enhanced version is part of a log. It is a record of what is found in the borehole. The fact that it involves computer extrapolation does not make it less a record. In my view, it is a well log in an enhanced form to permit better analysis of the well.

There is no quarrel amongst the parties that all the related equipment that is used at the well site and in the well logging wireline operation (excluding the chassis of the truck, in which much of the electronic equipment is located) qualifies as well logging equipment. This equipment includes the *sonde*, other downhole instruments, the wire to the truck, all the electronic equipment and computers in the truck that perform operations on raw data and the related equipment that produces and displays what is known in the trade as well logs. According to the witness, all this equipment has consistently been classified as well logging equipment.

In addition, there is evidence that a VAX computer and its processing devices located in Calgary, which are used exclusively or largely for the processing of raw data and production of well logs, were classified as well logging equipment by the Deputy Minister of National Revenue, Customs and Excise. Exhibit A-14, filed at the hearing and cited by the majority at page 16, states:

*... it is the decision of the Deputy Minister of National Revenue for Customs and Excise, pursuant to subsection 46(4) of the said [Customs] Act, that the subject goods [Data Processing Equipment for a Field Log Interpretation Centre] are classified under tariff item 49102-1, as claimed.*

The testimony by counsel for the respondent concerning the Deputy Minister's motives is not relevant. The fact is that the VAX computer is so classified. It would be absurd not to consider as well logging equipment the Lognet equipment which joins logging equipment at the well site and logging equipment in Calgary.

The main line of argument by the respondent for not classifying the Lognet equipment as well logging equipment was that the equipment in issue was not an essential component for the preparation of well logs, as they could be done on-site. In the case of the enhanced versions, which could not be done on-site, the data could be sent to the Calgary computer by other means: telephone modem, personal delivery, mail, etc. The same could be said for other elements of a well logging system; other sondes, other survey cables, computers other than the VAX computer could be substituted and still create a log.

As noted above, the central argument advanced by the respondent not to allow the goods in issue as "Well logging equipment" or "Parts of all the foregoing" was that they were not "considered to be a necessary or an integral part of the well logging process."

The decision of the Federal Court of Appeal in the *Kallestad Canada Inc.* case, *supra*, is not helpful to the respondent, in my opinion. It states:

...

*2. The fact that the components of an item of commerce are identifiable as distinct entities is nothing to the point.*

*3. Where the goods are found to be a single entity all of whose components contribute to a single defined function, they must be classified under whatever tariff item is appropriate to that entity.*

*4. In the absence of any specifically applicable item, the goods will be classified under the "basket" provision ... for goods not enumerated.*

All the goods in a well logging system can be considered as a "single commercial entity." According to the Federal Court, when the Tariff Board found this to be the case, it should have classified the goods under whatever tariff item was appropriate to that entity. In the *Kallestad Canada Inc.* case, *supra*, no tariff item was specifically applicable and the Federal Court resorted to the basket provision. In the present case, there is a specifically applicable item: "Well logging equipment" or "Parts of all the foregoing."

The Lognet system is quite essential and is, in my view, an integral part of the equipment necessary for the timely production of well logs at the CLIC. That similar logs are produced, or may be produced, at the well site is quite immaterial to the resolution of this case.

Clear evidence was adduced to the effect that although well logs are produced and used on-site for decision-making purposes, well log analysts who use the same well log data perform their functions off-site in places such as Calgary. Also, it is vital for them to have at their disposal, in timely fashion, not only the raw data, but also the well logs produced from these data. The equipment in issue that achieved a major technological breakthrough was designed to expedite the transportation of electronic well logging data in order to produce well logs in a more timely fashion. Furthermore, it is used exclusively for that purpose and is an essential component of the system to achieve that end.

It is a fair hypothesis that if the more powerful VAX computer located in Calgary were actually in the truck, at the well site, and used in the production of well logs, there would be no basis to conclude that it does not qualify as well logging equipment. It would follow, therefore, that any cable that connects such a computer to the equipment in the truck that records the data would be considered well logging equipment, just as the wire from the truck to the *sonde* qualifies as well logging equipment. As the telecommunication equipment in question serves no other real purpose than does a wire, and on the basis that the wire would be eligible, I find that the telecommunication equipment in issue also qualifies as "Well logging equipment" or "Parts of all the foregoing" under tariff item 49102-1. To decide otherwise would lead to the conclusion that such equipment serves purposes unrelated to well logging. There is no evidence to support such a proposition. On the contrary, it is clear that the Lognet system is a totally dedicated part of the well logging equipment, from the *sonde* at the bottom of the well to the VAX computer in Calgary.

For the foregoing reasons, I would have allowed the appeal.

Arthur B. Trudeau  
Arthur B. Trudeau  
Member