

Court of Queen's Bench of Alberta

Citation: Conocophillips Canada Resources Corp. v. Lemay, 2009 ABQB 72

Date: 20090202
Docket: 0701 12215
Registry: Calgary

Between:

Conocophillips Canada Resources Corp.

Appellant

- and -

Brian Douglas Lemay and Barry A. Lemay

Respondents

**Reasons for Judgment
of the
Honourable Mr. Justice D.B. Mason**

Introduction

[1] The Appellant Conocophillips Canada Resources Corp. (“Conoco”) appeals the decisions and orders of the Surface Rights Board (“Board”) issued September 22, 2006, whereby the Board fixed compensation payable to Brian Lemay and Barry Lemay (the “Lemays”) for two surface leases on lands jointly farmed by them. Two heads of compensation are alleged to be at issue pursuant to sections 25(1)(c) and (d) of the *Surface Rights Act*, R.S.A. 2000 c. S-24 (the “Act”).

[2] The two heads of compensation are:

- (1) loss of use of the area granted to Conoco, and;
- (2) adverse effect on the remaining lands of the Lemays, including inconvenience and noise caused by, arising from, or in connection with the operations of Conoco.

[3] Conoco appeals the Board decisions because the Board refused Conoco's request for an adjournment when it alleged it was caught by surprise by the Lemays' submissions respecting compensation for the adverse effect of two wellsites. The parties had been negotiating for over a year on the basis of a "pattern of dealings" approach as sanctioned by the established jurisprudence on surface rights use compensation. However, at the Board hearing the Lemays chose to advance their claim for adverse effect based on empirical data they developed by utilizing computer developed time and distance measurements and computer records and calculations from their operations. The Lemays submitted that the empirical evidence provided "cogent reasons" to prove that the adverse effect they measured and calculated provided more cogent evidence to calculate the adverse effect on their lands. The Lemays understood their loss of use claim of \$350 per acre had been agreed to by Conoco and stated so in their brief to the Board. They made no submission and gave no evidence on the issue of loss of use compensation.

[4] Conoco takes the position that the Board's refusal to grant it a proper adjournment denied Conoco the opportunity of answer and defence against the Lemays' submissions respecting adverse effect.

[5] At the hearing, Conoco submitted pattern of dealings evidence respecting both loss of use and adverse effect, but advised the Board that it was increasing its submitted written loss of use offer from \$325 to \$350 per acre in order to settle the loss of use compensation issue with the Lemays.

[6] Regardless of the parties' expressed agreement on loss of use compensation, the Board assessed loss of use at \$350 per acre. The Board considered Conoco's submissions on loss of use at \$325 per acre and increased it to \$350 per acre based on the Lemays' production figures and efficiency of operation.

[7] The Board accepted completely the Lemays' empirical evidence and calculations of compensation for adverse effect for both wellsites. Conoco submits the Board erred by failing to assess compensation for adverse effect based on the pattern of dealings methodology, and appeals by way of a new hearing pursuant to the provisions of the *Act*.

[8] In reply, the Lemays argue there were cogent reasons for the Board to choose and adopt their empirical analysis and assessment of damages for adverse effect. They submit the empirical methodology they developed provides a truer determination of the adverse effect compensation to which they are entitled in place of the usual operators' generic patterns of dealing, as submitted by Conoco. The Lemays contend that every aspect of their farming operation, from harrowing, seeding, spraying, swathing, combining and harvesting, was conducted, monitored, measured and analysed in order to yield the empirical data submitted to the Board and put again before this court on appeal.

Agreed Statement of Facts

[9] The parties agreed upon the following basic Statement of Facts:

The Respondent Brian Douglas Lemay owns the NE 8-32-22 W4M (the "NE-8"). The Respondent Barry A. Lemay owns the SW 31-29-21 W4M (the "SW-31"). Both Respondents jointly conduct farming activities on the NE-8 and the SW-31 (the "Lands"). The Appellant holds a surface lease dated July 16, 1985 for a 4.40-acre wellsite and access road on NE-8 (the "16-8"), as well as a surface lease dated July 10, 1995 for a 3.56-acre wellsite on the SW-31 (the "5-31"); (together, the "Surface Leases").

The current annual compensation being paid by the Appellant to the Respondents for Surface Leases, as well as the effective review dates for annual compensation payable under the Surface Leases, are as follows:

- (a)16-8.....July 16, 2005.....\$2,500.00
- (b)5-31.....July 10, 2005.....\$2,300.00

Negotiations between the Appellant and the Respondents did not lead to an agreement on annual compensation, and the Respondents applied to the Board.

The Board conducted a compensation review hearing in respect of the annual compensation payable under the Surface Leases on July 6, 2006.

The Board released its written decision in respect of annual compensation for the Surface leases on September 22, 2006. In its decision, the Board fixed compensation payable retroactive to the effective dates in July 2005. Its determination of loss of use (based on the pattern of dealings in the area), and of adverse effect (based on the Respondents' empirical evidence), was as follows:

16-8	Loss of Use	\$350 per acre x 4.40 acres	\$1,540.00
	Adverse Effect		<u>\$3,600.00</u>
	Total Annual Compensation		\$5,140.00
5-31	Loss of Use	\$350 per acre x 3.56 acres	\$1,246.00
	Adverse Effect		<u>\$3,000.00</u>
	Total Annual Compensation		\$4,246.00

[10] Included in the Agreed Statement of Facts are copies of the Certificates of Title, a series of aerial photographs, and surveys of the wellsites. Actual surface photographs of each wellsite together with copies of the two Alberta Surface Lease Agreements now held by Conoco are also part of the Agreed Statement of Facts.

Issues

[11] The following issues need to be addressed:

- Whether the Issue of Loss of Use Compensation Was Before the Board
- Whether the Board Committed an Error by Failing to Grant Conoco the Requested Adjournment
- Which Standard of Review is Applicable
- The Method to be Used in Determining Compensation
- Entitlement to Legal Costs and Personal Costs

Right of Appeal from the Surface Rights Board to the Court of Queen's Bench

[12] Conoco, the appellant operator, or any landowner has a right of appeal from the Board to this Court pursuant to section 26 of the *Act* which states in part:

(1) The operator or any respondent named in a compensation order may appeal a compensation order made under this Act to the Court of Queen's Bench as to the amount of compensation payable or the person to whom the compensation is payable or both.

(6) An appeal to the Court shall be in the form of a new hearing.

(7) The Court

(a) has the power and jurisdiction of the Board in determining the amount of compensation payable and the person to whom the compensation is payable,

(b) shall determine the amount of compensation payable and the person to whom the compensation is payable,

(c) shall

(i) confirm the order of the Board, or
(ii) direct that the compensation order be varied in accordance with its judgment, and

(d) shall make directions as to costs of the appeal in accordance with subsection (9).

- (10) A judgment of the Court of Queen's Bench or the Court of Appeal shall be served on the Board, and the Board without any further hearing shall vary its order in accordance with the judgment.
[My emphasis]

[13] It is necessary as part of the standard of review analysis to address the history of the negotiations between Conoco and the Lemays, the process before the Board, the Board decision and reasons, and the extended case on appeal.

History of Negotiations Between Conoco and the Lemays

[14] Conoco submits that the Lemays breached their obligations to negotiate in good faith as mandated by section 27 of the *Act*. Initial negotiations respecting the compensation payable took place during July, 2004 to July, 2005, in response to the notices Conoco sent to each of the Lemays as required by the *Act*. Mr. John Lanaras, a licenced land agent and surface land manager with Cavalier Land Ltd., represented Conoco both in negotiations and at the Board hearing. Mr. Paul Vasseur, a licenced land agent with Flying V Consulting, negotiated on behalf of the Lemays and presented at the Board hearings on their behalf, but did not appear at this appeal.

[15] These land agents tried to negotiate the compensation payable by utilizing the pattern of dealings approach. The Lemays are well experienced in these type of negotiations not only with Conoco but with other oil company operators. There are 33 wellsites on the 6500 acres the Lemays farm jointly.

[16] Negotiations regarding the wellsites dragged out over a long period, but, according to Mr. Lanaras, between June 26 and 29, 2006, the parties came to a point where both agreed to accept the following:

- (1) for the 5-31 site, \$350.00 per acre for the 3.56 acres totalling \$1,200.46 for loss of use, and \$1,954.00 for adverse effect for a total of \$3,200.00.
- (2) for the 16-8 site, \$350.00 per acre for the 4.4 acres totalling \$1,540.00 for loss of use, and \$2,160.00 for adverse effect for a total of \$3,700.00.

[17] However, the Lemays requested at this same time a review of the wellsite compensation previously re-negotiated a year earlier on a different well. Conoco refused, having already increased compensation payable on that wellsite. The upshot was a failure to reach an agreement on these two sites and the parties proceeded to the Board for a hearing.

The Board Hearing

[18] The Board's return to this Court included the letters and material received by it up to the hearing as well as the Board's decision. Neither of the parties' submissions were included in the return. Counsel did not seek the complete return. The case on appeal was presented on a *de novo* basis by both parties.

[19] Conoco filed their brief on compensation with the Board based on the pattern of dealings utilized by Conoco during negotiations, and Mr. Lanaras attended the Board proceedings prepared to argue compensation on this basis. The Lemays' empirical data brief presented to the Board by Mr. Vasseur addressed only the issue of adverse effect on the understanding that loss of use was settled at \$350.00 per acre. Conoco claims to have been caught completely unaware of the case they had to meet respecting adverse effect. No notice of this form of approach or the content of the Lemays' presentation was given to Conoco before the hearing.

[20] An adjournment was requested. A short adjournment was given but Conoco alleges it was not of sufficient time to allow it to address the turn of events.

[21] The Board's reasons show that Mr. Vasseur submitted a joint presentation to the Board with the Lemays. Most of the evidence was presented before me and will be referred to later, however, a key part of his presentation was as follows:

The Operator and the Lemays have agreed that \$350 per acre is acceptable compensation for loss of use. Therefore, compensation for adverse effect will be the focus of today's hearing.

[22] In support of the Lemays' argument, Mr. Vasseur provided a publication entitled Midfield Structures Increase Farming Costs which provided guidelines to calculate extra costs for farming around wellsites plus a 10% decrease in field efficiency. Reliance on this publication is an issue addressed later in these reasons.

[23] The Board then included a verbatim account of the Lemays' analyses of input and time losses, and extra turning costs for both wellsites. The Board concluded its summary of the Lemays' empirical data by setting out the specifics of their claimed adverse effect compensation.

[24] On behalf of Conoco both Mr. Lanaras and Billy Joe Waldo, an agent who had acted on the matter with Mr. Lanaras, presented evidence. They introduced survey plans and lease documents of the two sites along with Certificates of Title, property descriptions, a summary of the negotiations, photographs of the sites and estimates of compensation based on a summary of 106 surface leases they submitted as comparables to the two wellsites for both loss of use and adverse effect.

[25] Mr. Lanaras advised the Board that Conoco's offer for loss of use compensation was being increased from \$325 per acre to \$350 per acre in order to settle this claim.

[26] For adverse effect on the 16-8 wellsite, Conoco's offer was \$1,770.00, and on the 5-31 wellsite was \$1,643.00. Mr. Lanaras' evidence as the reasons for these offers was the same and largely identical to the evidence he presented before this Court, and will be referred to later in these reasons.

[27] The Board rejected Conoco's submission that adverse effect was difficult to assess and accepted the Lemays' empirical evidence as credible and reasonable. I quote from the Board reasons:

When weighed against the empirical evidence provided by the Lessors, the Board finds the Operator's approach to be overly remote, generalized, and speculative. There is no way for the Board to measure compensation paid for adverse effect in the Operator's comparables against the facts and circumstances as they pertain to the present case.

The Board finds the costs of farming around the wellsite and access road as adduced by the Lessors to be credible and reasonable. The data was obtained through a combination of GPS based field tracking technology and the lessor's sworn testimony as to the nature of equipment and inputs used in their operation. The Lessors' approach to calculating adverse effect and the results of such calculations are reinforced by the Board's reading of Alberta Agriculture's publication entitled Midfield Structures Increase Farming Costs (Exhibit 1, Tab 1).

In the present case the Lessors' detailed breakdown of costs incurred in farming around the Operator's facilities (Exhibits 2 and 3) is a cogent and rational starting point for calculating adverse effect. The data submitted in evidence provides a comprehensive account of extra distances travelled with machinery and the size and type of machinery used. The data also shows the cost of extra fertilizer, herbicides, fungicides, seed, fuel, extra time and operations required as a result of the Operator's presence.

The Lessors outlined a host of other problems arising from the need to farm around the Operator's facilities. These include soil compaction arising from overlapping moves required in all phases of field operations. Despite their professional and scientific approach, the Lessors' experience problems with over and under application of input materials, crop lodging, uneven crop maturation and compromised harvest quality. The Operator's facilities also pose problems for the Lessors in their deployment of G.P.S. guided auto-steer systems used to increase field efficiency and control labour costs. The Lessors strive to achieve fully farmable fields free of physical barriers and interruptions. This is only attained through the expenditure of significant costs and time.

In previous decisions (i.e. Decision No. 2006/0074), the Board states that the empirical or tangible costs of farming around a given site is just one of the factors to be considered in determining adverse effect. Nuisance, inconvenience, and noise form the nucleus of intangible factors must also be taken into account. Nuisance and inconvenience include

but are not limited to the need for the Lessors to conduct extra surveillance, ensure their property is protected, dealing with the operator and employees (including contractors) and time spent in developing strategies to mitigate the impacts posed by the Operator's operations and facilities.

The Lessors emphasize the issue of weed problems arising from wellsites, access roads, and the Operator's vehicles. Photographs submitted as Exhibit 4 show extensive problems with weeds. In response to the Board's questioning, the Lessors admit that these photographs were not taken on the subject sites under review. Rather, they are meant to provide generic examples of weed infestation problems.

Photographs of the subject sites submitted by the Operator (Exhibits 9 and 10, Tab F) show scant indication of weed infestation. The Lessors counter this by noting that the Operator will often take steps to control weeds after they have gone to seed and this approach is ineffective. The Lessors contend that the subject sites are relatively free of weeds due to their own efforts and diligence.

The Board prefers to accept the Lessors' evidence regarding weeds. In isolation, the photographs taken of the subject site do not provide conclusive evidence as to whether the relatively weed free condition results from the Operator's care or the actions taken by the Lessors to control unwanted infestations.

What the site photographs do show is that the Lessors farm not only around the sites but also over a portion of the Operator's land. Operators will typically argue that by farming over a portion of a site, landowners are reaping extra financial benefits. The Board however, holds the opinion that by farming over a portion of the lease, the Lessors are in effect saving the Operator money in terms of expenditures for weed control and diminishing the eventual cost to reclaim the site.

The evidence sets out extra operational costs incurred and extra work undertaken by the Lessors in adjusting their practices to accommodate the Operator's presence. Given the lack of countermanding evidence, the Board prefers the Lessor's evidence over that given by the Operator. From this the Board mainly attributes the relative lack of weeds on the subject sites to the Lessors' diligence and vital self-interests. And the Board will factor this into its determination.

Taking both tangible and intangible factors into account, the Board determines the following amounts for the adverse effect:

The L.S. 16-8 site:

The Board finds the costs of farming around the wellsite and access road as adduced by the Lessors to be credible and reasonable. Although weeds do not appear to be a primary problem, this state of affairs is at the very least, partially attributable to the Lessors' efforts. In addition, the Lessors must still contend with a number of related

nuisances and inconveniences as previously described. Taking both tangible and intangible factors into account, the Board finds the Operator's offer of compensation for adverse effect as insufficient to cover the expense, time, nuisance, and inconvenience borne by the Lessors. Therefore the Board determines that the Operator shall pay to the Lessors the annual sum of \$3,600.00 for adverse effect.

The L.S. 5-31 site:

Although this site does not have an access road, the Lessors spend considerable effort in farming around it. The Operator suggests that the Lessors are garnering benefits from farming part of both sites. As previously mentioned, the Board views this practice as benefiting the Operator. By farming in a "teardrop" pattern the Lessors are controlling weeds and conditioning part of the sites for greater ease in reclamation. The extraordinary distance between this site and the Lessors' base of operations is also a factor to be taken into account. The Lessors must take extra pains to plan and execute measures necessary to conduct their operations around the L.S. 5-31 site. And notwithstanding the Lessors' fixed costs of farming the said land, they must also contend with the extra expense and nuisance of dealing with problems posed by the Operator's site from a greater distance.

The Board finds the Operator's offer to be insufficient to offset the extra expenses, nuisance, and inconvenience borne by the Lessors. The Board accepts both the tangible and intangible expenses as set forth in the Lessors' request to be fair and reasonable. Compensation for adverse effect is therefore fixed in the amount of \$3,000.

[28] The Board ordered costs of \$3,073 to the Lemays.

Whether Loss of Use Compensation Was Before the Board

[29] The parties' agreement on loss of use compensation and their confirmation of this to the Board resolved that issue at the outset. The Board erred in its decision that the hearing "invoked" the question that "fair compensation is completely at large". The parties' agreement removed the issue of loss of use compensation from the Board.

[30] While the parties addressed loss of use on the *de novo* appeal, that does not extend jurisdiction to this Court to hear it. Neither party has ever argued the facts of the settlement. The only reason the parties addressed the issue before me is because the Board addressed it and made a ruling. I find the Board had no jurisdiction to do so, and therefore, I find the settlement remains binding. Loss of use compensation will not be addressed further in these reasons. The real issue on appeal was compensation for adverse effect.

Whether the Board Committed an Error by Failing to Grant Conoco the Requested Adjournment

[31] The Board's decision to proceed with the hearing without adjournment effectively denied Conoco the right to cross-examination or make full answer and defence. The Board simply accepted the Lemays' evidence and empirical methodology, and awarded compensation for adverse effect of \$3,600.00 on 16-8 and \$3,000.00 on 5-31.

[32] I find the Board's decision not to grant a proper adjournment to Conoco was an error in law. By limiting the scope of the hearing before it, the Board denied natural justice to Conoco and breached the *audi alteram partem* rule, that is to say fair opportunity for each side to present its case. This placed the Board in a limited position to assess the evidence and determine if the empirical data presented was of sufficient cogency to replace a pattern of dealings methodology respecting adverse effect.

[33] Such issues should be before the Board, which has the background training and experience to make such expert assessments. I note in *Ferguson v. Ranger Oil Ltd.*, (1995), 168 A.R. 1, that this situation was considered by Justice Hembroff. After enunciating why he found the Board referred to a practice between landowners and operators without having any information on that practice and that the Board gave the parties no opportunity to address the knowledge and information that it utilized to make its ruling, Justice Hembroff considered the position of this Court on the appeal process. I quote from para. 94 of the judgment:

Having come to the conclusion the Board did not act in accord with its mandate, a final question arises. That is, what amount should properly be awarded to compensate the landowners in question for the general disturbance and adverse effect to their land and operations as a result of the exercise by the Ranger Oil of the rights given to it under various Rights of Entry Orders?

It would be useful if there was a provision in the Act to allow me to make the finding I have and then return the matter to the Board for calculation. This would have the effect of maintaining the position the Board is best suited to deal with these claims. However, as I read the Act, that is not available to me and I must substitute my view for that of the Board.

[34] Sub-section 7 of section 26, which provides the appeal mechanism, states the Court has the power and jurisdiction of the Board to determine the amount of compensation payable, that it shall determine the amount of compensation, and further, that it shall confirm the order of the Board or direct the compensation order be varied in accordance with its judgment.

[35] I agree with Justice Hembroff that those provisions are mandatory and compel this Court to deal with the matter by way of a new hearing and to effect the remedies as provided for in sub-section 7.

[36] It occurs to me that an application for judicial review might well have been available in these circumstances where the Board's jurisdiction is put at issue as a result of its actions. That was not addressed before Mr. Justice Hembroff nor has it been addressed before me.

[37] On this point the Court of Appeal in *Imperial Oil Resources Ltd. v. 826167 Alberta Inc.*, 2005 ABQB 309; affirmed on appeal; (2007), 404 A.R. 212, 2007 ABCA 131; (leave to appeal to S.C.C. refused), at para. 9, reviewed the scope of "judicial review" and stated it "embraces review of administrative decisions by way of both application for judicial review and statutory rights of appeal..." In any event, either process would entail determining the proper standard of review by the reviewing court. Generally, the discretionary remedy of judicial review is declined if an adequate statutory right of appeal is present. This was the issue in *Milner Power Inc. v. Alberta Energy and Utilities Board*, [2007] 12 W.W.R. 389. Citing its decision in *Foster v. Alberta (Transportation Safety Board)*, (2006), 397 A.R. 82, [2006] A.J. No. 1263, the Court of Appeal set out the factors to be considered when an application for judicial review is made even though there is a statutory right of appeal. Quoting from para. 14 of its own decision in *Foster* the Alberta Court of Appeal set out these factors:

Determination of whether a right to appeal is adequate involves assessment of several factors: procedure on appeal; composition and powers of the appeal tribunal; manner of exercise of such powers; burden of the previous finding; expeditiousness and costs. This was confirmed in ...*Matsqui*, which added a number of additional considerations:

The factors a court should consider in determining whether it should enter into judicial review or, alternatively, should require an applicant to proceed through a statutory appeal procedure include: the convenience of the alternative remedy; the nature of the error; and the nature of the appellant body (i.e. its investigatory, decision-making and remedial capacities). The category of factors is not closed, as it is for the court in particular circumstances to isolate and balance the factors which are relevant (p.145).

...

The question which a court should pose is: is the appeal tribunal an adequate forum for resolving the jurisdictional challenge? (p.150).

[38] Considering the failure of the Board to provide Conoco with an opportunity to meet the case put forward by the Lemays, the court could send the matter back to the Board to utilize the Board's expertise to hear both sides of the empirical methodology question and adjudicate on that issue rather than putting it before a reviewing judge on a first instance basis. This is dealt with in some measure in the reasons that follow under "Standard of Review - Analysis and Decision".

The Process Adopted By the Parties and The Evidence Put Before This Court on Appeal

Conoco's Position On Appeal

[39] In his opening statement, Mr. Swist for Conoco, emphasized the appeal "was in the form of a new hearing." Mr. Swist took the position this new hearing would permit Conoco to present, for the first time, its response to the case put before the Board by the Lemays.

[40] First Mr. Swist outlined the history of the negotiations between the parties and alleged the Lemays had breached their obligation to bargain in good faith as required by Section 27, subsection 6 of the *Act*.

[41] Second, Mr. Swist submitted the Lemays' submission to the Board was based on a method of determining compensation never put to Conoco. The Lemays' initial failure to bargain in good faith was compounded by the Board when it failed to grant a proper adjournment to permit Conoco an opportunity to respond or to even conduct meaningful cross examination of the Lemays' empirical data. Mr. Swist concluded his opening statement by submitting the Lemays had filed a new and expanded report for the appeal which sought even greater compensation than that awarded by the Board and charged this amounted to an Appeal on their part.

The Lemay Position on Appeal

[42] Mr. Wilson, counsel for the Lemays, objected to Mr. Swist characterizing the appeal under the Act as a *de novo* hearing. He said the reason the Lemays filed their brief before the Board was because Conoco failed to provide them with any specific data as to how compensation for adverse effect was calculated, based on pattern of dealing evidence or otherwise. They decided to do their own investigation and present information based on their own technological data and records from their actual farming operation. Mr. Wilson argued that the Board should have, and did, prefer the Lemay method of determining compensation for adverse effect.

[43] In answer to Conoco's complaint that the Lemays failed to negotiate in good faith, Mr. Wilson established in cross-examination that Conoco had not provided a copy of their brief to the Board or to the Lemays before the Board hearing. From the evidence before me, the parties do not exchange their filed Board submissions prior to the hearing. Mr. Wilson made it clear that he was not in favour of that ambush approach to Board hearings. This issue is not addressed in the *Act*, nor is it addressed in Alberta Regulation 196/2000, the *Surface Rights Act Rules of Procedure and Practice*. This oversight has far reaching ramifications, and in my judgment, the Board needs to amend its procedure.

[44] Lastly, Mr. Wilson denied that the report filed by the Lemays in this appeal was a new report, and said it was merely an update. The update includes results of the 2006-2007 harvest with predictions forward up to 2009. Mr. Wilson denied the update was filed to seek an increase in the compensation awarded and was only to support the Board award.

[45] The ambush that was alleged to have occurred at the Board hearing was negated on appeal because the parties prepared for these proceedings under Case Management.

Submission of Conoco on Standard of Review

[46] Conoco submits that the proceedings before me were a *de novo* hearing of what the Board should have heard in the first place. Conoco refers to *Imperial*, at paras. 8 to 11 and para. 14, where the Alberta Court of Appeal characterized the new hearing as a *de novo* proceeding with broad rights to review facts, mixed fact and law, and legal questions, although not absent consideration of the Board's decision and the basis on which it was made. However, the Court of Appeal also stated that fresh evidence could undermine the factual substratum for the Board's decision.

[47] Conoco argues the Board relied entirely upon the Lemays' empirical data when determining adverse effect, without any critical review of the evidence. It argues that the evidence and report presented by Mr. Hoover in this Court provide the foundation for the necessary critical review. Conoco also argues that the evidence by Mr. Dyck regarding the errors in his report, Midfield Structures Increase Farming Costs, changes material evidence on which the Board relied in accepting Lemays' data.

[48] Secondly, Conoco submits the Board failed to apply the court-directed method of fixing compensation, namely, pattern of dealings as set forth in *Imperial*.

[49] Overall, Conoco argues the proper standard of review should be correctness, or at least limited deference, in light of the short comings of the process including a lack of evidence to support findings of fact when determining compensation which is an issue of mixed fact and law.

Submission of the Lemays on Standard of Review

[50] Counsel for the Lemays cited both *Imperial* and *Canadian Natural Resources Ltd. v. Bennett & Bennett Holdings Ltd.*, (2008), 436 A.R. 256, 2008 ABQB 19, as full support for arguing the standard of review is reasonableness. The Lemays also submit that applying the analysis in *Dunsmuir v. New Brunswick*, [2008] 1 S.C.R. 190, 2008 SCC 9, also supports the standard of reasonableness. Counsel quoted from *Dunsmuir* and pointed out:

- (1) that the existing jurisprudence establishes deference when the tribunal is interpreting its own statute (see para. 54);
- (2) questions of fact, discretion and policy issues of mixed fact and law denote deference (see paras. 51 and 53);
- (3) when the question is one of fact, discretion or policy, deference usually applies automatically (see para. 53); and

- (4) the compensation issue is one statutorily confided in the Board and is not a question of law or jurisdiction (see para. 147).

[51] The Lemays dispute that the standard of review is changed to correctness because of the Board's refusal to permit an adjournment and the ensuing new testimony of Mr. Hoover and Mr. Dyck on appeal. They acknowledge the application of the principle in *Mattel Inc. v. 3894207 Canada Inc.*, [2006] 1 S.C.R. 772, 2006 SCC 22, referred to in *Imperial*, that the reception of new evidence could "undermine the factual substratum of the Board's decision and thus rob the decision of the value of the Board's expertise." However, the Lemays also point out that the Supreme Court of Canada went on to state: "However the power of the application's judge to receive and consider fresh evidence does not in and of itself eliminate the Board's expertise as a relevant consideration", referring back to the Supreme Court of Canada decision in *Lamb v. Canadian Reserve Oil & Gas Ltd.*, [1977] 1 S.C.R. 517.

[52] The Lemays also deny that the new material added to their evidence signals a cross-appeal. They contend that they simply had the actual data for 2006 and 2007 available at the time of the appeal hearing, and included it to demonstrate that the Board's award for compensation for the period 2005 through 2009 was not wrong and was based on more cogent evidence. Any other differences to the Lemays' presentation were made to make their calculations more precise and conservative.

Standard of Review - Analysis and Decision

[53] In *Imperial*, a case referred to by both parties, Imperial appealed a Surface Rights Board order seeking reduction of the compensation awarded for 58 natural resource wells. The Board had increased compensation from \$95,191 to \$179,750. The appeal came before Langston, J. of this Court, who did not specifically set out an analysis of the applicable standard of review but found the Board's award of compensation unreasonable and reduced it to \$120,340. The case went to the Court of Appeal, which addressed the appropriate standard of review respecting the Board's jurisdiction to award compensation for loss of use and adverse effect. The Court of Appeal determined Langston, J. had applied the reasonableness standard.

[54] In para. 9, the Court of Appeal stated that judicial review embraces a review of administrative decisions by way of both application for judicial review and statutory rights of appeal, and proceeded to review the standard of review applicable to the Board's decision by the pragmatic and functional approach set out in *Pushpanathan v. Canada (Minister of Citizenship and Immigration)*, [1998] 1 S.C.R. 982. In *Dr. Q. v. College of Physicians and Surgeons of B.C.*, [2003] 1 S.C.R. 226 at para. 22, the Chief Justice provided an explanation of the pragmatic and functional approach:

To determine standard of review on the pragmatic and functional approach, it is not enough for a reviewing court to interpret an isolated statutory provision relating to judicial review. Nor is it sufficient merely to identify a categorical or nominate error, such as bad faith, error on collateral or preliminary matters, ulterior or improper purpose, no evidence, or the consideration of an irrelevant

factor. Rather, the pragmatic and functional approach calls upon the court to weigh a series of factors in an effort to discern whether a particular issue before the administrative body should receive exacting review by a court, undergo “significant searching or testing” (*Southam, supra*, at para. 57), or be left to the near exclusive determination of the decision-maker. These various postures of deference correspond, respectively, to the standards of correctness, reasonableness *simpliciter*, and patent unreasonableness.

[55] During preparation of the written submissions by the parties, the Supreme Court of Canada issued its judgment in *Dunsmuir*. The court reviewed and recast the approach to judicial review. It dispensed with the pragmatic and functional approach as being ill-defined and adopted its “standard of review analysis”. This new approach removed the standards of patently unreasonable and reasonableness *simpliciter* leaving only two standards, correctness and reasonableness.

[56] The majority, beginning at para. 51 of the *Dunsmuir*, set out the method for determining the appropriate standard of review. The court described it as a two step process. The first step is to ascertain whether the established jurisprudence has satisfactorily determined the degree of deference to be accorded the decision maker given the statutory framework and the category of question in issue. If that does not produce the answer, the second step is that the court must perform a contextual analysis of the factors to identify the proper standard of review.

[57] With respect to the first step analysis and the consideration of the existing jurisprudence, the Supreme Court states, at para. 57, that an exhaustive review is not required in every case and that a review already deemed to have been performed need not be repeated:

An exhaustive review is not required in every case to determine the proper standard of review. Here again, existing jurisprudence may be helpful in identifying some of the questions that generally fall to be determined according to the correctness standard (*Cartaway Resources Corp. (Re)*, [2004] 1 S.C.R. 672, 2004 SCC 26). This simply means that the analysis required is already deemed to have been performed and need not be repeated.

First Step Analysis

[58] In *Imperial*, our Court of Appeal did review the jurisprudence and noted that even before the development of the pragmatic and functional analysis the wording *de novo* or “new hearing” in an appeal provision from a statutory board did not mean no deference was to be given to the original decision: *Lamb*. In *Lamb*, the Supreme Court of Canada concluded that an appeal from the Surface Rights Board of Saskatchewan in the form of a new hearing where new evidence could be adduced still required the Appellate Judge to consider the findings of the administrative decision maker and accord them weight, based on the expertise of the Board in determining compensation claims.

[59] Here, the parties chose to proceed to a full rehearing with new evidence including Conoco's expert empirical evidence and the Lemays' expanded and much more detailed submissions. Because of this, I pursued a closer examination of the jurisprudence cited by *Imperial*, including a review of *Lamb*. I did so to better understand the jurisprudence and meet the first step directed by *Dunsmuir*.

[60] *Lamb* considered the wording of an application in the nature of an appeal provision in the Saskatchewan *Surface Rights Acquisition and Compensation Act*. Justice Martland, for the majority, determined the legislative purpose of the statute was found in the creation of the Board under the Act: see p. 527. In setting out the approach to appeals under this type of legislation, Justice Martland quoted with approval the decision of Allan J. in *Caswell v. Alexander Petroleum Ltd.* [1972] 3 W.W.R. 706, where he commented on the functions of the court reviewing an appeal from the Alberta Right of Entry Arbitration Board. Justice Allan's quoted remarks (paras. 57 and 58) are as follows:

In closing I would like to make a few general remarks as to what I conceive to be the functions of a court hearing an appeal from an award of the Right of Entry Arbitration Board. In the first place, although I have pointed out that the hearing is in the nature of a trial *de novo*, it is nevertheless an appeal from the findings of the tribunal making the award. Tribunals such as the Right of Entry Arbitration Board may be presumed generally to be selected because of knowledge or experience in the field in which they are to operate. They are dealing with these types of cases very frequently and they must be deemed to gain knowledge of their particular field through that experience. When they make detailed findings of fact, as they did in this case, after viewing the area and hearing representations from both sides, and render written reasons as extensive as they did in this case, I think that their findings should not be lightly disturbed. In other words I think it would require cogent evidence to establish where they were wrong and why their awards should be varied or revised upward or downward. The very informality of their proceedings may suit the type of case with which they are dealing better than formal court procedure.

These boards were set up to meet a demand that compensation be fixed on a fair and adequate basis where lands or rights are expropriated for private operations, and considerable weight should be attached to their findings, except where they are clearly demonstrated to be wrong.

[61] In considering the appeal provision in the Saskatchewan statute, which is to all intents and purposes the same as the appeal provision in the *Act* in question, Justice Martland found the appeal provision is not analogous to the provisions of a trial *de novo* contained in the *Criminal Code*. He stated at para. 24:

... An appeal under the Act is concerned with the assessment of compensation and involves the determination, *inter alia*, of land values, damage to land, the effect upon land resulting from the right of entry and allowance for nuisance. The

appeal is from a tribunal which, in dealing with compensation claims throughout the province, acquires an expertise in these matters. The appeal is to a District Court judge, at the judicial centre nearest to the land in question, who is not a specialist in these matters. He hears evidence, and, it may be fresh evidence. He can assess the credibility of the witnesses, but in determining land values, the adverse effect on other land resulting from right of entry and compensation for nuisance, he should have some regard for the opinion of the Board. By this means a measure of equitable compensation can be achieved which will be uniform throughout the province, rather than varying decisions by different District Court judges in various areas of the province.

[Emphasis added]

[62] Returning to the decision of the Court of Appeal in *Imperial*, in essence the court determined the standard of review based on the first step set out in *Dunsmuir*. At paras. 14 to 18, the Court of Appeal ruled that jurisprudence already determined to a satisfactory degree the deference to be accorded to the Board with respect to the category of question: here, the compensation for loss of use and adverse effect.

[63] In summary even the absence of a privative clause and in its place a right to a new hearing does not change the standard of review as reasonableness set out in the jurisprudence. The Board's purpose is clearly established by the enabling legislation and the Board serves that purpose within the scope of the *Act*. The Board is interpreting its own statute in the case of compensation and deference will usually apply, as noted in *Dunsmuir*. The nature of the question at issue, as stated by the Court of Appeal in *Imperial*, is one of fact or mixed fact and law, which further points to the reasonableness standard. Finally the expertise of the tribunal is not only evident from the provisions of the statute but the jurisprudence, which consistently points out that the experience the Board develops enables it not only to award compensation but also bring a level of conformity to the compensation process. Considering the similarities between the issues in this case and those in *Imperial*, the determination of the standard of review applicable here is easily determined on the first-step analysis of *Dunsmuir*. The proper standard to apply in this case is therefore reasonableness.

Compensation in Issue

The Case for Conoco

[64] Anita McKearney, the team lead for Southern Alberta, provided documentary history respecting the wellsites along with survey plans and photographs. She also set out the Conoco operations currently being carried out with respect to the two wellsites. As of July 2005, wellsite 16-8 was producing, but shut in as of December 2006. Located on this wellsite was a well head, methanol tank, separator shack and berm. The wellsite is near the centre of the quarter section with a straight access road into the site. The total site and access road comprise 4.40 acres, 2.84 for the wellsite and 1.56 for the access road. The developed area utilized by Conoco totalled 1.43 acres, and the rest was cropped by the Lemays. Ms. McKearney described the site as well kept and weed free, based on Conoco's practice of spraying for weeds twice a year.

[65] Wellsite 5-31 is adjacent to the west boundary road allowance with direct access. There is no access road. The wellsite is 3.56 acres with only .89 acres fenced. Structures on the site are a well head, pump jack, propane tank, methanol tank, separator shack and flare stack. Ms. McKearney described this wellsite as well kept, weed free, and odour free. The only noise is from the pump jack operation.

[66] Ms. McKearney testified that the Lemays farm the remainder of each wellsite and by doing so, utilize available acreage, control weeds and protect the area from erosion or depletion. She stated Conoco had never received any expressions of concern from the Lemays with respect to either site.

[67] While not qualified as an expert on pattern of dealings, Ms. McKearney offered her opinion that the Board's award of compensation for adverse effect was way outside the range. She estimated Conoco's cost of its 689 wellsites in the Battle River area based on the Board's adverse effect award to be in the neighbourhood of \$2,700,000.00. Across the province, she estimated the cost for Conoco of its 7,206 freehold leases would increase by \$11,500,000.00. She did not offer evidence on the gross or net revenue Conoco receives from these leases.

[68] Mr. John Lanaras, the Surface Land Manager at Cavalier Land Ltd. who represented Conoco in negotiations and in front of the Board, was qualified as an expert witness in the pattern of dealings method. Mr. Lanaras had provided just over 100 Surface Rights Agreements relating to agricultural land in the same area as these two sites in his presentation before the Board. Before this Court, Mr. Lanaras presented a written report including approximately 40 additional Surface Rights Agreements with related documents detailing annual rental, loss of use and adverse effect. He utilized 14 factors to qualify a Surface Rights Agreement as comparable:

1. The Geographical Region.
2. The location of the site within the quarter (corner, border, centre).
3. The size of the wellsite.
4. The configuration of the site.
5. The presence or absence of access roads.
 - a. Whether the access road has been developed.
 - b. High profile, low profile, undeveloped trail, etc.
 - c. Whether the access road severs the field.
 - d. Whether the access road can be crossed with equipment.
6. The current nature of the land and its designated use.
7. The type of crops grown, the rotation and the expected return.
8. The type of wellsite; gas or oil.
9. The presence or absence of inconvenience, such as noise, odour, weeds and frequency of servicing.
10. How often the operator's personnel visit the site (for regular operations, as well as for servicing etc.)
11. Whether the site is fenced (perimeter/facilities only).
12. Whether the site is located on a home quarter.
 - a. How far from the house is the site located.

- b. Any visual or noise impact on the residence from the site.
- 13. Topography.
- 14. Shape of operational wellsite (does the land owner farm-in).

[69] Mr. Lanaras advised that he viewed the process of using comparables and arriving at compensation values akin to that used by real estate appraisers to assess value of real estate properties.

[70] Mr. Lanaras selected 105 comparables on the basis of 11 common or more factors for his comparisons for the 16-8 site and comparables with 11 to 14 factors with respect to the 5-31 site. His analysis resulted in a range of adverse effect compensation from \$1,650 to \$2,429, with a mean average at \$1,731.92. He noted high impact sites reflected special situations, for example, a wellsite on a home quarter.

[71] The following conclusions on compensation for adverse effect were expressed in Mr. Lanaras' report:

Adverse Effect 16-8-32-22 W4M

The wellsite is located at an inside location. The landowner does not reside on the subject lands. The equipment with the production of gas is minimal as is the noise and nuisance to the landowners operation. The access road and wellsite are reduced to teardrop and the landowner is farming the majority of the lease with no obstructions preventing machinery to pass over the access road and allowing the landowner to farm the majority of the lease. According to the acquisition summary provided based on comparable agreement that have the characteristics of being an inside location, on cultivated lands, producing gas wells, and access roads that allow passage of machinery and equipment, and the landowner not residing on the lands we have determined that \$1770.00 for adverse effect is fair and reasonable.

Adverse Effect 5-31-29-21 W4M

The wellsite is a boundary location with no access road. The location is situated next to the government road allowance on the west side of the subject lands. The landowner does not reside on the subject lands. This well is classified as a single oil well battery with some gas production which is piped out. The equipment associated with the production of the oil and gas is minimal as is the noise and nuisance to the landowners operation. There is no defined access road which the landowner must contend with and the wellsite is reduced to teardrop and the landowner is farming the majority of the lease with no obstructions preventing machinery to pass over the access road and allowing the landowner to farm the majority of the lease. According to the acquisition summary provided based on comparable agreements that have the characteristics of being a boundary location, on cultivated lands, no defined access road and the landowner not residing on the lands we have determined that \$1650 for adverse effect is fair and reasonable.

[72] On cross examination, Mr. Lanaras agreed that he has only acted as an oil company land agent, but he rejected Mr. Wilson's suggestion that his job was to obtain the lowest amount for compensation. He said his duty was to reach an agreement respecting fair compensation for both the company and the landowner.

[73] Mr. Lanaras admitted that he had not personally interviewed any of the landowners respecting their compensation agreements, but had consulted other land agents in the area. When questioned about how to deal with a landowner who was claiming compensation in excess of what the pattern indicated, Mr. Lanaras stated it was up to the landowner to justify why there should be an increase. In the case of the Lemays, Mr. Lanaras saw no reason for an increase because their farming operation involved crops like all of their farming neighbours. Mr. Lanaras would not agree that evidence such as higher crop yields was more compelling or cogent for higher compensation. He simply felt that such evidence should be utilized hand in hand with a pattern of dealings to make adjustments on a substantiated basis.

[74] Mr. Lanaras rejected any suggestion that pattern of dealings was not evidence of equal parties negotiating a fair price because wellsites were basically expropriated. He reminded Mr. Wilson that the landowner could use land agents, lawyers and the Board to finalize compensation issues.

[75] The parties agreed that Concoco's next witness, Mr. Robert Garies, was qualified to give expert evidence on the pattern of dealings method.

[76] Mr. Garies is a licensed land agent, professional land man with the Canadian Association of Petroleum Land, and a current member of the Alberta Energy and Utilities Board. He has served on many different committees and is president of his own company that specializes in land acquisition and dispute resolution.

[77] Mr. Garies agreed with the pattern of dealings method outlined by Mr. Lanaras. He was familiar with the Lemay area, having represented 3 different operators in land acquisition and settlement of compensation claims over the last 5 years. He noted compensation had increased on a year by year basis over the past five years. It was his experience that patterns develop over time in specific areas and in his opinion, this had occurred in the Lemays' area, where compensation was freely negotiated and being constantly revised.

[78] Mr. Garies testified that he had appeared before the Board from time to time and it had accepted pattern evidence. He was of the view that the Board ordinarily approaches compensation from pattern of agreement settlements and that even its decisions are considered as part of the pattern of dealings approach. Mr. Garies felt this approach was the most effective method, for two reasons. First, to have to conduct an appraisal on every site was clearly impractical. He believed the industry did not have the horsepower to do that. Second, he thought agreements were freely negotiated, and they were therefore the most cogent evidence to determine compensation.

[79] Mr. Garies advised that he had seen the two Lemay wellsites and they did not look any different from the other sites in this specific area. In his opinion the figures arrived at for the compensation based on pattern evidence were within the norm for the area.

[80] At the conclusion of cross examination, counsel reminded Mr. Garies that he had raised the practicality of utilizing the pattern of dealings method and the practicality of dealing with many different parcels and put to Mr. Garies the following question:

But what if someone did put forward detailed evidence of actual effect, tangible and otherwise? Would that not trump the pattern?

[81] Mr. Garies' answer was:

If it's vetted, if it's held up as that any sort of increase is ... quantifiable by another expert then, yes, that, in my view, would trump the pattern.

[82] Conoco's next witness, Mr. Hoover was also readily agreed by counsel to be an expert witness. He was qualified as an expert in agricultural appraising, and in the assessment of farm operations and cultivation practices, with expertise to calculate the impacts of operating equipment around field obstructions such as wellsites. Specifically, he was called to answer the Lemays' calculation of tangible adverse effect.

[83] Mr. Hoover obtained a Bachelor of Science Degree in Agriculture from the University of Alberta in 1964. He became a professional agrologist in 1967 and an accredited appraiser with the Appraisal Institute of Canada in 1970. He is a certified management consultant and farms 4,000 acres in Peace River country. He is also presently a partner in Serecon AFC Agra Services, a firm involved in agricultural consulting and appraising. Mr. Hoover has been a witness before many boards and courts in Alberta, British Columbia, and Saskatchewan. He has also testified in Federal Court.

[84] Given my finding that loss of use is not in issue, the focus of the reiteration of Mr. Hoover's testimony is his analysis and conclusions on adverse effect.

[85] In 2000, Mr. Hoover, together with lawyers, landowners, and oil, gas, power, and utility companies, developed an "obstruction mapper" program, which calculates extra costs or lost revenues that result from operating machinery in a field with obstructions as opposed to a field without. The obstruction mapper does not calculate the intangible portion of adverse effect, which in the *Act* is referred to as, "nuisance, inconvenience and noise". Mr. Hoover's program calculates four categories of landowner losses, which he refers to as the 'tangible portion of adverse effect':

- additional equipment operating costs.
- costs and losses arising from missed areas. Missed areas are field portions which equipment, due to its size and manoeuvring limitations, is unable to reach.

- decreased crop revenue.
- additional input costs (not including equipment).

[86] Additional explanation of these four categories will be provided after a description of the calculations necessary to obtain them.

[87] The obstruction mapper has two components; a mapping program and a spreadsheet analysis. The mapping program analyses an aerial photograph of the field containing the obstruction and sets up a new farming operation pattern, taking into account the location and size of the obstruction, and the size of the equipment utilized by the landowner. This pattern of operation is then super-imposed upon the aerial photograph of the field to show how the farming pattern changes as a result of the existence of the obstruction. The mapping program analyses the number of square metres that are missed by the equipment, or that are driven over two or more times. This analysis is done for each type of farming operation necessary for the crop being grown by the landowners. In this case, the required farming operations for the canola and barley grown by the Lemays are seeding, harrowing, swathing, spraying, and harvesting. Each square metre area that is missed, or driven over two or more times, is then converted into acres.

[88] The second component, the spreadsheet analysis, takes the acres that are missed or driven over more than once, as measured by the mapping program, and determines the costs or losses associated with each area. These costs or losses are the four categories which Mr. Hoover refers to as the tangible portion of adverse effect.

[89] It is necessary to input several different types of information into the obstruction mapper program for it to calculate the four categories of cost and loss. The following is not a complete list, but gives an idea of the complex input requirements:

1. An accurate aerial photograph of the field.
2. Proper measurements of the size and configuration of both the field and the obstruction.
3. The size of each piece of equipment used in each farming operation. For example, Mr. Hoover used a width of 57 feet for the seeding operation. This is the width of the air drill he understood the Lemays used for seeding.
4. A category of inputs which Mr. Hoover refers to as equipment operating expenses. This input is to reflect the type and size of each piece of equipment used by the landowner, and the cost to run it. A separate computer program is needed to calculate this input for the obstruction mapper program. Both the Lemays and Mr. Hoover used a program developed by Alberta Agriculture and Food entitled, "The Machine Costs Calculator".

Various inputs are needed to calculate equipment operating expenses. For example, it is necessary to know the purchase price and size of the piece of

equipment; the number of years the landowner intends to keep the piece of machinery and its residual value at the end of that period; the annual number of hours the equipment is used; the number of litres of fuel used per hour and the per litre cost of that fuel; and annual repair costs.

Once the requisite data is entered, the Machine Costs Calculator will produce a total cost per hour or per acre for each piece of equipment. Some farming operations, such as seeding, use more than one piece of equipment. For example, seeding requires an air drill and a tractor to pull it. After performing the calculation for both the air drill and the tractor, Mr. Hoover determined the equipment operating expense for seeding to be \$9.69 per acre.

Mr. Hoover utilized a combination of data from the Lemays and statistical or third party data for input into the Machine Costs Calculator. This produced a cost per acre for each piece of equipment. He agreed that the cost per acre was not specific to the Lemay operation, but represented the cost for anyone using the particular piece of equipment to farm. He agreed that even though the Lemays used the same Machine Costs Calculator, their inputs were different, and accordingly, their totals were different.

5. Another category of inputs was referred to by Mr. Hoover as additional input costs, or operating costs. This category includes the cost of items such as seed, fertilizer, and chemicals, and non-field equipment operations, such as trucking. It does not include the field equipment operating costs because these are calculated separately, as referred to above. Some of the Lemays' actual costs were used, but much of this information came from the Alberta and Saskatchewan agriculture and food ministries, the Canadian Fertilizer Institute, Ag-Pro Grain, AgriCore United, Parkland Fertilizer, Alberta Financial Services Corporation, and Mr. Hoover's own knowledge and experience. For barley, Mr. Hoover calculated operating costs at \$229 per acre, and for canola, \$252 per acre. He utilized the Lemays' crop rotation plans based on a two thirds barley /one third canola rotation for a weighted average operating cost of \$237 per acre. Although Mr. Hoover's report states a different figure, he testified it contained an error, and \$237 is the corrected figure.

6. Revenues for each type of crop grown must also be determined in order for the obstruction mapper to calculate losses. The Lemays' evidence was that they received an average barley yield of 100-110 bushels per acre, and an average canola yield of 55-60 bushels per acre. Mr. Hoover did not simply use the Lemays' reported yields, but also considered other sources, such as Alberta Financial Services Corporation's data on average production in the township and the Alberta Agriculture Crop Budget for 2003-2005. He then lowered this input to a barley yield of 100 bushels per acre and a canola yield of 45 bushels per acre. For price, Mr. Hoover examined reported data and average future prices for 1997 to 2007, and calculated average estimates for barley at \$3.00 per bushel and canola at \$8.00 per bushel, after deducting trucking and freight costs. Based on

this data, Mr. Hoover estimated gross revenue for barley at \$300 per acre and for canola at \$360 per acre. Again using the Lemays' crop rotation plans, the weighted average for gross revenue was \$320 per acre.

7. Efficiency rates are also a consideration in the analysis performed by the obstruction mapper. Even farming a field with no obstructions is not a completely efficient process, for an operator of equipment must slow down due to various conditions, or even to make turns at each end of a field. However, efficiency is decreased with each additional obstruction. Mr. Hoover therefore uses the term 'field efficiency' to refer to how a normal field is farmed as opposed to how a field with an obstruction is farmed, in both cases utilizing modern day equipment. In his report, he states the coefficient used to reflect a field's efficiency is "subjective, based on the appraiser's experience and knowledge of farming." Based upon his own experience, Mr. Hoover assesses normal fields with an efficiency factor of 80%, translating to a coefficient of 1.2. For wellsite 16-8, it was his opinion that the coefficient was 1.3, and for 5-31, the coefficient was 1.23. While the term 'modern-day equipment' is used, it is important to note that Mr. Hoover testified that he does not use G.P.S. equipment in his farming operation. When considering the efficiency of such equipment, he relied upon what he had been told by unidentified third parties.

[90] Once the aerial photograph is obtained, the alternate farming pattern is determined, and all the numerical inputs are entered into the obstruction mapper, the program is then able to determine additional operating and equipment costs, and reduced revenues resulting from overworked or missed areas. Specifically, calculation of the four types of tangible adverse effect are as follows.

[91] *Additional equipment operating costs:* the total area of overlap by a piece of equipment is multiplied by the per acre operating cost for that piece of equipment. For example, on 16-8, the total per acre cost of the use of the two tractors, air drill and harrows needed to perform the seeding and harrowing operations is calculated using the Machine Cost Calculator at \$15.33 per acre. The mapping component of the obstruction mapper calculates the total overlap area at 12.59 acres. Therefore, for seeding and harrowing, the additional equipment operating costs are 15.33 times 12.59, totalling \$193.00.

[92] However, this does not end the matter, as Mr. Hoover considers field efficiency. Based on his experience, he determined there is an additional inefficiency factor of 20% in the overlap area. He therefore factors in an additional coefficient of 1.2, resulting in a total additional equipment operating cost for harrowing and seeding on 16-8 of \$231.67. The same calculation was performed for the swathing, harvesting, and spraying operations. The total additional equipment operating costs resulting from the existence of the 16-8 wellsite were calculated by Mr. Hoover at \$682.27.

[93] *Costs and losses arising from missed areas:* Mr. Hoover subtracts the operating costs, which he assessed at \$237 per acre, from the gross revenue, which he assessed at \$320 per acre. He refers to the result as the net margin loss, which in this case, he determined to be \$83 per

acre. The net margin loss is multiplied by the total area missed by the machinery as it farms around the wellsite obstruction.

[94] Mr. Hoover also includes in this category the cost of spraying, because it is especially necessary to terminate weed growth when there is no crop to curtail it. The costs of spraying utilized by Mr. Hoover are not based on the Lemays' operations, but on interviews with custom spray operators. These interviews led Mr. Hoover to assess spraying costs at \$300 per wellsite.

[95] On the 16-8 wellsite, the total costs of the spraying, and the net margin loss for the missed areas, totals \$325.76.

[96] *Decreased crop revenue:* The assumption behind this category is that the more times a portion of the field is overlapped, the lower crop yields for that portion will be, resulting in overall decreased revenue. Mr. Hoover uses a study conducted in the 1980's to estimate decreased yields for the number of overlaps. If an area has been overlapped twice, the yield loss is assessed at 10%. If the area is overlapped three times, the assessment of loss is 25%. The yield losses then increase dramatically: 50% for areas of quadruple overlap, 60% for areas with quintuple overlap, and 70% on areas with sextuple overlap. Mr. Hoover felt an additional assessment was needed to compensate for compaction and other impacts beyond the area where additional inputs of seed, chemical and fertilizer are applied, and therefore considers a 20% coverage factor for such additional losses.

[97] By way of illustration, on wellsite 16-8, Mr. Hoover found that the seeding and harrowing operations resulted in double, triple and quadruple overlap, for a total acreage overlap of 12.59 acres. From his previous calculations of revenues and operating costs, and in conjunction with the coverage factor and percentage of loss for each number of overlaps, Mr. Hoover calculated the lost revenue from overlap in the seeding and harvesting operations at \$90.63.

[98] *Additional input costs:* This category also assumes that losses occur as a result of equipment overlap. However, rather than assessing the crop loss from overlap, this category assesses the additional input waste from overlap. Mr. Hoover assumes that the inputs are not applied over the entire overlap area. Instead, he assumes that the equipment operator will react when an area that has previously been driven over is reached, and while still driving over the area, will stop the equipment from spreading inputs of seed, chemical or fertilizer. Given that the Lemays use G.P.S. and autosteer technology, Mr. Hoover makes the assumption that additional inputs are applied over only 10% of the entire overlap area.

[99] On wellsite 16-8, Mr. Hoover assessed that when spraying, the sprayer passes over 12.82 acres twice, 4.77 acres three times, 1.02 acres four times, and 0.18 acres five times. He has assessed the input costs for spraying at \$47.00 per acre. On his assumption that inputs are applied to only 10% of the total overlap area, he assessed the additional input costs for the spraying operation to be \$122.88.

[100] It ought to be stressed that each of the four categories may well require more than one calculation depending upon the number of farming operations necessary to grow the crop in question, and that each farming operation does not result in a loss in each category.

[101] Once the entire process was gone through, Mr. Hoover assessed the tangible portion of adverse effect for the 16-8 wellsite as follows:

-additional equipment operating costs:	\$ 682.27
-costs and losses arising from missed areas:	\$ 325.76
-decreased crop revenue:	\$ 90.63
-additional input costs:	<u>\$ 252.59</u>
Total:	\$1,351.26

[102] Mr. Hoover assessed the tangible portion of adverse effect for the 5-31 wellsite as follows:

-additional equipment operating costs:	\$255.25
-costs and losses arising from missed areas:	\$315.22
-decreased crop revenue:	\$ 31.77
-additional input costs:	<u>\$ 95.54</u>
Total:	\$697.78

[103] The last matter addressed by Conoco's evidence is the publication by Alberta Agriculture and Food entitled Midfield Structures Increase Farming Costs. This document was prepared by Mr. Dean Dyck, a professional agrologist and employee of the department. It was referred to by the Board in its reasons for its adverse effect award:

The Board finds the costs of farming around the wellsite and access road as adduced by the Lessors to be credible and reasonable. The data was obtained through a combination of G.P.S. based field tracking technology and the Lessors' sworn testimony as to the nature of equipment and inputs used in their operation. The Lessors' approach to calculating adverse effect and the results of such calculations are reinforced by the Board's reading of Alberta Agriculture's publication entitled Midfield Structures Increase Farming Costs (Exhibit 1, Tab 1).

[104] Mr. Dyck testified that he wrote this paper as a result of a number of requests from farmers and the Farmers' Advocate Office because they wanted a method of calculating increased costs for farming around wellsites. He searched, but found no existing scientific data that assessed farming around a structure in an agricultural context. He did find a 1990 Surface Rights Board decision in which the Board used a calculation-based methodology around electrical transmission structures. Mr. Dyck adopted the Board's methodology and researched field efficiency calculations. He found no studies on the subject, and decided to use 10% as the rate of reduction in field efficiency.

[105] Mr. Dyck projected that it would cost \$4,111 to farm a field containing a wellsite. He admitted that the analysis involved what he considered standard equipment that was smaller than that used by the Lemays.

[106] Before publication in print and on the department’s website in January, 2005, a peer review was conducted by some of Mr. Dyck’s colleagues and the Board. However, the publication was removed from the website in September 2006 because one of Mr. Dyck’s colleagues noted that it needed some enhancements, and that the publication contained no comparator. While it assessed the cost of farming around a structure, there was no comparison to farming without any structure.

[107] When Mr. Dyck conducted the analysis using the same land, equipment and other variables, but without a wellsite, the cost of farming was \$3,699. This is the cost of farming the field with the wellsite, less the 10% coefficient factor.

[108] This paper also underwent a peer review by Mr. Dyck’s colleagues, the Board, Conoco, Encana Corporation, and the Farmers’ Advocate Office. It was republished in November of 2006.

The Case for the Lemays

[109] Brian Lemay testified on his and his brother’s behalf. In presenting his evidence, Mr. Lemay utilized a written submission of supporting materials filed as an exhibit in these appeal proceedings. These supporting materials were an enhanced version of the written brief that the Lemays presented to the Board. They included the original revenues produced and details of various costs, but all on an updated and expanded basis, as the Lemays took the position they ought to put their most current information before the court. Before the Board, the raw data used by the Lemays was from the 2005 or 2006 crop year; before this Court, the raw data was from the 2007 crop year. The materials also extended computer calculations and analysis respecting both (1) loss of use and; (2) adverse effect compensation claims. The methodology, however, was the same as it had been in front of the Board.

[110] The Lemays provided the following summary of their compensation claim:

Compensation Heading	Conoco-Phillips 16-8 (4.40 acres)	Conoco-Phillips 5-31 (3.56 acres)	EOG 14-19 (5.24 acres) West Access
Loss of Use per Acre (\$450.00 per acre)	\$1,980.00	\$1,602.00	\$2,358.00
Total Tangible Adverse Effect	\$2,949.74	\$1,672.79	\$2,521.37
Intangible Adverse Effect, Nuisance, and Inconvenience	\$1,275.00	\$1,275.00	\$1,275.00

Total Adverse Effect, Nuisance and Inconvenience	\$4,224.74	\$2,947.79	\$3,796.37
Total Annual Compensation Requested	\$6,204.74	\$4,549.79	\$6,154.37

[111] Mr. Lemay gave a brief history of their farming operations and how they have been changed to meet new challenges. The biggest challenge is the rising cost of fertilizer, fuel, equipment purchase and other input costs, which continually squeeze profit margins. The Lemays decided that the best way to combat this problem was to aim for maximum efficiency in their operation. They do this in several ways. One method is the use of professional services. Mr. Lemay testified about their decision to consult a professional agrologist throughout seeding to harvesting in order to maximize yields and reduce the risk of disease through ongoing monitoring of soil nutrients and crop plant health.

[112] The Lemays have also expanded their farming operation from 1,400 to 6,500 acres to obtain maximum efficiencies and spread their costs over more acres. When possible, they have also increased the size of their fields so that less time is taken in working the perimeter of the field and in making turns.

[113] In addition to the crop operations, Mr. Lemay testified that they operate a finishing feedlot capable of feeding up to a maximum of 6,000 head in any particular year. The feedlot operation utilizes a portion of their grain and silage harvest, which increases the crop value and their return on investment.

[114] Time is a key factor when attempting to utilize every means of obtaining efficiency. The Lemays decided to invest in new and reliable state-of-the-art equipment, replaced every year or every second year. New equipment does not generally break down and cause delay in the field. It also enables them to farm a larger base of land with the efficiencies necessary to improve profit margins and reduce financial risk.

[115] Their major equipment is all manufactured by John Deere and includes two tractors, three combines, a set of harrows, two swathers, and an air drill seeder. The power equipment uses Green Star, an information-gathering system combined with a global positioning system ('G.P.S. '), which uses satellites and a Star Fire position receiver, managed through a train compensation module. This permits straight lines of operation and adjustments for topographical features to achieve maximum efficiency. Each combine is fitted with a mass flow sensor that continuously records the yield of locations throughout each field. All yields are recorded and mapped by a special computer program that allows the Lemays to analyse production in every part of the field. The information gathered by Green Star in the power equipment can be downloaded into a personal computer so that after the field operations are complete, the data can be measured, stored and analysed.

[116] Every operation includes the use of support trucking including a water truck (sometimes a fire truck) for seeding and spraying, and a service truck to carry fuel and tools. When

combining, the support equipment also includes a grain cart and two transport trucks that hold 1,500 bushels each. These support vehicles allow the combining operation to be continuous and the grain transported to storage without interruption.

[117] Mr. Lemay explained the use of the G.P.S. and the yield monitors in the combines in a demonstration of the preciseness with which the Lemays conduct their operations. His evidence also demonstrated the effectiveness of the equipment and data recordings, and the reliability of the computer programs that analyse and determine the cost of each operation through seeding, spraying, swathing, combining and harrowing.

[118] When the Lemays requested an explanation of where the analysis of compensation for adverse effect came from, they were simply told it had always been there from the pattern of dealings. It was this inability of land agents to explain how compensation for adverse effect was calculated that motivated the Lemays to do their own calculations based upon their own recorded data and analysis.

[119] In a general sense, the analysis of tangible adverse effect undertaken by Mr. Hoover and the Lemays is the same: both use technology to provide before-wellsite and after-wellsite patterns for each necessary farming operation, and then use additional computer analysis to determine the cost differences in the before and after patterns. Where the approaches differ is the characterization of how extra costs emerge from the different farming patterns, and in the value of the inputs used to calculate the cost differences.

[120] The types of inputs used by Mr. Hoover and the Lemays is generally the same. The Lemays' evidence on inputs will therefore be discussed only in terms of how it differs from the inputs used by Mr. Hoover.

[121] The Lemays did not use estimates of crop yields and prices to determine their gross revenue. Mr. Lemay testified that their crop yields are 1.4 times higher than those reported by Alberta Financial Services Corporation ("AFSC") 2005-2006 crop insurance verification statistics for crops in the area. Their yield data from their recording of the 2005-06 crop yields are stated in the reports and compared with the AFSC yield statistics to illustrate the yield increase. Similarly, the supporting materials also include the Lemays' sale prices for crop years 2005, 2006, and 2007, and predictions for crops in 2008 and 2009. Mr. Lemay explained their grain marketing strategy and how they maximize return and reduce risk by consulting with a commodity broker and engaging in on the spot internet reporting with respect to major trades in the major grain marketing centres in North America, as well as local grain companies. Mr. Lemay stated they are able to store grain and wait for a period of months before marketing into peak market prices, thereby increasing their gross revenue. For both crop yields and sale prices, the Lemays therefore used their actual figures and their estimates of future prices and yields, to determine gross revenue.

[122] Similarly, the Lemays provided some receipts and calculations to illustrate the following valuations for input costs which were later used in their calculations:

- fertilizer: \$95.00 per acre
- seed: \$20.87 per acre
- pre-seed herbicide: \$8.00 per acre
- in-crop herbicide: \$28.00 per acre
- fungicide: \$12.00 per acre
- fallow spray: \$8.00 per acre

[123] Mr. Hoover was of the view that the canola and barley crops raised by the Lemays required a total of five farming operations: seeding, swathing, combining, harrowing and spraying. The Lemays based their calculations on a total of 7 farming operations, stating they spray at least three times in a growing season; one before seeding to control weeds, one after the crop is planted; and a third for post-harvest weed control. In some years there can be up to two additional spraying operations to control insects or assist plant health.

[124] The Lemays also used their own co-efficient of efficiency to measure or estimate the inefficiency of each farming operation around each wellsite as opposed to the uniform estimate of efficiency for each field that Mr. Hoover utilized in his report.

[125] The Lemays determined their costs per hour of each piece of equipment by using the Machine Cost Calculator published by the Department of Agriculture and Food. Mr. Hoover used the same program, producing statistical averages for operation costs for each piece of equipment, but on a per acre as opposed to a per hour basis.

[126] The difference in the Lemay calculations is that their inputs were not entirely statistical, but that some were actual data from their farming operation. Mr. Hoover used a rate of \$18.00 per hour for labour costs, presumably based upon statistics. Based on their experience, the Lemays considered this inadequate, and used a rate of \$25.00 per hour. Another assumption by Mr. Hoover is that farmers use their equipment for approximately 12 to 15 years. This ownership period was then used to determine trade in values, another required input for the Calculator. The Lemays, however, depreciate their equipment over a far shorter period with a trade-in schedule that trades the power equipment at the end of each year or every second year, particularly the tractor equipment. They therefore have, and used in the Calculator, an ownership period much shorter than that input by Mr. Hoover, and as a result, also have, and used, a much higher trade in value. The fact that the equipment is newer and often covered by warranty also greatly reduces their repair costs, another required Calculator input which was changed by the Lemays.

[127] The exception is the costs per hour calculation for trucking equipment. The Lemays did not analyse this cost, but used the hourly rates charged when they have hired truckers.

[128] Overall, the Lemays input a blend of their estimated ownership and operating costs for the fleet of equipment they owned in 2007 together with the Calculator's estimates of average figures from Alberta farms. They did this to obtain an hourly cost of operation for each piece of equipment in each of the farming operations. Mr. Lemay testified it was his understanding that the Calculator could be used to determine either costs per acre or costs per hour. Much of the Lemays' raw data was based on measurements of distance and time. Mr. Lemay testified they

found costs per hour more accurate, and therefore chose to focus on the per hour calculation:

Seeding Costs	Cost/Hour
Tractor - 4WD 525 HP & Air drills packer wheels	\$416.84
One 475 hp Truck & two 35 ton trailers	\$105.00
One 350 hp tandem truck	\$85.00
One maintenance & supply truck	<u>\$40.00</u>
Total	\$646.84
Spraying Costs	Cost/Hour
Tractor Front Wheel Assist 225 HP & Sprayer (trailer) 1,200 gallon	\$257.60
Water Truck	<u>\$ 95.00</u>
Total	\$352.60
Swathing Costs	Cost/Hour
Two Swathers Diesel w/30' header 110 HP (\$116.11)	\$232.22
Combining Costs	Cost/Hour
Three Combines SP Diesel 60 inch Cylinder 330 HP	\$1,068.00
Two 475 hp Trucks & two 35 ton trailers	\$ 210.00
Tractor - 4WD 525 HP & 1,500 bu. Grain Cart with auger	\$ 284.75
One maintenance & supply truck	<u>\$ 40.00</u>
Total	\$1,602.75
Harrowing Costs	Cost/Hour
Tractor - 4WD 525 HP & Heavy Harrows 60 ft.	\$309.35

[129] There was a great deal of dispute concerning the accuracy with which the Lemays used the Calculator. This will be referred to later in these reasons.

[130] The above table shows that the Lemays did not just calculate the cost of the main piece of equipment for each farming operation, but also the cost of the necessary support equipment. The hourly equipment costs for seeding, spraying and combining therefore include trucking or grain cart costs that were not included in Mr. Hoover's equipment costs. As the Lemays also use 2 swathers and 3 combines during the swathing and harvesting operations, the total cost includes the entire set, not just one unit for each operation, as was included in Mr. Hoover's calculations.

[131] The tangible adverse effect was broken down into four categories by Mr. Hoover, but the Lemays use five:

1. Extra field operation costs for setting up headlands around each wellsite.
2. Extra field operation costs for additional turns at the wellsite and any access road.

3. Extra travel time to resume normal operations.
4. Value of crop inputs lost due to overlap of equipment from farming around each wellsite and access road.
5. Reduced yields due to over application of fertilizer and seed, compaction of ground because of increased equipment travel, missed areas, and trampling of crop by equipment.

[132] For categories 1, 2 and 3, the Lemays' methodology is based on the premise that a cost per hour as opposed to per acre gives a much more accurate assessment of their expenses because the breakdown is then on each field as opposed to over the entire farm. As a result of this premise, for the first three categories, the Lemays used their determination of equipment costs and their equipment-recorded measurements of time and distance for each piece of equipment to farm around each wellsite. They then converted their measurements from feet to miles, the time of travel of the extra distance from minutes to hours, and integrated this into the cost per hour operation of each piece of equipment for each operation. For the last two categories, the Lemays used their distance measurements, raw data, and yield monitor results to determine losses from increased inputs and decreased revenue. Unlike Mr. Hoover, they do not have a category for missed areas. Mr. Lemay testified that in their experience, it is better to have overlap than missed areas, and they engage farming patterns to eliminate missed areas. A detailed description of their analysis for their five categories follows.

[133] *Extra field operation costs for setting up headlands around each wellsite:* A headland is created with the first passes of the equipment around the perimeter of the field and the wellsite to ready the remaining portion of the field. The farming of the remaining portion is then done using a different pattern than the pattern used on the headland perimeter. The headland is used to turn the equipment around in when farming the remaining portion of the field. Mr. Lemay testified that they create a headland with either one or two rounds, or passes, around the field, and that they do not use the G.P.S. equipment when making the passes that create the headland. The number of rounds required depends upon the piece of equipment being used. Mr. Hoover had estimated that regardless of the type of equipment, four rounds were necessary to create a headland.

[134] In the case of wellsite 16-8, the field is the shape of a rectangle, and without the wellsite, the headland would be in the shape of a rectangle. However, due to the existence of the access road and wellsite, on one side of the field, the equipment cannot simply travel in a straight line. From the perimeter of the field, the equipment must turn in, travel down the access road, turn 6 times to go around the rectangle shape of the wellsite, travel down the other side of the access road, and turn again to get back onto the perimeter of the field. This category of loss is to assess the extra time costs of alterations such as this to the headland pattern. This loss does not occur just once in the year, for the creation of a headland is necessary for each farming operation.

[135] According to the legal survey plan of wellsite 16-8, the distance down the access road, around the wellsite, and back down the road is 3,425 feet, or 0.65 miles. This is converted to miles because the speed of the equipment is recorded in miles per hour. For the creation of the headlands, the speed of the equipment on 16-8 was recorded as follows:

- spraying: 12 miles per hour
- seeding: 7 miles per hour
- harrowing: 12 miles per hour
- swathing: 6 miles per hour
- combining: 3.5 miles per hour

[136] A calculation is then performed to determine the additional amount of time it takes for the equipment to go around the access road and wellsite: the distance divided by the speed of the equipment. This produces a time in hours. In the case of spraying, the additional time was 0.0542 hours. To arrive at a cost, this additional time is then multiplied by the equipment cost per hour. The equipment costs for spraying were calculated by the Lemays at \$352.60 per hour. After multiplying this figure by the extra portion of an hour, the extra cost of setting up a headland while spraying on 16-8 is \$19.10.

[137] Spraying is one of the operations for which only one pass is necessary to create a headland. For seeding and harrowing, two passes are necessary. Therefore, the extra equipment cost for the extra time is then multiplied by two to arrive at a total extra costs figure.

[138] On 16-8, the Lemays calculated the total equipment costs for all farming operations from the alteration of the headland pattern to be \$533.75. However, they recognize that if the wellsite was not present, the land included in this headlands calculation would still take time and cost money to farm. Therefore, they do not claim the entire amount calculated for the alteration to the headland pattern. The Lemays contend that it is appropriate for Conoco to pay half of this extra cost, or \$266.87.

[139] *Extra field operation costs for additional turns at the wellsite and any access road:* After the headland is created, the rest of the field is farmed using a different farming pattern and the G.P.S. technology. To set the second pattern, the equipment operator will pick a point 'A', which generally is in one of the corners of the field. The necessary coordinates to engage the G.P.S. technology are activated, and the second farming pattern is commenced. This pattern occurs within the perimeters of the headland, which is used for turning the equipment.

[140] When the G.P.S. is engaged, the operator of the equipment is not driving - the equipment is driven in a straight path by the G.P.S. technology, and in particular, a component called auto steer. This system, however, cannot turn the equipment. The operator must pay attention to the approaching headland, and as it is approached, entered, and exited, must do the following:

- slow down; shifting gears or decreasing the throttle,
- when the operator believes the equipment is in the headland, disengage the component that is interacting with the field (this will be explained further shortly),
- shut off the auto steer,
- manually turn the equipment and line it up for the next pass,
- re-engage the auto steer,
- re-engage the component interacting with the field, and

-return to full speed; shifting gears or increasing the throttle.

[141] This entire process occurs in about 15 to 28 seconds, depending on the type of equipment being used.

[142] While the headland must be entered in order to turn the equipment, it was already been subjected to the farming operation in question. Therefore, in order to maximize yields and reduce costs, the operator of the equipment wants to duplicate the farming operation in the headland as little as possible, but not miss any of the area that is part of the second farming pattern. This is accomplished by the process of disengaging the equipment component that is interacting with the field as the headland is entered, and re-engaging it when leaving the headland. This process involves the following for each type of operation:

-spraying: the operator must shut off the chemical, and then turn it back on.

-seeding: the input of fertilizer and seed must be shut off, and the equipment must be lifted out of the ground in order to make the turn. Once the turn is made, the equipment is lowered back into the ground, and the fertilizer and seed flow resumed.

-swathing: the crop in the headland is already cut. Mr. Lemay did not testify as to whether any of portion of the swather needed to be disengaged as the turn was being made.

-harvesting: the portion of the combine which rotates along the ground must be shut off, and the component lifted to make the turn. The component is then lowered, and turned back on.

-harrowing: the equipment must be lifted out of the ground in order to make the turn. Once the turn is made, the equipment is lowered back into the ground.

[143] The existence of the wellsite and access road increase the number of turns that must be made with any piece of equipment, as the field can no longer simply be worked from one end to another throughout. This category of loss assesses the cost of the extra time required to make the extra turns that are part of the second farming pattern for the area that remains after the headland has been created.

[144] On wellsite 16-8, the Lemays have determined that anywhere from an additional 12 to 25 turns are required. The number of additional turns is dependent upon the size of the equipment. For example, the spraying unit is the widest at 120 feet, and is required only to make an additional 12 turns. The seeding unit is the smallest at 57 feet, and is required to make an additional 25 turns.

[145] The time required for each turn has been measured, and then multiplied by the number of additional turns. This amount of time is converted into hours, and then multiplied by the hourly operating cost of the equipment.

[146] To illustrate, 12 additional turns with the spraying unit are required. Each turn takes 28 seconds, resulting in a total extra time of 0.0924 hours. Multiplied by the hourly cost of the equipment, the total extra cost resulting from the extra spraying operations for additional turns

due to the wellsite is \$32.57. The Lemays performed this analysis for each farming operation, and determined that on wellsite 16-8, the total extra time cost for additional turns is \$414.78.

[147] *Extra travel time to resume normal operations:* For both 16-8 and 5-31, the wellsite does not bisect the entire length of the field, and the farming operations end up occurring in three sections. First, the farming operation is performed on one side of the wellsite. The operator then traverses the wellsite and continues the farming operation on the second section, the other side of the wellsite. When this is complete, the operator must travel over a completed portion to reach the third portion of the field where operations are not obstructed by a wellsite.

[148] If the obstruction did not exist, it would be possible to farm the field from one side to another without having to travel over a completed portion to reach an uncompleted portion. The Lemays have calculated the distance which they must travel in order to reach the unworked portion for both 16-8 and 5-31. Again, this is required for each farming operation.

[149] Using 16-8 as an example, the Lemays must travel one ½ mile to leave the completed portion and reach the unworked portion. Each piece of equipment travels at a different speed. The time required for travel is then multiplied by the hourly cost of operating that piece of equipment. For example, the combining units travel at 5 miles per hour, therefore taking 6 minutes, or 0.1 hours, to reach the unworked section. The hourly cost for the combining unit is \$1,602.75, so the cost for the combining unit to travel to the unworked section is \$160.28.

[150] *Value of crop inputs lost due to overlap of equipment from farming around each wellsite and access road:* Mr. Hoover also conducted a valuation of the additional input costs due to overlap, and like the Lemays, found that it applied only on the seeding and spraying operations, where seed, fertilizer or chemical are being applied to the soil. The Lemays' process, however is very different.

[151] The area of overlap is in the headlands, where the operator is likely not able to shut off or turn on the inputs at the precise moment when the equipment moves from unworked land into the headlands, or back into the unworked land. In addition, the inputs do not immediately stop or start once the button is pushed; there is a brief time delay while the machine responds to the demand. The Lemays assess the extra input costs by calculating the area of the headland. For the seeding operation on 16-8, two passes with the 57-foot wide seeding unit are made along the 0.65 miles around both sides of the access road and wellsite. The calculation of this total area must be converted to acres, because that is how the input costs are valued. In this instance, the total headland area covered by the seeding unit is 8.96 acres.

[152] The inputs for seeding are fertilizer, at a cost of \$95 per acre, and seed, at a cost of \$28.87 acres. Each of these values are multiplied by the total headland area, for a total of \$1,110.31. However, the Lemays recognize that the inputs are not overlapped over the entire portion of the headlands. Mr. Lemay testified that the area of overlap is 35%, and therefore, seeks 35% of \$1,110.31 from Conoco.

[153] As to how the 35% figure was calculated, Mr. Lemay simply advised they had taken measurements and applied formulas they have developed.

[154] The same calculation is performed for the spraying operation, but the headland is slightly larger because the distance covered by the spraying unit pass is 120 feet, as opposed to the 114 feet covered by the two seeding unit passes. The input costs for the spraying unit also differ depending upon the type of chemical being utilized. Like the seeding operation, however, the Lemays have claimed only 35% of the total calculation of the input cost as being attributable to the wellsite existence.

[155] *Reduced yields due to over application of fertilizer and seed, compaction of ground because of increased equipment travel, missed areas, and trampling of crop by equipment:* Because of the ability of the combining units to report yields on an ongoing basis, the Lemays are able to chart their yields over the course of an entire field. When analysing the data using the Green Star system, they can pick different sections of the field, and the computer will calculate the yield for that section. Using this program, the Lemays have determined that their yield around the wellsite and access road on 16-8 is 35% lower than in the rest of the field.

[156] The Lemays use their crop value of \$450 and the headland area on 16-8 computed for the seeding operation as the area of decreased yields, namely 8.96 acres. They multiply these two figures, and claim 35% of the total as compensation for decreased yield: \$1,411.75.

[157] These are the five categories of losses claimed by the Lemays for tangible adverse effect. While wellsite 16-8 was used to illustrate the calculations, the same process was undertaken for 5-31, with two differences noted by Mr. Lemay. First, 5-31 does not include an access road, and therefore the distances travelled are shorter. Second, for the fifth calculation, the Green Star yield analysis computes a 40% yield decrease, as opposed to the 35% yield decrease calculated on 16-8. Both of these differences are incorporated into the 5-31 analysis.

[158] Mr. Lemay also acknowledges there are different farming patterns that can be used for farming around a wellsite. In his opinion, their analysis uses those with an average effect, as opposed to those with the worst effect. He also stated that the diagrams in the Lemay materials were only for illustrative purposes, were not to scale, and did not show the reality that some of the farming operations occur in the leased areas.

[159] Once this entire process is complete, the Lemays claim the following for tangible adverse effect on 16-8:

-extra field operation costs, headlands:	\$ 266.87
-extra field operation costs, additional turns:	\$ 414.78
-extra travel time to resume operations:	\$ 282.79
-value of crop inputs lost due to overlap:	\$ 573.54
-reduced yields due to overlap:	<u>\$1,411.75</u>
Total:	\$2,949.74

[160] The Lemays claim for tangible adverse effect on 5-31 is as follows:

-extra field operation costs, headlands:	\$174.91
-extra field operation costs, additional turns:	\$114.39
-extra travel time to resume operations:	\$141.40
-value of crop inputs lost due to overlap:	\$358.84
-reduced yields due to overlap:	<u>\$883.26</u>
Total:	\$1,672.79

[161] In addition to these tangible adverse effects, the Lemays contend there are many intangibles, categorized as inconveniences and nuisances, that ought to increase the award for adverse effect. The following intangible adverse effects are raised by Mr. Lemays' testimony and the supporting materials:

- (1) Seeding is delayed due to extra time required for each farming operation. This results in completion delays which reduce the efficient use of time. An example is that seeding on the 16-8 wellsite with the access road took a period of 24 extra minutes. A weather change could mean this extra time delays other seeding operations.
- (2) The Lemays spend considerable time dealing with lease matters. This includes handling legal notices, maintaining office and filing systems, taking time to follow up with the company or its land agent, keeping accurate records of payments and defaults, and negotiating.
- (3) Weed Control, which is necessitated by the missed areas of cultivation which oil companies respond to only one or two times a year. This is not enough. The problem of wild oats was used as an example of an ongoing weed control problem.
- (4) Club Root Spore Disease is a very serious issue for landowners. It can be carried by oil company rigs and trucks when this equipment picks up soil from one area and takes it to another. If one site is contaminated, the other site can be contaminated with the soil transfer. In addition to this inherent risk, there is extra time that must be taken to deal with oil companies to assure that Club Root Spore is not a problem.
- (5) Garbage. This is an inconvenience or difficulty for landowners that needs to be attended to daily during farming operations. For example, one seeding day the air drill operator had to stop and pick up some wood left on 16-8. Such debris has the potential to damage the equipment.
- (6) Drainage problems are caused by ruts inside the lease. In order to minimize the impact on equipment and avoid making the ruts worse, the Lemays have determined the best way to address them is to go around rather than over them.

- (7) Increased traffic and accident problems result from oil company employees and operators not obeying the rules of the road.
- (8) There are building restrictions around a wellsite due to the 100 metre setback requirement.
- (9) Wellsites and buildings are not properly kept up.
- (10) There are limitations on redevelopment of the site after it is abandoned. Setback requirement issues also continue.

[162] The Lemays claimed \$1,275 on both wellsites. Mr. Lemay agreed this was not based on a strict calculation, but was an educated guess for what they thought was reasonable compensation for intangible adverse effect.

Analysis of the Method of Determining Compensation

[163] Conoco argues that this case is simply a review of compensation payable to a landowner, and the proper method of setting compensation is to follow the pattern of dealings. Conoco takes the position that pattern of dealings is established as the proper method in the seminal case of *Livingston v. Siebens Oil & Gas*, [1978] 3 W.W.R. 484 at paras. 7 and 11.

[164] Para. 7 provides some historical context for the pattern of dealings method of setting compensation and para. 11, after emphasizing the pattern of dealings methodology, stipulates that the Board may depart from that approach for the most cogent reasons. To give context to para. 11 it is necessary to quote a portion of para. 10:

7. When the cases and legislation concerning surface rights are considered, it is apparent that there have been political overtones as to what an oil company should pay the surface rights owner. In many mineral titles there was a reservation of a right to work the minerals. Notwithstanding, the Legislature intervened and provided even in such cases the surface owner must be compensated. Originally in Turner Valley when the first oil well was brought into production in the 1930's there was a standard rate for a 10 acre parcel of \$ 500. for the first year and \$ 100. annually. However, this did not last very long as the industry expanded throughout the Province. There has been agitation that the surface owner should have a gross royalty. Keeping in mind this political background it is most important that when both parties have shown that they are satisfied by establishing a course of dealing in any area this is very relevant evidence to be considered by the Board. The Company may in an individual case pay more than it thinks is fair, for various reasons, and as the Board states little weight can be given to individual cases, but in an area where there is a course

of dealings between oil companies and surface owners whereby a standard rate of compensation has been paid and accepted, this evidence should at the very least be given great weight by the Board.

10. ... The Board feels, however, that individual, isolated deals negotiated should not be accorded much weight unless the circumstances relative thereto are fully known, since extenuating circumstances could result in such payments having been unreasonably high or unreasonably low.
11. With respect I think this statement is correct. The Board is not bound to set compensation at the same amount as is offered by the oil company for there may be reasons for the companies offering higher prices than they think they are bound to pay; it is a matter to be weighed by the Board. However, where there are such a number of deals established so that it may be said that a pattern has been established by negotiations between the landowners and oil companies in a district, then the Board should only depart from such compensation with the most cogent reasons. I think it should be accepted that no matter how expert outsiders are that the oil companies and landowners have the better judgment as to what compensation should be paid in their own interests.

[165] Our Court of Appeal continues to reaffirm the pattern of dealings methodology, as recently as in *Imperial* where at para. 21 the court states:

The meaning and import of pattern of dealings is well established. A pattern of dealings arises “where there are such a number of deals established so that it may be said that a pattern has been established by negotiation between the landowners and oil companies in a district”. The Board should depart from such a pattern for only the most cogent reasons: see *Livingston v. Siebens Oil & Gas Ltd.* (1978), 8 A.R. 439 (C.A.) at para. 11; *Petryshen v. Nova* (1982), 23 Alta. L.R. (2d) 193 (C.A.). The principle contemplates “comparable” patterns of dealings, in terms of the rights granted, the type of land, proximity, date, acreage and the nature of the parties.

[166] Conoco states that only where no pattern of dealings has been established in an area or where more cogent reasons exist should the Board and a court depart from pattern of dealings. Conoco submits that its evidence in this case establishes a clear pattern of dealings and that empirical evidence such as that submitted by the Lemay does not meet the definition of “most cogent reasons”. While Conoco concedes there are special cases such as those dealing with special crops, unusual topography, or the existence of several wellsites, which can create difficulties in the farming operation of the landowner and supply the cogent reasons needed to depart from the standard pattern of dealings method, Conoco argues this is no such case.

[167] Given that Conoco argues it is the pattern of dealings methodology that is to be used to determine compensation for adverse effect, I questioned counsel for Conoco as to the purpose of introducing the Hoover reports. I asked why it was necessary for Conoco to introduce Mr. Hoover, who in effect served as a competing expert on the empirical methodology, when Conoco argued use of the empirical methodology was not even appropriate.

[168] Counsel advised that this evidence was presented by Conoco to demonstrate the integrity of the pattern of dealings methodology while simultaneously illustrating how the empirical methodology includes a multitude of variables, making the empirical methodology cumbersome and unworkable for anything but unique situations. Counsel went on to complain that the Lemays were endeavouring to introduce a whole new methodology contrary to the ruling of the Alberta Court of Appeal that pattern of dealing was the appropriate method.

[169] However, Mr. Hoover's explanation that he got together with a group of lawyers, landowners, oil and gas companies and power-line companies to develop the empirical methodology seems at odd purposes with Conoco's position. Mr. Hoover developed his construction mapper program to set out exactly all of the operations of a landowner, through a full farming year, from which he developed a spreadsheet to input the data and produce costs calculations. In other words, Mr. Hoover's testimony indicates that his program was developed as a way to assess appropriate compensation based upon an empirical methodology, as an alternative to the pattern of dealings.

[170] The Lemays argue that pattern of dealings and the empirical methodology are both tools that can be used for the proper and fair determination of compensation. Counsel for the Lemays rejected Conoco's submissions that the Lemays were endeavouring to introduce any new methodology. He stated the Lemays were simply presenting their own data based on their own actual operations to illustrate the impact of any mid-field structure, in this case, a wellsite, on their own operations. Their position on adverse effect compensation was that it was totally inadequate and not based on any material criteria identified in pattern of dealings evidence. The Lemays' counsel noted this was also the position taken by the Lemays before the Board.

[171] The Lemays submit that whether one approach is to be used over another is a case specific question and depends on the nature and quality of the evidence. Above all, cogent empirical evidence must prevail over pattern of dealings.

[172] In support of the this submission the Lemays referred to *Ferguson*. Robert A. Berrien appeared as an expert witness in methods of determining compensation, and spoke to three different methods. The first was "the empirical approach which calculates losses based upon actual areas, yields and costs", a method he stated was used frequently in new areas and in unique situations. Mr. Berrien stated the second source or method of calculation is based on data from decisions of the Surface Rights Board itself. The third approach was the established pattern of compensation in the area, the almost universal basis for estimating compensation.

[173] *Ferguson* was not decided on the empirical approach but using the pattern of dealings. Although the evidence before the Board was empirical data on the inconvenience of farming

around wellsites, controlling weeds, and increased costs of tasks such as inspection and monitoring, the Board referred to what it termed “commonplace practice” throughout Alberta as the basis on which it set compensation. On appeal before Hembroff, J. the Board’s order was set aside and the compensation was increased based on what Hembroff, J. considered the most reliable evidence put before him during the appeal: the pattern of dealing evidence of Mr. Berrien.

[174] In effect Hembroff, J. did not deal with any empirical approach to valuation as the case went off on a different issue.

[175] Conoco argues the Lemays provided no legal authority for their proposition that cogent reasons support departure from the pattern of dealings generally. However, Conoco also did not provide any legal authority for its proposition that compensation calculated by use of an empirical methodology did not qualify as cogent reasons for departure from the pattern of dealings. In fact, there appears to be no legal authority which uses principled legal reasoning to assess what constitutes cogent reasons and permits a Board or a court to decline to follow a proven pattern of dealings.

[176] It is my assessment that empirical evidence can form the basis for an exception to the pattern of dealings on the basis that it is more cogent evidence to assist in determining compensation. The Board’s recognition of this meets the standard of reasonableness in this case. Its decision to proceed without providing Conoco the opportunity to test and answer was not, as referred to earlier in these reasons.

[177] There is no doubt that an empirical approach may not be flawless, but “cogent” does not mean “perfect”. This is recognized by our civil standard of proof, which does not require a party to prove its case to the point of absolute certainty, but only to tip the balance of probabilities.

[178] The most important advantage to the pattern of dealings approach may be its ability to provide conformity in assessing the compensation for adverse effect. However, from the Lemays’ perspective, it is difficult to comprehend how they ought to have been persuaded to agree to the pattern of dealings figures when the land agents were unable to explain where the initial numbers originated or how the final number was calculated. The Lemays’ testimony was that it was this inability that motivated them to examine their data and analyse it to arrive at an actual adverse effect figure.

[179] It is of note that in this Court, there was still no evidence adduced as to where the initial numbers in the pattern of dealing originated or how the final numbers in the pattern of dealing were calculated.

[180] As is demonstrated by the technological equipment used by the Lemays and the obstruction mapper computer program used by Mr. Hoover, advances in technology are providing ways for empirical methodologies to assess effects of wellsites. There is no reason why an empirical methodology which withstands cross-examination and potentially a critique by

a witness on the other side should not constitute a cogent reason for departing from the pattern of dealings.

[181] I commend Mr. Hoover for his collaboration with surface rights stakeholders to devise a uniform empirical methodology which may one day reach a level of sophistication and accuracy such that it can be used by both the owner and the operator to calculate an agreeable compensation amount, which could reduce the need for Board and court hearings. At this stage, however, the program does not achieve this. Rather than enabling compensation for a specific farming operation to be calculated, the system now utilizes a hypothetical farming practice utilizing few specifics of the operation in question, and unfortunately, is unable, as least on the evidence presented in this case, to reach a level of specificity so as to be a sufficiently accurate calculation of the tangible adverse effects experienced by the Lemays. The hypothetical situations and statistics that bear no relation to the Lemay operation have been pointed out in the review of Mr. Hoover's and Mr. Lemay's evidence, and do not require detailed repetition here. It suffices to say that overwhelmingly, the values used for input costs, yields, and sales prices are not based on the Lemay operation. This is demonstrated by Mr. Hoover's comments with respect to machinery costs, where he agreed that the costs he calculated were not representative of the Lemay operation's costs in using that particular piece of equipment, but were merely representative of the average farmer's costs in using that particular piece of equipment. The farming patterns used to calculate additional equipment operating costs, costs and losses arising from missed areas, decreased crop revenues, and additional inputs costs, are not the farming patterns used by the Lemays. As a result of all of these generalities, the losses calculated by Mr. Hoover at times do not even correspond to the types of losses suffered by the Lemays. For example, the Lemays made no claim for costs and losses arising from missed areas. This is because they testified that it was more efficient to have increased areas of overlap as opposed to missed areas, and therefore, they farm accordingly.

[182] As a result of these problems, I find that Mr. Hoover's analysis of the tangible adverse effect suffered by the Lemays is not, in and of itself, capable of being used to quantify the compensation payable to the Lemays for tangible adverse effect.

[183] The Lemays have the advantage of being able to use the specifics of their farming operation to design a different empirical methodology to calculate their tangible adverse effect. They used their excellent farming practices with new, specialized equipment, containing information gathering and recording systems, and took the time to make records. They used actual distances, actual speeds, actual times, actual numbers of passes, and varied field/machinery efficiency factors based upon their assessments of utilizing their equipment around the wellsites in question. They presented detailed, actual evidence about their operation, equipment, technology, crop yields, crop prices, input costs and yields. All of this information was used to calculate how the existence of the wellsites caused reduced yields, extra equipment costs for alteration of the headland pattern around the wellsite, extra equipment costs as a result of extra turns, extra equipment costs as a result of extra travel time, and extra input costs as a result of overlap.

[184] The Lemays presented five categories of loss arising from tangible adverse effect. Three of these categories calculated losses in terms of extra equipment time on a costs per hour basis. The other two categories focussed on unnecessary extra input costs, and lost revenues from decreased yields.

[185] Mr. Garies, an expert on the pattern of dealings method who testified for Conoco, agreed that a vetted analysis of actual effect could displace the pattern of dealings. Since the presentations before the Board, Conoco had the opportunity to vet the Lemay process, and to present its critique of the methodology through Mr. Hoover. While Mr. Hoover questioned many elements of the Lemay methodology, such as the inputs used by the Lemays, he never questioned their overall method of calculation, or the five categories of losses which they designed. He stated that in the past, he had actually attempted to do calculations on a per hour basis as the Lemays had done here, but found he could not come up with a desired level of accuracy.

[186] The reasons Mr. Hoover could not reach a desired level of accuracy were not provided. We do know, however, that Mr. Hoover has never farmed using equipment with G.P.S. technology. It is clear from the Lemay evidence that they relied upon the data collected by their technological equipment in their analysis. Mr. Hoover also did not have the detail of the Lemay operation that was available to the Lemays when Mr. Hoover performed his analysis. It is clear that the Lemays relied heavily upon their measurements of time, distance, speed, etc., to conduct their analysis. With respect to the three categories which calculated losses in terms of extra equipment time on a costs per hour basis, I therefore do not find that Mr. Hoover's inability to reach a satisfactory level of accuracy using a per hour method of calculation means that the Lemays' methodology is also inaccurate.

[187] With respect to the other two Lemay categories which calculated extra input costs and lost revenues, Mr. Hoover testified that both he and the Lemays had calculated these types of losses, but that they had simply approached it differently by using different factors in reaching the final figures. His evidence on these categories therefore also does not demonstrate that their methodology is inaccurate.

[188] Having considered the Lemay methodology as a complete approach to calculating tangible adverse effect, I find that the empirical methodology approach designed and used by the Lemays in this case constitutes a cogent reason for departure from the pattern of dealings as determined by the Board.

[189] The design of this empirical methodology, however, is in its infancy. The testimony and argument by the operators, and admissions by Mr. Lemay in his testimony, demonstrate the methodology still requires refinement. Adjustments must therefore be made to the Lemay calculations.

[190] There are two main areas of concern; the value of the inputs and the use of the Machine Costs Calculator.

[191] The first area of concern is the values used for input costs such as seed, fertilizer, chemical and those for equipment used in the Machine Costs Calculator; crop yields; and sales prices.

[192] Mr. Lemay testified that before the Board, the Lemays had generally used data from 2005 or 2006 and that before the court, the data used was generally from 2007. Other adjustments were made for changes in the operation. For example, the width of the swather changed from one year to the next, and therefore the width of the swather used in the calculations before the Board and the court was changed. While these changes were made to reflect the yearly-changing data, Mr. Lemay testified that the overall process was the same at both hearings. The decision to use yearly figures as opposed to averages demonstrates how important these values are: before the Board, the Lemays' calculation on wellsite 16-8 for tangible adverse effect was \$2,518.09; by using values from 2007, this number increased to \$2,949.74.

[193] While Mr. Hoover did not solely use values from the Lemay operation, he did use values averaged over a period of time as opposed to those from a single year or crop year. Conoco argues that if compensation is going to be based on empirical data, the final calculations must be derived from values that are calculated from data over a sufficiently long period to allow for an averaging of the yearly input cost, yield, and sales price fluctuations. Given that compensation is set over a five-year period, I agree that it is much more appropriate to use averages produced from values over a period of years as opposed to values from a single year, which really only provide a snapshot in time. Mr. Hoover used varying periods of three years' worth of data to ten years' worth of data to produce averages for various inputs. If this data had been that of the Lemay operation as opposed to overwhelmingly statistical, I would have preferred his input values.

[194] A related issue is which span of years should be used to calculate the averages. One of the principles guiding the Board, and the court, is that compensation is payable for a future period, and the decision-maker is therefore to look to the future in determining compensation. Following this principle, it is the most recent data from the landowner's farming operation that would provide the most useful information for a future forecast. Even this evidence could be subject to manipulation, however, if the farming operation had plans of changing, or, a party was able to adduce convincing evidence of a potential trend that would have a significant impact on one or more values.

[195] I therefore find that the Lemays were not in error in using data from 2005, 2006, and 2007 in their calculations because these years fall within the five-year period for which compensation is being set. However, the tangible adverse effect calculations the Lemays provided to the Board and this court are not representative averages of the Lemays' tangible adverse effect losses generally, but only provide two snapshots in time as examples of what those losses could entail.

[196] Conoco also argues that the evidence of sales prices provided by the Lemays may not be representative of their entire operation, for the sales documentation provided represents a very small portion of the entire Lemay crop production. It may also not be representative of the sales

prices received for the crop on the field where the wellsite is located. I agree this is a valid concern, and am of the view that the values used in the calculations must be tied either to the farming operation as a whole, with the majority of the records then produced, or to the field where the wellsites are located, with the majority of the records for that field produced.

[197] Related to the issue of values which were input to determine final calculations is the Lemays' calculation of lost revenue. The Lemays used their yield monitors to determine the difference in yield over the field generally from that of the wellsite area. However, it was unknown if the portion of the wellsite upon which no crop was grown was included in the area over which the computer calculated yields. If this uncultivated area was included in the overall area, it would incorrectly exacerbate the yield differences between the entire field and the wellsite area. This factor must also be considered in the Lemay calculations of lost revenue.

[198] The second area of concern is the calculation of equipment operating costs using the Machine Costs Calculator. Considerable time was spent in cross-examination of Mr. Lemay discussing which inputs of the Machine Costs Calculator alter the computations of cost per hour and cost per acre for the piece of equipment being analysed.

[199] Mr. Lemay stressed that he was not concerned with the Calculator's computation of cost per acre, for the Lemays were basing their calculations for three of the categories of tangible adverse effect on the extra amounts of time that the farming operations took as a result of the existence of the wellsite. Once the extra time was determined, it could simply be multiplied by the Calculator's computation of the piece of equipment's hourly cost, and this produced the cost of tangible adverse effect. The cost per acre computation that could be performed by the Calculator was therefore unnecessary for the Lemays' determination.

[200] Mr. Hoover testified that a cost per hour and a cost per acre are substitutable numbers, but in order to substitute, the correct co-efficients had to be used. Mr. Hoover stated a co-efficient was the number of acres per hour that one could work with a piece of machinery, and to calculate it, it was necessary to know the size and speed of the equipment, and the amount of overlap or efficiency with the piece of equipment.

[201] This evidence is consistent with that of Mr. Lemay, who testified that the exact reason they used cost per hour as opposed to cost per acre was because of all the variables it was necessary to know in order to calculate the cost per acre. Specifically, he stated one particular reason the Lemays did not calculate cost per acre was because it required the efficiency of the equipment to be determined. Given this consistency in the evidence, and my review of the calculations of the Lemays' equipment costs, I am satisfied that the Lemay calculations of cost per hour for the equipment is not as flawed as Conoco suggests.

[202] I do find, however, that the Lemays have been inconsistent in the use of their own actual data as opposed to the statistical data available as defaults in the Machine Costs Calculator. For example, for some equipment they used the default purchase price, while for others they used their actual purchase price. I am therefore unable to conclude that the equipment costs calculated

by the Lemays and used in their final calculations of tangible adverse effect are truly representative of the Lemays' equipment costs.

[203] Conoco raised additional concerns with the Lemay empirical methodology. I will briefly comment on why they are not sustainable.

[204] It was argued that the Lemays' methodology is based upon the first paper by Mr. Dyck entitled Midfield Structures Increase Farming Costs. Since the paper was withdrawn from public purview due to errors, and replaced with a corrected version, the Lemay methodology is also argued to be flawed.

[205] In front of the Board, the Lemays referred to Mr. Dyck's article to support their own analysis. However, having reviewed Mr. Dyck's testimony, both papers, and the Lemay methodology, I am satisfied that while the Lemays considered Mr. Dyck's process, the methodology they ultimately devised is different. The Lemay methodology is not subject to the same critiques which were directed towards Mr. Dyck's first paper.

[206] Quite properly, Conoco pointed out that the farming patterns used by the Lemays to calculate their losses for tangible adverse effect are not the actual farming patterns used by the Lemays. The farming patterns which form the basis for the Lemay methodology go around the entire wellsite, farming none of it, while in practice, the Lemays do farm into the wellsite. The Lemays agree that any crops grown within the wellsite are harvested and that the Lemays keep the revenue.

[207] This is one area of the empirical methodology where the hypothetical must often prevail over reality. It is true that in the large majority of cases, the landowner will have the use of a portion of the acreage of the leased site, and will avail him or herself of any revenue produced from that portion. However, it is appropriate to determine compensation based on the premise that the entire wellsite is being used by the operator because at any time throughout the lease, the operator has the right to use the entire wellsite. Even if a landowner has costs for seed, fertilizer, chemical and equipment which have been expended to plant and nurture a crop on a wellsite, the operator may enter at any time and conduct its operations to the detriment of the growing crop. A landowner may therefore expend funds to produce revenue on the wellsite, but is risking receiving no profits from the expenditure because the operator has the right to enter at any time.

[208] This is consistent with several Board and court decisions which have not discounted the compensation payable by the revenue the landowner receives from production on the wellsite, and have awarded gross revenue as opposed to net revenue when, like here, the crop being grown is not a speciality crop.

[209] One may argue that it is inconsistent to discount Mr. Hoover's method because his farming patterns are hypothetical, while accepting the Lemays' hypothetical pattern. There is a difference: the Lemays' patterns are hypothetical only to the extent that they do not encroach into the wellsite. Save this exception, they do represent the actual farming patterns used; Mr.

Hoover's do not. For example, Mr. Lemay testified they do not farm across the access road on wellsite 16-8. This is consistent with the farming pattern used in their analysis.

[210] Conoco also argues that the efficiency rates used by the Lemays were arbitrary and did not take into account the increased efficiencies resulting from the Lemays' use of G.P.S. technology. Comparison was also made to the rates used and calculated by Mr. Hoover and Mr. Dyck.

[211] Mr. Hoover's own evidence on efficiency rates is that they are subjective and based upon the experience of the equipment operator. He then provided opinions on efficiency rates with equipment employing G.P.S. technology despite the fact the equipment he operates does not have G.P.S. technology.

[212] Mr. Dyck used 10% in both papers to represent the reduction in field efficiency caused by a field obstruction. The latest paper states, "In this analysis, a 10 per cent decrease in field efficiency is assumed. Additional studies are needed to measure these factors to provide conclusive cost estimates."

[213] Given that Mr. Hoover considers the setting of efficiency rates a subjective process based on experience, which he does not have with G.P.S. technology, and Mr. Dyck's lack of support for the use of his figure, I find that this evidence does not support a substitution of the rates used by the Lemays.

[214] With respect to tangible adverse effect, I therefore accept the Lemays' calculations, subject to adjustment for the concerns expressed above.

[215] In an attempt to obtain an average for the Lemay tangible adverse effect calculation as opposed to the snapshots in time which the figures presented to the Board and the court represent, the tangible adverse effect calculations submitted by the Lemays to the Board and the court are to be averaged. On wellsite 5-31, the Lemays claimed \$1,546.26 as tangible adverse effect before the Board and \$1,672.79 before the court. On wellsite 16-8, the Lemays claimed \$2,518.09 before the Board and \$2,949.74 before the court. Determining averages for each wellsite results in a tangible adverse effect figure of \$1,609.53 for wellsite 5-31, and \$2,733.92 for wellsite 16-8. Having considered the values used by Lemays, the values used by Mr. Hoover, and the comments by both Mr. Hoover and Mr. Lemay in testimony, these averages are to be decreased by 10% on both wellsites.

[216] With respect to intangible adverse effect, Mr. Hoover did not provide a figure, and Mr. Lanaras did not provide a breakdown between tangible and intangible in his adverse effect amount. The Lemays argued that intangible adverse effect compensation of \$1,275.00 should be awarded on each wellsite. This was not based on any calculated figure. The Lemays had very few complaints on matters such as garbage, interference with drainage, and other intangibles arising from Conoco's operations on these wellsites. I therefore find the Lemay figure high.

[217] I award the following:

Category	Wellsite 16-8 (4.40 acres)	Wellsite 5-31 (3.56 acres)
Tangible Adverse Effect	\$2,460.53	\$1,448.58
Intangible Adverse Effect	\$1,000.00	\$1,000.00
Adding loss of use as agreed to by the parties	\$350/acre: \$1,540.00	\$350/acre: \$1,246.00
Total	\$5,000.53	\$3,694.58

[218] The total compensation payable on wellsite 16-8 is set at \$5,000.00, and on 5-31 is set at \$3,700.00.

[219] The Lemays argued that Conoco failed to prove the existence of a pattern of dealings which should be used to calculate compensation. Given my finding that the Lemays' empirical methodology should prevail in this case, it is unnecessary to deal with this issue.

Legal Costs

[220] The Lemays claim solicitor client costs in the sum of \$82,607.11 and personal costs of \$8,650.00 for Brian Lemay and \$7,250.00 for Barry Lemay. Legal costs on an appeal are governed by section 26(9) of the *Alberta Surface Rights Act*. That section provides as follows:

- 26(9) The costs of an appeal under this section,
- (a) when the appeal is by the operator, are payable by the operator on a solicitor and client basis regardless of the result of the appeal, unless the Court finds special circumstances to justify it to award costs on any other basis, or
 - (b) when the appeal is by the owner or occupant,
 - (i) if the appeal is successful, are payable by the operator on a solicitor and client basis, and
 - (ii) if the appeal is unsuccessful, are payable on a party and party basis to the party, if any, that the Court in its discretion may direct

[221] The appeal in this case was taken by the operator Conoco, however Conoco argues that although it originated the appeal, the Lemays, in filing their material and submitting their evidence, in effect cross-appealed by seeking greater compensation than the Board awarded to

them. Conoco claims costs on appeal be reduced to costs on a party and party basis as mandated by section 26(9)(b)(ii). In the alternative, Conoco submits that there are special circumstances in this case to justify an award of costs on another basis than that directed by subsection (a) of section 29(6).

[222] The Alberta Court of Appeal addressed the law and public policy reasons for the provisions of section 29, which grant landowners a right of recovery of solicitor and client costs where the operator appeals a decision from the Surface Rights Board. In the case of *Cabre Exploration Ltd. v. Arndt* [1988] A.J. No. 479, the Court of Appeal found that the legislative purposes for the provision amounted to a protection for landowners for what in substance amounts to an expropriation of surface rights from a landowner by an operator mineral title holder who has a right to exercise entry in order to take and win the minerals. The following quote from the judgment of Mr. Justice Kerans, writing for the court, states as follows:

In Alberta today, there exists a legislative compromise between the traditional common law rule about the status of the holder of the mineral interest and the cry of expropriation. On the one hand, as McClung, J.A. for this Court said in *Windrift Ranches Limited v. Alberta Surface Rights Board and Home Oil Company* (unreported, June 11, 1986, Alta. C.A.), the right to enter exists and must be enforced by the Surface Rights Board; on the other hand, as the learned Queen's Bench judge found in his second decision here, the statute now obliges the operator to compensate the owner for the entry as though it is a taking. This is the reality of the law in this province today although, as the learned Queen's Bench judge observed, it may be illogical in appearance. I accept his conclusions and his excellent history of the law, recent and past. His conclusion was that the current state of the law is that there is something very much like a taking here because the mineral owner finds himself obliged to remunerate the surface owner, and possibly also because his right of entry under the Act might in some ways be greater than his common law right.

...

That the legislation creates a notional taking in Alberta is not surprising. The implied-consent doctrine makes little sense to Albertans, who find it historically inaccurate to suggest that their forefathers willingly took title without the minerals or negotiated a lower price because they did not get them. Most agrarian land in this province was originally granted by the Crown with a reservation of mines and minerals, or first sold by the two largest original grantees (the C.P.R. and the Hudson's Bay Company) with a similar reservation. Moreover, these were not matters of negotiation: in many cases, the lands were homesteaded, which means they were bought on take-it-or-leave-it terms and paid for with sweat, not treasure. As a result, when the well-driller arrives, he seems to the farmer to be a surface taker just as much as those who come to install power lines, pipelines, or highways. The point is that the Legislature might be seen here as redressing an injustice, not creating one.

All of this explains the scheme of this statute, which obviously treats right-of-entry as sufficiently analogous to a taking as to justify the costs rule for a taking. I agree for all these reasons that this is neither unjust nor unfair, although I would be of a different view if an operator was bound to pay costs even where an owner had pursued or opposed an appeal unreasonably. My agreement depends upon that part of the rule that permits a court to make exemptions.

...

The appellant, therefore, cannot succeed on the basis that the distinction offends an accepted principle of justice or fairness. Nor can it succeed on the basis that the rule is irrational. A reason for it exists, as I have taken some pains to explain. Nor can it succeed on the basis that, in pith and substance, it relies upon a stereotype about a personal characteristic. Thus, all of the equality claims raised by the operator for consideration in this case fail.

[Emphasis added]

[223] There is no basis on the results of this appeal by Conoco to merit consideration of special circumstances or an issue of cross-appeal. This was an appeal *de novo* by Conoco. The Lemays responded to the case put forward by Conoco within the process set by the Surface Rights Board. It was open under the Board's rules to submit whatever approach and methodology the Lemays determined was in their best interests to obtain an award. They chose an empirical methodology based on their actual operations and records. No disclosure before hearing was required by the Board.

[224] Counsel for the Lemays made it perfectly clear at the hearing and in written submission that the extended submissions and expanded values contained in the Lemays' material was filed to support the award of the Board. As indicated in the reasons regarding the amount of compensation payable, I agree with this characterization of the Lemays' evidence. It is true that before this court the Lemay methodology calculated different amounts for tangible adverse effect than were calculated before the Board, but I have found that their process of calculation was the same in both hearings, and the amounts which were shown in the Lemay calculations here were a result of varying values used for their inputs as opposed to use of a new methodology before the court. Therefore the Lemays are awarded their legal costs on appeal on a solicitor client basis as provided for in the *Act*, there being no special circumstances based on the ruling and the results in this case.

Personal Costs

[225] Included in the written argument filed in the appeal, the Lemays requested that the court award compensation to the Lemays for their extensive time spent engaged in, preparing for, and participating in these appeals.

[226] Mr. Wilson put forth a request for personal compensation for his clients on the following alternative grounds:

- 1) as part of the award of compensation for adverse effect, nuisance and inconvenience;
- 2) as part of the award of costs to be made under section 26(9)(a) *supra*; or,
- 3) under the broad discretionary compensation/damage provisions conferred on the Board and this Court. Mr. Wilson pointed out that the Board does award compensation to landowners/farmers for time involved in compensation hearings before it.

[227] In essence, the Lemays invoke the principles established by the Court of Appeal in the *Charter* Challenge to the cost provisions on appeal under this *Act* in *Cabre*. In *Cabre*, the court declared that the *Surface Rights Act* characterizes the right of entry or, the effect of an agreement, as a taking of the land in the wellsite with a quinquennial calculation of compensation and costs for the indeterminate term of statutory or contractual right of entry granted. Principles of justice and fairness are involved and recognized in the legislation, which the Court of Appeal found to be a rational approach to the issue and far from a breach of the *Charter*.

[228] Section 25 of the *Act* defines the various heads of compensation under which the Board may make an Order. Section 25(1)(f) includes compensation for “any other factors the Board considers proper under the circumstances”. Section 39 permits the Board to establish a schedule of fees and other expenses by regulation and by Order to direct by whom the costs are to be taxed. The Board has not done so. It has assumed that mantle unto itself.

[229] Counsel for Conoco submits personal costs are outside the jurisdiction of this Court on appeal. Conoco refers to section 26(7) and argues that this Court is restricted to determining “compensation payable” and to whom it is payable and nothing more. Conoco states the Board’s discretion to award costs pursuant to section 39 of the *Act* is restricted by the very specific provisions of section 26(9) to award solicitor and client costs only on appeal.

[230] Conoco argues that an award of personal costs is not available on a review of annual compensation which is the basis of its appeal. Conoco cites as authority for its proposition *True Energy Inc. v. Nigel Andrew Kitchings et al*, (July 13, 2007), Wetaskiwin 0612 000150 (Alberta Taxing Officer), and the costs decision of Langston, J. in *Canadian Natural Resources Limited v. Bennett and Bennett Holdings Ltd., et al*, (September 20, 2008), Lethbridge/MacLeod 0606 00177 (Alta. Q.B.).

[231] In *Kitchings*, the Taxing Officer ruled that Mr. Kitchings’ claim for compensation for “his time away from his work” was, unless otherwise ordered by the court, restricted to the allowances found in schedule “E”, number 3 for his participation in the proceedings as a witness. No exception to the rule having been made, Kitchings’ compensation was reduced to witness fees and expenses.

[232] In *Bennett*, a claim of \$27,000.00 for costs by Mr. Bennett on his behalf and on behalf of his corporate entity as landowners was put forth on the following bases; a) the court has a broad discretion in the award of costs; b) the appeal was a tactical one by Canadian Natural Resources Limited to blunt the resistance of farmers to seek appropriate compensation through an appeal;

c) it was a case that established an important principle; and d) that Darryl Bennett was himself an expert and in effect gave expert evidence.

[233] Langston J. rejected that the case was one of unique circumstances. He also rejected Mr. Bennett's claim for qualification as an expert and found his claim was really one for preparing materials and working with counsel in the presentation of his case. Justice Langston ruled that Mr. Bennett's application for personal costs was a double-barrel application request for costs and was subsumed in the claim for solicitor client costs and expenses. He found no authority to suggest that parties could come forward as litigants and claim what is essentially their time in trial preparation with counsel.

[234] In some respects the claim made by the Lemays for their personal costs is of like character to the costs claimed by Mr. Bennett before Langston, J.

[235] The question becomes, is there authority under the *Act* for the Board to make an allowance for personal costs to the landowner litigant who submits his case before the Board without counsel. In my opinion section 25(1)(f) does provide that discretion.

[236] The question then becomes, what is the situation before this Court on appeal where the operator chooses the *de novo* approach with counsel and expert witnesses and the landowner is forced to respond in kind. The wording of section 25(1)(f) is broad enough to include an award of personal costs in special cases as one of the heads of compensation and therefore within the power of this Court under section 26(7), and I so find.

[237] This finding does not automatically mean that every landowner ought to receive personal costs in every compensation case. Each case must be considered on its own circumstances, just as Langston J. did in *Bennett*. I differentiate between a litigants' personal time and effort to assist counsel and the peculiar duties of the Lemays in this case.

[238] The Lemays were their own experts in the sense that their choice to take the empirical approach required they assemble all of the evidence necessary to meet the challenge of the operator's expert on the use of empirical data as a method of determining compensation. Instead of calling an expert to attest to farming under the John Deere G.P.S. guidance and recording equipment, and results, they did this part of the presentation on their own from their personal records and experience. Unlike the situation in *Bennett*, where it was decided that the landowner was preparing materials and working with counsel to present his case, I find that the Lemays developed their empirical methodology and presented it to the Board without the assistance of counsel. Once retaining counsel for this *de novo* appeal, as able as counsel is, I find the Lemay methodology, and hence their case, could not have been presented without their substantial preliminary work and trial involvement.

[239] While both Lemays have claimed costs for attendance at trial, it was only Mr. Brian Lemay that testified. Mr. Barry Lemay is a litigant in these proceedings, but he did not testify, and no justification has been given for his claim for personal costs for attendance at trial. Mr. Barry Lemay will therefore not receive compensation for his claimed costs of trial attendance.

[240] In my discretion, I award each of Mr. Barry Lemay and Mr. Brian Lemay 40% of their claims for personal costs for trial preparation. I award Mr. Brian Lemay 40% of his claim for personal costs for trial attendance. This totals considerably less than any expert would have charged.

Heard on the 23rd, 25th and 26th day of October, 2007.

Dated at Calgary, Alberta this 2nd day of February, 2009.

D.B. Mason
J.C.Q.B.A.

Appearances:

Ronald C. Swist of Swist & Company,
Jeremy H. Hockin of Parlee McLaws LLP, and
Heidi Meldrum of Parlee McLaws LLP
for Conocophillips Canada Resources Corp.

Keith Wilson of Wilson Law Office
for Brian Douglas Lemay and Barry A. Lemay