

GREAT WESTERN ONSHORE INC.

IBLA 92-142

Decided September 22, 1995

Appeal from a decision of the New Mexico State Office, Bureau of Land Management, affirming a decision by the Farmington Resource Area ordering Great Western to submit plans to drill a diligence well on Jicarilla Contract 390. SDR 91-37.

Set aside and remanded.

1. Indians: Mineral Resources: Oil and Gas: Tribal Lands—Oil and Gas Leases: Generally

Under 43 CFR 3161.2 and 3162.2(c) the Bureau of Land Management may require the operating rights owner to promptly drill and produce a well when it determines such a well is reasonably required in order that the lease may be properly and timely developed and produced in accordance with good economic practices.

2. Administrative Procedure: Administrative Record—Administrative Procedure: Administrative Review—Appeals: Generally—Rules of Practice: Appeals: Generally

An administrative decision is properly set aside and remanded if it is not supported by a case record providing the Board the information necessary for an objective, independent review of the basis for decision.

APPEARANCES: William L. Ames, Jr., Vice President-Operations, for Great Western Onshore, Inc.; Grant L. Vaughn, Esq., Office of the Solicitor, U.S. Department of the Interior, Santa Fe, New Mexico, for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE IRWIN

Great Western Onshore Inc. (Great Western) has appealed the October 17, 1991, decision of the State Director, New Mexico State Office, Bureau of Land Management (BLM), upholding the August 21, 1991, order of BLM's Farmington Resource Area Office (FRA) that Great Western drill a diligence well on Jicarilla Tribal Oil and Gas lease Contract No. 390 in Sandoval County, New Mexico.

Earlier – on October 31, 1990 – FRA had ordered Robert L. Bayless, the operator of Jicarilla Contract 390, to begin drilling operations in the Gallup-Dakota Formation underlying vacant well spacing units in secs. 23, 24, or 26, T. 23 N., R. 4 W., New Mexico Principal Meridian (NMPPM), the three sections covered by the lease. On review by the State Director, that order was set aside on January 14, 1991, and remanded to FRA to determine the threshold price of oil above which a prudent operator would be expected to develop the lease (SDR 91-09). 1/

On April 19, 1991, FRA issued an order to Bayless to "commence a Gallup/Dakota test [well] on the untested portion of the contract area within 90 days." This order was based on a determination "that a Gallup/ Dakota prospect similar to the two existing wells in the contract area would be commercial with crude [oil] prices as low as \$15/BBL [barrel of oil] and natural gas prices at \$1.06/MCF [thousand cubic feet]." Assuming FRA meant for such a well to be drilled in the NE $\frac{1}{4}$ or SE $\frac{1}{4}$ of sec. 23, Bayless responded that the project would be uneconomic, observing among other things that, because of the distance of the nearest gas sales points, gas was either used or vented at the two Gallup/Dakota wellsites that exist on the lease. 2/

In response to Bayless' request for State Director review, FRA clarified that it intended the well to be drilled in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of sec. 23, T. 23 N., R. 4 W., NMPPM. As a result, Bayless informed Great Western on May 17, 1991, that this location was within an area earned by Great Western from Bayless under a farmout agreement by drilling the Great Western Resources Martin Whittaker #62 well. On July 1, 1991, the State Director remanded FRA's April 19, 1991, order and instructed it to proceed against the appropriate party for the intended drilling tract (SDR 91-28). Subsequent communications therefore took place between FRA and Great Western.

On July 5, 1991, FRA informed Great Western that it had determined the lease was not fully developed from a geological standpoint. "Based

1/ The State Director's Jan. 14, 1991, decision states, at page 1:

"It is the policy of [BLM] to assure that producing Indian oil and gas leases are diligently developed in accordance with the terms of the lease. BLM may require lessees to submit plans for the further development of the lease, or require the drilling of wells in a timely manner when the drilling of such wells is supported by the prudent operator rule. Orders requiring diligent drilling operations are issued in accordance with the regulations in 43 CFR 3161.2 and 3162.2(c)."

2/ A May 15, 1991, memorandum to the file from Ray Hager, BLM Petroleum Engineer, states in part: "The well files were checked and approval for venting the gas was found. Economics were re-run deleting revenue for gas. The amended economics indicate that the prospect well would still be a profitable venture."

on production histories from existing wells on the lease, we * * * determined that additional development would be profitable to the operator. We selected a proposed drillsite in the SE/4NW/4 of sec. 23 * * * and generated an economic study utilizing current completed well costs and current product prices." FRA stated it had discounted initial production by 300 barrels of oil per month and used current worth values and had based anticipated production and reserves on production curves from existing production on the lease. FRA ordered Great Western to (1) submit plans for further development of the lease; (2) relinquish undeveloped acreage; or (3) submit geological, engineering, and economic data to support the view that an economic well could not be drilled.

Great Western wrote FRA that it felt development at that location was not justified under current economic conditions and requested a meeting with members of the FRA staff to review BLM's data. BLM's memorandum to the file following an August 2, 1991, meeting states in part:

Both parties were in agreement on the major issues with the exception of the cost to drill and complete a Gallup/Dakota well in the contract area. Great Western Resources stated that due to their company structure as much of the drilling operation as possible is normally turn-keyed and that it would cost \$569,000 to drill, complete, and equip the well and would therefore be un-economical at this time. Great Western based their economics on actual quotes supplied by service companies. The [Farmington] Resource Area cost estimate based on average drilling costs in the area was \$397,600. The meeting was adjourned until the \$171,400 difference in cost estimates could be resolved.

On August 21, 1991, FRA wrote Great Western, repeating its view that at the conclusion of August 2 meeting "we were in agreement on all aspects of the * * * contract area except the cost to drill and complete a diligence well." FRA had analyzed Great Western's cost estimates "and found that some of the items included in the turn-key quotes were duplicated in other cost estimates" and that "[o]ther items were based on cost of the most expensive line of equipment available." FRA conducted an economic analysis using a reserves estimate of 68,801 barrels, a price per barrel of \$20.34, and an adjusted well cost of \$465,111. ^{3/} This analysis

^{3/} The Aug. 21, 1991, order stated:

"All remaining parameters were unchanged from our last economic analysis. Please note that the costs to lay a gas sales line and a metering device were not deleted from the cost estimate. Gas revenues were not included in the economic analysis. Gas revenues are normally deferred pending contract negotiation and sales line connection." The price of \$20.34/BBL was the crude oil price when the first demand letter was sent to Great Western.

indicated that there would be "a discounted payout in 4.82 years with a rate of return at 20.86%, hence a profitable well." FRA also conducted a "sensitivity analysis * * * with variable completed well costs." This analysis indicated that "the rate of return would still exceed the discount rate by one-half of one per-cent with well costs as high as \$525,000." Based on these calculations, FRA required Great Western to submit plans to drill a diligence well on Jicarilla Contract 390 within 30 days.

On September 20, 1991, Great Western requested State Director Review of the August 21, 1991, FRA order. See 43 CFR 3165.3(b). Great Western stated it was not true that the only area of disagreement was the cost to drill and complete a diligence well: "[t]he primary differences between the economic analyses of [Great Western] and the BLM are estimates of recoverable oil reserves and well costs." Great Western "presented * * * a comprehensive statistical study which demonstrates that the 'most likely' or 'expected' recoverable oil reserves are in the 30-35 MBO [thousand barrels of oil] range, based on data from 141 wells in the Lindrith (Gallup-Dakota) Field" and stated it believed its reserves analysis was valid, rather than the 68,800 barrel estimate that FRA employed "based on data from two offset wells and three unidentified wells adjacent to the contract area." Great Western also provided an item-by-item discussion of the disputed well costs; refined its estimates of the costs associated with cementing and wellhead; and concluded that a revised estimate of \$563,170, "based upon and supported by legitimate quotes for materials and services," was valid, rather than BLM's estimate of \$465,111.

In his October 17, 1991, decision the State Director concluded that "[t]he FRA's 69,000 barrel reserve estimate is the most reasonable, since [Great Western] did not provide data to support a connection to the main Lindrith Gallup/Dakota pool." The decision states:

The [Great Western] reserve estimate used all 141 wells in the Lindrith (Gallup/Dakota) Field. The Lindrith Gallup/Dakota pool lies north of the subject lands, and covers twenty to thirty square miles. Most of these wells are several miles from the subject lands. * * * [Great Western] did not provide geologic data to support a connection with the Lindrith Field. * * *

The FRA interprets the wells on the Jicarilla 390 lease to be producing from a separate and discrete Dakota sandstone reservoir, as well as the fractured Gallup Formation. The FRA's recoverable reserve estimate is based on the performance of the #53 Martin-Whittaker, a direct offset to the subject acreage. They believe recoverable reserves to be similar to the #53 Martin-Whittaker, reduced by 300 barrels per month (approximately 15%). The reduction accounts for reservoir depletion and places recoverable reserves at 69,000 barrels. [4/]

4/ A Sept. 25, 1991, memorandum from Ray Hager, BLM Petroleum Engineer, to Rick Wymer in the BLM New Mexico State Office states:

After reducing some of Great Western's well cost estimates and increasing some of FRA's, the State Director calculated the well should cost \$524,545. The State Director concluded: "The FRA's economic analysis, using a \$525,000 well and 69,000 barrels of reserves, demonstrates [Great Western] could drill a paying well. The FRA order is upheld." Great Western filed a timely appeal.

[1] Departmental regulations provide that, after notice in writing, the operating rights owner shall promptly drill and produce wells reasonably required in order that the lease may be properly and timely developed and produced in accordance with good economic practices. The applicable regulations governing a diligence well, 43 CFR 3161.2 and 3162.2(c), provide, respectively:

The authorized officer is authorized and directed to * * * provide technical information and advice relative to oil and gas development on Federal and Indian lands * * * require compliance with lease terms, with the regulations in this part and all other applicable regulations promulgated under the cited laws; and to require that all operations be conducted in a manner which * * * results in the maximum ultimate recovery of oil and gas with minimum waste. * * * The authorized officer may issue written or oral orders to govern specific lease operations.

43 CFR 3161.2. The regulations also provide: "After notice in writing, the operating rights owner shall promptly drill and produce such other wells as the authorized officer may reasonably require in order that the lease may be properly and timely developed and produced in accordance with good economic operating practices." 43 CFR 3162.2(c).

fn. 4 (continued)

"When Great Western Onshore presented their data during the meeting of August 2, 1991, it was noted that they had based their economics on average production from the entire Lindrith Gallup/Dakota pool.

"They submitted data from 141 wells which they had analyzed to arrive at an average production figure. I have enclosed the summary sheets resulting from this study, but not the individual well studies. The individual well studies are not relevant to the reservoir in the contract area.

"During the meeting, we pointed out that the deposition of productive sands in the contract area were not the same as the main pool and were in fact more prolific than the main pool sands. After reviewing our geology, Great Western Onshore's representatives agreed."

An Oct. 2, 1991, conversation record of a telephone conversation between Hager and Wymer states in part: "They [Great Western] denied that we were in agreement on a 60,000 BBL reserve estimate for a prospect well. I told Rick that their original economic evaluation was based on 60,000 BBL reserves. Rick found their evaluation and indicated that they had in fact used 60,000 BBL."

In addition, Jicarilla Tribal Contract No. 390 provides that if the lessee elects not to drill and produce wells other than those necessary to protect the leased land from drainage, "the Secretary of the Interior may, within 10 days after due notice in writing, * * * require the drilling and production of such wells to the number necessary, in his opinion, to insure reasonable diligence in the development and operation of the property." Jicarilla Tribal Contract No. 390, Paragraph 3(b)(3). The lease also requires the lessee "[t]o exercise reasonable diligence in drilling and operating wells for oil and gas * * * while such products can be secured in paying quantities." Jicarilla Tribal Contract No. 390, Paragraph (f).

The prudent operator rule is applicable to Federal leases, Nola Grace Ptasynski, 63 IBLA 240, 89 I.D. 208 (1982), including when BLM orders the drilling of a well to diligently develop a lease. The BLM Manual provides that "an economic well determination will be conducted to determine if a prudent operator can drill an offset well in the spacing unit being evaluated." BLM Manual 3160-16, Indian Diligent Development, Rel. 3-274 (Dec. 3, 1991), Appendix 3, Page 2, Paragraph 2, "Economic Well Determination (Prudent Operator Rule)." The BLM Manual defines the prudent operator rule as: "[I]n order for a well to be economic, it must be determined that it can produce a sufficient quantity of oil or gas to pay reasonable profit to the lessee over and above the cost of drilling and operating the well." BLM Manual 3160-16, Indian Diligent Development, Rel. 3-274 (Dec. 3, 1991), Glossary of Terms, Page 2. See Nola Grace Ptasynski, 63 IBLA at 247, 89 I.D. at 212.

"The prudent operator rule is, in essence, a limitation on the generally recognized implied duties of a holder of an oil and gas lease * * *. The conceptual basis of the prudent operator rule lies in the fact that oil and gas leases are business arrangements entered into with an expectation of financial gain on both sides." Nola Grace Ptasynski, 63 IBLA at 248, 89 I.D. at 212. "If the recoverable oil underlying the land * * * is insufficient to support the cost of recovery, no intelligent landowner would make out-of-pocket expenditures to drill a well. * * * A lessee should not be obligated to pursue a course of economic folly which a prudent owner would forego." Nola Grace Ptasynski, 63 IBLA at 251, 89 I.D. at 214-215 (emphasis in original). The prudent operator's obligation was described by then-Circuit Judge Willis Van Devanter in Brewster v. Lanyon Zinc Co., 140 F. 801 (8th Cir. 1905): "No obligation rests on [the lessee] to carry the operations beyond the point where they will be profitable to him, even if some benefit to the lessor will result from them. * * * Whatever, in the circumstances, would be reasonably expected of operators of ordinary prudence, having regard to the interests of both lessor and lessee, is what is required." Id. at 814. Thus, if Great Western cannot make a reasonable profit over and above the cost of drilling and operating the proposed well it should not be required to drill the well.

Great Western contends on appeal that

at the current oil price and well cost, this diligence well is not an economic venture. In order for this venture to generate a fifteen percent (15%) rate of return, the oil price would have to be approximately \$37.50 per barrel. Great Western will actively undertake projects which satisfy its economic criteria but we do not believe the diligence well [a]s proposed by the BLM will meet those standards or even pay out.

(Statement of Reasons (SOR) at 3). Great Western offers an economic summary, based on oil reserves of 34,200 barrels, an oil price of \$22/ barrel, well costs of \$563,200, and expenses of \$257,000, that shows an undiscounted loss of \$175,400. Id.

Great Western "strongly disagrees" with FRA's interpretation that the wells on the lease produce from a separate and discrete Dakota sandstone reservoir, as well as the fractured Gallup Formation, which Great Western asserts "is absolutely unsupported by the data" (SOR at 2). Great Western "provides a structure map and geologic cross sections, along with a geologic discussion, to illustrate that the diligence well location is, in fact, connected to the recognized Lindrith, South (Gallup-Dakota) pool from which 116 wells produce." Great Western adds:

A refined statistical study including only those 116 wells is also provided and demonstrates that, in the Lindrith, South (Gallup-Dakota) pool, the average well is expected to produce ultimate oil reserves of 34,200 barrels of oil. The "expected" or median ultimate reserves are 27,200 barrels of oil. * * * The FRA analysis simplistically assumes that the diligence well will recover 69,000 barrels, the same as the offset Martin Whittaker No. 53. This assumption lends no weight whatsoever to the risk of varying reservoir quality or drainage. The statistical study indicates that only 8 (7 percent) of the field wells will produce more than 69,000 barrels. To assume that the diligence location will be among the top 7 percent of the field wells is not reasonable.

Id.

Great Western's geologic discussion states that the field's producing zones, "as evidenced by stratigraphic cross sections A-A' and B-B', are uniform in thickness and reservoir quality. All of the zones are either tight low permeable sandstones or limestones with low matrix porosities that are only productive after extensive fracture treatments" (SOR Geologic Discussion at 1).

There is no evidence of structural entrapment in the area as seen on the Greenhorn Structure Map which displays a regional north dip into the [San Juan] Basin without interruption. The productivity of this area is controlled by natural vertical fractures of the zones and, as evidenced by production decline histories,

the fracture systems are extremely localized and do not cover extensive areas.

Id.

Great Western states that the Martin-Whittaker #53 and #62 wells in sec. 23, T. 23 N., R. 4 W. – which lie to the southeast and the northwest of the site of the proposed diligence well –

are expected to recover 69,400 and 53,800 barrels of oil which is in the top 19% of all of the wells in the Lindrith, South Field. These wells, as illustrated by structure and cross-section data, are in the same productive zone as other wells in the Field without apparent separation. They have better than average potential for oil recovery because, at present, they are not affected by over drilling. It is highly likely that an additional well drilled in the NW/4 of Section 23-T23N-R4W will produce less than 27,200 barrels of oil due to drainage by the #53 and #62 wells and what production it would recover would be at the expense of these two wells and reduce their recoverable reserves.

Id.

Great Western refers to the statement in the engineering review dated April 12, 1991, by BLM Petroleum Engineer Ray Hager that "[t]he two Gallup/Dakota wells in the contract area [the Martin-Whittaker #53 and the Martin-Whittaker #62] are not in the same geological structure as the numerous Gallup/Dakota wells located in the South Lindrith Gallup/Dakota extension which is developed just north of the contract area" (Diligence Engineering Review, Jicarilla Contract 390, 4-12-1991, at 2). Great Western states that

[t]he enclosed stratigraphic Cross-sections A-A' and B-B' clearly illustrate the correlation of the Gallup/Dakota producing zones in the contract area 390 wells to wells north of the area and, in fact, verify that there is no geological separation of the reservoirs. The enclosed structure map of the Greenhorn limestone also clearly illustrates that there is no structural separation between the contract 390 wells and the wells to the north.

(SOR Geologic Discussion at 2).

In the geology section of its Answer, BLM states:

The original geology submitted by the BLM remains unchanged. There is no geological indication to support any supposition that the reservoir quality between the Martin Whittaker No. 53 and the Martin Whittaker No. 62 well is in any way inferior or of lessor

[sic] quality than the surrounding reservoir. The geological data submitted by Great Western actually supports the geological soundness of the proposed diligence well. Their structure contours show that the contract area is definitely up-dip to the South Lindriith Gallup/Dakota Extension.

(Answer at 1).

It is not clear what the "original geology submitted by the BLM" refers to. As a result of the State Director's January 14, 1991, decision setting aside and remanding FRA's October 30, 1990, order to Robert L. Bayless to begin diligent drilling operations, BLM Petroleum Engineer Ray Hager conducted the Diligence Engineering Review dated April 12, 1991, referred to by Great Western in its SOR. That review stated that a

[g]eological update was conducted [in which] the following was noted:

Only about 5' of the Dakota zone was logged in the Martin-Whittaker #62 well making plotting of the Dakota sands very difficult.

The two Gallup/Dakota wells in the contract area are not in the same geological structure as the numerous Gallup/Dakota wells located in the South Lindriith Gallup/Dakota extension which is developed just north of the contract area.

None of the study wells indicated significant sand development in the Gallup interval. Therefore, if the Gallup Formation is productive in the area it would be through natural or induced fractures. (see current Geological review)

(Diligence Engineering Review, Jicarilla Contract 390, 4-12-1991, at 2).

The "current [g]eological review" in the record submitted to us contains a geological report by Robert S. Pike dated April 22, 1991 – presumably the "geological update" to which Hager referred – and an engineering report dated October 24, 1990. That engineering report refers to "[t]he BLM Geology report by Robert Pike, dated 9/25/90." Pike's April 22, 1991, report does not discuss whether "[t]he two Gallup/ Dakota wells in the contract area are * * * in the same geological structure as the numerous Gallup/Dakota wells located in the South Lindriith Gallup/Dakota extension which is developed just north of the contract area." ^{5/} The record submitted to us does not include the BLM geology report by Robert Pike dated September 25, 1990.

^{5/} The Apr. 22, 1991, geological report states:

"Upon reading Mr McCords report dated July-1990 (no geological information was attached), I constructed a structural and isopach map of

The BLM Manual provides that a technical review be conducted for a producing lease that does not meet the requirements for diligent development. A technical review "consists of a combination of geologic, reservoir engineering, and economic reviews * * *. The geologic review (GR) determines the quality and extent of the reservoir and provides reservoir parameters for comprehensive geologic reports and appropriate maps." BLM Manual 3160-16, Indian Diligent Development, Rel. 3-274 (Dec. 3, 1991), § 3160-16.22.

The GR is conducted prior to, or in conjunction with, the RER [reservoir engineering review]. The purpose of the GR is to determine through geologic analysis whether or not a reservoir exists beneath the undeveloped spacing units of the lease. The GR also develops reservoir parameters for use during the RER. * * * Specifics of the GR are addressed in Appendix 2.

BLM Manual, § 3160-16.22A. Appendix 2 states that the GR is

a comprehensive examination of the lithologic, structural, and stratigraphic components of the subject area. The subject reservoir is analyzed as to its limits and physical characteristics using all available data. Similarities and differences between the Bureau's independent geologic analysis and the lessee's geologic analysis (if submitted) are discussed and resolved. The record must describe in detail how the geology affects diligent development in the subject area. The technical elements necessary to complete the geologic analysis are outlined as follows[.]

The reservoir engineering review determines "the ultimate recoverable reserves and producing characteristics for development well(s) in the

fn. 5 (continued)

the section in question. After interperating [sic] the logs available it was determined that the Martin-Whit[t]aker #62 was drilled to the top of the Dakota and did not completely penetrate this formation. Therefore the Dakota section had to be extrapolated. There is a 40 ft. dip to the northeast from the #53 to the #62. This is indicative of a larger high to the southwest on the isopach map. It was determined from our extrapolation that [a] Dakota well in section 26 may be marginal but most of section-23 and the west part of section-24 would be productive. If a Dakota well were drilled, all the formations above the Dakota could be tested. There is no significant sand development in the Gallup interval."

The reference in this report to "Mr McCords report dated July-1990" is to the July 12, 1990, letter to FRA from Kevin H. McCord, petroleum engineer for Robert L. Bayless, in response to an Apr. 17, 1990, letter from FRA to Amoco Production Company, the lessee of record, requesting information regarding additional development of the lease, which Amoco forwarded to Bayless.

undeveloped spacing units determined by the GR to be underlain by hydrocarbons. * * * A description of the RER is found at Appendix 3." BLM Manual, § 3160-16.22B. The economic review determines "whether a prudent operator can drill an economic well on any undeveloped spacing unit." BLM Manual, § 3160-16.22C. An economic well determination is based on the findings of a reservoir engineering review. BLM Manual, § 3160-16, Appendix 3, Page 2, Paragraph 2. The BLM Manual states that all diligence reviews

must comply with established standards and procedures and must have complete documentation of analyses and decisions. The objectives of quality control should be to determine whether (1) established policy and procedures were followed, (2) accepted engineering and geological practices were applied as appropriate, (3) all reasonably available information was considered, and (4) the analyses were technically accurate. Quality control is necessary for the defense of appeals and audits and is the responsibility of the authorized officer.

BLM Manual, § 3160-16.15.

It is apparent that the record before us does not contain the complete geologic review, as outlined in the BLM Manual, § 3160-16, Appendix 2. Without it, we cannot evaluate whether BLM's interpretation of the geology of Jicarilla Contract 390 is sound. Specifically, we cannot judge whether "[t]he two Gallup/Dakota wells in the contract area * * * are not in the same geological structure as the numerous Gallup/Dakota wells located in the South Lindrith Gallup/Dakota extension which is developed just north of the contract area," as stated in Ray Hager's April 12, 1991, diligence engineering review, or are "producing from a separate and discrete Dakota sandstone reservoir, as well as the fractured Gallup Formation," as stated in the State Director's October 17, 1991, decision. The "differences between the Bureau's independent geologic analysis and the lessee's geologic analysis," as submitted in Great Western's SOR, were not discussed and resolved in the geologic report – or in BLM's Answer.

BLM employees are obligated to follow the provisions of the BLM Manual. New Mexico Wilderness Coalition, 129 IBLA 158, 162 (1994). In this case that is essential because the estimate of recoverable reserves – and the ultimate determination whether an economic well can be drilled at the site BLM proposes – clearly depend on the correctness of BLM's geological interpretation.

[2] BLM is required to forward the complete, original case file for a decision to the Board within 10 business days of receiving a notice of appeal. Utah Chapter Sierra Club, 114 IBLA 172, 175 (1990). 6/ An

6/ We emphasize the need to have the original administrative record. In this case we had difficulty reading many of the copies BLM provided.

administrative decision is properly set aside and remanded if it is not supported by a case record providing this Board the information necessary for an objective, independent review of the basis for decision. Shell Offshore, Inc., 113 IBLA 226, 233, 97 I.D. 73, 77 (1990). "[A]bsent a complete record, this Board and a reviewing court are incapable of complying with the review requirements statutorily mandated by the Administrative Procedure Act." Shell Offshore, Inc., *supra* at 233-34, 97 I.D. at 78. "Review is to be based on the full administrative record that was before the Secretary at the time he made his decision." Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 420 (1971). For that to be possible we must have "all documents and materials directly or indirectly considered by agency decision-makers[,] includ[ing] evidence contrary to the agency's position." Exxon Corp. v. Department of Energy, 91 F.R.D. 26, 33 (N.D. Tex. 1981). See Thompson v. U.S. Department of Labor, 885 F.2d 551, 555 (9th Cir. 1989); Walter O. Boswell Memorial Hosp. v. Heckler, 749 F.2d 788, 792 (D.C. Cir. 1984).

We would add that it is not mere procedural legalism that motivates us in a case such as this. When BLM orders someone to spend significant sums of money to drill a well, we expect it to be sure of its grounds and to demonstrate that it has done careful research. See Amoco Production Co., 129 IBLA 186, 101 I.D. 39 (1994); Exxon Company, U.S.A., 113 IBLA 199, 205 (1990). Where it does so, it is not enough for an appellant to offer a contrary opinion; the appellant must demonstrate by a preponderance of the evidence that BLM erred when collecting underlying data, when interpreting that data, or in reaching its conclusion. Amoco Production Co., *supra* at 202, 101 I.D. at 47; Mallon Oil Co., 107 IBLA 150, 159 (1989).

We therefore set aside the State Director's October 17, 1991, decision and remand this case for a technical review conducted in accordance with the provisions of the BLM Manual set forth above, using current prices and costs.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the October 17, 1991, decision of the New Mexico State Director is set aside and remanded.

Will A. Irwin
Administrative Judge

I concur.

Gail M. Frazier
Administrative Judge

