RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 08-0263310

THE APPLICATION OF CHEVRON U.S.A., INC. TO CONSIDER AN EXCEPTION TO STATEWIDE RULE 11 PERTAINING TO INCLINATION AND DIRECTIONAL SURVEY REQUIREMENTS FOR VARIOUS EXISTING AND FUTURE WELLS ON THE CRIER-MCELROY LEASE AND THE J.T. MCELROY CONS. LEASE, MCELROY FIELD CRANE AND UPTON COUNTIES, TEXAS.

HEARD BY: MARSHALL ENQUIST - ADMINISTRATIVE LAW JUDGE
KARL CALDWELL- TECHNICAL EXAMINER

DATES OF HEARING: JANUARY 19, 2011 and JULY 17, 2014

APPEARANCES:	**REPRESENTING:**
Kelli Kenney (Attorney)	Chevron U.S.A., Inc.
Clifford Cuffey (Operations Geologist)	
Craig Payken (Senior Reservoir Engineer)	
Todd Meade (Landman)	
William Taylor (Technical Team Leader)	
Pat Caldwell (Regulatory Specialist)	

PROCEDURAL HISTORY

Request for Hearing:	October 14, 2009
Request for Hearing on Amended Application:	September 9, 2010
Notice of Hearing:	September 15, 2010
Hearing Called and Continued:	October 13, 2010
Date of Hearing:	January 19, 2011
Letter Confirming the Granting of Additional Time to File Exhibits:	February 15, 2011
Request for Hearing:	April 7, 2014
Amended Notice of Hearing:	May 1, 2014
Request to Postpone Hearing:	May 16, 2014
Examiner Letter Issued Postponing Hearing Indefinitely:	May 27, 2014
Notice of Re-Scheduled Hearing:	June 19, 2014
Hearing Held:	July 17, 2014
Late-Filed Exhibit Nos. 17 and 23 Received:	August 21, 2014

Late-Filed Exhibit 23A Received:	November 12, 2015
Late-Filed Exhibit 23A Admitted:	November 20, 2015
Oil & Gas Docket No. 8-82,839 Noticed and Admitted	February 8, 2016
PFD Issued	March 22, 2016

STATEMENT OF THE CASE

Chevron U.S.A., Inc. ("Chevron") operates 614 producing wells and 500 injection wells on the Crier-McElroy (04157) Lease and the J.T. McElroy Cons. (04161) Lease in the McElroy Field in the Grayburg Formation in the Permian Basin. Chevron requests an exception to Statewide Rule 11 (SWR 11) for any wells whose inclination surveys indicate the need to run directional surveys. In addition, Chevron requests a blanket SWR 11 exception for all future wells drilled in the subject field on the two leases.

The initial hearing on Oil and Gas Docket No. 08-0263310 was conducted on January 19, 2011. At that time, Chevron was requesting an exception to SWR 11 for 35 wells: 24 producers and 11 injectors. At the hearing, the Administrative Law Judge ("ALJ") and the Technical Examiner requested that Chevron late-file additional exhibits. On February 15, 2011 a letter was received from Chevron's attorney requesting that the hearing be left open to grant Chevron additional time to file the amended exhibits.

On April 7, 2014, Commission staff contacted Chevron's attorney regarding the status of the docket. Chevron stated it was ready to go forward. Consequently, the docket was re-noticed and set for a second hearing which was held on July 17, 2014. At the re-opened hearing, it became apparent that Chevron had drilled 13 more wells since the January 19, 2011 hearing whose inclination surveys indicated the need to run directional surveys. At the April 7, 2014 hearing, Chevron requested an exception to SWR 11 for 48 wells: 33 producers and 15 injectors.

On November 2, 2015, the Administrative Law Judge requested an updated list of the wells for which an exception to SWR 11 was requested by Chevron. Counsel for Chevron replied by letter dated November 12, 2015, with Late-Filed Exhibit 23A, listing 53 wells. Late-Filed Exhibit 23A was admitted into the record of the hearing on November 20, 2015. By letter dated January 27, 2016, the Administrative Law Judge proposed taking Official Notice of the PFD and Final Order in Oil & Gas Docket No. 8-82,839. Chevron did not object and the PFD and Final Order in Oil & Gas Docket No. 8-82,839 was officially noticed and admitted into evidence on February 8, 2016.

The ALJ and Technical Examiner recommend that Chevron be required to perform directional surveys on the 53 wells at issue, save and except the McElroy, J.T. Cons. (04161) Lease Well Nos. 1379 and 1400, and on all future wells drilled that demonstrate Inclination Survey displacement in excess of the distance from the surface location to the leaseline on the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease, McElroy Field, Crane and Upton Counties, Texas.

APPLICABLE LAW

Commission Statewide Rule 11, titled "**INCLINATION AND DIRECTIONAL SURVEYS REQUIRED**", determines whether or not an inclination survey or a directional survey is required for a well.

Statewide Rule 11

(a) General. All wells shall be drilled as nearly vertical as possible by normal, prudent, practical drilling operations. Nothing in this section shall be construed to permit the drilling of any well in such a manner that the wellbore crosses lease and/or property lines (or unit lines in cases of pooling) without special permission.

(b) Requirements

(b)(1)(A) An inclination survey made by persons or concerns approved by the Commission shall be filed on a form prescribed by the Commission for each well drilled or deepened with rotary tools, except as hereinafter provided, or when, as a result of any operation, the course of the well is changed. The first shot point of such inclination survey shall be made at a depth not greater than 500 feet below the surface of the ground, and succeeding shot points shall be made either at 500-foot intervals or at the nearest drill bit change thereto, but not to exceed 1,000 feet apart.

(b)(1)(B) Inclination surveys conforming to these requirements may be made either during the normal course of drilling or after the well has reached total depth. Acceptable directional surveys may be filed in lieu of inclination surveys.

(b)(1)(C) Copies of all directional or inclination surveys, regardless of the reason for which they are run, shall be filed as a part of or in addition to the inclination surveys otherwise required by this section. If computations are made from dipmeter surveys to determine the course of the wellbore in any portion of the surveyed interval, a report of such computations shall be required.

(c) Directional Surveys

(1) When Required

(A) When the maximum displacement indicated by an inclination survey is greater than the actual distance from the surface location to the nearest lease line or pooled unit boundary, it will be considered a violating well subject to plugging and penalty action. However, an operator may submit a directional survey, run at his own expense by a Commission approved surveying company, to show the true bottom hole location of the well to be within the prescribed limits. When such directional survey shows the well to be bottomed within the confines of the lease, but nearer to a well or lease line or pooled unit boundary than allowed by applicable rules, or by the permit for the well if the well has been granted an exception to §3.37 of this title (relating to

Statewide Spacing Rule), a new permit will be required if it is established that the bottom hole location or completion location is not at a reasonable location. (Emphasis added)

[Texas Administrative Code, Title 16, Part 1, Chapter 3, Rule §3.11(a)-(c)(1)(A)]

MATTERS OFFICIALLY NOTICED

The ALJ and Technical Examiner have taken Official Notice of the audio recording of the original hearing in Oil and Gas Docket No. 08-0263310 on January 19, 2011, as well as the file and exhibits submitted by Chevron at the original hearing. The ALJ and Technical Examiner have also taken Official Notice of the file and exhibits presented by Chevron at the re-opened hearing held July 17, 2014. The ALJ and Technical Examiner have admitted into the record Chevron Late-Filed Exhibits , 17, 23, and 23A. The ALJ and Technical Examiner circulated a copy of Oil & Gas Docket No. 8-82,839 on January 27, 2015 for objections. There were no objections and it was admitted into the record of the hearing on February 8, 2016.

DISCUSSION OF THE EVIDENCE

Chevron's Evidence

The McElroy Field is located in the Permian Basin on the southeastern region of the Central Basin Platform, approximately 55 miles south-southwest of Midland, Texas. The field was discovered in 1926. The Grayburg Formation is the productive formation . The field rules for the McElroy Field requires leaseline spacing of 330 feet and between-well spacing of 660 feet on 10-acre proration units. Chevron operates over 1100 wells in the McElroy Field, consisting of approximately 614 producing wells and approximately 500 injector wells. Chevron estimates approximately 500 in-fill lease line wells (wells with a surface location within 330 feet of the leaseline), both injectors and producers, have been drilled in the subject field over the past ten to twelve years. The 53 wells at issue in this docket constitute roughly 10% of the in-fill leaseline wells.

The current unit is composed of 34 sections as shown by **Attachment I**, Chevron's Exhibit 8 from the 2011 hearing. **Attachment II** demonstrates that much of the mineral acreage involved is checkerboarded, that is, adjacent 640-acre sections of land are often subject to different leases. The J.T. McElroy Lease, signed on February 8, 1926, is shown in yellow. The Crier-McElroy Lease, also signed on February 8, 1926, is shown in blue. Subsequent leases were taken on McElroy Ranch Section 182 on November 8, 1945 (shown in green) , and McElroy Ranch Section 183 on February 13, 1946 (shown in orange).

In the 2011 hearing, 35 wells were at issue at the common boundaries between the J.T. McElroy Lease and the Crier-McElroy Lease (see **Attachment II** - 2011 Chevron Exhibit 10). In the July 7, 2014 hearing, due to continued drilling by Chevron, the wells at issue had grown to 48, also along the boundaries of the J.T. McElroy Lease and the Crier McElroy Lease (see **Attachment III** -

2014 Chevron Exhibit 22). On November 2, 2015, the ALJ requested that counsel for Chevron provide an updated list including any newly-drilled leaseline wells whose inclination surveys indicated the need for a directional survey so that they might all be considered by the Commissioners. By letter dated November 12, 2015, counsel for Chevron provided its Late-Filed Exhibit 23A, an updated list of 53 wells (see **Attachment IV**).

The current field production is approximately 9,000 barrels of oil per day (BOPD). Chevron estimated daily production in the subject field would be approximately 2,500 BOPD without the 500 in-fill lease wells. Production from the McElroy Field declined from 12,000 BOPD in January, 2000, to 10,000 BOPD in April, 2002, on a steep 8.5% decline curve. An infill drilling program was initiated in 2002 which boosted production, peaking in approximately March, 2004 at 11,500 BOPD. Since that time, numerous infill projects have reduced the rate of decline such that in October, 2010, daily production stood at 9,000 BOPD. The estimated ultimate recovery from the McElroy Field, considering only those wells drilled prior to 2003, was 7,028 MMBO (million barrels of oil). The estimated ultimate recovery of the McElroy Field, considering the pre-2003 wells plus the infill wells, is now 8,242 MMBO, an increase of 1.214 MMBO. Mr. Craig Payken, Senior Reservoir Engineer, stated the drilling and completion of in-fill wells had little to no effect on the production of offset wells and he believes additional reserves are being recovered as a result of the in-fill wells as opposed to rate acceleration.

Pursuant to Statewide Rule 11(c)(1)(A), 53 "lease line" wells require a directional survey based on the inclination surveys. The inclination surveys run on those wells indicated the maximum displacement of the bottomhole location of the wells was greater than the distance to the nearest lease line. In other words, the bottomhole location of such a well may or may not be on the same lease its surface location is on. Pursuant to Statewide Rule 11(c)(1)(A), a directional survey is required to be run on such a well to determine its true bottomhole location. Chevron believes there is no need to perform the directional surveys required by Statewide Rule 11(c)(1)(A) as it has obtained private Leaseline Agreements from the majority of the mineral/royalty owners.

Of 53 total wells for which Chevron requests an exception to SWR 11, 35 of the wells were included in the original hearing that took place on January 19, 2011. Since the initial hearing, an additional 18 wells have been drilled in which the maximum displacement has exceeded the distance to the nearest lease line based on the inclination surveys.

Chevron requests an exception to SWR 11 for 53 leaseline wells that have already been drilled in the McElroy Field and that are currently either injecting or producing. Chevron asks that it not be required to run directional surveys for those wells and requests an exception to Statewide Rule 11 for those wells. Chevron also requests a blanket exception to SWR 11 for all future leaseline wells drilled in the field.

In Chevron's opinion, running a survey to determine the true bottomhole location of the wells is unnecessary because it has private contractual Leaseline Agreements with the royalty owners. The Leaseline Agreements provide that royalty on production from any well drilled with a surface

location within 330 feet of the common lease lines (section lines) between the J.T. McElroy Lease and the McElroy-Crier Lease, regardless of the actual bottomhole location, will be allocated equally between the leases. Thus, if the surface location of a well is within 330 feet of a common lease line, the adjoining royalty owners share equally in the production from that well. If the surface location is greater than 330 feet from the lease line, the adjoining royalty interest owners do not share in the production from that well.

Chevron asserts that running directional surveys for the 53 wells would result in economic waste and the waste of oil. Mr. Payken estimated that it would take approximately 4 days to run a directional survey, as each well would have to be shut-in and the submersible pumps in the wells would have to be pulled in order to run the survey and then replace the production equipment. If required to run a directional survey at this stage of production, well control equipment and a pulling unit would be required to run a viable directional survey. At the 2011 hearing, Mr. Payken provided Chevron Exhibit 21, which detailed an eleven-step sequence of operations involved in running a directional survey on a currently producing well. At the 2014 hearing, Mr. Payken provided additional information and estimated a cost of approximately $69,900 per well to run a directional survey on a currently producing well (see 2014 Chevron Exhibit No. 15). In Mr. Payken's opinion, if the producing wells were to be shut-in to run a directional survey, the producing wells would not come back on production at the same rate compared to the production rate prior to being shut in. On average, the producing wells are recovering 20 BOPD. Mr. Payken estimated a decline of 5 to 10 BOPD if the wells were required to be shut-in to run directional surveys at this point in the life of the wells. Mr. Paykin stated that there has been some internal debate at Chevron as to whether wells that are shut-in would come back on line at the same rate of production. The field operations group believes the wells would come on at the same rate, whereas the engineering group believes the wells would experience a decline. In Mr. Paykin's opinion, the injection water would go into the high permeability zones of the shut-in well, the fluid level would build up, and the oil-water ratio would drop.

In answer to questions by the ALJ as to why Chevron did not use MWD (Measurement-While-Drilling) tools when drilling the leaseline wells, allowing the well to be steered to the permitted location, and thereby eliminating the possibility of a well crossing leaselines, Chevron replied that it was primarily an economic decision (July 17, 2014 Hearing Recording at 1:08:50). Chevron also stated it does directionally drill wells in the McElroy Field using MWD tools when there are surface obstructions (roads, lease facilities, pipelines, electric lines) near the surface location of a proposed well location that would require Chevron to move the surface location of the well greater than 50-70 feet. In some instances, a well may be directionally drilled with the surface

location off-lease and the bottomhole location of the well directed back to the desired lease[1,2,3]. [Wells are drilled in the subject field based on the geology of the bottomhole location.]

The ALJ and Technical Examiner requested that Chevron provide a late-filed exhibit with examples of wells that experienced a decrease in production rate after being shut-in. On August 21, 2014, the ALJ and Technical Examiner received Chevron's Late-Filed Exhibit No. 17. The exhibit contained 4 production graphs with no accompanying descriptions of the events provided by the applicant:

1.) In the first production graph, the well appeared to have been shut-in to repair a tubing leak. This occurred in late-2013 or early 2014. After the tubing repair, gas production increased while oil production decreased. Since this occurred in early 2014, there were only approximately 6 months of production data after the tubing repair took place.

2.) In the second production graph, it appeared that a well was shut-in to replace a pump and clean-out the well. After the well was brought back into production, the oil and gas production rate was lower than before the well was shut in.

3.) In the third production graph, it appeared that a well was shut-in to change a pump. After the well was brought back on line, oil production decreased from its previous daily production level prior to replacing the pump while the gas rate increased. However, oil production then increased above pre-pump change levels within two years and now appears to produce above pre-pump-change rates.

4.) In the fourth production graph, it appeared that a well was shut in and an acid job was performed on the well. After the acid job, the oil rate decreased while the gas rate increased.

The alternative to running a directional survey after an inclination survey shows excess cumulative deviation would be to drill the wells near leaselines with MWD (Measurement-While-Drilling) tools. With regards to Chevron's request for a blanket exception to SWR 11 for all future wells drilled in the McElroy Field, Mr. Payken estimated a savings of approximately $40,000 per well if a directional survey were not required when the inclination survey indicates the well may have crossed over the leaseline into an adjacent lease with separate mineral/royalty ownership. This estimated savings was based on the cost to run a directional survey with equipment behind the drill

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[1] January 19, 2011 Hearing Recording, 56:40 - 58:02

[2] January 19, 2011 Hearing Recording, 1:06:46 - 1:07:01

[3] The question of drilling from a surface location on a different lease than the one permitted aside, directionally drilled wells are always required to have a directional survey run under Statewide Rule 11(c)(1)(B). However, that problem is not within the call of the hearing and is noted, but not pursued here.

bit (MWD tools) when drilling the well. In Chevron's opinion, first, drilling with MWD tools is unnecessary due to the lease line agreements that it asserts protects the royalty interest owners and, second, the additional cost of using MWD tools to drill would degrade the overall well economics.

In 2002 and 2003, a total of three Lease Line Agreements were executed between Chevron and the mineral interest owners. Execution of the Lease Line Agreements was facilitated by the fact that there are only about 80 mineral interest owners in the two leases. Mr. Todd Meade, a landman with Chevron, stated that some of the lease line wells would not have been able to be drilled without the lease line agreement and reserves would have been otherwise unrecovered.

In the sections where Chevron is currently drilling in-fill wells, there is 100% sign-up for the Leaseline Agreement, with the exception of 5 sections (Sections 186, 196, 199, 212 and 214). Chevron Late-Filed Exhibit No. 23 contained a statement that indicated the sign-up is now 100% in Section 199, leaving only four sections with less than 100% sign up. This does not include Section 180, as there are currently no leaseline producing wells on the perimeter of Section 180. Chevron Late-filed Exhibit No. 23 contained the statement "Should a well be drilled as a leaseline producer and pending execution of the 2009 leaseline agreement, Chevron will proceed with making the unsigned royalty owners whole should they refuse to sign."

Late-filed Exhibit No. 23 lists two royalty interest owners that have not signed the leaseline agreement Section 186. Kerr-McGee Corp. represents 1.25% while Southern Cross Royalty, LP represents 0.23435%. In total, 98.51565% of the royalty interest is under a leaseline agreement in Section 186.

In Section 196 there are seven royalty interest owners that have not signed the leaseline agreement, representing a total of 1.4876%. The percentage of royalty interest owners signed up to the leaseline agreement in Section 196 represents 98.5124%.

In the event a lease line producing well is drilled sometime in the future in a section where 100% of the royalty interest owners have not signed a leaseline agreement, Chevron proposes to make the unsigned royalty interest owners whole should they refuse to sign a leaseline agreement.

ALJ's AND TECHNICAL EXAMINER'S OPINION

In the 2002-2003 time frame, Chevron noticed that the price of oil was going up and that an area 330 feet on either side of the common leaselines in the McElroy Field had not been fully developed. Chevron set out to more fully develop its existing waterflood in the McElroy Field by drilling more infill wells close to leaselines. Chevron then began to enter into "Leaseline Agreements" with the different mineral interest owners, in which the mineral interest owners on opposite sides of a common leaseline agreed to share the royalty on the production of any well drilled with a surface location within 330 feet of a common leaseline.

Here, in the McElroy Field, Chevron's waterflood unit consists of several different leases,

often arranged in a checkerboard pattern. Given these circumstances, there are more instances involving common leaselines than is usual.

Chevron has been drilling the subject leaseline wells since at least March 1, 2003. Chevron duly filed completion reports and inclination reports with the Commission as required by Commission rules. However, in March, 2009, Commission staff noticed that the accumulated displacement on some of the Inclination Reports exceeded the distance to the nearest common leaseline, triggering the requirement for a Directional Survey pursuant to Statewide Rule 11(c)(1)(A). By letters dated March 31, 2009; June 5, 2009; and September 10, 2009, Commission staff notified Chevron that the Crier-McElroy Lease, Well No. 577, was in violation of Statewide Rule 11(c)(1)(A) and required a directional survey. Commission staff issued similar letters regarding the Crier-McElroy Lease, Well No. 498. The letters contained the following statement:

> The completion report cannot be processed further and the well is considered to be in violation and is subject to plugging and penalty action until it is proven that the bottom-hole location is within the lease.

(Letter dated September 10, 2009 from Commission Staff in Technical permitting to Chevron)

By letter dated October 13, 2009, counsel for Chevron, Brian Sullivan, responded to the Staff letters and requested that a hearing be set to resolve the Statewide Rule 11 issue. At that time, Mr. Sullivan attached a list of 29 Chevron wells in the McElroy Field that were subject to the Directional Survey requirements of Statewide Rule 11(c)(1)(A).

When an inclination survey is run, measurements of displacement from true vertical are taken at measured increments of depth in the wellbore. A completed inclination survey shows the total amount of displacement from vertical but does not provide any information regarding the direction of the displacement or the true position of the bottomhole. Subsurface conditions, such as the regional dip of sedimentary layers, may cause a drillbit to walk in a particular direction, but Chevron did not provide any evidence regarding subsurface factors leading the leaseline wellbores to incline in any particular direction.

In some instances, a well may "corkscrew" its way down to its bottomhole, and the collective inclination survey readings may reflect readings taken at all points of the compass, giving the false impression that the well is bottomed much farther away from its permitted location than it actually is. That is not likely to have happened here, as the producing wells in the McElroy Field are relatively shallow, being only about 3,000 feet deep. As Chevron's expert witness, Mr. Payken, stated in the first hearing, since the wells are only about 3,000 feet deep, there is "...not enough distance to get them really corkscrewed." [4]

Chevron did not supply any information during its hearings regarding the permitted leaseline

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[4] January 19, 2011 Hearing Recording at 1:07:31

spacing distances for the violating wells and the accumulated displacements shown by the inclination surveys that triggered the Commission's request for directional surveys. During the initial hearing, the ALJ and Technical Examiner took Official Notice of the Drilling Permits and Inclination Surveys in Commission records [5] for the permitted locations of the wells and their accumulated inclination survey displacement and present those findings as **Attachment V** for the Commissioners' consideration [6]. **Attachment V** addresses only 30 of the 35 wells discussed at the January 19, 2011 hearing and is offered as representative of the disparities between surface locations measured to leaselines and accumulated Inclination Survey well displacements. In some of the more extreme cases, in which a surface location for a well was permitted less than 10 feet from a leaseline, the ALJ and Technical Examiner believe that use of MWD tools to prevent drilling across a leaseline was, and is, incumbent on any reasonable and prudent operator.

Chevron raised four main points to support its request for an exception to SWR 11:

1) The Leaseline Agreements render the requirements of SWR 11 unnecessary;

2) Leaseline wells recover incremental reserves that would otherwise go unrecovered, and the leaseline wells could not have been drilled without the Leaseline Agreements;

3) Adhering to the requirements of Statewide Rule 11(c)(1)(A) would cause economic waste, as a result of increasing well costs;

4) Adhering to the requirements of Statewide Rule 11(c)(1)(A) would cause waste due to loss of production if a directional survey were required at this stage in the life of the wells (pertains to current wells only).

The ALJ and Technical Examiner have considered each of these four points in turn:

1. Chevron Argument - The Leaseline Agreements Render the Requirements of Statewide Rule 11(c)(1)(A) Unnecessary

Chevron asserts that its Leaseline Agreements with private parties, the affected royalty interest owners, negate the need to run directional surveys in those cases in which the inclination survey for a well indicates sufficient displacement that the well may have crossed over the nearest leaseline and bottomed on an adjacent lease. The ALJ and Technical Examiner disagree.

In the context of Statewide Rule 37 cases, Texas courts have stated the general rule that

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[5] January 19, 2011 Hearing Recording at 34:30.

[6] In creating Table 1, the ALJ and Technical Examiner noted that the wells at index numbers 20 and 24, the McElroy, J.T. Cons. (04161) Lease, Well Nos. 1379 and 1400W, have had corrected inclination surveys filed which now indicate that neither well needs a directional survey run.

private contractual agreements between parties cannot prevent the agencies of the State from enforcing conservation laws. "But the issue here presented is whether or not the conservation laws of the state are being contravened. That is a matter in which the public is concerned; and private parties cannot by conduct and agreements between themselves, whether by estoppel or otherwise, vitiate the conservation laws, nor obstruct their proper enforcement. And it is immaterial whether the enforcement of such conservation laws is invoked by interested parties or by the state, if a violation thereof is shown. The public interest in the conservation of such natural resources is the matter of paramount concern, and one against which estoppel as between private rights of the adjacent leaseholders cannot prevail." *Edgar et. al. v. Stanolind Oil & Gas Co., et. al.*, 90 S.W.2d 656, 658 (Tex. Civ App. - Austin 1935, writ refused).

Texas courts have even found that evidence of private agreements between parties may be excluded if the agreements contravene conservation laws. "It was not error, however, to exclude the proffered testimony of appellant as to the agreement made between the various parties to said judgment relative to various other wells, the drilling of offsets, and that each owner of said small tracts should be entitled to drill only one well thereon. If such agreements contravened the conservation laws and the spacing provisions of rule 37, and an exception thereto is not warranted under the facts presented, agreements between the parties cannot affect their proper enforcement. This question was expressly decided in *Edgar v. Stanolind Oil & Gas Company*, supra." *Empire Gas & Fuel Co. v. Railroad Commission of Texas*, 94 S.W.2d 1240, 1243 (Tex. Civ. App. - Austin, 1936 , writ refused). "It is now settled law that acts or agreements of private parties cannot be binding upon, nor work an estoppel against, the agencies of the State in the enforcement of its conservation laws." *Humble Oil & Refining Co. v. Trapp*, 194 S.W.2d 781, 787 (Tex. Civ. App. - Austin, 1946, writ refused).

There will no doubt be many instances in which abiding by the conservation laws of the State and Commission Statewide Rules will cause inconvenience and may cause additional expense to an operator. However, under Texas caselaw, private agreements between parties cannot circumvent those conservation laws and rules.

Granting Chevron relief from the requirements of Statewide Rule 11(c)(1)(A) based on private agreements would set an unfortunate precedent. In the present case, Chevron's basic argument is that the parties most affected, the royalty owners, have decided that protection of their correlative rights is best served by the private Leaseline Agreements proposed by Chevron.

While the Commissioners, as always, have broad discretion in these matters, the ALJ and Technical Examiner believe that placing private agreements above Commission rules and regulations invites creative circumvention of those rules and regulations. For example, what will the Commission's response be if District Office Inspectors find a large oil spill on a lease, a violation of Statewide Rule 8, but the operator of the lease produces an agreement in which the mineral owner and surface owner have agreed that oil spills, no matter how large, are of no consequence so long as such spills are cleaned up at the end of the productive life of the lease?

2. Chevron Argument - Leaseline Wells Recover Incremental Reserves That Would Otherwise Go Unrecovered, and the Leaseline Wells Could Not Have Been Drilled Without the Leaseline Agreements.

The ALJ and Technical Examiner do not take issue with Chevron's assertion that the leaseline wells have recovered incremental reserves that otherwise would have gone unrecovered. That fact is self-evident. Chevron's evidence indicates the leaseline wells have had no impact on the production of other nearby producing wells, reflecting the fact that the sediments of the McElroy Field are tight, and relatively impermeable.

The ALJ and Technical Examiner do not agree with the second part of Chevron's assertion, that being the assertion that the leaseline wells could not have been drilled without the Leaseline Agreements.

First, as 100% owner of the Crier-McElroy (04157) Lease and the J.T. McElroy Cons. (04161) Lease, Chevron was able to give itself "own-offset" exceptions to Statewide Rule 37, allowing it to drill as close to common leaselines as it wished. Since Chevron would be its own offset and there are no unleased mineral interest owners in the field, Chevron would only have to request an exception to Statewide Rule 37 and no other parties would require notice. In light of Chevron's 100% ownership of the two leases, the Leaseline Agreements have no bearing on the proper Commission permitting of any in-fill wells, and, indeed, the record shows that Chevron did obtain Statewide Rule 37 exceptions for its wells within 330 feet of leaselines. Chevron was not prevented from drilling its wells by the lack of a Leaseline Agreement.

Second, as part of the history of the field, it is noteworthy that four leases, including the two subject leases in this docket, the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease, were granted entity-for-density status in Oil & Gas Docket No. 8-82,839[7], with a Commission Order signed July 9, 1984. Entity-for-density is usually granted to allow additional infill drilling in a field in which permeability and porosity are variable over the extent of the field. In such fields, full recovery of hydrocarbons may only be possible if an operator is granted the flexibility of drilling wells in closer proximity to each other than the field's between-well spacing rule would allow. The grant of entity-for-density status generally means an operator may drill wells closer together than the between-well spacing rule would allow, while still respecting the leaseline spacing rule and refraining from drilling wells within the leaseline spacing distance of the lease boundary. If an operator needs to drill more wells than allowed by the density rule, that operator may request a Statewide Rule 38 density exception.

In Oil & Gas Docket No. 8-82,839, the operator (at that time Gulf) of the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease obtained a special provision enabling an advantage greater than normal entity-for-density status. In that docket, Gulf requested an entity-for-

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[7] Oil & Gas Docket No. 8-82,839: Application of Gulf Oil Corporation for an Entity for Density for Four Leases in the McElroy Field, in Crane County, Texas. (1984)

density for the leases plus a rule that any wells drilled within 330 feet of lease boundaries be required to give ten (10) days notice to offset operators. The operative language of the Final Order in that docket stated:

> Therefore, it is ordered by the Railroad Commission of Texas that Gulf Oil Corporation be granted exception to the density and spacing rules of the McElroy Field, McElroy Lease, Crane County, Texas subject to the following conditions:
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> 1. That density shall not exceed one producing well for each 10 productive acres within the limits of the unit.
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> 2. That no well under the provisions of this order will be drilled closer than three hundred thirty (330) feet to the unit boundary without first having given 10 days notice to offset operators and after public hearing, if protest to such proposed location is filed with the Commission.
>
> 3. That all wells drilled under the authority of this order be submitted to the Rule 37 department for approval.

Oil & Gas Docket 8-82,839; Final Order; signed July 9, 1984

Pursuant to the Final Order in Oil & Gas Docket No. 8-82,839, the operator of the Crier-McElroy (04157) and the McElroy, J.T. Cons. (04161) Leases has been able to permit wells without regard to the 660-foot between-well spacing rule and within 330 feet of the common leaseline between those leases since 1984 and is still able to do so today.

The Leaseline Agreements appear more protective of Chevron's interests than the mineral/royalty owners interests. First, Chevron's Leaseline Agreements are useful in preventing civil suits from the royalty owners of the two leases. **Attachment V** shows that Chevron drilled some leaseline wells that were only 10 feet, 8 feet , 6 feet, 5 feet and 2 feet from the common leaseline. The royalty owners across the common leaseline might have objected to the likely drainage of their tracts without compensation and might have demanded the drilling of mirror offset wells, an additional expense to Chevron. The Leaseline Agreements effectively make the drilling of mirror offset wells a moot issue.

Second, Chevron's Leaseline Agreements are useful in preventing accounting problems to royalty owners in those cases in which a well has a surface location on one lease, but actually is bottomed on the opposite lease. Absent the Leaseline Agreements, a royalty owner might challenge the bottomhole location of a well drilled only a few feet from a leaseline, especially if an inclination survey showed the well might be bottomed across the leaseline. Chevron would have to perform the directional survey, and, if it is shown the well is bottomed across the leaseline, either account for production to the royalty owner on whose lease the well bottomed, or re-enter the well and steer it

back to the same lease its surface location is on, all an additional expense to Chevron.

In Texas, if an operator drills a well from a surface location on Lease A, but the well bottoms on Lease B, the operator has just drilled a well for the owner of Lease B, and must pay royalty on production to the royalty owner in Lease B. In this case, Chevron is the working interest owner of both Lease A and Lease B, so it is of little consequence to Chevron where the well bottoms. Either way, Chevron takes the same working interest share. However, absent a Leaseline Agreement between Chevron and royalty owners on both sides of a common leaseline, if the royalty owners on Lease A are different from those on Lease B, it is a matter of consequence to the royalty owners' correlative rights that the true bottomhole location be determined and the correct royalty owner paid.

3. Chevron's Argument - Adhering to the Requirements of Statewide Rule 11(c)(1)(A) Would Cause Economic Waste, as a Result of Increasing Well Costs

Chevron's evidence shows that it would cost roughly $69,000 to perform a directional survey on its existing wells whose inclination surveys demonstrate a need for a directional survey pursuant to Statewide Rule 11(c)(1)(A), and that it would cost $40,000 to use MWD tools on wells drilled in the future to ensure their bottomholes remain on the same lease as their surface locations. As stated previously, there is no doubt that compliance with Commission Statewide Rules may result in expense to an operator.

The ALJ and Technical Examiner are not aware of any prior case in which the "economic waste" argument has been applied to Statewide Rule 11. The concept of "economic waste" has only been applied by the Commission to Statewide Rule 37 cases and, even then, very narrowly. The genesis of the "economic waste" concept is described below.

To establish entitlement to an exception to Statewide Rule 37 to prevent waste, an applicant must demonstrate that: (1) unusual conditions, different from conditions in adjacent parts of the field, exist on the tract for which the exception is sought; and (2) as a result of these conditions, a substantial volume of hydrocarbons will be recovered by the well for which a permit is sought that would not be recovered by any existing well or by additional wells drilled at regular locations. A narrow exception to the first requirement, of unusual reservoir conditions, was created when BTA Oil Producers[8] argued that the Commission should take into account the existence of a previously drilled wellbore as an "unusual condition, different from conditions in adjacent parts of the field."

BTA Oil Producers ("BTA") had an existing well, the Wedge No. 2, which had been drilled as a test well to a deep field, the Ellenberger, which was found to be non-productive. BTA then plugged the well back and completed it uphole in the Montoya, where the well was a commercial producer of gas. When the Montoya reserves were nearly depleted, BTA applied for a Rule 37 exception to plug the well back again and complete uphole in the Devonian. A Rule 37 exception

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[8] Rule 37 Case No. 75,332: The Application of BTA Oil Producers for a Spacing Exception Permit to Plug Back Well No. 2, 7286 JV-S Wedge Gas Unit to the Beal (Devonian) Field, Ward County, Texas. (1976)

was necessary because BTA already had one well, the Wedge Gas Unit No. 1, completed in the Devonian, and that well was only 265 feet from the Wedge No. 2. The Devonian required between-well spacing of 1200 feet. BTA argued that it could recover the reserves from a well drilled at a regular location on its tract, but that the expense of drilling a new well would outweigh the value of the reserves recovered. BTA also argued that the reserves in the Devonian accessed by the Wedge No. 2 appeared to be at original reservoir pressure, and possibly in a reservoir separate from all other wells in the field, including its own. Therefore, BTA argued that the reserves could only be recovered by the Wedge No. 2, which was serendipitously situated in a position to recover the oil that could not be recovered by any existing well. The Commission recognized the concept of "economic waste" in this Statewide Rule 37 context and approved the Statewide Rule 37 exception. Protestant Exxon contested the ruling all the way to the Texas Supreme Court.

> "While it is agreed that the Wedge No. 2 well bore will encounter the Devonian Field at approximately the same thickness that a regular location would, there is also evidence that it is not economically feasible to drill at a regular location. In addition, there is a finding, supported by evidence, that the oil that would be produced from the Wedge No. 2 well cannot be produced by any existing well. There was, therefore, an adequate basis for the Railroad Commission's finding that recompletion of the Wedge No. 2 well in the Devonian Field was necessary to prevent the waste of oil. We have determined that the Commission made findings adequate to support the granting of the permit, and that such findings are supported by substantial evidence."

Exxon Corporation v. Railroad Commission, 571 S.W.2d 497, 501 (Tex. 1978).

Chevron does not argue that compliance with Statewide Rule 11 will make future wells uneconomical to drill and does not argue that compliance with Statewide Rule 11 will make its existing wells uneconomical. Chevron is simply arguing that compliance with Statewide Rule 11 will impact its pocketbook. The ALJ and Technical Examiner do not believe that the "economic waste" argument is applicable to this Statewide Rule 11 case.

4. Chevron Argument - Adhering to the Requirements of Statewide Rule 11(c)(1)(A) Would Cause Waste Due to Loss of Production if a Directional Survey were Required at this Stage in the Life of the Wells (Pertains to Current Wells Only).

Although Chevron asserts that waste would be caused by shutting-in its wells so that directional surveys could be run, it did not provide any data quantifying the amount of waste that would be caused by complying with Statewide Rule 11(c)(1)(A). Chevron's expert witness, Mr. Payken, stated that the average recovery of the producing wells is 20 BOPD. He testified that there is a diversity of opinion within Chevron of the effects of a shut-in period on the producing wells. The field operations group believes the wells would come back on-line at the same rate of production. Mr. Payken, a reservoir engineer, believes that if a currently producing well were required to be shut in so that a directional survey could be conducted, the injection water would go

into the high permeability zones, fluid level would build up and the oil-water ratio would drop. He testified that the rate of production could decline as much as 5 to 10 BOPD per well.

The ALJ and Technical Examiner do not believe this is waste. Waste is the ultimate loss of hydrocarbons. "The term 'waste', as used in oil and gas Rule 37, undoubtedly means the ultimate loss of oil. If a substantial amount of oil will be saved by the drilling of a well that otherwise would ultimately be lost, the permit to drill such well may be justified under one of the exceptions provided in Rule 37 to prevent waste." *Gulf Land Co. V. Atlantic Refining*, 131 S.W.2d 73, 80 (Tex. 1939). A decrease in the rate of production is not waste. If only the rate of production is decreased, the same amount of hydrocarbons may still be recovered over a longer period of time.

The ALJ and Technical Examiner requested that Chevron late-file an exhibit (Chevron Late-Filed Exhibit 17) supporting the argument that pulling tubing and pumps from existing wells will result in a waste of oil that will go unrecovered. The Applicant provided four production graphs with no accompanying analysis.

(i) Production Graph 1 indicates a tubing leak in mid-2013 that was presumably repaired, after which time oil production decreased from 6 BOPD to 4 BOPD while gas production increased. The gas production Y-axis units do not appear on the graph. The last data point is the start of 2014 where oil production is 3 BOPD but is on an increasing trend. In the ALJ's and Technical Examiner's opinion the production is inconclusive to show oil will ultimately be lost as a result of shutting in the well to fix the tubing leak in this instance as the production decrease in oil may be temporary, or the oil may be recovered at a different production well while this well was shut-in due to changes in the oil migration pattern due to this well being temporarily shut-in.

(ii) Production Graph 2 indicates a well was cleaned out and a pump replaced in mid-2007. The well appears to have been shut-in for several months and in the ALJ's and Technical Examiner's opinion, this data is not comparable as the time required to run a directional survey would be a period of days and not months.

(iii) Production Graph 3 indicates a well was shut-in to replace a pump in late 2006. After the well was brought back on line, oil production decreased from its previous daily production level prior to replacing the pump while the gas rate increased. However, oil production has since increased above pre-pump change levels within two years and continues to produce above pre-pump change rates. This production graph contradicts Mr. Paykin's testimony regarding oil waste due to shutting in wells and tends to support Chevron field personnels' opinion that shutting in wells briefly will not affect oil recovery long-term.

(iv) Production Graph 4 indicates an acid job was performed on a well. In the ALJ's and Technical Examiner's opinion, this production graph is not comparable as the well

underwent a stimulation process that affected near-wellbore conditions and was not simply shut-in to pull tubing and a pump as would be the case in running a directional survey.

In summary, Production Graph 3 is the most comparable scenario to what would be required to run a directional survey. Although initial oil production decreased from its previous daily production level prior to replacing the pump, oil production increased above pre-pump change levels within two years and continues to produce above pre-pump change rates. Therefore the ALJ and Technical Examiner conclude that there is not sufficient evidence to conclude that shutting in wells to run a directional survey in a violating well would result in the waste of oil, or decrease ultimate recovery.

Conclusion and Recommendation

Statewide Rule 11 is a conservation rule designed to prevent slant-hole drilling, regulate production from a common reservoir, and protect the correlative rights of mineral owners. Chevron asserts that its Leaseline Agreements effectively serve the same function and protect the interests of the royalty owners on the subject leases. The ALJ and Technical Examiner find that the Chevron Leaseline Agreements do not protect the interests of the royalty owners as effectively as Statewide Rule 11.

Attachment V, the table of Inclination Survey Displacement, shows that, excluding the injection and water production wells, the remaining producing wells, which average only 3,000 feet deep, show a worst case deviation of 87 feet (see #29 on the Table). This shows that if these "leaseline wells" were drilled with a minimal buffer of only thirteen (13) feet added to 87 feet, with a surface location 100 feet or more from the common leaseline, the wells would be highly unlikely to accumulate enough displacement to require a directional survey. Stated another way, only producing wells with surface locations within roughly 100 feet or less of the common leaseline are in any danger of accumulating enough displacement to require a directional survey.

The remainder of the wells covered by the Leaseline Agreement, with surface locations at distances 100 feet to 330 feet from the common leaseline, are in virtually no danger of accumulating enough displacement to require a directional survey. It is unnecessary for the royalty owners to share royalties on the production from wells with surface locations 100 feet to 330 feet from the common leaseline, a span of 230 feet, because those wells are very unlikely to have crossed the common leaseline or unit boundary. Yet this is precisely what the Leaseline Agreement requires the royalty owners to do.

Producing wells in the range of 100 feet to 330 feet from the common leaseline are highly likely to be producing only from the section/lease their surface location is on, and royalty on production from those wells should be allocated only to the royalty owners of that section/lease, not needlessly shared with the royalty owners across the common leaseline.

In the opinion of the ALJ and Technical Examiner, the correlative rights of the royalty owners in the subject leases are better served by Chevron's adherence to Statewide Rule 11, which ensures that wells are bottomed on the same lease as their surface location. This results in the payment of royalty to the correct royalty owners. The Leaseline Agreements, requiring sharing of royalty for all wells within 330 feet of a common leaseline, result in the unnecessary sharing of royalty on production from one lease with the royalty owners of another lease, even in cases in which there is virtually no possibility that the wells have crossed the common leaseline.

The ALJ and Technical Examiner recommend that Chevron's request for an exception to Statewide Rule 11 for the existing 53 wells listed on **Attachment IV** be denied, save and except the McElroy, J.T. Cons. (04161) Lease, Well Nos. 1379 and 1400; the request for a blanket exception for any future wells drilled in the McElroy Field be denied; and Chevron ordered to bring the 53 wells, save and except the McElroy, J.T. Cons. (04161) Lease, Well Nos. 1379 and 1400W, into compliance with Statewide Rule 11. The ALJ and Technical Examiner further recommend that Chevron be ordered to bring the 53 wells, save and except the McElroy, J.T. Cons. (04161) Lease, Well Nos. 1379 and 1400W, into compliance with Statewide Rule 11 by performing directional surveys on the 53 wells, save and except the McElroy, J.T. Cons. (04161) Lease, Well Nos. 1379 and 1400W, listed in Attachment IV (Chevron Late-Filed Exhibit 23A), as filed on November 12, 2015, and on all future wells drilled on the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease, McElroy Field, Crane and Upton Counties, Texas, whose inclination survey displacement exceeds the distance from the surface location of the well to the nearest leaseline or unit boundary.

FINDINGS OF FACT

1. At least ten (10) days notice of the hearing in this docket was sent to all parties entitled to notice.

2. This hearing was called at the request of Chevron U.S.A., Inc. ("Chevron") to provide Chevron an opportunity to demonstrate why exceptions to Statewide Rule 11 pertaining to inclination and directional surveys for existing and future wells on the Crier-McElroy (04157) Lease and the J.T. McElroy Consolidated (04161) Lease, McElroy Field, Crane and Upton Counties, Texas, should be granted.

3. The Commission's authority to require Inclination Surveys and Directional Surveys for wells drilled near leaselines or unit boundaries derives from Statewide Rule 11(c)(1)(A), which states: "When the maximum displacement indicated by an inclination survey is greater than the actual distance from the surface location to the nearest lease line or pooled unit boundary, it will be considered a violating well subject to plugging and penalty action. However, an operator may submit a directional survey, run at his own expense by a Commission approved surveying company, to show the true bottom hole location of the well to be within the prescribed limits. When such directional survey shows the well to be bottomed within the confines of the lease, but nearer to a well or lease line or pooled unit boundary than allowed

by applicable rules, or by the permit for the well if the well has been granted an exception to §3.37 of this title (relating to Statewide Spacing Rule), a new permit will be required if it is established that the bottom hole location or completion location is not at a reasonable location." (Emphasis added)

4. As of November 12, 2015, there were fifty-three (53) wells on Chevron's Crier-McElroy (04157) Lease and the J.T. McElroy Consolidated (04161) Lease whose inclination surveys indicated the wells might bottom at a location greater than the actual distance from the surface location to the nearest leaseline, thus requiring that directional surveys be run on the wells. Those fifty-three (53) wells are listed on **Attachment IV**, which is hereby incorporated into these Findings of Fact for all purposes.

5. Chevron has entered into Leaseline Agreements with the majority of the royalty owners on the Crier-McElroy (04157) Lease and the J.T. McElroy Consolidated (04161) Lease. The Leaseline Agreements provide that royalty on production from any well drilled with a surface location within 330 feet of the common section lines between the J.T. McElroy Lease and the McElroy-Crier Lease, regardless of the actual bottomhole location, will be allocated equally between the leases. Thus, if the surface location of a well is within 330 feet of a common lease line, the adjoining royalty owners share equally in the production from that well. If the surface location is greater than 330 feet from the lease line, the adjoining royalty interest owners do not share in the production from that well.

6. Chevron contends that its Leaseline Agreements with the majority of the royalty owners in the Crier-McElroy (04157) Lease and the J.T. McElroy Consolidated (04161) Lease render compliance with Commission Statewide Rule 11(c)(1)(A) unnecessary.

7. In the sections where Chevron is currently drilling in-fill wells, there is 100% sign-up for the Leaseline Agreement, with the exception of Sections 186 and 196.

   a. Two royalty interest owners have not signed the Leaseline Agreement Section 186. Kerr-McGee Corp. represents 1.25% while Southern Cross Royalty, LP represents 0.23435%. In total, 98.51565% of the royalty interest is under a leaseline agreement in Section 186.

   b. In Section 196 there are seven royalty interest owners that have not signed the leaseline agreement, representing a total of 1.4876%. The percentage of royalty interest owners signed up to the leaseline agreement in Section 196 represents 98.5124%.

8. At the time of the initial hearing on January 19, 2011, the ALJ and Technical Examiner proposed taking Official Notice of the Completion Reports and Inclination Surveys for the 35 wells at issue at that time. Chevron did not object. Subsequently, **Attachment V** (Table 1)was created to demonstrate the progression through time of the drilling, as well as

documenting the surface location of each well in relation to the common leaseline and Inclination Survey displacement. Table 1 is hereby incorporated into these Findings of Fact for all purposes.

9. The Commission's Statewide Rule 11(c)(1)(A) is a conservation measure by which the Texas Railroad Commission prevents slant-hole drilling from one lease to another, regulates production from a common reservoir and protects the correlative rights of leased mineral owners.

10. It is the law in Texas that private agreements between private parties cannot prevent the agencies of the State from enforcing conservation laws. See *Edgar et. al. v. Stanolind Oil & Gas Co., et. al.*, 90 S.W.2d 656, 658(Tex. Civ App. - Austin 1935, writ refused); *Empire Gas & Fuel Co. v. Railroad Commission of Texas*, 94 S.W.2d 1240, 1243(Tex. Civ. App. - Austin, 1936, writ refused); and *Humble Oil & Refining Co. v. Trapp*, 194 S.W.2d 781, 787 (Tex. Civ. App. - Austin, 1946, writ refused).

11. Private Leaseline Agreements, in this case between Chevron and the royalty owners of the Crier-McElroy (04157) Lease and the J.T. McElroy Consolidated (04161) Lease, do not render the requirements of Statewide Rule 11(c)(1)(A) unnecessary.

12. Chevron's drilling of in-fill wells within 330 feet of common leaselines has recovered incremental reserves that would otherwise go unrecovered.

13. Chevron's "leaseline wells" could have been drilled without Chevron's Leaseline Agreements.

    a. As 100% owner of the Crier-McElroy (04157) Lease and the J.T. McElroy Cons. (04161) Lease, Chevron was able to give itself "own-offset" exceptions to Statewide Rule 37, allowing it to drill as close to common leaselines as it wished. Since Chevron would be its own offset and there are no unleased mineral interest owners in the field, Chevron would only have to request an exception to Statewide Rule 37 and no other parties would require notice.

    b. The Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease, were granted entity-for-density status in Oil & Gas Docket No. 8-82,839, with a Commission Order signed July 9, 1984.

        i. The grant of entity-for-density status generally means an operator may drill wells closer together than the between-well spacing rule allows. Normally, an operator granted the advantage of entity-for-density status must still respect the leaseline spacing rule and refrain from drilling wells within the leaseline spacing distance of the lease boundary. If an operator needs to drill more wells than allowed by the density rule, that operator may request a

Statewide Rule 38 density exception.

ii. In Oil & Gas Docket No. 8-82,839, the operator (at that time Gulf) of the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease requested, and was granted, an entity-for-density for the leases plus a rule that any wells drilled within 330 feet of lease boundaries be required to give ten (10) days notice to offset operators.

iii. Pursuant to the Final Order in Oil & Gas Docket No. 8-82,839,signed July 9, 1984, the operator of the Crier-McElroy (04157) and the McElroy, J.T. Cons. (04161) Leases has been able to permit wells without regard to the 660-foot between-well spacing rule and within 330 feet of the common leaseline between those leases since 1984 and is still able to do so today.

14. The concept of "economic waste" has been narrowly applied by the Commission only in the context of Statewide Rule 37 cases (see *Exxon Corporation v. Railroad Commission*, 571 S.W.2d 497, 501 (Tex. 1978)). The concept of "economic waste" does not apply to Statewide Rule 11.

15. Requiring that Chevron follow the requirements of Statewide Rule 11(c)(1)(A) on the 53 wells listed on **Attachment IV**, which is incorporated into these Findings of Fact for all purposes, would not result in waste due to loss of production.

a. Waste is the ultimate loss of hydrocarbons. See *Gulf Land Co. V. Atlantic Refining*, 131 S.W.2d 73, 80 (1939).

b. Chevron did not present any data quantifying the amount of hydrocarbons that might be lost if the subject producing leaseline wells were to be required to be shut in for the period of time required to run a directional survey.

c. Asked to present evidence that shutting in the subject wells for the time required to run a directional survey would cause waste, Chevron presented its Late-Filed Exhibit 17.

i. Chevron Late-Filed Exhibit 17 consisted of four production graphs with no accompanying analysis.

ii. Of the four production graphs, Production Graph 3, showing the result of shutting in a well to replace a pump, was the graph most comparable to the present-day situation of shutting in a well briefly to run a directional survey. Production Graph 3 indicated a decrease in oil production with an increase in gas production. After two years, oil production increased to a level greater than pre-pump change levels.

d. A temporary decrease in the rate of oil production is not waste.

16. **Attachment V** (Table 1) indicates that the shallow producing wells in the McElroy Field accumulate an Inclination Survey displacement of 87 feet at most. Allowing for a buffer of 13 feet, producing wells drilled at a surface location of 100 feet or more from the common leaseline would not be likely to accumulate enough Inclination Survey Displacement to require a directional survey.

a. The Chevron Leaseline Agreements require the royalty owners of producing wells drilled at a surface location 0 to 330 feet from the common leaseline to share royalty on production from those wells.

b. Producing wells drilled on the subject Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease at a surface location 0 to 100 feet from the common leaseline may accumulate enough Inclination Survey Displacement to require a directional survey.

c. Producing wells drilled on the subject Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease at a surface location from 100 to 330 feet from the common leaseline will not accumulate enough Inclination Survey Displacement to require a directional survey.

d. Producing wells drilled on the subject Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease at a surface location from 100 to 330 feet from the common leaseline will bottom on the same lease as their surface location: it is not necessary that the royalty owners of those leases with wells drilled 100 to 330 feet from the common leaseline share royalties with the royalty owners of adjacent leases.

e. The Chevron Leaseline Agreements do not protect the correlative rights of the royalty owners of the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease when the surface location of a producing well is between 100 and 330 feet from a common leaseline.

f. Chevron's compliance with Commission Statewide Rule 11 will ensure that each well is bottomed on the same lease as the surface location of the well and will protect the correlative rights of the royalty owners in the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease better than the Chevron Leaseline Agreements will.

17. Statewide Rule 11 requires that a well be bottomed on the same lease as its surface location. This prevents slant-hole drilling onto an adjacent lease, helps regulate production from a common reservoir, and protects the correlative rights of the mineral/royalty owners.

18. As shown on **ATTACHMENT V** (Table 1), the well at index number 20, the McElroy, J.T. Cons. (04161) Lease, Well No. 1379 (API No. 103-35167) has a surface location 68 feet from the leaseline, but a corrected inclination survey of 45.01 feet.

19. As shown on **ATTACHMENT V** (Table 1), the well at index number 24, the McElroy, J.T. Cons. (04161) Lease, Well No. 1400W (API No. 103-35220) has a surface location 312 feet from the leaseline, but a corrected inclination survey of 62.89 feet.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely given to all persons legally entitled to notice.

2. All things have occurred and been accomplished to give the Commission jurisdiction to decide this matter.

3. The private Leaseline Agreements between Chevron and the royalty owners of the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease do not render the requirements of Statewide Rule 11(c)(1)(A) unnecessary.

4. The Leaseline Agreements between Chevron and the royalty owners of the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease were not necessary to allow Chevron to drill in-fill wells within 330 feet of the common leaseline between the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease.

5. The theory of "economic waste" does not apply to Statewide Rule 11.

6. Requiring Chevron to adhere to the Requirements of Statewide Rule 11(c)(1)(A) will not cause the ultimate loss of hydrocarbons, i.e., waste.

7. Two wells on the McElroy, J.T. Cons. (04161) Lease, Well Nos. 1379 and 1400W, do not exceed the accumulated displacement requirements of Statewide Rule 11(c)(1)(A), and do not require directional surveys.

ADMINISTRATIVE LAW JUDGE'S AND TECHNICAL EXAMINER'S RECOMMENDATION

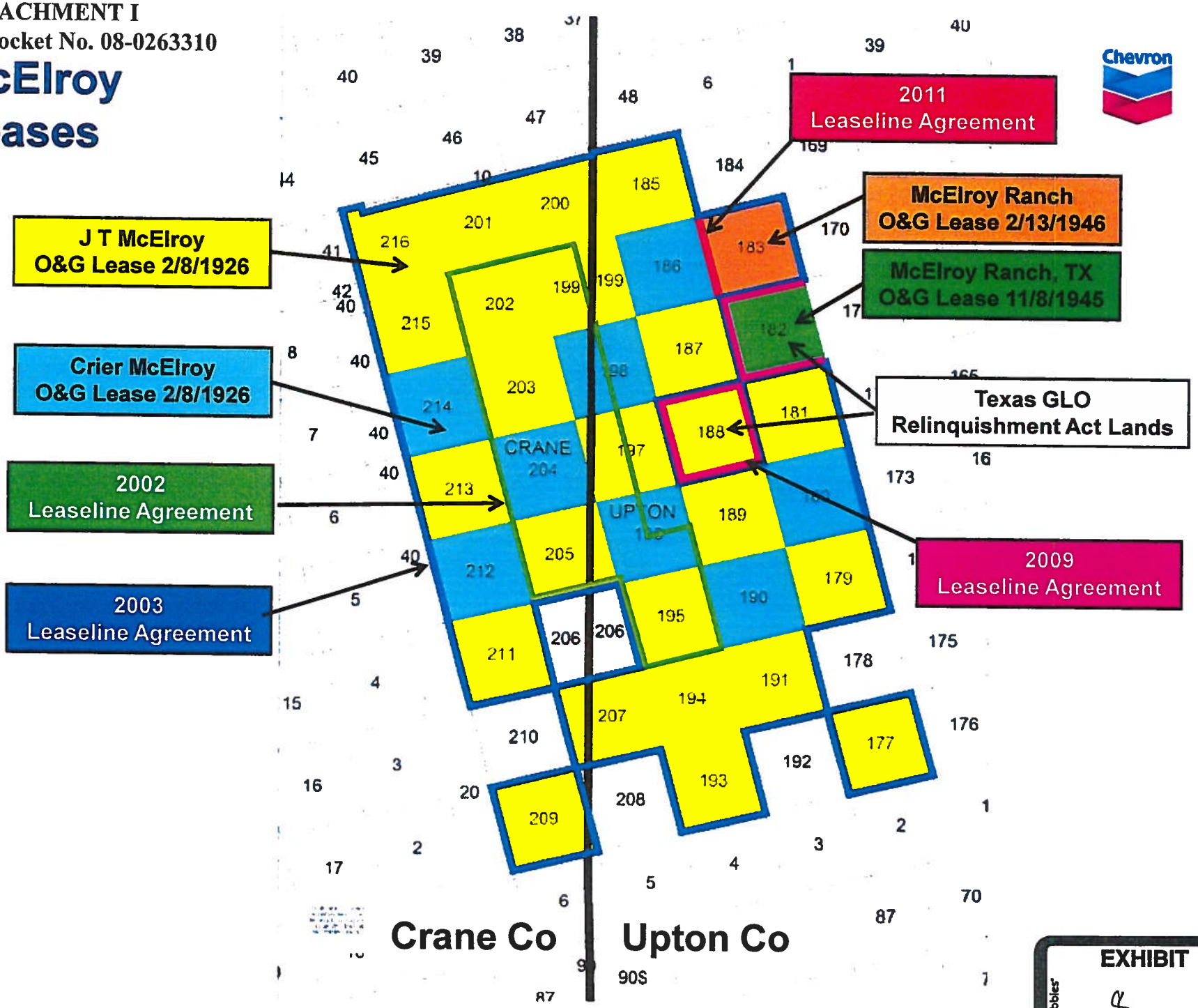
The ALJ and the Technical Examiner recommend that Chevron be required to perform directional surveys on the 53 wells, save and except the McElroy, J.T. Cons. (04161) Lease, Well Nos. 1379 and 1400W, listed in **Attachment IV** (Chevron Late-Filed Exhibit 23A), as filed on November 12, 2015, and on all future wells drilled that demonstrate Inclination Survey displacement in excess of the distance from the surface location to the leaseline on the Crier-McElroy (04157) Lease and the McElroy, J.T. Cons. (04161) Lease, McElroy Field, Crane and Upton Counties, Texas.

Karl Caldwell
Technical Examiner

Marshall Enquist
Administrative Law Judge

ATTACHMENT I
Oil & Gas Docket No. 08-0263310

McElroy Leases



EXHIBIT
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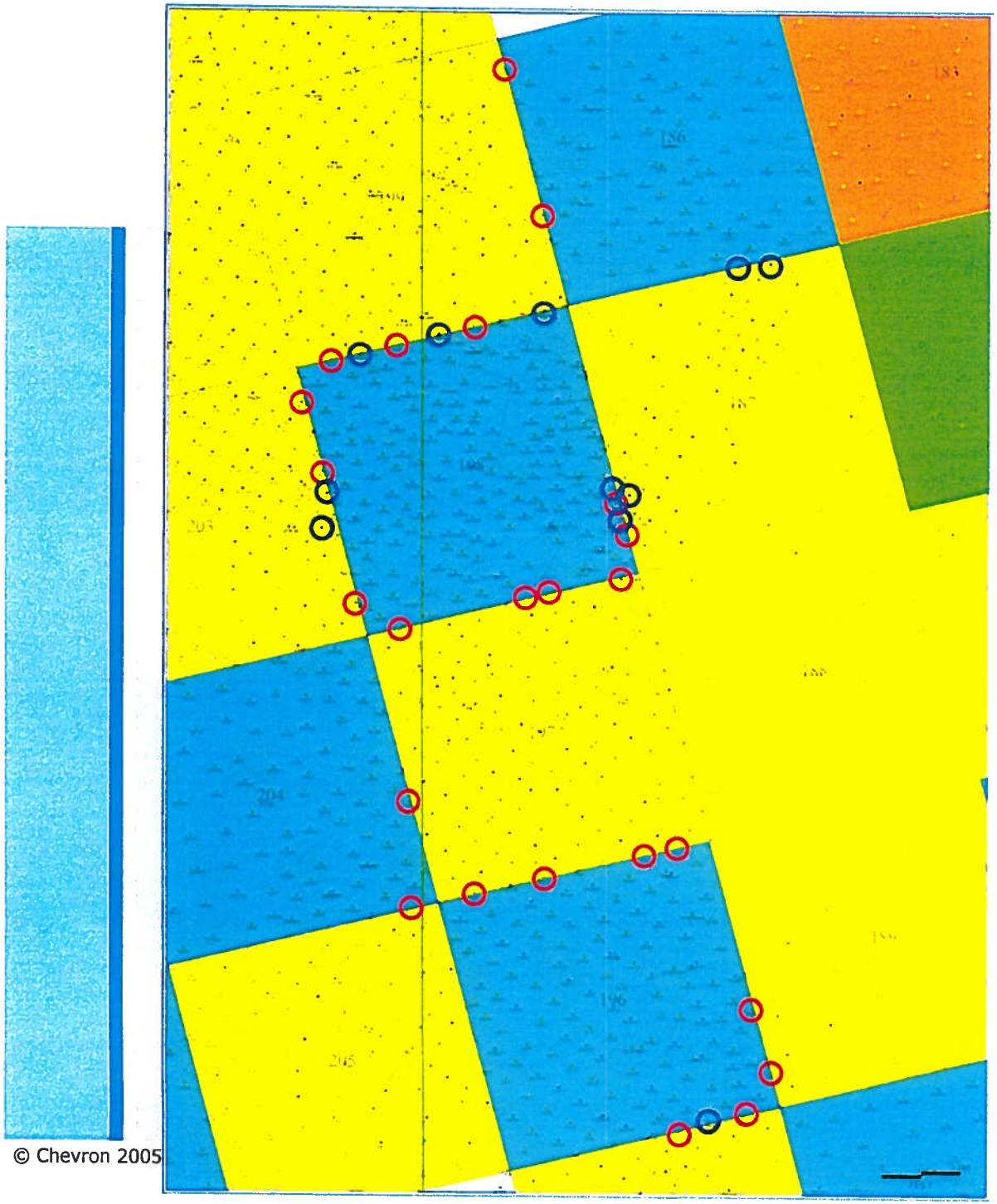


ATTACHMENT II
Oil & Gas Docket No. 08-0263310

McElroy Field

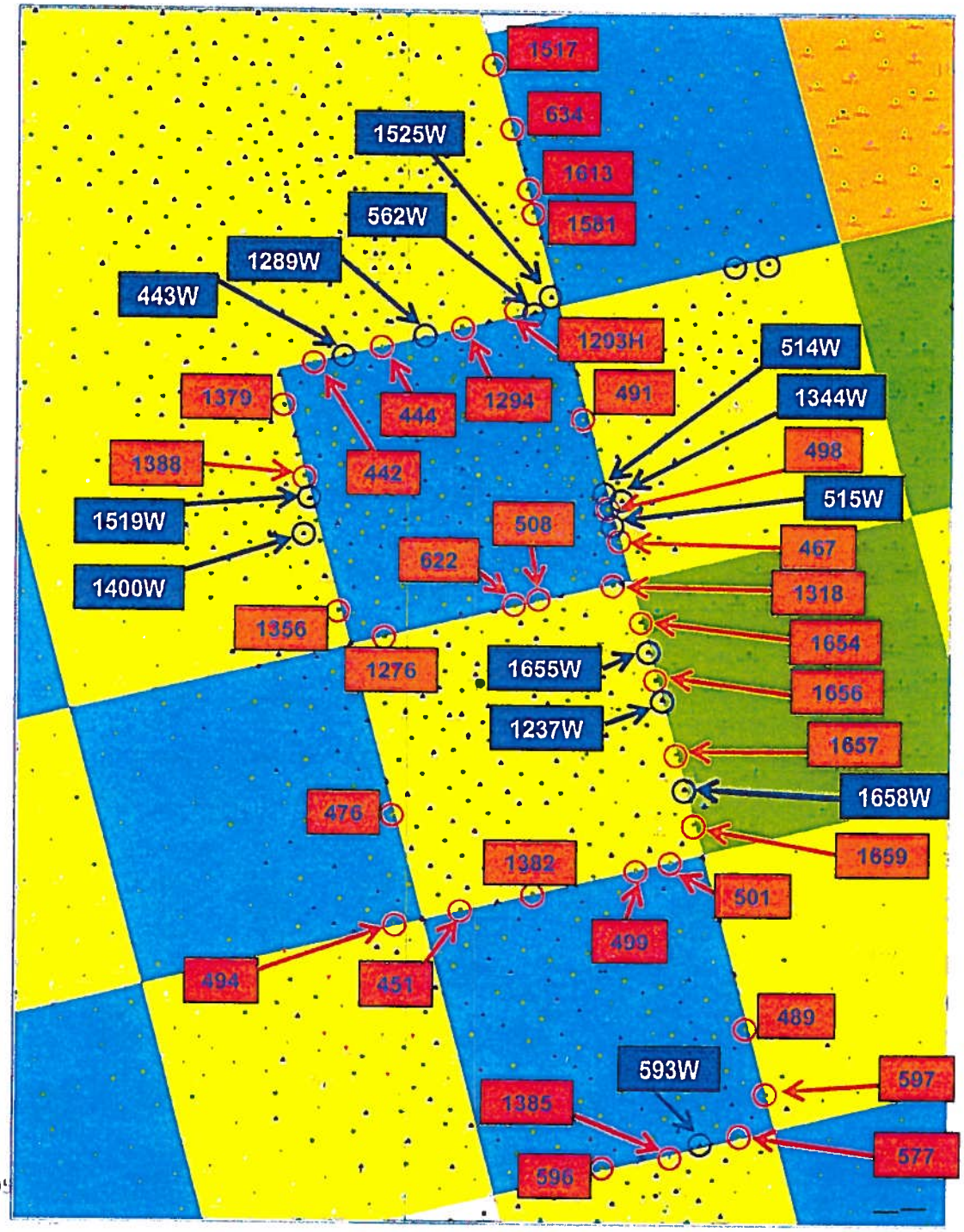
Rule 11 Exception Wells

Drilled Since 2002
35 Wells total
24 prods, 11 injs

Producers

Injectors

EXHIBIT
10
2011



Chevron

ATTACHMENT III
Oil & Gas Docket No. 08-0263310

McElroy Field

Rule 11 Exception Wells

Drilled Since 2002
48 Wells total
33 prods, 15 injs

Producers

Injectors

CHEVRON U. S. A. INC.
DOCKET NO.: 08-0263310
July 17, 2014

Exhibit 22

ATTACHMENT IV
Oil & Gas Docket No. 08-0263310

API Number	Lease Name	Well Number
42-461-35042	MCELROY J. T. CONS	1385
42-461-36219	CRIER MCELROY	593W
42-461-36193	CRIER MCELROY	577
42-461-36192	CRIER MCELROY	597
42-461-34627	CRIER MCELROY	489
42-103-35035	CRIER MCELROY	494
42-461-34352	CRIER MCELROY	451
42-461-34923	MCELROY J. T. CONS	1382
42-461-34785	CRIER MCELROY	499
42-461-34787	CRIER MCELROY	501
42-103-34960	CRIER MCELROY	476
42-103-35167	MCELROY J. T. CONS	1379
42-103-35219	MCELROY J. T. CONS	1388
42-103-35651	MCELROY J. T. CONs	1519W
42-103-35220	MCELROY J. T. CONS	1400W
42-103-35096	MCELROY J. T. CONS	1356
42-103-34909	MCELROY J. T. CONS	1276
42-461-36814	CRIER MCELROY	622
42-461-34794	CRIER MCELROY	508
42-461-34509	MCELROY J. T. CONS	1318
42-461-34415	CRIER MCELROY	467
42-461-34808	CRIER MCELROY	515W
42-461-34784	CRIER MCELROY	498
42-461-34807	CRIER MCELROY	514W
42-461-34828	MCELROY J. T. CONS	1344W
42-103-34902	CRIER MCELROY	442
42-103-34899	CRIER MCELROY	443W
42-103-34903	CRIER MCELROY	444
42-461-34405	MCELROY J. T. CONS	1289W
42-461-34406	MCELROY J. T. CONS	1294
42-461-35826	CRIER MCELROY	562W
42-461-36594	MCELROY J. T. CONS	1581
42-461-36280	MCELROY J. T. CONS	1517
42-461-35071	CRIER MCELROY	549W
42-461-35739	MCELROY J. T. CONS	1487W
42-461-37319	Crier-McElroy	634
42-461-37303	McElroy, J. T., Cons.	1613
42-461-34418	McElroy, J. T., Cons.	1293H
42-461-34779	Crier-McElroy	491
42-461-38223	McElroy, J. T., Cons.	1654
42-461-38224	McElroy, J. T., Cons.	1655W
42-461-38225	McElroy, J. T., Cons.	1656
42-461-33655	McElroy, J. T., Cons.	1237W
42-461-38226	McElroy, J. T., Cons.	1657
42-461-38227	McElroy, J. T., Cons.	1658W
42-461-38229	McElroy, J. T., Cons.	1659

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42-461-39074	Crier-McElroy	649W
42-461-39151	Crier-McElroy	650
42-461-39075	Crier-McElroy	651W
42-461-39077	Crier-McElroy	653W
42-103-35274	McElroy, J. T., Cons.	1415W
42-461-39136	Crier-McElroy	663W
42-461-39101	McElroy, J. T., Cons.	1700W

ATTACHMENT V
Oil & Gas Docket No. 08-0263310

Table 1

Oil & Gas Docket No. 08-0263310

Chevron Rule 11 Exception Application

#	Lease Name and Well	Permit # (Issue Date)	API #	Date of Inclination Survey	Surface Location to Leaseline	Inclination Displacement (Inclination Survey)
1.	Crier-McElroy #443W	525294 (11/07/2002)	103-34899	4/23/2003	21'	46.02'
2.	Crier-McElroy #442	525616 (11/19/2002)	103-34902	3/1/2003	20'	69.29'
3.	Crier-McElroy #444	525626 (11/19/2002)	103-34903	3/12/2003	21'	71.62'
4.	McElroy, J.T. Cons. #1276	525901 (11/26/2002)	103-34909	4/1/2003	10'	64.48'
5.	Crier-McElroy #451	526055 (12/4/2002)	461-34352	3/7/2003	8'	40.64'
6.	McElroy, J.T. Cons. #1289W	535150 (8/12/2003)	461-34405	5/6/2004	17'	59.11'
7.	McElroy, J.T. Cons. #1294	535151 (8/12/2003)	461-34406	9/24/2003	25'	66.11'
8.	Crier-McElroy #467	535215 (8/12/2003)	461-34415	10/9/2003	28'	42.08'
9.	Crier-McElroy #476	539695 (12/17/2003)	103-34960	4/15/2004	50'	75.50'
10.	McElroy, J.T. Cons. #1318	543344 (3/17/2004)	461-34509	5/26/2004	33'	51.53'
11.	Crier-McElroy #489	550649 (9/20/2004)	461-34627	5/10/2005	47'	59.14'
12.	Crier-McElroy #494	550654 (9/20/2004)	103-35035	2/22/2005	36'	66.72'
13.	McElroy, J.T. Cons. #1356	559832 (4/4/2005)	103-35096	8/1/2005	50'	74.69'
14.	Crier-McElroy #499	560236 (3/13/2006)	461-34785	2/23/2010 (Corrected)	10'	55.96'
15.	Crier-McElroy #501	560238 (3/13/2006)	461-34787	2/23/2010 (Corrected)	10'	64.96'
16.	Crier-McElroy #508	560247 (4/12/2005)	461-34794	8/23/05	29'	53.12'

17.	Crier-McElroy #514W	560540 (4/15/2005)	461-34807	10/21/09 (Corrected)	62'	79.15'
18.	Crier-McElroy #515	560541 (4/15/2005)	461-34808	10/21/09 (Corrected)	58'	67.20'
19.	McElroy, J.T. Cons. #1344W	560595 (4/20/2005)	461-34828	12/5/2005	210'	351.74'
20.	McElroy, J.T. Cons. #1379	607809 (10/17/2005)	103-35167	2/23/2010 (Corrected)	68'	45.01' [1]
21.	McElroy, J.T. Cons. #1382	607820 (10/17/2005)	461-34923	1/11/2006	5'	52.15'
22.	McElroy, J.T. Cons. #1385	615297 (3/13/2006)	461-35042	2/23/2010 (Corrected)	41'	48.52'
23.	McElroy, J.T. Cons. #1388	615301 (3/13/2006)	103-35219	2/23/2010 (Corrected)	24'	54.99'
24.	McElroy, J.T. Cons. #1400W	615313 (3/10/2006)	103-35220	2/23/10 (Corrected)	312'	62.89' [2]
25.	Crier-McElroy #549W	616644 (3/31/2006)	461-35071	2/23/2010 (Corrected)	6'	86.42'
26.	Crier-McElroy #562W	656585 (4/25/2008)	461-35826	3/12/2009	19'	66.23'
27.	Crier-McElroy #597	673725 (10/28/2008)	461-36192	3/24/2009	2'	76.55'
28.	Crier-McElroy #593W	674133 (11/7/2008)	461-36219	3/9/2009	57'	89.3'
29.	Crier-McElroy #442	679413 (3/17/2009)	103-35651	8/14/2009	45'	87.15'
30.	McElroy, J.T. Cons. #1581	691004 (2/12/2010)	461-36594	(no date)	22'	33.68'

1 The original Inclination Survey showed a displacement of 173.56 feet, causing the well to appear in violation of Statewide Rule 11. The Corrected Inclination Survey showed the displacement to be 45.01 feet. This well does not require a directional survey.

2 The original Inclination Survey showed a displacement of 267.43 feet, causing the well to appear in violation of Statewide Rule 11. The Corrected Inclination Survey showed the displacement to be 62.89 feet. This well does not require a directional survey.

The table above is derived from Chevron Exhibit No. 23, offered into evidence at the January 19, 2011 hearing. Chevron Exhibit No. 23 lists 35 wells. Five of the well files in Neubus would not open, therefore the Inclination Surveys were not available to the ALJ and Technical Examiner. Those wells, the Crier-McElroy # 498, the Crier-McElroy #577, the Crier-McElroy # 622, the McElroy, J.T. Cons. #1487W and the McElroy, J.T. Cons. # 1517, are not included in the above table.