

**OIL & GAS DOCKET NO. 01-0256375**

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**APPLICATION OF UHC PETROLEUM CORPORATION TO CONSIDER AN EXCEPTION TO STATEWIDE RULE 21 IN ORDER TO PRODUCE BY SWABBING VARIOUS WELLS ON THE WARDLAW, L. J. II LEASE, WARDLAW FIELD, EDWARDS COUNTY, TEXAS**

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**APPLICATION OF UHC PETROLEUM CORPORATION TO CONSIDER AN EXCEPTION TO STATEWIDE RULE 21 IN ORDER TO PRODUCE BY SWABBING VARIOUS WELLS ON THE WARDLAW, L. J. ESTATE -A- LEASE, WARDLAW FIELD, EDWARDS COUNTY, TEXAS**

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**APPEARANCES:**

**FOR APPLICANT:**

Jamie Nielson  
Rick Johnston  
Paul D. Watson  
Todd Loesch  
Timothy Malone

**APPLICANT:**

UHC Petroleum Corporation

**FOR PROTESTANT:**

James Bostic  
T. Grant Johnson

**PROTESTANT:**

Buffalo Draw Partners, LLC

**PROPOSAL FOR DECISION**

**PROCEDURAL HISTORY**

**DATE APPLICATIONS FILED:**

March 24, 2008

**DATE OF NOTICES OF HEARING:**

April 8, 2008

**DATE OF HEARING:**

May 9, 2008

**HEARD BY:**

James M. Doherty, Hearings Examiner  
Richard D. Atkins, Technical Examiner

**DATE TRANSCRIPT DELIVERED:**

June 4, 2008

**DATE PFD CIRCULATED:**

July 18, 2008

**STATEMENT OF THE CASE**

These are two applications of UHC Petroleum Corporation (“UHC”) for exceptions to Statewide Rule 21 to produce by swabbing 4 wells on the Wardlaw, J. L. II (09788) Lease and 76 wells on the Wardlaw, J. L. Estate -A- (01808) Lease, Wardlaw Field, Edwards County, Texas. Attached to the Proposal for Decision as Appendix 1 is a listing of the wells proposed to be swabbed on the Wardlaw, J. L. II (09788) Lease. Appendix 2 is a listing of the wells proposed to be swabbed on the Wardlaw, J. L. Estate -A- (01808) Lease. The application in Oil & Gas Docket No. 01-0256376 is protested by Buffalo Draw Partners, LLC (“BDP”), an owner of an undivided interest in the mineral and surface estates of the property where the Wardlaw, J. L. Estate -A- (01808) Lease wells are located. The two applications were heard jointly on May 9, 2008, and UHC and BDP appeared and presented evidence.

**DISCUSSION OF THE EVIDENCE**

***UHC Petroleum Corporation***

UHC’s oil and gas leases relevant to the Wardlaw, J. L. II (09788) Lease and the Wardlaw, J. L. Estate -A- (01808) Lease cover about 10,000 acres in Edwards County. The Wardlaw Field was discovered in October 1947. UHC is the only operator in the field, and the Wardlaw, J. L. II (09788) Lease and the Wardlaw, J. L. Estate -A- (01808) Lease are the only leases in the field. The field has 2-acre standard well density and optional ½ acre well density. The depth of the reservoir is about 300’.

The 4 wells proposed to be swabbed on the Wardlaw, J. L. II (09788) Lease were drilled in the 1982-1984 era. The total depth of these wells ranges from 375’ to 1,050’. The most shallow perforation in any of these wells is at 282’ and the deepest perforation in any well is at 331’. These wells are equipped with 4.5” or 5.5” casing cemented to the surface, and casing is set to depths as indicated on Appendix 1 to this Proposal for Decision.

The 76 wells proposed to be swabbed on the Wardlaw, J. L. Estate -A- (01808) Lease were drilled during 1981-2004. The total depth of these wells ranges from 335’ to 511’. The most shallow perforation in any of these wells is at 156’ and the deepest perforation in any well is at 362’. These wells are also equipped with 4.5” or 5.5” casing cemented to the surface, and casing is set to depths as indicated on Appendix 2 to this Proposal for Decision.

The UHC applications have been reviewed by the Field Operations Section of the Commission’s Oil & Gas Division, and Field Operations has stated that it has no objection to consideration of the subject leases and wells for Statewide Rule 21 exceptions.

Cumulative production from the Wardlaw, J. L. Estate -A- (01808) Lease through March 2008 is 67,820 barrels of oil. The Oil Lease Ledger Status Inquiry database, which has been officially noticed by the examiners, shows that during 2007, UHC reported production of 1,054 barrels of oil from the Wardlaw, J. L. Estate -A- (01808) Lease, for an average of 87.83 BOPM. Cumulative production from the Wardlaw, J. L. II (09788) Lease through March 2008 is only 120 barrels of oil. No production has been reported by UHC for this lease since May 1998. Peak production for the Wardlaw, J. L. Estate -A- (01808) Lease was in mid-1998, when about 2,400 barrels of oil were produced in a single month. UHC’s consulting petroleum engineer was advised that this peak production was achieved by swabbing a group of wells for the entire month.

UHC operates a mobile swabbing unit that will be used in swabbing the subject wells. This unit is a modified John Deere tractor equipped with an overhead boom (with swab mandril and lubricator) and a mobile tank having a sight glass that enables the operator to observe the amount of oil that is swabbed on a well-by-well basis. The wellhead of the subject wells consists of pipe sticking up from the ground with a cap. When the swab unit operator pulls up to the well, he removes the cap, positions the lubricator over the top of the well, and lowers the lubricator and well bonnet on top of the well pipe to begin swabbing. An individual well can be swabbed in a matter of minutes. The UHC swab unit is equipped with a drip pan to prevent oil from dripping to the ground from the lubricator while the unit is moving from well to well. When the swab unit operator observes from the sight glass that the mobile tank on the swab unit is at or near capacity, he moves to an on-lease stock tank, and a hydraulic pump is used to pump oil from the swab unit into the stock tank. There is no commingling of oil produced from different leases.

UHC's consulting petroleum engineer believes that there is minimal risk of pollution caused by the proposed swabbing operation because the subject wells are very low pressure wells. The oil in the reservoir is very thick, and the predominant drive mechanism is gravity. According to UHC's petroleum engineer, there would be no chance for an oil release from the subject wells even if the wells were open to the atmosphere. He believes that the mobile swab unit operated by UHC is properly equipped to retain oil within the swabbing apparatus and prevent discharges to the ground. This petroleum engineer also believes that no pollution of usable quality water or safety hazard will result from the proposed swabbing operation. All of the wells proposed to be swabbed are equipped with casing and cement to protect usable quality water, and should a casing leak develop, water flowing into the well could be observed during the swabbing operation so that the problem could be addressed. There is no hydrogen sulfide associated with oil produced from the subject leases.

UHC believes that the Wardlaw Field is a good candidate for swabbing for several reasons. The oil in this reservoir is heavy at 18 degree gravity and 250-300 centipoise viscosity. This oil does not flow easily and contains a large quantity of asphaltine material that clogs perforations, casing, and flow lines. When the field was discovered, it had an active solution gas drive, but the gas was burned off over the next 30 years to run surface facilities such as pumps and generators. Currently the field has virtually no drive other than gravity. Oil flows very marginally into the subject wellbores.

Wells on the Wardlaw, J. L. Estate -A- (01808) Lease that are currently producing are being produced by progressive cavity pumps (Moyno pumps). UHC does not believe that this is an economic way to produce the Wardlaw Field. Without consistent flow of fluid into the wellbore, these pumps are inefficient and burn out very easily. UHC is required to keep a crew of at least four men on site seven days a week to monitor the pumps and make certain that fluid is getting to them to prevent burn out. The replacement cost of such a pump is at least \$8,000 (UHC's petroleum engineer estimated \$17,500 to \$23,000 for the entire pump apparatus) and pump repair runs at least \$3,000. The progressive cavity pumps run on electricity and wells produced in this manner have flow lines running to the tank batteries. Many wells on the subject leases do not have electrical connections or flow lines, and so equipping them to produce a marginal amount of oil is not economically feasible. A few wells being produced by progressive cavity pump are producing in paying quantities, but overall this pumping operation is not economic. UHC says also that progressive cavity pumps are not built to contend with materials (clays and fines) that enter the wellbore from the formation.

Swabbing is thought by UHC to be an efficient way to produce heavy oil from stripper wells because it is a less expensive production method. Suction created by swabbing causes fluid to come into the well and actually cleans perforations and casing. UHC believes that swabbing will increase production from the subject wells and give UHC information as to where the better areas of the reservoir are located. The better areas of the reservoir would later be subjected to enhanced oil recovery methods as a secondary phase of producing from the field.

Geological studies have indicated that there are upwards of 160 million barrels of oil in place in the Wardlaw Field, and UHC hopes to achieve primary recovery of at least 1.5 million to 2 million barrels from the area of the field where the subject wells are located. Currently, UHC claims to be producing about 10-11 BOPD from the Wardlaw, J. L. Estate -A- (01808) Lease with progressive cavity pumps. If permitted to swab the subject wells, it projects production of 80-100 BOPD.

UHC is a wholly-owned subsidiary of United Heritage Corporation. United Heritage Corporation is a publicly held company, and its stock is traded on the NASDAQ. Ownership and control of United Heritage Corporation underwent a change in the Fall of 2007. As of October 2007, all former directors of United Heritage Corporation resigned or were terminated, and in September or October 2007, new officers were put into place. While under former management and control, UHC had a number of enforcement problems with the Railroad Commission.

In March 2008, UHC received notice that the Wardlaw, J. L. Estate -A- (01808) Lease was being severed based on violations of Statewide Rules 8, 14(b)(2), 16, and 91. Plugging extensions for 46 wells on this lease were canceled based on these violations. The notice was received by UHC on or around March 6, 2008, and the violations that caused the notice were resolved by March 20, 2008, as evidenced by a District Office inspection report of that date which reported remedial action and no violations on the lease. The certificate of compliance for the lease was re-issued on March 21, 2008.

Under former management, UHC was also the subject of four formal enforcement actions for violations of Commission rules on other leases. The violations in all four of these dockets were referred to the Enforcement Section by the District Office in 2005 while UHC was still under its former management. All four enforcement dockets were resolved by agreed orders dated in 2007 or 2008. Under former management, UHC apparently swabbed at least some of the subject wells without swabbing authority, and was directed to discontinue such operations by the District Office as late as the Summer of 2007.

A title attorney retained by UHC testified that UHC's oil and gas leases covering the property where the subject wells are located are currently in effect and UHC has ownership of 100% of the working interest in these leases. A copy of this attorney's title opinion was admitted as evidence.<sup>1</sup>

UHC estimates that the current cost to plug the subject wells would be about \$2,500 to \$3,000. The Form P-5 organization report of UHC currently is active, and UHC has approved financial assurance on file in the amount of \$250,000, which it does not plan to reduce regardless of whether its well count dips below 100.

**Buffalo Draw Partners, LLC**

BDP owns an undivided interest in the mineral and surface estates of the property where the Wardlaw, J. L. Estate -A- (01808) Lease wells are located. It does not own any interest in the property where the Wardlaw, J. L. II (09788) Lease is located and does not oppose the application in Oil & Gas Docket No. 01-0256375.

BDP believes that UHC, since at least 2002, has shown disregard for Statewide Rule 21 by swabbing wells on the Wardlaw, J. L. Estate -A- (01808) Lease without authority, particularly during 2003, 2004, and 2007, as evidenced by Commission records. As recently as July 31, 2007, UHC was issued a notice of intent to sever the lease, based in part on violations of Statewide Rule 21.

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<sup>1</sup> The oil and gas lease relied upon by UHC, and a lease amendment, are also a part of the record.

BDP also relies on Commission records for its contention that in the past UHC has been in violation of other Commission rules on the Wardlaw, J. L. Estate -A- (01808) Lease involving oil discharges, missing identification signs, and open wellbores with no casing in the hole. From Commission records, BDP calculates that UHC has been involved with a total of 151 violations of Commission rules since 1996. BDP presented photographs taken on August 30, 2007, of two inactive wells having oil stained soil around the wells and of a gathering line with a leak. Another photograph taken on December 17, 2007, showed an oil spill at a tank battery on the lease.

BDP also questions whether UHC has a continuing good faith claim of right to operate the inactive wells on the Wardlaw, J. L. Estate -A- (01808) Lease. Its position in this regard is based on a Lease Amendment dated January 31, 1997, which purported to amend Paragraph 2B of UHC's original oil and gas lease dated September 1, 1981. Paragraph 2B of the original oil and gas lease provided that after the primary term, the lease would remain in force so long and only so long as the lessee was engaged in continuous drilling operations (as defined in the lease).<sup>2</sup> Paragraph (4) of the Lease Amendment dated January 31, 1997 provided that "Lessee hereby agrees that the drilling obligation required in paragraph 2B of the Lease is amended to state that said wells are to be plugged or completed as wells capable of production on or before six (6) months after drilling and testing is completed." Although the Lease Amendment was executed by BDP's predecessors, BDP believes the intent was that all inactive wells would be plugged, so BDP reasons that any well on the Wardlaw, J. L. Estate -A- (01808) Lease that has been inactive for more than 6 months must be plugged by UHC, and UHC does not have a continuing right to swab these wells as an alternative.<sup>3</sup>

In BDP's opinion, swabbing of wells on the Wardlaw, J. L. Estate -A- (01808) Lease may lead to more pollution problems of the type previously experienced under UHC's former management, and BDP does not believe that swabbing necessarily will result in increased production. BDP says that Commission records indicate that UHC was actively swabbing at least some of the wells during a goodly part of 2003, and yet total reported production for the lease for that year was only 623 barrels of oil.

### **EXAMINERS' OPINION**

#### **Applicable Law**

Statewide Rule 21(k) provides that swabbing, bailing, or air jetting of wells is prohibited as a production method for wells unless the Commission has, after notice and hearing, granted an exception to this subsection.

Pursuant to Rule 21(k)(1)(B), an operator seeking an exception must present evidence at the hearing establishing: (1) the method of production proposed; (2) that any production is properly accounted for pursuant to Statewide Rule 26 (relating to Separating Devices, Tanks, and Surface Commingling of Oil); (3) that the proposed exception is necessary to prevent waste or protect correlative rights; (4) that wellhead control is sufficient to prevent releases from the well; (5) that no pollution of usable quality water or safety

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<sup>2</sup> Both parties seem to agree that the continuous drilling operation clause has been satisfied and the lease is held in effect by this clause, except BDP contends the Lease Amendment dated January 31, 1997, requires all inactive wells on the Wardlaw, J. L. Estate -A- (01808) Lease to be plugged and deprives UHC of a continuing good faith claim of right to swab these wells.

<sup>3</sup> UHC's title attorney disputed this interpretation. He says that the 1981 lease is held in effect as to all wells by the requisite continuous drilling activity. In his view, Paragraph (4) of the 1997 Lease Amendment applies only to wells drilled after January 31, 1997. Even then, this provision requires plugging of only those wells that, as completed, are not "capable of production". Actual continuous production is not required by Paragraph (4) of the 1997 Lease Amendment.

hazard will result from either the proposed production method or the condition of the well; and (6) that the operator possesses a continuing good faith claim of right to operate the well.

Pursuant to Rule 21(k)(2), in determining a request for an exception, the Commission may also consider: (1) whether the well has passed a mechanical integrity test within the preceding 12 months; (2) the estimated monthly and cumulative production from the well if the requested exception is granted; (3) whether production will be into an on-lease tank battery or a mobile tank; (4) the adequacy of the financial assurance provided by the operator to assure that the well will be timely and properly plugged; (5) whether production volume, fine sands in the reservoir, or other factors render pumping of the well impracticable; (6) whether the reservoir from which the well produces contains hydrogen sulfide; and (7) the operator's history of compliance with Commission rules.

The examiners are of the opinion that the evidence presented by UHC meets the requirements of Statewide Rule 21, and recommend that the applications be approved for the reasons set forth below.

**Statewide Rule 21 Mandatory Criteria**

**Method of Production and Accounting:** The proposed method of production is by swabbing. Production from the subject wells achieved by swabbing will be properly accounted for in conformity with the requirements of Statewide Rule 26. A sight glass mechanism on UHC's mobile swabbing unit permits measurement of oil on a well-by-well basis. Oil produced by swabbing the subject wells will be pumped from the tank on UHC's mobile swabbing unit into stock tanks on the subject leases. All oil produced by swabbing will be measured before it leaves the lease, and no commingling of oil produced from different leases will occur.

**Waste Prevention:** Wellhead control on most of the wells on the subject lease consists of pipe sticking up above the ground with a steel cap screwed on top. Many of these wells have no downhole equipment that permit them to be produced by pump, and many have no electrical connection or flow lines. Some wells on the Wardlaw, J. L. Estate -A- (01808) Lease currently are produced by progressive cavity pumps, but this is not efficient or economical. UHC estimates that, currently, no more than about 10-11 BOPD is being produced from all wells on progressive cavity pumps. It also estimates that production of 80-100 BOPD could be achieved if UHC is permitted to swab all the wells that are the subject of these applications. Geological studies have led UHC to conclude that there are 160 million barrels of oil in place in the reservoir, and UHC believes that primary recovery of 1.5 million to 2 million barrels can be achieved by the subject wells. Swabbing these wells will provide UHC with additional data regarding the most productive areas of the reservoir, and these areas can then be made the subject of enhanced oil recovery techniques. UHC, which is the only operator in the Wardlaw Field, has made the in-house determination that unless wells in this field can be swabbed and subsequent EOR projects are utilized, it will not be economically possible to recover any more oil from the reservoir. Approval of these applications will, therefore, likely prevent the waste of oil.

**Wellhead Control:** Because most of the subject wells are not equipped to be produced by pump, wellhead control consists of a cap screwed on top of pipe extending above the ground. This cap is removed in order to swab the wells and then replaced. Wells currently on progressive cavity pumps are equipped with wellhead control. Although some Statewide Rule 13 violations relating to failure to maintain wellhead control on the Wardlaw, J. L. Estate -A- (01808) Lease were noted in District Office inspection reports covering the 2002-2005 era, when UHC was under former management, the most recent inspection report for this lease which is in the record, dated March 20, 2008, did not reference any Statewide Rule 13 violations. The Field Operations Section reviewed the UHC applications prior to the hearing and did not reference any concern about the adequacy of wellhead control for the subject wells in its correspondence that referred the applications for the scheduling of a hearing. Wellhead control is sufficient to prevent releases

from the subject wells, particularly since the evidence shows that oil in this reservoir is very thick, the subject wells are very low pressure wells, gravity is the predominant drive mechanism in the reservoir, and even if the wells were left open, there would be no chance for an oil release at the wellhead.

*Protection of Fresh Water:* The subject reservoir is a very shallow reservoir that appears to exist at an interval above the base of usable quality water in the area. Recent surface casing recommendations from TCEQ for wells on the subject leases, depending on the well, provide that intervals from the ground surface to anywhere from 290' to 400' must be protected. The subject wells are cased and cemented to the surface to protect fresh water, as shown on Appendices 1 and 2 to this Proposal for Decision. UHC's consulting petroleum engineer testified that the proposed swabbing operation will not pose a risk of pollution of usable quality water. There is evidence that discharges of oil have occurred on the Wardlaw, J. L. Estate -A- (01808) Lease at times when UHC was still under former management, either as a result of improperly conducted swabbing operations or leaks in flow lines or tank batteries, and some such discharges are shown by photographs taken as recently as December 17, 2007. However, the testimony of a UHC field superintendent was to the effect that all of these problems have been resolved under new management, and the latest District Office inspection report in the record, dated March 29, 2008, does not report any pollution violations on the lease. With use of proper swabbing methodology as proposed, no pollution of usable quality water should result, either from the production method or the condition of the subject wells.

*Good Faith Claim:* The testimony of UHC's title attorney that UHC is the owner of 100% of the working interest in subsisting oil and gas leases covering the property where the subject wells are located is sufficient to establish that UHC has a good faith claim to a continuing right to operate the wells. The parties appear to be in agreement that a September 1, 1981, oil and gas lease covering this property is held under a continuous drilling provision in the lease. The examiners are not persuaded by BDP's contention that Paragraph (4) of the Lease Amendment dated January 31, 1997, deprives UHC of a good faith claim respecting all wells on the Wardlaw, J. L. Estate -A- (01808) Lease that have been inactive for more than six months. The opinion of UHC's title attorney that Paragraph (4) of the Lease Amendment applies only to wells drilled subsequent to January 31, 1997, and, in any event, requires plugging of only those wells that are not capable of production as completed is at least "a factually supported claim based on a recognized legal theory to a continuing possessory right in a mineral estate," which is the definition of "good faith claim" in Statewide Rule 14(a)(1)(E). There is no evidence that any of the subject wells that are inactive are not "capable" of production as completed. Furthermore, if Paragraph (4) of the Lease Amendment is a covenant to plug inactive wells that are not capable of production as completed, it is not a covenant that the Railroad Commission has jurisdiction to enforce, and breach of any such covenant would not appear to cause lease termination.

*Conclusion as to Mandatory Criteria:* UHC's evidence satisfies the mandatory criteria of Statewide Rule 21 with respect to all of the wells proposed to be swabbed in these applications.

***Statewide Rule 21 Discretionary Criteria***

*MIT Testing:* As far as the evidence shows, the wells proposed to be swabbed by UHC have not had mechanical integrity tests during the last 12 months, but there is no indication that the Commission has required any such testing.

*Monthly/Cumulative Production:* Based on peak production of wells on the Wardlaw, J. L. Estate -A- (01808) Lease by swabbing during mid-1998, UHC projects that it will produce about 80-100 BOPD, or about 2,400 BOPM, if allowed to swab the subject wells. This appears to be a speculative projection, particularly when it is considered that UHC, under its former management, also engaged in swabbing at least some of the wells during the period 2002-2007, and lease production reported for these years was considerably less than the mid-1998 peak. Nonetheless, because only certain of the subject wells currently

are being produced by progressive cavity pump, and many are inactive, it is likely that swabbing all of the wells will result in an increase in current production.

Oil Storage: Oil produced by swabbing the subject wells will first be loaded into a tank affixed to UHC's mobile swabbing unit, but will then be off-loaded into on-lease storage tanks. All such oil properly will be measured before it leaves the lease, and there will be no commingling of oil produced from different leases.

Adequacy of Financial Assurance: UHC has the maximum amount of financial assurance (\$250,000) required by law for land-based wells. It has committed not to reduce its financial assurance below this amount even if its well count slips below 100. UHC estimated that the cost to plug its wells on the subject lease would be about \$2,500 to \$3,000. As of the date of the hearing, the On-Schedule Leases, Wells, Wellbores by Operator database, officially noticed by the examiners, showed that UHC was the record operator of 99 wellbores with total wellbore depth of 54,734 feet. Thus, UHC appears to have financial assurance equal to \$2,525 per wellbore and \$4.57 per foot of wellbore depth. UHC's current financial assurance comes very close to covering the cost of plugging UHC's wells, based on UHC's plugging cost estimate. In any event, the sufficiency of UHC's financial assurance to plug its wells will not be affected by approval of UHC's proposal to produce the wells by swabbing.

Practicality of Pumping/Hydrogen Sulfide Issue: A few of the wells on the Wardlaw, J. L. Estate -A- (01808) Lease currently are being produced by progressive cavity pumps, but the evidence shows that this method of production does not have long term practicality and cannot be sustained by UHC. These pumps are not well suited to produce the heavy oil in the subject reservoir. There is minimal flow of oil into the subject wellbores, and without fluid, the pumps burn out very easily. For this reason, seven day per week monitoring of the operation of the pumps is required and is labor intensive. The expense of constant monitoring of the pumps and of pump repair or replacement cannot be justified economically given the small volume of oil that the wells on pump will produce. Many of the subject wells currently are inactive and do not have electricity or flow lines necessary to produce the wells by progressive cavity pump. Equipping these wells for such production would be cost prohibitive based on the amount of oil production that could be expected. Furthermore, progressive cavity pumps are not built to contend with materials (clays and fines) that enter the wellbore from the formation. There is no hydrogen sulfide associated with oil produced from the subject leases.

UHC's History of Compliance: UHC's history of compliance with Commission rules is not pristine. Not only does UHC have a history of four formal enforcement cases against it for violations of Commission rules on other leases, all ultimately resolved by settlement and agreed orders, there is also considerable evidence of past rules violations on the Wardlaw, J. L. Estate -A- (01808) Lease, including violations of rules relating to identification signs, unpermitted discharges of oil or gas wastes, failure to maintain proper wellhead control, failure timely to place casing in open boreholes, and swabbing of wells without authority. This is a discretionary factor of Statewide Rule 21 that does not weigh in UHC's favor. On the other hand, it appears that most all of the rules violations proved in the record had their origin when UHC was under former management and control. Beginning in about October 2007, effective with a change of control of the company, former management officials resigned from UHC's parent company, or were terminated, and new management was put in place. Under new management, steps appear to have been taken to rectify previously existing problems on the Wardlaw, J. L. Estate -A- (01808) Lease. As far as the record shows, the lease was in compliance with Commission rules as of the date of the hearing, and there were no pending enforcement issues involving UHC.

Conclusion as to Discretionary Criteria: On balance, the factors that the Commission may consider as discretionary criteria for granting exceptions to Statewide Rule 21 weigh in favor of approval of UHC's applications.



Based on the record in this case, the examiners recommend adoption of the following Findings of Fact and Conclusions of Law.

**FINDINGS OF FACT**

1. At least ten (10) days notice of the hearing in these dockets was sent to all parties entitled to notice.
2. UHC Petroleum Corporation (“UHC”) requests that the Commission grant exceptions to Statewide Rule 21 to permit UHC to produce 4 wells on the Wardlaw, J. L. II (09788) Lease and 76 wells on the Wardlaw, J. L. Estate -A- (01808) Lease, Wardlaw Field, Edwards County, Texas.
3. The wells proposed to be swabbed on the Wardlaw, J. L. Estate -A- (01808) Lease are Well Nos. 18, 19, 20, and 21. The wells proposed to be swabbed on the Wardlaw, J. L. Estate -A- (01808) Lease are Well Nos. 1WO, 2WO, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 55, 72, 73, 74, 75, 76, 77, 79, 80, 81, 89, 100, 101, 102, 103, 104, 105, 106, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 119, 130, 131, 132, 133, 134, 135, 136, 137, P1, P2, P3, P4, P5, P6, P7, P8, P9, P11, P12, P13, P14, P15, P16, and P17.
4. The UHC application in Oil & Gas Docket No. 01-0156376 is opposed by Buffalo Draw Partners, LLC (“BDP”), which is an owner of an undivided interest in the mineral and surface estates of the property where the Wardlaw, J. L. Estate -A- (01808) Lease wells are located.
5. The Wardlaw Field was discovered in October 1947. UHC is the only operator in the field, and the Wardlaw, J. L. II (09788) Lease and the Wardlaw, J. L. Estate -A- (01808) Lease are the only leases in the field. The field has 2-acre standard well density and optional ½ acre well density. The depth of the reservoir is about 300’.
6. The 4 wells proposed to be swabbed on the Wardlaw, J. L. II (09788) Lease were drilled in the 1982-1984 era. The total depth of these wells ranges from 375’ to 1,050’. The most shallow perforation in any of these wells is at 282’ and the deepest perforation in any well is at 331’. These wells are equipped with 4.5” or 5.5” casing cemented to the surface, and casing is set to depths as indicated on Appendix 1 to this Proposal for Decision.
7. The 76 wells proposed to be swabbed on the Wardlaw, J. L. Estate -A- (01808) Lease were drilled during 1981-2004. The total depth of these wells ranges from 335’ to 511’. The most shallow perforation in any of these wells is at 156’ and the deepest perforation in any well is at 362’. These wells are also equipped with 4.5” or 5.5” casing cemented to the surface, and casing is set to depths as indicated on Appendix 2 to this Proposal for Decision.
8. The UHC applications have been reviewed by the Field Operations Section of the Commission’s Oil & Gas Division, and Field Operations has stated that it has no objection to consideration of the subject leases and wells for Statewide Rule 21 exceptions.
9. Cumulative production from the Wardlaw, J. L. Estate -A- (01808) Lease through March 2008 is 67,820 barrels of oil. During 2007, UHC reported production of 1,054 barrels of oil from the Wardlaw, J. L. Estate -A- (01808) Lease, for an average of 87.83 BOPM. Cumulative production from the Wardlaw, J. L. II (09788) Lease through March 2008 is only 120 barrels of oil. No production has been reported by UHC for this lease since May 1998.

10. Peak production for the Wardlaw, J. L. Estate -A- (01808) Lease was in mid-1998, when about 2,400 barrels of oil were produced in a single month. This peak production was achieved by swabbing a group of wells for the entire month.
11. UHC operates a mobile swabbing unit that will be used in swabbing the subject wells. This swabbing unit is equipped with a tank into which oil produced by swabbing is first deposited. A sight glass mechanism on the tank enables the swabbing unit operator to measure the oil on a well-by-well basis. When the tank on the swabbing unit is at near capacity, the swabbing unit moves to an on-lease tank battery into which the oil is pumped.
12. All oil produced by swabbing is proposed to be measured before it leaves the lease where the oil was produced, and there will be no commingling of oil produced on different leases.
13. There will be a minimal risk of pollution or safety hazard resulting from the proposed swabbing operation, if properly conducted, or from the condition of the subject wells.
  - a. All of the subject wells are low pressure wells.
  - b. Wellhead control on most of the subject wells consists of a steel cap screwed on pipe which extends above ground level. Wells currently produced by progressive cavity pump have wellhead assemblies.
  - c. The oil in the reservoir is very thick, and the predominant drive mechanism is gravity.
  - d. UHC's mobile swabbing unit is properly equipped to retain oil within the swabbing apparatus and prevent discharges to the ground.
  - e. All of the wells proposed to be swabbed are equipped with casing and cement to the surface to protect usable quality water.
  - f. There is no hydrogen sulfide associated with oil produced from the subject leases.
14. The Wardlaw Field is a good candidate for use of swabbing as a method of production.
  - a. The oil in the reservoir is heavy at 18 degree gravity and 250-300 centipoise viscosity.
  - b. Oil in the reservoir does not flow easily and contains a large quantity of asphaltine material that clogs perforations and flow lines.
  - c. Currently, the field has virtually no drive other than gravity, and oil flows very marginally into wellbores.
  - d. Swabbing is a more efficient and less costly production method as compared to pumping.
  - e. Suction created by swabbing causes fluid to come into the well and actually cleans perforations and casing.
  - f. Swabbing the subject wells will provide UHC with information as to the best areas of the reservoir so that these areas can be made the subject of future enhanced oil recovery projects.

15. Pumping the subject wells as a means of production does not have long term practicality.
  - a. Some wells on the Wardlaw, J. L. Estate -A- (01808) Lease currently are produced by progressive cavity pumps.
  - b. Without consistent flow of fluid into the wellbore, progressive cavity pumps burn out very easily. The replacement cost of such a pump is at least \$8,000 and pump repair runs at least \$3,000.
  - c. UHC is required to keep a crew of at least four men on site seven days a week to monitor the pumps and make certain that fluid is getting to them to prevent burn out.
  - d. Costs associated with producing the subject wells by progressive cavity pump make most wells uneconomic because of the minimal amount of oil the wells will produce.
  - e. Progressive cavity pumps are not built to contend with materials (clay and fines) that enter the wellbore from the formation.
  - f. Progressive cavity pumps run on electricity and wells produced in this manner have flow lines running to tank batteries. Many of the subject wells do not have electrical connections or flow lines, and equipping them with electricity and flow lines to produce a marginal amount of oil is not economically feasible.
16. Geological studies have indicated that there are up to 160 million barrels of oil in place in the Wardlaw Field, and UHC hopes to achieve primary recovery of at least 1.5 million to 2 million barrels from the area of the field where the subject wells are located.
17. If permitted to produce the subject wells by swabbing, UHC projects that the wells will produce about 80-100 barrels of oil per day, as compared to 10-11 barrels per day being produced by all wells which are on progressive cavity pumps.
18. While under former management and control, UHC had a number of enforcement problems with the Railroad Commission.
  - a. In March 2008, UHC received notice that the Wardlaw, J. L. Estate -A- (01808) Lease was being severed based on violations of Statewide Rules 8, 14(b)(2), 16, and 91. Plugging extensions for 46 wells on this lease were canceled based on these violations. The notice was received by UHC on or around March 6, 2008, and the violations that caused the notice were resolved by March 20, 2008, as evidenced by a District Office inspection report of that date that reported remedial action and no violations on the lease. The certificate of compliance for the lease was re-issued on March 21, 2008.
  - b. UHC was also the subject of four formal enforcement actions for violations of Commission rules on other leases. The violations in all four of these dockets were referred to the Enforcement Section by the District Office in 2005 while UHC was still under its former management. All four enforcement dockets were resolved by agreed orders dated in 2007 or 2008. Under former management, UHC apparently also swabbed at least some of the subject wells without swabbing authority, and was directed to discontinue such operations by the District Office as late as the Summer of 2007.

19. Beginning in about October 2007, effective with a change of control of the company, former management officials resigned from UHC's parent company, or were terminated, and new management was put in place. Under new management, steps have been taken to rectify previously existing problems on the Wardlaw, J. L. Estate -A- (01808) Lease. The lease was in compliance with Commission rules as of the date of the hearing.
20. BDP is opposed to approval of the application in Oil & Gas Docket No. 01-0256376 based on UHC's compliance history. BDP has a concern about possible future pollution violations on the Wardlaw, J. L. Estate -A- (01808) Lease, and believes that UHC should be required to plug wells that have been inactive for more than 6 months.
21. UHC is the successor-in-interest to oil and gas leases covering the properties where the subject wells are located, and such leases have current effect as to all wells, at least by reason of satisfaction of continuous drilling obligations under the leases.
22. UHC has an active Form P-5 organization report and approved financial assurance on file in the amount of \$250,000. UHC's estimate of the cost to plug the subject wells is \$2,500 to \$3,000 per well.

#### **CONCLUSIONS OF LAW**

1. Proper notice of hearing was timely issued by the Railroad Commission to appropriate persons legally entitled to notice.
2. All things necessary to the Commission attaining jurisdiction over the subject matter and the parties in this hearing have been performed.
3. UHC Petroleum Corporation has submitted proof sufficient to meet the mandatory and discretionary standards in Statewide Rule 21 [16 TEX. ADMIN. CODE §3.21] for approval of exceptions to permit the swabbing of the subject wells.
4. UHC Petroleum Corporation has a good faith claim of a continuing right to operate the subject wells.
5. Approval of the exceptions to Statewide Rule 21 requested by UHC Petroleum Corporation is necessary to prevent the waste of oil.

#### **RECOMMENDATION**

The examiners recommend that the applications of UHC Petroleum Corporation in these dockets be approved, subject to conditions, as set forth in the attached recommended final orders.

Respectfully submitted,

James M. Doherty  
Hearings Examiner

Richard D. Atkins  
Technical Examiner