

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**NMOCD – ACOI- 236**

**IN THE MATTER OF QUANTUM RESOURCES MANAGEMENT, LLC,**

**Respondent.**

**AGREED COMPLIANCE ORDER**

Pursuant to the New Mexico Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38, as amended ("Act") and OCD Rule 19.15.5.10(E) NMAC, the Director of the Oil Conservation Division ("OCD") and Quantum Resources Management, LLC ("Quantum" or "Operator") enter into this Inactive Well Agreed Compliance Order ("Order").

This Order replaces Inactive Well Agreed Compliance Order 232.

**FINDINGS**

1. The OCD is the state division charged with administration and enforcement of the Act, and rules and orders adopted pursuant to the Act.
2. Quantum is a limited liability company operating wells in New Mexico under OGRID 243874.
3. In January 2011, Quantum became operator of record of wells formerly operated by Melrose Operating Company ("Melrose").
4. Prior to becoming operator of record of the Melrose wells, Quantum entered into Inactive Well Agreed Compliance Order 232 (ACOI 232). ACOI 232 required Quantum to file a report by March 4, 2011, identifying the outstanding compliance issues related to the Melrose wells, and Quantum's plan for addressing those issues.
5. ACOI 232 provided that if Quantum submitted a timely and complete report, the OCD and Quantum would enter into good-faith negotiations for an agreed compliance order establishing a schedule for returning the non-compliant wells acquired from Melrose to compliance.
6. Quantum filed a timely and complete report on the compliance issues, corrected many of the identified compliance issues, and is actively working on the remaining compliance issues. A copy of Quantum's report is attached as Exhibit A.

7. Quantum fulfilled its obligations under ACOI 232.
8. One of the compliance issues Quantum is addressing relates to wells in violation of 19.15.25.8 NMAC, the inactive well rule.
9. 19.15.25.8 NMAC states, in relevant part:

“A. The operator of wells drilled for oil or gas or services wells including seismic, core, exploration or injection wells, whether cased or uncased, shall plug the wells as Subsection B of 19.15.25.8 NMAC requires.

B. The operator shall either properly plug and abandon a well or place the well in approved temporary abandonment in accordance with 19.15.25 NMAC within 90 days after:

  - (1) a 60 day period following suspension of drilling operations;
  - (2) a determination that a well is no longer usable for beneficial purposes; or
  - (3) a period of one year in which a well has been continuously inactive.”
10. If an operator has too many wells in violation of 19.15.25.8 NMAC, and those wells are not subject to an agreed compliance order setting a schedule for returning the wells to compliance, the operator may be in violation of Part 5.9 (19.15.5.9 NMAC). The number of such wells an operator may operate and still be in compliance with Part 5.9 depends on the total number of wells the operator operates. To stay in compliance with Part 5.9 Quantum, as an operator of between 100 and 500 wells, may have no more than 5 wells out of compliance with the inactive well rule that are not subject to an inactive well agreed compliance order.
11. If an operator is in violation of Part 5.9, the OCD may deny well transfers to that operator (19.15.9.9 NMAC), may deny applications for permits to drill from that operator (19.15.14.10.A NMAC), must deny requests for allowables and authorizations to transport from that operator (19.15.16.19.A NMAC), and must deny injection permits to that operator (19.15.26.8.A NMAC). The OCD may also revoke a permit for injection after notice and hearing if the operator is not in compliance with Part 5.9. See 19.15.26.8 NMAC.
12. Exhibit B, attached to this Order, is a list of the wells operated by Quantum that are currently out of compliance with 19.15.25.8 NMAC, or that will fall out of compliance with that rule in the next six months if no action is taken.

### CONCLUSIONS

1. The OCD has jurisdiction over the parties and subject matter in this proceeding.

2. As operator of the wells identified in Exhibit B, Quantum is responsible for their compliance with OCD Rule 19.15.25.8 NMAC.
3. It is in the best interest of Quantum and the State of New Mexico for Quantum to be able to continue its work to return the wells identified on Exhibit B to compliance with 19.15.25.8 NMAC without the sanctions provided for in Part 5.9 affecting Quantum's other business activities.
4. Quantum and the OCD agree that the wells on Exhibit B should not be included in the inactive well list while Quantum works to return the wells to compliance in accordance with the schedule set out below.

### **ORDER**

1. Operator and the OCD agree to the following schedule:
  - A. The OCD shall remove the wells identified on Exhibit B from the inactive well list until January 25, 2012.
  - B. By **December 31, 2011**, Quantum shall return 10 of the wells identified on Exhibit B to compliance with 19.15.25.8 NMAC. The 10 wells returned to compliance shall include the following wells, which have been inactive for more than 20 years:

2	30-015-01563	ARTESIA UNIT #002	M-26-17S-28E M	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S O 08/1983		
1	30-025-08580	JALMAT FIELD YATES SAND UNIT #103	B-10-22S-35E B	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S I 12/1988	TA EXP 10/18/10	T 10/18/2010
1	30-025-28063	JF JANDA NCT-L #001	D-36-22S-35E D	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S O 04/1986		
2	30-015-20103	VANDEVENTER STATE #002	B-20-18S-28E B	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S O 01/1985		

- C. To bring a well into compliance, Quantum shall:
  - 1) return the well to activity by restoring the well to production or injection **and file a C-115 documenting such production or injection**, or by obtaining OCD approval for some other beneficial use for the well;
  - 2) cause the wellbore to be plugged in accordance with OCD Rule 19.15.25.10(B) NMAC **and file a C-103 describing the completed work**; or
  - 3) place the well on approved temporary abandonment status in accordance with OCD Rule 19.15.25.12 NMAC through 19.15.25.14 NMAC.
- D. Operator agrees that oil and gas produced during swabbing does not count as production for purposes of this Order.


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Quantum Resources Management, LLC

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- E. Operator agrees that transferring a well to another operator does not count as returning a well to compliance for purposes of this Order.
  - F. On January 25, 2012, any well on Exhibit B that is not in compliance with 19.15.25.8 NMAC will re-appear on the inactive well list for Quantum.
  - G. Quantum may seek an amendment to this Order, or negotiate a new Order with the OCD to address wells on Exhibit B that have not been returned to compliance by January 25, 2012.
  - H. If Quantum fails to meet the December 31, 2011 deadlines set out in this Order, the OCD may choose not to issue an amendment or negotiate a new Order.
  - I. The OCD recognizes that Quantum may experience difficulties in returning the Artesia #2 well to compliance by December 31, 2011 because the well is located near power lines that may have to be moved for work to be performed on the well. If Quantum fails to return the Artesia #2 to compliance by December 31, 2011, it should provide a written explanation to the OCD describing its efforts to return the well to compliance, and its plans to move forward with returning the well to compliance. If the OCD determines that Quantum has acted in good faith, it should not use Quantum's failure to return the well to compliance by the deadline as a basis for refusing to issue an amendment or negotiate a new Order.
2. This Order applies only to the enforcement of OCD Rule 19.15.25.8 NMAC against those wells identified in Exhibit B. Other wells operated by Operator out of compliance with OCD Rule 19.15.25.8 NMAC may be subject to immediate enforcement action under the Oil and Gas Act and OCD Rules. Wells identified in Exhibit B that are out of compliance with the Oil and Gas Act or OCD Rules other than OCD Rule 19.15.25.8 NMAC may be subject to immediate enforcement action under the Oil and Gas Act and OCD Rules.
3. The OCD reserves the right to file an application for hearing to obtain authority to plug any well identified in Exhibit B and forfeit the applicable financial assurance if the well poses an immediate environmental threat.

Done at Santa Fe, New Mexico this 29<sup>th</sup> day of March, 2011

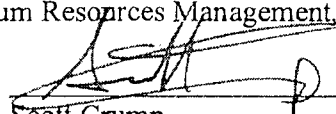
By:   
Daniel Sanchez,  
Acting Director, Oil Conservation Division

**ACCEPTANCE**

Quantum Resources Management, LLC hereby accepts the foregoing Order, and agrees to all of the terms and provisions set forth in that Order.

Quantum Resources Management, LLC

By:

A handwritten signature in black ink, appearing to read 'Scott Crump', is written over a horizontal line.

Scott Crump  
E&P Services Manager  
29 March 2011



Quantum Resources Management, LLC

March 4, 2011

Mr. J. Daniel Sanchez  
Compliance & Enforcement Manager  
Oil Conservation Division  
New Mexico Energy, Minerals and Natural Resources Department  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505

VIA HAND DELIVERY

Re: Agreed Compliance Order Number 232 (the "Order");  
Report regarding properties acquired from Melrose Operating Company  
("Melrose")

Dear Mr. Sanchez:

In accordance with the above referenced Order, Quantum Resources Management, LLC ("QRM") is pleased to report to the Oil Conservation Division ("NMOCD") on its activities following the acquisition of approximately 444 wells in Lea and Eddy Counties New Mexico previously operated by Melrose (the "Wells").

QRM's acquisition of the Wells substantially increases its operating presence in New Mexico. Since assuming operatorship of the Wells beginning on January 14, 2011, QRM has continued to use the same field staff previously employed by Melrose on a month-to-month contractual basis. To ensure that this staff will meet QRM's high standards of environmental and regulatory compliance, QRM has temporarily reassigned Wyatt Yates from his supervisory role in our Oklahoma division to oversee the New Mexico operations subject to the Order. Mr. Yates has 33 years of experience with multiple major, large independent and small oil and gas operators in all facets of the industry. Mr. Yates has been delegated the necessary authority to bring the Wells into compliance and to set standards and expectations for new employees and contractors. Additionally, Permian Basin Regional Safety and Environmental Coordinator Martin Williams has joined QRM. Based in Midland, Texas, Mr. Williams has extensive professional environmental experience and will oversee cleanup and compliance in New Mexico after Mr. Yates returns to his other responsibilities.

QRM will individually address the topics identified in Paragraph 2 of the referenced Order, as follows:

EXHIBIT

**Injection pressure issues.**

It is QRM policy to comply with all regulations in all jurisdictions, including NMOCD requirements regarding maximum pressure limits. This message has been conveyed to new employees.

The Order states:

*“Quantum shall report on step-rate tests conducted to gather data for applications for field- or unit- based injection pressure orders for the Cone Jalmat Yates Pool Unit and the Jalmat Field Yates Sand Unit, if Quantum becomes operator of record for those units. Quantum shall review any other injection wells acquired from Melrose to determine if it will be applying for field- or unit- based injection pressure orders for those wells. Quantum shall report on its findings and propose a timeline for filing any applications to amend existing injection permits. The compliance goal is for Quantum to establish and comply with appropriate injection pressure limits for all injection wells it acquires from Melrose.”*  
(emphasis NMOCD)

At Jalmat Field Yates Sand Unit (“JFYSU”) QRM and Melrose cooperated in an application to set a maximum surface injection pressure across the unit at 1400 psi. This resulted in Order #IPI-388 on December 27, 2010 granting the application with the exception of JFYSU #122 and #126 which had previously received individual limits of 1500 psi.

At Cone Jalmat Yates Pool Unit (“CJYPU”) step rate tests were conducted across the unit in January and February to support an application to set a unit wide pressure maximum of 1100 psi that was filed on February 21, 2011. Until a decision from NMOCD is received, surface pressure is being limited to 750 psi.

QRM continues to review the situation regarding pressure limits at all of the New Mexico properties acquired from Melrose. As you are aware, these fields and units are mature and the records, both those received from Melrose and those reviewed at NMOCD, paint a less than clear picture of requirements and limits. Our review of the Artesia Unit (“AU”) and Northeast Pearl Queen Unit (“NEPQU”) indicates that a significant number of the injectors appear to have been permitted before 1977 and do not have a maximum pressure limit stated. Despite this apparent lack of restrictions, we believe it is in the interest of both QRM and the State to undertake a study of appropriate pressure limits and to set wherever appropriate a single maximum value that will ensure both safe operations and efficient monitoring.

At Artesia Unit, step rate tests were conducted across the unit in February to support an application to set a unit wide pressure maximum of 1200 psi that was filed in Santa Fe on February 25, 2011. We expect to initiate a similar round of step rate testing later this month at NEPQU as part of this continuing review.

**Mechanical integrity test issues.**

QRM is aware of four instances of acquired Melrose injectors with failed mechanical integrity tests ("MIT").

The Order states:

*"Quantum shall report on all unresolved mechanical integrity test failures related to injection wells acquired from Melrose. If unresolved issues remain, Quantum will propose a timeline for resolving those issues. The compliance goal is that any injection well Quantum acquired from Melrose that failed a mechanical integrity test be repaired so it passes a mechanical integrity test, or is plugged." (emphasis NMOCD)*

All four MIT's have been reviewed by QRM personnel and the following report of activity is submitted:

- 1) Dunn B Federal #006 – Casing repair completed February 10, 2011. Subsequent Report ("SR") C-103 filed February 25, 2011. MIT scheduled for March 3, 2011 with Mr. Richard Inge of NMOCD District 2 Office.
- 2) Dunn B Federal #018 – Casing repair completed November 2010. Filed C-103 SR February 25, 2011. Successful MIT witnessed by Mr. Darold Gray of NMOCD District 2 Office.
- 3) Dunn B Federal #030 – Well will be plugged and abandoned ("P&A"). Currently coordinating with Bureau of Land Management.
- 4) State 647 AC 721 #207 – Hole in casing found and attempted one remedial squeeze unsuccessfully. Will P&A well. Filed C-103 Notice of Intent ("NOI") to P&A on February 25, 2011. Expected completion by June 1, 2011.



**Environmental issues.**

The Order states:

*“Quantum shall provide an inventory of the environmental issues associated with the wells it acquires from Melrose, including but not limited to the environmental cases and pit closure issues described in the December 7, 2010 letter attached to this Order as Exhibit A. The inventory should identify the current status of each case or project, and what actions Quantum will take to resolve each case or project. Melrose [sic] should propose a timeline for resolving all open cases or projects. The compliance goal is for all Melrose sites acquired by Quantum that require remediation or pit closures to be remediated or closed in accordance with applicable statutes and rules.”*

Items 1 thru 17 below are those environmental issues described in the referenced December 7, 2010 letter with NMOCD comments identified in italics. Items 18 thru 32 are those additional potential issues separately identified by QRM.

- 1) NEPQ Central Tank Battery – *“On November 15, 2010 OCD inspectors found a leak that appeared to originate at the header at the north end of the tank battery. The soil at and surrounding the header and treater are saturated with oil and produced water. The trail of saturation extends past the bermed area at the north end and northeast corner of the site and flows north and down slope for approximately 200’, at which point it crosses the east-west lease road and continues into the pasture for approximately 300’. There is evidence that fresh caliche was placed on top of the release. OCD’s Hobbs District Office has instructed Melrose to submit a C-141 for the site and to delineate and remediate the contamination.”*

Cleanup completed. Dug out 35 x 96’ and liner installed. Lab results indicated safe levels for blended soil mixture. Corrective plan received ok from NMOCD District 1 Office. Backfilling and reseeding completed February 26, 2011. Mr. Geoffrey Leking of NMOCD District 1 Office approved Final C-141 on March 1, 2011.

- 2) NEPQU #10 Pit – *“On November 15, 2010 OCD inspectors found what appears to be an old drilling pit located between two Melrose wells. The pit is approximately 30’ x 40’ x 5’, and surrounding by barbed wire. The unlined pit contains oilfield waste, including black tar deposits, tubing and steel barrels. Oilfield waste must be properly disposed of at a permitted facility. See 19.15.34.11 and 19.15.34.13 NMAC. Melrose must submit a C-144 and close the pit appropriately. Please note that on July 12, 2005 the Hobbs District Office issued a notice of violation to Melrose regarding this pit and directing Melrose to close the pit.”*

Closure and cleanup completed. Verified absence of groundwater with boreholes. Excavated and blended soil to compliance levels. Corrective plan received ok from NMOCD District 1 Office. Backfilling and reseeding completed February 26, 2011. Mr. Leking approved Final C-141 on March 1, 2011.

- 3) NEPQU #19 Releases – *“On November 15, 2010 OCD inspectors found a stuffing box leaking produced water. No sign is present to identify the well, but the name on the control box indicates that the well is a Melrose-operated well. A search of OCD records identified the well as the Melrose Northeast Pearl Queen Unit #19. The OCD Hobbs District Office has instructed Melrose to file a C-141 reporting the release, and to submit a plan to delineate and remediate the contamination. Please note that in 2002 the OCD issued a letter of violation to Melrose regarding a hole in the casing of this well, which was allowing oil to accumulate in an unlined pit. At that time, the OCD instructed Melrose to skim the oil from the pit, drain the pit and remediate the site. OCD has no record of any remediation plan for the site.”*

Bore holes were drilled and fluid found in one hole on the NW. Continuing to bail every 48 hrs recovering approximately 1 gallon each run while in consultation with NMOCD District 1 Office about next steps. Met with Mr. Leking March 1, 2011 at site to review situation. Awaiting further directions from Mr. Leking pending his consultations with Mr. Glen Vangotten of Santa Fe NMOCD Office.

- 4) NEPQU #9 Pit – *“On July 20, 2005, the Hobbs District Office issued a letter of violation directing Melrose to close an unlined pit at the location. OCD records show no action taken to close the pit.”*

Pit was closed in 2005 however, no documentation provided to NMOCD District 1 Office. Met with Mr. Leking March 1, 2011 on site to review matter. Awaiting further directions from Mr. Leking pending his consultations with Mr. Jim Griswold of Santa Fe NMOCD Office.

- 5) CJYPU #605 Flowline leak – *“A flowline leak occurred in 2009; the district has not received closure documentation.”*

Cleanup completed. Final C-141 prepared and submitted to NMOCD District 1 Office on February 22, 2011.

- 6) JFYSU #222 leak – *“A leak occurred at a water injection pump in 2008; the district has not received closure documentation.”*

Cleanup completed. Final C-141 prepared and submitted to NMOCD District 1 Office on February 22, 2011

- 7) AU #23 wellhead leak – *“A field inspector issued a letter of violation dated 9/22/09 requesting a C-141 be submitted for an observed leak at the well head. We have no record of receiving the C-141, or of any remedial actions being taken. Unless Melrose can provide documentation of work having been done and analytical data showing that the site has been cleaned up, the OCD will request that samples be taken from the release area and submitted for analysis. The results of the analytical tests will determine the remediation to be performed. If there is visible evidence of contamination at the well head area, Melrose could elect to remove that material and then obtain samples.”*

Scheduled with Mr. Mike Bratcher from NMOCD District 2 Office to collect samples for 5 point test March 4, 2011.

- 8) State E 1286 #109 – *“Three violations are open at this site - two from 2005 and the third as the result of a field inspection on 6/13/2008. The violations appear to be associated with the tank battery area. We have analytical data dated 11/24/08 and an RBDMS inspection entry on 12/11/08 referencing the analytical data and indicating that the operator would be required to submit a remediation plan and haul some stockpiled material to disposal. The OCD suggests a site visit and a review of the available data. Melrose may be required to obtain recent analytical data; further remediation may be required.”*

Reviewed historical files, prepared C141 and filed with NMOCD District 2 Office on February 24, 2011.

- 9) Dunn B Fed #46 wellhead leak – *“The violation was opened on 3/2/2005 as a result of a release at the wellhead. RBDMS entries indicate some remedial work was performed, but also indicate the need for analytical data from blended material used for a berm on the south side of the well site. The OCD suggests a site visit and may require samples be obtained for analyses from the referenced berm area.”*

Cleanup completed, Mr. Bratcher stated on February 25, 2011 that he has closed this matter.

- 10) AU #58 pit – *“The violation was opened on 3/24/2005 as a result of a field inspection identifying an open workover pit and what appeared to be chloride impact on the south side of the location. An inspection record on 2/7/2006 indicates no action had been taken to bring the well into compliance. A C-144 was received on 2/2/2005 to register the pit, but was not approved. OCD suggests a site visit and may require samples be taken for analyses.”*

Talon/LPE sampled in coordination with Mr. Bratcher on Feb 22, 2011 for 5 pt testing. Lab results received February 28, 2011 and submitted to Mr. Bratcher on March 1, 2011. Waiting on his further instructions after he has had opportunity to review data.

- 11) Dunn B Fed #21 – *“The violation was opened on 4/29/2005 as a result of a leak at the well head. The inspection record indicates that the OCD met on site with Garrett Newton. Mr. Newton agreed to remove contaminated materials while performing remediation on the Dunn B 046 site. There is no indication that remedial work was performed on the 021 site. OCD suggests a site visit and may require samples be taken for analyses.”*

Cleanup completed, Mr. Bratcher stated on January 27, 2011 that he will close this matter.

- 12) Dunn B Fed #14 – *“The violation was opened on 5/18/2005 as a result of leaks at the wellhead which had allowed produced fluids to pool at the wellhead and run east across the location into an adjacent pasture. There is no documentation of any remedial work being done. The OCD suggests a site visit and may require samples be taken for analyses.”*

Talon/LPE sampled in coordination with Mr. Bratcher on Feb 22, 2011 for 5 pt testing. Lab results received February 28, 2011 and submitted to Mr. Bratcher on March 1, 2011. Waiting on his further instructions after he has had opportunity to review data.

- 13) Leonard B Fed #4 – *“The violation was opened on 9/28/2009 by a field inspector identifying a new hydrocarbon release at the wellhead area. The OCD requested Melrose to submit a C-141. There is no indication a C-141 was submitted or that any remedial work was performed. The OCD suggests that samples be obtained at the wellhead area for analyses, and that remediation be based on the results.”*

Talon/LPE attempted to sample on Feb 22, 2011 for 5 pt testing. Rescheduled with Mr. Bratcher for March 4, 2011 after discovering and cleaning up a stuffing box leak at wellhead.

- 14) State 647 AC 711 #27 – *“The site had what appears to be an ongoing remediation from, a release reported 6/27/08. The operator had been approved to use a chemical to “remediate” chlorides. A letter to the operator indicates samples were to have been taken prior to application, and then twice over a 6 week period. If no acceptable drop in chloride levels was seen, the site was to be excavated. There is no analytical data of any kind in the file. Another violation was opened for this well site on 9/29/09 identifying “contaminated soils as a result of what appears to multiple leaks.” OCD suggests samples be obtained from all identified areas of release for analyses, with remedial work to be based on the results.”*

Talon/LPE sampled in coordination with Mr. Bratcher on Feb 22, 2011 for 5 pt testing. Lab results received February 28, 2011 and submitted to Mr. Bratcher on March 1, 2011. Waiting on his further instructions after he has had opportunity to review data.

- 15) Conoco 7 State #3 – *“An OCD inspector identified a large spill on 9/3/2009. The operator submitted a C-141 and began site remediation. The file is very large, but there was a closure report filed dated 3/4/2010 by Whole Earth Environmental, and a Final Report C-141 dated 3/12/2010. The OCD needs to review file to determine if it can be closed.”*

Paperwork has been filed and Mr. Bratcher stated on February 25, 2011 that he will close this matter.

- 16) AU Battery Transfer Line – *“Melrose is currently working on a remediation project for the Artesia Unit Battery Transfer Line.”*

Cleanup completed. Preparing final C141.

- 17) Jalmat Area pits – See attached list. Forty-one Jalmat area pits were identified in the December 7, 2010 letter. Of these twenty-three have been closed and restored. Fourteen others are closed and restored except for reseeding. Three require markers to be set and reseeding. One is still being backfilled as of March 2, 2011.

- 18) JFYSU injection station containment – Repair commenced February 28, 2011.

- 19) State 648 #2 Battery – Lined tank battery and built firewalls.
- 20) State 647-721 #224 – Currently installing liner and building firewalls around battery.
- 21) AU #1 Battery – Currently hauling in material to repair berm.
- 22) Dunn B Battery – Currently hauling in material to repair berm.
- 23) Cone Battery berms – Repair commenced February 28, 2011.
- 24) JF Janda Battery – Berm & fence constructed March 3, 2011
- 25) Closson B-1 water station – Secondary containment for injection pump delivered and will be installed.
- 26) Spill Prevention, Control, and Countermeasure plans – Drafts have been written for all sites and will be finalized after berm deficiencies have been corrected.
- 27) Air quality compliance – Program initiated. Gathering representative samples to determine whether registration is required with New Mexico Environment Department Air Quality Bureau. Expected completion July 1, 2011
- 28) NM Greenhouse Gas Statutory Report – Gathering data to add Melrose properties to our report
- 29) Conoco 7 State #12 release – Reported to and file closed by Mr. Bratcher.
- 30) NEPQU #9 Pit #2 – An additional pit was discovered approximately 550' to the North of the NEPQU#9 wellhead on February 28, 2011 during a site visit to attempt to locate the previously closed pit #1. Presence of pit was disclosed to Mr. Leking on March 1, 2011. Preparing remediation plan.
- 31) CJYPU #128 – Injection line leak discovered March 1, 2011. C141 initial report filed with District 1 March 2, 2011.
- 32) State 647 AC 711 WF station – Flowline rupture December 6, 2010. Work plan has been prepared by Talon/LPE and submitted to Mr. Bratcher March 3, 2011.

**Inactive well issues.**

The Order states:

*“Quantum shall provide a plan for repairing or plugging the Artesia Unit #2, 30-015-01563, with a proposed timeline for completing the work. Quantum shall also propose a plan for addressing the remaining inactive wells it acquires from Melrose, giving priority to those state or fee wells that have been inactive for more than twenty years. The compliance goal is to for Quantum to return all Melrose wells it acquires to compliance with the inactive well rule, giving priority to the Artesia Unit #2 and those additional state or fee wells that have been inactive more than twenty years.”* (emphasis NMOCD)

Currently twenty-two wells appear as inactive, of these six have been returned to production, three have been returned to injection, two will be returned to injection, nine will be plugged, one has been converted to injection and one has been converted to production.

- 1) Artesia Unit #2 (30-015-01563) – Rigless plug and abandon procedure has been approved by Darold Gray after multiple consultations with NMOCD District 2 Office. Second C-103 NOI to P&A filed February 28, 2011, approved March 2, 2011. Anticipate completion within three weeks depending on power company and equipment availability.
- 2) Artesia Unit #5 (30-015-01567) – Unsuccessful attempt to return to production February 23, 2011. Filed C-103 NOI to P&A February 23, 2011. Expected completion by June 1, 2011.
- 3) Artesia Unit #47 (30-015-02545) – Will return to injection. Filed C-103 NOI February 23, 2011.
- 4) Artesia Unit #67 (30-015-20327) – Will return to injection. C-103 NOI approved. Rig moved on February 24, 2011.
- 5) Cone Jalmat Yates Pool Unit #401 (30-025-08634) – Filed C103 NOI to return to production on February 11, 2011. C-103 SR filed February 21, 2011. Filed C-104 February 24, 2011.
- 6) Cone Jalmat Yates Pool Unit #605 (30-025-08654) – Filed C103 NOI to return to production on February 11, 2011. C-103 SR filed February 21, 2011. Filed C-104 February 24, 2011.

- 7) Dunn B Federal #27 (30-015-01836) – Returned to injection. Passed MIT in June 2010, C115's filed by QRM will reflect status.
- 8) Dunn B Federal #30 (30-015-10293) – Failed MIT. Will P&A. Waiting on change of operatorship paperwork with BLM to be completed.
- 9) Jalmat Field Yates Sand Unit #103 (30-025-08580) – Filed C-103 NOI P&A on February 25, 2011. Expected completion by June 1, 2011.
- 10) Jalmat Field Yates Sand Unit #108 (30-025-08587) – Active injector, investigating paperwork trail to understand why well is on inactive list.
- 11) Jalmat Field Yates Sand Unit #116 (30-025-08601) – Converted from injection to production by Melrose Mar 9, 2010. C103 and C104 now on file.
- 12) Jalmat Field Yates Sand Unit #207 (30-025-36972) – Converted from production to injection in May 2010. C105 filed to reflect change. Investigating to understand why well remains on inactive list.
- 13) JF Janda NCT-L #1 (30-025-28063) – Returned to production. C103 filed Jan 28, 2011. C104 filed February 24, 2011.
- 14) Mershon State #2 (30-015-02007) – Filed C103 NOI to P&A February 17, 2011. Expected completion by June 1, 2011.
- 15) Northeast Pearl Queen Unit #6 (30-025-03192) – Filed C103 NOI to P&A February 28, 2011. Expected completion by June 1, 2011.
- 16) State 647 AC 711 #100 (30-015-02054) – Passed MIT November 2010 and returned to injection. C115's filed by QRM will reflect status.
- 17) State 647 AC 711 #200 (30-015-10182) – Will P&A. Complex fish in hole, requires further review.
- 18) State 647 AC 713 #115 (30-015-01877) – Filed C103 NOI to P&A February 25, 2011. Expected completion by June 1, 2011.
- 19) State E 1286 #126 (30-015-01880) – Workover to return to production complete. Currently waiting on electrical connections to utility. C103 SR filed February 24, 2011.



20) Vandeventer State #2 (30-015-20103) – Workover to return to production complete. Currently waiting on electrical connections to utility. C103 SR filed January 28, 2011.

21) Western Yates State #1 (30-015-01959) – Filed C-103 NOI to P&A February 17, 2011. Expected completion by June 1, 2011.

22) Western Yates State #2 (30-015-01960) – Returned to production, C103 approved. Filed C104 March 1, 2011.

QRM offers this report as evidence of its good faith efforts to develop a plan for returning the Wells to compliance. We look forward to continuing to work together with the NMOCD toward achieving this goal.

Sincerely,



Scott Crump  
Manager E&P Services

encl: Jalmat Area Pit Status Table

cc: Mr. Larry Hill  
District 1 Supervisor  
VIA ELECTRONIC MAIL TO  
Larry.Hill@state.nm.us

Mr. Randy Dade  
District 2 Supervisor  
VIA ELECTRONIC MAIL TO  
Randy.Dade@state.nm.us

Jalmat Area Drilling Pit Closure Progress thru March 2, 2011

Unit Name	Well #	% of Site Work complete	% of Project complete	Current Operations Description	Mud Mixed	Tomb prepared	Mud Lab work complete	Liner installed	Bottom Lab Work completed	Capped & Covered	Backfilled	Fenced	Contoured	Marker Set	Revegetated	Affidavit Filed
JFYSU	222	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	225	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	226	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	227	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	228	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	231	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	232	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	168	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	178	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	234	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	235	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	195	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	179	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	107	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	159	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	182	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	185	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	187	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	240	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	233	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	241	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	242	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	250	100%	99%	Site work completed	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	236	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	237	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	140	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	249	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	142	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
CJYPU	130	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	143	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	247	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
CJYPU	126	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	146	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	148	98%	85%	To be reseeded	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	239	98%	60%	Marker to be set	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
CJYPU	127	98%	60%	Marker to be set	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
CJYPU	128	98%	60%	Marker to be set	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	137	75%	60%	Backfilling	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	Done	
JFYSU	243	98%	75%	To be reseeded	n/a	n/a	n/a	n/a	Done	n/a	Done	Done	Done	Done	Done	n/a
CJYPU	144	98%	75%	To be reseeded	n/a	n/a	Done	n/a	Done	n/a	Done	Done	Done	Done	Done	n/a
CJYPU	145	98%	75%	To be reseeded	n/a	n/a	Done	n/a	Done	n/a	Done	Done	Done	Done	Done	n/a

## Exhibit B

### Well List

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
2	<del>30-015-01563</del>	<del>ARTESIA UNIT #002</del>	<del>M-26-17S-28E</del>	<del>M</del>	<del>243874</del>	<del>QUANTUM RESOURCES MANAGEMENT, LLC</del>	<del>S</del>	<del>Q</del>	<del>08/1983</del>			
2	30-015-01567	ARTESIA UNIT #005	P-26-17S-28E	P	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	04/2008		T	10/19/2007
2	30-015-02545	ARTESIA UNIT #047	G-3 -18S-28E	G	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	I	03/2008			
2	30-015-20327	ARTESIA UNIT #067	K-3 -18S-28E	K	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	I	06/2009		T	6/12/2009
1	30-025-08634	CONE JALMAT YATES POOL UNIT #401	I-23-22S-35E	I	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	09/2009	INT TO RWTP 02/09/11		
1	30-025-08654	CONE JALMAT YATES POOL UNIT #605	I-24-22S-35E	I	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	09/2009	INT TO RWTP 02/09/11		
2	30-015-01836	DUNN B FEDERAL #027	I-12-18S-28E	I	243874	QUANTUM RESOURCES MANAGEMENT, LLC	F	I	04/2009			
2	30-015-10293	DUNN B FEDERAL #030	K-11-18S-28E	K	243874	QUANTUM RESOURCES MANAGEMENT, LLC	F	I	04/2009			
1	<del>30-025-08580</del>	<del>JALMAT FIELD YATES SAND UNIT #103</del>	<del>B-10-22S-35E</del>	<del>B</del>	<del>243874</del>	<del>QUANTUM RESOURCES MANAGEMENT, LLC</del>	<del>S</del>	<del>I</del>	<del>12/1988</del>	<del>TA EXP 10/18/10</del>	<del>I</del>	<del>10/18/2010</del>
1	30-025-08587	JALMAT FIELD YATES SAND UNIT #108	H-11-22S-35E	H	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	I	10/2009			
1	30-025-08601	JALMAT FIELD YATES SAND UNIT #116	L-12-22S-35E	L	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	03/2007			
1	30-025-36972	JALMAT FIELD YATES SAND UNIT #207	M-14-22S-35E	M	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	05/2009	YATES		
1	<del>30-025-28063</del>	<del>JE JANDA NCT- L #001</del>	<del>D-36-22S-35E</del>	<del>D</del>	<del>243874</del>	<del>QUANTUM RESOURCES MANAGEMENT, LLC</del>	<del>S</del>	<del>Q</del>	<del>04/1986</del>			
2	30-015-02007	MERSON STATE #002	D-21-18S-28E	D	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	03/2008			
1	30-025-03192	NORTHEAST PEARL QUEEN UNIT #006	D-23-19S-35E	D	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	05/2008			
1	30-025-33463	NORTHEAST PEARL QUEEN UNIT #024	F-23-19S-35E	F	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	12/2009	QUEEN		
2	30-015-01963	ROTARY STATE	G-20-18S-28E	G	243874	QUANTUM	S	O	05/2010			

Exhibit B

ACOI

Quantum Resources Management, LLC

Page 1 of 2

		#004				RESOURCES MANAGEMENT, LLC								
2	30-015-01856	STATE 14 B #004	E-14-18S-28E	E	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	11/2009					
2	30-015-02020	STATE 14 C #010	C-23-18S-28E	C	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	02/2010					
2	30-015-02054	STATE 647 AC 711 #100	A-27-18S-28E	A	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	I	04/2008	T			1/3/2008	
2	30-015-02015	STATE 647 AC 711 #101	P-22-18S-28E	P	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	03/2010					
2	30-015-02021	STATE 647 AC 711 #125	A-23-18S-28E	A	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	01/2010					
2	30-015-02030	STATE 647 AC 711 #129	H-23-18S-28E	H	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	01/2010					
2	30-015-28994	STATE 647 AC 711 #130	L-27-18S-28E	L	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	03/2010	SA				
2	30-015-10182	STATE 647 AC 711 #200	M-23-18S-28E	M	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	02/1997					
2	30-015-01877	STATE 647 AC 713 #115	O-15-18S-28E	O	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	08/2008					
2	30-015-01880	STATE E 1286 #126	D-15-18S-28E	D	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	01/1994	SPUD 02/11/11	T		10/19/2009	
2	<del>30-015-20103</del>	<del>VANDEVENTER STATE #002</del>	<del>B-20-18S-28E</del>	<del>B</del>	<del>243874</del>	<del>QUANTUM RESOURCES MANAGEMENT, LLC</del>	<del>S</del>	<del>O</del>	<del>01/1985</del>					
2	30-015-01959	WESTERN YATES STATE #001	F-20-18S-28E	F	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	03/2007					
2	30-015-01960	WESTERN YATES STATE #002	E-20-18S-28E	E	243874	QUANTUM RESOURCES MANAGEMENT, LLC	S	O	09/2006	REMEDIAL WORK 11/24/2010				

WHERE Ogrid:243874, County:All, District:All, Township:All, Range:All, Section:All, Production(months):9, Includes Wells Under ACOI, Excludes Wells in Approved TA Period

Date: 28 Mar 11  
 Signed: [Signature]  
 Quantum Resources Management LLC