

State of Arizona Oil and Gas Conservation Commission

1110 W. Washington Street, Phoenix, AZ 85007 602-771-4501 www.azogcc.az.gov

Dennis L. Turner, Oil and Gas Administrator

Commissioners: Frank Thorwald, Chair Vice Chair -- Vacant Stephen R. Cooper William C. Feyerabend J. Dale Nations, Ph.D.

NOTICE OF COMBINED PUBLIC MEETING AND POSSIBLE EXECUTIVE SESSION ARIZONA OIL AND GAS CONSERVATION COMMISSION

Pursuant to A.R.S. § 38-431.02, notice is hereby given to the members of the Arizona Oil and Gas Conservation Commission (AOGCC or Commission) and to the general public that the OGCC will hold a meeting open to the public on July 13, 2018, 11:00 a.m. in Room 145, first floor of the Arizona Department of Environmental Quality, at 1110 W. Washington St., Phoenix, AZ.

NOTE: Start time is approximate; this meeting will follow the conclusion of the Arizona Energy Partners' Public Hearing.

AGENDA:

- 1. Call to order
 - o Establish a quorum
 - o Conflicts of interest
- 2. <u>Discussion, consideration, possible decision and vote</u> by the AOGCC on the Minutes of:
 - o April 6, 2018 Public Hearing
 - o April 6, 2018 Public Meeting
 - April 6, 2018 Executive Session
 - o May 18, 2018 Public Meeting
 - May 18, 2018 Executive Session
- 3. <u>Vice Chairman vacancy</u> Discussion, consideration, possible decision and vote by the AOGCC on the matter of nominating and filling the vacancy
- 4. Report by the Oil and Gas Administrator. The Administrator will discuss the following:
 - The AOGCC sample repository at 416 W. Congress, Tucson (basement)
 - Web improvements security upgrades, upgrade to Drupal v.7
 - Progress reports on Sunbelt Holdings plugging of the SunCor 1-19 and 1-24 wells
 - The Commission may discuss, consider and vote to require SunBelt Holdings to record the location of both wells, when plugged, with the Maricopa County Recorder
 - Report on permit activity by:
 - Ranger Development
 - Rare Earth Exploration
 - Vision Energy and Evolution Exploration
 - <u>Discussion, consideration and possible vote</u> by the AOGCC on changing all remaining meeting dates for 2018.
 - Navajo County special interest group, NoFrackingAZ (http://www.nofrackingaz.org/) is concerned about hydraulic fracturing because of the USBLM's offer for lease of 4,200 acres of public lands in Apache and Navajo counties for oil and gas exploration. The Commission may discuss with any stakeholders present, consider and vote on possible issues that arise from the discussion.

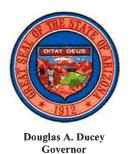
- 5. <u>Triomphe Energy</u> The AOGCC will discuss, consider and may vote on the temporary abandonment status of the Triomphe Energy #1.
- 6. <u>Blackstone Exploration Company, LLC #4 State well</u> The AOGCC will discuss, consider and may vote on the status of the Blackstone #4 State well.
- 7. Rare Earth 28-1 well The AOGCC will discuss, consider and may vote on the shut-in status of the Rare Earth 28-1 well.
- 8. Arizona Energy Partners (AEP)
 - o Discuss well activity and spacing exceptions for AEP.
 - The AOGCC will discuss, consider and may vote on the temporary abandonment status of the AEP 16-1.
- 9. <u>Interstate Oil and Gas Compact Commission dues</u> -- The Commission will discuss, consider and may vote on requesting ADEQ to pay IOGCC Associate Member dues of \$1,500 for 2018.
- 10. Report by the AOGCC Chairman
- 11. Legislation affecting the Arizona Oil and Gas Conservation Commission
 - o Geothermal rules and coordination with ADEQ and US Geological Survey
 - o ADEQ UIC primacy update
- 12. <u>Call to the public</u>: Members of the public may address the Commission during this Call to the Public. Pursuant to A.R.S. § 38-431.01(H), the Commission members may not discuss or take legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action. Therefore, action taken as a result of public comment will be limited to directing staff to study the matter or scheduling the matter for further discussion and decision on a future agenda.
- 13. Review and Consider Future Agenda Items
- 14. Announcements
- 15. Adjourn

Members of the Arizona Oil and Gas Conservation Commission will attend either in person or by telephone. The public may be afforded an opportunity to comment on any item on the agenda; however, at the beginning of the meeting, the Commission may vote to set up a time limit on individual comments. Note that the agenda items may be taken out of order at the discretion of the Commission.

NOTE: The Arizona Oil and Gas Conservation Commission may vote to hold an Executive Session, pursuant to AR.S. § 38-431 .03(A)(3) or (4), which will not be open to the public, to consult with its attorney and receive legal advice with respect to any regular agenda item listed on this agenda.

For additional information about this meeting, contact Dennis L. Turner, Oil and Gas Program Administrator, ogcc@azdeq.gov or (602) 771-4501. A copy of the agenda and background material provided to Commission members (with the exception of material relating to possible Executive Sessions) is available for public inspection at the Arizona Department of Environmental Quality, Records Management Center, 1110 W. Washington Street, Phoenix, AZ 85007, or online at http://www.azogcc.az.gov/meetings.

To request an auxiliary aid or service for accessible communication, please contact Ian Bingham, (602) 771- 4322, idb@azdeq.gov



State of Arizona Oil and Gas Conservation Commission

1110 W. Washington Street, Phoenix AZ 85007 602-771-4501 www.azogcc.az.gov

Dennis L. Turner, Oil and Gas Administrator

Commissioners: Frank Thorwald, Chair Vice Chair, vacant Stephen R. Cooper William C. Feyerabend J. Dale Nations, Ph.D.

Public Meeting of the Arizona Oil & Gas Conservation Commission 11:00 a.m., July 13, 2018, Room 145

Name / Organization – please print	email	phone
FRANK THORWALD		
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James H. Ballard	jballadxrde smil.com	
Bill Feyerabend	0	2
Stephen R. Wepen	Srcp Contralaz law. Cum	520 836 8265
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Scott Boures	Seauces @ The constriblupe	com 435.660. 3273
Joses Clement	Indement Phromphenogy.	

Name / Organization – please print	email	phone
Joe Dixon. AZ State Land	idixon a azlandigo:	662-542-2685
Keenan Murray ASLD EVAN THOMPSON THOMPSON KRONEPIC PLACKSTONE	Lixan a az land.go.	/
EVAN THOMPSON THOMPSON KRONEPIC REJEKTIONE	Rich. Zeisi@gzag.go	520-884-9694
Rich Feise / AGO	Rich. Zeise@gzag.gov	(602) 542 - 8553
DR PALE NATIONS (via phone)	-00	
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From: Zeise, Rick

To: Frank Thorwald (frankthorwald@thorwaldgroup.com); Bill Feyerabend (billfeyerabend@yahoo.com); Dale Nations

(dalenations2@gmail.com); Stephen Cooper - Cooper & Rueter Law Office (src@centralazlaw.com)

Cc: AZ OGCC Administrator

Subject: *Confidential* *Attorney Work Product* Attorney Briefing for July 13th Board Meeting

Date: Monday, July 09, 2018 11:37:44 AM

Attachments: <u>image001.png</u>

To the AzOGCC Board Members.

This is a pre-meeting briefing on the issues that may be raised at the July 13, 2018 Board meeting. The information will become public record upon completion of the meeting.

RANGER MULTI-ZONE COMPLETION HEARING. See also Turner's email dated 6/29/2018. Navajo County special interest group, NoFrackingAZ, protested the issuance of a permit for the Ranger 33-1 NS (15 day notice ended 6/25). There were no protests for the Ranger 27-1 NS multi-zone completion (15 day notice ended 6/9).

- 27 hardcopies addressed to me at ADEQ;
- 5 emails addressed to <u>ogcc@azdeq.gov</u> (3 of these also sent hardcopies of their protest);
- 5 addressed to me at State Land Dept.

Turner only responded to the 5 emails, thanking them for their interest in the AOGCC permitting process. Upon advice of counsel, Turner did not respond to the 32 hardcopy letters as the time necessary to draft a letter would prevent Turner from continued work upon the current request for permits. Their overriding concern is that hydraulic fracturing will endanger their water supply. Ranger has clearly stated in their OGCC applications and in ADEQ's Aquifer Protection Permit that they will artificially stimulate, as needed, many of the wells producing from the Shinarump Conglomerate (not an aquifer), but not from the Coconino Sandstone. Many respondents cited their concern with hydro-fracking in the Coconino.

The group's boilerplate citation, ARS § 27-557(C), deals with unitization of pools on Arizona State Trust Land., ARS § 27-557(C) has different public noticing timeframes, and technical requirements and procedures that differ from the AOGCC multi-zone completion approval process. A.A.C. R12-7-116 requires a 15 day hold on any operator's request for a multiple zone completion. A.A.C. R12-7-116(C)(3) requires that a Public Hearing be held, if a protest is received. Hence, there will be a Public Hearing on this matter at 10:00 a.m., Friday, July 13, 2018.

In short, the respondents appeared to **not** have raised concerns that the Commission can rule on; and their concerns are outside the jurisdiction of the AOGCC.

I suggest the Board take no action.

ARIZONA ENERGY PARTNERS 2-1 NA WELL SPACING EXCEPTION

HEARING. Please review only the latest submittal which Turner emailed to you on June 19. Consultant Jamie Hogue will make a presentation at the hearing. The

application lacks specificity in a few areas; the use of topography as part of the spacing justification is irrelevant, but it appears the demonstration is adequate for Commission approval. LeBlanc seeks approval for shut-in status for the AEP 16-1 and has not submitted a complete application for a spacing exception. Turner recommends approval of shut-in status for his requested duration (1 year).

REGULAR AGENDA COMMENTS/ RECOMMENDATIONS.

Discussion, consideration, possible decision and vote by the AOGCC on the Minutes.

Turner will try to present at least some of the backlog of minutes for approval.

Report by the Oil and Gas Administrator.

- o AOGCC sample repository at 416 W. Congress, Tucson letters mailed to all operators to submit their samples by Aug. 31, 2018. Will the Commission consider imposing penalties on any operator that fails to meet the deadline? Nyal and Turner developed a simple tracking system to log in and store new samples. Mark Pilgrim, ADEQ employee facilitates this process in Tucson.
- Web improvements security upgrades, upgrade to Drupal v.7, checklists put online
- o Sunbelt Holdings plugging of the SunCor 1-19 and 1-24 wells -- SunBelt's consultant is agreeable to recording the location of both wells, when plugged, with the Maricopa County Recorder. Turner recommends the AOGCC vote to approve this.
- o Permit activity:
 - Ranger Development 7 permits applications: 3 issued on State or fee land; 3 issued on the 40acre spacing; 2 have multi-zone completions. One of these permits is stalled because of the protest. Half of permits issued are on OHNIR land, so they await Tribal approval.
 - Rare Earth Exploration permitted and drilled 28-1; requesting shut-in status (see below)(they hope they have something; v. low pressure)
 - Evolution Exploration (formerly Vision Energy 32-1) Permit pending acceptance of cash bond by State Treasurer. Mr. Butler is the driller and has interests in both operators.
- o Turner requested a change for all remaining meeting dates for 2018:
 - Skip Aug. 10 meeting (results in a 9 week gap until Sept. 14)
 - Reschedule Sept. 21 to Sept 14
 - Reschedule Nov. 2 to Oct. 26
 - Reschedule Dec. 14 to Dec. 7
- Navajo County special interest group, NoFrackingAZ
 (http://www.nofrackingaz.org/) is concerned about hydraulic fracturing because

of the USBLM's proposal to lease of 4,200 acres in Apache and Navajo counties for oil and gas exploration. If anyone from this group attends the Public Hearing for Ranger, the Commission may wish to hear/ discuss their concerns. The issues raised within this topic are somewhat also covered RANGER MULTI-ZONE COMPLETION HEARING topic above.

Triomphe Energy – Triomphe has formally requested another one-year extension of shut-in status for the Triomphe #1. They have met the requirements to receive approval, but Turner recommends granting 5 years shut-in, rather than one.

Blackstone Exploration Company, LLC #4 State well – Blackstone, or its consultant, has been invited to appear and explain why the current condition of the State #4 well is acceptable for temporary abandonment (*not* shut in) status. The well has 2000 feet of free pipe from 732 feet (base of the surface casing) to 2740 feet (somewhere below the inferred base of the Supai).

<u>SUMMARY</u>: Mr. Shobe states that cementing of the 2000 ft gap is not justified based in part on the Commission's lack of regulatory or statutory authority (the same argument that Bonanno has used), which is incorrect; the AOGCC has broad authority to enforce its rules, including A.A.C. R12-7-110 to 112 and R12-7-125. Another part of his argument relies on the fact that numerous other wells in Navajo County are highly variable in their cement jobs and therefore this well is justified on that basis.

However, based on Turner's independent review of the logs and research of the technical issues, he agrees (on only some technical grounds) with Shobe's conclusion that the well does not need additional cement behind the free pipe. The un-cemented 2000 feet is mostly in the Supai and has no water or gas zones that could potentially be cross contaminated. Potable water sources occur in the Coconino, above the cement casing point of 732 feet. There are no producible gas zones in the un-cemented zone. It would be costly and impractical to fill 2000 feet of annulus with cement. Turner does not agree that his analysis demonstrates mechanical integrity.

<u>DISCUSSION</u>: The well has problems. It has 2000 feet of un-cemented annulus and was drilled with a water base mud, instead of foam, oil base or salt water mud. The water base mud dissolved water-soluble salt units and anhydrite beds in many intervals, causing washouts in these zones to exceed hole diameters beyond what the caliper can measure (16 inches). Owing to these washouts, the onsite mud logger told Turner that the formation tops are pure guess work. The mud logger also said that Mr. Bonanno was onsite and many times challenged the driller's approach to drilling the hole.

Furthermore, Turner contends that casing integrity to satisfy A.A.C. R12-7-111(C) is not demonstrated by Shobe's analysis of the cement bond, because mechanical integrity is demonstrated by a pressure test. The Commission has already ruled that mechanical integrity tests (MIT) on any of the Rocking Chair Ranch wells will not be required until they emerge from shut in status in 2023. Likewise, the State #4 should not need an MIT at this time.

Turner's research also reveals that, owing to the well's many problems, it is highly unlikely that Blackstone would receive approval from the USEPA (UIC permit) or ADEQ (aquifer protection permit) to convert the State #4 well for brine disposal. The well would be classified as a UIC Type 1, because it is not associated with hydrocarbon production, and thus has higher design standards to meet. Also, the State Land Department's email to Blackstone on May 30, 2018 denies any possibility that the State #4 well would be approved as a salt water disposal well, if it will be receiving wastes from other operators in the region. Copy of email attached.

<u>RECOMMENDATIONS</u>: In summary, Turner suggests the Commission chose one of the following three options: 1) approve temporary abandonment status of the well in its present condition; 2) approve temporary abandonment status after plugging back to total depth of approximately 732 feet, with the expectation that Blackstone may either choose to test shallow (unspecified) helium zones identified by their geologist or choose to convert to a water well for the local rancher; or 3) plug and abandon the well.

Turner emailed Bonanno's entire technical (geological) analyses of the State #4 well to Dale and Bill on June 29. Attached to this memo is the summary 3 page memo from Mr. Shobe.

Rare Earth 28-1 well – the operator successfully completed drilling of this well on May 14, 2018 and has met the requirements for shut in status (A.A.C. R12-7-101 and 125). Turner recommends approval for their requested duration of 1 year.

Arizona Energy Partners (AEP) –AEP has tabled any further effort to complete a spacing exception application for the 16-1 well, which ceased drilling March 12, 2018 mid-way to a total depth of 4000 ft. AEP is again is out of compliance with the 60 day requirement to get approval to temporarily abandon or plug and abandon a well that has suspended activities for 60 days (A.A.C. R12-7-125). Turner recommends approval for temporary abandonment status not to exceed 1 year. The consultant, Jamie Hogue, may have more to discuss about this well's status.

Interstate Oil and Gas Compact Commission dues – Dr. Nations and Turner have spoken independently to Gerry Baker, Associate Executive Director of IOGCC, about payment of Associate Member dues. The AOGCC no longer actively participates at semi-annual business meetings and changing from Active Member to Associate Member status would only affect the AOGCC's ability to vote on issues. It would not affect any other aspects of membership, including our ongoing collaboration in their peer review of our rules. Dr. Nations will discuss this topic during the meeting.

Rick Zeise
Assistant Attorney General
Arizona State Attorney General
2005 N. Central Ave.
Phoenix, AZ 85004



Environmental Enforcement Section Office of the Attorney General 1275 W. Washington Phoenix, AZ 85007

Phone: (602) 542- 8553 Rick.Zeise@azag.gov

CONFIDENTIALITY NOTICE

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From: Carmon Bonanno

To: <u>AZ OGCC Administrator</u>; <u>AZ Senator Gail Griffin Personal</u>; <u>sbrophy@pagelandco.com</u>; <u>Steve Johnson</u>;

ajones@geo-logic.com; Christi Worsley NZ; ccatalano@geologllc.com; dickster@bearpetroleum.com; gresselgb@yahoo.com; Mike McNaul; tjtux53@yahoo.com; Blake Nelson; karlwschwab@sbcglobal.net; Luke

Peterson; flyers@rogers.com; elidud@yahoo.com

Subject: Fwd: ASLD leases and salt water disposals Date: Wednesday, May 30, 2018 6:44:53 PM

Sent from my iPhone

Begin forwarded message:

From: Carmon Bonanno < carmonbonanno@hotmail.com>

Date: May 30, 2018 at 8:42:41 PM CDT

To: Joe Dixon < <u>idixon@azland.gov</u>>, Evan Thompson

<evan@thompsonkrone.com>, Frank Thorwald

<frankthorwald@thorwaldgroup.com>

Cc: Gordon Leblanc Jr < gordon.leblanc.jr@gmail.com >, AZ Senator Gail Griffin

Personal < griff4333@gmail.com >, Bill Pearson/Ph.D Geo-Gravity Mag

<pearsontech@comcast.net>, "bb.elkins@hotmail.com"

<bb.elkins@hotmail.com>, "cobar@babbittranches.com"

<cobar@babbittranches.com>, "coranch@babbittranches.com"

<coranch@babbittranches.com>, "knuter@me.com" <knuter@me.com>,

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<fcmccauley@cableone.net>, "Peterson.Luke@azdeq.gov"

< Peterson.Luke@azdeq.gov>, "flyers@rogers.com" < flyers@rogers.com>

Subject: Fwd: ASLD leases and salt water disposals

1. Salt water disposal wells thousands of feet below aquifer zones do not damage aquifers. Denying a potential SWD for offset operators limits the ability for commercialization of product on State Leases that may share a common hydrocarbon pool, because in essence, hostile ASLD actions like this push aside and damage the value and effort of the operator created, derail the fledgling efforts of a fledgling industry, and promote an environment where the industry would deem it counterproductive to spend resources to ignite the industry in the state, when those efforts and resources are arbitrarily stripped from them.

2. It is also amazing to me that the Arizona State Land Department believes it has proof that a saltwater disposal would cause earthquakes. They are the only group on earth who has this proof. I wonder how a 4.7 magnitude earthquake hit seven miles north of Sedona on November 30, 2014 with no saltwater disposal well to blame it on?

From: Carmon Bonanno < carmonbonanno@hotmail.com > **To:** Frank Thorwald <<u>frankthorwald@thorwaldgroup.com</u>>; "fcmccauley@cableone.net" <fcmccauley@cableone.net>; Bill Pearson/Ph.D Geo-Gravity Mag comcast.net; "bb.elkins@hotmail.com"

bb.elkins@hotmail.com>; "cobar@babbittranches.com" <cobar@babbittranches.com>; "coranch@babbittranches.com" <coranch@babbittranches.com>; Christopher Allen Slocum <crownintegrity@yahoo.com>; "Peterson.Luke@azdeq.gov" < Peterson.Luke@azdeq.gov>; "Rick.Zeise@azag.gov" < <u>Rick.Zeise@azag.gov</u>>; Gordon Leblanc Jr < <u>gordon.leblanc.ir@gmail.com</u>>; Christi Worsley NZ <christi@nzlegacy.com>; "ccatalano@geologllc.com" <ccatalano@geologllc.com>; "sbrophy@pagelandco.com" <sbrophy@pagelandco.com>; "sms@mantford.com" <sms@mantford.com>; Steve Johnson < < wj@cornerstonelaw.com >; Evan Thompson <evan@thompsonkrone.com>; AZ Senator Gail Griffin Personal <griff4333@gmail.com>; "knuter@me.com" <knuter@me.com>; Bill Jones Tucson < bareland properties@msn.com >; Mike McNaul <mmcnaul53@yahoo.com>; T Buck <trent.r.buckley@gmail.com>; "<u>ajones@geo-logic.com</u>" <<u>ajones@geo-logic.com</u>>; "<u>AZOGCC@azdeq.gov</u>" <a href="mailto:AZOGCC@azdeg.gov; Blake Nelson blakenelson01@gmail.com; "dickster@bearpetroleum.com" < dickster@bearpetroleum.com >; "gresselgb@yahoo.com" <gresselgb@yahoo.com>; "flyers@rogers.com" <<u>flyers@rogers.com</u>>; John Sommers <<u>hpboulder@yahoo.com</u>>; "karlwschwab@sbcglobal.net" < karlwschwab@sbcglobal.net >; Nyal Niemuth <nyal.niemuth@azgs.az.gov>; "ovidiu.marin@quantum-technology.com"

<ovidiu.marin@quantum-technology.com>; "tjtux53@yahoo.com"
<titux53@yahoo.com>

Sent: Wednesday, May 30, 2018 5:39 PM

Subject: Fwd: ASLD leases and salt water disposals

Sent from my iPhone

Begin forwarded message:

From: Joe Dixon < jdixon@azland.gov>
Date: May 30, 2018 at 5:23:18 PM CDT

To: Carmon Bonanno

<carmonbonanno@hotmail.com>

Cc: Aaron Magezi < AMagezi@azland.gov > Subject: RE: ASLD leases and salt water

disposals

Carmon:

IF you were actually producing something from your Arizona State Land Department (ASLD) Oil and Gas Lease 13-116629, then YES we could make some accommodation for disposal of waste or salt water. But we are under no obligation to take such waste or salt water from anyone or anywhere else. Over the last few years, the ASLD has received approximately \$125K in oil and gas royalty payments from the renewed helium production in the Pinta Dome Field area. That is the first oil and gas royalty the ASLD has received since the early 1970's during the previous helium "boom" up there. If we were making tens or hundreds of millions of dollars in oil and gas royalty like Oklahoma, Texas and New Mexico, we might look at things a little differently. Till then, we will do what we are supposed to do and that is to look after the best interest of the Trust and our beneficiaries, which does not include taking on any liabilities associated with waste or salt water injection, such as aquifer contamination and/or earthquakes, for little or no monetary gain for us. If you were not aware, to use any well in the State for such purposes, you would also need to obtain an Aquifer Protection Permit from the Arizona Department of Environmental Quality and an Underground Injection Control

Permit from the US Environmental Protection Agency.

We continue to sincerely appreciate and wish you luck in your efforts to find some conventional oil and gas resources in the State of Arizona!

Joe Dixon
Minerals Section Manager
Arizona State Land Department
1616 West Adams Street
Phoenix, AZ 85007
602-542-2685
idixon@azland.gov

----Original Message----From: Carmon Bonanno [mailto:carmonbonanno@hotmail.com] Sent: Wednesday, May 30, 2018 5:35 AM To: Joe Dixon < idixon@azland.gov >; sbrophy@pagelandco.com; Steve Johnson <swi@cornerstonelaw.com>; Evan Thompson <evan@thompsonkrone.com>; AZ Senator Gail Griffin Personal < griff4333@gmail.com>; ccatalano@geologllc.com; Christi Worsley NZ <christi@nzlegacv.com> Cc: Joe Dixon < idixon@azland.gov >; Frank Thorwald < frankthorwald@thorwaldgroup.com >; fcmccauley@cableone.net; bb.elkins@hotmail.com; Bill Pearson/Ph.D Geo-Gravity Mag <pearsontech@comcast.net>; knuter@me.com; T Buck <trent.r.buckley@gmail.com>; cobar@babbittranches.com; coranch@babbittranches.com; Bill Jones Tucson <bareland properties@msn.com>; Rick.Zeise@azag.gov; Peterson.Luke@azdeq.gov; flvers@rogers.com; dickster@bearpetroleum.com; Christopher Allen Slocum <crownintegrity@yahoo.com>; ccatalano@geologllc.com; Christi Worsley NZ <christi@nzlegacy.com>; AZ Senator Gail Griffin Personal griff4333@gmail.com; karlwschwab@sbcglobal.net; Jennifer Gerwitz <igerwitz@azland.gov>; Amber Troidl <atroidl@azland.gov>

We drilled a well and a salt water disposal on

Subject: Re: ASLD leases and salt water disposals

Oklahoma state school land that made \$14,000,000.00 in three years with the royalty going to fund Oklahoma schools. The Arizona lease says there is a right to produce oil and gas. Nearly all oil wells produce salt water. With no right to dispose of salt water there is no right to produce oil and gas.

Sent from my iPhone

On May 30, 2018, at 7:23 AM, Carmon Bonanno

<carmonbonanno@hotmail.com> wrote:

Mr Dixon

Are you saying that the ASLD does not allow any type of salt water disposal on State owned land or that it is a different type of ASLD agreement such as a commercial lease? Please kindly explain as if you don't allow any type of salt water disposals we and all other parties will need to litigate with the ASLD for being misled to believe we could actually develop oil and gas fields on ASLD lands. That is unless the good citizens of Arizona plan on lining up and drinking the salt water from produced AZ oil wells.

This is insanity at the highest levels in AZ.

Obviously we have been misled by the ASLD as have many others spending millions of dollars where there is not a symbiotic possibility of profiting together. Wow Texas has a \$13 Billion dollar school rainy day fund while numerous AZ schools are condemned and you have over a \$580 million dollar instant need to educate your children. Oklahoma has 2 sections in every township dedicated to education. Texas and Oklahoma have plenty of money

from their oil and gas revenues with very friendly pro energy land departments and very pro energy oil and gas commissions not anti energy like AZ.

Carmon Bonanno

ECF Consulting

Office (620) 504-9220 Cell (620) 755-6955

June 25, 2018

Mr. Carmon Bonanno President Blackstone Exploration Company, LLC 11 North St. James Place Eastborough, KS 67206

RE: Cement Bond and Casing Integrity Determinations

State Well #4 (a.k.a. ASLD #4)

Dear Mr. Bonanno;

ECF is in receipt of correspondence dated May 24, 2018 from the State of Arizona, Oil and Gas Conservation Commission, detailing in part the interim decision of the Commission regarding the cement bond in State well #4. In this correspondence, the Commission stated that the casing in State well #4 had inadequate cement bond between approximately 2740' and 732' below ground surface (BGS). The interim decision of the Commission was that Blackstone shall perforate and squeeze enough cement in State well #4 to prevent any cross contamination between formations and potential aquifers. This work was to be completed by June 30, 2018. The correspondence from the Commission notes that the interim decision is appealable, by completing a written request for hearing, specifying which portions of the interim decision are being disputed and the nature of the dispute.

Based on our conversations it is the understanding of ECF that Blackstone wishes to appeal the determination regarding the cement bond and remedial action noted above for State Well #4. This correspondence is intended to provide information on the nature of the dispute which can be utilized in a written request for hearing.

Nature of the Dispute

As noted above, the Commission has determined that the casing in State well #4 had inadequate cement bond between approximately 2740' and 732' below ground surface (bgs). The interim decision of the Commission was that Blackstone shall perforate and squeeze enough cement in State well #4 to prevent any cross contamination between formations and potential aquifers.

Review of the Arizona Administrative Code, Title 12, Chapter 7, does not provide a reference which would require completion of the remedial action noted above. In addition, review of the May 24, 2018 correspondence from the Commission does not provide a reference to a statute which would require the remedial action.

Supporting Documentation and Information

ECF has reviewed the Permit Application (#1209) which was submitted to and approved by the Commission in March 2016. With regard to cementing the casing strings, the approved Permit Application indicates that the 8 5/8" casing will be cemented from approximately 650 feet to surface, and the 5 ½" casing will be cemented from total depth to cover all productive zones. This stipulation, contained in the approved Permit Application, meets the requirements of A.A.C. R12-7-111(A.), which states that all producing wells shall be completed with production casing set directly above or through the producing interval and cemented...to protect the zones to be produced. This regulation further states that the Commission *may* require casing strings to be cemented from the maximum depth of the casing to at least 50 feet inside the previously run string of casing. However, the Permit Application for State well #4 was approved without invoking this language.

ECF has reviewed information regarding the hydrogeology in Navajo County, along with the mud log for the Sate Well #4 (attached) with respect to determining if any fresh or useable aquifers might be contained within the area between 2740' and 732' bgs. This review included telephone conversation with staff at the Arizona Department of Water Resources, Hydrology Division.

The Arizona Department of Water Quality report "Maps Showing Groundwater Conditions in the Southern Navajo County, Arizona: April – August 2001", Hydrologic Map Series Report #37, Overby, A.E, July 2007 was used a reference for groundwater in the area (see attached). This report indicates that the Coconino aquifer is the principle source of groundwater in Navajo County. Review of groundwater wells in the area indicate a static water level of between 369 and 555 feet bgs.

Review of the mud log for State well #4 indicates that the base of the Coconino was encountered at approximately 710 feet (KB elevation), approximately 695 feet bgs, which is well above the base of the cement at 732'. Review of the log indicates that gypsum was encountered below the Coconino, with anhydrite, salty formations, occasional phosphate nodules, thin sandstones, some dolomitic limestone and shales below that. The log makes reference to a thin zone at approximately 1060 feet that "appears to be Coconino SS", however this does not agree with the geologic report referenced above, and is approximately 365 feet below the previous reported instance of Coconino sandstone at 695 feet bgs. This is also within an area of anhydrite and salt molds, which indicates that any water in this sandstone at 1060 feet is not fresh or useable. The log does not provide any indication that there is fresh water below the Coconino at approximately 695 feet.

With regard to producing zones, the mud log does not indicate any areas with "shows" that might indicate the presence of production potential. This well will not be a producing well.

In addition to a hydrogeologic review, other wells in Navajo County were reviewed to determine how much cement was added to the casing. The review (see Permits attached) indicates that the amount of cement varies. In older wells, none of the wells have cement to surface. However, the review was focused on wells that have been completed in the same general timeframe as State well #4.

Review of the well data indicates that some wells are cemented from total depth to surface, while others are completed with 50 feet of cement spotted between the fresh and salty zones. Some wells are open hole below the intermediate casing. In general, where the information is provided and for those wells not cemented from total depth to surface, the cemented casing is spotted to approximately the same depth as that noted in State well #4. Examples of these Permits are attached. Review of the Arizona Oil and Gas Conservation Commission web page, Arizona Oil and Gas, and Arizona Potash Well Viewers, indicate that these wells have not been plugged. While these wells were drilled for varying purposes, the records demonstrate that not all wells are cemented from total depth to top of casing.

ECF has reviewed the Sundry Notices and Reports on Wells provided to the Commission by Blackstone dated May 26, 2018, and concurs that the probability of successfully completing a squeeze job is low. Without the ability to circulate the cement, it is likely that the cement will simply move into formation due to pressure buildup as the cement is pumped.

Summary

In conclusion, review of available information indicates that although Arizona Administrative Code, Title 12, Chapter 7 does not provide a requirement for cementing all strings of casing to surface, and requires only that the production zones be protected, some operators have chosen to cement the wells to surface. However, other operators have spotted 50 feet of cement to separate the fresh and useable water zone from salt zones, and some have added no cement at all below the intermediate string as the well is open hole below that depth.

Based on review of all available information, the cement at 732 feet bgs in State Well #4 is sufficient to protect fresh and useable aquifers in the area. As noted above, Hydrologic Map Series Report #37 indicates that the Coconino is the primary aquifer in Navajo County.

Finally, the Permit Application approved by the Commission provided for the 5 ½" casing to be cemented from total depth to cover all productive zones. As shown on the mud log, this well effectively had no productive zones and will not be a producing well, however cement was added from total depth to 2740 feet bgl, which covers the bottom 1150 feet of the well.

ECF appreciates the opportunity to provide our technical services to you on this project. Please call me at (620) 755-6955, if you have any questions regarding this information.

Sincerely,

ECF Consulting

Kurt Shobe, MS, PG, CHMM

Project Manager

THOMPSON•KRONE, P.L.C.

ATTORNEYS AT LAW

Evan L. Thompson[†] Russell E. Krone Robert M. Way[‡] Maxwell T. Riddiough[¥] (Please respond to Tucson Address)

July 9, 2018

Via: Email and U.S. Mail

Rick Zeise Office of the Attorney General Civil Litigation Division 2005 North Central Avenue Phoenix, AZ 85004-2926

Re: Blackstone Exploration Company, LLC ASLD #4

Dear Mr. Zeise,

This letter is in response to your letter of June 29, 2018 wherein you have stated that Blackstone needs to request the AzOGCC administrator place the request of TA status on the agenda for the July 13, 2018 meeting. This letter shall act as a formal request that this particular issue be placed on that agenda. Please let me know as soon as possible whether or not that can be accomplished.

As far as the appearance of our client at the July 13th meeting, if the well number 4 issue is placed on the agenda I will be appearing on behalf of Blackstone Exploration Company, LLC.

I appreciate your communication in this matter. If you need anything further please feel free to contact me directly.

Sincerely,

THOMPSON•KRONE, P.L.C.

Evan L. Thompson

ET/dh cc: client

RANGER 33-1NS

MULTI-ZONE

COMPLETION

PUBLIC HEARING

JULY 13, 2018

Board of Arizona Oil and Gas Conservation Commission,

IN THE MATTER OF APPLICATION TO: MULTIPLE ZONE COMPLETION, FILED BY: PUBLIC NOTICE OF A 15 DAY HOLDING PERIOD RANGER DEVELOPMENT LLC. ON SECTION 33, TOWNSHIP 20 NORTH RANGE 27 EAST, G&SRM FOR THE PROPOSED WELL RANGER 33-1 NS

According to the Arizona State Land Department Documentation Guidelines and Requirements Mineral operations on State Trust Lands, Section 1, under Report Structure it says, "The (mandatory) Mineral Development Report (MDR) consists of five major sections: 1) Geologic Assessment, 2) Economic Viability, 3) Environmental Assessment, 4) Mine Operating Plan, and 5) Reclamation Plan."

We understand that all of our questions cannot be answered today, but we expect to be informed about their answers before moving forward with production plans, and we anticipate further discussions about our concerns. Fracking will be the term used throughout this speech to refer to artificial stimulation, injection methods, and hydraulic fracturing.

1) Geologic Assessment

Are you planning on drilling through the Coconino aquifer?

What are the seismic risks in this proposed area?

Are there fault lines in this area, what is their location and how will they be affected by fracking fluids? How will the pressure caused by pumping fracking fluids affect these fault lines?

What do the studies show about fracking in this proximity to dormant volcanoes and what are all of the risks involved?

2) Economic Viability

Do the oil companies plan on maintaining the roads they use or are they leaving that up to the counties and cities they transport through?

How many jobs have you hired out to people from Arizona?

How many people have you hired from places other than Arizona to run your business locally?

How much have you spent in damages caused by wells that have become compromised or accidents that have happened because of drilling, fracking, artificial stimulation or injection methods in the past?

What has happened to property values in the areas you were fracking before, during and after the fact?

3) Environmental Assessment

Would a cracked casing leak contaminants into the aquifer?

What is the potential for contamination of fracking fluids getting into our drinking water and private wells? How do you justify using this water during a drought?

Can we afford to remove millions of gallons of water from our natural water cycle, permanently? Who and what could be negatively affected by this?

What impact will the drilling have on migration patterns of wildlife?

The Navajo Nation is already struggling to get sufficient water supplies to the people. How do you justify taking water on this scale when sources are limited for native communities?

What is a proven safe distance for a helium well from a home?

Have helium wells ever caught fire or exploded?

What chemicals are off gassed into the environment?

Can any of these chemicals that are off gassed harm humans, animals, plants, the soil or cause greenhouse gasses to warm up our region?

Will the wells be allowed to vent carcinogenic gasses into the air? What are the limits on this, if any?

Will these chemicals build up over time and how long do these chemicals take to become inert once they have been evacuated into the air?

How are we going to address the climate issue if we keep taking fossil fuels out of the ground and combusting them into the atmosphere?

What are the risks of escaping gasses from closed wells and what does that do to global climate change? What ingredients are in your fracking fluids?

Assessing Effects at Different Scales

We want to point out that we want research done on many levels. We are concerned about effects on the soil/microbial mat, the water for contamination, the air for particulate matter. We want those levels kept below the line of what is considered unsafe. We want to know how the amphibians, fish, mammals, insects, birds and all migrating creatures that travel through this land are affected by contamination from fracking and we want to make sure that none of these populations will be affected in any way by the process. We want all endangered species to be protected as well. What are the risks to the basic survival of the food chain and endangered plants and animals?

On the next level, we want to make sure that you are studying the effects of bioaccumulation due to contaminants released from fracking. We want to know what species are hit the hardest, because we have birds of prey that travel through our region and they have been know to be negatively affected by eating contaminated food sources. What are the risks to the native animals in our region and the migrating animals?

We want to know how local communities will be affected. For instance, the road traffic and cost to the taxpayers for road repairs. We want to study how the local communities can be affected by this. We want to know if your workers have background checks. What are the risks to our local communities?

Next, we want to know how this can affect us on a state level. We need to look at the drought, fire risk, as well as financial responsibility. What are the risks to our state?

After that, we want to look at the effects on the southwestern states that are near us. Will roads into New Mexico or Utah be overburdened with damage from increased industrial traffic? What are the risks on a regional level?

Are there any risks on a national level? If we focus on helium or natural gas will this affect our ability/desire to begin using more sustainable methods of procuring energy, and more?

What are the risks on a global level? We need to be responsible citizens on this planet with limited resources and we need to treat our planet with care. If we don't we are borrowing from the future of our children and dooming them to a life of survival instead of thriving. How are we affecting the global climate?

Other Concerns and Requests

The Phoenix Resource Management plan, which is the RMP for the region, is from 1989 and we believe this is outdated. There are new endangered species, newer technologies for artificial stimulation, and newer/different chemicals being used for fracking. We want Environmental Impact Studies done on climate, drought, water availability and how this could effect the future viability of our great state. We want an Environmental Impact Study done on all of the chemicals used throughout the entire artificial stimulation process and how it is going to affect the air, water, soil and animals.

We need comprehensive panel of water tests before any type of artificial stimulation occurs. We want to know the levels of each of these chemicals in the water within a mile radius to get a baseline of the condition of the local water supplies. We would want these tests done quarterly so that we can get a proper reading of contaminants, if any.

- 1. Ethylene Glycol
- 2. Formaldehyde
- 3. Arsenic
- 4. Strontium
- 5. Iron

- 6. Magnesium
- 7. Radionuclides
- 8. Radon
- 9. Radium 226
- 10. Radium 228
- 11. Methanol
- 12. Acrylamide
- 13. Methane
- 14. Propane
- 15.Ethane

There is so much that is unknown that we feel it is the duty of the Oil and Gas Commission to require an extensive environmental analysis before allowing multi-zone drilling of any sort to commence. The risks need to be assessed with all available technologies so that we are not allowing the future viability of the region to be compromised for generations to come.

Other items of concern are:

- -All local tribes were not consulted.
- -Existing laws and policies were not followed.
- -There is not enough research done nor has that information been presented to the public about places that deserve historic preservation.
- -We are requesting comprehensive baseline air, land and water quality tests.

Under the Geologic Assessment, the Economic Viability Assessment, the Environmental Assessment, Mine Operating Plan and the Reclamation Plan we need more research done in order to move forward with this permit. Relevant and recent studies and assessments need to be done.

Considering that the drought of NM was enough to increase the risks of this type of operation to a point that the leases were turned down, I think we should consider our drought as a major factor in making a decision as to whether or not acid fracking will be a safe practice in our region.

Corporations have already taken a lot of water, and we don't feel like it is a good idea to take any more. We are also sucking down the aquifer and pumping water from Coconino to Flagstaff. We can not afford to take more water from our aquifer for this. In fact, the water table in the Navajo Nation is being sucked down and this is removing their surface water. It is impacting all the wildlife including endangered species. This is an obvious case of "social injustice" and should not be allowed on any level. We need to stop sacrificing the limited and scarce resources the Navajo have for everyone else. And, we feel that to utilize the water of the Navajo further in this manner, even if they consent, and to rape their water supply further is an abuse of power under color of law.

According to a geologist we spoke to, he said, "plainly and simply fracking is dangerous environmentally and assaults the crust of the earth in a way that can't be reversed and it is also economically one sided. Although there are natural occurrences that affect the earth's crust negatively, we shouldn't be heaping more damage onto the natural earth crusts in a shotgun method. What they do now could have an effect on the planet for the next million years or more."

We owe it to our children, to their children, to all future generations to leave this place better than we found it. We have to stop taking everything we can at unsustainable rates. We are risking the our own lives and lives of those who will follow us. We are doing irreparable damage to the entire biosphere and in some ways it will never be able to recover. Fracking is spreading like a cancer and leaves in its wake the same kind of effects that would be caused by weapons of mass destruction. We can do better than this. We must do better than this. There is a better way.

Thank you.

Cartlin Caldwell