PROPERTY OWNER DISPUTE

PROTEST AGAINST NOTICE OF INTENT

11/23/2015

Land Owner: Reuben Carr Gathright

Reuben Carr Gathright, owner of property above the Vinton Salt Dome, hereby formally protests the following Public Notice:

PUBLIC NOTICE - - - NOTICE OF INTENT OFFICE OF CONSERVATION INJECTION AND MINING DIVISION In accordance with the laws of the State of Louisiana and the particular reference to the provisions of La R.S. 30:4, and the provisions of Statewide Order No. 29-M-3 (LAC 43:XVII, Subpart 5) as amended and adopted by the Office of Conservation of the State of Louisiana, Hominy Hill, LLC 2417 Shell Beach Drive Lake Charles, LA 70601 will be applying to the Office of Conservation, Injection and Mining Division for an area permit to drill Class III solution-mining wells in the Vinton Salt Dome. This permit application will include two cavern wells. These salt caverns will be created for later conversion to Class II hydrocarbon storage wells. The proposed wells and salt caverns will be in Section 033, Township 10S, Range 12W, Vinton Field, Calcasieu Parish, Louisiana and will be identified as Ged Storage No. 001 and Ged Storage No. 002. The wells will both be drilled to a depth of 7,000 feet. The top of the solution-mined caverns are proposed to be at 3,500 feet with their bases at 7,000 feet within the salt. Once submitted, the application will be available for inspection from 8:00 AM to 4:15 PM, Monday through Friday in the Injection and Mining Division Office, Rm. 817, LaSalle Building, 617 North Third Street, Baton Rouge, LA. Interested parties may request to receive notice when the application is submitted, be included on the public notice or public hearing mailing list, or submit other public participation related questions by contacting the Injection and Mining Division by calling (225) 342-5515, by fax to (225) 242-3441, by email to injection-mining@la.gov or by mail to: Office of Conservation Injection & Mining Division P.O. Box 94275 Baton Rouge, LA 70804-9275 When corresponding, please reference the name of the applicant, the well name and number, the well serial number if available, and the salt dome name.

The Vinton Salt Dome dimensions

Thompson and Eichelberger, 1928:
The salt core is approximately 4200 ft wide North-South and 5000 ft long from East to West (Figures 1.1.2 and 1.1.3). The highest elevation of the dome is 925 ft below sea level near the north end of Gray Lake.

3-D radial gravity gradient inversion, Vanderlei C. Oliveira Jr. and Val’eria C.F. Barbosa, 2013:
The highest elevation of the dome is 524 ft (.16 Km)

Well log picks and an interpretation of seismic reflection data were used to constrain the geometry and density of the salt model between 300 m and 2800 m depth. There are no wells that penetrate more deeply than 2800 m, and the seismic data are of very poor quality below this depth. The salt model used in this study ends at 2800 m depth.
Figure 1.1.2. North-South diagrammatic cross-section of the Vinton salt dome. Jurassic salt, deposited in rifts associated with the opening of the Gulf of Mexico, was deformed by Mesozoic and Cenozoic sediment loading and by largely syndepositional faulting (after Thompson and Eichelberger, 1928).

Figure 22. Interpretation of real data over the Vinton salt dome, USA. Perspective views of the (a) initial approximation, (b) and (c) estimated body. The estimated body in (b) and (c) is obtained by inverting the corrected real data (grey scale maps in Fig. 20) and assuming an interpretation model with depth to the bottom, $z_{\text{max}} \approx 460$ m. The estimated body has a predicted volume $V_p = 0.366 \text{ km}^3$ and produces the predicted gravity-gradient data shown in Fig. 20 (black contour maps).
6.2). The presence of an extensive negative residual anomaly indicates salt below 2800m or shallow salt not included in the model. The residual anomaly is consistent with a 3km upward continuation that shows an anomaly of similar dimension and magnitude. This indicates a good match between the calculated signal for the salt and the measured signal over the dome. The threshold of success for gravity modeling is around 5 Eötvös (Coburn, 2002). The residual anomaly is stronger on the north side than the south. When the top of salt contours from Eti (2004) are overlaid on the 2km upward continued surface and the residual surface, it can be seen that there is a higher residual anomaly on the north side of the dome than on the south side of the dome. Since the top of salt has the same depth on the north and south sides of the dome but different signal magnitudes, it indicates that the salt is thicker on the north side of the dome than the south side. One reason for this thickness may be a buildup of salt on the north side of the salt dome. The fault forms the only available accommodation space for salt migration.

Figure 6.3 Possible salt migration up counter-regional fault as region moves basinward.
SUMMARY OF CONSERVATION ACTIVITY IN VINTON:

Reuben Carr Gathright has been restoring the lands of South Vinton Louisiana ever since he claimed prescriptive acquisition and filed a Non-Warranty Deed of the property on January, 2015. Years of oil field damage to the lands were seen upon arrival to the property and have also been documented by state oilfield inspectors. The past & current owners and operators of these lands have demonstrated little regard for the environment by abandoning oil field waste.

To combat the lack of land management, Longleaf pine were planted in the area to foster wetlands and native habitat restoration.

Wildlife monitoring in the area has revealed the presence of many species of rare birds demonstrating nesting activity in the region. Four witnesses also reported a pair of Bald Eagles sighted in the oil field on May, 2015.

The collapse or the Vinton Salt Dome would disrupt this activity and cause the loss of a valuable natural resources to Calcasieu Parish.
The following charges outline the reason for protest.

**DISPUTE / FORMAL REBUTTAL TO NOTICE OF INTENT FOR CLASS III Solution-mining wells in the Vinton Salt Dome:**

1) **CLAIM OF CAVERN INSTABILITY ONCE CLASS III Solution-Mined:** Collapse of the Vinton Salt Dome cap in 1900’s during drilling operations created an artificial lake called Ged, which demonstrates the severe instability of the formation.

   Recent accounts from area residents indicate that a few years ago, a pipe in the middle of Ged Lake had to be repaired after it began drawing water into the salt dome below.
2) Poor road conditions and cattle open grazing across roadways pose an increased hazard to oil terminal fleet vehicles that would service the proposed hydrocarbon storage facility.

3) Frequent salt water surface flooding and proximity to Sabine National Wildlife Refuge pose a risk to standard metal oil valves. Revised site plan should include:
   A) higher grade valves to prevent inevitable increased corrosion
   B) All oil processing machinery should be elevated above the regional flood plain.
4) CLAIM OF CAVERN INSTABILITY ONCE CLASS III Solution-Mined: An active fault line in the Vinton Salt Dome was reported in the paper:

EVIDENCE OF NEOTECTONIC ACTIVITY IN SOUTHWEST LOUISIANA, A Thesis, Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Master of Science in Engineering Science in The Interdepartmental Program in Engineering Science by Jordan Oliver Heltz, Bachelor of Science in Geology, Louisiana State University, 2000 August 2005

Here are quotations:

4.1.4 Vinton Area

There are numerous faults that extend out radially from the Vinton salt dome and it appears a few of those faults reach the ground surface. LIDAR imagery clearly shows that at least three topographic steps traverse through the area near Vinton.

For the southern portion of this fault segment, benchmark BK1840 is located on the downthrown western block and BK1839 is on the eastern upthrown one. These benchmarks were leveled to in 1970 and at this time a height difference of 7.64434 m was measured. Subsequent leveling in 1982 determined a height difference of 7.59658 m, which amounts to a change of 0.04776 m, with BK1840 moving down relative to BK1839. This displacement equals a slip rate of 4.06 mm/yr for the period between the leveling runs in 1970 and 1982. In order to obtain a current rate of movement for this portion of fault, we leveled between these same benchmarks near the end of 2004. This fieldwork resulted in a height difference of 7.53295 m, a change of 0.06363 m since the previous leveling in 1982. This shows that from 1982 to 2005, these benchmarks continued their previous relative movement, but at a rate of 2.76 mm/yr.

![Figure 4.9](image-url) The Vinton fault-related steps and adjacent benchmarks.
5) CLAIM OF CAVERN INSTABILITY ONCE CLASS III Solution-Mined: Scientific report released in 2004 indicates that the Vinton Dome has multiple faults and further study of the dome should be conducted to determine effect of removing 3500 ft worth of salt from the structure. Additionally, oil well pumping activity during the scientific study prevented a more accurate measurement of the fault lines in the Vinton Dome.

Figure 2.8.12. Time slice through the coherence volume over Vinton Dome at t=1.0s. White arrows indicate faults, not all of which are clear on the coherence time slice. (After al-Dossary and Marfurt, 2005).
Figure 2.8.13. Time slice through the (a) Most negative curvature and (b) Most positive curvature volumes over Vinton Dome at t=1.0s. White arrows indicate faults, which are more clearly seen on the curvature time slices than on the coherence slice in Figure 2.8.12. (After al-Dossary and Marfurt, 2005).
Figure 2.8.5. Vertical slices through Vinton Dome attribute volumes: (a) Coherence, (b) Seismic amplitude, and (c) Composite coherence and seismic amplitude using the 2-D colobar bar to its right. (After Lin et al., 2003).
6) CLAIM OF CAVERN INSTABILITY ONCE CLASS III Solution-Mined: Scientific report released in 2014 further supports the evidence of seismic faults within the dome.

There is extensive faulting around the Vinton dome. Many faults were mapped and detected by Coker (2006) and Ennen (2012). The radial fault sets around the dome can be easily seen in the data processed using the Kalman filter (Figure 9-3).

![Figure 9-3: Color shaded leveled decorrugged Tzz compound.](image)

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Figure 9-4 shows Coker’s fault interpretation from seismic and Ennen’s from modelling.

![Figure 9-4: Color-shaded leveled decorrugged data with Ennen’s (2012) interpreted faults overlaid in black and Coker’s (2006) faults in white.](image)

Figure 9-4: Color-shaded leveled decorrugged data with Ennen’s (2012) interpreted faults overlaid in black and Coker’s (2006) faults in white.
Conclusion:
For these above referenced reasons, I of sound mind and body dispute and request a cease and desist order by the Louisiana Office Of Conservation And Mining Division.

Sincerely,
Reuben Carr Gathright,
Land Owner, GED, Louisiana

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Testimonial References:
Dan Gathright
- witness to cattle hinderances to oil servicing vehicles in Vinton Oilfield.
- Oil field chemist that claims irreparable damage to Vinton Saltdome can occur.