

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISRICT OF OKLAHOMA

F	I	L	E	D
	JAN	V 19	2018	-Barrell

(1)	JIREH RESOURCES, L.L.C., an Oklahoma Limited Liability Company,	Mark C. McCartt, Clerk U.S. DISTRICT COURT	
	Plaintiff,	3 18 CV - 49 CVE - JEI	
v.		No. Oct 45 CVE - Jrj	
(1)	U. S. ENVIRONMENTAL PROTECTION AGENCY,	Appeal of Final Administrative Order Pursuant to 42 U.S.C. § 300h-2(c)(6)	
	Defendant.	· ·	

COMPLAINT

This action is brought pursuant to Section 1423(c)(6) of the Safe Drinking Water Act, 42 U.S.C. § 300h-2(c)(6), to appeal a Final Administrative Order issued against Jirch Resources, L.L.C. ("Jirch") by the United States Environmental Protection Agency ("EPA"). For its claim, Jirch alleges and states as follows:

I. THRESHOLD PROCEDURAL REQUIREMENTS

Order", attached hereto as Exhibit A, with original attachments), in Docket No. EPA-R06-SDWA-06-2017-1110, which concluded that Jireh had violated several provisions of the Safe Drinking Water Act, 42 U.S.C. § 300f et seq. ("SDWA"), for failing to confine injected fluids to the authorized injection zone. The Final Order directed Jireh to shut in or shut down injection well Nos. 9, 4W, and 18W, located in Osage County, Oklahoma and to prove it had not violated the SWDA.

Lange Lange

- 1.2 The Final Order was issued under the authority vested in the Administrator of the EPA by Section 1423(c) of the SDWA, 42 U.S.C. § 300h-2(c), addressing administrative orders related to the enforcement of the underground injection control ("UIC") program.
- 1.3 Jirch brings this action pursuant to Section 1423(c)(6) of the SDWA, 42 U.S.C. § 300h-2(c)(6), which authorizes an appeal from any such Final Order issued thereunder directly to the United States District Court for the district in which the violation is alleged to have occurred within 30 days beginning on the date the order was issued.

II. PARTIES, JURISDICTION AND VENUE

- 2.1 Jirch is a limited liability company organized under the laws of the State of Oklahoma, doing business and maintaining its principal place of business in Tulsa, Oklahoma.
- 2.2 The EPA is a federal agency conducting programs and regulating various aspects of the environment, which maintains offices in Tulsa, Oklahoma.
- 2.3 This Court has jurisdiction over the parties and the subject matter of this action pursuant to 42 U.S.C. § 300h-2(c)(6).
- 2.4 Venue is proper in this Court pursuant to 42 U.S.C. § 300h-2(c)(6), because the alleged violations occurred in Osage County, Oklahoma, which is located in the jurisdiction for the United States District Court for the Northern District of Oklahoma.

III. BACKGROUND

3.1 Jirch conducts oilfield operations on several leases in Osage County, Oklahoma. This oilfield has been in production for nearly 100 years, beginning in the 1920's. Its operations consist of production of oil from a hydrocarbon reservoir known as the Mississippian Chat formation (the "Chat"), located approximately 2,500 feet below the surface of the ground. In so

doing, Jirch produces large quantities of associated formation water, which is naturally highly salty. (Formation Chart, attached hereto as Exhibit B and Geological Cross Sections, attached hereto as Exhibit C). That water is separated from the produced oil and then returned to the same Chat formation by means of pumps under mild pressure (below the mandated EPA pressures), which push the water from water tanks along small pipelines to and into three injection wells and back into the formation.

- 3.2 At least as to the associated water, which is produced with the oil, Jireh's operations amount to a recycling operation. Water and oil are produced, oil is separated, and the water is returned to the Chat. Thus, for each production "cycle," *less fluid* is returned to the Chat formation than was taken from it. There is no additional water from other sources injected into the Chat. The ultimate effect of these operations on the Chat over many dozens of years of production is a reduction in the quantity of oil *in situ*, to date totaling some five million barrels of produced oil. This removal of such large quantities of oil means that the Chat is greatly depleted, both as to remaining oil reserves and a significant reduction in original formation pressure. (Diagrams of Oil and Gas Operations, attached hereto as Exhibit D and Open Hole Well Logs, attached hereto as Exhibit E).
- American Company, L.L.C. produces oil from the Chat formation and operates three injection wells which are used to return produced waters to that formation. Novy Oil and Gas, Inc. produces oil from the Chat and operates a well that injects produced water into the Arbuckle formation, which is a deeper, separate geological formation unrelated and not connected to the Chat.

IV. DISCOVERY OF CONTAMINATION AND SUBSEQUENT ACTIONS

- 4.1 In mid-Osage County, Oklahoma, northwest of Pawhuska, there lies an intermittent tributary of Bird Creek. It is intermittent because there is not enough rainfall collection into that tributary for it to maintain a constant flowing rate. In normal periods, it empties most of its water downstream into Bird Creek and becomes a series of disconnected pools of water along the stream channel until sufficient rainfall fills it and flow returns for a period of time. (Photographs and Maps of contamination area, attached hereto as Exhibit F).
- 4.2 In early August, 2016, employees of a property known as the Chapman Ranch ("Ranch") noticed dead fish and turtles in one of these pools of water ("Pool No. 1") just below a stream crossing consisting of a concrete structure housing a culvert. The road crossing the stream is a gravel Ranch road that intersects a County road several hundred yards to the east.
- 4.3 Upon information and belief, Ranch personnel notified the Osage Indian Tribe and the Bureau of Indian Affairs ("BIA"), which dispatched representatives to visit the site and conduct tests for contamination at the pool as well as upstream and downstream from the site. (Reports and Notes from the BIA, attached hereto as Exhibit G). These resulted in the discovery of a significant level of salinity in Pool No. 1. ("Normal" salinity is below 1,000 parts per million. Areas within this pool tested at 80,000 ppm.)
- 4.4 The EPA was contacted and personnel were dispatched on August 16, 2016, to observe stream conditions. EPA personnel took grab samples of water from the stream and one of Jireh's injection wells. The EPA later claimed that these samples established a correlation between Jireh's water and the water in Pool No. 1 (apparently indicating to the EPA that they came from the same source a notion later dispelled by Jireh's expert's further chemical analysis. See par. 6.7 below). EPA also claimed to have observed residual oil on the surface and

along the banks at the site. However, the EPA has not provided any test results or information that confirm this residue as oil, or that it is consistent with oil from the Chat formation. (Field Reports and Notes from the EPA, attached hereto as Exhibit H).

- 4.5 Jirch, Warren American, and Novy were contacted, and their personnel also visited the site. It should be noted that the site of the contamination was not located on the oil and gas leasehold of Jirch, so it had no contractual right to access the site without landowner permission. (Jirch Timeline of Events, attached hereto as Exhibit I).
- 4.6 It is unclear what additional steps were taken by the EPA from the time of the initial report until the incident received significant coverage from the local press some nine months later, prompted, it is believed, by landowner frustration at the lack of response from the EPA. In May, 2017, EPA began a stream monitoring program, which produced substantial data about stream characteristics.

V. THE FINAL ORDER PROCESS

Issuance of the Proposed Order

- 5.1 On August 4, 2017, the EPA issued a proposed administrative order regarding Jirch. ("Proposed Order", attached hereto as Exhibit J). It proposed a conclusion that Jirch had failed to confine its injected fluids to the authorized injection zone.
- 5.2 In the ensuing days, the EPA and counsel for Jirch scheduled a meeting at EPA offices in Dallas, Texas. Because a similar order had been issued for Warren American, its representatives also planned to attend the meeting.
- 5.3 On August 15, 2017, EPA personnel met with representatives of Jirch and Warren American. For the first time, EPA personnel explained the results of its testing and analysis at the site and why it believed Jirch had contributed to the contamination at the site. Its main theory

was that Jireh's injection operations, either alone or in conjunction with injection operations by Warren American and Novy, had "overpressured" the Chat formation, forcing highly saline reservoir water from the formation through some unknown, unidentified underground conduit into the stream. (Diagram of EPA Contamination Theory, attached hereto as Exhibit K).

- 5.4 The parties agreed at the meeting to continue to work together to identify the source of the contamination. Pursuant to Section 1423(c)(3)(A) of the SDWA, 42. U.S.C. § 300h-2(c)(3)(A), the Proposed Order would have become final unless Jirch requested a hearing within 30 days of the date of the Proposed Order. Jirch was concerned that the EPA had not shared the underlying data upon which its conclusions were based and asked for an appropriate period of time to receive and review that data so that it could evaluate the information and also defend itself against EPA's claims. EPA counsel suggested that Jirch include a request for deferral of the hearing date in its request for a hearing, so that it would have time for this data exchange and review. (Letter Requesting Hearing, attached hereto as Exhibit L).
- 5.5 Jireh submitted a written request for this data on September 8, 2017. (Letter to EPA, attached hereto as Exhibit M). The EPA responded on September 13, 2017 and stated that it would only release information in response to a Freedom of information Act ("FOIA") request. (Email response from EPA, attached hereto as Exhibit N). Jireh submitted its FOIA request later that same day. (FOIA Request Response Notice, attached hereto as Exhibit O). Since then, Jireh has received three "interim" releases of information responsive to its FOIA request on September 21, 2017, October 17, 2017, and December 14, 2017, and an indication that further information may be forthcoming. (FOIA Response Letters, attached hereto as Exhibits P, Q, and R. Note: EPA's responses consist of 1,000 of pages of documents, which are inappropriate for inclusion with this Complaint, but which certainly should be considered as part of the record).

Notification of the Public Hearing

- 5.6 On September 12, 2017, Jirch received notification that a hearing would be scheduled sometime in early October. (Initial Email from T. Rucki, attached hereto as Exhibit S). Alarmed that a hearing would be held so quickly, and even before Jirch had received a complete FOIA response, counsel for Jirch requested clarification as to the nature of the hearing and whether this would be the only opportunity it would have to provide its own evidence and testimony in defense of the EPA's claims in the Final Order. (Email to T. Rucki and Email to E. Chang-Vaughn, attached hereto as Exhibits T and U).
- 5.7 In response, Jirch received the following email from Tom Rucki, Regional Judicial Officer and Senior Assistant Regional Counsel for EPA Region VI, who would be conducting the hearing ("Rucki Email", attached hereto as Exhibit V):

This public hearing is not adjudicatory in nature, nor is it a trial. I will not rule on motions, allow for cross examination, provide for prehearing exchanges, or conduct this public hearing in any manner like a traditional trial/hearing. Rather, the statute allows for an opportunity for public comments via a public hearing, this is that early step in the process and whatever transpires at this public hearing does not foreclose the ability to bring up any current/prior/new facts/arguments/evidence in future discussions with the EPA counsel or further adjudicatory/administrative proceedings.

If any parties/commenters are still gathering information or waiting on witnesses or experts and that information or those persons are not available for the public hearing, it will not impact your ability to discuss these issues or call witnesses at a later adjudicatory hearing or with EPA counsel in negotiations/discussions. Furthermore, I will not make a decision when the hearing is over — I do not have that authority in this matter. Instead, I will forward the hearing transcript to the decision maker.

Again, this is a public hearing, where I will gather information and nothing more – this hearing was requested is allowed per the statute and that opportunity will now occur. With that said, below is the schedule for the public hearing, which will occur on October 11, 2017, in Tulsa, Oklahoma.

Please note that you need not attend this public hearing and that decision to not attend will not have any impact on your position/standing in the case — positive or negative. (Emphasis Added).

5.8 Jirch relied on the Rucki Email in its decision not to attempt to put together evidence and expert testimony involving intricate subsurface hydrogeological issues based on the incomplete and inadequate information it had at its disposal at the time of the hearing. It believed in good faith that EPA had agreed there would be sufficient time after the hearing to continue to gather information, receive FOIA responses from the EPA, and to obtain expert witness analysis and conclusions regarding whether Jirch had contributed to the contamination at the site.

The Public Hearing

- 5.9 Jirch attended the hearing on October 15, 2017 ("Public Hearing"). David House and Lanny Woods, of Jirch, and Robert Winter, as its counsel, made oral presentations in which they summarized their limited findings to date. (Transcript and Exhibits from Public Hearing, attached hereto as Exhibit W).
- 5.10 Public comments were received by the EPA prior to the Public Hearing and commenters were provided an opportunity to present at the October 15th hearing. However, no public commenters appeared. Jirch submitted a FOIA request related only to the public comments and received a copy of the same before the Public Hearing. (FOIA Response Letter and Public Comments, attached hereto as Exhibit X).

Activity Following the Public Hearing

5.11 Following the Public Hearing, Jirch proceeded to retain experts and review the limited data it had in hand from FOIA responses. Further, it coordinated and, after objection from the landowner, planned and executed a program whereby the lower depths of water (where

the highest salinity readings were recorded) in the affected pool were vacuumed of contaminated water.

5.12 Meanwhile, on December 14, the EPA released its third interim FOIA response with another significant amount of data. Jireh's experts promptly began analysis of this data as well.

Issuance of the Final Order

- 5.13 Then, without any prior notice, counsel for Jirch received a telephone call after 6:00 p.m. on December 21, 2017 from the EPA advising that a Final Order had been issued earlier that day. The Final Order called for the shutting in or shutting down of Jirch's three wells for failing to contain injected fluids in the authorized injection zone. (Exhibit A).
- 5.14 That action having been taken, the Record for those proceedings was thereby closed and no further information could be included in the Record for consideration on appeal. Jirch was led to believe by the Rucki Email that the period for exchange of information and discussion was to remain open until further notification by the EPA. Jirch reasonably expected to receive some type of *advance* notice from the EPA that the Record would be closing at some specified *future* date and that Jirch should insure that all of its evidence was submitted by that deadline.
- 5.15 The EPA's issuance of the Final Order without any advance notice or fair warning that the Record would close has effectively denied Jirch of any reasonable opportunity to conduct this appeal based on a full and complete Record, consisting of all evidence deemed relevant by the parties hereto.
- 5.16 On January 5, 2017, Jirch filed its Motion for Reconsideration with the EPA based on these procedural anomalies and errors and asked the EPA to withdraw its Final Order to

allow presentation of Jirch's side of the story, or at least to temporarily stay the effect of the Final Order to allow Jirch to supplement the Record with its own evidence. (Motion to Reconsider, attached hereto as Exhibit Y).

5.17 At this point, and until the Record is certified and transmitted by the EPA, Jirch has no idea what is in the Record, beyond the summary presentations it made at the public hearing in October. At this point, the Record will only have whatever limited data hand-picked by the EPA and will not fairly represent Jirch's position, or include the scientific conclusions of all experts who have evaluated the situation and are still in the process of reviewing the December FOIA responses from the EPA.

Activity Following the Final Order

5.18 The parties are in continued talks with the EPA in an earnest attempt to rectify this situation. (Prepared commentary on the Final Order by Experts B. Fisher, R. Hazlett, and K. Sublett, attached hereto as Exhibits Z, AA, and BB).

VI.

JIREH'S SUBSTANTIVE ARGUMENTS AGAINST THE FINAL ORDER

- 6.1 To prevail on this appeal on substantive grounds, Jirch must prove that the Final Order was not supported by "substantial evidence on the record, taken as a whole, to support the finding of a violation or, unless the Administrator's assessment of penalty or requirement for compliance constitutes an abuse of discretion." 42 U.S.C. § 300h-2(c)(6).
- 6.2 The Final Order was based in large part on the allegations contained in the EPA's Interim Final Report, dated August 4, 2017, regarding the Bird Creek Investigation and Injection Well Response Action Plan. (Interim Final Report, attached hereto as Exhibit CC). The Interim Final Report was prepared before the Proposed Order, which was also dated August 4, 2017. The

EPA made no supplement to the Interim Final Report before issuing the Final Order despite the voluminous amount of materials presented and collected from the additional testing, data, testimony, and expert reports.

6.3 In response to the Final Order and all materials preceding it, Jirch prepared and submitted to the EPA additional data, notes, and other various technical information that may contribute to the Court's understanding of the issues brought forth on appeal. (Materials prepared and complied by Jirch, attached hereto as Exhibit DD).

The Over-pressuring Argument

- 6.4 The EPA contends that Jireh's injection of fluids caused an over-pressuring of the Chat formation, which excess pressure forced highly saline formation fluids out of the reservoir, through some unknown, unidentified underground channel horizontally across nearly a mile and vertically some 2,500 feet to emerge into the stream at Pool No. 1 and then later downstream to a location known as Pool No. 2.
- 6.5 The Chat formation is a very depleted formation and has been subject to oil and gas operations for decades. The volume of oil has been reduced by some five million barrels. The injection operations of Jireh and Warren American result in *less* fluid being returned to the reservoir. Any pressure used to inject water is relatively small and not sufficient to cause overpressurization. Jireh's expert, Dr. Randy Hazlett, and its geologist, Lanny Woods, both conclude that there is simply insufficient pressure in the Chat formation to push fluids over the necessary distances, both horizontally and vertically, to leave the reservoir and emerge at the affected pools. (Hazlett Pressure Report, attached hereto as Exhibit EE). This conclusion is echoed by the work of Warren American's experts, Dr. Kerry Sublette and Frank J. Marek (Sublette Report and Marek Report, attached hereto as Exhibits FF and GG). It is a matter of physics that can be

proven by modelling based on known facts. It is impossible under the conditions present in the reservoir for the EPA's theory to occur. The work of Drs. Hazlett and Sublette is summarized in reports that have been submitted to the EPA.

The Water in the Stream Differs Chemically from Jireh's Chat Water

- 6.6 The EPA contends that the contaminated water in Pool No. 1 came from the Chat formation.
- 6.7 Jireh's expert, Dr. Bert Fisher, examined test data produced by the EPA and concludes that the contamination in Pool No. 1 has a different chemical composition from the formation water produced by Jireh and returned to the Chat. The bromide/chloride ratio of the two waters indicates that they do not emanate from the same source. Jireh's produced water is not the same as the contaminated water in Pool No. 1. (Fisher Report, attached hereto as Exhibit HH).
- 6.8 Produced water from the Chat will contain both dissolved and free hydrocarbon (oil) constituents. The EPA contended that it observed oil residue when it first visited the site. The EPA has provided no test results confirming this as oil. Jireh's experts conclude that the more likely substance observed by the EPA that day was iron oxide, which interacted with the chlorides in the water and produced a sheen that could be seen on the surface and shoreline.

The Allegation of Ongoing Contamination

- 6.9 The EPA contends that the stream continues to be polluted by highly saline water from the Chat formation.
- 6.10 Dr. Fisher, Dr. Sublette, Lanny Woods, and representatives for Novy all conclude that there is no ongoing contamination in the stream. The totality of the evidence does not

support ongoing contamination. It was the result of a one-time event. There have been no visible hydrocarbons currently in the water and no signs of hydrocarbons in the sands, rocks, or gravels.

The Temperature Problem

- 6.11 The EPA contends that temperatures in stratified layers of water in the stream were abnormally high, reaching 100 degrees, indicating that the water came from the Chat formation, which contains water measured at an average temperature of 100 degrees.
- 6.12 Jireh's experts conclude that it would be impossible for water to be forced from the Chat formation, travel nearly a mile horizontally and 2500 feet vertically while exposed to cooling rock, and retain these elevated temperature levels. (Hazlett Temperature Report, attached hereto as Exhibit II). Any elevated temperatures are likely to come from the concentrated saline that settled at the bottom of these pools. Highly saline water absorbs solar heat at a higher rate than "clean" water above these heavily contaminated layers at the bottom. The result is an apparent anomaly, but clearly supported by science water at the bottom of the pool is hotter than water nearer the surface.

The Moving Plume of Contaminated Water

- 6.13 The contamination first observed and tested at Pool No. 1 has essentially disappeared. Water from that pool now tests in "normal, clean" ranges of less than 1,000 ppm.
- 6.14 However, contamination has appeared at Pool No. 2, which is a second, deeper pool several hundred yards downstream, with readings in the 30,000 40,000 ppm range.
- 6.15 The EPA contends that this is caused by *ongoing* contamination from an underground plume of escaped Chat water moving alongside and entering the stream, which originally appeared at Pool No. 1 but is now found at Pool No. 2.

- 6.16 If this pool contained Chat water, it should measure much higher concentrations, consistent with Chat salinity >80,000 ppm. Rather, these lower salinity readings are consistent with contamination that has been washed down from upstream with resulting dilution and lower salinity readings. Jireh's experts have concluded that Pool No. 1 has been naturally cleaned by substantial rainfalls, which have washed the contamination from Pool No. 1 downstream to Pool No. 2. The heavier saline water has settled to the bottom of Pool No. 2 in several deeper depressions in the streambed. Because they are deeper, it is more difficult for rainwater to "flush" these deeper depressions. (Exhibits EE to II).
- 6.17 Based on the forgoing, Jirch has established that the Final Order was not supported by substantial evidence on the record, taken as a whole, to support the finding of a violation and the Administrator's requirement for compliance constitutes an abuse of discretion.
- 6.18 Further, the manner in which the proceeding was conducted effectively denied Jirch a fair opportunity to be heard, resulting in an incomplete Record and a Final Order based on incomplete consideration of relevant, compelling, and contradictory evidence.
- 6.19 A copy of this Complaint will be sent via certified mail to the required parties identified in 42 U.S.C. § 300h-2(c)(6).

WHEREFORE, premises considered, Jirch prays that the Court set aside the Final Order in its entirety, or in the alternative, remand the Final Order to the EPA, with direction to allow a reasonable amount of time for supplementation of the Record by Jireh, and for reconsideration based upon said Record as so supplemented.

Respectfully submitted,

PRAY WALKER, P.C.

John L. Randolph Jr., OBA No. 7410

jrandolph@praywalker.com

Robert J. Winter, OBA No. 16754

rwinter@praywalker.com

Valery O. Giebel, OBA No. 31560

vgiebel@praywalker.com 100 W. 5th St. - Ste. 900

Tulsa, OK 74103

Tel: 918-581-5500

Fax: 918-581-5599

Attorneys for Jirch Resources, L.L.C.