Chavez, Carl J, EMNRD

From: Wayne Price <wayneprice@q.com>
Sent: Wednesday, March 13, 2019 10:38 AM
To: Chavez, Carl J, EMNRD; Sticker, Maury; Jill Best
Cc: Wayne Price; Griswold, Jim, EMNRD
Subject: [EXT] GW contours
Attachments: Key GW Contours.xlsx.pdf; ATT00001.htm; Draft Key BW-28 2018 Public Notice Display Ad.pdf; ATT00002.htm

Dear Carl,

I found another well located 6156 ft SE of the Brine Station. Please find attached an annotated map showing the up-gradient well and down-gradient well in respect to the Key Brine Station.
This also demonstrates that our original 50-70 ft estimates reflects the GW depth in this area.

Public Notice Display Ad: (Lovington, NM Leader)

Legal notification for 3"x4" newspaper display add per Water Quality Control Commission Regulations 20.6.2.3.108.8.4 NMAC

Key Energy Services LLC, 1301 McKinney St. Suite 1800, Houston, TX 77010, Maury Sticker Environmental Director, has filed a permit renewal application with the New Mexico Oil Conservation Division (OCD) to renew the operating permit (BW-28) for its' Class III State No. 001 State Brine well (API# 30-025-33547) and the associated brine and fresh water station. (Site)

The site is located approximately 2.5 miles north of Eunice, New Mexico, and 350 feet east, just off of the North loop 18 (State Hwy 248) in Lea County, New Mexico, in SW/4 NW/4 UL E of Section l5-Township 21 South-Range 37 East. The site is located in a dense oilfield with many lease roads, pipelines and overhead electric utilities lines. Presently, there are no houses, schools, occupied buildings, or public parks, etc. within one mile of the site.

The site is located on State Trust land administered by the New Mexico State Land Office and operates under a state mineral lease # MS 0004 0001.

Brine water is used in the Oil and Gas industry to supply a "heavy pure sodium chloride" concentrated salt water {i.e. brine water) with a total dissolved solids concentration of approximately 320,000 mg/L and a density that is 20% higher than fresh water. Heavy brine water is essential in preventing blowouts in high-pressure gas wells and prevents loss of circulation when drilling through salt zones typically found in the Permian Basin area.

Fresh water obtained from the City of Eunice, NM will be injected deep into the Salado salt formation at a depth of approximately 1649 feet below the surface thru a 2 7/8" steel tubing arrangement and produces brine water up the 8 5/8 in. sing annuals at 1,360 feet, with occasional reverse flow for maintenance. The rock-salt contact is at approximately 1,320 feet. The well injection pressure is normally 180 psig below the maximum surface injection pressure of 250 psig and produces approximately 20,000r 30,000 barrels of brine water per month.

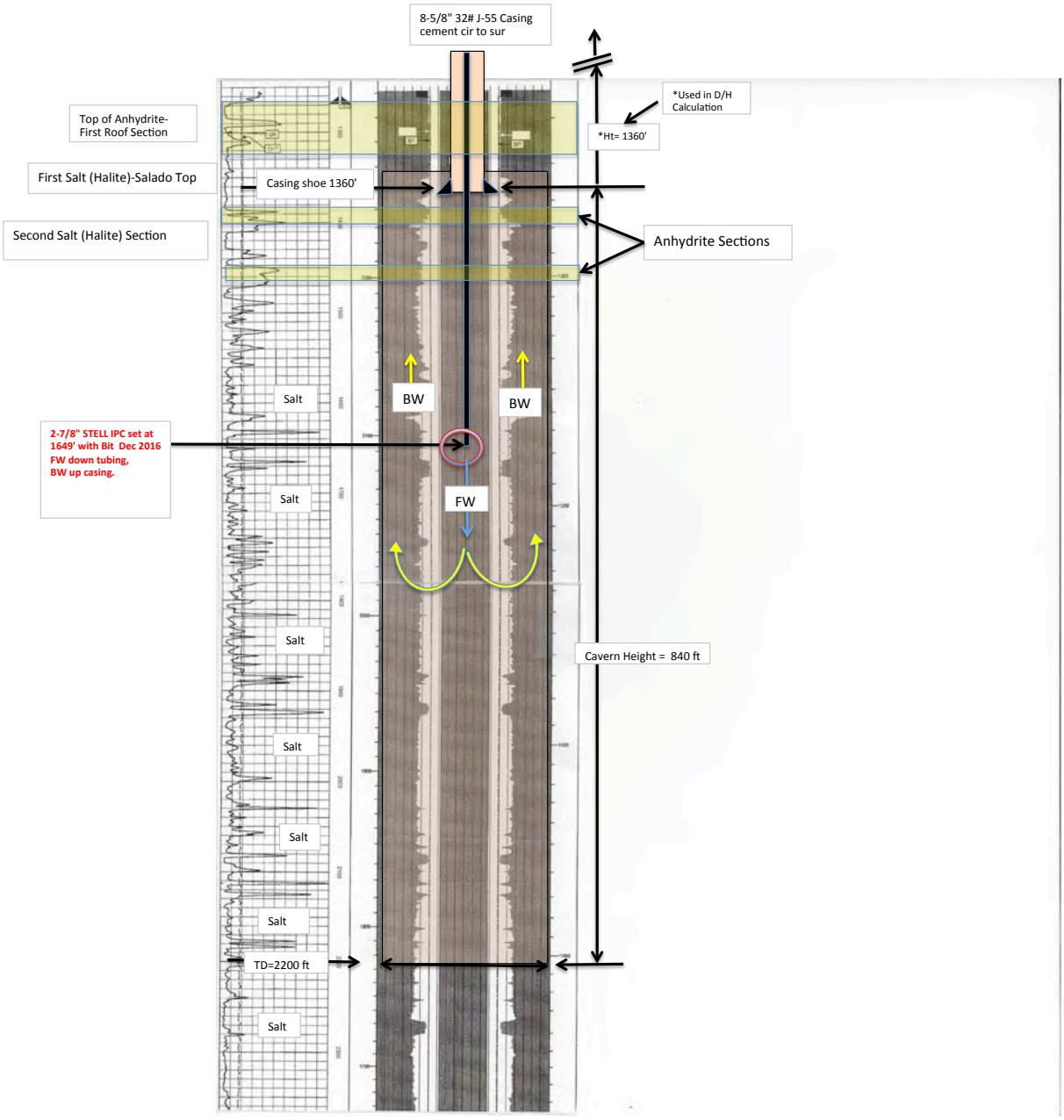
Ground water most likely to be effected is estimated to be 50-70 feet below ground level with a total dissolved solids concentration of 1200 mg/l.

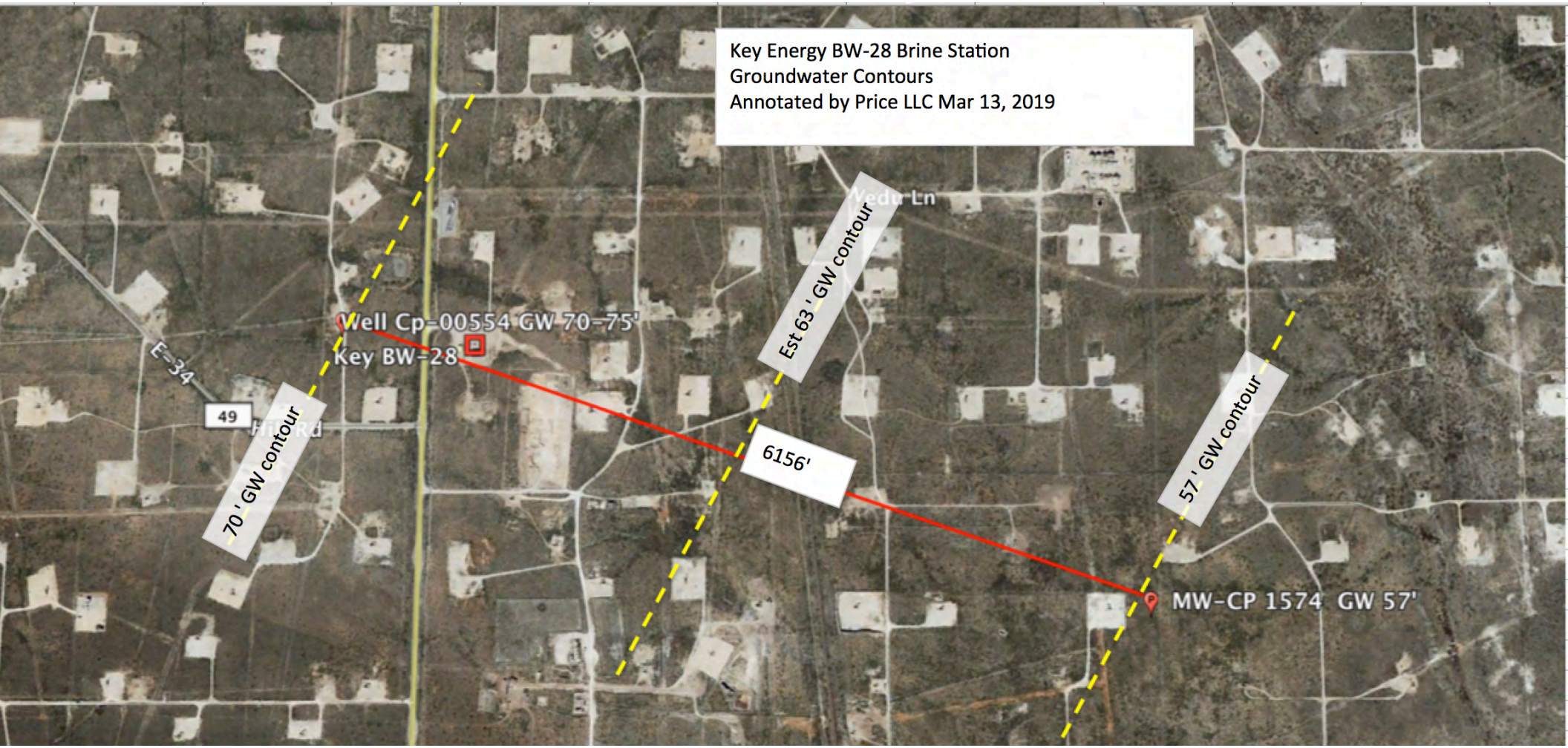
This facility is designed and permitted to have no intentional water contaminants discharged to the surface or subsurface for the protection of possible groundwater. The system has concrete and synthetic liners to prevent any spills or leaks from reaching the ground surface.

If you have any questions or concerns please do not hesitate to contact Key Energy at the address above or you may contact Wayne Price 505-715-2809 or E-mail wayneprice@q.com. Key Energy welcomes your input.

The New Mexico Oil Conservation Division (OCD) will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Interested persons may contact Carl Chavez, Oil Conservation Division (OCD) 505-476-3490 or by writing 1220 South Saint Francis, Santa Fe, New Mexico, 87505.

Key BW-28 Cavern Superimposed on the Apache
NEDU 544D well Log Located 600 ft west of Brine Well.
BW-28 orginally Completed w 2074' of 2-7/8" FG Tubing Aug 96.
Last Completed w 2-7/8" STELL IPC set at 1649' with Bit Dec 2016.
Last Radius Calculation = 159 ft. D/ht = .24
Annotated by Price LLC March 12, 2019




Key Energy BW-28 Brine Station
Groundwater Contours
Annotated by Price LLC Mar 13, 2019
Well Cp-00554 GW 70-75'
Key BW-28
E-34
49
70 ' GW contour
Est 63 ' GW contour
6156'
57 ' GW contour
MW-CP 1574 GW 57'