## Oral History Collection

## Mr. Jarrett Keim

Interviewer: Date: Fall 2015

Place of Interview: by phone, Interviewer in Denton, Texas
Mr. Jarrett Keim in Oklahoma

Interviewer: Okay, Hi Jarrett. I'm just going to interview you about fracking, and what you know. For a

beginning, how long have you kind of studied up

on fracking?

Mr. Keim: Well, I've been back in the industry for the last five years.

Interviewer: Okay, um--

Mr. Keim: So, I actually work in the field pretty much every day.

Mr. Keim: Well, on a day to day basis—-I'm actually in a little bit different part of the industry now.

When it comes to, as far as fracking, or my job, what I do now?

Interviewer: I guess we can talk about your job for a little bit and then we can go towards fracking.

Keim: Okay. I'm actually the fishing [remove equipment from the wellbore] and [unclear] tool. What I do is, we do drill outs—it's actually the process after they frack a well.

I prepare the well before they start fracking as well. What we'll do is, there are frack plugs that actually are pumped down holes and we will go in after that frack process is done and we'll come in and drill out those plugs with a stick tubing and drill bits.

Interviewer: And how long does that usually take?

Keim: It kind of depends on the well, and how many plugs there are, types of different variations, different procedures in different parts of the country. But here in Oklahoma, with say thirteen plugs, I can be done, that's everything run dry, probably in a twenty-four to thirty-six, forty-eight hour period.

Interviewer: Okay. Gotcha. And how much do you think would come out, oil wise, from these drills?

Keim: That is a good question, and it kind of depends

on what area you're in. Whether you're in Northern Oklahoma or North Dakota it's totally different than say south Texas is. So it's pretty broad.

Keim: In Denton? I know a little bit. I've actually done some work there on the Barnett Shale two years ago. And I [interrupted]

Interviewer: Could you tell me about that?

Keim: Sure. Denton and the Barnett Shale is pretty much more gas than it is oil. The frack process, with a company I worked for, from Dallas to Granbury up to, oh gosh, where else did I work, up towards like [unclear]. So I've done frack work in locations—you want me to tell you about the process? How we did that? Or do you just want to ask my experience from it?

Interviewer: Let's do process and then your experience.

Keim: Okay. Different wells are prepared differently.

There's a toe [the angle of the near horizontal area, toe up or toe down]. A lot of companies have done this work where you actually have to pressure that up once the sleeve [flow path] is

actually opened, it will perforate the bottom of the hole and they'll actually start the first frack process after that, once they've rigged up. Different barrels per minute, that depends on an area but in that formation anywhere from say sixty to a hundred barrels a minute is pretty common. Which that frack process is acids and sand and water to open up the formation.

Keim:

A frack crew comes from anywhere from twelve to eighteen people, on a twelve hour crew. You usually work around the clock. So for a twentyfour hour period and then there's wireline, because once the stage is actually fracked what they'll do is pump down guns and perforate the That's just the process and a next zone. wireline crew [to lower equipment instruments into the well] is probably about four and then you've got flow back [water based solution that flows back to the surface] as well, so you're looking at, on location at one time, during a twelve hour period, probably

about thirty.

Interviewer: Okay. Wow. Alright, and how about your experience when you did work in Denton?

Keim: What's that?

Interviewer: How about your experience, like when you had
to come to Denton and pull oil out?

Keim: I never worked in Denton. I worked around

Burleson and Granbury. As far as—what are

you're asking about my experience there?

Interviewer: Yes.

Keim: As far a work conditions? What are we talking
about here?

Interviewer: I guess-this is kind of hard. Yeah, I guess
work conditions.

Keim: Inside of Dallas it's kind of different. There are curfews. There are barriers that are built and there are curfews. You can only frack from 8 to say 5 o'clock. You have to be off location by 5 o'clock. So, it's a little bit different. So those working inside the city limits is on curfew. So those were only twelve hour periods or less.

Interviewer: Yeah, okay. What are some of the regulations that you have to meet whenever you guys are

drilling?

Keim: Well, there's obviously OSHA [Occupational Safety and Health Administration] regulates a lot of that. There's obviously containment, safety, procedures that you have to follow on a day to day basis.

Interviewer: Is there someone that trains you before you can go in and start the process? Or is it something you have to do as an individual?

Keim: It's continuous training, on a yearly basis.

Every company requires yearly training. Every

two years you have to review all my

certifications, and on a yearly basis as well.

Interviewer: Gotcha. And how long do the certifications usually last?

Keim: Two years, typically, it's already on last two years. Because there's different, from  $H_2S$  gas, [hydrogen sulfide] which is poisonous, there's a certification for it and then there's safety for confined areas, and driving, and there's lots of different certifications you have to have.

Interviewer: I see. I can't really think of anything else
 unless you can.

Keim: Oh, I could probably talk forever, but uh

[laughs]. It's just there's a lot of

different procedures and processes that go

into it. Have I answered all your questions?

Hopefully I did. I don't know if I did or

not. [Unclear]. Feel free to call me if you

need anything more in detail.

Interviewer: Another thing is if you could—-I don't know

if you've heard after they denied

fracking, they created a ban against bans.

Did you hear anything about that?

Keim: They did what now? I'm sorry.

Interviewer: They created a ban against bans, for the

whole Denton--.

Third voice (male): Jarrett's up in Oklahoma, so he probably

may or may not know about the Denton anti-

Fracking ban.

Keim: I don't know about that. For earthquakes,

or what?

Third voice: Denton passed a anti-fracking ban, and

did not want fracking within the city

limits. And of course a whole lot of

people fought it--you know, I mean

fought fracking within, and so, within

the city limits, and so it went ahead and passed. A voter whatever it was--

Interviewer: Somebody off the committee created a ban

against banning of fracking.

Keim: A ban versus bans?

Interviewer: Yes, so now people--like every city can't

create a ban. We're not allowed to do

that anymore.

Keim: Hmm. Interesting.

Interviewer: Because now it has to go up with the state.

Keim: Yes, I don't know anything about that in

Oklahoma. We just keep fracking. I don't know

[laughs].

Interviewer: [Chuckles]. Gotcha. As for you, like,

personally, what are your views on fracking?

Keim: About fracking?

Interviewer: Yes. Are you for it or against it

environmentally?

Keim: Environmentally? I think there is a process

that it can be--that can actually be-

environmentally, you can do it safely. And

there are other ways, where I've seen some

things that probably aren't as safe as

others. It kind of goes on to the company and

what the procedures are done. As far as—do I think they—there are disposal wells that get into different formations, I believe that actually causes earthquakes over in Oklahoma. And since they've actually, Oklahoma court commission came in and actually put plugs down in formations that they have determined to create earthquakes. Since they started doing that, the earthquake activity has dramatically dropped.

Interviewer:

Yeah. Well that's good to hear. I think that's all I can think of. I'm not too familiar with everything either. This is actually perfect.

Keim:

Yes, this is basically how the frack process goes. There's a toe down before it's open and it's perforated. Then they'll pump sand, water, and acid down the hole, to open up the formation. Then they'll go run a plug down the hole by pumping it down, in a horizontal. Set the plug, and they'll perforate again. After that perforation, they'll actually do it again. They'll run sand, acid, water, sand down the hole to open up the next [unclear].

And they'll do that all the way up that hole.

That's how that whole process works.

Interviewer: How do you know whenever there's nothing left?

Keim: When there's nothing left?

Interviewer: Yes.

Keim: As far as?

Third voice: What's left in the ground.

Interviewer: Like, what's left in the ground.

Keim: That's a different process. After they've drawn all the pugs out, they'll run [unclear] production tubing in there, and there are a

lifts and depends on the different part of the country you're in. A lot of older wells, they just quit producing. But they'll go in and

clean them out throughout the years to try to

couple ways they can do that. They'll run gas

see if they'll actually produce. But after a while, some of them quit producing. They will

even shut them in, close them in, seal them

off, and turn it back to what it was before. So

it depends on, as far as the link on that, it

just kind of depends on where you're at.

There's wells in western Oklahoma that have

been going for a long time, and there's some

that don't do very well, and you have to come in [unclear].

Interviewer: Is it true that the technology--or that the
 wells that are much older you can go back in
 with the new technology and go back and get
 more oil?

Keim: Yeah, you can do some re-entries. There's a-I'm glad you asked me that. I have a company
that I'm actually working for now. They've
bought a lot of older wells that used to be
large producing—large company, and they weren't
producing as much. They actually did some acid
jobs on them and got them to start producing
again.

Interviewer: Okay, yeah. All right, well I think I'm set.

[End of interview]