

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:

ORIGINAL

APPLICATION OF HESS CORPORATION FOR
APPROVAL OF ENLARGEMENT OF THE WEST
BRAVO DOME CARBON DIOXIDE GAS UNIT,
HARDING COUNTY, NEW MEXICO

Case No. 14545

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, Technical Examiner
DAVID K. BROOKS, Legal Examiner

September 16, 2010

Santa Fe, New Mexico

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This matter came on for hearing before the
New Mexico Oil Conservation Division, WILLIAM V. JONES,
Technical Examiner, and DAVID K. BROOKS, Legal Examiner,
on Thursday, September 16, 2010, at the New Mexico
Energy, Minerals and Natural Resources Department, 1220
South St. Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: Jacqueline R. Lujan, CCR #91
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1 A P P E A R A N C E S

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FOR THE APPLICANT:

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1 EXAMINER JONES: Let's go back on the
2 record and call Case 14545, application of Hess
3 Corporation for approval of enlargement of the West Bravo
4 Dome Carbon Dioxide Gas Unit, Harding County, New Mexico.
5 Call for appearances.

6 MR. CARR: May it please the Examiners?
7 My name is William F. Carr, with the Santa Fe office of
8 Holland & Hart. We represent Hess Corporation in this
9 matter. I have three witnesses.

10 EXAMINER JONES: Any other appearances?
11 Will the witnesses please stand and state your
12 names?

13 MR. HUGHART: My name is James Hughart.

14 MR. SLAMET: My name is Germawan Slamet.

15 MR. MARTINEZ: I'm Joaquin Martinez.

16 EXAMINER JONES: Will the court reporter
17 please swear the witnesses?

18 (Three witnesses were sworn.)

19 MR. CARR: May it please the Examiners?
20 We're here today to finish an effort to unitize certain
21 lands that has taken over 25 years.

22 Hess Corporation is before you seeking an
23 order approving the enlargement of the West Bravo Dome
24 carbon dioxide agreement. These enlargements are
25 authorized by the unit agreement and were recognized by

1 the OCD in the original order approving the West Bravo
2 Dome.

3 As you will see, the acreage now to be
4 included in West Bravo Dome was originally within what
5 was proposed as the Bravo Dome. It's in the southwest
6 quarter. And there was a large lease that was not
7 committed to the Bravo Dome Unit, rendering this acreage
8 not contiguous with the rest of the unit. Therefore, it
9 was developed as a separate voluntary unit.

10 It was approved by the Division in 1984, and
11 the lands have been maintained since that time. And I
12 have three witnesses here today who are going to explain
13 to you briefly the history of the unit and the status of
14 the voluntary commitment to this unit plan. I will also
15 call a witness to explain the basis for the unit
16 boundaries for the expanded unit and, finally, a witness
17 who can show you the impact of this expanded unitization
18 on the state, federal, and fee lands within the unit
19 area.

20 And my first witness Mr. Hughart.

21 JAMES HUGHART

22 Having been first duly sworn, testified as follows:

23 DIRECT EXAMINATION

24 BY MR. CARR:

25 Q. Would you state your name for the record,

1 please?

2 A. Yes, sir. My name is James Hughart.

3 Q. Spell your last name?

4 A. H-u-g-h-a-r-t.

5 Q. Mr. Hughart, where do you reside?

6 A. Houston, Texas.

7 Q. By whom are you employed?

8 A. Hess Corporation.

9 Q. What is your position with Hess Corporation?

10 A. I am the land manager for the Americas on
11 Shore.

12 Q. Have you previously testified before the New
13 Mexico Oil Conservation Division?

14 A. No, I have not.

15 Q. Could you review for Mr. Jones and Mr. Brooks
16 your educational background?

17 A. Yes. I have a Bachelor of Arts degree from
18 Colorado State University in 1970. Then I have a
19 Master's of Business Administration from that same
20 school, Colorado State University, in 1974.

21 Q. Since graduation, for whom have you worked?

22 A. I have worked for three different companies.
23 I started with Texaco in 1974, in Denver, and I worked
24 for them as a landman doing, basically, Rocky's land work
25 until 1978. At which time I left, and I went to work for

1 Ashland Exploration, also in Denver, again, doing Rockies
2 land work.

3 And in 1979, when Ashland sold all of their
4 assets to a variety of different companies, I found
5 myself out of work. And I ended up going to work for
6 Amerada Hess Corporation, which is now Hess Corporation,
7 and I have been there with that company for 31 years in
8 both Denver and in Houston.

9 Q. Are you the land person who has been
10 responsible for combining the lands in this enlarged unit
11 area?

12 A. Yes.

13 Q. Are you familiar with the application filed in
14 this case?

15 A. Yes, I am.

16 Q. Are you familiar with the status of the lands
17 in the second enlarged West Bravo Dome Carbon Dioxide Gas
18 Unit?

19 A. Yes, sir.

20 Q. Have you prepared exhibits for presentation
21 here today?

22 A. Yes, I have.

23 MR. CARR: We tender Mr. Hughart as expert
24 in land matters.

25 EXAMINER JONES: Mr. Hughart is qualified

1 as an expert in petroleum land matters.

2 MR. CARR: Mr. Examiners, we had proposed
3 originally to present part of this case with a PowerPoint
4 presentation. We have no audience. Everyone has a copy
5 of the slides. It means there's one less thing I can
6 have go wrong, so I'd like to suggest we work off the
7 slides in the exhibit book.

8 So I'd ask that everyone turn to the first
9 slide, which is behind Tab 1 in the book.

10 Q. (By Mr. Carr) And, Mr. Hughart, would you
11 identify this slide and then review Hess' proposal and
12 the reasons for the proposal?

13 A. Certainly. Slide Number 1, as you can see,
14 the basic proposal is to expand the West Bravo Dome
15 Carbon Dioxide Gas Unit from its present size of 34,619
16 acres, by adding 42,331 acres of primarily federal,
17 state, and mostly fee lands, such that the expanded unit,
18 if approved, would be a total of 76,950 acres.

19 Q. Would this enlargement more than double the
20 size of the unit?

21 A. Yes.

22 Q. This is a voluntary unit?

23 A. Yes, sir.

24 Q. Would you review for the Examiners the reasons
25 for this proposal?

1 A. Yes, I will. The largest reason for doing
2 this is that we can do it, whereas up until now, we have
3 not, and neither have our predecessors been able to do
4 it.

5 You will hear me describe throughout my
6 testimony that there's a lease. It is a 63,000-acre
7 lease which Hess now owns but previously had been owned
8 by Amerigas. It dates back to 1943, and it was a lease
9 for which Amerigas and the royalty owner, Mitchell, chose
10 not to be included in the original Bravo Dome Gas Unit,
11 which is a million-acre voluntary unit agreement which
12 you will see in some of the slide materials.

13 But as a result of Hess obtaining ownership of
14 that Amerigas lease, which we obtained in 1989 from
15 Amerigas, we have been successful, really, since 2006,
16 when we decided to develop West Bravo Dome, to persuade
17 the Mitchells to the benefits of unitization, so we have
18 now had their permission to do so. And the good news is
19 now we can go ahead and develop the West Bravo Dome Gas
20 Unit lease in conjunction with the Mitchell lease and
21 several other leases, which are non-Mitchell but Hess
22 also owns, and develop them as nearly as possible as one
23 large lease.

24 And there are just many efficiencies that come
25 from doing something like that. One of the bigger ones

1 is, hopefully, not having to drill unnecessary wells to
2 save leasehold, and thereby minimize the footprint that
3 is ultimately left out there.

4 Q. Let's go to the next slide, please. Would you
5 identify and review that?

6 A. The next slide is just a plat, and it's merely
7 there to help orient the Examiners as to where we are and
8 what we're doing. It's a plat of the -- basically, the
9 eastern half of New Mexico and a substantial portion of
10 the Panhandle of Texas.

11 If you look up in the central portion of that
12 map, you'll see what is northeastern New Mexico, the
13 counties of Union, Harding, and Quay Counties. And there
14 is an outline there and a designation of the Bravo Dome
15 Carbon Dioxide Gas Unit, and that is in a black outline.

16 And if you look off on the southwest edge of
17 Bravo Dome, you will see a very blurry red outline,
18 which, in essence, is the existing West Bravo Dome Carbon
19 Dioxide Gas Unit.

20 If you don't mind, let me turn you to the next
21 slide, and that will give you a better appreciation of
22 what it is you're looking at. The red outline in this
23 case being the Bravo Dome Carbon Dioxide Gas Unit, which,
24 incidentally, is operated by OXY, of which I'll also
25 admit that Hess is a 10 percent owner in that.

1 And then the hundred percent Hess-owned West
2 Bravo Dome, which is that black outline, which is very
3 convoluted -- it looks like somebody threw spaghetti
4 against the wall -- that is what we own. We have 100
5 percent of that.

6 Going back to the original slide, which is
7 slide two, through that map, you will see a line that
8 runs from Colorado all the way down into Texas. That is
9 the Sheep Mountain Pipeline, and Hess is a partial owner
10 of that line. And it is that line that we use to
11 transport our share of the Bravo Dome gas that is
12 produced, so that we can take it down into Texas, and it
13 also takes 100 percent of our West Bravo Dome CO2.

14 That gas goes all the way down to Gaines
15 County. And our Seminole San Andres Unit, that is a unit
16 that dates back into the 1930s. It's an old unit which
17 is presently under tertiary oil recovery techniques to
18 enhance the oil production of that. And we use our CO2
19 for that field, and that's why we are here in Harding
20 County, and it's what it's for, is to develop and enhance
21 the production out of the Seminole San Andres unit.

22 Q. What is the primary formation unitized in the
23 West Bravo Dome?

24 A. That is the Tubb formation and only the Tubb
25 formation.

1 Q. If we go back two slides, the slide is
2 entitled, "West Bravo Dome Gas Unit Background." Would
3 you go to those and review the history of this unit?

4 A. This would be slides, essentially, 4, 5, 6.
5 They start out talking about when the West Bravo Dome Gas
6 Unit was formed in December of 1984, and goes all the way
7 up to the present day of Hess' operations. And I'll try
8 to not go over all of this, but just on the high points.

9 In 1984, City Service, which was a majority
10 lease owner under the lands that were then West Bravo
11 Dome, they, in conjunction with Amerada Hess, which was a
12 non-operating partner, along with Chevron and a company
13 called CO2 and Action, all came together and decided to
14 unitize what available acreage there was to unitize that
15 had not already been put in Bravo Dome and was still
16 available to be unitized for the purposes of CO2
17 development, and that became the West Bravo Dome Carbon
18 Dioxide Gas Unit.

19 It was approved by the New Mexico Oil
20 Conservation Commission, the New Mexico State Land
21 Commissioner, the BLM, and all the working owners, which
22 included Amerada Gas, Chevron, Cities, and CO2, and
23 Action. That all came about with Cities as operator, and
24 the Mitchell lease, which was the void -- if we go back
25 for a minute -- let's go back to Slide 2. You'll see

1 what we would call the land west of the red outline and
2 east of the black outline, that is the Mitchell Ranch.
3 That was under lease to Amerigas at the time, so it was
4 not available for unitization because they didn't want to
5 unitize.

6 When the West Bravo Dome was formed, it did
7 not contain the Amerigas Mitchell lease, and when Bravo
8 Dome formed, it did not contain the Amerigas Mitchell
9 lease, so there was a void or a hiatus between those two
10 units.

11 What happened was -- several things happened
12 in the history of this unit. Two years after the initial
13 unit was formed -- let me go back. I missed a point.

14 When Cities initially formed that unit, they
15 ended up drilling approximately 22 wells, 20 of which
16 were deemed to be wells capable of commercial production,
17 but they did not produce them because there was not a
18 market for CO2 at that time for Cities and its
19 non-operating partners. To have done that, they would
20 have had to build a pretty extensive infrastructure,
21 gathering lines, a processing plant. They would have to
22 have had a transmission or a sales line probably over to
23 the Sheep Mountain Pipeline, all of which was too
24 expensive to do when you don't have a market for it.

25 Q. How was this unit maintained during this

1 period of time when the wells were shut in?

2 A. The unit was maintained pursuant to the
3 leases, which called for minimum royalty payments,
4 shut-in payments, as well as escalations of those
5 payments at 5 percent per year, as well as some road
6 maintenance and things that needed to be done to keep the
7 unit up where the wells had been drilled. So that's how
8 we maintained it.

9 Q. Today we're seeking enlargement of the unit
10 pursuant to the unit agreement. Has the unit previously
11 been enlarged?

12 A. Yes, it has. Two years after the initial
13 formation of the unit, Cities, as operator, came along
14 and expanded the unit by 7,307 acres, to approximately
15 50,000 acres. And then following along with that, in
16 1995, the unit was contracted, and there's a provision in
17 the unit agreement that called for that, as well, so it
18 was contracted.

19 What happened between these two times -- it's
20 very, very important to get this point -- to make this
21 point. I don't have these bullets in here, and I should
22 have. Two things happened. Number one, Amerigas, in
23 1989, sold the Mitchell lease to Hess Corporation, so
24 that's at least getting us in the right direction of
25 being able to do something out here.

1 The second thing was that Cities decided it no
2 longer wanted to be in the West Bravo Dome Gas Unit, so
3 we bought their interest out, as well as Chevron's and
4 CO2's and Action's. So we ended up owning all of the
5 interest in West Bravo Dome, and we owned the Amerigas
6 lease.

7 It was on the basis of that that we
8 continued -- Hess didn't have a market for this CO2
9 either, so we then assumed the same thing that Cities was
10 doing, and that's maintaining the leases through shut-in
11 payments. There was some minor production that was going
12 on on the Mitchell lease that went to a food processing
13 plant called the BOC Plant that was out there on the
14 premises.

15 But for the most part, we ended up paying the
16 minimum royalty on the Mitchell lease and minimum shut-in
17 royalties with escalations on the West Bravo Dome Gas
18 Unit lease, and we just left it alone.

19 We left it alone until -- if you go to the
20 next page -- Hess decided that we wanted to develop this,
21 what we call the Residual Oil Zone, in the Seminole San
22 Andres Unit. We needed a large supply of CO2, and we
23 looked -- we always had considered this whole area as an
24 insurance policy, if you will, of CO2 supply, if we ever
25 needed it.

1 Hess, in 2006, went through a rather extensive
2 approval process, and we decided we wanted to develop the
3 ROZ, and we wanted to use as the source of supply of CO2
4 what was up here in West Bravo Dome, which meant
5 developing, not only West Bravo Dome, but developing the
6 Mitchell lease. Those are two key important points.

7 What happened was that in 2007, we decided to
8 drill 18 wells, and we did. And those 18 wells were not
9 just on the West Bravo Dome unit. They were also on the
10 the Mitchell lease. And even one was on a state lease we
11 bought out there. So we did that.

12 And in 2008, we constructed a rather expensive
13 production infrastructure of gathering lines, flow lines,
14 trunk lines, built a plant that was capable of
15 processing -- somebody may help me. I think it was like
16 90 million --

17 MR. MARTINEZ: 75.

18 A. -- 75 million cubic feet of gas a day to
19 process and ship through a transmission line over to the
20 Sheep Mountain Pipeline -- which you may recall, back in
21 that second sheet -- that's that pipeline that runs all
22 the way down through the Bravo Dome unit and all the way
23 down to Seminole.

24 So we did all of that and started production
25 in December of 2008, finished turning all its wells to

1 production, 43 wells to production, by June of 2009, and
2 we also started to make royalty payments and do the kind
3 of lease maintenance that we needed to do to have a
4 productive operation out here.

5 We also had to -- because of the nature of
6 spacing in the area, we had to form communitization
7 agreements, which more often than not, it took portions
8 of West Bravo Dome and combined with portions of the
9 Mitchell lease and other leases, and apportion out the
10 ownership based on the 640-acre pooling patterns.

11 We ended up with -- I think today we've
12 probably got 25 or more communitization agreements in
13 place to handle the accounting and the division of
14 proceeds for production out here.

15 Several other things happened in 2009. We'll
16 go to the next page. As I said, we turned those 43 wells
17 to production. In 2010, this year, we went out and
18 drilled 14 new wells, and out of them, we returned 12 of
19 those wells to production. Just to summarize what we're
20 getting out of there, we're getting about 58 million
21 cubic feet of gas per day from 56 wells.

22 Q. The remaining PowerPoint slides are going to
23 be addressed by other witnesses. If we could turn to the
24 document behind Tab 2. Mr. Hughart, would you identify
25 that, please?

1 A. That is the original unit agreement for the
2 development and operation of the West Bravo Dome Carbon
3 Dioxide Gas Unit, which was recorded on December 12th,
4 1984.

5 Q. This is the agreement that was approved in
6 1984 by the Oil Conservation Division?

7 A. Yes, it was.

8 Q. Now, Article 12 of that agreement provides for
9 enlargement of the unit area, does it not?

10 A. Yes, it does.

11 Q. What are the prescribed procedures for
12 enlarging a unit area?

13 A. I'll reiterate those. Those procedures to
14 enlarge a proposed -- to have an enlargement, it has to
15 be proposed by all the working interest owners.

16 Q. That's Hess?

17 A. Again, that's Hess. We need the approval of
18 the Commissioner of Public Lands and the approval of the
19 Bureau of Land Management.

20 Q. Those are the three requirements in the unit
21 agreement; is that correct?

22 A. That is true.

23 Q. Why have we brought this application before
24 the Oil Conservation Division for approval?

25 A. We had done that because the preliminary

1 approval letter that we obtained from the Commissioner of
2 Public Lands has made an order from the OCD approving
3 enlargement a condition of his approval.

4 Q. Does the initial OCD order, Order R-7707, also
5 require that enlargements and contractions be submitted
6 to the Division Director for approval?

7 A. Yes.

8 MR. CARR: May it please the Examiners? I
9 have a copy of that order just for your reference, if you
10 desire. But it does provide that the Director shall
11 improve enlargements and contractions.

12 Q. (By Mr. Carr) Mr. Hughart, let's go to the
13 information behind Tab 3. Would you identify that,
14 please?

15 A. This is going to be Exhibit A to the enlarged
16 or expanded unit, the second enlargement. It is a map
17 that essentially shows all of the tracts that will be
18 included in the unit. And it has some other things. It
19 has a legend there, and we'll go over the details of that
20 legend in a moment. But that's what that's supposed to
21 show. It also shows the color of the acreage. The green
22 acreage is state leasehold, the orange acreage or
23 flesh-colored is federal, and the fee acreage is all in
24 blue.

25 Q. Would you identify the document behind Tab 4?

1 A. That is what is going to be Exhibit B to the
2 second enlargement, and it is -- if you were to compare
3 it to the map, you would find every tract on that map on
4 this exhibit. It just goes into detail, telling you what
5 the ownership is on every tract.

6 I think if you look on the first page of
7 Exhibit B, you'll see there's tract numbers. If it's a
8 federal lease, it's an F number, a description of the
9 acreage associated with that tract, the amount of acres.
10 If there's a serial number, federal or state, it shows
11 it. It also shows who owns all -- the basic royalty
12 ownership, the lessee of record, who owns the overriding
13 royalty ownership, if any is present, as well as who owns
14 the working interest. And in every case, it's going to
15 show Hess Corporation.

16 Q. Let's go to the next document behind Tab 5.
17 What is this?

18 A. That is the third -- or Exhibit C to the
19 second enlargement. It does nothing more than just take
20 all of those tracts and assign a percentage of
21 participation to the total, to the whole.

22 Q. Would these revised Exhibits A, B, and C be
23 filed in the public records of Harding County?

24 A. Yes.

25 Q. Is that required as a condition precedent to

1 expansion of the unit area?

2 A. Yes, it is.

3 Q. If approved, when would the expanded or
4 enlarged unit become effective?

5 A. It would become effective 7:00 a.m. of the
6 first day of the calendar month following compliance with
7 conditions for enlargement, as specified by working
8 interest owners, and the filing of the revised Exhibits
9 A, B, and C.

10 Q. And so as to the working interest, Hess has
11 leased all 76,000 plus acres, 76,950 acres?

12 A. Yes, sir.

13 Q. All those leases are committed to the West
14 Bravo Dome?

15 A. Yes.

16 Q. Now, let's take a look at the royalty
17 ownership. Has the Commissioner of Public Lands given
18 preliminary approval to the proposal unit agreement?

19 A. Yes.

20 Q. Is that letter included behind Tab 6 in the
21 exhibit?

22 A. Yes.

23 Q. Has the Bureau of Land Management designated
24 the expanded area as an area logically suited for
25 development under a unit plan?

1 A. Yes.

2 Q. What is the status of the fee royalty
3 ownership?

4 A. The fee royalty owners in the original unit
5 area is committed.

6 Q. And with the commitment of the state lands and
7 the commitment of the federal lands and the commitment of
8 these fee lands, being really the Mitchells, will 100
9 percent of the royalty be committed to the unit?

10 A. Yes, it will.

11 Q. I went out of order on here, Mr. Hughart. I
12 would like to, before we wrap up, ask you if you could
13 review your efforts to bring both the Mitchell interests
14 and the OXY interests into the unit.

15 A. Certainly. If you recall, I mentioned that a
16 very good thing that happened in 1989 is that Hess became
17 the operator of that lease. We bought it from Amerigas.
18 So now that we have 100 percent ownership of the unit and
19 100 percent ownership of Mitchell, and as we have, as a
20 company, made the decision to go ahead and develop this,
21 what we did is we started a very long process of trying
22 to get to know the Mitchells.

23 I can still remember -- Joaquin Martinez, who
24 is one of the witnesses shortly, and myself and two other
25 guys, we showed up at the Mitchells' ranch house, sat

1 down and had a long meeting in the morning and got to
2 know them, explained what our processes were and what we
3 intended to do and, from that point forward, started to
4 have regular phone conversations and regular meetings
5 with the Mitchells, trying to convince them we were the
6 real deal. We weren't going to be like everybody else
7 that has ever had ownership of this property and just
8 made these minimum royalty payments. We truly intended
9 to do it.

10 Well that was a big job, because we needed
11 surface use agreements to be worked out. We needed to
12 buy property to put a gas plant out there that would be
13 processing gas, his gas and the West Bravo Dome Gas Unit
14 gas. And anybody that knows the law, you can't do that
15 without the consent. So we worked with the Mitchells on
16 these types of issues.

17 Along with it, we very slowly introduced them
18 to the concept of unitizing their leasehold. If you
19 recall, the Mitchells didn't want to do this going all
20 the way back to Terry's father. Terry Mitchell is
21 president. They wanted no part of this.

22 Well, over about a half a year to a year
23 period of time, we were successful in working with the
24 Mitchells and convincing them that this truly was in
25 their best interest. And at the end of the day, they

1 have committed to do this. It just took a long time to
2 do, but we now have that.

3 There was another piece of this, though, that
4 needed to be dealt with. There was some leasehold that
5 was owned by OXY inside the boundaries of the Mitchell
6 leasehold. It was state leasehold, but they owned it.

7 And over three years ago, they let on to me
8 that they wanted no part of participating in West Bravo
9 Dome. They had their own troubles in Bravo Dome. They
10 wanted nothing to do with it. I said, "Fine. Sell me
11 your acreage." That's not that easy to do with a company
12 like OXY. So we got into -- I won't bore you with the
13 details of all the different types of trades that we
14 tried to work out.

15 But at the end of the day, after three years,
16 we worked out a trade that involved, not only this, but
17 some interests in some other properties elsewhere,
18 outside of here. And we now own an assignment of that
19 OXY acreage that's four state leases comprising 1,280
20 acres. We felt that we had to have that 1,280 acres,
21 just like we had to have the Mitchell acreage. Now we
22 have that. And when we say we're committing an interest
23 under all that acreage, that's exactly what we are doing.
24 We own it, and we are -- when we join that unit, we're
25 joining it with our rights to join that other acreage.

1 So that took a long time.

2 Q. Mr. Hughart, how long have you actually been
3 working to pull these interests together for the
4 proposed --

5 A. Over three years.

6 Q. In addition to bringing all the interests
7 together, did Hess secure a title opinion on the
8 property?

9 A. Yes, we did. We obtained an opinion from a
10 title attorney in Roswell, New Mexico, covering this
11 entire 77,000 acres, and that took the better part of a
12 year and a half to abstract it and for him to render an
13 opinion. And he also had to render a shadow opinion so
14 that we could operate outside of the expanded unit.

15 We still have production going out there, so
16 we need to form communitization agreements and divide the
17 ownership or production on the basis of that, so he did
18 that as well. This thing, in all, took well over two
19 years to get the title done. But we have it done, and
20 it's on the basis of that title work that we're not only
21 paying and operating now, but we will use that title
22 opinion for the expanded unit, to pay and develop the
23 expanded West Bravo Dome Gas Unit.

24 Q. In your opinion, are all available interests
25 now voluntarily committed to this community plan?

1 A. Yes, sir.

2 Q. Are there tracts in the unit area not
3 committed to the unit?

4 A. Yes, there are. There are a total of three
5 different tracts that are not going to be tracts in the
6 unit.

7 Q. These are windows in the unit?

8 A. These are windows in the unit. One of them,
9 it's less than an acre, and it is owned by people that we
10 cannot locate and we cannot find. In fact, one of the
11 wells that we've already drilled out in this section, we
12 will need to go through the proper channels, go before
13 you again sometime soon, and we'll have to have that
14 interest force pooled, to demonstrate to you that we have
15 been unable to locate these people. So that's one tract.

16 There's another 40-acre tract that is owned by
17 some individuals that -- that 40-acre tract was never
18 included in the original unit. It has nothing to do with
19 the Mitchell lease. It's just a tract that was a window
20 all the way back then.

21 I have secured the services of a contract
22 lease broker to try to acquire that lease. They never
23 heard from them, so we feel they still desire not to be
24 part of this.

25 Finally, there is 400 acres of land down in

1 the extreme southern portion of the 77,000-acre block
2 that is a federal lease. It's owned by a company called
3 Spike Box Land & Cattle Company. They are not in the oil
4 and gas business.

5 There is a long story about what I -- I think
6 this is a federal lease that's got some questionable
7 reason why it even exists. And it's got even more
8 onerous overriding royalty issues. I spoke to the people
9 at Spike Box Land & Cattle and told them, "We don't want
10 to buy that lease from you. But if you want to
11 participate in our unit, you're welcome to do so." He
12 brushed me off about as fast as he could brush me off.
13 He wants no part of this.

14 They're not oil and gas people. They're in
15 the cattle business. So he's saying, no, they don't want
16 to be a part of this.

17 Q. As to these three tracts, if there is
18 development in the spacing unit that would include these
19 lands, you would honor their ownership based on their
20 mineral interests or their leasehold interests?

21 A. Yes, we will.

22 Q. If you can't reach agreement with them when
23 and if you're drilling a well on those properties, you
24 would have to force pool them?

25 A. That is true.

1 Q. Does Hess Corporation desire to be designated
2 operator of the enlarged unit area?

3 A. Yes, we do.

4 Q. Does the unit agreement provide for periodic
5 filing of plans of development?

6 A. Yes, it does.

7 Q. And those have been filed?

8 A. Yes.

9 Q. How often are they filed?

10 A. Once a year.

11 Q. Are they filed with the Oil Conservation
12 Division and the Land Office and the BLM?

13 A. Yes.

14 Q. Would you identify Hess Exhibit 8 behind Tab
15 8?

16 A. Hess Exhibit 8 is the proposed order of the
17 Division which would create this expanded unit.

18 MR. CARR: Mr. Examiner, we will also
19 provide that by email. But the property description is
20 the really difficult part of this, and we have prepared
21 it and checked it and checked it. We believe it is
22 accurate and can be relied on. So as you consider this,
23 you don't have to worry about that. This is the correct
24 description by section, township, and range, of the
25 expanded area.

1 EXAMINER JONES: I was going to ask for
2 that. Thank you.

3 Q. (By Mr. Carr) Mr. Hughart, were Slides 1
4 through 6 and Exhibits 2 through 8 in the exhibit book
5 prepared by you or compiled at your direction?

6 A. Yes.

7 Q. Can you testify to their accuracy?

8 A. Yes.

9 MR. CARR: At this time, may it please the
10 Examiners? We move the admission into evidence of Hess
11 Exhibit 1, Slides 1 through 6, and Exhibits 2 through 8.

12 EXAMINER JONES: Hess Exhibit 1, Slides 2
13 through 6 --

14 MR. CARR: Slides 1 through 6.

15 EXAMINER JONES: -- Slides 1 through 6
16 will be admitted.

17 MR. CARR: And Exhibits 2 through 8.

18 EXAMINER JONES: And Exhibits 2 through 8.
19 (Exhibit 1 Slides 1 through 6 and Exhibits 2 through 8
20 were admitted.)

21 MR. CARR: That concludes my direct
22 examination of Mr. Hughart.

23 EXAMINER JONES: I'll quickly punt this
24 off to David.

25

EXAMINATION

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BY EXAMINER JONES:

Q. But from '98 to 2007, it took quite a while to start drilling wells. I know there was some downturn in the prices at the time. Is that what happened?

A. It certainly was what happened. It wasn't just -- when you say, "downturn in prices," you have to say "oil prices," because we use CO2 for oil enhancement purposes. CO2 itself is on the market. There almost is no market anymore for arm's length transactions of value CO2. But for our purposes, we use it for enhanced oil recovery, so we always targeted this CO2 supply for what we have called a Residual Oil Zone Recovery Project in Seminole.

Seminole has historically produced what we call the Main Pay Zone or the MPZ. That's what it's done for years and years and years. We used as our source of supply 10 percent ownership in Bravo Dome. In 2006, finally oil prices got high enough where we began to think -- we knew this Residual Oil Zone that existed beneath the Main Pay Zone was there. The question is -- we knew it was going to be expensive to extract, and then to drill new wells and injector wells and develop the cells necessary to produce this.

But the economics got good in 2006, and that's

1 when Joaquin and I were both part of an extensive peer
2 review process where we ran this thing all the way up the
3 highest levels of the corporation. They said, "Okay.
4 Get started on developing the ROZ." And by doing that,
5 we ended up then having to, at the same time, develop
6 West Bravo Dome.

7 When I say, "West Bravo Dome," I'm talking
8 about both the Mitchell lease and the actual West Bravo
9 Dome Carbon Dioxide Gas Unit. We had to develop it all.
10 That's what happened in 2006, and then we started that
11 drilling program in 2007, and tried to dovetail it
12 according to our needs of CO2 at Seminole.

13 Q. Okay. So you have to drill wells periodically
14 on this expanded unit to maintain the unit? I didn't
15 read the unit requirement. But you have to drill so many
16 wells a year; is that correct?

17 MR. CARR: There is no separate
18 requirement. There's a requirement for an annual plan of
19 development. That has been filed with you, the Land
20 Office, the BLM, every year.

21 There's been years where there's been no
22 activity out there, but these plans of development were
23 approved primarily because if this unit once failed, it
24 was a concern that it could never be put back together
25 and these resources would never be developed. So we had

1 meetings year after year after year moving towards this
2 time.

3 Q. Okay. So this Sheep Mountain Pipeline is
4 owned partially by Hess?

5 A. At the point of the Rosebud interconnect, we
6 actually have an ownership interest in that line, and
7 it's -- what we use is our portion of that line to take
8 the 10 percent of the product that comes out of Bravo
9 Dome, and we take our product in kind.

10 And we don't ship it where OXY ships theirs.
11 Theirs goes through another line. We use the Sheep
12 Mountain to send that product down to Seminole. And now
13 we are using the Sheep Mountain Line to ship our product
14 from West Bravo Dome. Whereas where we have 100 percent
15 of the product coming out of West Bravo Dome, we have
16 only 10 percent coming out of Bravo Dome. That line gets
17 both.

18 Q. Does any get dropped off at the Wasson Field?

19 A. It goes down to Denver City, and from there,
20 we take it down to Seminole.

21 Q. I would have thought that residual zone could
22 have been -- could have used the CO2 that's already in
23 the main zone of the Seminole Unit. But it sounds like
24 you do definitely need more CO2.

25 A. Certainly.

1 EXAMINER JONES: What notice was required
2 for this particular hearing here?

3 MR. CARR: This is unique. It's a
4 voluntary unit. It only affects the interests that are
5 committed.

6 We've been able to commit everybody, but we
7 have these windows, and we'll honor those on a lease
8 basis, like other voluntary units. We didn't have
9 anyone, really, to notify, because it only affects those
10 who signed. If they decided they're going to exercise
11 correlative rights by committing to the unit, they're in.
12 If not, they're developed pursuant to their mineral
13 interest ownership or the ownership they have on the
14 lease.

15 Q. (By Examiner Jones) Was there any vertical
16 changes in the vertical limits of this unit at the time
17 it was expanded?

18 A. Not to my knowledge. It covered the Tubb
19 formation. And also you'll hear the words "Granite Wash"
20 used later on as an opportunity formation. But it is
21 part of the unitized interval. That's never changed
22 going all the way back to when the original order came
23 out.

24 MR. CARR: Mr. Jones, in response to your
25 last question, the unit was enlarged at one time. It had

1 been contracted at one time, adding as much as 7,000
2 acres. There was no hearing and no notice the unit
3 agreement provides.

4 But when we met with the Land Office they
5 asked us or told us to come here and get an approval
6 order principally because what we're doing is more than
7 doubling the size of the unit. So that's why we're here.

8 EXAMINER JONES: Mr. Brooks?

9 EXAMINER BROOKS: I don't think I have any
10 questions.

11 EXAMINER JONES: Well, okay. Thanks a
12 lot.

13 MR. CARR: At this time we'll call our
14 geological witness, Mr. Slamet.

15 We're going to be starting with the seventh
16 slide in the exhibit book. It's entitled, "Stratigraphic
17 Section, Typical Well in Unit." It's the seventh slide
18 behind Tab 1.

19 GERMAWAN SLAMET

20 Having been first duly sworn, testified as follows:

21 DIRECT EXAMINATION

22 BY MR. CARR:

23 Q. Would you state your name for the record,
24 please?

25 A. My name is Germawan Slamet.

1 Q. Will you spell your name?

2 A. G-e-r-m-a-w-a-n S-l-a-m-e-t.

3 Q. Mr. Slamet, where do you reside?

4 A. Houston, Texas.

5 Q. By whom are you employed?

6 A. Hess Corporation.

7 Q. What is your position with Hess Corporation?

8 A. I'm the geologist for the Permian Subsurface
9 Team of America's production.

10 Q. Have you previously testified before the New
11 Mexico Oil Conservation Division?

12 A. No, I haven't.

13 Q. Could you review for Mr. Jones and Mr. Brooks
14 your educational background?

15 A. I have a Bachelor of Science Degree majoring
16 in Geophysics from 1999, from Bandung Institute of
17 Technology in Indonesia.

18 Q. Since graduation, for whom have you worked?

19 A. I initially worked for Schlumberger for five
20 years. And then I joined Hess in 2005, and initially was
21 in their Jakarta office operation for three years. Then
22 I moved here in Houston in 2008, and since then, I've
23 been working as a geologist on Permian Basin team.

24 Q. Are you familiar with the proposed enlargement
25 of the West Bravo Dome unit?

1 A. Yes.

2 Q. Have you made a geological study of the
3 subject formations in this unit?

4 A. Yes.

5 Q. Are you prepared to share the results of your
6 work with the Examiners?

7 A. Yes.

8 MR. CARR: We tender Mr. Slamet as an
9 expert in petroleum geology.

10 EXAMINER JONES: He is so qualified.

11 Q. (By Mr. Carr) Mr. Slamet, what is the primary
12 objective in this unit?

13 A. The primary objective in this unit is the Tubb
14 formation, and it has a thickness ranging between 20 and
15 200 feet.

16 Q. Is the Tubb present across the entire unit
17 area?

18 A. Yes.

19 Q. Has this formation been tested and developed
20 in the enlargement area?

21 A. Yes. We have over 70 wells currently
22 producing in the area and over 50 wells producing.

23 Q. Are there secondary objectives in the unit?

24 A. Yes, there are.

25 Q. What are they?

1 A. It's the interval that we call the Granite
2 Wash, which is also part of the Tubb formation.

3 Q. So we have, as a secondary objective, the
4 Granite Wash. It's part of the Tubb. Is it included
5 within the interval that's unitized?

6 A. Yes.

7 Q. What is the basis for the unit boundary?

8 A. The basis of the unit boundary is a
9 combination of geological boundary and political
10 boundary.

11 Q. Could you just describe for us the regional
12 setting for this unit?

13 A. Yes. The West Bravo Dome field is located in
14 the northeastern part of New Mexico. Basically, it's an
15 extensional area of the Sierra Grande uplift. It's
16 permian-age formation.

17 Q. What did you utilize or what is the basis for
18 your geologic interpretation?

19 A. Using well data and surface geology data.

20 Q. Let's go to slide Number 7 behind Tab 1. It's
21 entitled, "Stratigraphic Section West Bravo Dome Gas
22 Unit/Typical Well in Unit." Would you identify the two
23 parts of this exhibit and explain to the Examiners what
24 this shows?

25 A. The stratigraphic section here basically

1 explain or give you some idea on where our interest
2 formation is located. Our interest formation is the top
3 sandstone, which is highlighted in yellow in this
4 stratigraphic section. The top sandstone or the Abo
5 formation, we call it as part of the upper Tubb, the
6 middle Tubb, the lower Tubb, and the Granite Wash in our
7 area. But the area around Northwest New Mexico, normally
8 they call it Tubb sandstone or the Abo formation.

9 On the right-hand side, the typical well unit
10 just gives you idea of how the typical well depth are in
11 our field. Because we have a topographical difference,
12 it's quite extreme. We have half part of the field
13 sitting on Cap Rock, and we call it as a mesa. On that
14 area, most of the wells are around 3,000 feet deep. The
15 other half of the field is in the valley, and that area
16 the wells are typically 2,000 feet deep.

17 Q. Let's go to Slide Number 8. Would you
18 identify this and explain what it shows?

19 A. This slide is trying to show the top of the
20 Tubb structure map. So on the left-hand side it's the
21 Tubb structure map around the West Bravo Dome area, while
22 on the right-hand side, it's the top of the Tubb
23 structure map around the Bravo Dome area.

24 This is just to illustrate the continuation of
25 the Tubb structure around this whole area, and also to

1 show that there is no major structural variance in this
2 area, which means there is no fault compartment that lies
3 at the Tubb formation.

4 Q. Let's go to Slide Number 9. This is also to
5 support the previous slide. This is the distribution of
6 the bottomhole pressure around West Bravo Dome area and
7 the West Bravo Dome area that is adjacent to the Bravo
8 Dome area.

9 Again, on this map, we try to show that we
10 don't have any abrupt pressure changes in the whole area.
11 We don't expect to see any compartmentalization in the
12 Tubb formation.

13 Q. Let's take a look at the Tubb Pore Volume
14 Height Map, which is Slide 10.

15 A. This is a hydrocarbon pore volume height map,
16 and the hydrocarbon in this case is basically CO2. This
17 map shows the net thickness of the Tubb formation that
18 contains CO2 after we apply a certain cutoff to the
19 thickness. We apply an 8 percent porosity cutoff and 65
20 water saturation cutoff.

21 Q. On this exhibit the unit boundary is shown,
22 but what you're really mapping are production Tubb sets;
23 is that right?

24 A. Correct. Also shown on this map is, on the
25 left-hand side or on the western side of the field, the

1 field is bounded by a fault. While on the southern part
2 of the field, we are bounded by the gas water contact.
3 As you see, there is also one well on the southern part
4 of the field which have a zero hydrocarbon pore volume,
5 which is a dry well, which strengthen our boundary. And
6 on the northern and eastern side of the field, the
7 boundary is basically the unit boundary of Bravo Dome.

8 Q. So you have a political boundary north and
9 east?

10 A. Yes.

11 Q. You have a fault to the west?

12 A. Yes.

13 Q. You have a gas water contact to the south?
14 And that's how the unit boundaries are determined?

15 A. Correct.

16 Q. Could you summarize the geologic conclusions
17 you have reached from your study?

18 A. Basically, the conclusion is that the Tubb
19 formation in the original West Bravo Dome area and the
20 expanded West Bravo Dome area are one formation. They
21 are continuous.

22 Q. In your opinion, from a geologic point of
23 view, can these sands be developed under a unit plan?

24 A. Yes.

25 Q. In your opinion, will approval of the

1 application be in the best interest of conservation and
2 prevention of waste and protection of correlative rights?

3 A. Yes.

4 Q. Were Slides 7 through 10 prepared by you or
5 have you reviewed them, and can you confirm their
6 accuracy?

7 A. Yes, I can.

8 MR. CARR: May it please the Examiners?
9 At this time we would move the admission of Slides 7
10 through 10.

11 EXAMINER JONES: Slides 7 through 10 will
12 be admitted.

13 (Exhibit 1 Slides 7 through 10 were admitted.)

14 MR. CARR: That concludes my direct of
15 Mr. Slamet.

16 EXAMINATION

17 BY EXAMINER JONES:

18 Q. You had the Santa Rosa formation code in on
19 your stratisection?

20 A. Yes. The Santa Rosa in this part is basically
21 to the upper Dakota Sandstone. So the main formation
22 that we typically found in the well that we drilled is
23 after Santa Rosa. Normally we found the San Andres
24 formation and the Yeso formation. And after that, we hit
25 the Cimarron anhydrite, which is our seal, and after

1 that, we hit the Tubb formation, the upper Tubb, middle
2 Tubb, lower Tubb, and the Granite Wash.

3 Q. Granite Wash is part of the Abo?

4 A. It's part of the Abo formation.

5 EXAMINER JONES: Okay. I don't have any
6 more questions.

7 EXAMINER BROOKS: No questions.

8 MR. CARR: May it please the Examiners?
9 At this time we would call Joaquin Martinez.

10 EXAMINER JONES: Thank you, Mr. Slamet.

11 MR. CARR: We will be starting with the
12 next slide, that looks like this.

13 JOAQUIN MARTINEZ

14 Having been first duly sworn, testified as follows:

15 DIRECT EXAMINATION

16 BY MR. CARR:

17 Q. Mr. Martinez, state your name for the record,
18 please.

19 A. Joaquin Martinez.

20 Q. Where do you reside?

21 A. Midland, Texas.

22 Q. By whom are you employed?

23 A. Hess Corporation.

24 Q. What is your position with Hess Corporation?

25 A. I'm the operations manager for Texas and New

1 Mexico, including West Bravo Dome.

2 Q. Have you previously testified before this
3 Division?

4 A. No, I have not.

5 Q. Could review your educational background for
6 Mr. Jones and Mr. Brooks?

7 A. I have a Bachelor of Science Degree in Civil
8 Engineering from the University of Arizona from 1993.

9 Q. Following graduation, for whom have you
10 worked?

11 A. I worked for two companies, and I have 16
12 years of industry experience. I worked 11 years for
13 Exxon Mobil in a variety of locations around the globe,
14 primarily as a reservoir engineer. And for the last five
15 years, I worked for Hess in primarily managerial and
16 supervisory roles.

17 Q. Are you familiar with the application of the
18 enlarged West Bravo Dome that is the subject of this
19 hearing?

20 A. Yes, I am.

21 Q. Are you familiar with the status of the lands
22 and engineering considerations that have gone into this
23 proposed enlargement?

24 A. Yes.

25 Q. Are you prepared to share the results of your

1 work and your studies on this area with the Examiners?

2 A. Yes, I am.

3 MR. CARR: We tender Mr. Martinez as an
4 expert in reservoir engineering.

5 EXAMINER JONES: He's so qualified.

6 Q. (By Mr. Carr) Mr. Martinez, let's go to the
7 slides behind Tab 1, and we will start with Slide Number
8 11. Would you identify that and review it for the
9 Examiners?

10 A. Yes. Slide 11 depicts a zooming in of the
11 West Bravo Dome Gas Unit as it exists today, and it is
12 highlighted in the bold, black outline. Within that
13 bold, black outline, you have the categorizations of the
14 different types of leases. Those being the fee leases in
15 the tan color, federal leases in the orange color, and
16 the state leases in green.

17 Also in this diagram you have the outline of
18 the Bravo Dome unit outlined in the bold red. In between
19 that, you have the Mitchell leases, as Mr. Hughart
20 referred to earlier and described in fairly good detail.

21 One thing that I want to point out with the
22 boundaries of the West Bravo Dome Gas Unit as it exists
23 today is that it is contorted and it is difficult to
24 operate and develop because of the nature of the
25 boundaries.

1 If we were to expand the unit to make it
2 contiguous, it would allow for a more orderly and
3 efficient development of the overall resource, and it
4 would also allow engineering, geologic, and operational
5 considerations to govern, as opposed to a surface
6 boundary.

7 Q. Let's go --

8 A. In addition to that, by being more efficient
9 and perhaps drilling fewer wells to develop the resource,
10 we would minimize our surface footprint at the same time.

11 Q. Let's look at Slide 12, because I think this
12 illustrates one of the principal benefits obtained on the
13 proposed enlargement. What is Slide 12?

14 A. Slide 12 depicts the expanded unit. You've
15 seen this slide before in Mr. Hughart's testimony. What
16 the expanded unit does is it erases those contorted
17 boundary lines and allows for a contiguous development.

18 What you also have on this slide is, again,
19 the highlighting of the different types --
20 categorizations of leases, whether they be state, fee, or
21 federal. In the upper right-hand corner, there's a small
22 box that summarizes the number of federal tracts, state
23 tracts, and fee tracts, totalling 122 in total, and also
24 the acreage assigned to each of those types of tracts and
25 the percentage of the proposed expanded unit.

1 Q. Let's go to your volumetric calculations, the
2 next slide, Slide 13. Would you review this exhibit and
3 explain what it shows?

4 A. Slide 13 is a summary of the volumetric
5 calculation for both the existing West Bravo Dome Gas
6 Unit and the proposed expanded West Bravo Dome Gas Unit.
7 The existing summary calculations are on the left-hand
8 side of the page, and the expanded calculations are on
9 the right-hand side of the page.

10 The volumetrics take into account the area,
11 the height, the porosity, as well as the formation volume
12 factor of CO2 at the various pressures. As you work
13 through the calculations, there is an arrow pointing to
14 the original gas in place for the existing West Bravo
15 Dome Gas Unit, that being approximately 445 bcf of gas in
16 place, approximately 70 percent of which is recoverable,
17 bringing the total recoverable reserves to approximately
18 311 bcf.

19 Turning your attention to the right-hand side
20 of the page, you have the expanded West Bravo Dome Gas
21 Unit and similar calculations in the volumetrics. The
22 total gas in place for the expanded unit is estimated at
23 928 bcf, of which approximately 650 bcf are recoverable.

24 Q. Let's move to the next slides and look at the
25 percentage ownership and the gas reserves before and

1 after enlargement. First go to Slide 14, the comparison
2 of the existing unit and the proposed expanded unit.

3 A. What slide 14 summarizes is the different type
4 of lease, the net acres, and the portion of the unit in
5 both the existing unit, as well as the expanded unit.
6 The state portion percentage of the unit goes from 38
7 percent in the existing unit to 21 percent in the
8 expanded unit. Along the same terms, the federal goes
9 from 20 percent to 10 percent of the unit, and the fee
10 goes from 42 to 69 percent of the expanded unit.

11 Q. Let's go to the next slide and look at the
12 allocation of these reserves based on 2008 projections.

13 A. Before the 2010 drilling campaign, as we
14 described earlier, we had calculated some volumetrics and
15 recoverable reserves back in 2008. That's what this
16 Slide 15 summarizes.

17 In the existing West Bravo Dome Gas Unit,
18 using the information that we knew in 2008, the
19 recoverable reserves, as I reviewed a second ago, was 311
20 bcf recoverable. Again, that's a recovery factor of
21 approximately 70 percent. And in the expanded unit, we
22 have about 650 bcf recoverable.

23 The fee share would go from 130 to 123 bcf.
24 The state share would increase from 118 to 136. The
25 federal share would increase from 62 to 65 bcf, and for

1 completeness' sake, the Mitchell shares are also
2 identified there as 325 bcf. Again, this was
3 calculations that we conducted back in 2008.

4 Q. Let's go to 2010 calculations, the next slide.

5 A. Slide 16 depicts our current understanding of
6 the original gas in place, as well as the recoverable
7 reserves, similar to what Slide 15 did, with the
8 additional information and well control that we gained
9 from the additional wells that we drilled in 2010.

10 The fee share goes from 122 bcf, approximately
11 10 more, to 132 bcf. The state share increases from 125
12 to 146. The federal share is increased from 63 to 70
13 bcf. And again, for completeness' sake, the Mitchell
14 recoverable reserves are 348 bcf.

15 Q. What we see here is that even though the
16 percentage of the state interest and the federal interest
17 declines, what they are going to receive is a smaller
18 portion of a larger pie that actually is a net increase
19 in the total gas attributable to those interests?

20 A. That's correct. Although the percentage decreases,
21 the resource base has increased, which results in an
22 overall increase of the recoverable reserves due to the
23 state as well as the federal portions.

24 Q. Let's go to Slide 17, "West Bravo Dome Field
25 Future Activity."

1 A. Looking forward, we estimate there being
2 approximately 43 additional locations. That would bring
3 the total number of wells to develop the reserves that I
4 summarized a little while ago to about 120 wells total,
5 and we will continue to develop these on a regular basis.
6 We currently have approximately 20 wells in the budget
7 for next year, and we will continue to develop this
8 resource as we need it in the Seminole San Andres unit,
9 as Mr. Hughart discussed earlier.

10 Q. Now let's go to Slide 18, the July 30, 2010
11 update.

12 A. Slide 18 shows the number of existing wells in
13 the green crosses, and it also shows the wells that were
14 drilled in 2010 in the red crosses.

15 It also has a couple of other features that I
16 wanted to highlight. One is the unit boundary so you can
17 see that we're developing the field throughout the
18 expanded area. It also shows the extensive gathering
19 system, which includes flow lines and trunk lines, to a
20 central compression station. It shows the export
21 pipeline which is a 12-inch, 12-mile pipeline connecting
22 to the Sheep Mountain Pipeline on the right-hand side of
23 the page at an interconnect we call Rosebud.

24 Q. And the next slide, the last slide?

25 A. The last slide is the development of the full

1 field resource depicting approximately 120 wells.
2 Overlaid on the gathering system and the well locations
3 is the topographical feature that Mr. Slamet referred to
4 earlier. There's approximately 1,000 feet of relief from
5 what we call the mesa wells down into the valley wells.

6 Q. The Cap Rock is basically the acreage shaded
7 in yellow?

8 A. Yes.

9 Q. In your opinion, has all acreage in the
10 enlarged area been reasonably proven to be productive of
11 CO2?

12 A. Yes.

13 Q. Will approval of the proposed enlarged unit
14 and the implementation of unitized operation and
15 management in the enlarged unit area be in the best
16 interest of conservation, the prevention of waste and
17 protection of correlative rights?

18 A. Yes, it will.

19 Q. Were Slides 11 through 19 prepared by you, or
20 have you reviewed them and can you confirm their
21 accuracy?

22 A. Yes.

23 MR. CARR: At this time, Mr. Examiners, we
24 move the admission into evidence of Slides 11 through 19
25 of Hess Corporation Exhibit Number 1.

1 EXAMINER JONES: Slides 11 through 19 of
2 Hess Corporation Exhibit Number 1 will be admitted.

3 (Exhibit 1 Slides 11 through 19 were admitted.)

4 MR. CARR: That concludes my direct
5 examination of Mr. Martinez.

6 EXAMINATION

7 BY EXAMINER JONES:

8 Q. Have you had any concerns by any environmental
9 groups out here in this area?

10 A. Not to my knowledge. In fact, we were
11 recently nominated by one of the local landowners as
12 being the conservationist of the year. Whether or not we
13 won that award, I haven't heard one way or the other.

14 Q. What about impact on the water out here from
15 your drilling operations? Is there much impact on the
16 groundwater?

17 A. To my knowledge, there's been no impact to the
18 groundwater based on the well design and the well
19 construction, the cementing procedures, as part of
20 drilling each well.

21 Q. And the water disposal target, is it the
22 existing disposals?

23 A. We do a combination of water disposal. We
24 have an on-site water disposal well. However, that well
25 is not taking the full amount and we have to truck water

1 to a disposal site in Texas, I believe.

2 Q. Did you ask for a pressure increase on your
3 disposal well?

4 A. To my knowledge, we did ask for a pressure
5 increase. I'm not sure of the status of that approval.
6 However, regardless of whether that's approved or not, I
7 don't believe that that would sufficiently be able to
8 handle all of the water that we're currently producing,
9 which is approximately 200 barrels a day.

10 Q. But it would go up if you drill more wells, or
11 will it drop off with the other wells as they produce?

12 A. The idea is to minimize the amount of water
13 production with low pressure gas wells. And we learned
14 quite a bit about the reservoir and the existence of
15 water in the last drilling campaign.

16 We originally would have a large frac in
17 previous wells drilled before 2010, approximately 100,000
18 pound frac on these wells. What we've done in 2010 is a
19 more focused effort to define where the water is coming
20 from and which zones within the Tubb, staying away from
21 those zones, pinpointing the fracs, and our fracs are
22 approximately 20,000 pounds now.

23 In 2010, after the frac work, we had no
24 additional water production. The water production came
25 from wells drilled before 2010. So I feel confident

1 going forward that the amount of water that we produce
2 should be minimized.

3 Q. You stayed out of the water zone?

4 A. Yes. We engaged some experts from our
5 technology group. We developed a new algorithm for
6 understanding the mobility of the water and the presence
7 of water, and we stayed away from those zones in our frac
8 techniques.

9 Q. On your volume calculations, are you using
10 just a BGI/BGF-type calculation, or are you using the POZ
11 calculation?

12 A. We're using a formation volume factor. If you
13 noticed on the pressure maps that Mr. Slamet presented,
14 that the pressure varies from 600 pounds to 800 pounds.
15 With CO2 and the characteristics of CO2, you need to have
16 a BCG that would allow you to correctly and accurately
17 depict what the volume would be at standard conditions.

18 Q. And your abandonment pressure, what do you
19 think that will be out there?

20 A. I think, as we understand the performance of
21 the reservoir, that will be determined. Right now the
22 existing infrastructure can take the pressure down to
23 about 110 pounds at the facility, which relates to about
24 125 pounds at the well head. There is a possibility
25 going forward that we could put a blower-type compressor

1 on the front end of the existing facility and draw that
2 down even further, but that is still to be determined.

3 EXAMINER JONES: I have no more questions.

4 EXAMINER BROOKS: No questions.

5 MR. CARR: May it please the Examiners?
6 That concludes our presentation in this case.

7 EXAMINER JONES: Thank you all for coming
8 and showing this to us.

9 We'll take Case 14545 under advisement, and
10 the hearing is adjourned.

11 * * *

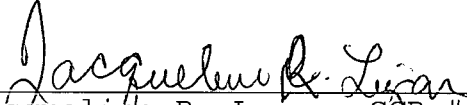
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16 I hereby certify that the foregoing is
17 a complete record of the proceedings in
18 the Examiner hearing of Case No. _____
19 heard by me on _____, Examiner
20 Oil Conservation Division
21
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23
24
25

REPORTER'S CERTIFICATE

I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO
HEREBY CERTIFY that on September 16, 2010, proceedings in
the above captioned case were taken before me and that I
did report in stenographic shorthand the proceedings set
forth herein, and the foregoing pages are a true and
correct transcription to the best of my ability.

I FURTHER CERTIFY that I am neither employed by
nor related to nor contracted with any of the parties or
attorneys in this case and that I have no interest
whatsoever in the final disposition of this case in any
court.

WITNESS MY HAND this 29th day of September,
2010.


Jacqueline R. Lujan, CCR #91
Expires: 12/31/2010