AP - 062

GENERAL CORRESPONDENCE

2008 - 2007

VonGonten, Glenn, EMNRD

From: Dale Littlejohn [dale@rthicksconsult.com]
Sent: Tuesday, December 04, 2007 7:08 AM
To: Johnson, Larry, EMNRD; VonGonten, Glenn, EMNRD
Cc: Randy Hicks (Randy Hicks); 'Scott Rose'; fsteed@samson.com
Subject: Samson Livestock "30" Sampling Event

Please accept this email as notice of our intentions to conduct a ground water sampling event at the Samson Livestock "30" former reserve pit site on Thursday December 6, 2007 beginning at 8:30 AM. The site is located 15 miles west of Eunice, NM at Section 30 (unit P), T-21-S, R-35-E. Please contact me if you have any questions or need any additional information.

Thanks,

Dale T Littlejohn, PG
R T Hicks Consultants Ltd
(432) 528-3878 (office)
(432) 689-4578 (fax)

This inbound email has been scanned by the MessageLabs Email Security System.

VonGonten, Glenn, EMNRD

From: Randy Hicks [r@rthicksconsult.com]
Sent: Friday, May 09, 2008 6:17 AM
To: VonGonten, Glenn, EMNRD
Cc: 'Scott Rose'; 'Dale Littlejohn'; 'Floyd Steed'
Subject: Samson Livestock
Attachments: Final Plate 3 GW Impact Map.pdf

Glenn

On Monday, we should be able to deliver a proposal to use the impaired ground water from the Samson Livestock site (MW-3) for brine drilling water at two well sites and for use in the construction of one new well pad. In about 10-20 days from now, we will be able to use the water periodically over the next 80-90 days when the rigs are drilling the brine section of the holes. We could use the water for construction of the new site as soon as possible.

I would greatly appreciate you setting aside some time to review (and approve) this proposal so we can get a wiggle on and implement the pump-and-use ground water restoration strategy for the Livestock site. The proposal to use the water within a brine drilling program should be a quick review.

Randall Hicks
Tel: 505-266-5004
Cell 505-238-9515

CONFIDENTIALITY NOTICE

This message (including attachments) is subject a confidential communication and is intended solely for the use of the addressee. It is not intended for transmission to, or receipt by, any unauthorized person. If you are not the intended recipient or received these documents by mistake, please do not read it and immediately notify us by collect telephone call to (505) 266-5004 for instructions on its destruction or return. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, action or reliance upon the contents of the documents is strictly prohibited.

This inbound email has been scanned by the MessageLabs Email Security System.

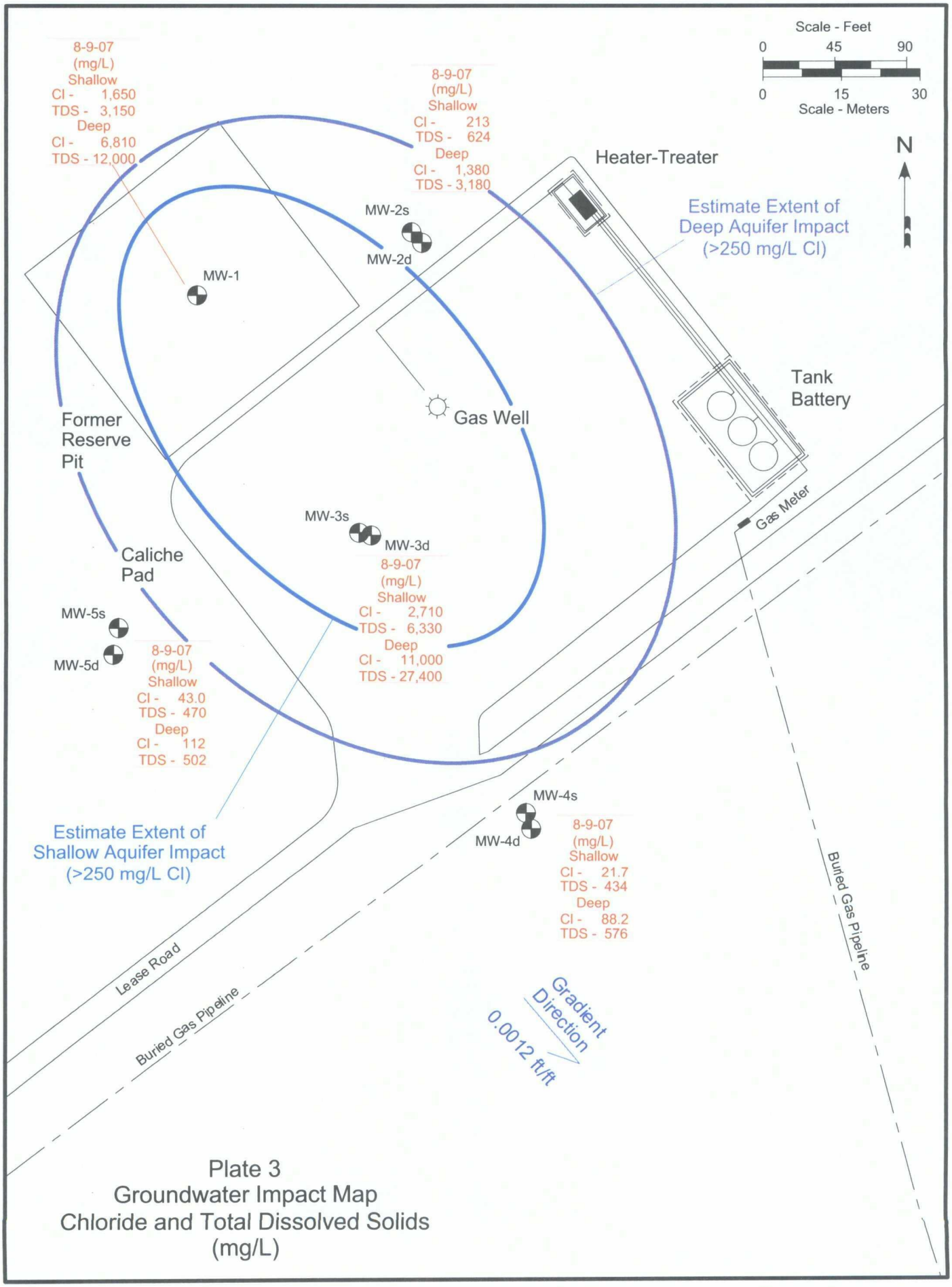


Plate 3
Groundwater Impact Map
Chloride and Total Dissolved Solids
(mg/L)

VonGonten, Glenn, EMNRD

From: Randy Hicks [r@rthicksconsult.com]
Sent: Wednesday, May 14, 2008 4:52 PM
To: VonGonten, Glenn, EMNRD
Cc: srose@samson.com; fsteed@samson.com; 'Dale Littlejohn'; rochelle@rthicksconsult.com
Subject: Samson Livestock AP 62-0
Attachments: Water Use Letter and Attachment.pdf

Glenn

This letter requests NMOCD approval to implement the pump-and-use ground water restoration strategy proposed in our November 2007 submission to NMOCD.

We request NMOCD approval as soon as possible to pump and use ground water from MW-3d (TDS about 25,000 mg/L) for the brine drilling program at the Osudo site described in the attachment – which will spud very soon.

We request NMOCD review and approval to use water from MW-3d for the Cattleman well brine drilling program as well as using the water sparingly in the fresh water drilling program. The Cattleman well will spud in about 40-60 days from now (after completion of the Osudo well).

We request NMOCD review and approval for the use of the Livestock ground water in lieu of fresh water for construction of the Cattleman location, or other Samson construction projects within the area described in the attachment.

We have started pumping (1.2 GPM) from MW-3 into two frac tanks at the Livestock site in anticipation of NMOCD approval to move forward with the pump-and-use ground water restoration program associated with the brine mud drilling program at the Osudo site.

Please contact me if you have any questions or comments.

We will send out the hard copy of this letter on Friday of this week.

Randall Hicks
505-266-5004
505-238-9515 - cell

CONFIDENTIALITY NOTICE

This message (including attachments) is subject a confidential communication and is intended solely for the use of the addressee. It is not intended for transmission to, or receipt by, any unauthorized person. If you are not the intended recipient or received these documents by mistake, please do not read it and immediately notify us by collect telephone call to (505) 266-5004 for instructions on its destruction or return. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, action or reliance upon the contents of the documents is strictly prohibited.

This inbound email has been scanned by the MessageLabs Email Security System.

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

May 14, 2008

Glenn Von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Samson Livestock "30" Reserve Pit, T21S, R35E, Section 30, Unit P;
NMOCD Case # AP-62-0, Pump-and-use Ground Water Restoration Strategy

Dear Glenn,

As we discussed last month, Samson proposes to use impaired ground water from the Livestock 30 site for make-up water for drilling. We have begun pumping water from MW-3d into frac tanks in anticipation of your approval of this re-use strategy.

In our November 2007 report to NMOCD we provided the following recommendations for a pump-and-use ground water restoration program at the Livestock site:

1. Place temporary electric pumps in MW-3d and/or MW-1d to enable the withdrawal of a total of about 4 gpm of water for beneficial use on an as-needed basis.
2. When water is needed for road or pad construction, road dust suppression or drilling fluid make-up; place a portable tank on location adjacent to MW-3d.
3. Begin pumping and store the pumped water in portable tank(s). A discharge of 4 gpm will produce sufficient water to fill one 130-barrel water truck every day.
4. Use the chloride-impacted water in lieu of fresh water for drilling fluids make-up water, road dust suppression, construction water for access roads and drilling pads.
5. Record the volume of water used each year.
6. Cease pumping...

The Samson well Osudo 33 State Com #1 (API 30-025-38486) is scheduled to begin drilling with brine mud in within the next few days and the Cattleman #4 well (API # 30-025-38768,) will spud after completion of the Osudo 33 State Com #1. We want to take this opportunity to pump-and-use as much ground water as possible. Appendix A provides basic environmental information for the Osudo and Cattleman sites to assist NMOCD in the review of this proposal.

Using the Livestock ground water for drilling fluid make-up water (fresh water mud and brine mud) is quite simple, we propose to transport the water to the sites and introduce the water into the brine drilling fluids system, probably via discharge to an approved drilling pit or to on-site, above-ground storage.

Prior to pumping and using the ground water we will submit the following to NMOCD:

A. Digital image documentation and a description of the ground water pumping and storage program at the Livestock site (Figure 1)
B. At least one week prior to water use, Samson provides the following information to NMOCD, the surface landowner and/or surface leaseholder:
   a. The dates of the proposed drilling program that will use the Livestock water
   b. A copy of the most recent ground water analysis from the recovery wells
   c. The name and address of the contractors performing the water hauling and construction

d. The phone numbers of the Samson representative and the contractor's representative (Floyd Steed, fsteed@samson.com, 575-513-1687)

C. For each truckload of water, the transportation contractor will record the date, time and location of water use.

D. Annually Samson will provide NMOCD and, if required, the Office of the State Engineer, with a copy of the manifests associated with the water use and the quantity of water used.

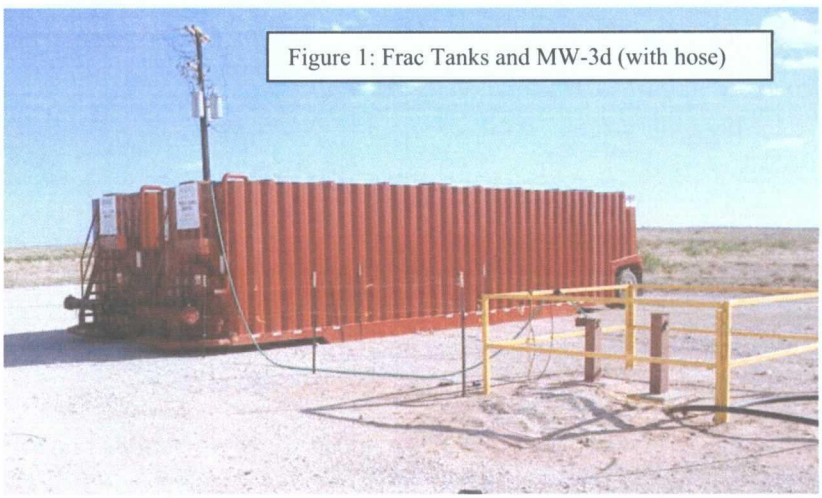


Figure 1: Frac Tanks and MW-3d (with hose)

Because time is of the essence, we ask that NMOCD review this proposal and our previous submissions to identify any deficiencies that may pose a threat to fresh water, public health, the environment, safety or property. While we have implemented the ground water restoration program since submission of the Stage 1&2 Abatement Plan in September, 2006 using our best judgment and without the benefit of NMOCD comments (and we appreciate your confidence in our program), for this effort we respectfully request a throughout technical review of these proposals (Santa Fe NMOCD or District I) and a review of previously-submitted material.

The protocol for using brackish water in lieu of fresh water for construction and dust suppression is provided in Appendix C of the November report. We are not proposing using the brackish water for dust suppression or construction at the Osudo site. We would like to use ground water from the Livestock site in lieu of fresh water for construction of roads and pads at the Cattleman or other sites in the near future. With respect to dust suppression, we plan to provide more information on the use of brackish water in the future and may propose the Cattleman site for a pilot test of this pump-and-use strategy.

Although, NMOCD review of the dust suppression protocols described in the November 2007 report is premature, your thoughts on using the brackish ground water from the Livestock site in lieu of fresh water for construction of the Cattleman location would be appreciated. We thank you in advance for your comments.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall Hicks
Principal

Copy: Hobbs NMOCD office
Scott Rose, Samson Resources
Merchants Livestock Company

Appendix A
Hydrogeologic Conditions, Osudo 33 #1 and Cattleman #4 Well Sites

Plates A-1 and A-2 show that:

1. The location of the Osudo and Cattleman wells are sited on Quaternary Eolian and Pediment deposits (Qep)
2. Water supply wells sited on the Qe/Qp deposits near these sites show a depth to water in excess of 100 feet
3. Water supply wells sited on Tertiary Ogallala Formation show a depth to water of 60-90 feet

An examination of the USGS well data for the area of the Osudo and Cattleman wells shows that the five closest water supply wells are completed in the Chinle Aquifer (see Table A-1). The well depth of these four wells ranges from 230 to 621 feet.

The attached well logs on file at the Roswell Office of the State Engineer show that the water supply wells in the area generally penetrate the Chinle aquifer and do not report saturated Ogallala Formation.

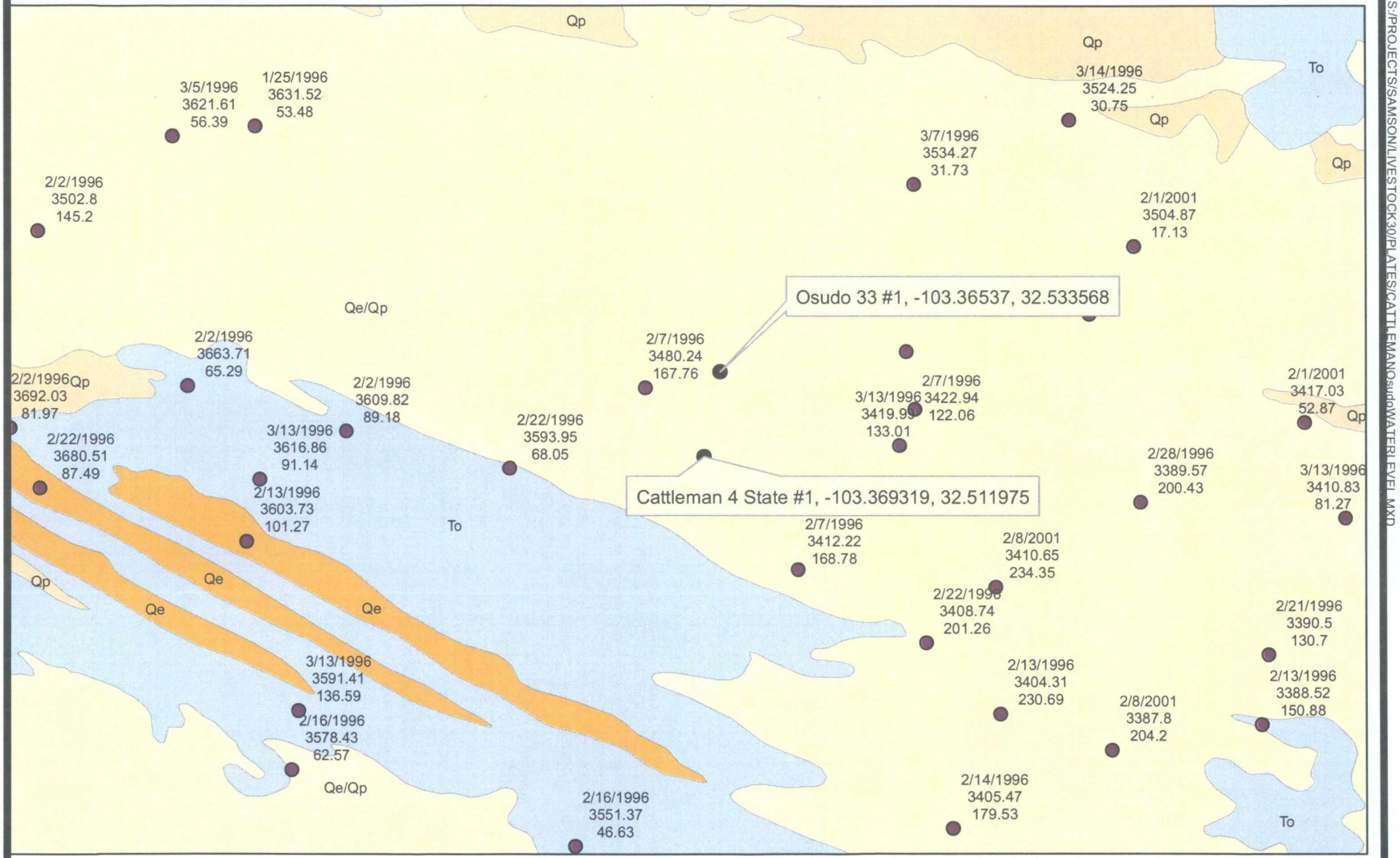
Finally, Samson drilled a boring at the Osudo site to check for shallow ground water. The total depth of the boring was 70 feet with no show of ground water.

From these data we conclude:

A. The distance between ground surface and the ground water potentiometric surface at the Osudo 33 #1 and Cattleman 4 #1 sites are more than 120 feet.
B. Wells encounter ground water at a depth of 200-600 feet below ground surface.
C. The shallowest ground water beneath the Osudo 33 #1 and Cattleman 4 #1 sites is confined.
D. The Laws of Fluid Dynamics effectively prevent any constituents (e.g. chloride) in the applied water or in pits from entering the confined ground water zone at these sites.

Table 1: Data from USGS showing the four wells closest to Cattleman #4 in yellow highlight

Site Number	Lat	Long	Date of Measurement	Surface Elevation	Depth to Water	Well Depth	GW Elevation	Aquifer
322752103184801	32.46456931000	-103.31380800000	2/22/1996	3610.00	201.26	214.00	3408.74	231CHNL
322843103174601	32.47873598000	-103.29658530000	2/8/2001	3645.00	234.35	300.00	3410.65	121OGLL
322859103204401	32.48318011000	-103.34603240000	2/7/1996	3581.00	168.78	250.00	3412.22	231CHNL
323032103250401	32.50901291000	-103.41825930000	2/22/1996	3662.00	68.05	110.00	3593.95	121OGLL
323053103191201	32.51484649000	-103.32047680000	3/13/1996	3553.00	133.01	312.00	3419.99	231CHNL
323126103185801	32.52401297000	-103.31658820000	2/7/1996	3545.00	122.06	230.00	3422.94	231CHNL
323146103230101	32.52956833000	-103.38409190000	2/7/1996	3648.00	167.76	621.00	3480.24	231CHNL
323219103190601	32.53873487000	-103.31881140000	2/7/1996	3555.00	106.82	265.00	3448.18	231CHNL



R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Geologic Map Showing USGS Data

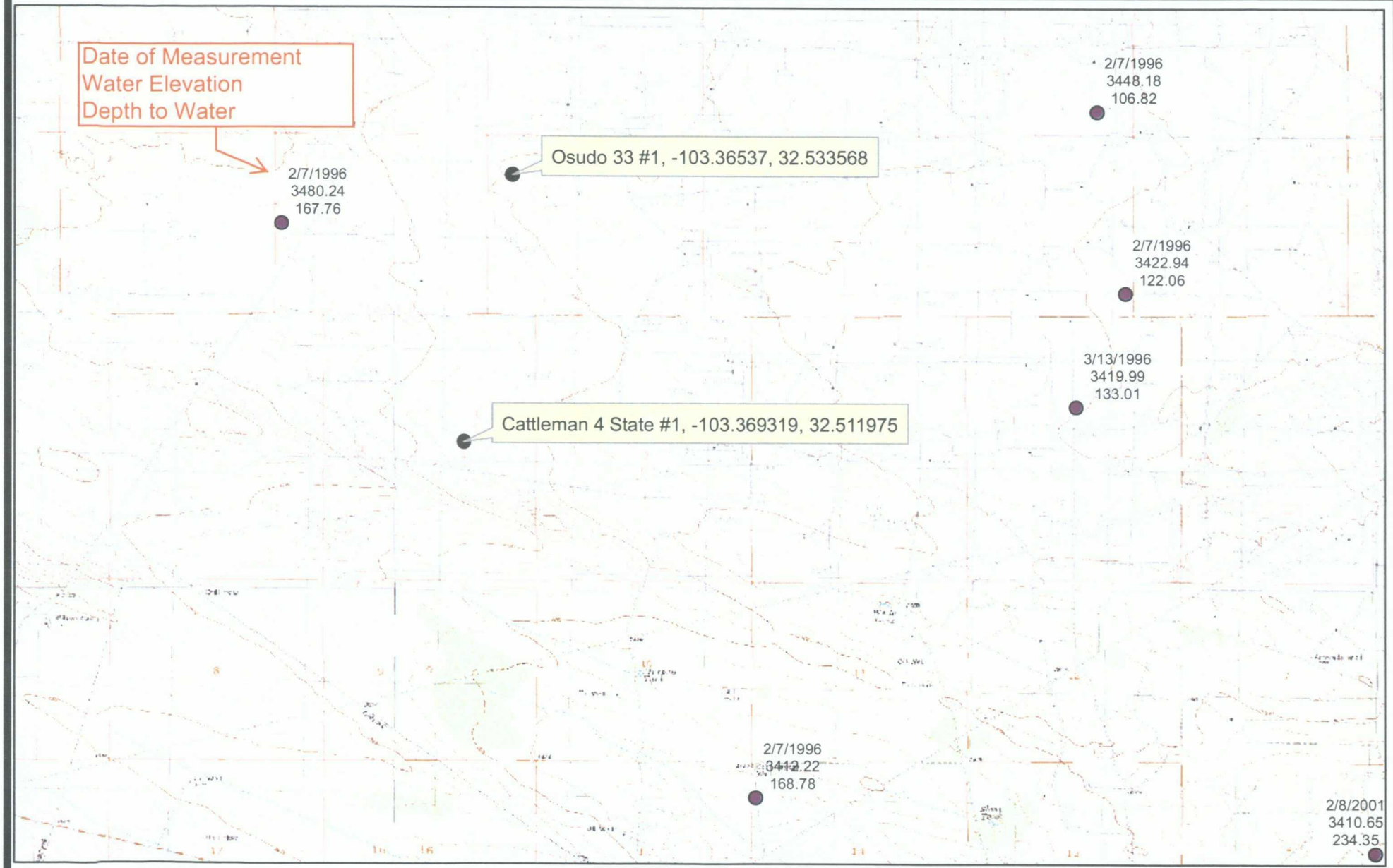
Plate A-1

Samson Resources - Livestock 30

May 2008

4/18/2008

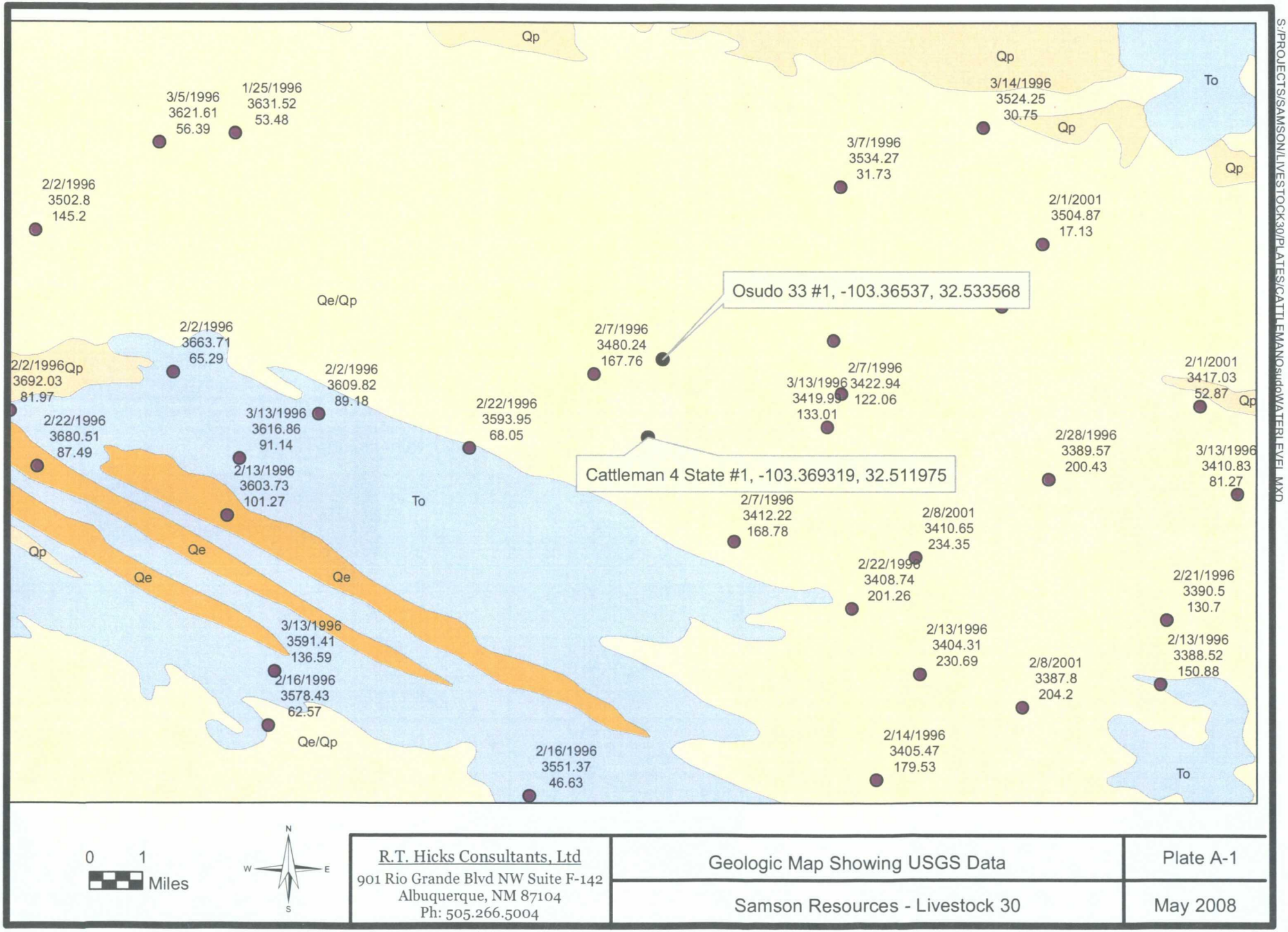
S:/PROJECTS/SAMSON/LIVESTOCK30/PLATES/CATTLEMANOsudoWATERLEVEL.MXD



S:/PROJECTS/SAMSON/LIVESTOCK30/PLATES/CATTLEMANOsudoWATERLEVEL.MXD

4/18/2008

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Topographic Map Showing USGS Data	Plate A-2
	Samson Resources - Livestock 30	May 2008



R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Geologic Map Showing USGS Data

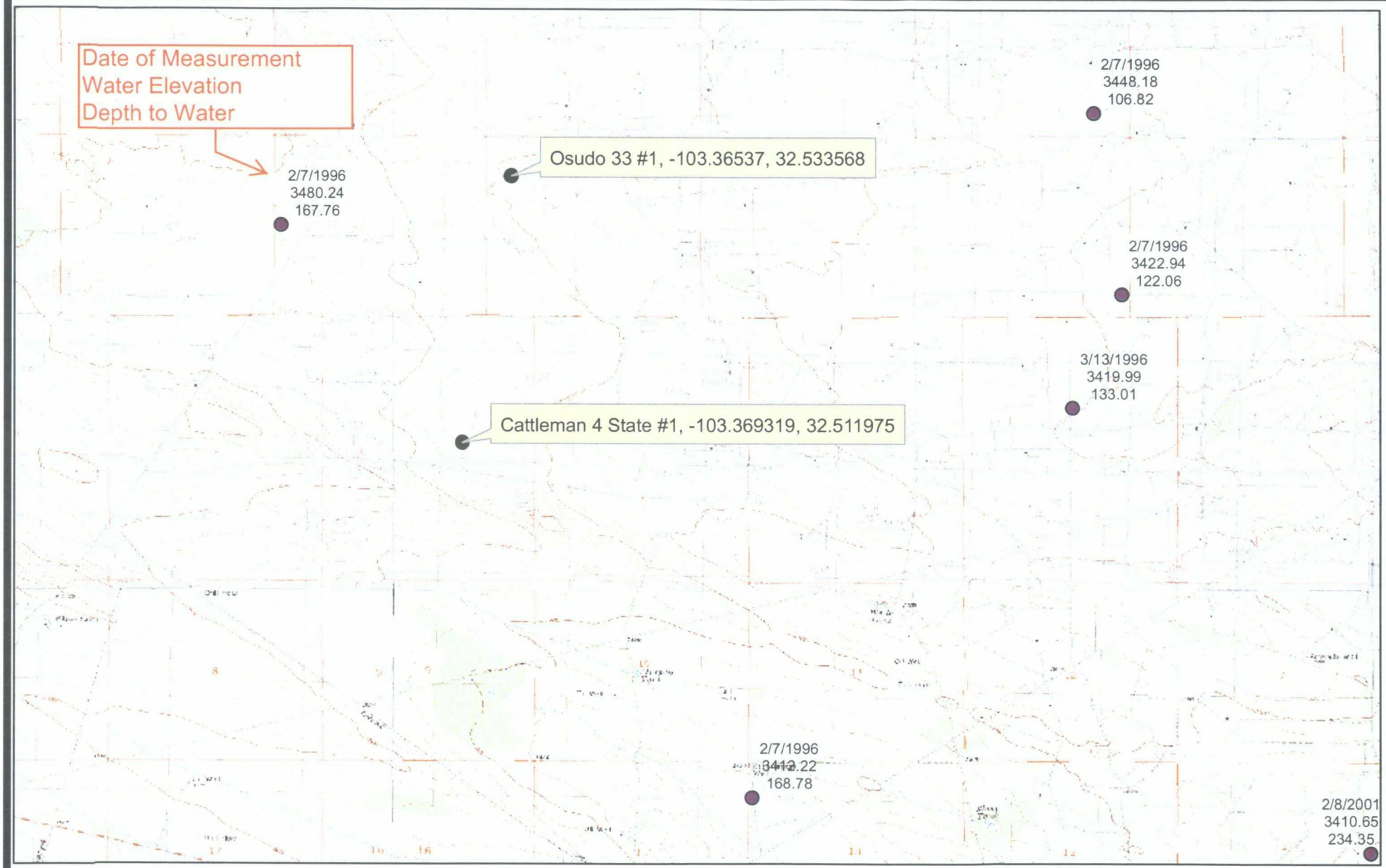
Plate A-1

Samson Resources - Livestock 30

May 2008

S:/PROJECTS/SAMSON/LIVESTOCK30/PLATES/CATTLEMANOsudoWATERLEVEL.MXD

4/18/2008



R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Topographic Map Showing USGS Data

Samson Resources - Livestock 30

Plate A-2

May 2008

S:/PROJECTS/SAMSON/LIVESTOCK30/PLATES/CATTLEMANOsudoWATERLEVEL.MXD

4/18/2008

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			

11	20		Caliche, clay
20	50		Caliche
50	136		Red shale
136	175		Sand, sandstone
175	179		Show water sand
179	230		Sand
230	456		Red bed
	✓		L S Elev 3591 DF
			Depth to K Trc 50
			Elev of K Trc 3541

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 20.36.1.11000
Owner: Amerada Hess Corp.
State D #1
Record of Casing: 12½" - 196'

Elevation: 3608' DF
3581 Top 0

Rotary

660' FNL - 660' FWL

Street or Post Office Address _____

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			

201	250		Sand, shells
250	290		Red rock, red bed
290	305		Water sand
305	830		Red bed, red rock, shells

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 20.36.11.21200 Elevation: 3585' DF
Owner: Atlantic Richfield Co.
Mary J. Byrd #1
Record of Casing: 15½" - 250'

Rotary

W½NE¼

(P.O. -- 330' FNL - 1650' FEL)

Date of Receipt _____ Permit No. L-1275

Name of permittee, Gulf Oil Corp.

Street or P.O. Box 1290, City and State Fort Worth, Texas

1. Well location and description: The shallow (shallow or artesian) well is located in NE ¼, SW ¼, SW ¼ of Section 13, Township 20S, Range 36E; Elevation of top of casing above sea level, unknown feet; diameter of hole, — inches; total depth, 212 feet; depth to water upon completion, 200 feet; drilling was commenced _____, 19____, and completed January, 1936, 19____; name of drilling contractor Gene R. Burke; Address, Hobbs, N.M.; Driller's License No. unknown

2. Principal Water-bearing Strata:

	Depth in Feet From	To	Thickness	Description of Water-bearing Formation
No. 1	200	212	12	Grey water sand
No. 2				
No. 3				
No. 4				
No. 5				

3. Casing Record:

Diameter in Inches	Pounds per ft.	Threads per Inch	Depth of Casing or Liner Top	Bottom	Feet of Casing	Type of Shoe	Perforations From	To
6"	unknown		0	172	172	none	unknown	

4. If above construction replaces old well to be abandoned, give location: ¼, ¼, ¼ of Section _____, Township _____, Range _____; name and address of plugging contractor _____

date of plugging _____, 19____; describe how well was plugged: _____

6. Log of Well:

Depth in feet From	To	Thickness in feet	Description of Formation
0	2	2	Sandy soil
2	37	35	Caliche
37	165	128	Red bed
165	200	35	Firm grey sand
200	212	12	Grey water sand

L-1275

G. R. Burke, 1/38

20.36.13.332

3551'

L S Elev ——— 3547'

Depth to K Trc 3547'

Elev of K Trc 3551'

Loc. No. 20.36.13.332332

Hydro. Survey _____ Field Check Rept.

SOURCE OF ALTITUDE GIVEN

Interpolated from Topo. Sheet X

Determined by Inst. Leveling _____

Other _____

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Gene R. Burke

Licensed Well Driller

Instructions

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all forma-

Date of Receipt ..... Permit No. .....

Name of permitee, Amerada Petroleum Corp.

Street or P. O. Drawer D ..... City and State Monument, N.M.

1. Well location and description: The shallow (shallow or artesian) well is located in S.E. ¼, N.W. ¼, 2460 from W. line & 2540 from N. line ¼ of Section 26, Township 20S, Range 36E; Elevation of top of casing above sea level, ... feet; diameter of hole, 7 inches; total depth, 400 feet; depth to water upon completion, 170 feet; drilling was commenced July 16, 1954, and completed July 18, 1954 name of drilling contractor O.K.Kuaslewhite ....; Address, Box 56, Hobbs, N.M.; Driller's License No. W.D.99

2. Principal Water-bearing Strata:

	Depth in Feet From	To	Thickness	Description of Water-bearing Formation
No. 1	290	305	15	Grey sand
No. 2	325	349	24	Grey Sand
No. 3				
No. 4				
No. 5				

3. Casing Record:

Diameter in inches	Pounds per ft.	Threads per inch	Depth of Casing or Liner Top	Bottom	Feet of Casing	Type of Shoe	Perforation From	To
none								

4. If above construction replaces old well to be abandoned, give location: ¼, ¼, ¼ of Section ....., Township ....., Range .....; name and address of plugging contractor, ...

date of plugging ....., 19....; describe how well was plugged: .....

FILED
... 9 1954

0	3	3	Soil sand
3	78	75	sandy shale
78	80	2	red rock
80	270	190	red bed
270	290	20	grey shale
290	305	15	grey sand
305	325	20	grey shale
325	349	24	grey sand
349	355	6	red bed
355	400	45	red sandy shale

L S Elev 3571'
Depth to K Trc 80'
Elev of K Trc 3491'

Loc. No. 20.36.26.144342

Hydro. Survey Field Check X

SOURCE OF ALTITUDE GIVEN

Interpolated from Topo. Sheet X

Determined by Inst. Leveling

Other

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

O. P. Musselwhite
Licensed Well Driller

Instructions

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible.

Street or Post Office Address _____

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			

95	555		Red rock
555	600		Sand
600	1295		Red rock, sandy shale
1295	1310		Water sand
1310	1847		Sandy shale and sand -- water 1325'-30'

L S Elev 3634
Depth to K Trc 50
Elev of K Trc 3584

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 20.36.29.34000 Elevation: 3634' TC
Owner: Wilson Oil Co.
Charlotte State #4
Record of Casing: 16" - 96'
13" - 777'
10 3/4" - 964'
Cable

660' FSL - 1980' FWL

Street or Post Office Address _____

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			

55	545		Shale, red bed
545	600		Sandy shale
600	1045		Red shale, red bed
1045	1055		Sand
1055	1180		Sandy shale
1180	1185		Water sand
1185	1828		Sand, sandy shale, red bed

L S Elev 3634
Depth to K Trc 55
Elev of K Trc 3579

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 20.36.32.12000 Elevation: 3634' GR
Owner: Wilson Oil Co.
Charlotte State #2
Record of Casing: 16" - 110'
13" - 765'
Cable

660' FNL - 1980' FWL

Street or Post Office Address _____

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			

560	565		Water sand
565	605		Sand and sandy shale
605	1838		Red rock and sandy shale
Water --	1180'-1185'		L S Elev 3603
			Depth to K Trc 42
			Elev of K Trc 3561

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 20.36.32.22000 Elevation: 3649' TC ?

Owner: Wilson Oil Co.

Charlotte-State #5

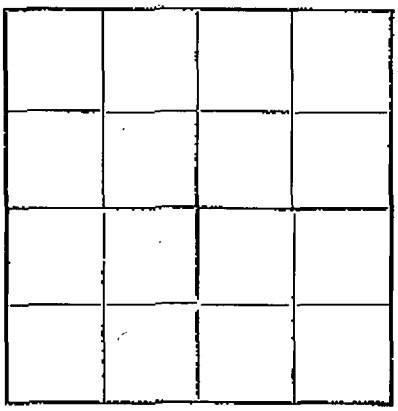
3603 Tloyd

Record of Casing: 16" - 106'
13" - 625'
10 3/4" - 979'

Cable

660' S of NL - 660' W of EL

Section 1



(Plat of 640 acres)

(A) Owner of well Humble Oil Co.

Street and Number

City State

Well was drilled under Permit No. and is located in the SE ¼ NE ¼ NE ¼ of Section 35 Twp. 20 Rge. 36

(B) Drilling Contractor S&S Water Well Contractor License No.

Street and Number

City State

Drilling was commenced 19

Drilling was completed Oct. 19 38

Elevation at top of casing in feet above sea level 3545 Topo Total depth of well 230

State whether well is shallow or artesian Depth to water upon completion

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1				
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	10			sd
	20			cal
	95			sand
	185			rb
	210			blue sh
	230			water sd

L S Elev 3545
Depth to K Tr 93
Elev of K Tr 3450

Loc. No 20.36.35.24444

Hydro. Survey X Field Check

SOURCE OF ALTITUDE GIVEN

Interpolated from Topo. Sheet X

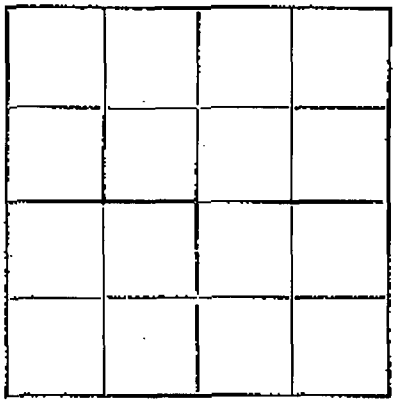
Determined by Inst. Leveling

Other

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller

Section 1



(Plat of 640 acres)

(A) Owner of well Amerada Oil Corp.

Street and Number

City State

Well was drilled under Permit No. and is located in the NE ¼ NE ¼ NW ¼ of Section 1 Twp. 21 Rge. 35

(B) Drilling Contractor C.O.Anderson License No.

Street and Number

City Lovington State N.M.

Drilling was commenced 19

Drilling was completed June 19 54

Elevation at top of casing in feet above sea level Total depth of well 312

State whether well is shallow or artesian Depth to water upon completion

Section 2 **PRINCIPAL WATER-BEARING STRATA**

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1				
2				
3				
4				
5				

Section 3 **RECORD OF CASING**

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
7					280			

Section 4 **RECORD OF MUDDING AND CEMENTING**

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 **PLUGGING RECORD**

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	3			soil
	23			lime rock
	55			sandy shale
	102			dry sand and cavey rock
	215			red shale
	220			dry sand
	235			brown shale
	280			blue shale
	305			water sand
	312			grey shale

3553 ✓

L S Elev ~~3553~~ ✓

~~Depth to K~~ Tre 102 ? ✓

Elev of ~~K~~ Tre 3451 ? ✓

Loc. No. 21.35.1.12222

Hydro. Survey ____ Field Check X

SOURCE OF ALTITUDE GIVEN

Interpolated from Topo. Sheet X

Determined by Inst. Leveling ____

Other ____

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

C. O. Anderson

Well Driller

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			

145	160		Red rock
160	180		Sand - water
180	195		Sand
195	268		Red rock
268	278		Sand, shale
278	283		Sand - water
283	308		Red bed
308	350		Red rock
350	520		Red bed, sand
520	605		Red rock
605	750		Red bed, sand
750	800		Sand
800	940		Red bed, sand
			L S Elev 3593
			Depth to K Trc 195
			Elev of K Trc 3398

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 21.36.8.23000 Elevation: 3593' DF

Owner: Getty Oil Co.
State A #1

Record of Casing: 15 1/2" - 308'
9 5/8" - 2852'

Rotary

1980' FNL - 1980' FEL

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			

1285	2640	1355	Salt
2640	3470	830	Anhydrite, Salt Stringers
3470	3780	310	Sand, Dolomite stringers
3780	5000	1220	Dolomite, Sand stringers

Section 7. REMARKS AND ADDITIONAL INFORMATION

RECEIVED
AUG 17 9 57 AM '87
STATE
SANTA FE, N. M.

Owner's Well No. [illegible]

Street or Post Office Address P. O. Box 670

City and State Hobbs, NM 88240

Well was drilled under Permit No. CP-693 and is located in the:

1220' FNL and 1520' FWL

a. SW ¼ SW ¼ NE ¼ NW ¼ of Section 8 Township 21S Range 36E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Exeter Drilling Co. License No. _____

Address 200 N. Lorraine, Suite 1200, Midland, TX 79701

Drilling Began 1/7/87 Completed 2/26/87 Type tools rotary Size of hole 7 7/8 in.

Elevation of land surface or _____ at well is 3586.7 ft. Total depth of well 5000 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 1000 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA (static fluid level

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
4275	5000	725	San Andres	462

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
16	65	8rd	0	415	415	weatherford		
11 3/4	47	8rd	0	2700	2700	weatherford		
8 5/8	32	8rd	0	4350	4350	weatherford		

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
0	415	20		660	stab. in float collar
415	2700	14 3/4		2491	pump and plug
2700	4350	10 5/8		1579	pump and plug
4350	5000	7 7/8			open hole completion

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			

80	110		Red bed and red rock
110	120		Sand
120	160		Red bed, red rock
160	180		Sand
180	235		Red bed, red rock
235	260		Sand (water)
260	534		Red bed, red rock
534	640		Red bed, red rock
640	665		Sand
665	814		Red bed, red rock
814	873		Sand and shells (water)
873	1086		Red bed, red rock
			D F Elev 3592 ?
			Depth to K Trc 180 ?
			Elev of K Trc 3412 ?
Water --	235' - 260'		
	814' - 873'		

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 21.36.8.24000 Elevation: 3592' DF

Owner: Getty Oil Co.
State A #2

Record of Casing: 12 1/2" - 305'
9 5/8" - 2863'

Rotary

1980' FNL - 660' FEL

Street or Post Office Address _____

City and State _____

Well was drilled under Permit No. _____ and is located in the:

a. _____ ¼ _____ ¼ _____ ¼ _____ ¼ of Section _____ Township _____ Range _____ N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor _____ License No. _____

Address _____

Drilling Began _____ Completed _____ Type tools _____ Size of hole _____ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well _____ ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			

1368	2578	1210	Salt
2578	3416	3736	Sand, Anhydrite, Dolomite
3416	5000	1264	Dolomite with Sand stringers

Section 7. REMARKS AND ADDITIONAL INFORMATION

FEB 19 8 23 AM '06

Street or Post Office Address P.O. Box 670
City and State Hobbs, NM 88240

Well was drilled under Permit No. CP-670 and is located in the:
1500 FSL & 1280 FEL
a. ¼ NW ¼ SE ¼ SE ¼ of Section 5 Township 21S Range 36E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Chevron U.S.A. Inc. CRO License No. NA

Address P.O. Box 11228 Midland, TX 79702

Drilling Began 9-15-1985 Completed 10-4-1985 Type tools Rotary Size of hole 10 5/8 in.

Elevation of land surface or _____ at well is 3578.5 ft. Total depth of well 5000 ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well 1128 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
4252	4876	624	San Andres	318

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
16	65	8	0	417	417	Texas Pattern		
11 3/4	54	8	0	2837	2837	Float		
8 5/8	40.5	8	0	5000	5000	Float	4252	4876

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
0	417	20"		660	Pump & Plug
417	2837	14 3/4"		4208	Pump & Plug
2837	5000	10 5/8"		2374	Pump & Plug

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			

1265	2550	1285	Salt
2550	3332	782	Seven Rivers
3332	3470	138	Queen
3470	3636	166	Penrose
3636	4120	484	Greyburg
4120	4900	780	San Andres

Section 7. REMARKS AND ADDITIONAL INFORMATION

RECEIVED
AUG 17 9 57 AM '87
STATE
SANTA

(A) Owner of well _____ Owner's well No. _____

Street or Post Office Address P.O. Box 670

City and State Hobbs, NM 88240

Well was drilled under Permit No. CP-697 and is located in the:

~~1027'~~ 1020' FNL and 1740' FEL LOT 2

a. ~~SW~~ ¼ ~~NE~~ ¼ ~~NW~~ ¼ ~~NE~~ ¼ of Section 5 Township 21S Range 36E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Exeter Drilling Co. License No. _____

Address 200 N. Loraine, Suite 1220, Midland, TX 79701

Drilling Began 1/23/87 Completed 4/13/87 Type tools rotary Size of hole 7 7/8 in.

Elevation of land surface or ----- at well is 3552.9 ft. Total depth of well 1200 ft. (static fluid level)

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
4120	4900	780	San Andres	420

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
16	65	8rd	0	429		Weatherford		
11 3/4	54	8rd	0	2600		Weatherford		
8 5/8	32	8rd	0	4275		Weatherford		

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
0	429	20		673	stab in float shoe
429	2600	14 3/4		2499	pump and plug
2600	4275	10 5/8		1711	pump and plug
4275	5000	7 7/8			open hole completion

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by: _____

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			

29	151	122	Sand & Sandstone Stringers
151	174	23	Sand & Sandy Brown Clay
174	215	41	Sand & Sandstone Stringers
215	218	3	Sand & Sandy Brown Clay
218	219	1	Blue Clay
219	224	5	Red Clay

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above

Street or Post Office Address P. O. BOX 1166

City and State Carlsbad, New Mexico 88220

Well was drilled under Permit No. CP 00907 and is located in the:

a. NW ¼ SE ¼ NE ¼ ¼ of Section 24 Township 21S Range 35E N.M.P.M. in Lea County.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____ Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Frederick D. Root License No. WD 1332

Address 1200 E. Bender Blvd., Hobbs, New Mexico 88240

Drilling Began 10-30-2000 Completed 10-30-2000 Type tools Rotary Size of hole 7 7/8 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 224 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
174	215	41	Sand & Sandstone Stringers	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5 3/4	160 psi				224		184	224

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			

80	110		Red bed and red rock
110	120		Sand
120	160		Red bed, red rock
160	180		Sand
180	235		Red bed, red rock
235	260		Sand (water)
260	534		Red bed, red rock
534	640		Red bed, red rock
640	665		Sand
665	814		Red bed, red rock
814	873		Sand and shells (water)
873	1086		Red bed, red rock
			D S Elev 3592 ?
			Depth to K Trc 160 ?
			Elev of K Trc 3412 ?
Water --	235' - 260'		
	814' - 873'		

Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 21.36.8.24000 Elevation: 3592' TC DF
Owner: Getty Oil Co.
State A #2
Record of Casing: 12 1/2" - 305'
9 5/8" - 2863'
Rotary

1980' FNL - 660' FEL

VonGonten, Glenn, EMNRD

From: VonGonten, Glenn, EMNRD
Sent: Tuesday, May 20, 2008 2:02 PM
To: 'Randy Hicks'
Subject: AP062
Attachments: 2008_0519 AP062 RT.DOC

Randy,

OCD's conditional approval for Samson to reuse contaminated ground water for drilling fluids only is attached.

Glenn von Gonten
Senior Hydrologist
Environmental Bureau
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
505-476-3488
fax -476-3462
glenn.vongonten@state.nm.us

From: Randy Hicks [mailto:r@rthicksconsult.com]
Sent: Wednesday, May 14, 2008 4:52 PM
To: VonGonten, Glenn, EMNRD
Cc: srose@samson.com; fsteed@samson.com; 'Dale Littlejohn'; rochelle@rthicksconsult.com
Subject: Samson Livestock AP 62-0

Glenn

This letter requests NMOCD approval to implement the pump-and-use ground water restoration strategy proposed in our November 2007 submission to NMOCD.

We request NMOCD approval as soon as possible to pump and use ground water from MW-3d (TDS about 25,000 mg/L) for the brine drilling program at the Osudo site described in the attachment – which will spud very soon.

We request NMOCD review and approval to use water from MW-3d for the Cattleman well brine drilling program as well as using the water sparingly in the fresh water drilling program. The Cattleman well will spud in about 40-60 days from now (after completion of the Osudo well).

We request NMOCD review and approval for the use of the Livestock ground water in lieu of fresh water for construction of the Cattleman location, or other Samson construction projects within the area described in the attachment.

We have started pumping (1.2 GPM) from MW-3 into two frac tanks at the Livestock site in anticipation of NMOCD approval to move forward with the pump-and-use ground water restoration program associated with the brine mud drilling program at the Osudo site.

Please contact me if you have any questions or comments.

We will send out the hard copy of this letter on Friday of this week.

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

May 19, 2008

Mr. Scott Rose
Samson Resources
Two West Second Street
Tulsa, Oklahoma 74103-3103

RE: RESPONSE TO LETTER OF MAY 14, 2008
LIVESTOCK 30 STATE NO. 1 LEASE
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 35 EAST
LEA COUNTY, NEW MEXICO
AP062

Dear Mr. Rose:

The Oil Conservation Division (OCD) is responding to the May 14, 2008, "Pump-and-use Ground Water Restoration Strategy" proposal submitted by Mr. Randy Hicks of R. T. Hicks Consultants on Samson Resources' (Samson) behalf. Samson has requested that OCD approve its proposed reuse of chloride contaminated ground water as "...fresh water for drilling fluids make-up water, road dust suppression, construction water for access roads and drilling pads." Samson has proposed that the contaminated ground water that it is extracting at the Livestock 30 State No. 1 lease be reused at two other drill sites. OCD explicitly denies Samson's request to dispose or reuse of contaminated ground water for road dust suppression, construction water for access roads and drilling pads because those activities constitute improper waste disposal, not legitimate reuse. However, OCD will approve Samson's request to reuse chloride contaminated ground water for drilling fluids make-up water only with the following conditions:

1. Samson must obtain approval from OCD's Hobbs District for all "reuse" activities.
2. The approval is for only this reuse of contaminated ground water from the Livestock 30 State No. 1 lease. The contaminated ground water may be reused at any drilling location for drilling fluids make-up water only.
3. Because OCD has not processed Samson's proposed Abatement Plan, it may proceed "at risk."

4. Samson must submit weekly reports to both OCD's Santa Fe and Hobbs offices that document the volume of contaminated ground water that has been transported from the Livestock 30 State No. 1 lease.

5. Samson must document to OCD's satisfaction that it has submitted an application to and has obtained permission from the State Engineer's office to use the ground water at its Livestock 30 State No. 1 lease as proposed.

OCD is not able to review Samson's earlier submittals as requested at this time but will certainly do so when it processes Samson's Abatement Plan.

Sincerely,

Wayne Price
Environmental Bureau Chief

WP/gvg

cc: Chris Williams
Larry Johnson
Thaddeus Kostrubala, SLO
Alvaro Alvarado, SEO
Randy Hicks, R. T. Hicks Consultants

VonGonten, Glenn, EMNRD

From: Randy Hicks [r@rthicksconsult.com]
Sent: Tuesday, May 20, 2008 4:10 PM
To: VonGonten, Glenn, EMNRD
Cc: srose@samson.com; fsteed@samson.com; 'Dale Littlejohn'
Subject: RE: AP062

Glenn

Thanks for your affirmative response to using the water for drilling. Your response is want we needed and expected when we needed it.

The surface landowner at the Livestock site is interested in using this water for dust suppression – but we are not prepared to even talk about this re-use option at this time.

With respect to using this brackish water in lieu of the 1000 barrels of fresh water currently used for each location – we would like to pursue this option in the future – but let's get this re-use option for drilling going.

Again – thanks for the response.

Randall Hicks
505-266-5004
505-238-9515 - cell

CONFIDENTIALITY NOTICE

This message (including attachments) is subject a confidential communication and is intended solely for the use of the addressee. It is not intended for transmission to, or receipt by, any unauthorized person. If you are not the intended recipient or received these documents by mistake, please do not read it and immediately notify us by collect telephone call to (505) 266-5004 for instructions on its destruction or return. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, action or reliance upon the contents of the documents is strictly prohibited.

From: VonGonten, Glenn, EMNRD [mailto:Glenn.VonGonten@state.nm.us]
Sent: Tuesday, May 20, 2008 2:02 PM
To: Randy Hicks
Subject: AP062

Randy,

OCD's conditional approval for Samson to reuse contaminated ground water for drilling fluids only is attached.

Glenn von Gonten
Senior Hydrologist
Environmental Bureau
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
505-476-3488
fax -476-3462
glenn.vongonten@state.nm.us

From: Randy Hicks [mailto:r@rthicksconsult.com]
Sent: Wednesday, May 14, 2008 4:52 PM
To: VonGonten, Glenn, EMNRD
Cc: srose@samson.com; fsteed@samson.com; 'Dale Littlejohn'; rochelle@rthicksconsult.com
Subject: Samson Livestock AP 62-0

Glenn

This letter requests NMOCD approval to implement the pump-and-use ground water restoration strategy proposed in our November 2007 submission to NMOCD.

We request NMOCD approval as soon as possible to pump and use ground water from MW-3d (TDS about 25,000 mg/L) for the brine drilling program at the Osudo site described in the attachment – which will spud very soon.

We request NMOCD review and approval to use water from MW-3d for the Cattleman well brine drilling program as well as using the water sparingly in the fresh water drilling program. The Cattleman well will spud in about 40-60 days from now (after completion of the Osudo well).

We request NMOCD review and approval for the use of the Livestock ground water in lieu of fresh water for construction of the Cattleman location, or other Samson construction projects within the area described in the attachment.

We have started pumping (1.2 GPM) from MW-3 into two frac tanks at the Livestock site in anticipation of NMOCD approval to move forward with the pump-and-use ground water restoration program associated with the brine mud drilling program at the Osudo site.

Please contact me if you have any questions or comments.

We will send out the hard copy of this letter on Friday of this week.

Randall Hicks
505-266-5004
505-238-9515 - cell

CONFIDENTIALITY NOTICE

This message (including attachments) is subject a confidential communication and is intended solely for the use of the addressee. It is not intended for transmission to, or receipt by, any unauthorized person. If you are not the intended recipient or received these documents by mistake, please do not read it and immediately notify us by collect telephone call to (505) 266-5004 for instructions on its destruction or return. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, action or reliance upon the contents of the documents is strictly prohibited.

This inbound email has been scanned by the MessageLabs Email Security System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient (s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

This inbound email has been scanned by the MessageLabs Email Security System.
