BW - 9

GENERAL CORRESPONDENCE

YEAR(S):

2007 → 1994

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 03, 2008 2:59 PM
To: Chavez, Carl J, EMNRD; 'Patterson, Bob'
Cc: 'EverQuest@nts-online.net'; Jones, William V., EMNRD; Price, Wayne, EMNRD; Arrant, Bryan, EMNRD; Gum, Tim, EMNRD
Subject: RE: Brine Well Replacements
Attachments: BW-9.xls

Terry and Bob:

Per Terry Duffey's request below for some additional well information (AOR- ½ mile) nearby the brine wells to be PA'd below and in consideration of replacement brine wells at the permitted brine well facilities below (BW-9 and BW-19). Terry this is all we can provide you in your quest to provide services to Key. Please take a look at the attached tables for BW-9 and BW-19 and the e-mail message sent to you below on 6/30/08 at 2:30 p.m. to assess well and formation information. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Chavez, Carl J, EMNRD
Sent: Monday, June 30, 2008 2:30 PM
To: 'Patterson, Bob'
Cc: EverQuest@nts-online.net; Jones, William V., EMNRD; Price, Wayne, EMNRD; Arrant, Bryan, EMNRD; Gum, Tim, EMNRD
Subject: RE: Brine Well Replacements

Terry and Bob:

Re:

KEY ENERGY SERVICES, LLC	SIMS-MCCASLAND BRINE - EUNICE (GP-Sims #2)	BW-9	30-025-25525	N 32.44152 W103.17691
KEY ENERGY SERVICES, LLC.	KEY TRUCKERS BRINE - CARLSBAD	BW-19	30-015-21842	N 32 20' 56.71 W 104 14' 12.93"

Good afternoon. I believe these are the 2 UIC Class III Brine Wells that Key Energy Services, LLC is planning to plug and abandon and drill replacement brine wells? Please confirm that the above BWs are the existing discharge permits and facilities where new BWs will be drilled. You may want to start with examining the construction of the existing brine wells.

Please submit C-103's for District Office and EB approval. Tubing is generally removed (can be cutoff and disposed in the cavern); casing is scraped; a bridge plug is set within 20 ft. of the casing shoe; pressure up on casing and bridge plug for tightness; pressure grout from bottom to top at sufficient pressure to prevent air bubbles, voids, etc. in cement; and set a marker as per OCD oil and gas regulations.

If you are drilling new BWs, please submit C-101s and C-102s (surveyed and notarized) to the District Office and EB. Also, you will need to perform an updated ½ mile AOR for any new wells within the planned drill locations. The EPA and OCD require that the fresh water zone be fully cased off. In general, the OCD requires that the casing shoe a minimum of at least 100 feet into the salt section with special cementing mixture to grout off the salt casing within the salt section (I know Key wants to set the long string immediately above any existing cavern for mechanical integrity purposes, but this is unnecessary). Extending casing and tubing deeper into the salt section is recommended to avoid washing out the roof of the salt section and creating sinks in the topography, etc. For example, there is a shallow brine well in Carlsbad that the OCD is requiring land subsidence monitoring and is very concerned collapse. The deeper into the salt section you can go with your casing and tubing, the more stable and safe your brine operation will be over the long-term.

Terry, please refer to the references below for approximate depths to fresh water. District staff that may be able to provide a general working knowledge of their areas for your drilling plans are listed below. Fresh water information may be found at the following Internet resources:

NM Office of the State Engineer - iWATERS database

– http://www.ose.state.nm.us/waters_db_index.html
  • Ground Water Data, Water well locations
  • NM EMNRD Mining and Mineral Division
– http://www.emnrd.state.nm.us/MMD/coalminewebmap/coalminewebmap.htm
  • Coal Mining Maps
– http://www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm
  • Mining Maps
  • State Bureau of Mines and Minerals Resources
– http://geoinfo.nmt.edu/index.html
– Ground Water Reports (Geology and Ground Water Resources by County in New Mexico)
  • Ground Water and Geological Data

Resources in the District Office:

Lea County (The Ogallala Formation?):

Bryan Arrant
OFFICE: (505) 393-6161 FAX: (575) 393-0720

Eddy County (The Santa Rosa & Culebra Member of the Rustler Formations?):

Tim Gum - District Supervisor
Phone extension: 102
Mobile: (575) 626-0824

Lastly, I have requested assistance from the OCD Engineering Bureau to provide any quick preliminary information based on surrounding wells that it has and will forward the info. to you upon receipt. This should indicate the relative depth to the salt section, etc. nearby the existing brine wells to be PA'd.

I hope this helps. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Patterson, Bob [mailto:bpatterson@keyenergy.com]
Sent: Monday, June 30, 2008 11:22 AM
To: Chavez, Carl J, EMNRD
Cc: EverQuest@nts-online.net
Subject: FW: Brine Well Replacements

FYI

Bob Patterson | Key Energy Services, LLC | Area Manager, Trucking Division | O: 505.394.2586 | C: 505.631.7597
-----Original Message-----
From: Terry M. Duffey [mailto:EverQuest@nts-online.net]
Sent: Monday, June 30, 2008 10:52 AM
To: wayne.price@state.nm.us
Cc: Phillber, Mark; Molleur, Loren; Patterson, Bob; Perry, Mark
Subject: Brine Well Replacements

Key Energy has asked me to act as their consultant to drill replacement brine wells at their facility in Carlsbad and Eunice.
The long string setting depth at Carlsbad will be about 650-700'.
At Eunice the long string would be set around 1200'.

I would like to get some guidance from the EB regarding depths of fresh water and salt laden formations in these two areas in order to determine casing setting depth and the mud program. I anticipate using freshwater based drilling fluids during the drilling operation. I am trying to avoid drilling any salt section in either location before we would set the long string. Can you direct me to the proper persons within you organization that could provide me with this type information?

I envision setting surface casing to protect freshwater. Can you provide the depths to protect fresh water at both locations?

Since both wells are "replacement" wells we would ideally want to set the long string immediately above any existing cavern for mechanical integrity purposes.

The new pit rule generally leads me to a closed-loop mud system. However, if we will be using freshwater mud and never drill any salt section that would saturate the mud with a significant chloride level, this may not rule-out a traditional lined-temporary drilling pit. I would be interested to hear your thoughts in this regard.

Terry M. Duffey
EverQuest Energy Corporation – Dominating World Oil - One Well at a Time.
PO Box 10079
Midland, Texas 79702
432-686-9790
432-682-3821 Fax
EverQuest@nts-online.net

BW-9

API	WELL_NAME	OPERATOR	FTG_NS	NS_CD	FTG_EW	EW_CD	DIV_U	Sec	Twp	Rge	Dist	TVD_DEPTH	OGRID_CDE	PROPERTY	LAND_TYPE	WELL_TYPE	NBR_COMPLS	ACRES	SPUD_DATE	COMPL_STATUS	PLUG_DATE	ONE_PRODUCING_POOL_NAME
3002525525	G P SIMS 002	YALE E KEY, INC	420 N		210 E		A	32	21S	37E	3,002,525,525	0	19797	28843	P	W	1	40		Active		
3002522727	G P SIMS 001	SIMS - MCCASLAND WATER SALES	250 N		200 E		A	32	21S	37E	170	2125	8361	19466	P	W	1	40		Plugged	29-Sep-97	
3002506940	WT MCCOMACK 011	CHEVRON U S A INC	554 N		554 E		A	32	21S	37E	369	8318	4323	2690	P	O	3	120	25-Aug-47	Active		BLINEBRY OIL AND GAS (OIL)
3002506938	WT MCCOMACK 001	CHEVRON U S A INC	660 N		660 E		A	32	21S	37E	510	3805	4323	2690	P	O	1	40		Active		PENROSE SKELLY (GRAYBURG
3002526451	CENTRAL DRINKARD UNIT 432	CHEVRON U S A INC	110 S		150 E		P	29	21S	37E	533	6655	4323	2606	P	O	1	40	02-Jan-80	Active		DRINKARD
3002506942	CENTRAL DRINKARD UNIT 131	CHEVRON U S A INC	554 N		766 E		A	32	21S	37E	572	6624	4323	2606	P	I	1	40		Active		
3002506976	CENTRAL DRINKARD UNIT 130	CHEVRON U S A INC	660 N		660 W		D	33	21S	37E	902	7915	4323	2606	P	O	1	40	30-Oct-48	TA		
3002506987	E O CARSON 016	STEPHENS & JOHNSON OP CO	660 N		860 W		D	33	21S	37E	1,097	8220	19958	32449	P	G	4	200	05-Mar-48	Active		BLINEBRY OIL & GAS (PRO GAS)
3002506882	TURNER 003	HP AMERICA PRODUCTI	560 S		760 E		P	29	21S	37E	1,124	7657	214263	30041		O	1	40		Plugged		
3002506880	CENTRAL DRINKARD UNIT 122	CHEVRON U S A INC	660 S		660 E		P	29	21S	37E	1,170	6678	4323	2606	P	O	1	40		Active		DRINKARD
3002537837	WT MCCOMACK 024	CHEVRON U S A INC	330 N		1410 E		B	32	21S	37E	1,203	0	4323	2690	P	O	1	40		New (Not drilled or compl)		
3002525695	CENTRAL DRINKARD UNIT 421	CHEVRON U S A INC	1165 N		1056 E		H	32	21S	37E	1,345	6732	4323	2606	P	O	1	40	12-Jul-82	TA		
3002537180	WT MCCOMACK 022	CHEVRON U S A INC	920 N		1440 E		B	32	21S	37E	1,374	4307	4323	2690	P	O	1	39	23-Oct-05	Active		PENROSE SKELLY (GRAYBURG
3002506868	CENTRAL DRINKARD UNIT 123	CHEVRON U S A INC	660 S		660 W		M	28	21S	37E	1,387	6630	4323	2606	P	I	1	40		Active		
3002525696	CENTRAL DRINKARD UNIT 422	CHEVRON U S A INC	1155 N		1000 W		D	33	21S	37E	1,416	6738	4323	2606	P	G	1	40	08-Jan-78	Active		DRINKARD
3002506872	E O CARSON 018	STEPHENS & JOHNSON OP CO	660 S		760 W		M	28	21S	37E	1,452	8175	19958	32449	P	O	2	80	18-Sep-72	Active		PENROSE SKELLY (GRAYBURG
3002534353	E O CARSON 024	STEPHENS & JOHNSON OP CO	650 S		942 W		M	28	21S	37E	1,572	6200	19958	32449	P	O	1	40	12-May-98	Active		BLINEBRY OIL AND GAS (OIL)
3002506937	WT MCCOMACK 008	CHEVRON U S A INC	1980 S		660 E		H	32	21S	37E	1,624	3765	4323	2690	P	G	1	40		Active		PENROSE SKELLY (GRAYBURG
3002506941	CENTRAL DRINKARD UNIT 132	CHEVRON U S A INC	554 N		1674 E		B	32	21S	37E	1,669	7419	4323	2606	P	O	1	40	23-Dec-72	Active		DRINKARD
3002506939	CENTRAL DRINKARD UNIT 140	CHEVRON U S A INC	2086 N		554 E		H	32	21S	37E	1,701	6605	4323	2606	P	O	1	40		Active		DRINKARD
3002506978	CENTRAL DRINKARD UNIT 141	CHEVRON U S A INC	1980 N		660 W		E	33	21S	37E	1,766	6630	4323	2606	P	I	1	40		TA		
3002506981	E O CARSON 009	STEPHENS & JOHNSON OP CO	2051 N		589 W		E	33	21S	37E	1,816	8172	19958	32449	P	G	4	200		Active		BLINEBRY OIL & GAS (PRO GAS)
3002536410	E O CARSON 025	STEPHENS & JOHNSON OP CO	1980 N		760 W		E	33	21S	37E	1,867	4600	19958	32449	P	O	1	40	01-Oct-03	Active		PENROSE SAN ANDRES
3002524268	CENTRAL DRINKARD UNIT 002	CHEVRON U S A INC	1420 S		400 W		L	28	21S	37E	1,938	5000	4323	2606	P	W	1	40	05-Nov-72	Active		WSW;SAN ANDRES
3002537464	TURNER 005	APACHE CORP	990 S		1650 E		O	29	21S	37E	2,015	0	873	22680	P	O	2	80		New (Not drilled or compl)		
3002538782	W T MCCOMACK 026	CHEVRON U S A INC	2485 N		330 E		H	32	21S	37E	2,068	0	4323	2690	P	O	1	40		Unknown		
3002525515	CENTRAL DRINKARD UNIT 418	CHEVRON U S A INC	1335 S		1335 E		I	29	21S	37E	2,085	6700	4323	2606	P	G	1	40	11-Jul-77	Active		DRINKARD
3002506931	W T MCCOMACK 002	CHEVRON U S A INC	330 N		2310 E		H	32	21S	37E	2,102	3910	4323	2690	P	O	1	40		Active		PENROSE SKELLY (GRAYBURG
3002525694	CENTRAL DRINKARD UNIT 419	CHEVRON U S A INC	1651 S		260 W		L	28	21S	37E	2,104	6734	4323	2606	P	O	1	40		TA		DRINKARD
3002537076	WILLIAM TURNER 008	MARATHON OIL CO	1710 S		330 E		I	29	21S	37E	2,133	5706	14021	6478	P	O	1	40	21-Jul-03	Active		PADDOCK
3002526449	CENTRAL DRINKARD UNIT 430	CHEVRON U S A INC	2500 N		275 W		E	33	21S	37E	2,136	6550	4323	2606	P	O	1	40	24-Sep-79	Active		DRINKARD
3002506985	E O CARSON 014	STEPHENS & JOHNSON OP CO	731 N		1909 W		C	33	21S	37E	2,142	8220	19958	32449	P	G	1	80	22-Sep-47	Active		BLINEBRY OIL & GAS (PRO GAS)
3002536447	WT MCCOMACK 018	CHEVRON U S A INC	210 N		2390 E		B	32	21S	37E	2,190	6550	4323	2690	P	O	2	80	02-Nov-79	Active		TUBB OIL AND GAS (OIL)
3002506979	E O CARSON 129	STEPHENS & JOHNSON OP CO	660 N		1980 W		C	33	21S	37E	2,203	6625	19958	32449	P	G	2	240		Active		TUBB OIL & GAS (PRO GAS)
3002537179	WT MCCOMACK 023	CHEVRON U S A INC	2300 N		1400 E		G	32	21S	37E	2,225	4320	4323	2690	P	O	1	40	16-Oct-05	Active		PENROSE SKELLY (GRAYBURG
3002506881	CENTRAL DRINKARD UNIT 121	CHEVRON U S A INC	330 S		2310 E		O	29	21S	37E	2,230	6625	4323	2606	P	I	1	40		Active		
3002506986	E O CARSON 015	STEPHENS & JOHNSON OP CO	731 N		2051 W		C	33	21S	37E	2,282	7769	19958	32449	P	O	1	40	13-Aug-72	Active		PADDOCK
3002537696	WILLIAM TURNER 010	MARATHON OIL CO	1785 S		895 E		I	29	21S	37E	2,307	99	14021	6478	P	O	1	40	21-Mar-06	New (Not drilled or compl)		
3002506870	CENTRAL DRINKARD UNIT 124	CHEVRON U S A INC	560 S		1900 W		N	28	21S	37E	2,347	6621	4323	2606	P	O	1	40		Active		DRINKARD
3002506934	W T MCCOMACK 005	CHEVRON U S A INC	1980 N		1980 E		G	32	21S	37E	2,359	3770	4323	2690	P	O	1	40		Plugged	27-Dec-05	
3002506943	CENTRAL DRINKARD UNIT 139	CHEVRON U S A INC	1674 N		2086 E		G	32	21S	37E	2,373	6633	4323	2606	P	I	1	40		Active		
3002506879	WM TURNER 003	MARATHON OIL CO	1980 N		330 E		I	29	21S	37E	2,403	7912	14021	6479	P	O	2	80		Plugged	27-Jun-01	
3002506869	E O CARSON 004	STEPHENS & JOHNSON OP CO	660 S		1980 W		N	28	21S	37E	2,442	3771	19958	32449	P	O	2	80	05-May-37	Active		EUMONT;YATES-7 RVRS-QUEEN (OIL)
3002506877	CENTRAL DRINKARD UNIT 137	CHEVRON U S A INC	1980 S		660 E		I	29	21S	37E	2,442	6628	4323	2606	P	I	1	40		Active		
3002506876	E O CARSON 022	MOBIL PRODUCING TEXAS & NEW MEXICO	1860 S		660 W		I	28	21S	37E	2,459	7440	15144	6923	P	G	1	40	02-Sep-60	Plugged	01-Dec-95	
3002526438	CENTRAL DRINKARD UNIT 429	CHEVRON U S A INC	2300 N		1540 E		G	32	21S	37E	2,469	6665	4323	2606	P	O	1	40	16-Oct-79	Active		DRINKARD
3002525545	CENTRAL DRINKARD UNIT 417	CHEVRON U S A INC	1385 N		1385 W		K	28	21S	37E	2,485	6700	4323	2606	P	O	1	40		TA		DRINKARD
3002506871	E O CARSON 017	STEPHENS & JOHNSON OP CO	510 S		2121 W		N	28	21S	37E	2,513	8143	19958	32449	P	G	4	320	28-Apr-48	Active		TUBB OIL & GAS (PRO GAS)
3002537071	WILLIAM TURNER 006	MARATHON OIL CO	1650 N		1650 E		I	29	21S	37E	2,522	4544	14021	6478	P	O	1	40	27-Jun-05	Active		PENROSE SKELLY (GRAYBURG
3002506867	CENTRAL DRINKARD UNIT 116	CHEVRON U S A INC	1980 N		660 W		L	28	21S	37E	2,553	6612	4323	2606	P	O	1	40		Active		DRINKARD
3002506873	E O CARSON 019	STEPHENS & JOHNSON OP CO	1980 N		760 W		L	28	21S	37E	2,589	8173	19958	32449	P	O	3	120	24-Oct-48	Active		BLINEBRY OIL AND GAS (OIL)
3002506875	E O CARSON 021	STEPHENS & JOHNSON OP CO	2051 N		589 W		L	28	21S	37E	2,597	7853	19958	32449	P	O	3	240		Active		HARENSAS ANDRES (GAS)
3002506874	E O CARSON 020	STEPHENS & JOHNSON OP CO	801 N		2121 W		N	28	21S	37E	2,631	7520	19958	32449	P	O	1	40	08-Feb-49	Active		PADDOCK

BW-19

API	WELL NAME	OPERATOR	FTG_NS	NS_CD	FTG_EW	EW_CD	DIV U	Sec	Tsp	Rge	Dist	TVD_DEPTH	OGRID_CDE	PROPERTY	LAND TYPE	WELL TYPE	NBR COMPLS	ACRES	SPUD DATE	COMPL STATUS	PLUG DATE	ONE PRODUCING POOL NAME
3001521842	CITY OF CARLSBAD 001	YALE E KEY, INC	2420	N	330	E	H	36	22S	26E	3,001,521,842	0	19797	16801	S	W				Unknown		
3001520573	GRACE CARLSBAD 001	BOLD ENERGY, L.P.	1980	S	660	E	I	36	22S	26E	940		233545	301829	S	G	2	640		Active		CARLSBAD,MORROW, SOUTH (PRO GAS)
3001520368	LITTLE JEWEL COM 001	CHAPARRAL ENERGY LLC	1980	N	1900	W	F	31	22S	27E	2,273		4115	29959	P	G	2	630		Active		CARLSBAD,MORROW, SOUTH (PRO GAS)
3001520829	AIRPORT GRACE 001	BOLD ENERGY, L.P.	1980	S	2164	W	K	36	22S	26E	2,922	11956	233545	301824	S	G	3	400	28-Mar-73	Plugged		CARLSBAD CANYON, SOUTH (GAS)
3001510908	SALTY BILL SWD 001	CORINNE GRACE	660	N	1980	W	C	36	22S	26E	3,452		5268	4726	S	S	2	80		Plugged	29-Jul-03	
3001520325	CITY OF CARLSBAD COM 001	BOLD ENERGY, L.P.	660	S	1980	E	O	25	22S	26E	3,494		233545	301826	S	G	1	320		Active		CARLSBAD,MORROW, SOUTH (PRO GAS)
3001520288	ALLEN 001	SABRE OP INC	1980	S	1980	E	J	31	22S	27E	3,735	11825	26460	19003	P	G	2	80	04-Mar-70	Plugged	23-Apr-97	
3001533788	ALLEN 003	CHI OPERATING INC	660	N	1980	E	B	31	22S	27E	4,034	5393	4378	34516	P	O	2	80	28-Feb-05	Active		WYE, DELAWARE
3001531597	CITY OF CARLSBAD COM 002	MARBOB ENERGY CORP	1980	S	1500	E	J	25	22S	26E	4,553	11950	14049	26668	S	G	1	40	19-Apr-01	Active		
3001532795	ALLEN COM 002	CHI OPERATING INC	1650	N	990	E	H	31	22S	27E	4,684	11830	4378	32340	P	G	1	320	29-May-03	Active		CARLSBAD,MORROW, SOUTH (PRO GAS)
3001520401	SPENCER A 001	OXY USA INC	660	S	1980	E	O	30	22S	27E	4,761		16696	8638	F	G	1	40		Plugged	28-Oct-95	
3001529007	HAGERMAN 001	CHI OPERATING INC	1650	S	2200	W	K	30	22S	27E	4,792	3407	4378	33448	P	O	2	80	03-Jul-96	Active		WYE, DELAWARE
3001520452	GOPOGO 001	BOLD ENERGY, L.P.	1980	N	1980	E	G	25	22S	26E	5,953		233545	301827	P	G	1	320		Active		CARLSBAD,MORROW, SOUTH (PRO GAS)
3001520130	MERLAND B COM 001	OXY USA INC	1980	N	1980	E	G	30	22S	27E	6,775		16696	8629	P	G	1	40		Plugged	31-May-03	
3001500372	YARBRO 001	JENKINS & MCQUEEN	990	N	1650	E	B	25	22S	26E	6,839	0	214263	30041		O				Plugged		
3001533181	MERLAND 002	CHI OPERATING INC	990	N	1980	W	C	30	22S	27E	7,096	11815	4378	33302	P	G	1	314.6	06-Feb-04	Active		CARLSBAD,STRAWN, SOUTH (GAS)

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD

Sent: Monday, June 30, 2008 2:30 PM

To: 'Patterson, Bob'

Cc: EverQuest@nts-online.net; Jones, William V., EMNRD; Price, Wayne, EMNRD; Arrant, Bryan, EMNRD; Gum, Tim, EMNRD

Subject: RE: Brine Well Replacements

Terry and Bob:

Re:

KEY ENERGY SERVICES, LLC	SIMS-MCCASLAND BRINE - EUNICE (GP-Sims #2)	BW-9	30-025-25525	N 32.44152 W103.17691
KEY ENERGY SERVICES, LLC.	KEY TRUCKERS BRINE - CARLSBAD	BW-19	30-015-21842	N 32 20' 56.71 W 104 14' 12.93"

Good afternoon. I believe these are the 2 UIC Class III Brine Wells that Key Energy Services, LLC is planning to plug and abandon and drill replacement brine wells? Please confirm that the above BWs are the existing discharge permits and facilities where new BWs will be drilled. You may want to start with examining the construction of the existing brine wells.

Please submit C-103's for District Office and EB approval. Tubing is generally removed (can be cutoff and disposed in the cavern); casing is scraped; a bridge plug is set within 20 ft. of the casing shoe; pressure up on casing and bridge plug for tightness; pressure grout from bottom to top at sufficient pressure to prevent air bubbles, voids, etc. in cement; and set a marker as per OCD oil and gas regulations.

If you are drilling new BWs, please submit C-101s and C-102s (surveyed and notarized) to the District Office and EB. Also, you will need to perform an updated ½ mile AOR for any new wells within the planned drill locations. The EPA and OCD require that the fresh water zone be fully cased off. In general, the OCD requires that the casing shoe a minimum of at least 100 feet into the salt section with special cementing mixture to grout off the salt casing within the salt section (I know Key wants to set the long string immediately above any existing cavern for mechanical integrity purposes, but this is unnecessary). Extending casing and tubing deeper into the salt section is recommended to avoid washing out the roof of the salt section and creating sinks in the topography, etc. For example, there is a shallow brine well in Carlsbad that the OCD is requiring land subsidence monitoring and is very concerned collapse. The deeper into the salt section you can go with your casing and tubing, the more stable and safe your brine operation will be over the long-term.

Terry, please refer to the references below for approximate depths to fresh water. District staff that may be able to provide a general working knowledge of their areas for your drilling plans are listed below. Fresh water information may be found at the following Internet resources:

NM Office of the State Engineer - iWATERS database

– http://www.ose.state.nm.us/waters_db_index.html
  • Ground Water Data, Water well locations
  • NM EMNRD Mining and Mineral Division
– http://www.emnrd.state.nm.us/MMD/coalminewebmap/coalminewebmap.htm
  • Coal Mining Maps
– http://www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm
  • Mining Maps
  • State Bureau of Mines and Minerals Resources

– http://geoinfo.nmt.edu/index.html
– Ground Water Reports (Geology and Ground Water Resources by County in New Mexico)
• Ground Water and Geological Data
Resources in the District Office:

Lea County (The Ogallala Formation?):

Bryan Arrant
OFFICE: (505) 393-6161 FAX: (575) 393-0720

Eddy County (The Santa Rosa & Culebra Member of the Rustler Formations?):

Tim Gum - District Supervisor
Phone extension: 102
Mobile: (575) 626-0824

Lastly, I have requested assistance from the OCD Engineering Bureau to provide any quick preliminary information based on surrounding wells that it has and will forward the info. to you upon receipt. This should indicate the relative depth to the salt section, etc. nearby the existing brine wells to be PA'd.

I hope this helps. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Patterson, Bob [mailto:bpatterson@keyenergy.com]
Sent: Monday, June 30, 2008 11:22 AM
To: Chavez, Carl J, EMNRD
Cc: EverQuest@nts-online.net
Subject: FW: Brine Well Replacements

FYI

Bob Patterson | Key Energy Services, LLC | Area Manager, Trucking Division | O: 505.394.2586 | C: 505.631.7597
-----Original Message-----
From: Terry M. Duffey [mailto:EverQuest@nts-online.net]
Sent: Monday, June 30, 2008 10:52 AM
To: wayne.price@state.nm.us
Cc: Phillber, Mark; Molleur, Loren; Patterson, Bob; Perry, Mark
Subject: Brine Well Replacements

Key Energy has asked me to act as their consultant to drill replacement brine wells at their facility in Carlsbad and Eunice.
The long string setting depth at Carlsbad will be about 650-700'.
At Eunice the long string would be set around 1200'.

I would like to get some guidance from the EB regarding depths of fresh water and salt laden formations in these two areas in order to determine casing setting depth and the mud program. I anticipate using freshwater based drilling fluids during the drilling operation. I am trying to avoid drilling any salt section in either location before we

would set the long string. Can you direct me to the proper persons within you organization that could provide me with this type information?

I envision setting surface casing to protect freshwater. Can you provide the depths to protect fresh water at both locations?

Since both wells are "replacement" wells we would ideally want to set the long string immediately above any existing cavern for mechanical integrity purposes.

The new pit rule generally leads me to a closed-loop mud system. However, if we will be using freshwater mud and never drill any salt section that would saturate the mud with a significant chloride level, this may not rule-out a traditional lined-temporary drilling pit. I would be interested to hear your thoughts in this regard.

Terry M. Duffey
EverQuest Energy Corporation – Dominating World Oil - One Well at a Time.
PO Box 10079
Midland, Texas 79702
432-686-9790
432-682-3821 Fax
EverQuest@nts-online.net

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

March 13, 2007

Mr. W.A. Baker II
Key Energy Services, LLC
6 Desta Drive, Suite 4400
Midland, Texas 79705

Re: Key Energy Services, LLC Discharge Plan (BW-9)
GP Sims #2 (API# 30-025-25525)
UL:A 32-21S-37E, Lea County

Dear Mr. Baker II:

The New Mexico Oil Conservation Division (OCD), Environmental Bureau inspected the above brine well discharge plan facility on December 19, 2006.

Based on our inspection and records, the OCD is aware that Section 7 (Capacity/Cavity Configuration and Subsidence Survey) of the discharge plan has yet to be completed or addressed.

The OCD requires that the brine well be scheduled for a sonar test with interpretation and nitrogen/brine interface test with interpretation by May 18, 2007.

Please contact me at (505-476-3491) or E-mail carlj.chavez@state.nm.us to let me know the work schedule for the above testing and/or if you have questions. Thank you.

Sincerely,

Mr. Carl J. Chavez
Environmental Engineer

xc: OCD District Office

Price, Wayne

From: Patterson, Bob [bpatterson@keyenergy.com]
Sent: Monday, March 28, 2005 12:52 PM
To: Price, Wayne
Cc: Gibson, Dan
Subject: BW-009 API # 30-025-25525

Wayne,
As per our phone conversation, Thursday 24, 2005. The tubing was sheared in this well approximately 6 months ago and has not been in production since. Key postponed the 2004 MIT test until such time when the well will be pulled to replace the tubing. The MIT will be isolated from the cavern to the specified pressures in OCD procedures and a cavity configuration and subsidence survey will be conducted at this time also. Monies have been approved for the project and as soon as arraignments are made for a pulling unit, work will began. The proper paperwork will be filed with OCD and a district representative will be notified when the tests are to be performed.

Bob Patterson

Price, Wayne

From: Price, Wayne
Sent: Tuesday, March 15, 2005 10:00 AM
To: Bob Patterson (E-mail); Dan Gibson (E-mail)
Cc: Williams, Chris; Sheeley, Paul; Johnson, Larry; Gonzales, Elidio
Subject: Key Energy Brine well BW-009 API # 30-025-25525

US MAIL

Dear Mr. Patterson and Mr. Gibson:

OCD's records reflect that your operations are deficient in the following areas:

1. OCD does not have a record of the Brine Well Mechanical Integrity Test for year 2004. Please submit ASAP. If Key failed to perform this test then the brine well shall cease operations until a satisfactory MIT has been completed and witnessed by OCD. The OCD inspector will enter the test in the electronic files including a copy of the chart. I have included the latest OCD guidance for testing brine wells.

2. OCD has not received the discharge plan (DP) sign-off sheets or the $1700 fee. OCD has included a copy of the DP for your reference. Please submit this ASAP.

3. Your DP annual report is due April 06, 2005 see condition # 8. Please review all of the conditions in the DP and provide OCD a summary in the annual report.

Test Guidence ıocument amended.

BWAPP_aug13,04. DOC

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

THE SANTA FE
NEW MEXICAN
Founded 1849

RECEIVED

JUL 2 2 2004

OIL CONSERVATION DIVISION

NM OIL CONSERVATION DV-EMNRDI
Attn: Wayne Price
1220 ST. FRANCIS DR

SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689
AD NUMBER: 00074508 ACCOUNT: 00002212
LEGAL NO: 74631 P.O. #: 05-199-050185

217 LINES 1 TIME(S)	95.48
AFFIDAVIT:	5.50
TAX:	6.75
TOTAL:	107.73

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, B. Perner, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 74631 a copy of which is hereto attached was published in said newspaper 1 day(s) between 07/21/2004 and 07/21/2004 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 21st day of July, 2004 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

B Perner

/S/_____

LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 21st day of July, 2004

Notary Laura E. Harding

Commission Expires: 11/23/07

Approved

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge permit application(s) has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(BW-009) – Key Energy Services, Inc., Bob Patterson, Manager, P.O. Box 99, Eunice New Mexico, 88231, has submitted an application for the renewal of a discharge plan for the Sims#2 Brine Station, located in the NE/4 NE/4 of Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Approximately 200 barrels per day of brine water with a TDS of approximately 300,000 mg/l is produced from a class III brine well and stored in double lined pond with leak detection. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 to 160 feet. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge permit application and draft discharge permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. The draft discharge permit may also be viewed at OCD's web site http://www.emnrd.state.nm.us/ocd/. Prior to ruling on any proposed discharge permit or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 22th day of June 2004.

STATE OF
NEW MEXICO
OIL CONSERVATION
DIVISION

SEAL

Mark Fesmire,
Director

Legal #74631
Pub. July 21, 2004

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KENNETH NORRIS

Advertising Manager

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period

of

1 issues(s).
Beginning with the issue dated

July 8 , 2004
and ending with the issue dated

July 8, ,2004

Kenneth Norris
Advertising Manager
Sworn and subscribed to before

me this 14th day of

July , 2004

Notary Public.

My Commission expires
November 27, 2004
(Seal)

LEGAL NOTICE
July 8, 2004

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ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 22th day of June 2004.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Mark Fesmire, Director
SEAL
#20790

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

01100060000 02570974
State of New Mexico Oil &
1220 S. St. Francis
Santa Fe, NM 87505

TO: Wayne

FROM: DonnA P

ENERGY, MINERALS & RESOURCES DEPT.
OIL CONSERVATION DIVISION
DISTRICT I
1625 N French Dr
Hobbs NM 88240

(505) 393-6161 EXT. 115

- ✓ FOR YOUR FILES
- ___ FOR YOUR REVIEW & RETURN
- ___ FOR YOUR HANDLING
- ___ AS PER YOUR REQUEST
- ___ PLEASE ADVISE
- ___ PREPARE A REPLY FOR MY SIGNATURE
- ___ FOR YOUR INFORMATION
- ___ FOR YOUR APPROVAL
- ___ FOR YOUR SIGNATURE
- ___ FOR YOUR ATTENTION

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104A
March 19, 2001

Submit 1 copy of the final affected wells list along with 1 copy of this form per number of wells on that list to appropriate District Office

Change of Operator

Previous Operator Information:		New Operator Information:	
		Effective Date:	6702701
OGRID:	8361	New Ogrid:	019797
Name:	Sims-McCasland Water Sales	New Name:	Yale E. Key Inc.
Address:	Box 98	Address:	Box 2040
Address:		Address:	
City, State, Zip:	Eunice, NM 88231	City, State, Zip:	Hobbs, NM 88241

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the attached list of wells is true and complete to the best of my knowledge and belief.

New Operator Signature: Royce Crowell

Printed name: Royce Crowell

Title: Compliance Specialist

Date: 09/17/01 Phone: 393-9171

Previous operator complete below:

Previous Operator: Sims-McCasland Water Sales

Previous OGRID: 8361

Signature:

Printed Name:

NMOCD Approval

Signature: Gary W. Wink

Printed Name: Gary W Wink

District: NATURAL SCIENCE MANAGER

Date: SEP 18 2001

PAGE 1 — WELLS INVOLVED IN OPERATOR CHANGE — SEP 14, 2001

FINAL LIST WITH C-104A

This is a final list of wells being transferred. If all bonding requirements are satisfied, submit this list to the OCD District with your C-104A.

PREVIOUS OPERATOR: 8361 SIMS - MCCASLAND WATER SALES NEW OPERATOR: _____

OCD DISTRICT: HOBBS

PROPERTY	WELL NAME	ULSTR	OCD UNIT LTR	API	WELL TYPE	POOL ID	POOL NAME	LAST PROD/INJ
~~19466~~ 28843	C P SIMS #002	A-32-21S-37E	A	30-025-28525	W	96173	BSW;SALADO	05-2001

NOTICE OF PUBLICATION

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 22th day of June 2004.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

Mark Fesmire, Director

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 5/21/04

or cash received on _____ in the amount of $ 100.00

from KEY ENERGY SERVICES

for SIMM #2 BRINE ST (Facility Name) BW-009 (OCD No.)

Submitted by: L PRICE Date: 5/22/04

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

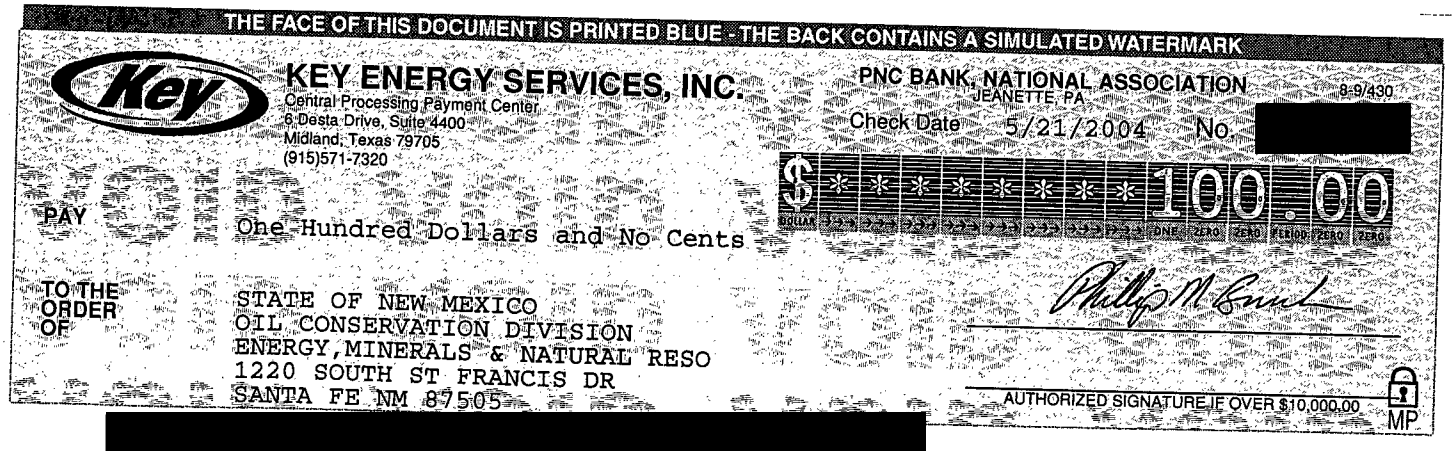
Filing Fee X New Facility ___ Renewal ___

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 200[redacted]4

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increment ___



THE FACE OF THIS DOCUMENT IS PRINTED BLUE - THE BACK CONTAINS A SIMULATED WATERMARK

Key

KEY ENERGY SERVICES, INC.
Central Processing Payment Center
6 Desta Drive, Suite 4400
Midland, Texas 79705
(915)571-7320

PNC BANK, NATIONAL ASSOCIATION
JEANETTE, PA
8-9/430

Check Date 5/21/2004 No. [redacted]

$ ********100.00
DOLLARS

PAY One Hundred Dollars and No Cents

TO THE ORDER OF
STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
ENERGY,MINERALS & NATURAL RESO
1220 SOUTH ST FRANCIS DR
SANTA FE NM 87505

Phillip M Bond

AUTHORIZED SIGNATURE IF OVER $10,000.00

MP

[redacted]

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITES

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New X Renewal

RECEIVED
JUN 14 2004
OIL CONSERVATION DIVISION

I. Facility Name: Sims # 2 Brine Station (BW 009)
II. Operator: Key Energy Services, Inc.
Address: Box 99, Eunice, NM 88231

Contact Person: Bob Patterson Phone: (505) 394-2581

III. Location: NE/4 NE/4 Section 22 Township 21S Range 37E
Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

V. Attach a description of the types and quantities of fluids at the facility.
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

VII. Attach a description of underground facilities (i.e. brine extraction well).
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION:

I hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Bob Patterson

Title: Area Manager, Trucking Division

Signature: Bob Patterson

Date: 5-20-04

E-mail Address: bpatterson@keyenergy.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
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Name: Bob Patterson Title: Area Manager, Trucking Division

Signature: Bob Patterson Date: 5-20-04

E-mail Address: bpatterson@keyenergy.com

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State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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MAY 25 2004
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VII. Attach a description of underground facilities (i.e. brine extraction well).
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.
Information on file @NMOCD, Santa FE, NM, Discharge Plan BW-009

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION:

I hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Bob Patterson Title: Area Manager, Trucking Division

Signature: Bob Patterson Date: 5-20-04

E-mail Address: bpatterson@keyenergy.com

Patterson, Bob

From: Price, Wayne [WPrice@state.nm.us]
Sent: Thursday, May 20, 2004 1:55 PM
To: Patterson, Bob
Cc: Butler, Gene
Subject: Brine Well Permit expiration BW-009

The discharge permit for the Key "Sims McCasland Brine Well" BW-009 expired April 06, 2004. Please submit a renewal application with $100.00 filing fee within 10 days.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

Price, Wayne

From: Price, Wayne
Sent: Friday, May 21, 2004 1:43 PM
To: 'mmauk@brwncald.com'
Cc: Bob Patterson (E-mail)
Subject: Key work proposals for Eunice AND Hobbs

BW-09

Attention Madeline S. Mauk:

OCD is in receipt of the work plans for the Key Energy Eunice Truck Wash and the Hobbs Brine Well system dated May 13, 2004 and OCD hereby approves of the work plans. Please submit the results of your investigation along with conclusions and recommendation by July 15, 2004.

Please be advised that NMOCD approval of this plan does not relieve (Key Energy) of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Key Energy) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Please copy Mr. Gibson as I do not have his E-Mail.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

1415 Louisiana
Suite 2[redacted]
Houston, Texas 77002

Tel: (713) 759-0999
Fax: (713) 308-3886

www.brownandcaldwell.com

May 13, 2004

BROWN AND CALDWELL

Mr. Wayne Price
New Mexico Oil Control Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Subject: Key Energy Services
Hobbs Saltwater Disposal Facility, 1502 West Broadway Place, Hobbs, New Mexico and
Eunice Truck Wash and Sump Facility, 2105 Avenue O, Eunice, New Mexico

Dear Mr. Price:

Brown and Caldwell is submitting the attached work plans on behalf of Key Energy Services, Inc. (Key) for the Hobbs Saltwater Disposal Facility located at 1502 West Broadway Place in Hobbs, New Mexico and for the Eunice Truck Wash and Sump Facility located at 2105 Avenue O (New Mexico Highway 176) in Eunice, New Mexico.

If you have any questions, please call Dan Gibson (Key) at (432) 571-7536 or Madeline Mauk (Brown and Caldwell) at (713) 759-0999.

Very truly yours,

BROWN AND CALDWELL

Madeline S. Mauk, P.E.
Supervising Engineer

MMAUK@BRWNCALD.COM

P:\Gen\KEYENERG\25934\workplantransmittalfor Eunice and Hobbs.doc

Workplan for Soil Boring, Monitoring Well Installation and Groundwater Sampling Activities
Key Energy Services
Hobbs Saltwater Disposal Facility
1502 West Broadway Place
Hobbs, Lea County, New Mexico

Introduction

Brown and Caldwell has prepared this work plan for additional soil and groundwater assessment activities at the Key Energy Services (Key Energy) facility in Hobbs, New Mexico. Key Energy currently operates the saltwater disposal facility at 1502 West Broadway Place in Hobbs, New Mexico. Soil and groundwater assessment activities were previously performed by ARCADIS G&M, Inc. (ARCADIS) from March 25-28, 2003 to determine potential soil and groundwater impact associated with the Key Energy brine pit and old truck loading dock. Findings from the March 2003 field investigation indicated petroleum hydrocarbon impact to surface soil, and elevated concentrations of chlorides in soil surrounding the brine pit and in groundwater samples collected from MW-1. MW-1 however is screened across the entire saturated zone from 46 feet to 196 feet below ground surface (bgs). It is unclear where in this interval the sample was collected, and if the sample is representative of chloride impact due to historic facility operations. No benzene, toluene, ethylbenzene, or xylene (BTEX) were detected above the respective detection limits in samples collected by ARCADIS, consequently further sampling of soil or groundwater for BTEX will not be performed.

Metals concentrations from the previous investigation conducted by ARCADIS have been screened against the New Mexico Environment Department (NMED) February 2004 (Revision 2) Soil Screening Levels (SSLs). No metals concentrations were found to exceed the Industrial/Occupational SSLs, consequently further sampling of soils for metals will not be performed.

Field Activities

The following paragraphs describe field procedures, methodologies, and analytical requirements to be utilized during the additional soil and groundwater assessment activities. A soil boring will be installed to vertically delineate Total Petroleum Hydrocarbons (TPH) in soil within 10 feet of ground surface. Soil samples will be collected from the shallow soil boring and analyzed for TPH. A monitoring well located as far upgradient from the brine pit as feasible will be installed to assess the presence of chlorides and total dissolved solids (TDS) content in groundwater that has not been potentially impacted by historic operations at the saltwater facility. Groundwater samples will be collected from the new monitoring well and from the existing monitoring well (MW-1) for laboratory analysis of chlorides and TDS. Figure 1 depicts the proposed soil boring and monitoring well location.

Prior to commencement of drilling activities, utility clearance will be obtained through coordination with site personnel and by contacting the New Mexico One-Call at 1-800-321-ALERT. The New Mexico Oil Control Division (NMOCD) will be notified 24 hours in advance of commencement of field activities. All work conducted during the investigation will be documented in a bound field book and/or pre-printed field forms. All work will be conducted in accordance with the site-specific guidelines established in the Site Health and Safety Plan

prepared by Brown and Caldwell in order to minimize physical, chemical, and/or biological hazards potentially encountered or created by field activities associated with this project.

Soil Borings and Sampling Activities

Brown and Caldwell will advance two (2) soil borings using air rotary drilling. Soil cores will be continuously sampled using decontaminated split-spoon sampling techniques and logged by a qualified field geologist. Upon refusal, air rotary drilling will be used to continue advancement to the total depth of the borehole, while the field geologist logs soil cores (if practicable) and soil cuttings. Each sample interval will be logged for recovery length and lithology, visually observed for impacts, and field screened with a photo-ionization detector (PID). The lithologic description and moisture content will be described in accordance with ASTM International Standard D 2488, Standard Practice for Description and Identification of Soils (Visual Manual Procedure), and classified in accordance with the United Soil Classification System (USCS).

One shallow boring will be installed to a total depth of 10 feet bgs immediately south of the concrete slab near the approximate location of soil boring SB-1. Previous soil investigation results (ARCADIS, March 2003) indicated TPH concentrations in the diesel range of 114 milligrams per kilogram (mg/kg) at a depth of 2 feet bgs in the area. The following sample collected from the bottom of the boring at 35 feet bgs indicated TPH to be non-detect at that depth. It is anticipated that two soil samples will be collected from the boring for the purpose of delineating TPH between 2 feet and 10 feet bgs in the area adjacent to existing monitoring well MW-1. The first soil sample collected from an approximate depth of 5 feet bgs will be submitted for laboratory analysis of TPH using Method 8015M. TPH analysis will consist of diesel range and gasoline range organics (DRO and GRO). The second soil sample collected from an approximate depth of 10 feet bgs will be submitted and archived for pending laboratory analysis of TPH using Method 8015M, based on the results of analysis of the 5-foot bgs sample. TPH analyses will be requested within a 5-day turnaround time. Upon completion of sampling activities, the soil boring will be plugged by backfilling with hydrated bentonite chips.

The second boring will be installed to a total depth of approximately 70 feet bgs, or at least 15 feet into the saturated groundwater zone. The boring will be located as far northwest and upgradient of the brine pit as possible within the Key property boundary. The boring will be continuously sampled to a depth of 10 feet and thereafter sampled at 5 foot intervals, field screened, and logged in accordance with procedures described above. No soil samples will be submitted to the laboratory for analysis. The boring will undergo conversion into a permanent groundwater monitoring well, as detailed in the following section.

Monitoring Well Installation

Brown and Caldwell will convert the boring installed to 70 feet bgs into a permanent groundwater monitoring well to assess background levels of chloride and TDS content in groundwater that has not been potentially affected by operations at the saltwater facility. Monitoring well construction will consist of a minimum of 20 feet of 2-inch diameter, 0.010 machine slot, flush-threaded, Schedule 40 polyvinyl chloride (PVC) screen, and 2-inch diameter PVC casing to ground surface. The well screen will extend to a minimum depth of 15 feet into the saturated zone, and will intersect the saturated interface in the formation. The well will be completed a few inches below ground surface and protected with a flush-to-grade manhole set in a 3-foot square, concrete pad that is at least 4-inches thick. The area surrounding the concrete pad will be repaired with material equivalent to the original. It is anticipated that the well will be installed to a total depth

of approximately 70 feet below ground surface (bgs). Groundwater is expected to occur at a depth of approximately 55 feet bgs. The well will be completed in accordance with New Mexico Environment Department (NMED) Ground Water Quality Bureau and Oil Conservation Division (OCD) guidance and standards.

Brown and Caldwell will develop the new monitoring well. Well development will be considered complete when the produced fluids are relatively free of suspended material, or after approximately 1 hour.

Brown and Caldwell will use a handheld Global Positioning System (GPS) device to determine the location of the monitoring well, as required by the New Mexico OCD. Brown and Caldwell will survey the top of casing of MW-1 and the new monitoring well (MW-2) with respect to an established benchmark (assumed elevation of 100 foot).

Collection and Analysis of Groundwater Samples

Brown and Caldwell will measure the static water level in each well at the facility immediately prior to sampling and purging using a decontaminated water level probe. The monitoring wells will then be purged using low flow/low stress purging procedures, as described below:

- The intake of the pump that will be used for well purging shall be placed as high in the water column as is possible under pumping conditions. This is done so that purging will draw water from the formation into the screened area of the well, and up through the casing, so that the entire static water column can be removed.

- Initially, groundwater withdrawal should occur no more than 3 to 5 feet below the water surface. If the recovery rate of the well is faster than the pump rate and no observable drawdown occurs, the pump should be raised until the intake is within 1 foot of the top of the water column for the duration of purging. If the pump rate exceeds the well recovery rate, the pump will have to be lowered as needed based upon the amount of drawdown. Ultimately the flow rate of the pump should be adjusted so that the water level in the well is maintained at no less than 80% of the static water level in the well.

- Field parameter measurements for pH, specific conductivity, turbidity, and temperature will be collected during the purging process for each well. A YSI 600 XL flow cell (or equivalent) will be used in measurement of these parameters at approximate ½-liter intervals. Instrument calibration data shall be recorded in the field notebook for the project. The wells shall be purged until groundwater stabilization occurs and a minimum of 5 liters of groundwater have been produced. Groundwater will be considered stabilized when all of the following criteria are met, as measured during three successive incremental measurements:

    - Variability of less than 3 percent for specific conductivity;
    - Variability of less than 0.5° C for temperature;
    - Variability of less than 0.1 pH unit;
    - Turbidity of less than 10 nephelometric turbidity units (NTUs) or variability of less than 10 percent for turbidity is achieved.

Upon completion of purging operations, groundwater samples will be immediately collected from each monitoring well at the pump discharge line after the flow cell has been disconnected. One (1) groundwater sample from the new monitoring well will be collected and submitted to the

laboratory for analysis of chlorides using EPA Method 325.3, and for TDS using EPA Method 160.1. One (1) groundwater sample will be collected from existing monitoring well MW-1 from the same depth interval correlating with the depth interval sampled at the newly installed well so that analytical results may be compared. The pump intake will then be lowered approximately 25 to 30 feet down the screened interval, purged, and sampled for a second time for analysis of chlorides using EPA Method 325.3 and TDS using EPA Method 160.1 to verify vertical delineation of chloride concentrations. Each sample will be transferred into laboratory-supplied, clean glass or plastic containers containing the appropriate preservatives, labeled immediately, and placed on ice in an insulated cooler for shipment via an overnight courier to the analytical laboratory under standard chain-of-custody procedures.

Decontamination

Field sampling equipment and utensils will be decontaminated by washing with a brush, laboratory grade non-phosphate detergent (e.g., Liquinox, Alconox) and tap or distilled water, followed by a distilled water rinse.

The drilling subcontractor will set up a decontamination pad and use high-pressure water or a steam cleaner to wash all down hole augers, rods and sampling equipment between each location and upon completion of drilling activities.

Waste Management

Soil cuttings generated during the well installation activities will be placed in clean, properly labeled 55-gallon steel drums. Decontamination water, well development water, and purge water produced during well installation and sampling activities will be placed in clean, properly labeled 55-gallon steel drums. All drummed waste will be moved to a central location pending offsite disposal. Upon receipt of soil and groundwater sample analytical results, Key will be contacted regarding waste characterization, sampling and analysis to be performed as a separate task.

The following information shall be marked on each separate drum on a drum label with indelible ink, or by using a paint pen:

- Contents (e.g., soil cuttings, purge water, decontamination water);
- Source, if specific to a particular source or process (e.g., MW-3); and
- Date that drum was filled.

Miscellaneous field-generated debris (e.g., paper towels, plastic and paper bags) not impacted by media of environmental concern shall be placed in plastic garbage bags, sealed, and stored on-site for disposal by Key.

Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) measures will include sample collection techniques that produce samples representative of the target media and the target analytical constituents. One duplicate sample collected at the same time and same location as the original sample. Level 2 QA/QC reporting for groundwater samples will be requested from the analytical laboratory using a standard turnaround time of 10 days. Level 2 QA/QC reporting for soil samples will be requested from the analytical laboratory using an expedited 5-day turn around time. The soil sample collected from the soil boring at the five-foot depth interval will be

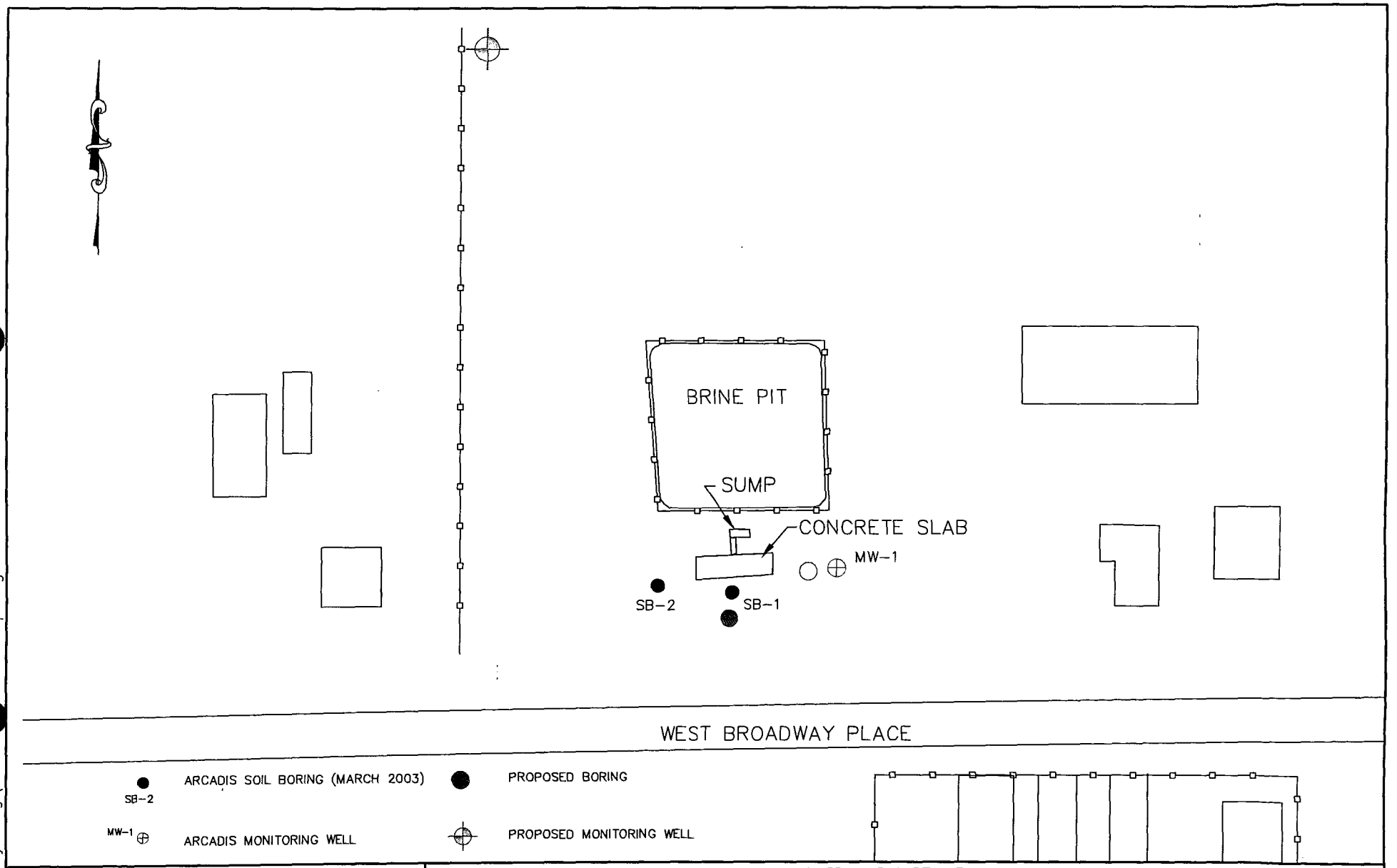
submitted and analyzed for TPH within the 5-day turn around time. The soil sample collected from the soil boring at the ten-foot depth interval will be submitted to the laboratory and archived for pending analysis of TPH based on review of the initial results of the analysis of the 5-foot bgs sample.

Sample Handling Procedures

Soil and groundwater samples will be submitted to the analytical laboratory in laboratory-supplied clean sample containers. All sample containers will be labeled immediately upon filling of the container. Labeled and sealed sample containers will be placed on ice in a plastic cooler for delivery to the analytical laboratory under standard chain-of-custody procedures. Samples will be submitted to Severn Trent Laboratory (STL) in Houston, Texas by an overnight delivery service.

Reporting

Brown and Caldwell will prepare a letter report documenting soil boring and monitoring well installation and groundwater sampling activities. The report will contain a summary of field methodologies, analytical results, the laboratory analytical report, associated figures, tables, monitoring well log, and conclusions and recommendations. The draft letter report will be submitted to Key Energy for review. A final report will be submitted to Key Energy and to the New Mexico OCD.



, May 13, 2004 - 1:19pm ckelly
P:\Cad\JOBS\KeyEnerg\25935 obsSiteMap.dwg

BROWN AND CALDWELL
1415 Louisiana
Suite 2500
Houston, Texas 77002
Tel: (713) 759-0999
Fax: (713) 308-3886

KEY ENERGY

0 50 100
SCALE IN FEET

KEY ENERGY SALTWATER FACILITY SITE MAP
HOBBS, NEW MEXICO
FIGURE 1

Price, Wayne

From: Price, Wayne
Sent: Thursday, May 20, 2004 1:55 PM
To: Bob Patterson (E-mail)
Cc: Gene Butler (E-mail)
Subject: Brine Well Permit expiration BW-009

The discharge permit for the Key "Sims McCasland Brine Well" BW-009 expired April 06, 2004. Please submit a renewal application with $100.00 filing fee within 10 days.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

RECEIVED
JUN 27 2002
Environmental Bureau
Oil Conservation Division

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Report

Name of Company: Yale E. Key Inc. dba Key Energy Services	Contact☐ Royce Crowell
Address Box 2040 Hobbs, NM 88241	Telephone No.☐(505) 393-9171
Facility Name G.P. Sims #2 Brine Station	Facility Type☐ Brine Station

Surface Owner Yale E. Key, Inc.	Mineral Owner (Salt) Yale E. Key Inc.	Lease No.☐

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	32	21S	37E	250'	North Line	200'	East Line	Lea

NATURE OF RELEASE

Type of Release Fresh Water	Volume of Release 500bbls.	Volume Recovered☐ 500bbls.
Source of Release Casing Leak close to Surface	Date and Hour of Occurrence 6:30a.m.	Date and Hour of Discovery☐ 6:30 a.m.
Was Immediate Notice Given? XX☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Chris Williams, Paul Sheeley	
By Whom? ☐ Royce Crowell	Date and Hour☐ 11:00 a.m.	
Was a Watercourse Reached? ☐ Yes XX☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Hole in Casing of Brine Well 27" from surface. Stored pressure in well continued to leak fresh water from casing until pressure had been released.

Describe Area Affected and Cleanup Action Taken.*
Short ditch was made with backhoe and small pit was made to facilitate removal of water with a vacuum truck. All fluid was contained within boundaries of brine facility. Total area of spill before containment was 2000 Sq. ft.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Royce Crowell	OIL CONSERVATION DIVISION	
Printed Name: Royce Crowell	Approved by☐District Supervisor:	
Title: Compliance Specialist	Approval Date:	Expiration Date:
Date: 6/06/02 Phone: 393-9171	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
JUN 27 2002
Environmental Bureau
Oil Conservation Division

Form C-
Revised March 17, 1

Submit 2 Copies to appropr
District Office in accorda
with Rule 116 on b
side of f

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Re

Name of Company: Yale E. Key Inc. dba Key Energy Services	Contact Royce Crowell
Address Box 2040 Hobbs, NM 88241	Telephone No. (505) 393-9171
Facility Name G.P. Sims #2 Brine Station	Facility Type Brine Station

Surface Owner Yale E. Key, Inc.	Mineral Owner (Salt) Yale E. Key Inc.	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	32	21S	37E	250'	North Line	200'	East Line	Lea

NATURE OF RELEASE

Type of Release Fresh Water	Volume of Release 500bbls.	Volume Recovered 500bbls.
Source of Release Casing Leak close to Surface	Date and Hour of Occurrence 6:30a.m.	Date and Hour of Discovery 6:30 a.m
Was Immediate Notice Given? XX☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Chris Williams, Paul Sheeley	
By Whom? Royce Crowell	Date and Hour 11:00 a.m.	
Was a Watercourse Reached? ☐ Yes XX☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Hole in Casing of Brine Well 27" from surface. Stored pressure in well continued to leak fresh water from casing until pressure had been released.

Describe Area Affected and Cleanup Action Taken.*
Short ditch was made with backhoe and small pit was made to facilitate removal of water with a vacuum truck. All fluid was contained within boundarie of brine facility. Total area of spill before containment was 2000 Sq. ft.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Royce Crowell	OIL CONSERVATION DIVISION
Printed Name: Royce Crowell	Approved by District Supervisor:
Title: Compliance Specialist	Approval Date: / Expiration Date:
Date: 6/06/02 Phone: 393-9171	Conditions of Approval: / Attached ☐

* Attach Additional Sheets If Necessary

G.P. Sims #2

RECEIVED
MAY 24 2002
Environmental Bureau
Oil Conservation Division

The laboratory Poissan's ratio for salt is 0.25. Using the equation below, the potential downhole fracture pressure at the top of the perforations for the well is calculated.

$$P_f = (S - P_o)\ (Y / 1 - Y) + P_o$$

P_f = fracture pressure (psi) at injection face
S = overburden pressure
P_o = pore pressure
Y = Poissan's ratio = 0.25
Brine gradient = 0.52 psi/ft.

G.P. Sims #2

Top of perfs = 1373
S = 1.0 x 1373
P_o = 0.46 x 1373
P_f = 877

Top Hole fracture pressure
= 877psi – (1373 x 0.52)
= 164 psi

Total hole fracture pressure
Friction loss = 120

Maximum Injection Pressure
= 284 psi

Injection pressure at the surface on the G.P. Sims #2 is 100 psi. Injection pressure at the surface is 250#. This well is operating under the calculated maximum pressure.

Key Energy Services, Inc.

April 29, 2002

Martyne Kieling
Wayne Price
Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Address change

Dear Martyne and Wayne

I am requesting that all correspondents regarding Key Energy Services be sent to the following address.

Key Energy Services, Inc.
Attn: Gene Butler
6 Desta Drive
Suite 4400
Midland, Texas 79705

Key Energy Services PBD well list is listed below:

	Contintial Water Sales	Truckers 2 Brine Station
	BKE#1 SWD	RA State
BW-09	Sims-McCasland Water Sales	J.H.Day#1
	J.H.Day#2	Christmas#3
	City of Carlsbad Brine Station	Bone Springs SWD
	Atha#1 SWD	

Key Energy Services FCD well list:

Sunco Disposal

Thank You

Gene Butler

P.O. Box 1613
703 E. Clinton Suite 102
Hobbs, New Mexico 88240
505/397-0510
Fax 505/393-4388
www.sesi-nm.com

Safety & Environmental Solutions, Inc.

September 25, 2001

NMOCD
Attn: Wayne Price
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: Corrected Site Plan Map

Dear Wayne:

Enclosed, please find the revised map of the Sims-McCasland Brine Sales Water Station produced by John West Engineering of Hobbs, New Mexico. As we had previously discussed, the wells were misidentified on the original site plan map. The enclosed map reflects the correct well numbering system as well as the correct top of casing elevation. Please substitute this map for the map included in our Site Investigation dated July 18, 2001.

If you have any questions, or I can be of further assistance please contact me at (505) 397-0510.

Sincerely,

Bob Allen CHMM, REM, CET, CES
President

ba/db
encl: 1 map

29 | 28

R.R. SPIKE

32 | 33

USGLO BC

100'

STATE HIGHWAY NO. 8

R-O-W LINE

WATER WELL #1
NG 3465.97
N/SIDE 3467.21

301.8'

WATER WELL #3
NG 3466.47
N/SIDE 3466.77

101.7'

250.6'

WATER WELL #2
NG 3465.60
N/SIDE 3467.14

BUILDING

VALVE BOX

H_2O LINE

G.P.SIMS #1
DRY HOLE

VALVE BOX

TANK

DUKE PIPELINE

LEGION ROAD

COUNTY ROAD E-33

FRESH

PUMP

BRINE

BRINE

BRINE

BRINE

BURIED

HOOKUP TANK

HOOKUP TANK

GUY WIRE

GATE

LINED PIT

GATE

SECTION LINE
R-O-W LINE

NORTH

▲ DENOTES WELL ANCHOR
—E— DENOTES ELECTRIC LINE
—x— DENOTES FENCE
—//— DENOTES PIPELINE
NG DENOTES NATURAL GROUND
N/SIDE DENOTES ELEV. ON NORTH SIDE OF WELL

30 0 30 60 FEET
Scale:1"=30'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MININUM STANDARDS FOR SURVEYING IN NEW MEXICO.

GARY G. EIDSON NEW MEXICO 12641 REGISTERED PROFESSIONAL SURVEYOR

Gary G. Eidson 9/24/01

RONALD J. EIDSON N.M. P.S. No. 3239
TEXAS P.L.S. No. 1883
GARY G. EIDSON N.M. P.S. No. 12641
TEXAS P.L.S. No. 4735

JOHN WEST SURVEYING COMPANY
412 N. DALPASO - HOBBS, NEW MEXICO - 505/393-3117

KEY ENERGY SERVICES INC.

TOPOGRAPHIC SURVEY OF FACILITIES IN
SECTION 32,
TOWNSHIP 21 SOUTH,
RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

Surveyed By: HARPER	Drawn By: DC	Last Rev.: 9/07/01	Drawing Number
Date Begin: 5/16/01	Date: 5/23/01	Disk:	E- 3063
Date End:	Approved By:	Sheet of	
Project #: 01110613	Filename: KEY0613	Scale: 1"=30	

REVISED: 9/7/01 - CHANGED WELL NUMBERS ON WELLS #1 & #2 TO MATCH SESI NUMBERING SYSTEM

29 | 28

32 | 33

USGLO BC

R.R. SPIKE

100'

STATE HIGHWAY NO. 8

R-O-W LINE

WATER WELL #1
NG 3465.97
N/SIDE 3467.21

301.8'

WATER WELL #3
NG 3466.47
N/SIDE 3466.77

NORTH

101.7'

250.6'

WATER WELL #2
NG 3465.60
N/SIDE 3467.14

BUILDING

VALVE BOX

H_2O LINE

G.P.SIMS #1
DRY HOLE

VALVE BOX

LEGION ROAD

TANK

DUKE PIPELINE

COUNTY ROAD E-33

FRESH

PUMP

BRINE

BRINE

BRINE

BRINE

BURIED E

HOOKUP TANK

HOOKUP TANK

GUY WIRE

GATE

LINED PIT

GATE

SECTION LINE

R-O-W LINE

▲ DENOTES WELL ANCHOR
-E- DENOTES ELECTRIC LINE
-x- DENOTES FENCE
-//- DENOTES PIPELINE
NG DENOTES NATURAL GROUND
N/SIDE DENOTES ELEV. ON NORTH SIDE OF WELL

30 0 30 60 FEET
Scale: 1"=30'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

GARY G. EIDSON NEW MEXICO 12641 REGISTERED PROFESSIONAL SURVEYOR

Gary G Eidson 9/24/01

RONALD J. EIDSON N.M. P.S. No. 3239
TEXAS P.L.S. No. 1883
GARY G. EIDSON N.M. P.S. No. 12641
TEXAS P.L.S. No. 4735

JOHN WEST SURVEYING COMPANY
412 N. DALPASO - HOBBS, NEW MEXICO - 505/393-3117

KEY ENERGY SERVICES INC.

TOPOGRAPHIC SURVEY OF FACILITIES IN
SECTION 32,
TOWNSHIP 21 SOUTH,
RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

Surveyed By: HARPER	Drawn By: DC	Last Rev.: 9/07/01	Drawing Number
Date Begin: 5/16/01	Date: 5/23/01	Disk:	E- 3063
Date End:	Approved By:	Sheet of	
Project #: 01110613	Filename: KEY0613	Scale: 1"=30	

REVISED: 9/7/01 - CHANGED WELL NUMBERS ON WELLS #1 & #2 TO MATCH SESI NUMBERING SYSTEM

OIL CONSERVATION DIV.

01 SEP 24 PM 1:42

September 20, 2001

Wayne Price
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87504

Dear Mr. Price,

On April 20, 2001 Key Energy Services, Inc. dba Yale E. Key Inc. assumed control of the brine well (BW 028) that was formerly operated by Gold Star SWD Ltd. Co. On June 2, 2001 Yale E. Key Inc. assumed control of the brine well (BW 009) formerly operated by Sims-McCasland Water Sales. Yale E. Key Inc. also operates the brine wells (BW 019) and (BW 18) located in Carlsbad, NM and Hobbs, NM. Yale E. Key Inc. assumes all responsibilities required by the Oil Conservation Division that were formerly assumed by the previous management including all provisions associated with the discharge plans for each location. Yale E. Key has a blanket plugging bond covering each well. If I can be of further service, please contact me Royce Crowell

Compliance Specialist
Key Energy Services, Inc.
Box 2040
Hobbs, NM 88241

Sincerely,

Royce Crowell

Royce Crowell

Price, Wayne

From: Price, Wayne

Sent: Wednesday, February 07, 2001 10:43 AM

To: 'bpat@wtaccess.com'

Cc: 'ballen@sesi-nm.com'

Subject: BW-009 Sims-McCasland Groundwater Investigation Plan

Dear Mr. Patterson:

The NMOCD is in receipt of the Work Plan dated December 27, 2000 for the above referenced facility. The NMOCD hereby approves of the plan with the initial finding to be submiited to this office and a copy sent to the OCD Hobbs office by April 15, 2001.

Please be advised that NMOCD approval of this plan does not relieve Sims-McCasland Water Sales of responsibility should their closure activities have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Sims-McCasland Water Sales of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Price, Wayne

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Sent: Wednesday, February 07, 2001 10:43 AM

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Cc: 'ballen@sesi-nm.com'

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P.O. Box 1613
703 E. Clinton Suite 102
Hobbs, New Mexico 88240
505/397-0510
Fax 505/393-4388
www.sesi-nm.com

Safety & Environmental Solutions, Inc.

December 27, 2000

Mr. Wayne Price- Pet. Engr. Spec.
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Discharge Plan BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Price:

Per your request, enclosed is a work plan for the groundwater investigation at the Sims-McCasland Brine Station on behalf of Mr. Bob Patterson.

If you have any questions, or I can be of further assistance please contact me at (505) 397-0510.

Sincerely,

Bob Allen

Bob Allen CHMM, REM, CET, CES
President

BOB PATTERSON
E-MAIL BPAT@WTACCESS.COM

S+ES INC
BALLEN@SESI-NM.COM

Work Plan
Investigation of Possible Groundwater Impact
Sims-McCasland Water Sales - Brine Station
Lea County, New Mexico

December 27, 2000

Prepared for:

Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

By:

Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 102
Hobbs, New Mexico 88240
(505) 397-0510

TABLE OF CONTENTS

Purpose

The purpose of this Work Plan is to propose a scope of work to systematically confirm or deny possible groundwater contamination at the Sims-McCasland Brine Station located in Section 33 Township 21S Range 37E in Lea County, New Mexico. This plan will also make provisions for the accurate determination of the size and location of any plume of contamination found in the groundwater. The source of the possible contamination is an active brine well and station.

Background

The Sims-McCasland Brine Station has been operated since the late sixties. The station produces and sells brine water from the well on-site. The fresh water used to produce the brine comes from the City of Eunice. There are three (3) water wells on-site. There have historically been storage tanks on-site and possibly a lined pit.

Knowledge of process indicates that any material produced at this site and spilled is exempt oil field waste.

Method

Sims-McCasland proposes to use the existing water wells to determine the direction of flow of the groundwater at the site. In addition, each well will be sampled and analyzed for TPH, BTEX, Chlorides, major Cations and Anions, and Total Dissolved Solids. Depending upon the results of the analysis and the direction of groundwater flow, install one monitor well south and east of the site. This well, in conjunction with the three existing water wells on the site, will be used to determine the gradient of the water table under the site. After the installation of the well, a series of soil borings may be initiated in the area where the storage tanks were located in an attempt to identify any contamination resulting from releases from the tanks. If necessary, additional wells will be installed to attempt to identify the extent of any groundwater contamination. These wells would be installed at locations indicated by the direction of groundwater flow at the site. Once this assessment is complete, Sims-McCasland will submit another work plan that will address the appropriate methods and scope of work for the remediation of any groundwater contamination as well as vadose zone remediation as deemed appropriate.

The physical description of the monitor well installations is as follows:

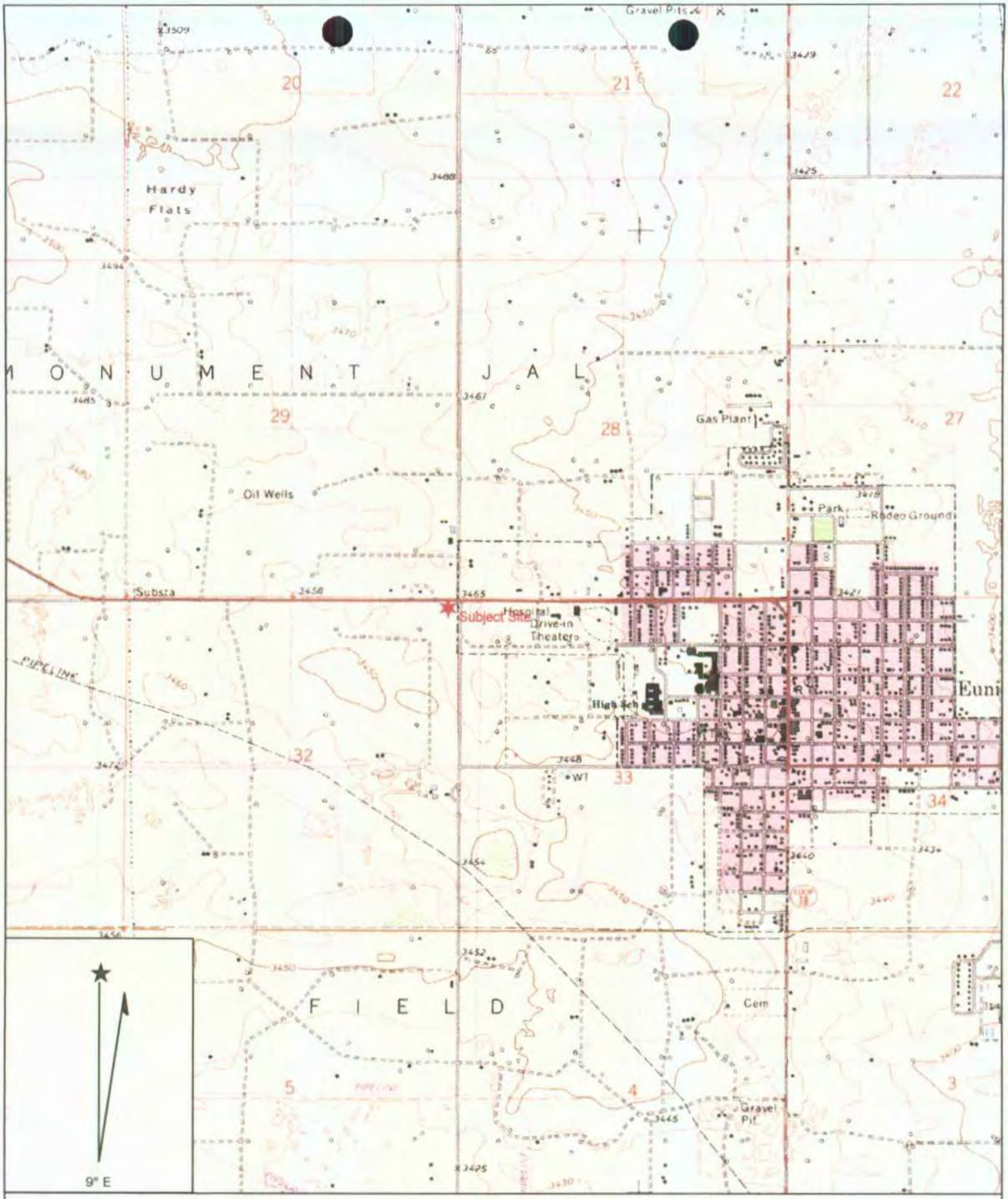
> Each well will be drilled to a depth of ten (10) feet below the water table. Split spoon samples will be collected at five (5) foot intervals and analyzed for TPH, and BTEX and Chlorides. A driller's log noting sample points and changes in lithology will be kept. The wells will be cased with 2" PVC pipe with a minimum of fifteen (15) feet of well screen on the bottom. (Five (5) feet above the water table and ten (10) feet below the water table) Screen will be gravel packed to a point 2-3 feet above the screen, with a bentonite plug set above the gravel pack. The remainder of the casing annulus to surface will be grouted with cement containing 5% bentonite. Each well will be equipped with a locking well cap. (See monitor well diagram)

Monitoring Parameters

The monitor wells will initially be sampled and analyzed for TPH, BTEX, Chlorides, major Cations and Anions, and Total Dissolved Solids with results filed with the OCD Santa Fe and Hobbs District offices.

Maps and Figures

Vicinity Map
Site Plan



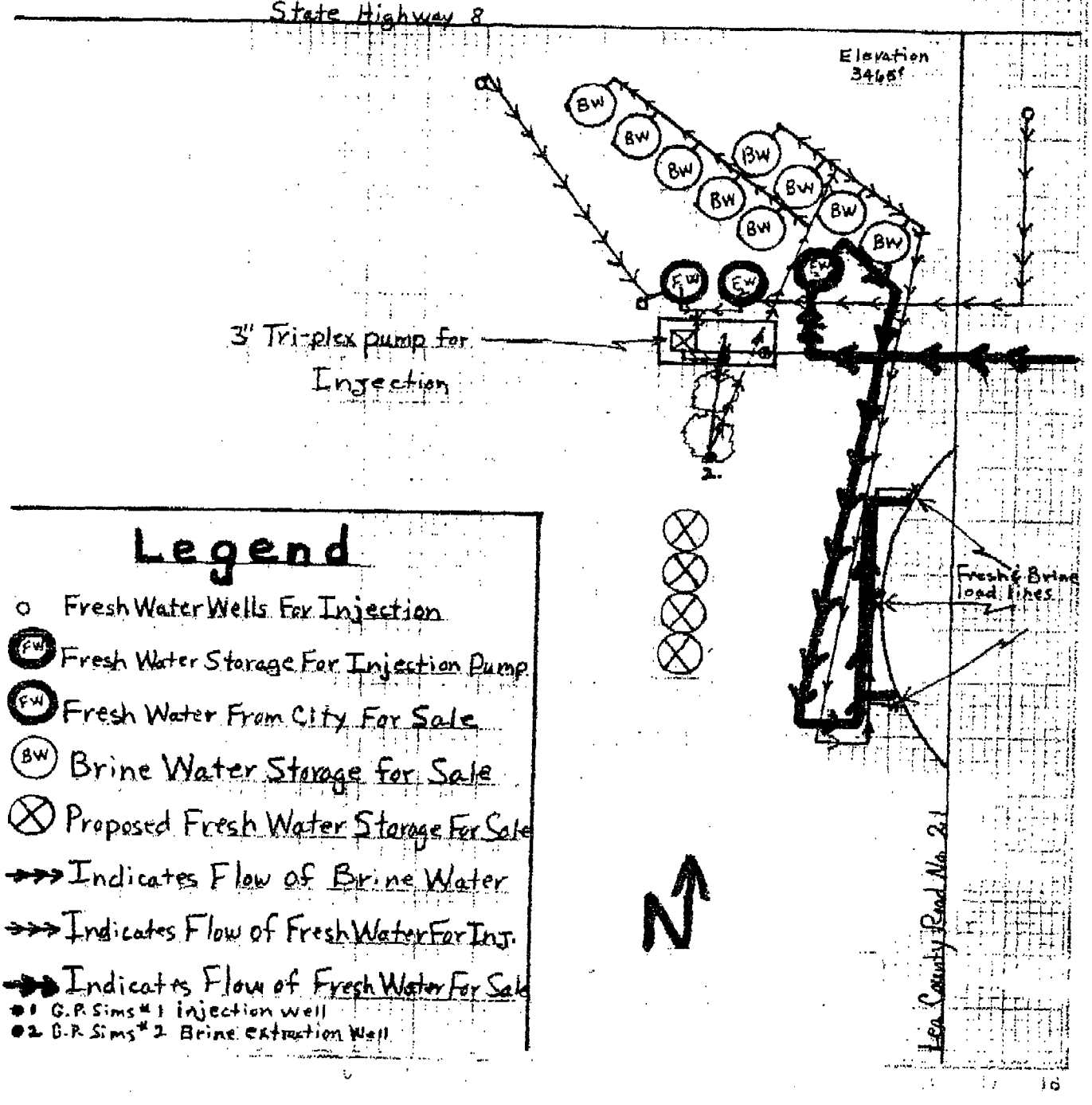
Name: EUNICE
Date: 12/26/2000
Scale: 1 inch equals 2000 feet

Location: 032° 26' 32.5" N 103° 10' 25.2" W
Caption: Sims-McCasland Brine Station

1988

Sims-McCasland Water Sales

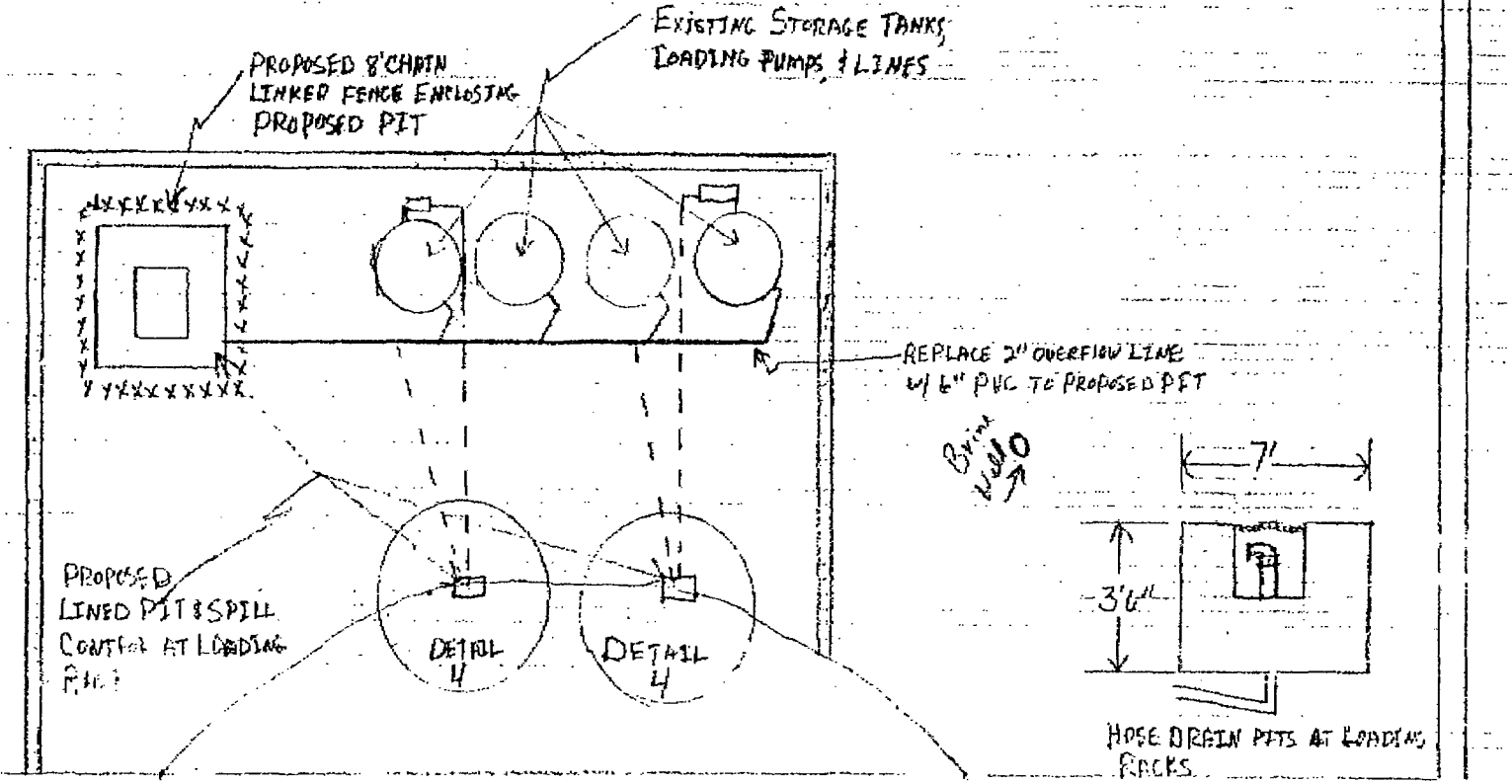
Section 32 Township 21 Range 37 Lea County



Legend

- o Fresh Water Wells For Injection
- (FW) Fresh Water Storage For Injection Pump
- (FW) Fresh Water From City For Sale
- (BW) Brine Water Storage for Sale
- ⊗ Proposed Fresh Water Storage For Sale
- →→→ Indicates Flow of Brine Water
- →→→ Indicates Flow of Fresh Water For Inj.
- →→→ Indicates Flow of Fresh Water For Sale
- ●1 G.P. Sims #1 injection well
- ●2 G.P. Sims #2 Brine extraction Well

KEY ENERGY


PROPOSED 8' CHAIN LINKED FENCE ENCLOSING PROPOSED PIT
EXISTING STORAGE TANKS, LOADING PUMPS & LINES
REPLACE 2" OVERFLOW LINE W/ 6" PVC TO PROPOSED PIT
PROPOSED LINED PIT & SPILL CONTROL AT LOADING PIPE
DETAIL 4
DETAIL 4
7'
3'6"
HOSE DRAIN PITS AT LOADING RACKS

OCD ENVIRONMENTAL BUREAU

SITE INSPECTION SHEET

DATE: 12-11-00 Time: 9:30 AM

Type of Facility: Refinery ☐ Gas Plant ☐ Compressor St. ☐ Brine St. ☑ Oilfield Service Co. ☐
Surface Waste Mgt. Facility ☐ E&P Site ☐ Crude Oil Pump Station ☐
Other ☐_____

Discharge Plan: No ☐ Yes ☑ DP# BW-009

FACILITY NAME: SIMS - Mc CASLAND BRINE ST

PHYSICAL LOCATION: _____

Legal: QTR UL QTR SW Sec 33 TS 18S R 38E County LEA

OWNER/OPERATOR (NAME) SIMS - Mc CASLAND

Contact Person: ~~RANDY~~ SAM BLEVINS Tele:# 910-4135 CELL

MAILING

ADDRESS:_____ State_____ ZIP_____

Owner/Operator Rep's: RANDY CORBELL

OCD INSPECTORS: W PRICE

1. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

NA

2. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

LOADING AREA - pic #1 & #2 ● UNLOADING CONTAINER HAS HOLE IN IT ALLOWING BRINE WATER TO DISCHARGE TO SURFACE
SIMS Mc CASLAND TO SUBMIT C-141 & CLEAN-UP PLAN ON RESULTS.
START 10 AM CHART

3. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

NEED TO REPAIR WEST SIDE BERM

4. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

NA

5. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

NA

6. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

BRINE PIT LEAK DETECTOR HAS FLUID IN IT.

7. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years thereafter, or prior to discharge plan renewal. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

~~BRINE LINES FROM~~ NA

8. Onsite/Offsite Waste Disposal and Storage Practices: Are all wastes properly characterized and disposed of correctly? Does the facility have an EPA hazardous waste number? _____ Yes _____ No

ARE ALL WASTE CHARACTERIZED AND DISPOSED OF PROPERLY? YES ☐ NO ☐ IF NO DETAIL BELOW.

9. Class V Wells: Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. All Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Closure of Class V wells must be in accordance with a plan approved by the Division's Santa Fe Office. The OCD allows industry to submit closure plans which are protective of human health, the environment and groundwater as defined by the WQCC, and are cost effective. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

ANY CLASS V WELLS NO ☑ YES ☐ IF YES DESCRIBE BELOW ! Undetermined ☐

10. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

NEEDS ATTENTION IN LOADING AREA

11. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the proper OCD District Office.

12. Does the facility have any other potential environmental concerns/issues?

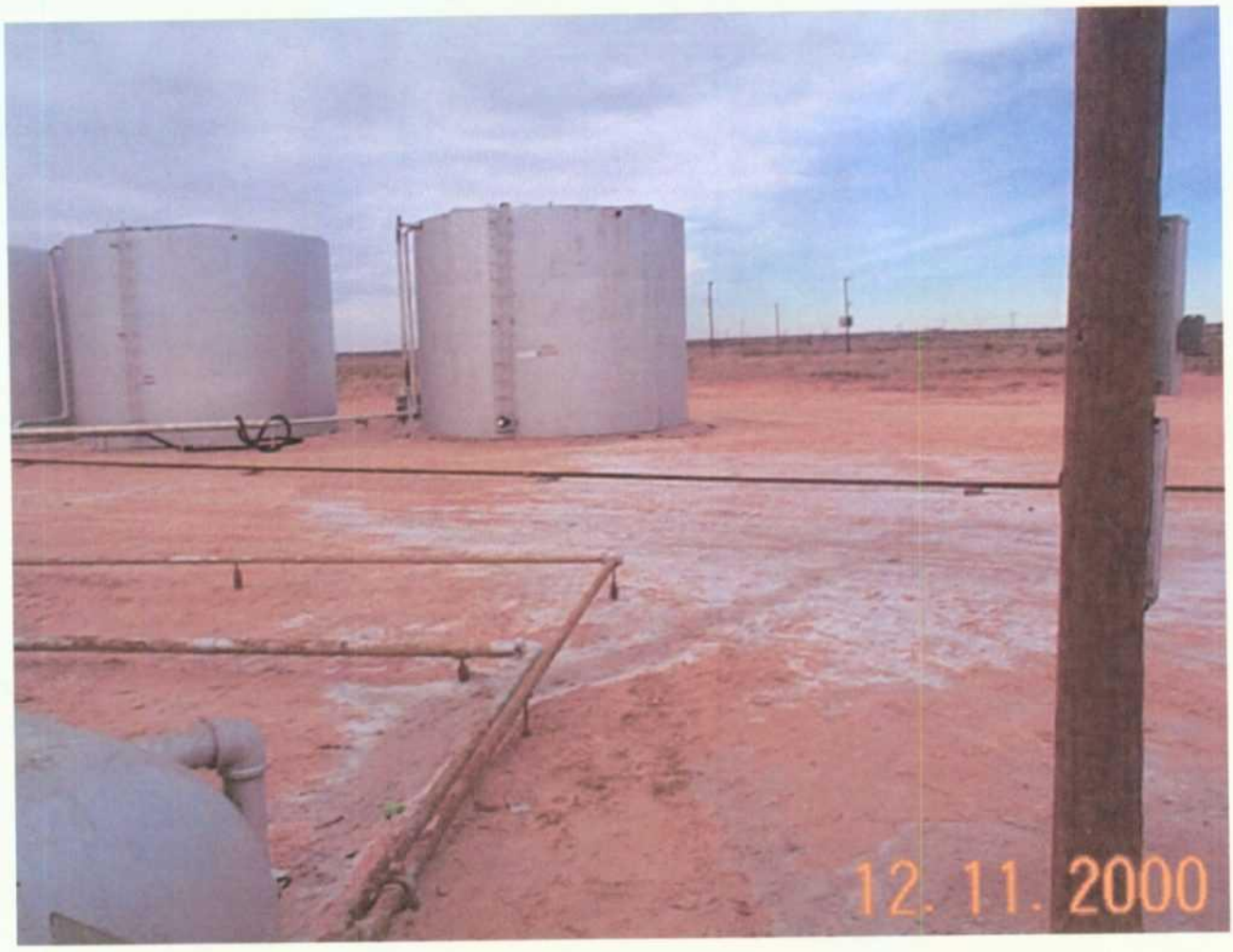
13. Does the facility have any other environmental permits - i.e. SPCC, Stormwater Plan, etc.?

14. ANY WATER WELLS ON SITE ? NO ☐ YES ☑ IF YES, HOW IS IT BEING USED ?

Miscellaneous Comments:

BRINE WELL MIT - OPEN HOLE TEST RECORDER 0 – 1000 psig 12 HR CLOCK
PRESS GAGE START 424 10 AM
0-600 psig STOP 424 2 PM

Number of Photos taken at this site: _____
attachments-



PIC #1 SIMS-McCASLAND BW-009

PIC #2 SIMS - Mc CASLAND BW-009

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

November 18, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 4782

Mr. Bob Patterson
Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

Re: Discharge Plan BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Patterson:

The New Mexico Oil Conservation Division (NMOCD) sent a letter on July 7, 2000 requesting a site specific groundwater investigation plan for the Sims-McCasland Brine Station. As of this date, the OCD has not received the plan. You are hereby required to submit a groundwater investigation plan for OCD approval by December 29, 2000.

Sincerely;

Wayne Price- Pet. Engr. Spec.

Xc: OCD Hobbs Office

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

July 7, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 5574

Mr. Bob Patterson
Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

Re: Discharge Plan BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Patterson:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of your site investigation plan dated June 30, 2000 for the Sims-McCasland Brine Station. Please note the plan is inadequate. Please submit a plan that will address the site specific groundwater conditions.

Sincerely;

Wayne Price- Pet. Engr. Spec.

Xc: OCD Hobbs Office

OIL CONSERVATION DIV.

00 JUL -3 AM 11: 35

Sims-McCasland Water Sales, LLC
P.O. Box 99
Eunice, NM 88231
(505) 394-2581

June 30, 2000

New Mexico Energy, Minerals,
And Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

ATTN: Mr. Wayne Price

Subject: Site Investigation Plan

Dear Mr. Price,

Sims-McCasland Water Sales proposes to contract Safety & Environmental Solutions, Inc. to obtain samples from a residential water well that is down gradient approximately 3/4 mile Southeast of Sims-McCasland's brine well, and have an analysis performed from an independent laboratory. Tests to be performed will be at O.C. D.'s discretion. These actions will be carried out within 30 days after receipt of written approval from O.C.D. to this plan.

Sincerely,

Bob Patterson
Sims-McCasland Water Sales

XC: O.C.D. Hobbs Office

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

May 12, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 5840

Mr. Bob Patterson
Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

Re: Discharge Plan BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Patterson:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of your letter dated May 09, 2000 concerning groundwater quality around the Sims-McCasland Brine Station. Your letter indicates the analytical results for the Magee water well is comparable to the city of Eunice fresh water. It is OCD's understanding this is an up-gradient well located northwest of the brine station. The regional groundwater flow in this area is generally in a southeasterly direction, thus indicating that fresh water exists up-gradient from the site. Previous groundwater data taken from below the site has revealed water contaminants that exceed the groundwater standards.

As a result of these findings Sims-McCasland Water Sales is required to submit for NMOCD approval a site groundwater investigation plan by June 30, 2000 as outlined in the discharge plan requirement 25. (Groundwater Contamination).

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Hobbs office

Sims-McCasland Water Sales, LLC
P.O. Box 99
Eunice, NM 88231
(505) 394-2581

May 9, 2000

Wayne,
I gave up on received a good hard copy from Cardinal lab's. If this fax copy is not suitable - I'll get one for you
Thanks
Bob Patterson

New Mexico Energy, Minerals,
And Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

ATTN: Mr. Wayne Price

Subject: Site investigation results

Dear Mr. Price,

Attached are the results of tested samples collected by Safety & Environmental Solutions, Inc. from Cardinal Laboratories. The fresh water sample is directly from the City of Eunice water supply. The Magee water well sample and the fresh water sample appear to be comparable in most categories; thus I'm assuming that there is no apparent contamination from Sims-McCasland Water Sales' brine well.

Sincerely,

Bob Patterson
Sims-McCasland Water Sales

XC: O.C.D. Hobbs Office

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 03/30/00
Reporting Date: 04/18/00
Project Number: NOT GIVEN
Project Name: SIMS-MCCASLAND WATER SALES
Project Location: EUNICE

Sampling Date: 03/30/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		04/04/00	04/04/00	04/04/00	04/04/00	04/04/00	04/04/00
H4757-1	BRINE WATER	116679	1395	243	224	>10000000	28
H4757-2	FRESH WATER	168	66	18	3.42	653	152
H4757-3	MAGEE WELL	106	64	38	8.31	964	164
Quality Control		4.988	44	58	5.03	1392	NR
True Value QC		5.000	50	50	5.00	1413	NR
% Accuracy		100	88	116	101	98.5	NR
Relative Percent Difference		1.0	1.8	8.6	0.6	0.2	NR
METHODS:		273.1	3500-Ca-D	3500-Mg E	6049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/04/00	04/04/00	04/04/00	04/04/00	04/04/00	04/05/00
H4757-1	BRINE WATER	177817	7632	0	34	7.16	317180
H4757-2	FRESH WATER	243	110	0	185	8.04	757
H4757-3	MAGEE WELL	131	200	0	200	7.78	684
Quality Control		1001	49.39	112	971	6.98	NR
True Value QC		1000	50.00	124	1000	7.00	NR
% Accuracy		100	98.8	90.3	97.1	99.7	NR
Relative Percent Difference		2.4	3.5	-	-	0	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

Date 04/18/2000

CARDINAL LABORATORIES, INC.
2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name: SOSI	[redacted] PO #:
Project Manager: Allen	Company:
Address: 703 E Clinton	Attn:
City: Hobbs State: NM Zip: 88240	Address:
Phone #: 505-393-0510	City:
Fax #:	State: Zip:
Project #: Project Owner:	Phone #:
Project Name: Sims-McCasland Water Sales	Fax #:
Project Location: Eunice	

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: General Chemistry 4 CEP 1362	Cations + Anions
H4757-1	Brine Water Sample	G	2	✓									3-30-00	9:30	✓	✓
-2	Fresh Water Sample	G	2	✓									3-30-00	9:20	✓	✓
-3	Maxee Well	G	2	✓									3-30	9:15	✓	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: [signature] 3-30-00	Date: [struck] Time: 12:39	Received By:	Phone Result: ☐ Yes ☐ No Additional Fax #: Fax Result: ☐ Yes ☐ No REMARKS:
Relinquished By:	Date: 3/30/2000 Time: 12:40 P	Received By: (Lab Staff) [signature]	
Delivered By: (Circle One) (Sampler) - UPS - Bus - Other:		Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

February 28, 2000

5/2/00
PER BOB PATTERSON:
WILL SUBMIT RESULTS
BY MAY 15, 2000.

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 4607

Mr. Bob Patterson
Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

Re: Discharge Plan BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Patterson:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Sims-McCasland Water Sales' letter dated February 18, 2000. The NMOCD approves of the groundwater investigation plan of sampling nearby up-gradient wells in the area with the additional conditions:

1. Water samples taken shall be collected before any treatment and analyzed for General Chemistry (Method 40 CFR 136.3) using EPA methods.

2. Sims-McCasland Water Sales will notify the OCD Santa Fe office and the OCD District office at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.

Please be advised that NMOCD approval of this plan does not relieve Sims-McCasland Water Sales of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Sims-McCasland Water Sales of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

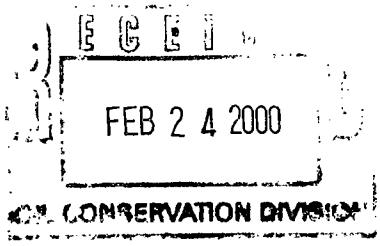
Sincerely Yours,

Wayne Price

Wayne Price-Pet. Engr. Spec.
Environmental Bureau
cc: OCD Hobbs Office

Sims-McCasland Water Sales, LLP

P.O. Box 99
Eunice, NM 88231
(505) 394-2581



February 18, 2000

New Mexico Energy, Minerals,
And Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

ATTN: Mr. Wayne Price

Subject: Site Investigation Plan

Dear Mr. Price,

Sims-McCasland Water Sales proposes to contract Safety & Environmental Solutions, Inc. to obtain samples from a residential water well that is down gradient approximately ¼ mile Northwest of Sims-McCasland's brine well, and have an analysis performed from an independent laboratory. Tests to be performed will be at O.C. D.'s discretion. These actions will be carried out within 30 days after receipt of written approval from O.C.D. to this plan.

Sincerely,

Bob Patterson
Sims-McCasland Water Sales

XC: O.C.D. Hobbs Office

TALKED TO BOB PATTERSON, THIS SHOULD HAVE READ UP GRADIENT!
2/25/00
Wayne Price

TO: Wayne

FROM: DONNA P

ENERGY, MINERALS & RESOURCES DEPT.
OIL CONSERVATION DIVISION
DISTRICT I
1625 N French Dr
Hobbs NM 88240

(505) 393-6161 EXT. 115

- ✓ FOR YOUR FILES
- ___ FOR YOUR REVIEW & RETURN
- ___ FOR YOUR HANDLING
- ___ AS PER YOUR REQUEST
- ___ PLEASE ADVISE
- ___ PREPARE A REPLY FOR MY SIGNATURE
- ___ FOR YOUR INFORMATION
- ___ FOR YOUR APPROVAL
- ___ FOR YOUR SIGNATURE
- ___ FOR YOUR ATTENTION

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-104
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address	OGRID Number
Sims & McCasland Water Sales P.O. Box 98 Eunice, NM 88231	8361
	Reason for Filing Code: CH 1/1/94

API Number	Pool Name	Pool Code
30 - 025-25525	BSW; Salado	96173
Property Code	**Property Name**	**Well Number**
19466	G.P.Sims	2

II. 10 Surface Location

TO: Wayne

FROM: Donna P

ENERGY, MINERALS & RESOURCES DEPT.
OIL CONSERVATION DIVISION
DISTRICT I
1625 N French Dr
Hobbs NM 88240

(505) 393-6161 EXT. 115

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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-104
Revised October 18, 1994
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Submit to Appropriate District Office
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☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
Sims & McCasland Water Sales P.O. Box 98 Eunice, NM 88231	8361
	3 Reason for Filing Code: CH 1/1/94

4 API Number	5 Pool Name	6 Pool Code
30 - 025 - 25525	BSW; Salado	96173
7 Property Code	**8 Property Name**	**9 Well Number**
19466	G.P.Sims	2

II. 10 Surface Location

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	32	21	37		420	North	210	East	Lea

11 Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

14 Lse Code	15 Producing Method Code	16 Gas Connection Date	17 C-129 Permit Number	18 C-129 Effective Date	19 C-129 Expiration Date
P	BSW				

III. Oil and Gas Transporters

20 Transporter OGRID	21 Transporter Name and Address	22 POD	23 O/G	24 POD ULSTR Location and Description

IV. Produced Water

25 POD	26 POD ULSTR Location and Description

V. Well Completion Data

27 Spud Date	28 Ready Date	29 TD	30 PBTD	31 Perforations	32 DHC, DC,MC

33 Hole Size	34 Casing & Tubing Size	35 Depth Set	36 Sacks Cement

VI. Well Test Data

37 Date New Oil	38 Gas Delivery Date	39 Test Date	40 Test Length	41 Tbg. Pressure	42 Csg. Pressure

43 Choke Size	44 Oil	45 Water	46 Gas	47 AOF	48 Test Method

47 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Bob Patterson
Printed name: Bob Patterson
Title: Supervisor-Operator
Date: 10-15-96 Phone: (505) 394-2581

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT I SUPERVISOR
Title:
Approval Date: JAN 15 1997

48 If this is a change of operator fill in the OGRID number and name of the previous operator

Bob Patterson — Previous Operator Signature
McCasland Services, Inc. — Printed Name
Supervisor — Title
Date

Sims-McCasland Water Sales
P.O. Box 99
Eunice, NM 88231
(505) 394-2581

December 13, 1999

Mr. Wayne Price-Pet. Engr. Spec.
Environmental Bureau of
New Mexico Energy, Minerals &
Natural Resources Department
2040 South Pacheco Street
Santa Fe, NM 87505

Re: Discharge Plan BW-009

Dear Mr. Price,

Following are the responses to the comments and requirements regarding the discharge plan BW-009 for Sims-McCasland Water Sales:

1. A copy of the final C-103 approved by the O.C.D. and a bore schematic are enclosed. The owners of the water station decided to plug the well after the tubing sheared. The cost to bleed the wells back, pull the remainder of the tubing, and then drilling back into open hole was deemed more expensive than to plug the well. This well has sheared the tubing five times in the past and the owners were concerned about the possibility of drilling into some existing tubing and not being able to complete the well.
2. The statement in the original discharge plan application stating that production out the casing was a typographical error. In reality, production is through the tubing.
3. The brine storage pond was constructed as submitted.
4. A copy of the C-104 reflecting Sims-McCasland Water Sales as the operator is enclosed.

Should any other information be needed, please contact me.

Sincerely,

Bob Patterson

Submit 3 Copies to Appropriate District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-025-22727

5. Indicate Type of Lease STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: G.P. Sims

1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER Brine Well

2. Name of Operator: Sims-McCasland Water Sales

8. Well No. 1

3. Address of Operator: P.O. Box 98 Eunice, NM 88231

9. Pool name or Wildcat: BSW; Salado

4. Well Location

Unit Letter A : 250 Feet From The North Line and 200 Feet From The East Line

Section 32 Township 21 Range 37E NMPM Lea County

10. Elevation (*Show whether DF, RKB, RT, GR, etc.*)

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☒
PULL OR ALTER CASING	☐			CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER:			☐

12. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103. September 29, 1997

1. MIRU Pulling Unit
2. Came out of hole with tubing
3. Ran in hole with cast iron plug on tubing
4. Set cast iron plug @ 1120'
5. Circulated 225 sacks of cement to surface
6. Came out of hole with tubing
7. Cut off well head & installed Dry hole marker

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Bob Patterson TITLE Supervisor DATE 9-30-97

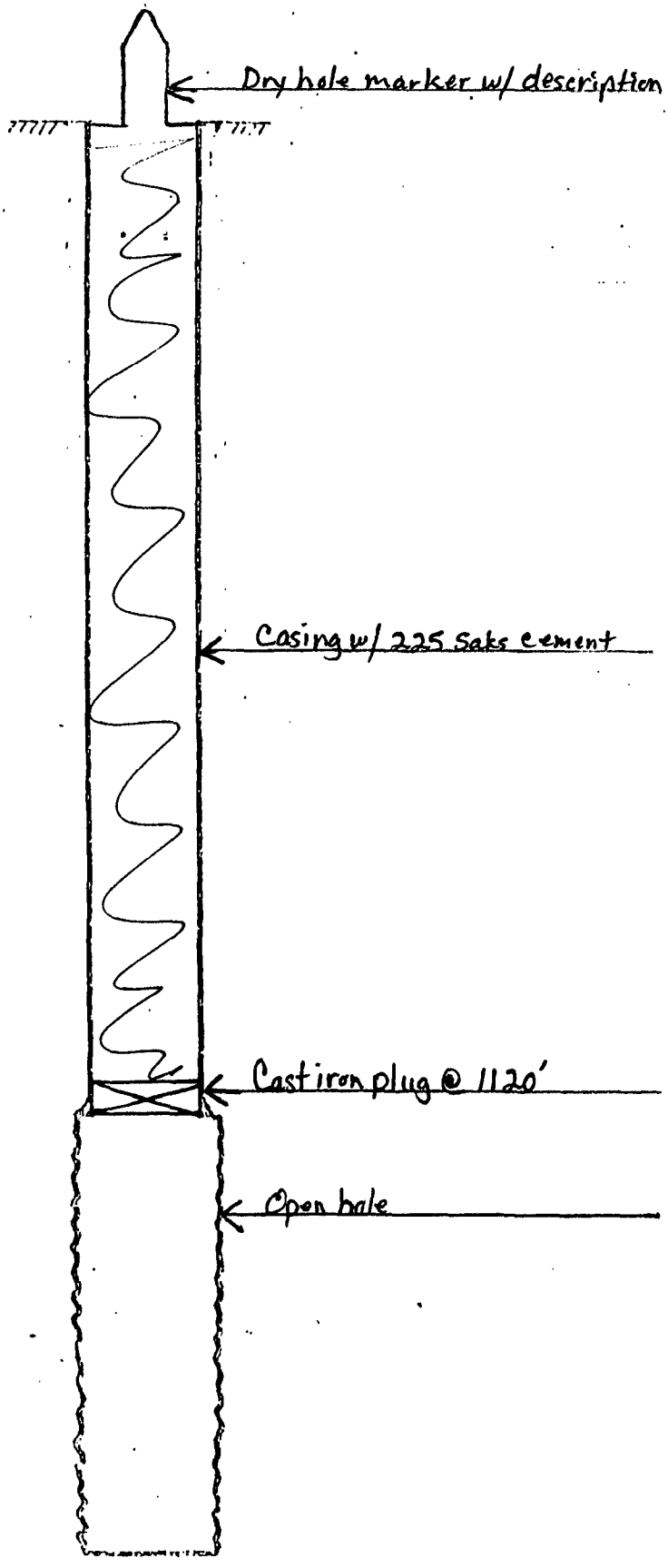
TYPE OR PRINT NAME Bob Patterson TELEPHONE NO. 394-2581

(This space for State Use) ORIGINAL SIGNED BY GARY WINK FIELD REP. II

APPROVED BY _____ TITLE _____ DATE DEC 22 1997

CONDITIONS OF APPROVAL, IF ANY:

OPERATOR			DATE
Sims-McCasland Water Sales			10-1-97
LEASE	WELL No.	LOCATION	
G.P. Sims	1	S32T21R37E Lea Cty	



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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-104
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number / [3] Reason for Filing Code
Sims & McCasland Water Sales P.O. Box 98 Eunice, NM 88231	8361 CH 1/1/94

[4] API Number	[5] Pool Name	[6] Pool Code
30-025-25525	BSW; Salado	96173

[7] Property Code	[8] Property Name	[9] Well Number
19466	G.P.Sims	2

II. [10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	32	21	37		420	North	210	East	Lea

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
P	BSW				

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] POD	[21] O/G	[22] POD ULSTR Location and Description

IV. Produced Water

[23] POD	[24] POD ULSTR Location and Description

V. Well Completion Data

[25] Spud Date	[26] Ready Date	[27] TD	[28] PBTD	[29] Perforations	[30] DHC, DC,MC

[31] Hole Size	[32] Casing & Tubing Size	[33] Depth Set	[34] Sacks Cement

VI. Well Test Data

[35] Date New Oil	[36] Gas Delivery Date	[37] Test Date	[38] Test Length	[39] Tbg. Pressure	[40] Csg. Pressure
[41] Choke Size	[42] Oil	[43] Water	[44] Gas	[45] AOF	[46] Test Method

[47] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Bob Patterson
Printed name: Bob Patterson
Title: Supervisor-Operator
Date: 10-15-96 Phone: (505) 394-2581

OIL CONSERVATION DIVISION
Approved by: ORIGINAL SIGNED BY JERRY SEXTON DISTRICT I SUPERVISOR
Title:
Approval Date: JAN 15 1997

[48] If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
Bob Patterson	McCasland S[illegible]ces, Inc.	Supervisor	

DEC-14-99 14:54 From:8162219 1505393875B T-109 P.01/01 Job-900

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

November 19, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P 410 425 211

Mr. Bob Patterson
Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

Re: Discharge Plan BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Patterson:

The groundwater discharge plan, BW-009, for the Sims-McCasland Water Sales Brine Station, located in the NE/4 NE/4, Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, expired April 6, 1999. Sims-McCasland Water Sales submitted a discharge plan renewal application on August 27, 1999. In order for the New Mexico Oil Conservation Division (NMOCD) to complete its review and issue approval, the NMOCD has the following comments and requirements:

The submitted Sims-McCasland Water Sales' Application for Renewal of Discharge Plan attachment, set forth in Item VI. "Description of Fluid Transfer and Storage", noted two significate changes. One; Plugging of the north well G.P. Sims #1, thus creating a one well system where fresh water is pumped down the tubing and brine is extracted through the casing. Two; The completion of the brine storage pit installation.

1. Please provide a copy of the final C-103 forms filed and approved by OCD for the plugging of the Sims #1 well, including a plugging well bore schematic and an explanation as to why the well was plugged.

2. The NMOCD normally does not allow brine production out of the casing on brine wells. Please address this issue.

3. Please provide "as built" drawings for the brine storage pond if different than originally proposed.

NMOCD performed a search on the well bonds, numbers BO 2069 and BO 2070, and discovered there is an outstanding issue concerning the name change from McCasland Services, Inc. to Sims-McCasland Water Sales. Apparently NMOCD has received the rider from the bonding company up-dating the name change, but the NMOCD Environmental Bureau has not received a copy of the final C-104's authorizing the operator name change. Attached is a letter dated September 10, 1996 (Diana Richardson to Sims-McCasland) addressing this issue. Please provide the Environmental Bureau a copy of the C-104's approved by the OCD. Once NMOCD receives these approved C-104's then we will advise our legal department to issue acceptance of the bonds.

Since your discharge plan has expired, the NMOCD requires an expeditious response, so please address the above requirements by December 15, 1999. If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

attachments-1

cc: OCD Hobbs District office.

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The Lovington Daily LEADER

The Oldest Newspaper In Lea County... ...Serving Since 1908

DRAWER 1717 LOVINGTON, NM 88260

Statement of Account For

NM Energy, MInerals, & Natural Resource Dept
Oil Conservation Division
2040 So. Pacheco St.
Santa Fe, NM 87505

Month of October 19 99

DISPLAY ADVERTISING:

_____ inches @ _____

CLASSIFIED ADVERTISING:

_____ words @ _____

_____ inches @ _____

OCT 12 1999

OIL CONSERVATION DIVISION

OTHER CHARGES:

Legal Notice
BW-009
Notice of Publication
Ad Ran September 30, 1999.

Affidavit By 2 Pages-OCD
10/8/99 JJ

Total	54	12
Tax		
Total this month	54	12
Previous Balance		
PLEASE PAY THIS AMOUNT		

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2002

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application(s) have been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(BW-009) - Sims-McCasland Water Sales, Bob Patterson, Manager, P.O. Box 99, Eunice New Mexico, 88231, has submitted an application for the renewal of a discharge plan for the Sims-McCasland Brine Station, located in the NE/4NE/4 of Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Approximately 200 barrels per day of brine water with a TDS of approximately 300,000 mg/l is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 to 160 feet with a total dissolved solids concentration of 2500 to 3000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application(s) may be viewed at the above address between 8:0 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan application(s), the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan(s) based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan(s) based on the information in the discharge plan application(s) and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27th day of September 1999.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY
Director

SEAL

Published in the Lovington Daily Leader September 30, 1999.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertisting Director of **THE LOVINGTON DAILY LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice of Publication BW-009

was published in a regular and entire issue of **THE LOVINGTON DAILY LEADER** and not in any supplement thereof, for One(1) DAy, beginning with the issue of September 30, 1999 and ending with the issue of September 30, 1999.

And that the cost of publishing said notice is the sum of $ 54.12 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this day of September 30, 1999.

Debbie Schilling

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2002

LEGAL NOTICE
NOTICE OF

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

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Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application(s) may be viewed at the above address between 8:0 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan application(s), the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan(s) based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan(s) based on the information in the discharge plan application(s) and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27th day of September 1999.

STATE OF
NEW MEXICO
OIL
CONSERVATION
DIVISION
LORI WROTENBERY,
Director

SEAL

Published in the Lovington Daily Leader September 30, 1999.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

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Notice of Publication BW-009

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And that the cost of publishing said notice is the sum of $ 54.12 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this day of September 30, 1999.

Debbie Schilling

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2002

LEGAL NOTICE
NOTICE OF

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27th day of September 1999.

STATE OF
NEW MEXICO
OIL
CONSERVATION
DIVISION
LORI WROTENBERY,
Director

SEAL

Published in the Lovington Daily Leader September 30, 1999.

The Santa Fe New Mexican

Since 1849. We Read You.

NM OIL CONSERVATION DIVISION
ATTN: LUPE SHERMAN
2040 S. PACHECO ST.
SANTA FE, NM 87505

AD NUMBER: 111364 ACCOUNT: 56689
LEGAL NO: 66162 P.O.#: 00199000278
214 LINES 1 time(s) at $ 94.22
AFFIDAVITS: 5.25
TAX: 6.22
TOTAL: 105.69

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE
I, B Perner being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTE FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #66162 a copy of which is hereto attached was published in said newspaper 1 day(s) between 10/01/1999 and 10/01/1999 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 1 day of October, 1999 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ Betty Perner
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 30 day of September A.D., 1999

Notary B Mathie

Commission Expires 3-13-2001

Approved by Price - OCD
10/18/99

OFFICIAL SEAL
B MATHIE
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application(s) have been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(GW-168) - GPM Gas Services Company, Mel D. Driver, (915) 620-4142, 3300 North "A" Street, Building 7, Midland, Texas 79705-5421, has submitted a discharge renewal application for the Feagan South Compressor Station located in the SE/4 SW/4 of Section 31, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico. There are no anticipated waste discharges from the facility. Ground water most likely to be affected in the event of an accidental discharge is at a depth ranging from 30 to 130 feet with a total dissolved solids concentration ranging from approximately 1,720 mg/l to 5,100 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(BW-009) - Sims-McCasland Water Sales, Bob Patterson, Manager, P.O. Box 99, Eunice New Mexico, 88231, has submitted an application for the renewal of a discharge plan for the Sims-McCasland Brine Station, located in the NE/4 NE/4 of Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Approximately 200 barrels per day of brine water with a TDS of approximately 300,000 mg/l is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 to 160 feet with a total dissolved solids concentration of 2500 to 3000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application(s) may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan application(s), the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan(s) based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan(s) based on the information in the discharge plan application(s) and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27th day of September, 1999.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director

Legal #66162
Pub. October 1, 1999

NOTICE OF PUBLICATION

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27th day of September 1999.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

LORI WROTENBERY, Director

Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231
505-394-2581

August 28, 1999

Wayne Price
Oil Conservation Division
2040 South Pechaco Street
Santa Fe, New Mexico 87505

Dear Mr. Price:

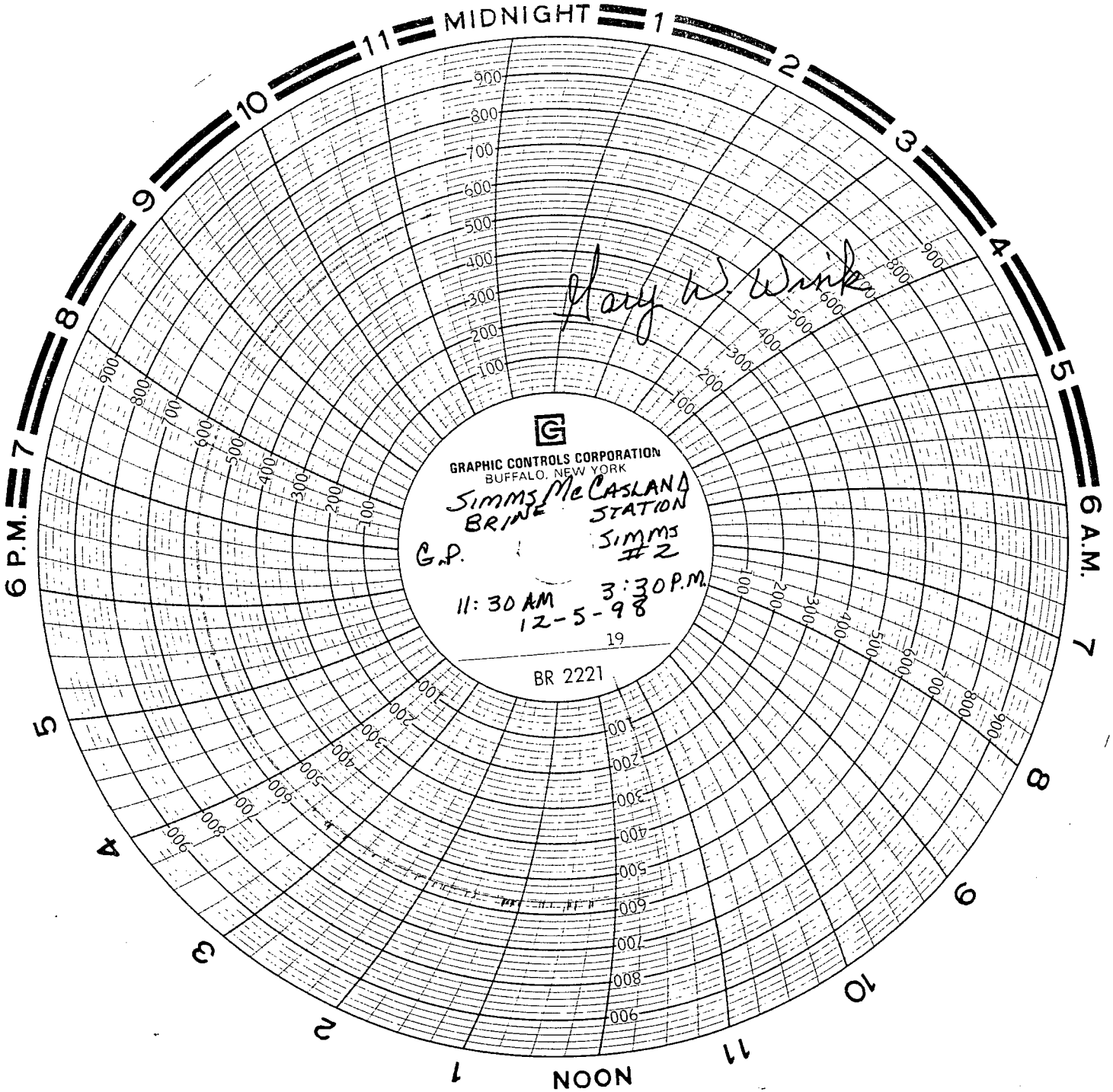
In regards to the Sims-McCasland Brine-Water station we would like to request a variance to the Isolation of Cavern & Testing of Casing which is due at 9:30 am on October 25, 1999. In order to conduct this test a well servicing unit would be required to pull the tubing out of the hole. Past experience has been that the tubing shears periodically when the salt shifts and that the well will have to be worked on at that time. This well was last pulled in September 1988 which leads us to believe that a work over is due any day now.

An annual Open Hole Cavern Formation Pressure test was conducted 12-5-98. This well does not have a packer installed in the well bore therefore the test was conducted by pressuring up the annulus to 560#. This test did pass and we feel that this also is an indication of sound casing across all critical fresh water sands which is one of the requirements for the Discharge Plan which is up for renewal.

Therefore we would like to conduct the annual Open Hole Cavern Formation Pressure test at the scheduled time, and reschedule the Isolation of Cavern & Testing of Casing to a date such that the tubing has to pulled from the well. This would help us economically since Brine sales are directly related to drilling activity and the oil industry is just now recovering from a depression. Thank you for reviewing this request and please feel free to contact me at 505-390-8171 or at 505-394-2581.

Sincerely,

Gregory Milner
Field Engineer


MIDNIGHT
NOON
6 A.M.
6 P.M.
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
SIMMS BRINE
McCASLAND STATION
SIMMS #2
G.P.
11:30 AM
3:30 P.M.
12-5-98
19
BR 2221

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☒ RENEWAL

I. FACILITY NAME: Sims & McCasland Water Sales

II. OPERATOR: Bob Calhoon

ADDRESS: P.O. Box 99 Eunice, NM 88231

CONTACT PERSON: Bob Patterson PHONE: (505) 394-2581

III. LOCATION: NE /4 NE/4 Section 32 Township 21 S Range 37 E

Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.

V. Attach a description of the types and quantities of fluids at the facility.

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

VII. Attach a description of underground facilities (i.e. brine extraction well).

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION

I hereby certify under penalty of law that I have personnaly examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Bob Patterson Title: Supervisor

Signature: Bob Patterson Date: 8-27-99

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

RECEIVED

AUG 27 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Application for Renewal of Discharge Plan

I. **Facility Name:** Sims-McCasland Water Sales

II. **Operator:** Bob Calhoon
Address: P. O. Box 99
Eunice, NM. 88231
Contact Person: Bob Patterson
(505) 394-2581

III. **Location:** On file with O.C.D. in Santa Fe

IV. **Name and Address of Landowner:** On file with O.C.D. in Santa Fe

V. **Types and Quantities of Fluids:** On File with O.C.D. in Santa Fe

VI. **Description of Fluid Transfer and Storage:** Two significant changes have been made in this area since the last discharge plan. The first change was the plugging of the north well, G.P. Sims #1. This created a one well production system where fresh water is pumped down the tubing and brine is extracted through the casing. The second change is the completion of the lined storage pit, which is used to store brine and to collect spills from the loading stations. Supplements of both changes are on file with O.C.D. in Santa Fe. No other changes are anticipated at this time.

VII. Description of Underground Facilities: See VI. Above for change.

VIII. Contingency Plan: On file with O.C.D. in Santa Fe.

IX. Geological/Hydrological Evidence: On file with O.C.D. in Santa Fe.

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 8/27/99

or cash received on _____ in the amount of $ 50.00

from McCASLAND DISPOSAL SYSTEM

for SIMS & McCASLAND WATER SALES BW-009A
(Facility Name) (DP No.)

Submitted by: WAYNE PRICE Date: 9/13/99

Submitted to ASD by: Wayne Price Date: "

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility ___ Renewal ___

Modification ___ Other _____
(specify)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increment ___

[redacted]

McCASLAND DISPOSAL SYSTEM
P. O. BOX 99
EUNICE, NM 88231

95-199/1122

8/27/ 1999

PAY TO THE ORDER OF New Mexico Energy Department-Waste Quality Management $ 50.00

REGISTERED 50 DOLS 00 CTS DOLLARS

UNITED NEW MEXICO BANK
United New Mexico Bank 0701
200 E. Broadway
Hobbs, New Mexico 88240

FOR discharge plan filing fee BW-009A

[redacted]

MP

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

Jennifer A. Salisbury
CABINET SECRETARY

Oil Conservation Div.
Environmental Bureau
2040 S. Pacheco
Santa Fe, NM 87505

Memorandum of Meeting or Conversation

Telephone __X___
Personal _____

Time: 2:30 pm
Date: 8/20/99

Originating Party: **Wayne Price-OCD**

Other Parties: **Bob Patterson-Key Energy 505-394-2581** FAX # 505-394-2584 3:54pm

Subject: Simms-McCasland Brine St. BW-009

Discussion:

Notified Mr. Patterson that Discharge Plan BW-009 expired on April 06, 1999.

Conclusions or Agreements:

Mr. Patterson indicated they will submit plan within 10 days.

Signed: Wayne Price

CC:

SIMS-McCASLAND WATER SALES

P.O. BOX 98
EUNICE, NM 88231
(505) 394-2581

July 21, 1998

New Mexico Energy, Minerals, & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

ATTN: Mr. Mark Ashley, Geologist

Subject: Requirement to submit a ground water investigation work plan

Dear Mr. Ashley,

In a one mile radius of the fresh water well tested by the O. C. D., **every** fresh water well drilled, contained a higher chloride reading than the tested well. Twenty of the twenty-eight wells were drilled before Sims-McCasland Water Sales was in existence and before the G.P. Sims #1 brine well was drilled. Admittedly, I am not a geologist, but logic indicates that the G. P. Sims #1 brine well certainly had no impact on the twenty wells drilled before it was drilled and probably has had no impact on the eight drilled afterwards. Attached is a list of the twenty-eight wells. This list was obtained from the records of the State of New Mexico Engineer's office in Roswell. This same list was submitted as part of Sims-McCasland's discharge plan.

Sims-McCasland Water Sales has always cooperated fully with all requests, as well as, all rules and regulations of O.C. D. and will continue to do so in the future; however, this request appears to be unwarranted based of the above facts. Sims-McCasland requests that the O.C.D. review these findings and rescind the order of April 28, 1998.

Sincerely,

Bob Patterson

xc: OCD Hobbs Office

IX A.1:

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION	CHLORIDES
1966	QAL	DOM	21S-37E-28	3427.00
1965	QAL	PPP	21S-37E-28	3428.00
1965	QAL	COM	21S-37E-28	3421.00
1965	QAL	COM	21S-37E-28	3422.00
1977	QAL	STK	21S-37E-29	3467.00
1979	QAL	STK	21S-37E-29	3467.00
1984	QAL	STK	21S-37E-29	3467.00
1990	QAL	COM	21S-37E-29	3467.00
1965	QAL	OWD	21S-37E-29	3467.00
1965	QAL	STK	21S-37E-29	3467.00
1979	QAL	DOM	21S-37E-29	3466.00
1965	TRC	OWD	21S-37E-29	3465.00
1965	QAL	IRR	21S-37E-29	3465.00
1965	QAL	IRR	21S-37E-29	3465.00
1965	QAL	COM	21S-37E-32	3466.00
1965	QAL	COM	21S-37E-32	3466.00
1965	QAL	COM	21S-37E-32	3466.00
1976	QAL	COM	21S-37E-32	3466.00
1979	QAL	COM	21S-37E-32	3466.00
1984	QAL	COM	21S-37E-32	3466.00
1965	QAL	DOM	21S-37E-32	3459.00
1965	QAL	DOM	21S-37E-32	3462.00
1965	QAL	IRR	21S-37E-32	3453.00
1958	TOG	SRO	21S-37E-33	3466.00
1958	TOG	SRO	21S-37E-33	3461.00
1942	TOG	MUN	21S-37E-33	0000.00
1942	TRC	MUN	21S-37E-33	0000.00
1954	TOG	MUN	21S-37E-33	3450.00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

April 28, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-058

Mr. Bob Patterson
Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

RE: Ground Water Remediation
Sims McCasland Brine Station BW-009
Lea County, New Mexico

Dear Mr. Patterson:

The New Mexico Oil Conservation Division (OCD) has conducted a preliminary ground water investigation within the area of the Sims-McCasland Water Sales (Sims) brine facility. Based on information gathered to date, it appears that the ground water may have been impacted by activities associated with the brine facility.

The OCD is requiring Sims to submit a ground water investigation workplan to determine the extent of ground water contamination. The plan will also include a time schedule for all investigation activities. Please submit the required plan to the OCD Santa Fe Division Office by July 28, 1998 with a copy to the OCD Hobbs District Office.

If Sims has any further questions or comments please contact me at (505) 827-7155.

Sincerely,

Mark Ashley
Geologist

xc: OCD Hobbs Office

P 288 259 058

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, April 1995

cc: JERRY SEXTON
MARK ASHLEY

NEW MEXICO OIL CONSERVATION COMMISSION
FIELD TRIP REPORT

INSPECTION	CLASSIFICATION	FACILITY	HOURS	QUARTER HOURS

Name WAYNE PRICE Date 12/13/96 Miles _____ District I

Time of Departure 7 AM Time of Return 4 PM Car No. G 0472

In the space below indicate the purpose of the trip and the duties performed, listing wells or leases visited and any action taken.

Signature

SIMMS - MCCASLAND BRINE ST BW-09

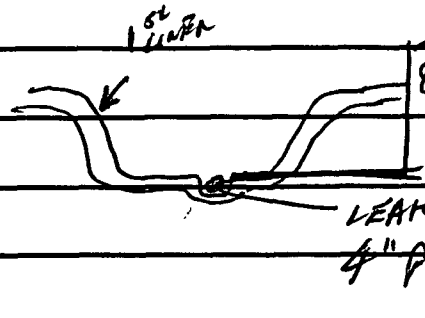
BOB PATTERSON - (ROWLAND) - BIG A CREW

BRINE RETENTION POND

WITNESSED PRIMARY LINER INSTALLATION

BOB PATTERSON TOOK PICTURES WILL COPY WHEN I

105' x 105' x 15'



WILL HAVE 2 LINERS & GEO-TEX NET IN BETWEEN!

Mileage	Per Diem	Hours
UIC _____	UIC _____	UIC _____
RFA _____	RFA _____	RFA _____
Other _____	Other _____	Other _____

TYPE INSPECTION PERFORMED

H = Housekeeping
P = Plugging
C = Plugging Cleanup
T = Well Test
R = Repair/Workover
F = Waterflow
M = Mishap or Spill
W = Water Contamination
O = Other

INSPECTION CLASSIFICATION

U = Underground Injection Control - Any inspection of or related to injection project, facility, or well or resulting from injection into any well. (SWD, 2ndry injection and production wells, water flows or pressure tests, surface injection equipment, plugging, etc.)
R = Inspections relating to Reclamation Fund Activity
O = Other - Inspections not related to injection or The Reclamation Fund
E = Indicates some form of enforcement action taken in the field (show immediately below the letter U, R or O)

NATURE OF SPECIFIC WELL OR FACILITY INSPECTED

D = Drilling
P = Production
I = Injection
C = Combined prod. inj. operations
S = SWD
U = Underground Storage
G = General Operation
F = Facility or location
M = Meeting
O = Other

cc: ROGER ANDERSON
MARK ASHLEY
JERRY SEXTON

RECEIVED
DEC 08 1995
Environmental Bureau
Oil Conservation Division

NEW MEXICO OIL CONSERVATION COMMISSION
FIELD TRIP REPORT

@ 3:15PM

Name WAYNE PRICE Date 11-30-95 Miles _____ District I

Time of Departure 7 AM Time of Return 4 PM Car No. G 0472 1

INSPECTION	CLASSIFICATION	FACILITY	HOURS	AFTER HOURS

In the space below indicate the purpose of the trip and the duties performed, listing wells or leases visited and any action taken.

Signature _____

SIMMS - McCASLAND BRINE ST - BW-09

PROGRESS REPORT: 2 NEW DRIP POTS ARE SET BUT NOT CONNECTED

PIT - NO PROGRESS

BRINE TANK VALVE LEAKING, VISUAL SALT CONTAMINATION NEAR LOADING AREAS!

Mileage	Per Diem	Hours
UIC _____	UIC _____	UIC _____
RFA _____	RFA _____	RFA _____
Other _____	Other _____	Other _____

TYPE INSPECTION PERFORMED

H = Housekeeping
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F = Facility or location
M = Meeting
O = Other

Mark Ashley

From: Wayne Price
To: Mark Ashley
Cc: Wayne Price
Subject: Simms-McCasland Brine St. BW-09
Date: Friday, June 30, 1995 11:24AM
Priority: High

Dear Mark,

Please include the PH of 9-10 on the previous report.

Thanks! Let me know if you need any more info.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date 6-28-97

Originating Party	Other Parties
MARK ASHLEY	BOB ANDERSON

Subject: POSSIBLE GW CONTAMINATION

Discussion: ASKED BOB P. TO INVESTIGATE EXTENT OF CONTAMINATION

Conclusions or Agreements: HE WILL SUBMIT A PLAN TO OCD FOR BILL OLSON

Distribution

Signed: Mark Ashley

Mark Ashley

From: Wayne Price
To: Mark Ashley
Cc: Wayne Price; Jerry Sexton
Subject: Simms-McCasland Brine St.-Eunice BW-09
Date: Tuesday, June 27, 1995 5:22PM
Priority: High

Dear Mark,

Per your request, I have finally been able to get the water well sample at the Brine Station. Mr. Bob Patterson and I took the sample.

This well is approx. 50 feet NW of Brine well #1 on site.

Depth to top of water: 91.54 feet
Chlorides: 2662 ppm
TDS: 9,990 umhos
Visual: Water white with very slight haze
Visual TSS: < .5 %
Olfactory: Neg

cc: Bob Patterson-McCasland

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 6-9-95,

or cash received on _____ in the amount of $ 690.00

from McCASLAND & SIMS WATER SALES

for SIMS McCASLAND EUNICE BRINE STATION (BW-009)

(Facility Name) (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: CHRIS EUSTICE Date: 6-19-95

Received in ASD by: A. Aire Date: 6-19-95

Filing Fee ____ New Facility ____ Renewal ✓

Modification ____ Other _____

(Specify)

Organization Code 521.07 Applicable FY 95

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ____

[redacted]

McCASLAND AND SIMS WATER SALES
P. O. BOX 99
EUNICE, NM 88231

95-199/1122

June 9, 1995

PAY TO THE ORDER OF NMED - Water Quality Management $ 690.00

REGISTERED 690 DOLLARS 00 CTS DOLLARS

UNITED NEW MEXICO BANK
United New Mexico Bank 0704
Post Office Box 1177
Eunice, New Mexico 88231

FOR Discharge plan BW-009

[redacted]

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 5/26/94,
or cash received on 6/10/94 in the amount of $ 50.00
from McCasland & Sims Water Sales
for Sims-McCasland Brine Station (Facility Name) BW-009 (DP No.)
Submitted by: _____ Date: _____
Submitted to ASD by: Robert Myers Date: 6/10/94
Received in ASD by: Helen B. Mondy Date: 6/10/94
Filing Fee X New Facility ___ Renewal ___
Modification ___ Other _____ (specify)
Organization Code 521.07 Applicable FY 94

To be deposited in the Water Quality Management Fund.
Full Payment ___ or Annual Increment ___

McCASLAND AND SIMS WATER SALES
P. O. BOX 99
EUNICE, NM 88231

[redacted]
95-199/1122

May 26, 19 94

Pay to the order of Oil Conservation Division of NM Energy, Mineral Department $ 50.00

REGISTERED #BP84683 50 AND 00 CTS Dollar

UNITED BANK OF LEA COUNTY
United Bank of Lea County
Post Office Box 1168
Eunice, New Mexico 88231

For filing fee

[redacted]

Rocky Mountain Bank Note A

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

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

June 2, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P 111 334 321

Mr. Bob Patterson
Manager
Sims-McCasland Water Sales
P.O. Box 99
Eunice, NM 88231

RE: Discharge Plan BW-009 Sims-McCasland Brine Station

Dear Mr. Patterson,

On February 10, 1994 the New Mexico Oil Conservation Division (OCD) notified you that the approved discharge plan, BW-009, for the Sims-McCasland Brine Station, located in the NE/4, NE/4 of Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, would expire on April 6, 1994. A discharge plan application was received by the OCD on May 27, 1994. The following comments and requests for additional information are based on the review of this application. These comments follow the outline format of the OCD "Guidelines for the Preparation of Discharge Plans at Brine Extraction Facilities" (5/91 revision, copy enclosed). Additional comments and requests may be forthcoming, pending an OCD inspection of the facility.

Please note that unless otherwise stated, response to all comments shall be received and reviewed by the OCD prior to approval of the renewal application.

Only one copy of the discharge plan renewal application was received by the OCD Santa Fe office. Please submit a second copy to the Santa Fe office and another to the OCD Hobbs District office.

Section VI.A.1: A review of the BW-009 file reveals that Sims-McCasland first proposed to redesign the truck loading facilities at the brine station in your March 31, 1986 letter, yet no plans were ever submitted. The plan mentioned in Section VI. of the current application shall be submitted for approval to the OCD by

July 15, 1994 and shall include the proposed detailed design drawings and schedule of construction.

Section VI.A.2: The BW-009 file also includes December 19, 1988 plans for a double-lined pond for emergency overflow. Is this the same pond as that proposed in the current application? Again, plans shall be submitted for approval to the OCD by July 15, 1994 and shall include the proposed detailed design drawings and schedule of construction.

Section VI.A.4: What is the power source for the triplex injection pump? If this is run by motor, what is the final disposition of the used engine oil and filters?

Section VI.B.2: Supply a site schematic identifying all water sample points, pressure gauges (including wellhead design with annular and tubing pressures), and flow measurement devices.

Section VI.D: The OCD requires all underground brine water lines over five years old be tested for mechanical integrity every five years. Please submit a proposed schedule and method of testing.

Section VI.F.5: The well plugging and abandonment procedures in the September 22, 1988 renewal application is still adequate for the abandonment of the well. Please submit, for approval of this renewal application, a general closure plan which includes removal of equipment, reclamation of the site. and proper disposal of fluids and solids.

Section VII.C.2: Sections V and VI of the current application give the average injection pressure and production rate. Please submit maximum injection pressure and production rate as well.

Section VII.C.3: There is no record of the required five-year MIT well test or the annual open-hole pressure test. Please submit any historical test reports, plus proposed methods and schedules for current tests of each of these requirements. The results of the MIT shall be submitted and approved prior to renewal of the discharge plan.

Section VII.C.5: Based on the calculation methods outlined in Section VI of the current application, there are no procedures for determining fluid losses to the formation. Please submit a proposal for comparison of volumes of fresh water injected to volume of brine produced to detect underground losses.

Section VII.C.6: The OCD requires that any facility which has been in operation for more than fifteen years provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence or catastrophic collapse. Since this facility

began operating in May 1977, please submit the required information.

Section VIII.B: Although Section VII.B. of the current application adequately covers the containment and cleanup of major spills, no discussion is included for the cleanup of minor spills or leaks.

Section IX.A.1: The list of water wells included in Section IX.A of the current application appears to be a reprint of the list found in the original December 12, 1982 application. If this is the case, please submit any updated information. Please identify which of these wells are down-gradient of this facility, and submit water analyses for major anions/cations for each of these wells.

Also, none of the required quarterly production reports listing injection pressure, production rate and volumes have been received since the first quarter, 1989 report. Please submit the missing records.

Submittal of the requested information and commitments in a timely fashion will expedite the final review of the application and approval of the discharge plan renewal.

If you have any questions, please c

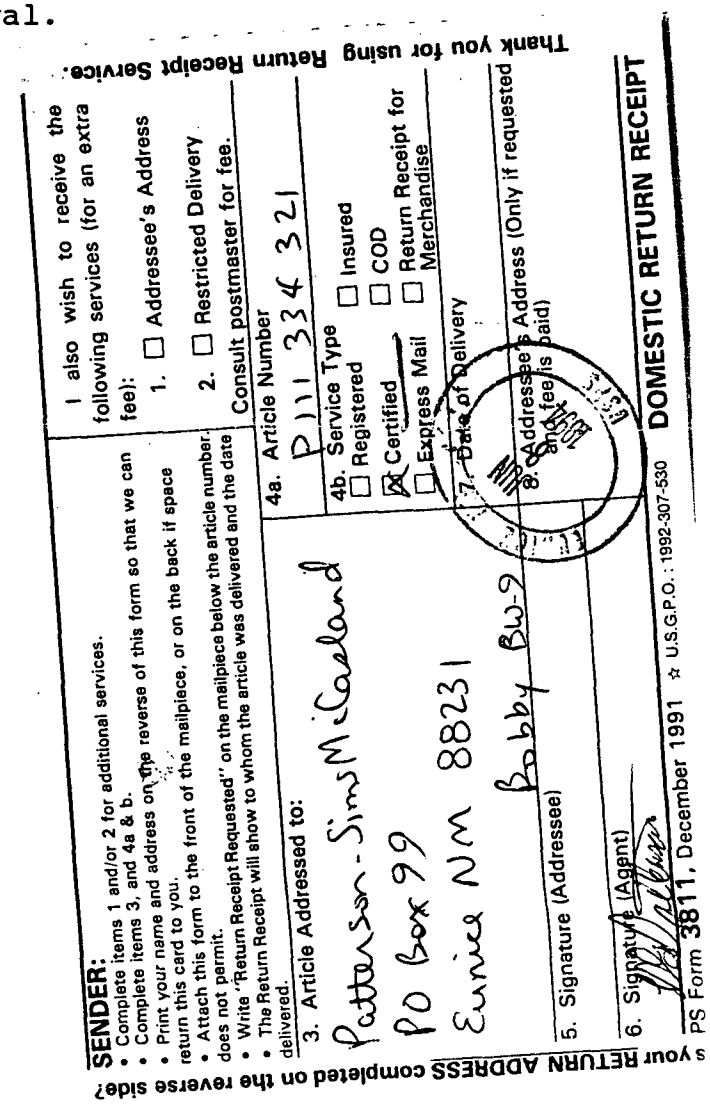
Sincerely,

Robert L. Myers II
Petroleum Engineer Specialist

RLM/rlm

xc: OCD Hobbs Office

enclosure



VI. A.4 THE 3" TRI-PLEX PUMP IS POWERED BY A 25 HP ELECTRIC MOTOR. MAINTENANCE OF PUMP IS A DAILY OPERATION; HOWEVER OIL IN THE GEAR BOX IS CHANGED ANNUALLY AND NEW SEALS ARE INSTALLED. THE USED OIL IS STORED IN A WASTE OIL TANK AT MCCASLAND SERVICES, INC. WHICH IS ULTIMATELY COLLECTED BY AN APPROVED AND PERMITTED WASTE OIL DEALER.

VI. B.2. SEE ATTACHED

VI. D. IN THE PROPOSED REMODEL OF THE FACILITY, ALL BRINE LINES WILL BE ABOVE GROUND; HOWEVER, TESTING OF THE EXISTING LINES CAN BE ACCOMPLISHED BY DISCONNECTING FROM THE LOADING PUMP, BULLPLUGGING THE TWO LOAD LINES, PUTTING 300 LBS OF PRESSURE ON LINE AND RUNNING A 2-HOUR CHART.

VI. F.5. AFTER PLUGGING OPERATIONS HAVE BEEN COMPLETED, ALL PIPE LINES WOULD BE REMOVED ALONG WITH THE LOADING STATIONS AND PIPE RAILINGS. THE REMAINING BRINE WATER IN STORAGE WOULD EITHER BE SOLD TO DRILLING OPERATIONOR DISPOSED OF AT AN APPROVED DISPOSAL SITE. ANY AND ALL CONTAMINATED SOIL WOULD BE REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL SITE. TWO TO THREE FEET OF SOIL WILL BE SPREAD OVER THE ENTIRE AREA OF THE SITE AND NATIVE GRASSES WOULD BE SEEDED. AT THE REQUEST OF THE LAND OWNER, (WHO IS ALSO A PARTNER IN THE WATER STATION) THE EXISTING TANKS WOULD BE CLEANED AND ALL SALT RESIDUE REMOVED AND PROPERLY DISPOSED OF. THE TANKS WOULD REMAIN ON SITE, CONNECTED TO THE CITY OF EUNICE WATER LINE FOR PURPOSES OF WATERING LIVE STOCK. THE SITE WOULD BE FENCED TO JOIN PASTURES BELONGING TO THE LAND OWNER.

VII C.2: ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS, THE TRI-PLEX PUMP SHOULD BE ABLE TO DEVELOP APPROXIMATELY 700 LBS AT A RATE OF APPROXIMATELY 80 GALLONS PER MINUTE.

VII C.3: SEE ATTACHED

VII C.6: THE FOLLOWING INFORMATION COMES FROM OR IS BASED ON THE REPORT OF LEE WILSON'S UIC REPORT ON SALT EXTRACTION WELLS IN NEW MEXICO. ALTHOUGH THIS REPORT IS CIRCA THE SUMMER OF 1982, IT IS THE MOST RECENT, AVAILABLE INFORMATION SIMS-MCCASLAND WAS ABLE TO OBTAIN. SINCE THIS REPORT WAS RECEIVED

THROUGH THE HOBBS OFFICE OF OCD, IT'S ASSUMED THAT OCD SANTA FE HAS THE SAME REPORT. BASED ON THIS ASSUMPTION, SIMS-MCCASLAND WILL NOT GO INTO GREAT DETAIL PROVIDING THE REQUIRED INFORMATION ON THE SIZE AND EXTENT OF THE SOLUTION CAVERN. THE FOLLOWING FORMULA WAS USED BY LEE WILSON TO COMPUTE THE CAVITY SIZE:V=C/350,000 X P X 0.9157 WHERE V REPRESENTS THE TOTAL CAVITY VOLUME IN CUBIC FEET PER THE SAME UNIT OF TIME AS P, WHICH REPRESENTS THE PRODUCTION RATE AND C IS THE KNOWN TOTAL DISSOLVED SOLIDS (IN MG/1). NOT HAVING ACCURATE RECORDS, LEE WILSON USED KNOWED AVERAGES AND COMPUTED THE SOLUCTION CAVITY OF SIMS-MCCASLAND FROM MAY, 1977 TO MAY, 1982 TO BE 1,530,000 CUBIC FEET. SIMS-MCCASLAND USED THE SAME VALUES AND ASSUMPTIONS TO COMPUTE CAVITY SIZE FROM MAY, 1982 TO DECEMBER 1989; THEREFORE, INCREASING THE CAVITY SIZE TO 3,165,853 CUBIC FEET. FROM JANUARY, 1990 TO DECEMBER, 1994 MORE ACCURATE INFORMATION WAS AVAILABLE TO CALCULATE THE CAVITY SIZE.

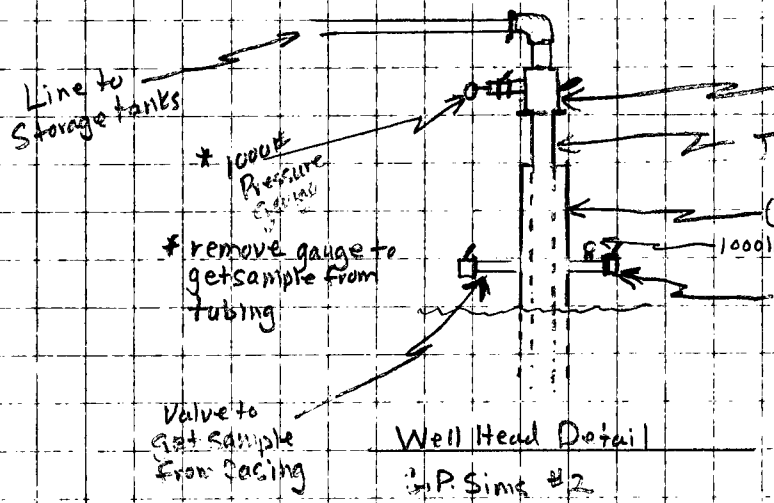
IN THAT PERIOD OF TIME THE CAVITY SIZE HAS INCREASED BY 682,325 CUBIC FEET, MAKING THE TOTAL CAVITY SIZE TO 3,848,178 CUBIC FEET THROUGH DECEMBER 1994. LEE WILSON'S CALCULATIONS WERE BASED ON AN ASSUMED PRODUCTION RATE OF 30,000 BBLS. PER MONTH WITH A TDS OF 325,000 MG/1. BASED ON WATER ANALYSIS DONE BY INDEPENDENT LABS FROM A PERIOD FROM 1980 TO 1994, SIMS-MCCASLAND'S TDS AVERAGED 224,878 MG/1. BASED ON BRINE SALES FROM 1990 THROUGH 1994, SIMS-MCCASLAND AVERAGED 16,476 BBLS. PER MONTH PRODUCTION. USING THESE AVERAGES, FROM MAY, 1 1977 TO DECEMBER, 1994, THE CAVITY SIZE WOULD BE 1,929,022 CUBIC FEET. IN CONCLUSION, SIMS-MCCASLAND BELIEVES THAT THE CAVITY SIZE IS IN REALITY CLOSER TO THE 2,000,000 CUBIC FEET THEN TO THE 3,800,000 CUBIC FEET.

IN ADDRESSING THE QUESTION ON GEOLOGIC/ ENGINEERING DATA DEMONSTRATING THAT CONTINUED BRINE EXTRACTION WILL NOT CAUSE SURFACE SUBSIDENCE OR CATASTROPHIC COLLAPSE, SIMS-MCCASLAND RELIED ALMOST TOTALLY ON LEE WILSON'S UIC REPORT. AGAIN, ASSUMING OCD SANTA FE POSSESSES THE SAME REPORT, SIMS-MCCASLAND WILL NOT GO INTO GREAT DETAIL. SIMS-MCCASLAND BRINE WELLS ARE FEATURED IN LEE WILSON'S REPORT AND ARE INDENTIFIED AS WELLS B-4, B-5 IN THAT REPORT. LEE WILSON CONCLUDED THAT ALL CAVITIES HAVE THE POTENTIAL TO COLLAPSE BUT THE POTENTIAL IN THE AREA OF SIMS-MCCASLAND WELLS IS REDUCED BY THE MAKE UP OF THE OVER BURDEN AND FROM THE FACT THAT AS LONG AS THE WELLS ARE IN PRODUCTION AND THERE IS NOT A SIGNIFICANT LOSS OF FLUID IN THE FORMATION THAT THE

IX A.1:

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION	CHLORIDES
1966	QAL	DOM	21S-37E-28	3427.00
1965	QAL	PPP	21S-37E-28	3428.00
1965	QAL	COM	21S-37E-28	3421.00
1965	QAL	COM	21S-37E-28	3422.00
1977	QAL	STK	21S-37E-29	3467.00
1979	QAL	STK	21S-37E-29	3467.00
1984	QAL	STK	21S-37E-29	3467.00
1990	QAL	COM	21S-37E-29	3467.00
1965	QAL	OWD	21S-37E-29	3467.00
1965	QAL	STK	21S-37E-29	3467.00
1979	QAL	DOM	21S-37E-29	3466.00
1965	TRC	OWD	21S-37E-29	3465.00
1965	QAL	IRR	21S-37E-29	3465.00
1965	QAL	IRR	21S-37E-29	3465.00
1965	QAL	COM	21S-37E-32	3466.00
1965	QAL	COM	21S-37E-32	3466.00
1965	QAL	COM	21S-37E-32	3466.00
1976	QAL	COM	21S-37E-32	3466.00
1979	QAL	COM	21S-37E-32	3466.00
1984	QAL	COM	21S-37E-32	3466.00
1965	QAL	DOM	21S-37E-32	3459.00
1965	QAL	DOM	21S-37E-32	3462.00
1965	QAL	IRR	21S-37E-32	3453.00
1958	TOG	SRO	21S-37E-33	3466.00
1958	TOG	SRO	21S-37E-33	3461.00
1942	TOG	MUN	21S-37E-33	0000.00
1942	TRC	MUN	21S-37E-33	0000.00
1954	TOG	MUN	21S-37E-33	3450.00

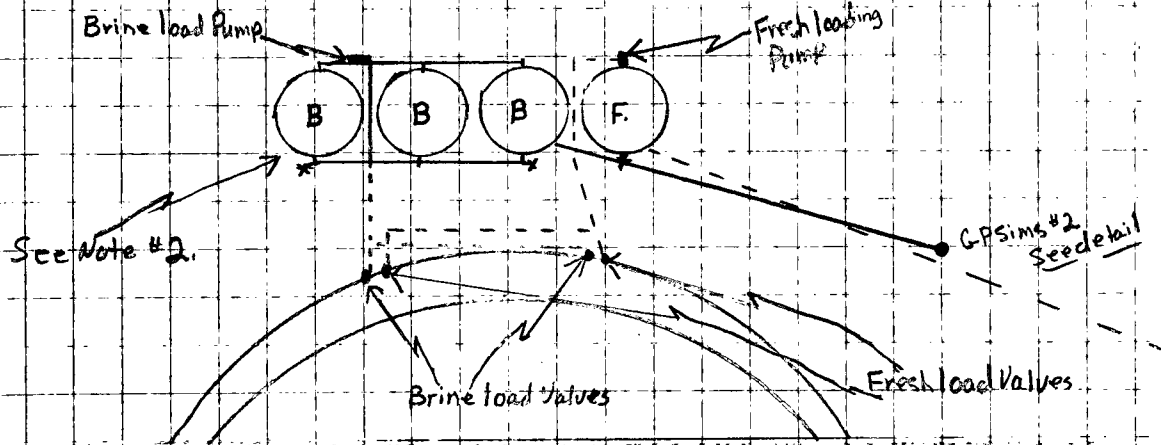
VI B.2.

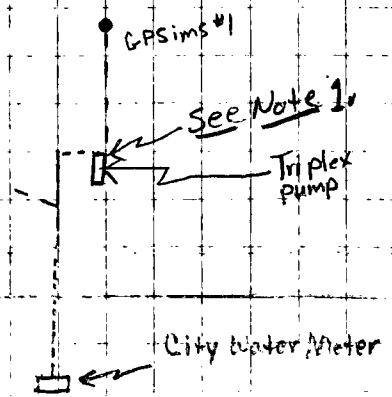


Well Head Detail
GPSims #2

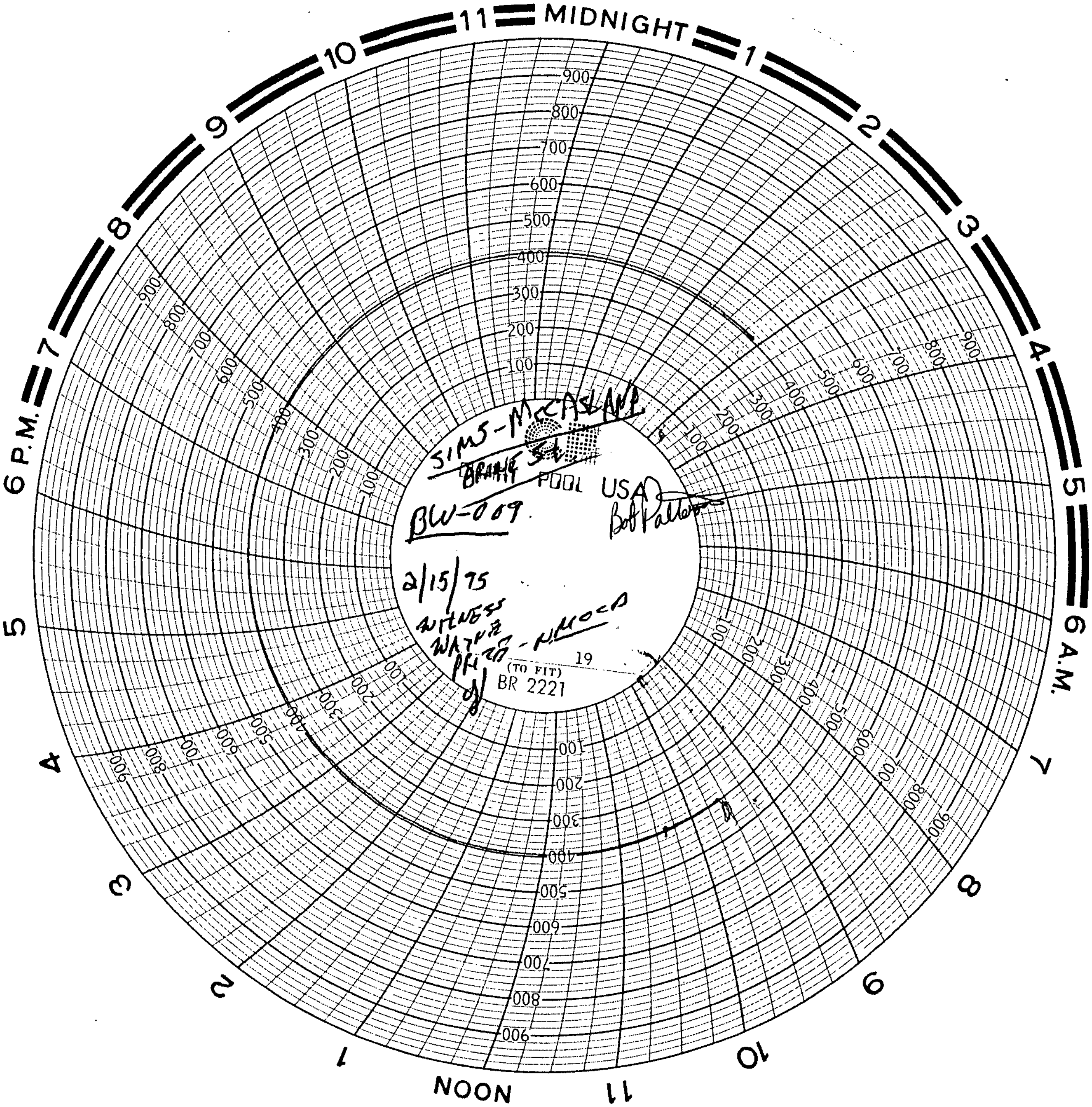
Note: 2.
There are valves on brine & Fresh Water Storage tanks to secure samples. Obviously samples may be taken at the loading lines.

Note: 1.
10001b Pressure gaugeon tubing From tripley pump to Well head. Haliburton 2" Flow meter on line to well head. There are 2-3/4" Valves on either side of pump to secure samples.





VII.C 3



State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

...ON DIVISION
...ED
... 8 50

DISCHARGE PLAN APPLICATION FOR BRINE EXTRACTION FACILITIES

(Refer to OCD Guidelines for assistance in completing the application.)

☐ NEW ☒ RENEWAL

I. FACILITY NAME: Sims-McCasland Water Sales

II. OPERATOR: Sims-McCasland Water Sales

ADDRESS: P. O. Box 99 Eunice, New Mexico 88231

CONTACT PERSON: Bob Patterson PHONE: 394-2581

III. LOCATION: NE /4 NE /4 Section 32 Township 21S Range 37E

Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner of the facility site.

V. Attach a description of the types and quantities of fluids at the facility.

VI. Attach a description of all fluid transfer and storage and fluid and solid disposal facilities.

VII. Attach a description of underground facilities (i.e. brine extraction well).

VIII. Attach a contingency plan for reporting and clean-up of spills or releases.

IX. Attach geological/hydrological evidence demonstrating that brine extraction operations will not adversely impact fresh water.

X. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XI. CERTIFICATION

I hereby certify under penalty of law that I have personnaly examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Name: Bob Patterson Title: Manager

Signature: Bob Patterson Date: 5-25-94

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

APPLICATION FOR RENEWAL

OF DISCHARGE PLAN

NAME OF FACILITY

I. A RENEWAL PLAN FOR SIMS-MCCASLAND WATER SALES.

II. BOB PATTERSON SUPERVISES OPERATIONS FOR BOB CALHOON AND SIMS-MCCASLAND WATER SALES.

BOB PATTERSON
P.O. BOX 99
EUNICE, NM 88231
(505) 394-2581

BOB CALHOON
P. O. BOX 99
EUNICE, NM 88231
(505) 394-2581

III. LOCATION AND HISTORY OF FACILITY

ON SEPTEMBER 10, 1968, THE G. P. SIMS NO. 1 WAS SPUDDED AND COMPLETION WAS ACCOMPLISHED ON OCTOBER 1, 1968. G. P. SIMS NO. 1 IS LOCATED 250 FEET FROM THE NORTH LINE AND 200 FEET FROM THE EAST LINE OF SECTION 32, TOWNSHIP 21 SOUTH, RANGE 37 EAST, IN LEA COUNTY, NEW MEXICO. IT HAS A HOLE SIZE OF 8 7/8" WITH 7" 20 POUND CASING SET AT 1373 FEET AND CEMENT CIRCULATED TO SURFACE. THERE WAS A BAKER LOK-SET PACKER SET AT APPROXIMATELY 2100 FEET OPEN-ENDED INTO THE SALT SECTION. UNTIL MAY, 1977, THE PROCEDURE OF INJECTION OF FRESH WATER DOWN CASING AND EXTRACTION OF BRINE THROUGH THE TUBING WAS USED FOR PRODUCTION.

ON MAY 2, 1977, THE G. P. SIMS NO. 2 WAS SPUDDED AND COMPLETED ON MAY 5, 1977, LOCATED 420 FEET FROM THE NORTH LINE AND 210 FEET FROM THE EAST LINE OF SECTION 32, TOWNSHIP 21, RANGE 37 EAST, IN LEA COUNTY, NEW MEXICO. G. P. SIMS NO. 2 IS A 8 3/4" HOLE WITH 7", 23 POUND CASING SET AT 1204 FEET AND CEMENT CIRCULATED TO THE SURFACE. 2 7/8" TUBING, SCHEDULE N-80 PLASTIC COATED, WAS SET AT APPROXIMATELY 1441 FEET.

SINCE 1977, BRINE PRODUCTION HAS BEEN ACCOMPLISHED BY INJECTING FRESH WATER DOWN THE TUBING OF THE G. P. SIMS NO. 1, COMMUNICATING THROUGH THE SALT SECTION AND FLOWING BACK THROUGH THE TUBING OF THE G. P. SIMS NO. 2 INTO STORAGE TANKS. (EXHIBIT I) EXHIBIT NO. I SHOWS A DETAIL SCHEMATIC OF THE TWO WELLS AS THEY ARE PRESENTLY.

IV. LANDOWNER

MRS. PAT SIMS
620 TEXAS AVENUE
P. O. BOX 1046
EUNICE, NM 88231

V. TYPES AND QUANTITIES OF FLUIDS STORED AND USED AT THE FACILITY

TWO TYPES OF FLUIDS ARE STORED AT SIMS-MCCASLAND WATER SALES - BRINE AND FRESH WATER. (REF: EXHIBIT II) THE FRESH WATER IS PURCHASED FROM THE CITY OF EUNICE. IT IS STORED IN A 1000 BBL. STEEL WELDED TANK. IT IS ALSO USED TO MANUFACTURE BRINE WATER. (REF: EXHIBIT I) FRESH IS PUMPED DOWN THE TUBING OF THE G. P. SIMS #1 INTO THE SALT SECTION AND SATURATED BRINE WATER IS PRODUCED THRU TUBING OF THE G. P. SIMS #2 AND STORED IN THREE 1000 BBL. STEEL WELDED TANKS. THE CURRENT PRODUCTION RATE IS APPROXIMATELY 200 BBLS. PER HOUR AT 200 POUNDS, AS NEEDED. THE BRINE PRODUCED WEIGHS ABOUT 10.2 POUNDS PER GALLON AND HAS A VISCOCITY OF APPROXIMATELY 1.2. SEE EXHIBIT II-A FOR A COMPLETE WATER ANALYSIS.

VI. TRANSFER AND STORAGE OF FLUIDS (REF. EXHIBIT III)

FROM THE CITY OF EUNICE WATER LINE, FRESH WATER IS PUMPED DOWN THE TUBING OF THE G. P. SIMS #1 THRU A 3" TRI-PLEX PUMP AT APPROXIMATELY 200 POUNDS. FROM THE G. P. SIMS #2, BRINE IS PRODUCED TO THREE 1000 BBL. TANKS. THE FLOW LINE FROM THE WELL HEAD TO THE STORAGE TANKS IS 2 7/8 TUBING AND IS VISUALLY MONITORED ON A DAILY BASIS FOR LEAKS. A NATURAL DEPRESSION, ALONG WITH DIRT BERMS, WILL SUFFICIENTLY CONTAIN A MAJOR SPILL FROM THE STORAGE TANKS. A PROPOSED DOUBLE LINED PIT WITH A LEAK DETECTION SYSTEM WILL BE USED FOR POSSIBLE OVERFLOWS FROM THE STORAGE FACILITIES. THIS PIT WILL BE CONSTRUCTED IN ACCORDANCE WITH O.C.D. GUIDELINES. AT THE SAME TIME, A NEW LOADING FACILITY WILL BE CONSTRUCTED TO COLLECT SPILLS AND/OR LEAKS FROM TRUCKS WHILE LOADING. PLANS WILL BE SUBMITTED WITHIN THE NEXT 60 TO 90 DAYS FOR APPROVAL.

THE AMOUNT OF FRESH WATER PUMPED DOWN HOLE IS CALCULATED BY TAKING THE READING FROM THE CITY WATER METER AND SUBTRACTING SALES AND STORAGE. BRINE IS CALCULATED BY ADDING SALES PLUS WHAT IS IN STORAGE TANKS. SAMPLES OF EACH TYPE OF WATER CAN BE OBTAINED FROM THE WELL HEADS, STORAGE TANKS, AND LOADING RACK.

VII. SPILL-LEAK PREVENTION AND REPORTING PROCEDURES

A. PREVENTION

AN ENCASED 3" PIPE COMES FROM THE CITY METER, UNDER THE PAVED COUNTY ROAD TO THE TRI-PLEX PUMP. FROM THE PUMP TO THE WELL HEAD 2 7/8" SCHEDULE N-80 TUBING IS USED. PRESSURE IS MONITORED ON THE LINE BETWEEN THE PUMP AND WELL HEAD TO DETECT A POSSIBLE LEAK. THE SAME PROCEDURE IS USED TO MONITOR THE 2 7/8" TUBING ON THE BRINE LINE FROM THE WELL HEAD TO THE STORAGE TANK. THE STORAGE FACILITIES ARE EQUIPPED WITH ELECTRIC VALVES ACTIVATED BY SOLENOIDS AND HIGH-LOW LEVEL GAUGES. THE NEW LOADING RACK, WHICH WILL BE PROPOSED IN THE NEAR FUTURE, WILL HAVE A COLLECTION SYSTEM FOR LEAKS AND SPILLS FROM TRUCKS.

B. CONTAINMENT AND CLEANUP

CONTAINMENT IS ACHIEVED BY THE NATURAL SUMP THAT THE FACILITY IS BUILT ON AND BY DIRT BERMS WHICH SURROUND IT. MAJOR SPILLS WOULD BE PICKED UP IN VACUUM TRUCKS AND DISPOSED OF AT AN APPROVED SWD FACILITY BY MCCASLAND SERVICES, INC. ANY REQUIRED DIRT WORK WOULD BE AVAILABLE THROUGH MCCASLAND SERVICES, INC. ALSO.

C. NOTIFICATION

THE LOCAL OFFICE OF O.C.D. WILL BE NOTIFIED IMMEDIATELY BY TELEPHONE IN CASES OF MAJOR SPILLS. WITH MINOR SPILLS, THE O.C.D. WILL BE NOTIFIED IN WRITING, GIVING ALL THE PERTINENT INFORMATION AS TO CAUSE, AND WHAT ACTION WAS TAKEN TO CLEAN UP AND PREVENTION.

IX. SITE CHARACTERISTICS

A. NO BODIES OF WATER, STREAMS, WATERCOURSES, OR GROUND WATER DISCHARGE SITES EXIST WITHIN ONE MILES OF SIMS-MCCASLAND WATER SALES. THE FOLLOWING WATER WELLS EXIST WITHIN ONE MILE:

YEAR OF PERMIT OR DECLARATION	FORMATION	USAGE	LOCATION
1944	TRC	NON	21-37-33 (233)
1946	TRC	NON	21-37-33 (412)
1947	TRC	NON	21-37-33 (4121)
1933	TRC	NON	21-37-33 (431)
1968	TOG	DOM	21-37-29 (444)
1955	QAL	COM	21-37-29 (443)
1946	QAL	INP	21-37-29 (4434)
1935	TRC	COM	21-37-29 (442)
1964	TRC	INP	21-37-29 (4421)
1937	QAL	COM	21-37-29 (241)
1964	QAL	INP	21-37-29 (2414)
1939	QAL	COM	21-37-29 (424)
1964	QAL	INP	21-37-29 (4241)
1955	TOG	DOM	21-37-29 (443)
1964	TOG	INP	21-37-29 (4433)
1951	TOG	DOM	21-37-39 (442)
1964	TOG	INP	21-37-29 (4422)
1960	QAL	IRR	21-37-32 (4224)
1961	QAL	IRR	21-37-32 (4241)
1961	QAL	COM	21-37-32 (424A)
1963	QAL	IRR	21-37-32 (2222)
1963	QAL	COM	21-37-32 (222A)
1963	QAL	COM	21-37-32 (222B)
1964	QAL	PPP	21-37-28 (2432)
1966	TOG	DOM	21-37-28 (340)
1966	TOG	DOM	21-37-28 (3433)
1957	TOG	MTU	21-37-33 (3221)
1954	TOG	MTU	21-37-33 (321)

FOLLOWING IS A KEY TO THE ABBREVIATIONS USED IN THE ABOVE LISTINGS:

FORMATIONS

QAL----------QUATERNARY ALLUVIUM
TOG----------OGALLALA
TRC----------TRIASSIC
PSA----------SAN ANDRES LIMESTONE

USAGE

IND----------INDUSTRIAL
PPP----------PETROLEUM PROCESSING PLANT
NON----------WATER RIGHTS RETIRED
MUN----------MUNICIPAL
SRO----------SECONDARY RECOVERY OF OIL
IRR----------IRRIGATION OF CROPS
DOM----------DOMESTIC
MTU----------MUNICIPAL TYPE USE

COM----------COMMERCIAL SALES OF WATER
INP----------IRRIGATED NATIVE PASTURE
NOT----------WELL NOT DRILLED OR WATER NOT BEING USED
STK----------STOCK
CPS----------CATHODIC PROTECTION SYSTEM

B. GROUND WATER THAT WOULD BE MOST AFFECTED BY A DISCHARGE IS AT A DEPTH OF 140 TO 160 FEET WITH A TDS CONCENTRATION OF 2500 TO 3000. (INFORMATION PROVIDED BY NEW MEXICO STATE ENGINEERS IN ROSWELL) THE SOIL IN THE AREA IS MODERATELY THICK SAND, 1 TO 3 FEET THICK ON CALICHE, WHICH IS 10 TO 20 FEET THICK ON THE ALLUVIUM AND OGALLALA AQUIFER. THE COMPOSITION OF THE AQUIFER IS APPROXIMATELY 700 TO 800 FEET OF SAND AND SHALE ON TOP OF ABOUT 100 FEET OF SHALE AND 75 TO 100 FEET OF ANHYDRITE. (SEE EXHIBITS IV THRU VIII)

C. FLOOD POTENTIAL AND PROTECTION.

THROUGH PAST EXPERIENCES AND OBSERVATION THE FLOOD POTENTIAL IS ALMOST NIL, DUE TO THE BAR DITCHES FROM TWO PAVED ROADS THAT PROVIDE DRAINAGE AWAY FROM THE SITE. (SEE EXHIBIT IX) NOTE THE ELEVATIONS. ALSO, A DIRT BERM IS CONSTRUCTED TO DIVERT WATER TO THE PASTURE AWAY FROM THE SITE. (EXHIBIT II)

X. <u>POST-OPERATIONAL COMMITMENTS</u>

A. SHOULD PLUGGING BE NECESSARY, IT WOULD BE IN ACCORDANCE WITH EXISTING O.C.D. REQUIREMENTS AND APPROVAL.

B. SIMS-MCCASLAND WATER SALES MAINTAINS A PLUGGING BOND THAT MEETS THE REQUIREMENTS OF THE NEW MEXICO O.C.D. (SEE EXHIBITS X THRU XIV)

Exhibit I

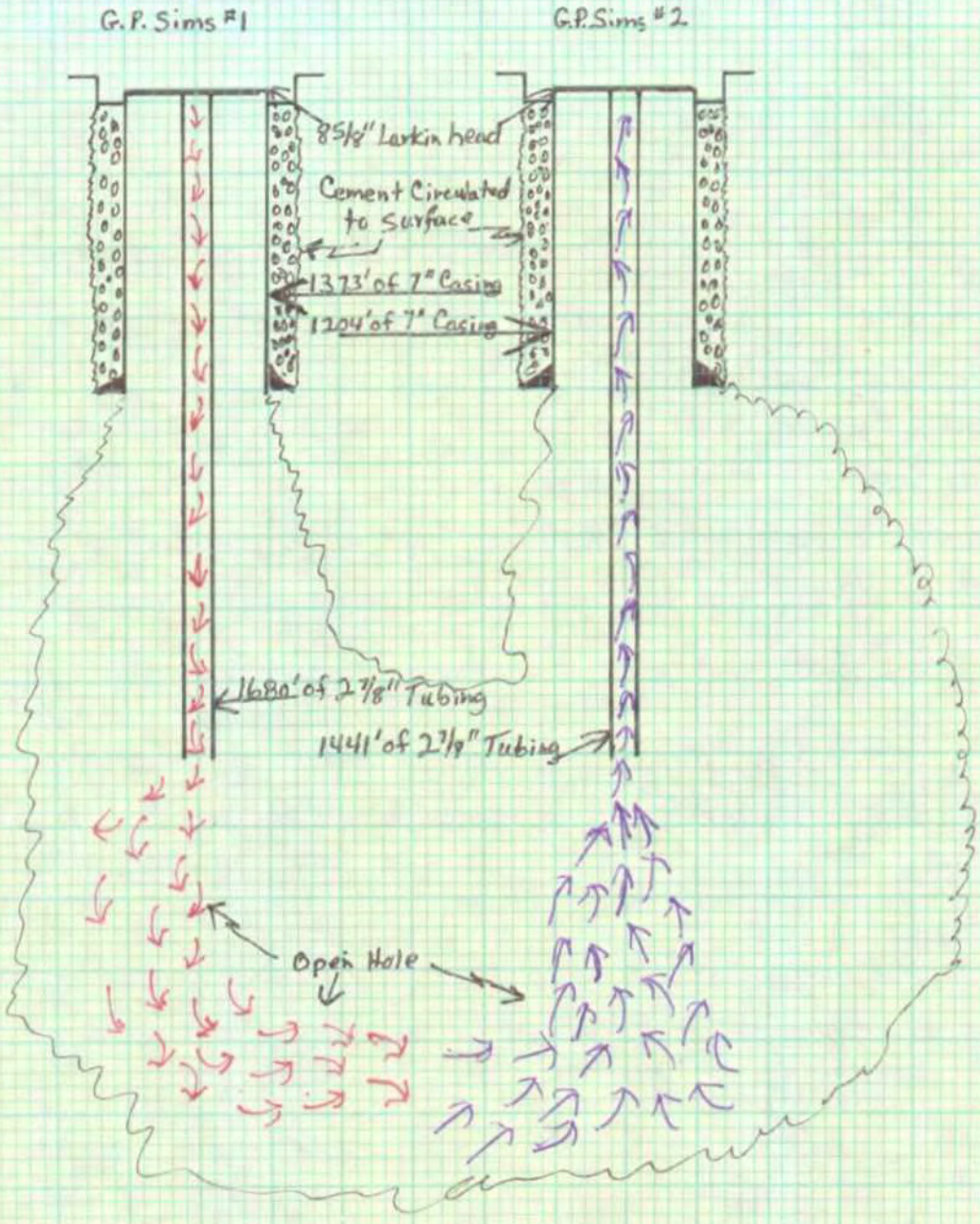
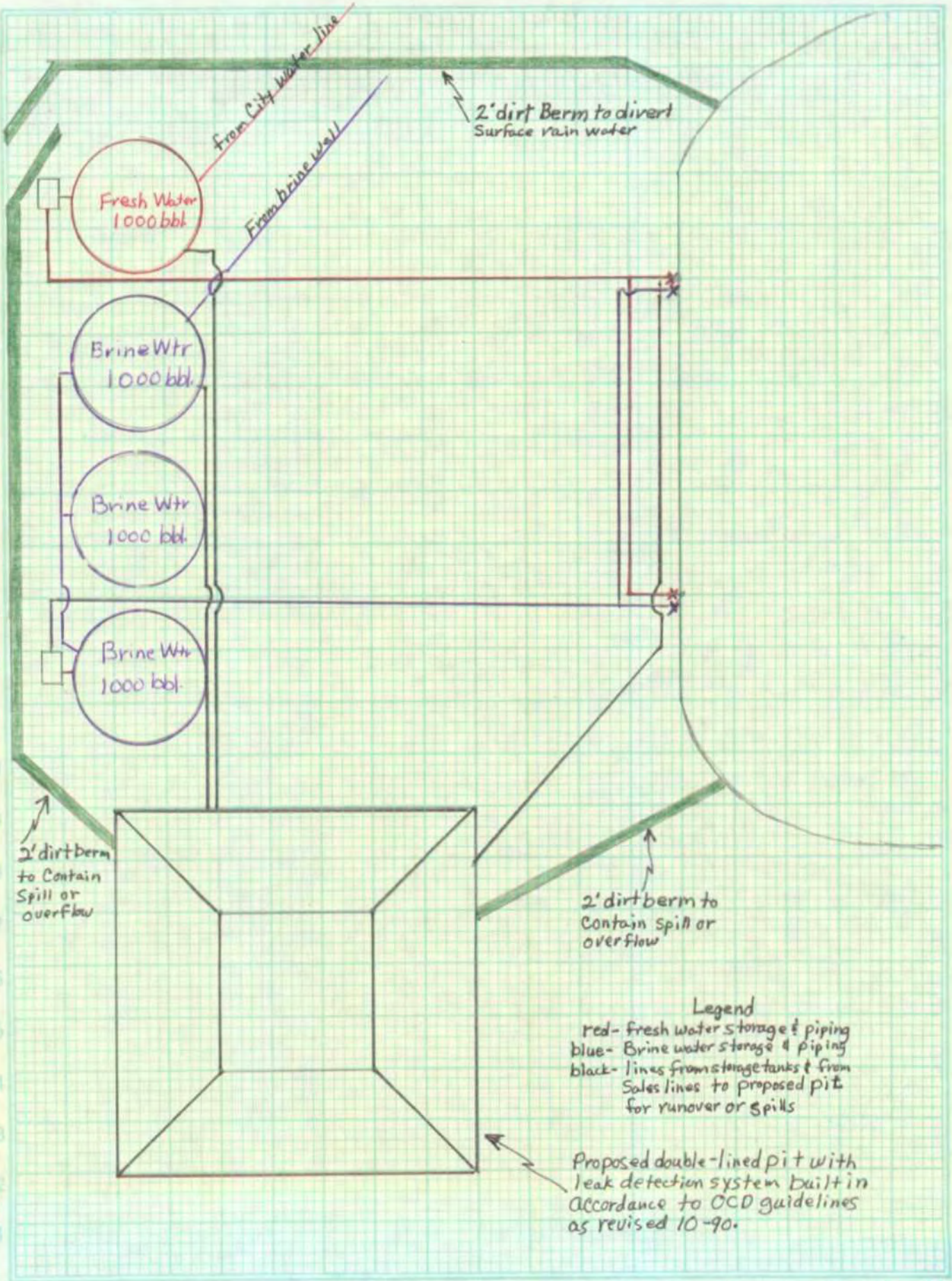

G.P. Sims #1
G.P. Sims #2
8 5/8" Larkin head
Cement Circulated to Surface
1373' of 7" Casing
1204' of 7" Casing
1680' of 2 7/8" Tubing
1441' of 2 7/8" Tubing
Open Hole

Exhibit II


from City water line
From brine well
2' dirt Berm to divert Surface rain water
Fresh Water 1000 bbl.
Brine Wtr 1000 bbl.
Brine Wtr 1000 bbl.
Brine Wtr 1000 bbl.
2' dirt berm to Contain Spill or overflow
2' dirt berm to Contain spill or overflow
Legend
red- fresh water storage & piping
blue- Brine water storage & piping
black- lines from storage tanks & from Sales lines to proposed pit for runover or spills
Proposed double-lined pit with leak detection system built in Accordance to OCD guidelines as revised 10-90.

HALLIBURTON

Exhibit II-A

To Sims McCasland Water Sales

Sample Number 105

Submitted by Bob Patterson Date Received May 16, 1994

Well No. See Below Depth Formation

County Field Source

	Fresh Water	Brine Water	
Resistivity.....	14.477 @ 73°F	0.052 @ 73°F	
Specific Gr.....	1.005	1.200	
pH.....	7.5	7.0	
Calcium*..... Ca	300	1850	
Magnesium*..... Mg	nil	nil	
Chlorides*..... Cl	75	152000	
Sulfates*..... SO_4	69	9074	
Bicarbonates*.... HCO_3	219	61	
Soluble Iron*.... Fe	nil	nil	
Sodium Na *	nil	100832	
TDS *		263817	

Remarks:
Fax to 505-394-2584

*Milligrams per liter

Respectfully submitted,

Analyst: JLABBMC

HALLIBURTON COMPANY

By

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

Exhibit III

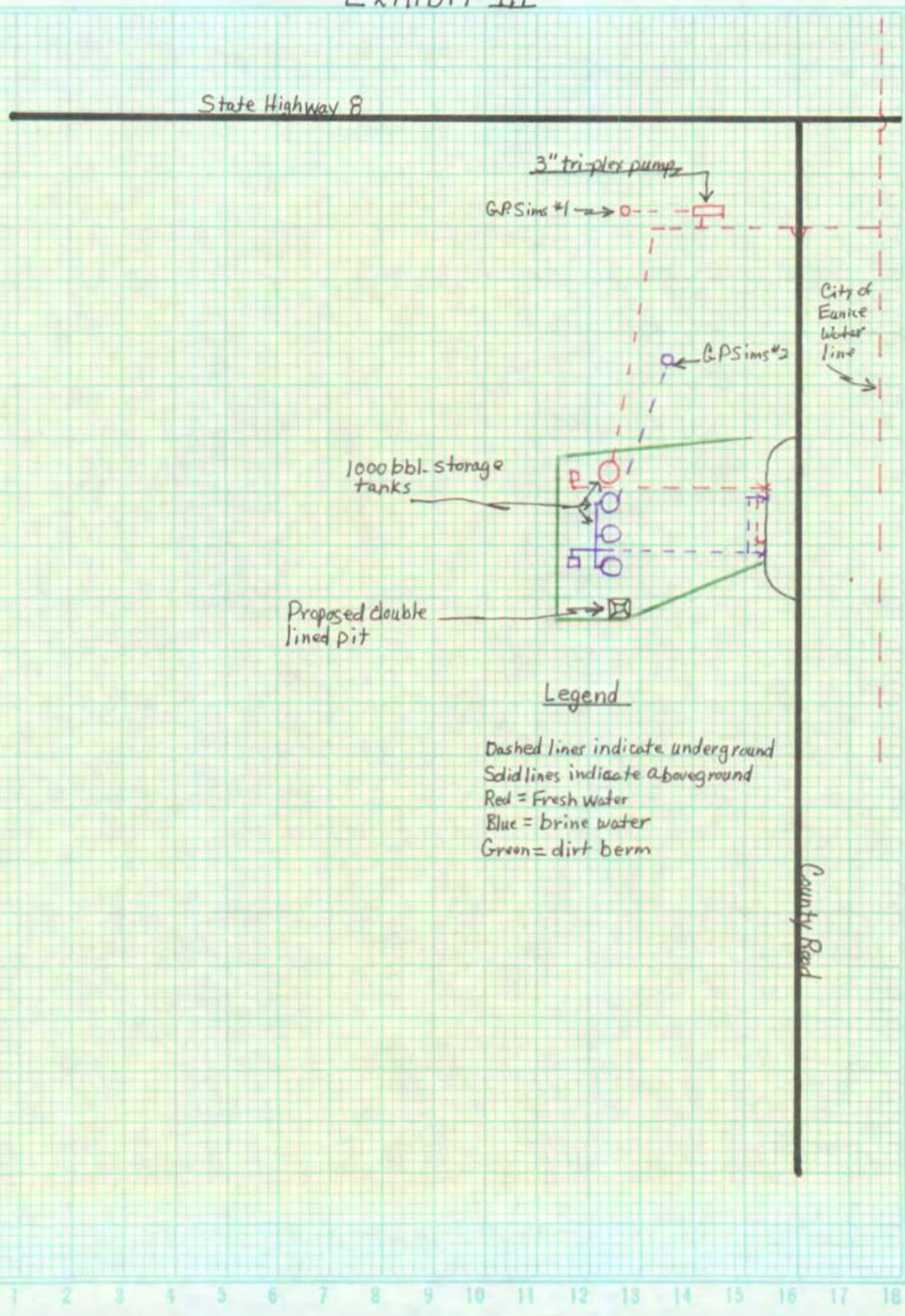

State Highway 8
3" tri-plex pump
GPSims #1
GPSims #2
City of Eunice water line
1000 bbl. storage tanks
Proposed double lined pit
Legend
Dashed lines indicate underground
Solid lines indicate aboveground
Red = Fresh water
Blue = brine water
Green = dirt berm
County Road

Exhibit IV

NEW MEXICO BUREAU OF MINES & MINERAL

INTRODUCTION

Surficial geology concerns the origin, distribution, and significance of deposits and soils at or near the earth's surface. Completely bare bedrock forms probably less than 5 percent of New Mexico's land surface; consequently surficial materials form by far the largest and most-used part of the ground around us. Several aspects of surficial geology that contribute significantly to an understanding of our environment are water yielding properties of the ground; its susceptibility to flooding and erosion; its susceptibility to such hazards as landslides, avalanches, and earthquakes; ease of excavation; suitability for foundations and road building; agricultural potential, including suitability for irrigation or pasturage; and mineral resources potential

Surficial materials commonly are poorly consolidated, consisting partly of bedrock weathered in situ (residuum), but mostly of sediments derived by erosion and transported by water, wind, ice, or gravity (mass wasting) to a site of temporary deposition before being further eroded and transported downslope

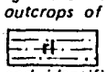
Four major categories of surficial materials are distinguished on the map by color: residual materials, transitional deposits, transported deposits, and miscellaneous types of ground

RESIDUAL MATERIALS

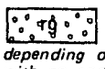
Materials generally formed in place, including: residuum, *formed in situ by weathering of a parent formation;* caliche; travertine and related spring deposits; shale or sandstone baked by coal beds burning in situ (clinker); karst and related deposits in sinks, *and the following, which are not distinguished on the map:* organic deposits; desert pavement; cave deposits; and desert varnish

RESIDUUM

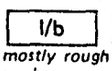
In New Mexico, residuum tends to be thin, generally less than 2 ft thick -- rarely as much as 5 ft. Texture depends upon composition of parent rock, and ranges from clay to coarse sand; texture may be bouldery in granitic areas. Areas shown as residuum include small outcrops of parent rocks and some alluvial or eolian deposits either mistaken for residuum or too small to show on the map. These materials are predominantly of late Pleistocene (Wisconsinan) or Holocene age. Ground is hummocky with slopes less than 10 percent; scattered small outcrops of resistant beds form small ledges



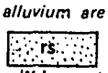
LOAMY RESIDUUM — *Texture variable -- mixed clay, silt, and sand. Thickness 1 to 5 ft. Parent formations fine grained, shallow, and identified by subscripts. Where clayey, this residuum generally contains appreciable amounts of swelling clay and is highly susceptible to sodium exchange, especially over the Chinle Formation (subscript* Trc*), Cretaceous shale (subscript* Ksh*), and Tertiary clayey volcanic formations. Slopes locally 10 percent and subject to washing. Although the unit is distinctive, the indicated boundaries are approximate*



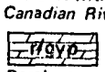
STONY RESIDUUM — *Stony residuum, with accompanying sand and silt. Thickness mostly less than 3 ft. Texture variable depending on parent material, indicated by subscript. Boundaries gradational with* co *and* fg



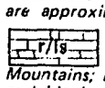
STONY LOAM OVER BASALT — *Lithology highly variable; locally abundant clay and silt, probably loessial; stones basaltic, mostly rough scoriae or angular blocks and flakes. Includes alluvium along small washes; numerous basalt mounds and low scarps along some washes and at edges of flows; thickness generally less than 3 ft. Surface smooth; slopes usually less than 5 percent except at sides of washes, bases of volcanic cones (including spatter cones), and edges of flows. Not subject to severe erosion. Boundaries indicated are fairly well defined despite variable lithology; boundaries with alluvium are approximate*



SANDY OR SANDY LOAM RESIDUUM — *The shallow sandy or sandy silt substrates are distinguished by subscripts (e.g.,* rs/Kd, *sandy residuum over Dakota Sandstone). Thickness commonly 1 ft. Subject to wind erosion where vegetation is sparse; minimal washing. A distinctive unit with adequate boundaries, except in the San Juan Basin and along the Canadian River*

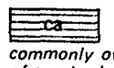


GYPSIFEROUS AND SANDY RESIDUUM ALONG PECOS RIVER VALLEY — *Parent material Artesia* (Pat) *and related formations. Rarely over 2 ft thick. Numerous small outcrops of gypsum thinly mantled by loose sand with or without small pebbles. A distinctive unit; boundaries are approximate*



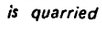
RESIDUUM ON LIMESTONE — *Widespread on east slope of Sacramento Mountains, Chupadera Mesa, and flanks of Zuni Mountains; less extensive on Cretaceous limestone beds south of Raton. Stony and blocky; generally well cemented with calcium carbonate; little subject to erosion. Slopes average steeper than most residuum. Thickness generally less than 2 ft, rarely as much as 5 ft. A distinctive unit; boundaries indicated are adequate*

CALICHE



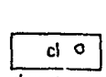
CALICHE — *Partly indurated zone of calcium carbonate accumulation formed in upper layers of surficial deposits; 2 to 10 ft thick; commonly overlain by windblown sand. Much caliche shown on the map consists of tough, slabby surface layers underlain by calcium carbonate nodules that grade downward to fibers and veinlets. Especially well developed in Basin and Range and Great Plains parts of the state. Thick caliches (locally >20 ft) associated with undissected High Plains surfaces of the Great Plains commonly comprise an upper sequence of several carbonate-cemented zones interlayered with reddish loamy paleosol horizons over a basal caprock zone developed on Ogallala* (To) *sediments. Forms on various types of parent formations, indicated by subscripts. The extensive caliche along Rio Salado northwest of Socorro is partly a travertine deposit. Where buried by sand, the caliche is identified by subscript* ca. *A distinctive unit; boundaries are well defined where the caliche forms rimrock and approximate where exposed in deflation hollows. Where thick and well indurated, caliche is quarried for road metal and other aggregate, subject to minimal erosion*

SPRING DEPOSITS



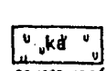
TRAVERTINE AND RELATED DEPOSITS — *Most deposits shown have been formed at springs discharging water hotter than 100°F (34°C). Travertine mounds and benches to 50 ft high. Deposits at east base of Mesa Lucero may not have been created by hot springs*

CLINKER



SLAGGY COAL ASH AND VITRIFIED SHALE AND SANDSTONE MASSES FUSED BY BURNING COAL BEDS -- *Incompletely shown -- coal may ignite spontaneously, by lightning or ground fire. Depending on oxygen availability, the coal may burn tens of feet back into the ground. Common in coal-bearing formations of San Juan Basin and Raton district. Used for road metal*

KARST DEPRESSION DEPOSITS



KARST-RELATED DEPOSITS — *Underground solution of limestone and gypsum produces caverns or smaller subsurface voids, and causes roof-rock collapse, forming closed karst depressions (sinkholes) at the surface, mantled with blocks of the roof rock. Widespread in San Andres Formation (subscript* Pca*) north of the Sacramento Mountains and on Chupadera Mesa. Sinks commonly 50 ft deep and 500 to 1,000 ft wide. Similar deposits composed of slumped gravel and alluvium along the Pecos River valley are attributed to solution of underlying gypsum or other salts. Slumped beds dip 1 to 5 degrees into the depression; may be overlain by undisturbed gravels. Thickness to 300 ft. Although these are distinctive features, extent and boundaries, largely derived from the 1/250,000 quadrangle maps, are approximate*

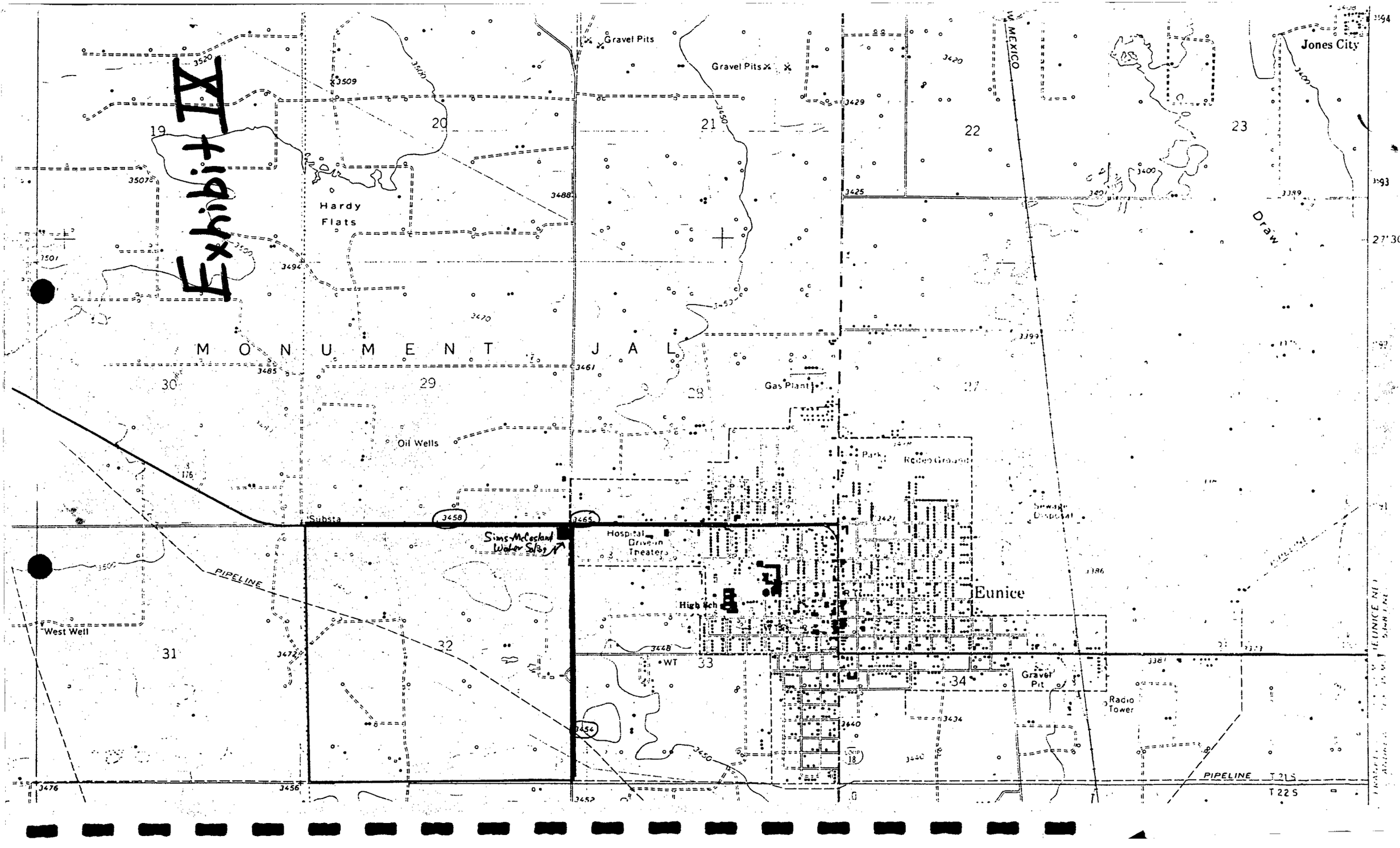


Exhibit IX
Gravel Pits
Gravel Pits
Jones City
NEW MEXICO
Hardy
Flats
Draw
MONUMENT
JAL
Gas Plant
Oil Wells
Park
Rodeo Ground
Sewage Disposal
Substa
Sims-McCasland Water Sply
Hospital
Drive-in Theater
Eunice
High Sch
West Well
PIPELINE
WT
Gravel Pit
Radio Tower
PIPELINE
T 22 S
19
20
21
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Exhibit X

Form O & G B-1
Adopted 6-17-77
Revised 11-01-89

STATE OF NEW MEXICO

ONE-WELL PLUGGING BOND

FOR CHAVES, EDDY, LEA, McKINLEY, RIO ARRIBA, ROOSEVELT, SANDOVAL, AND SAN JUAN COUNTIES ONLY

BOND NO. B02070
AMOUNT OF BOND $5,000
COUNTY Lea

NOTE: For wells less than 5,000 feet deep, the minimum bond is $5,000.00*
For wells 5,000 to 10,000 feet deep, the minimum bond is $7,500.00*
For wells more than 10,000 feet deep, the minimum bond is $10,000.00

*Under certain conditions, a well being drilled under a $5,000.00 or $7,500 bond may be permitted to be drilled as much as 500 feet deeper than the normal maximum depth, i.e., a well being drilled under a $5,000.00 bond may be permitted to go to 5,500 feet, and a well being drilled under a $7,500.00 bond may be permitted to go to 10,500 feet. (See Rule 101)

File with Oil Conservation Division, P. O. Box 2088, Santa Fe 87501

KNOW ALL MEN BY THESE PRESENTS:

That MCCASLAND SERVICES, INC., (An individual) (a partnership) (a corporation organized in the State of New Mexico, with its principal office in the city of Lea, State of New Mexico, and authorized to do business in the State of New Mexico), as PRINCIPAL, and UNDERWRITERS INDEMNITY COMPANY, a corporation organized and existing under the laws of the State of Texas, and authorized to do business in the State of New Mexico, as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of the Oil Conservation Division of New Mexico pursuant to Section 70-2-12, New Mexico Statutes Annotated, 1978 Compilation, as amended, in the sum of FIVE THOUSAND AND NO/100 Dollars lawful money of the United States, for the payment of which, well and truly to be made, said PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that:

WHEREAS, The above principal has heretofore or may hereafter enter into oil and gas lease, or carbon dioxide (CO_2) gas leases, or helium gas leases, or brine mineral leases with the State of New Mexico; and

WHEREAS, The above principal has heretofore or may hereafter enter into oil and gas leases, or carbon dioxide (CO_2) gas leases, or helium gas leases, or brine mineral leases on lands patented by the United States of America to private individuals, and on lands otherwise owned by private individuals; and

WHEREAS, The above principal, individually, or in association with one or more other parties, has commenced or may commence the drilling of one well not to exceed a depth of 1,627' feet, to prospect for and produce oil or gas, or carbon dioxide (CO_2) gas or helium gas, or does own or may acquire, own or operate such well, or such well started by others on land embraced in said State oil and gas leases, or carbon dioxide (CO_2) leases, or helium gas leases, or brine minerals, and on land patented by the United States of America to private individuals, and on land otherwise owned by private individuals, the identification and location of said well being being G.P. Sims #2 420' N. Line & 210' E. Line, Section 32, Township 21 ~~North~~ (South)
(Here state exact legal footage description)
Range 37 (East) ~~West~~, N.M.P.M., Lea County, New Mexico.

NOW, THEREFORE, If the above bounden principal and surety or either of them or their successors or assigns, or any of them, shall plug said well when dry or when abandoned in accordance with the rules, regulations, and orders of the Oil Conservation Division of New Mexico in such way as to confine the oil, gas, brine, and water in the strata in which they are found, and to prevent them from escaping into other strata;

THEN, THEREFORE, This obligation shall be null and void; otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

Exhibit V

DESERT PAVEMENT

Not shown on map. Consists of a single layer of closely-spaced stones, angular or rounded, over a vesicular layer of loam and silt. Stones collect at the surface by a sorting action, apparently due to frost and/or salt heaving, or swelling and shrinking of clay. Silt layer beneath the pavement may be partly eolian in origin. In general, within a particular part of the state, thickness of silt increases from about 1 to 12 inches with increasing age of the surface, due to advanced weathering and rock disintegration. Some areas of desert pavement also form where wind or water removes fine-grained sediments, leaving behind the coarser [illegible] deposits. While desert pavement favors high runoff, it protects the ground from erosion

CAVE DEPOSITS

Not shown on map. Commonly have gravel at base, recording an early stage of substantial water flow that eroded the cave. The gravel is overlain by clay ochre deposited as the flow of water diminished, and this in turn is overlain by stalagmites. Stalagmites are overlain by dust. Fossil remains of Pleistocene animals may occur in deposits below the stalagmites; remains of Holocene animals characterize the overlying deposits. Other cave deposits occur in basaltic [illegible], especially in the area southwest of the Zuni Mountains. These deposits include blocks fallen from the roofs, dust, and some ice

ORGANIC DEPOSITS

Not shown on map. Accumulations of fibrous peat in sedge marshes [illegible] under many New Mexico lakes. Both fibrous and woody peat accumulated in small, poorly-drained depressions and mountain meadows. Mostly less than 15 ft

DESERT VARNISH

Not shown on map. A black stain of iron and manganese oxides on bare rock surfaces and on pebbles of desert pavement. Predates prehistoric pottery-bearing occupations of the region. Predominantly middle Holocene, partly late Pleistocene. Many of these stained surfaces have petroglyphs carved by prehistoric peoples

TRANSITIONAL DEPOSITS

Deposits transitional between those formed in situ and those transported; deposits moved downslope chiefly by gravity, particularly slow creep (colluvium). Also includes rock falls. Landslides and avalanches are shown as periglacial features

Colluvium includes the heterogenous mantle of soil and rock fragments derived from residuum, bedrock, and/or unconsolidated surficial deposits moved slowly downslope by gravitational force and sheet wash. Slopes generally steeper than 20 percent. Mass wasting, the process causing debris to move downslope, is aided by added weight and lubrication of water-saturated debris, frost heaving, alternate wetting and drying of clays, crystallization of salts, growth of roots, burrowing and trampling by animals, falling of trees, and impact of hail or rain. These, like other erosional processes, may be accelerated by man's activities

Colluvium is basically a chaotic mixture of angular rock fragments and finer grained materials. In New Mexico colluvium is generally less than 10 ft thick (rarely 25 ft or more) but may grade into thick cones of debris at bases of hillsides. In the northeast and northwest parts of the state where steep shale slopes underlie resistant caprock of sandstone or lava, two, and locally three, ages of colluvium may be distinguished. These are thought to be mid-Holocene, late Wisconsinan and early Wisconsinan, respectively. Such occurrences provide an index of retreat of cliffs. Some shale slopes are armored and protected against erosion by blocks of the caprock.

On long dip slopes such as flanks of the Zuni Mountains and east flank of the Sacramento Mountains, the colluvium is generally thin (commonly 1 to 2 ft thick) except near the base of steep hillsides and is composed of the resistant rock, forming the dip slope. Some of this colluvium could as well be mapped as stony residuum over limestone. Hillsides on granitic and volcanic rocks may also be overlain by thin but bouldery sandy colluvium. Colluvium on steep, faulted mountain fronts consists of a mixture of stones representing all the exposed formations upslope

co — COLLUVIUM — *Subscripts indicate the underlying hillside formations (e.g., co/Tv, colluvium on Tertiary volcanic rocks)*

TRANSPORTED DEPOSITS

Most surficial deposits are rocks and particles weathered from bedrock in one area, transported by water, wind, ice, or gravity to an area of deposition, and are susceptible to further erosion and transportation. These deposits are much younger than — and unrelated to — the underlying bedrock. They are classified according to their mode of transportation to the site of deposition

ALLUVIUM IN FLOODPLAINS AND STREAM CHANNELS

Well-stratified sandy and silty stream deposits with gravel lenses; gravel terraces along valley sides. Generally, alluvial deposits record complex response to Quaternary climatic shifts. In New Mexico climates were comparatively wet during the Pleistocene glacial stages. Conversely, during the interglaciations, climates were drier, with conditions similar to Holocene environments. Alluvial deposits locally contain fossils, including bones of mammals and rodents, and shells of freshwater snails and clams. Late Pleistocene deposits contain fossil remains of extinct animals such as elephants, camels, horses (not re-introduced until the arrival of the Spaniards), sloths, and long-horned bison. Archaeological remains are common in and on Holocene deposits and help date them. Three ages of alluvium generally can be distinguished -- late Pleistocene, mid-Holocene, and historic. At least three recognized types of alluvial floodplain deposits reflect relative capacity for sediment transport by the main stream and its tributaries. A fourth type, along the Pecos River in the southeastern part of the state, is characterized by saline ground. A fifth is restricted to basalt-capped mesas

al_1 — FLOODPLAIN AND CHANNEL DEPOSITS ALONG MAIN STREAMS — *Ground nearly flat but includes terraces to about 10 ft high, shallow curved swales at cutoff meanders, and local stabilized dunes. Mostly sand, silt, and some layers of gravel. Caliche absent or weakly developed in thin veinlets, fibers, coatings on cracks, and soft nodules. Deposits commonly 25 ft thick. Ground water shallow; subject to pollution. Extensively farmed; subject to flooding*

al_2 — FLOODPLAIN AND CHANNEL DEPOSITS ALONG GENERALLY DRY ARROYOS AND WASHES — *Includes deposits along some perennial mountain streams. Extent exaggerated to emphasize drainage patterns. Sandier than al_1, gradients 5 to 15 percent. Arroyos 10 ft deep common. Surface flat where deposit was formed by stream overflowing its banks; hummocky where built of coalescing fans at mouths of tributaries that crowd the main stream against its far bank; or V-shaped where alluvium grades laterally into fan sand washed from adjoining hillsides. Ephemeral perched water tables under some deposits. Width of deposits represented has been exaggerated but total area probably about right because small deposits had to be omitted*

al_3 — COALESCING SILTY AND SANDY ALLUVIAL FANS — *Intermediate between* al *and alluvial fan deposits* fs *and* fsi

al_4 — SALINE ALLUVIUM — *Borders Pecos River south of Fort Sumner*

al/b — ALLUVIUM OVER BASALT — *Restricted to basalt-capped mesas. Stony, organic-rich alluvium in old valleys; thickness commonly 10 ft or more. Acid soils*

tg — GRAVEL TERRACES — *Well-rounded stream gravels with cobbles 6 inches or more in diameter; some terraces 250 ft higher than the streams. Especially well developed along the San Juan River, less so along the Pecos, Gila, and Canadian Rivers; most represent deposits by Pleistocene melt waters from mountains. Abundant caliche deposits, especially on the higher terraces, which may be Kansan; lowest are Wisconsinan*

ALLUVIAL FAN DEPOSITS

In alluvial fans, unlike floodplain alluvium, beds tend to be thick, massive, and highly lenticular rather than well stratified. This is characteristic of all the facies, whether boulder, gravel, sand, or silt. Beds lenticular and elongated down the slope of the fans; slopes 2 to 20 percent. Deposition mostly by flash floods, with poor sorting and mixed textures. Coarse-textured lenses commonly form ridges extending down the fan onto generally finer grained sediment. Boundaries between the textural facies of the deposits roughly parallel the fan contour, but detailed boundaries are irregularly lobate; those shown are approximations. Fan textures and slopes depend partly on composition of the parent rocks and partly on height and steepness of the bordering hill or mountain. Fans extensive in the Basin and Range part of the state where they comprise about half the total area; in other parts of the state, fans are small. On the larger fans, arroyos become shallower towards the toe; many head at low mounds that probably mark old mudflows. Ground subject to sheet flooding

fg — GRAVEL FACIES — *Bouldery towards apex of fan, grading downslope to cobble and fine gravel with increasing proportion of sand and finer grained material. Commonly dissected to form 2 to 3 levels of gravel benches up to 50 ft above present washes. A few streams (e.g., Mulligan Wash, Alamosa River, Cuchillo Negro Creek, and Rincon Arroyo are incised 100 ft below fan surfaces. On short, steep fans, depths of valleys generally decrease downslope. On the broad Palomas surface, west of the Rio Grande above Hatch, valleys maintain their depth. Except near the apex, extensive surfaces have smooth desert pavement. On short, steep fans, gravels show minimal weathering and are weakly cemented with caliche; age probably Wisconsinan and Holocene. On broad, more gently sloping fans, gravels are more weathered and commonly cemented by caliche; age probably pre-Wisconsinan. In south half of the state, gravel facies is characterized by creosote bush cover. Thin alluvial gravel covering pediments is denoted by* fg *over subscript that identifies parent formation*

fs — SAND FACIES — *Sandy alluvium with subordinate amounts of fine gravel, silt, and clay. Forms at least four kinds of ground: 1) On short, steep fans sloping from the mountains of granitic or gneissic rock (e.g., parts of the Florida Mountains), this facies may form a smooth sandy layer a few feet thick covering gravel below; slopes 5 to 20 percent; washes 1 to 10 ft deep may expose underlying gravel. 2) On other short fans, sand facies may form arcuate belt at toe of fan with slopes averaging 10 percent, commonly reworked into coppice dunes 3 to 7 ft high (sm). 3) Other belts of smooth sandy ground commonly slope 5 percent or less and consist of sand mounds approximately 1 ft high over caliche (fs_2). 4) Gypsiferous sand (fs_3), especially in the Jornada del Muerto, Tularosa Valley and east side of the Pecos Valley. Sand facies absent on the broad Las Palomas surface. Thin fan sand covering pediments is denoted by* fs *over subscript that identifies underlying formation. Boundary with residual sand, fan gravel, and fan silt is approximate*

fsi — SILT FACIES — *In Basin and Range parts of the state, toes of fans may be silty and clayey rather than sandy; surface smooth, with slopes less than 5 percent. Slow infiltration rates and low slopes result in sluggish runoff. Forms a belt below the sand facies and grades downward to playa silt* (psi) *with slopes less than 2 percent. Abundant swelling clays and exchangeable sodium. Surface layers predominantly Holocene; subject to sheet flooding, gradational with* al_3. *East and west of Sangre de Cristo Mountains, also forms fans of sandy or silty loam with little gravel in upper 3 to 4 ft, but abundant gravel below the loam. Caliche soft. Includes loess on isolated hilltops. Boundary with residual loam* (rl), *playa silt* (psi), *and fan sand* (fs) *approximate*

EOLIAN DEPOSITS

Eolian deposits are laid down by wind, mostly as sheets of sand or silt (loess). Rarely, after prolonged drought on shale desert in the San Juan Basin, shale flakes may accumulate in rippled sheets or even small dunes, but with the next rain, these become mud. Sand dune shapes depend on topography, relative strength of the winds, supply of sand, and vegetation. Some dunes are concave towards the windward (parabolic), others are concave towards the leeward (barchans), and others are longitudinal or transverse. Some dune clusters (e.g., Great White Sands) have all four kinds. Dunes may climb a windward slope or fall on a leeward slope. Most of New Mexico's eolian sand sheets have a basal layer of weathered, partly cemented, reddish stabilized sand; some sand surfaces on such layers are smooth. In the Basin and Range and Great Plains parts of the state, these surfaces are generally underlain by caliche; in the San Juan Basin, sand sheets commonly overlie residuum, fan deposits, or bedrock. Where sand is thick, as on sand facies of fans in the Basin and Range and at climbing dunes east of the Pecos River (Mescalero Sands) the sand is in mounds (coppice dunes) with profuse growth of vegetation -- mesquite, and saltbush in the Basin and Range; sand sage, shinnery oak, small soapweed yucca, and occasional mesquite on the Mescalero Sands. Sand sheets are predominantly late Pleistocene; mounds and dunes are largely Holocene

s/b — SAND UNDERLAIN BY BASALT — *Extensive on basaltic plains south and east of Zuni Mountains and on West Potrillo Mountains. At Kilbourne Hole and Hunt's Hole, the sand is of volcanic origin*

s/ca/QTs — SAND UNDERLAIN BY CALICHE ON SANTA FE GROUP — *Mostly on La Mesa and south part of the Jornada del Muerto*

s_1/ca/To — TIIN SAND ON CALICHE ON OGALLALA FORMATION — *Thickness about 1 ft. Chips of caliche comprise 30 percent of the sand. Generally too shallow for farming, but good shallow source for aggregates*

* s_2/ca/To — MODERATELY THICK SAND ON CALICHE ON OGALLALA FORMATION — *Sand 1 to 3 ft thick. Surface layers noncalcareous over reddish loam. Local sand mounds. Ground favored for farming. Boundaries approximate*

s_3/ca/To — THICK SAND ON CALICHE ON OGALLALA FORMATION — *Sand 3 to 5 ft thick. Local mounds. Brownish-red, fine sandy loam over reddish-brown, sandy clay loam; noncalcareous to depths of 3 ft; calcareous subsoil contains filaments of lime carbonate. Where farmed, ground is subject to wind erosion. Boundaries approximate*

sm — LOOSE SAND IN MOUNDS — *Coppice dunes, commonly 3 to 7 ft high and 25 to 50 ft in diameter; generally elongated north of east but a local exception lies east of Columbus where elongation is south of east. Age is Holocene. Boundaries fairly accurate*

es, e — SAND SHEETS — *Surfaces smooth except for ripples 2 to 3 inches high and scattered sand mounds 3 to 12 inches high, especially around small shrubs. Thickness of loose send generally no more than about 12 to 24 inches, but commonly overlies stabilized sand. Underlying material where known identified by subscript*

ds — LONGITUDINAL DUNES — *Sand commonly 6 ft thick, locally 10 ft. Forms distinct ridges generally oriented north of east. Locations diagrammatic and width exaggerated*

ds — OTHER DUNES — ds_1, *quartzose sand,* ds_2, *gypsiferous sand*

l/b — LOAM ON OLD BASALTIC LAVA — *Probably pre-Wisconsinan loess*

si — EOLIAN SILT

EXPLANATION OF SURFICIAL GEOLOG

by Charles B. Hunt 1977

Exhibit VI

LAKE AND PLAYA DEPOSITS

New Mexico has five kinds of lake deposits in addition to those forming today in artificial reservoirs. The most extensive deposits were laid down in Pleistocene lakes that flooded closed basins now marked by playas. Many of these deposits in the Basin and Range are alkaline flats. Most numerous are the so-called "buffalo wallows" of the Great Plains on the Ogallala Formation. Some of these wallows are deflation hollows with sand mounds on the lee side; others may be due to solution and sagging of the surface. Still others may be attributed to warping. Third are sinkholes clearly due to solution, like Bottomless Lakes; sinks at Santa Rosa, and some of the depressions (related to caves) of the San Andres Formation and caliche-covered ground north of the Sacramento Mountains. A fourth type is represented by ephemeral ponds in swales marking cutoff meanders on alluvial floodplains. A fifth type occurs only in the maar volcanoes at Kilbourne Hole, Hunt's Hole, and Zuni Salt Lake. Only the first three types appear on the map. Area of deposits represented has been exaggerated because of map scale, but total area probably about right because smaller deposits are omitted

psi — SILTY LAKE OR PLAYA DEPOSITS — *Ground mostly bare, gypsiferous deposits labeled* psi_2

ps — SANDY LAKE OR PLAYA DEPOSITS — *Gypsiferous deposits labeled* ps_2

bg — BEACH DEPOSITS — *Sand or gravel; sandy stretches mostly reworked into low dunes. Incompletely shown*

ev — EVAPORITES — *Saline or alkaline deposits precipitated from brines in playas having high evaporation rates, notably Estancia Valley, Animas Valley, and Zuni Salt Lake. Salts are gradational with playa silt (psi) and occur in orderly concentric zones reflecting relative solubility of the salts. Thicknesses range from ? to several inches, but salts mixed with mud may be tens of feet deep. Efflorescent crusts subject to wind erosion contribute to salinity of ground to leeward*

GLACIAL AND PERIGLACIAL DEPOSITS

During the Pleistocene New Mexico had mountain (alpine) glaciers high on the Sangre de Cristo Range, Tusas Mountains, and Sierra Blanca Peak. The source of such glaciers was in nearly circular, steep-sided basins (cirques) at valley heads. High valleys eroded by the glacial tongues tend to be U-shaped; at lower elevations where eroded by streams, these valleys are V-shaped. Gravels deposited along each side of valley ice represent debris that rolled down the mountainside onto the ice to form lateral moraines. Hummocky ridges of sand and gravel deposited across the lower ends of the glaciers form terminal moraines. Within the cirques generally stand two ramparts of boulders. An inner rampart, forming today is located at the lower edge of the snowbank that accumulates annually in the cirque; it represents rocks broken by frost from the headwall of the cirque, rolled down the snowbank, and collected at the ridge. These inner ridges are treeless. Farther out in the cirque -- perhaps at the mouth -- is a second ridge, forested, with firm unweathered rock darkly stained with iron and manganese oxide. These outer cirque ridges formed during the mid-Holocene "little ice age"

DEPOSITS AND GEOMORPHIC FEATURES OF PLEISTOCENE MOUNTAIN GLACIERS — *Extent exaggerated*

pg — PERIGLACIAL DEPOSITS ON MOUNTAIN TOPS — *Primarily represented by boulder fields and patterned ground where frost action was intensive during the glaciations. Extent and boundaries approximate; grades laterally to stony residuum and colluvium*

av — AVALANCHE DEPOSITS — *Bouldery; some are lag concentrates of boulders where fine-grained sediments have been removed by erosion. Deposits narrow and long downslope; commonly 10 to 50 ft thick. Apparently deposited as mudflows during late Pleistocene time when there were numerous perennial mountain snowfields. Frost action at the time was vigorous; sudden thaws could trigger floods or mudflows on the mountainsides. Slow movement downslope may be reactivated in artificial cuts through these deposits if water enters the plane of slippage*

ls — LANDSLIDE DEPOSITS — *Abundant on slopes of Cretaceous shale. Whereas avalanche deposits are elongate downslope, landslide deposits are short downslope but wide along the contour. Characteristically, they retain a cap of the lava or sandstone sloping into the hillside atop a steep colluvial-covered shale slope. Stabilized landslides may be reactivated if water is allowed to enter the plane of slippage*

MISCELLANEOUS TYPES OF GROUND

BASALT — *Includes lava flows, lava cones, cones of scoriae, necks, and fields of scoriae. Predominantly Quaternary and late Tertiary; some young enough to have sustained minimal weathering and retained their original structures and shapes are commonly referred to as malpais (Spanish, bad ground). Includes some Tertiary basalt that conspicuously controls the topography. Locally covered by loam (l/b, eolian deposits, al/b, stream deposits). The older surfaces are more deeply eroded, tilted, and faulted. Individual flows generally less than 50 ft thick; locally, several flows may aggregate a few hundred feet thick. Commonly interbedded with volcanic ash (tuff). Excludes lavas mantled by loess or other sediments; such areas indicated by subscript (e.g., l/b -- loam over basalt; fs/b -- fan sand over basalt). Boundaries shown are adequate*

OTHER BEDROCK — *Colluvium or other cover amounts to less than half the area. Only extensive areas are shown; age and rock type keyed by symbol to State geologic map (e.g., Kd, Cretaceous Dakota Sandstone, Rs, Triassic Santa Rosa Sandstone). Many small areas omitted; indicated boundaries are approximate. Principal formations and subscripts used are:*

- Tg – *Gatuna Fm.*
- Ql – *Bandelier Tuff*
- Ql – *Rhyolite flows*
- QTsf – *Upper Santa Fe Group*
- QTs – *Santa Fe Group, undivided, and related formations*
- QTg – *Gila Conglomerate*
- To – *Ogallala Fm.*
- Tsa – *Lower Santa Fe Group*
- Tc – *Chuska Sandstone*
- – *Alluvial and lacustrine deposits*
- – *Carson Conglomerate (generally equivalent to Los Pinos Fm.*
- – *Picuris Tuff*
- – *Potosi volcanic series*
- – *Tertiary volcanics; largely Datil Fm. in SW; includes some pre-and post-Datil volcanic sequences*
- – *Blanco Basin Fm.*
- – *Galisteo Fm.*
- – *San Jose Fm.*
- – *Nacimiento Fm.*
- – *Tertiary sedimentary formations in Raton district*
- – *Poison Canyon Fm.*
- – *Animas Fm.*
- TKr – *Raton Fm.*
- TKoa – *Ojo Alamo Sandstone*
- Kv – *Volcanics of Cretaceous age; various composition*
- Kkf – *Kirtland Shale and Fruitland Fm.*
- Kpc – *Pictured Cliffs Sandstone*
- Kl – *Lewis Shale*
- Kmv – *Cretaceous sandstone and shale, mostly Mesaverde Fm.*
- Kch – *Cliffhouse Sandstone*
- Kpl – *Point Lookout Sandstone*
- Ksh – *Cretaceous shale*
- Kg – *Gallup Sandstone*
- Km – *Mancos Shale*
- Kd – *Dakota Sandstone*
- J – *Jurassic, undivided*
- Jm – *Morrison Fm.*
- Jz – *Zuni Sandstone*
- TR, J – *Triassic and Jurassic, undifferentiated*
- TR – *Triassic, undifferentiated*
- TRgc – *Glen Canyon Sandstone*
- TRc – *Chinle Fm.*
- TRs – *Santa Rosa Sandstone*
- Pr – *Rustler Fm.*
- Pat – *Artesia Group*
- Psa – *San Andres Fm. (limestone)*
- Pg – *Glorieta Sandstone*
- Pc – *Cutler Fm.*

OF NEW MEXICO

EXPLANATION FOR GEOLOGIC MAPS 40, 41, 42 AND 43

- Py – *Yeso Fm.*
- Pa – *Abo Fm.*
- Ph – *Hueco Fm.*
- Pal – *Paleozoic, undivided*
- Pms – *Madera Limestone and Sandia Fm., undivided*
- P, ℙ – *Permian, Pennsylvanian*
- M, D – *Mississippian, Devonian*
- S, O, Ꞓ – *Silurian, Ordovician, Cambrian*
- pЄ – *Precambrian*
- gr – *Granitic, gneissic, and intrusive rocks of various ages*

D — *Disturbed ground. Mostly urban areas large enough to show on state base; farmed lands excluded. Includes airports, mined areas, tailings dumps, and feedlots. Incompletely shown*

X — *Open pits for road fill, sand, gravel, caliche, or other aggregates*

o° — *Playa-lake depressions. Mostly small closed basins produced by eolian activity and local solution subsidence*

REFERENCES

Dane, C.H., and Bachman, G.O., 1965, Geologic map of New Mexico: U.S. Geological Survey, Washington, D.C.

Hawley, J.W., Bachman, G.O., and Manley, Kim, 1976, Quaternary stratigraphy in the Basin and Range, and Great Plains provinces, New Mexico and Western Texas, in The Quaternary stratigraphy of North America, W.C. Mahaney, ed: Stroudsburg, Pennsylvania, Dowden, Hutchinson and Ross, p. 235-274

New Mexico State University, Agricultural Experiment Station, Research reports showing soil association and land classification for irrigation for each county

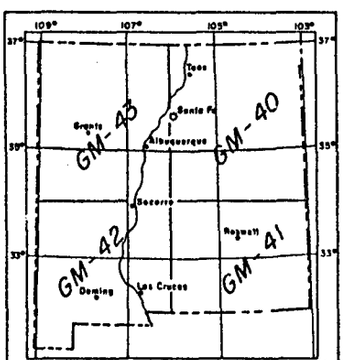
New Mexico State Highway Department supplied data for aggregate resources in New Mexico

Soil Conservation Service, 1/62,500 aerial mosaics of New Mexico Quadrangles

Data from these and other sources were plotted on the 1/250,000 quadrangle maps, field checked with about 40,000 mi of automobile traverses and 20 hours aerial reconnaissance over arees difficult of ground access. Mapping began spring 1974 and was completed June 1976

ACKNOWLEDGMENTS

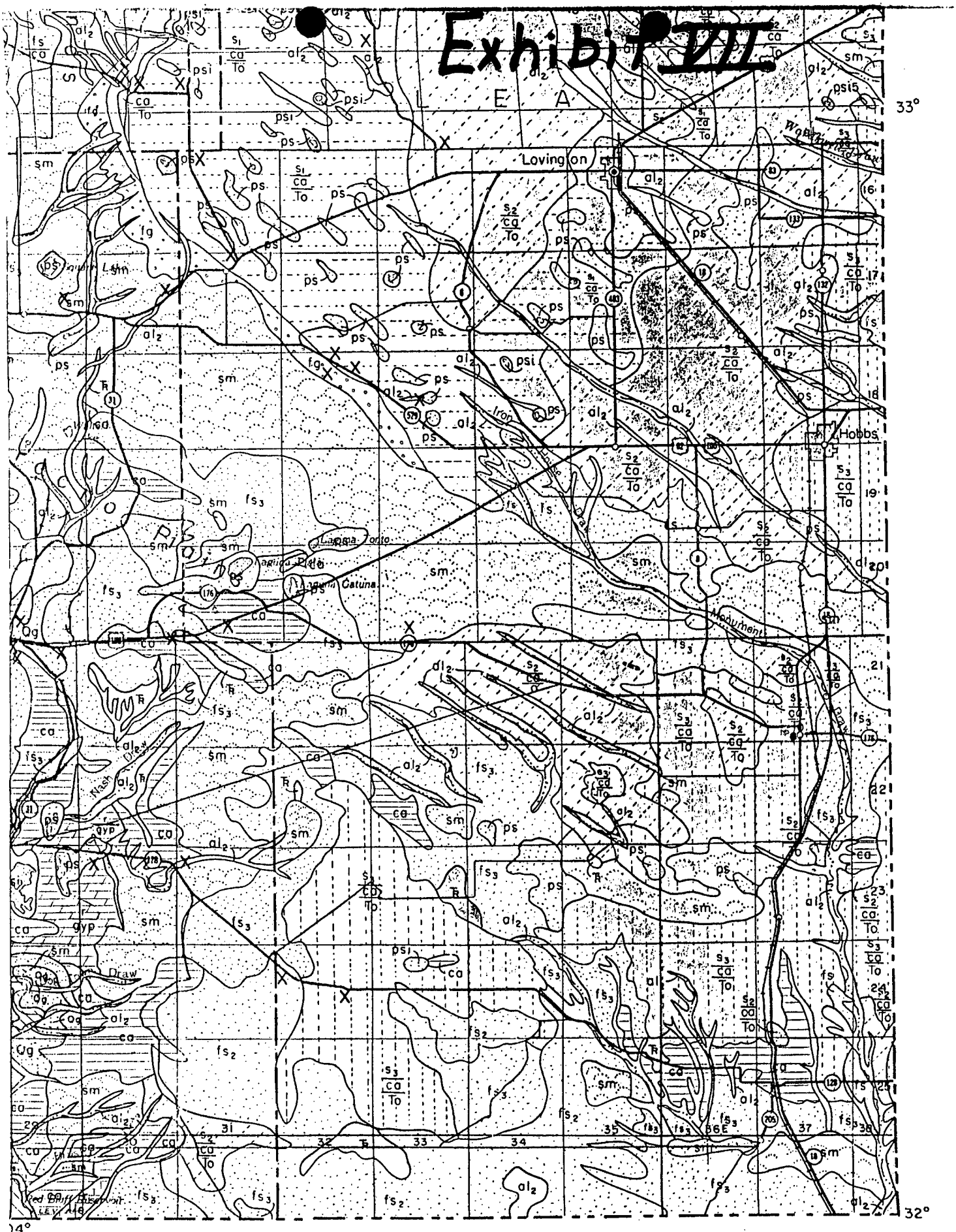
The author wishes to thank John W. Hawley and Robert H. Weber of the New Mexico Bureau of Mines and Mineral Resources for critically reviewing the maps and explanation; also Neila M. Pearson, for editing the explanation and for handling total cartographic compilation



Index map of New Mexico

YUCCA PLANTS

Exhibit VII



Geology by Charles B. Hunt, 1974 - 1976 Cartography by Neila M. Pearson, 1976

Exhibit VIII

SCHEMATIC OF A LEA COUNTY INJECTION WELL M. HOLLAND OCD '80

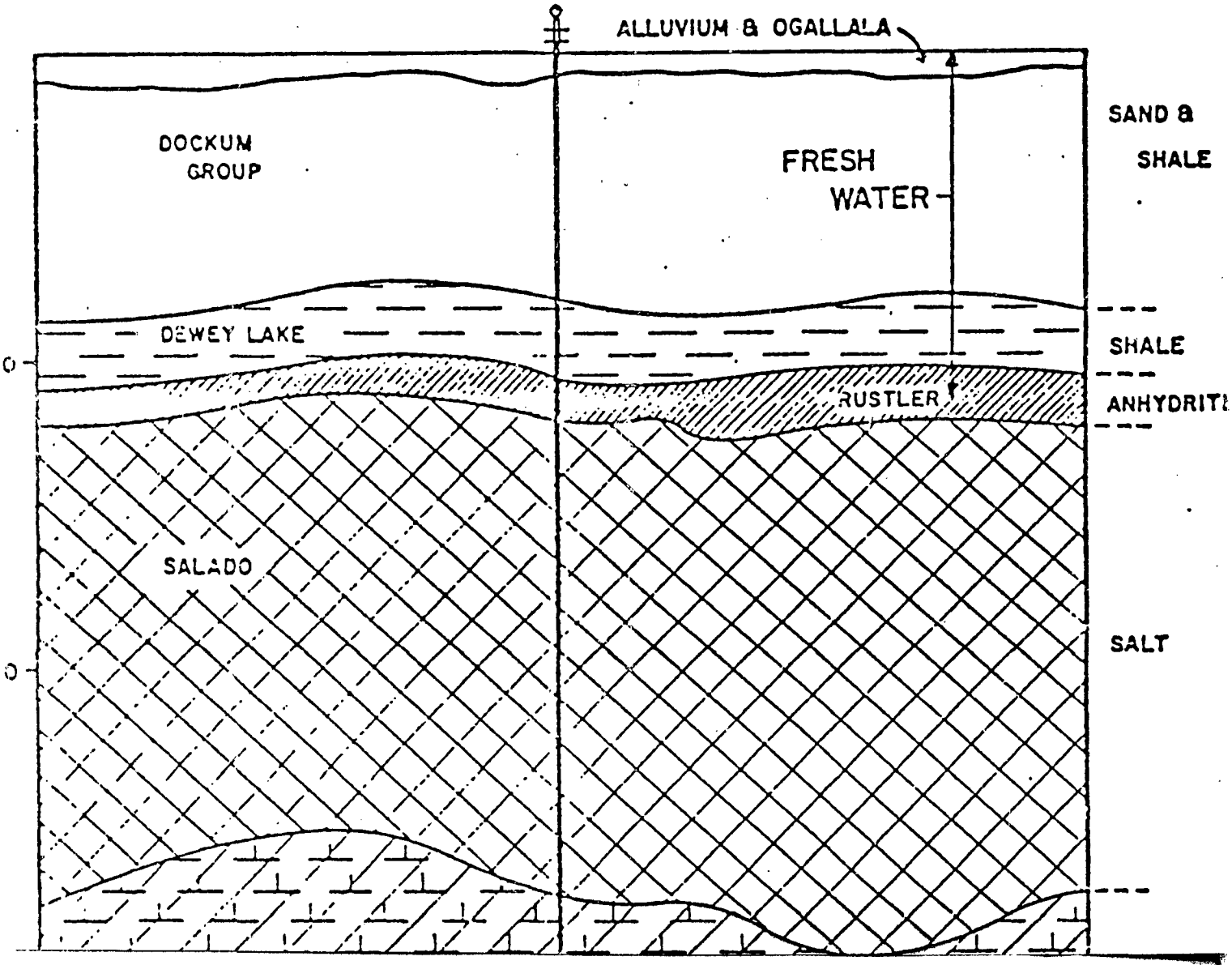


Exhibit XI

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

January 2, 1990

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

McCasland Services, Inc.
P. O. Box 99
Eunice, New Mexico 88231

Attention: Bob Calhoon

Re: $5,000 One-Well Plugging Bond
McCasland Services, Inc., Principal
Underwriters Indemnity Co., Surety
420' FNL and 210' FEL of Sec. 32,
T-21-S, R-37-E, Lea County
Bond No. BO 2070

Dear Mr. Calhoon:

The Oil Conservation Division hereby approves the above-captioned one-well plugging bond effective this date.

Sincerely,

WILLIAM J. LEMAY,
Director

dr/

cc: Oil Conservation Division
Hobbs, New Mexico

Underwriters Indemnity Co.
8 Greenway Plaza
Suite 1450
Houston, Texas 77046

Exhibit XII

Form O & G B-1
Adopted 6-17-77
Revised 11-01-89

STATE OF NEW MEXICO

ONE-WELL PLUGGING BOND

FOR CHAVES, EDDY, LEA, McKINLEY, RIO ARRIBA, ROOSEVELT, SANDOVAL, AND SAN JUAN COUNTIES ONLY

BOND NO. B02069
AMOUNT OF BOND $ 5,000
COUNTY Lea

NOTE: For wells less than 5,000 feet deep, the minimum bond is $5,000.00*
For wells 5,000 to 10,000 feet deep, the minimum bond is $7,500.00*
For wells more than 10,000 feet deep, the minimum bond is $10,000.00

*Under certain conditions, a well being drilled under a $5,000.00 or $7,500 bond may be permitted to be drilled as much as 500 feet deeper than the normal maximum depth, i.e., a well being drilled under a $5,000.00 bond may be permitted to go to 5,500 feet, and a well being drilled under a $7,500.00 bond may be permitted to go to 10,500 feet. (See Rule 101)

File with Oil Conservation Division, P. O. Box 2088, Santa Fe 87501

KNOW ALL MEN BY THESE PRESENTS:

That MCCASLAND SERVICES, INC., (~~an individual~~ ~~a partnership~~) (a corporation organized in the State of New Mexico, with its principal office in the city of Lea, State of New Mexico, and authorized to do business in the State of New Mexico), as PRINCIPAL, and UNDERWRITERS INDEMNITY COMPANY, a corporation organized and existing under the laws of the State of Texas, and authorized to do business in the State of New Mexico, as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of the Oil Conservation Division of New Mexico pursuant to Section 70-2-12, New Mexico Statutes Annotated, 1978 Compilation, as amended, in the sum of FIVE THOUSAND AND NO/100 Dollars lawful money of the United States, for the payment of which, well and truly to be made, said PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that:

WHEREAS, The above principal has heretofore or may hereafter enter into oil and gas lease, or carbon dioxide (CO_2) gas leases, or helium gas leases, or brine mineral leases with the State of New Mexico; and

WHEREAS, The above principal has heretofore or may hereafter enter into oil and gas leases, or carbon dioxide (CO_2) gas leases, or helium gas leases, or brine mineral leases on lands patented by the United States of America to private individuals, and on lands otherwise owned by private individuals; and

WHEREAS, The above principal, individually, or in association with one or more other parties, has commenced or may commence the drilling of one well not to exceed a depth of 1,692' feet, to prospect for and produce oil or gas, or carbon dioxide (CO_2) gas or helium gas, or does own or may acquire, own or operate such well, or such well started by others on land embraced in said State oil and gas leases, or carbon dioxide (CO_2) leases, or helium gas leases, or brine minerals, and on land patented by the United States of America to private individuals, and on land otherwise owned by private individuals, the identification and location of said well being being G.P. Simms #1 250' N. Line & 200' E. Line Section 32, Township 21 (~~North~~)(South) (Here state exact legal footage description) Range 37 (East)(~~West~~), N.M.P.M., Lea County, New Mexico.

NOW, THEREFORE, If the above bounden principal and surety or either of them or their successors or assigns, or any of them, shall plug said well when dry or when abandoned in accordance with the rules, regulations, and orders of the Oil Conservation Division of New Mexico in such way as to confine the oil, gas, brine, and water in the strata in which they are found, and to prevent them from escaping into other strata;

THEN, THEREFORE, This obligation shall be null and void; otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

Exhibit XIII

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

January 2, 1990

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

McCasland Services, Inc.
P. O. Box 99
Eunice, New Mexico 88231

Attention: Bob Calhoon

Re: $5,000 One-Well Plugging Bond
McCasland Services, Inc., Principal
250' FNL and 200' FEL of Sec. 32,
T-21-S, R-37-E, Lea County
Bond No. BO 2069

Dear Mr. Calhoon:

The Oil Conservation Division hereby approves the above-referenced single well plugging bond effective this date.

Sincerely,

WILLIAM J. LEMAY,
Director

dr/

cc: Oil Conservation Division
Hobbs, New Mexico

Underwriters Indemnity Co.
8 Greenway Plaza
Suite 1450
Houston, Texas 77046

Leavell/Danford Insurance Agency

914 Main
P.O. Box 1889
Eunice, New Mexico 88231

PHONES
(505) 394-2514
394-2515
397-4116

Exhibit XIV

CUSTOMER	CUST. NO.	STATEMENT DATE
MCCASLAND SERVICES, INC. P.O. BOX 99 EUNICE, NEW MEXICO 88240	MCCAS-2	12/28/93

STATEMENT
INVOICE

REFERENCE	DATE	POLICY NO.	DESCRIPTION	AMOUNT
BOND	12/14/93	BO2070	WELL PLUGGING BOND GP SIMS #2	$250.00
OND	12/14/93	BO2069	WELL PLUGGING BOND GP SIMS #1	$250.00

CURRENT	OVER 30 DAYS	OVER 60 DAYS	OVER 90 DAYS	PAY THIS AMOUNT	
				▶	$500.00

pd. CK # 1453 4/7/94

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 7, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-826

Mr. Bob Patterson
Sims-McCasland Water Sales
P.O. Box 99
Eunice, New Mexico 88231

RE: Notification of Cessation of Operations BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Patterson:

On February 9, 1994, Sims-McCasland received via certified mail, notice from the New Mexico Oil Conservation Division (OCD) that the discharge plan BW-009 for the Sims-McCasland Brine Station located in Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico would expire on April 6, 1994. In a certified letter dated April 25, 1994 the OCD notified Sims-McCasland that the discharge plan expired and that an application for renewal of the discharge plan must be received by May 13, 1994. Sims-McCasland responded by submitting an application for renewal on May 27, 1994.

In a certified letter dated June 2, 1994 the OCD requested 13 items of additional information prior to approval of the renewal application. On July 18, 1994 the OCD received documentation for only one of the items listed in the June 2, 1994 letter. In a certified letter dated December 2, 1994 the OCD notified Sims-McCasland that only one item of the additional information previously requested had been received, and requested that the remaining information be submitted. During an inspection on January 18, 1995 the OCD requested again that the remaining information be submitted. On February 9, 1995 the OCD contacted Sims-McCasland by telephone and established a date of March 1, 1995 for submittal of all additional information requested in the June 2, 1994 letter. On February 28, 1995 the OCD received one more required item, the results of Mechanical Integrity Test (MIT) performed on February 15, 1995.

The MIT submittal was the last correspondence with Sims-McCasland.

The discharge plan BW-009 has been expired for approximately eleven months, which constitutes a continuing violation of law, and Sims-McCasland has failed to submit the remainder of the additional information required to properly review the renewal application.

The OCD requires Sims-McCasland to submit the remainder of the 13 items of required information from the June 2, 1995 letter by April 1, 1995. If the requested information is not received by the aforementioned date, all operations are to cease effective April 2, 1995, and will not be allowed to recommence until all remaining information is received and Sims-McCasland receives OCD approval to restart operations.

If you have any questions concerning your discharge plan renewal, please contact Mark Ashley at (505) 827-7155.

Sincerely,

William J. LeMay
Director

WJL/mwa
Enclosure
xc: Jerry Sexton, OCD Hobbs Office
Wayne Price, OCD Hobbs Office

Z 765 962 826

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, March 1993

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

OIL CONSERVATION DIVISION
RECEIVED
'95 FEB 24 AM 8 52

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Mark Ashley-Environmental Geologist

From: Wayne Price-Environmental Engineer District I

Date: February 17, 1995

Reference: Sims-McCasland Brine Wells BW-009
Horizonal communication between Well #1 & 2.
Well record in Hobbs, G.P. Sims 32-21ts-r37e unit A.

Subject: MIT (Mechanical Integrity Test)

Comments:

Dear Mark,

Jerry Sexton requested I witness the MIT test on Feb. 15, 1995. Bob Patterson already had the wells pressured up when I arrived.

Please find the MIT results (chart attached) for your files. A 0-1000 # chart recorder was placed on the casing side (annulus) of well# 2 and a gauge was placed on the inlet tubing of well #1. Both instruments read the same 400 lbs. The pressure held for six hours as shown on the chart.

Please note there is an old water well located near the well #1 that was used in the past for supply water. This well bore is still open. Mr. Patterson indicated that they could use this as a monitor well if requested.

The past history of this brine facility, as with most brine facilities, might want you to at least sample this well for baseline reasons, plus the fact that they were suppose to submit this information some time ago as requested in the letter dated June 2, 1994. There are other domestic water wells in the area.

They are considering closing this water well, so now would be a good time for Sims-McCasland to grab a sample.

Also please reference the file, you should find a previous file memo from me to Bobby Myers dated June 5, 1994. Please note, that the memo indicated that only one of the two brine wells was being used at that time, this was in error. Both wells have been used for sometime now, please correct this memo. I have attached a new revised sketch of the system showing the additional brine well and water wells on site.

Also during your last visit Mr. Patterson requested that they be allowed to start some of the construction. He has ask me for permission to start work on the facility. He would like to order some of the materials such as the pit liner. If it appears that they will be able to obtain a permit, then I suggest we allow them to start work. Please let us know.

Recommendations:

I would like to recommend that we ask for water well samples for future reference.

Due to the amount of past spills I think we should address the contaminated soil on-site.

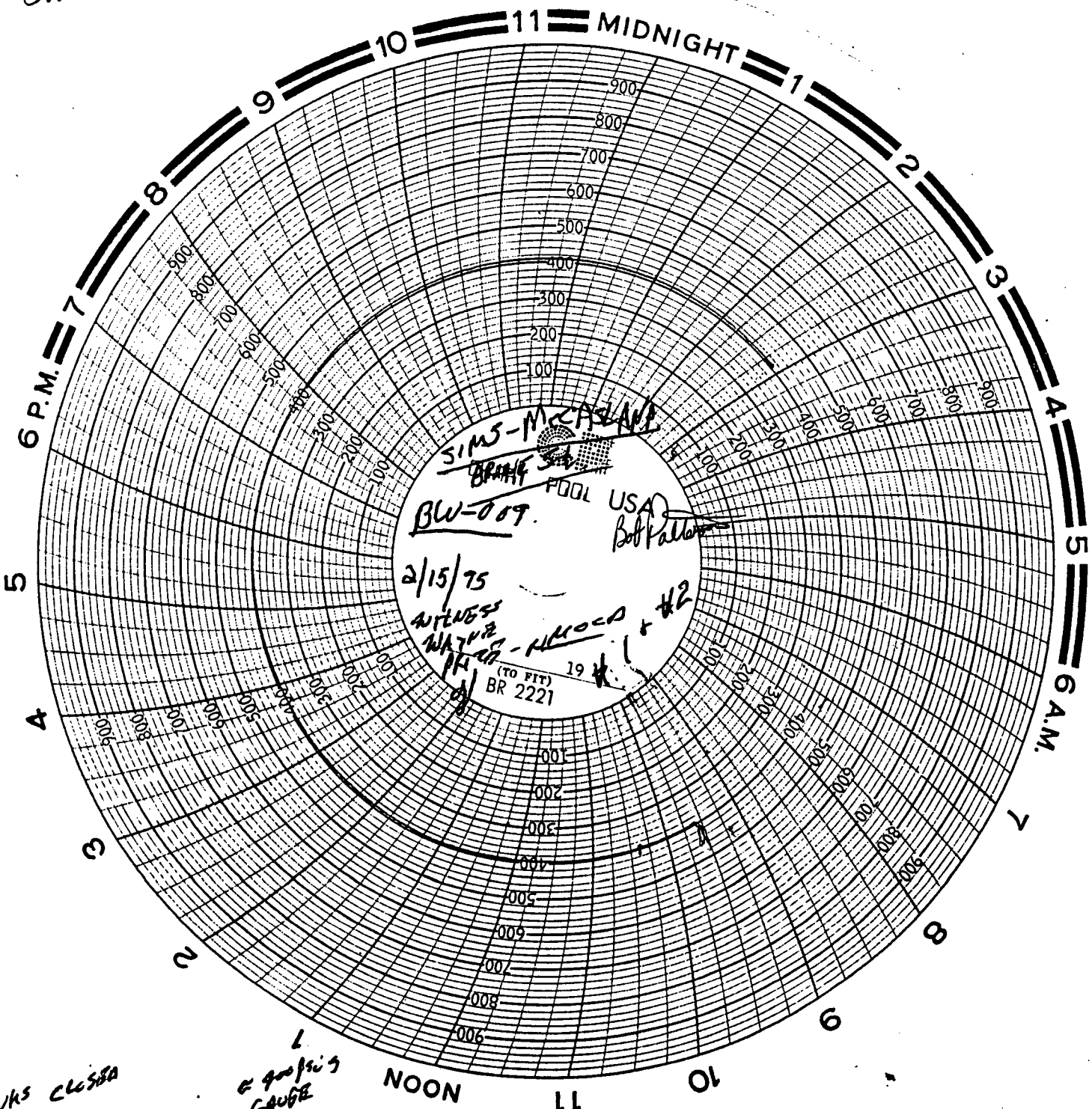
cc: Jerry Sexton-District I Supervisor

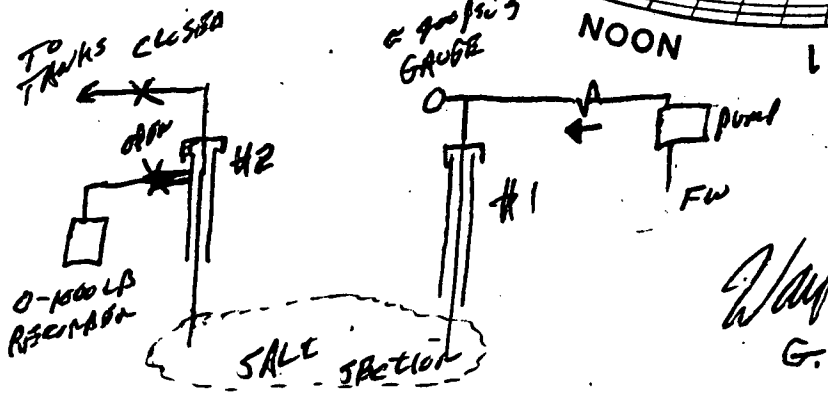
Attachments-2

MIT BRINE WELL

cc: TERRY GOEN
MARK ASHLEY

SIMS McCLAREN - BW-009





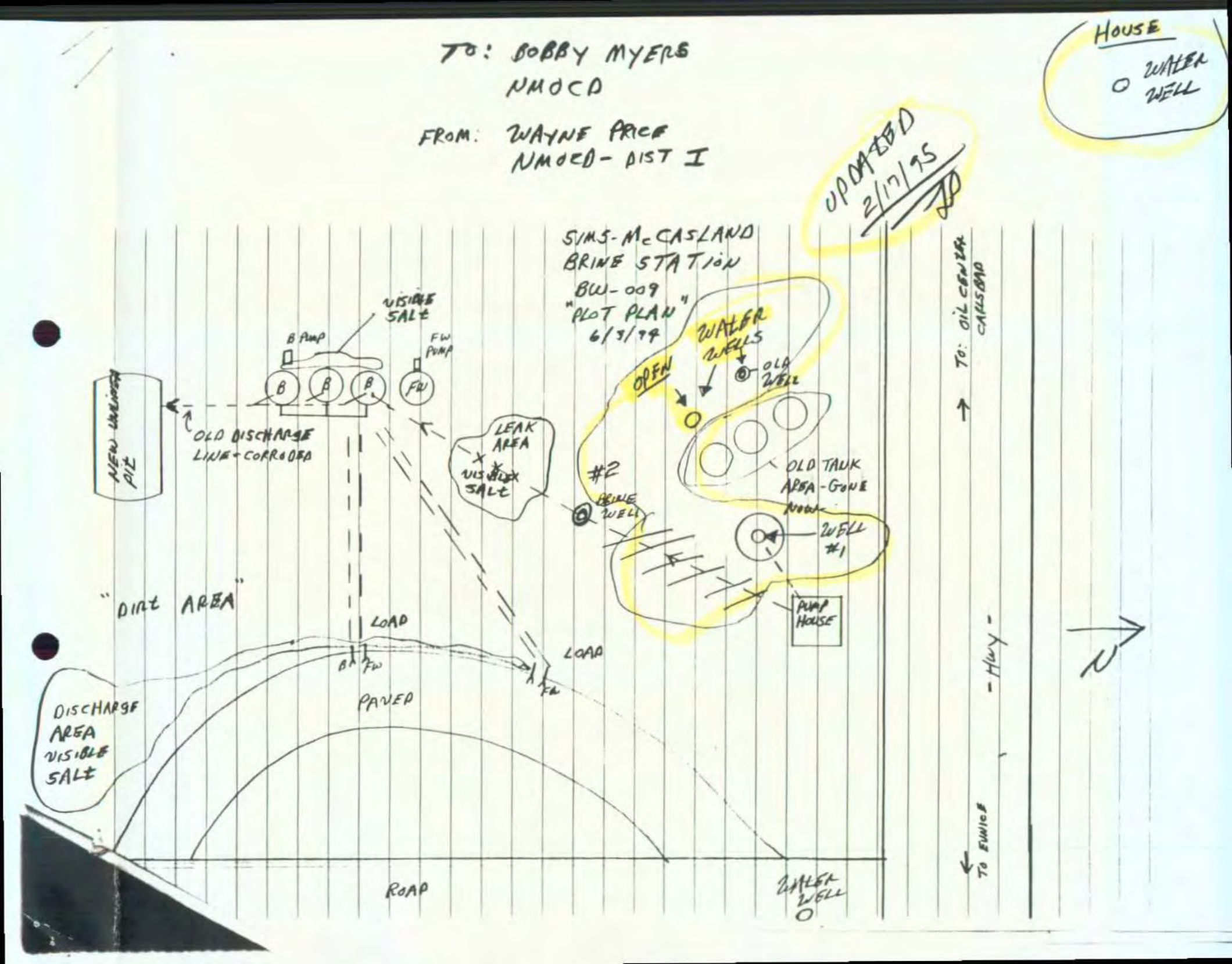
G.P. SIMS 32-21-37

#1 & #2

RECEIVED
FEB 15 1995
OCD HOBBS OFFICE

TO: BOBBY MYERS
NMOCD

FROM: WAYNE PRICE
NMOCD - DIST I



STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 9:45 AM | Date 2-9-95

Originating Party	Other Parties
MARK ASHLEY	BOB PATTERSON

Project BW-009

Discussion I asked when Bob could have all the information from the June 2, 1994 letter. He stated he would have it in by March 1, 1995.

Conclusions or Agreements

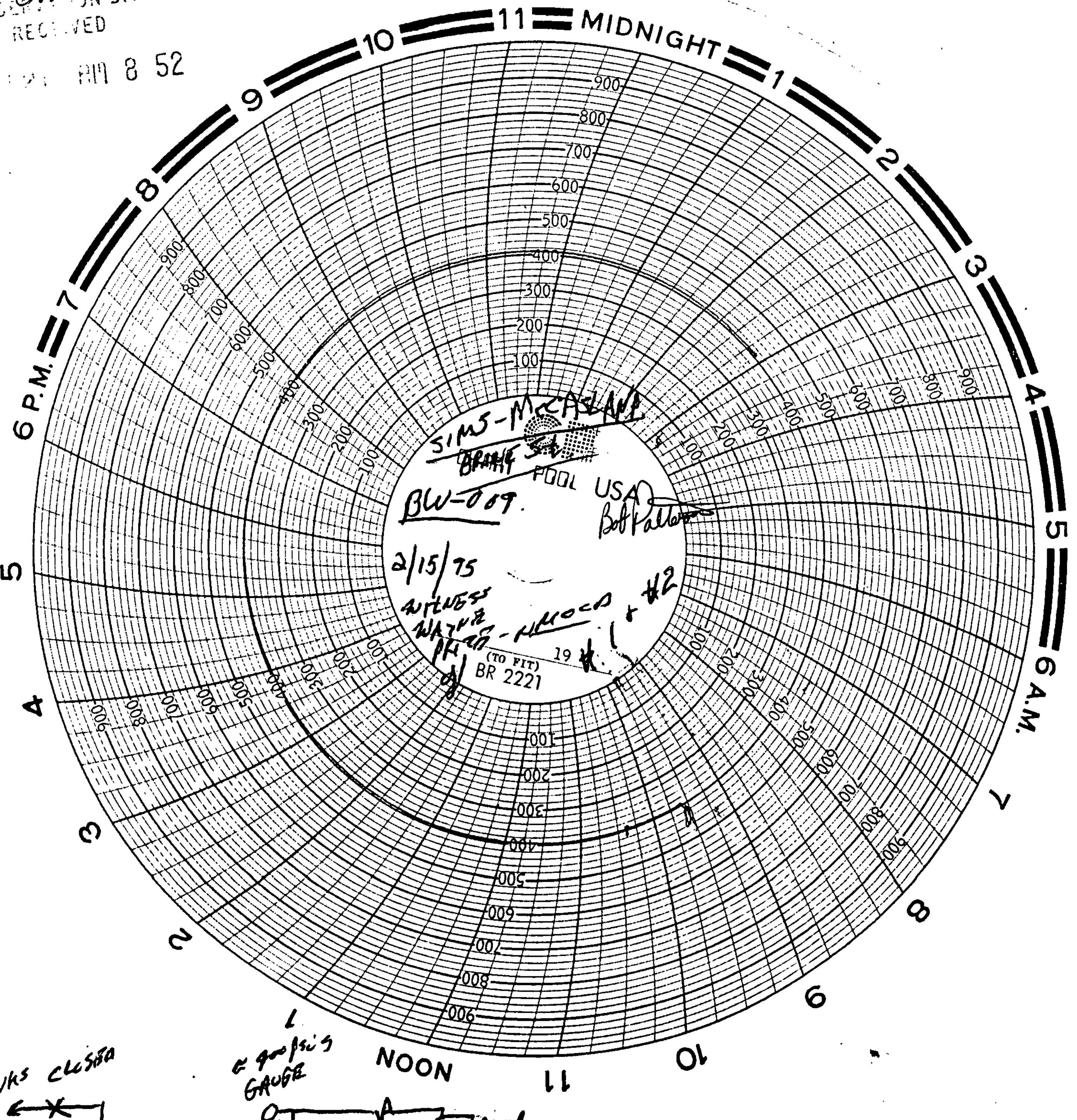
Distribution

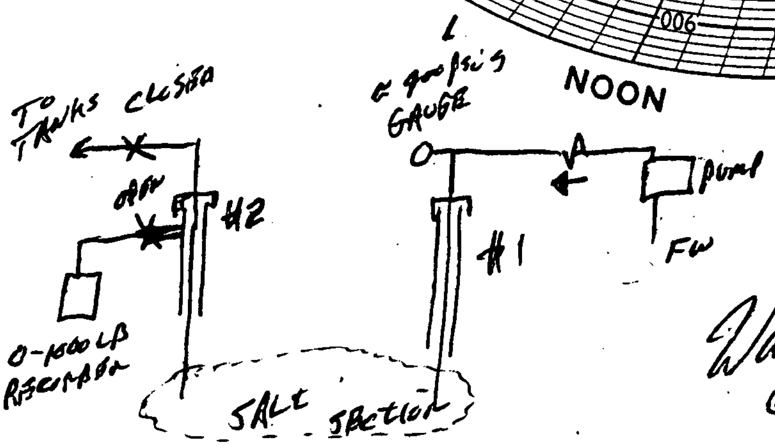
Signed Mark Ashley

MIT BRINE WELL

cc: TBRAY SBOXEN
MARK ASHLEY

SIMS McCASLAND - BW-009





Wayne Price

G.P. Sims 32-21-37
Unit A
#1 & #2

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

December 2, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-810

Mr. Bob Patterson
Simms-McCasland Water Sales
P.O. Box 98
Eunice, NM 88231

RE: Discharge Plan Renewal BW-009
Sims-McCasland Brine Station
Lea County, New Mexico

Dear Mr. Patterson:

On June 8 1994, Sims-McCasland Water Sales received, via certified mail, notice from the Oil Conservation Division (OCD) that the discharge plan BW-009 for the Sims-McCasland Brine Station, located in Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico required additional information prior to approval of the renewal application.

As of this date (December 2, 1994), the OCD has received documentation for only the redesigning of the loading facilities and new construction of the evaporation pit. If you wish to renew operations at this facility, the remainder of the request for additional information from the June 2, 1994 letter shall be submitted and approved by the OCD prior to renewal of the discharge plan. The information shall follow the Water Quality Control Regulations and the OCD's Guidelines for the Preparation of Ground Water Discharge Plans at Brine Extraction Facilities delivered to you with the OCD's February 9, 1994 renewal notice letter.

If there are any questions on this matter, please contact Mark Ashley at 827-7155 or Roger Anderson at 827-7152.

Sincerely,

Mark Ashley
Environmental Geologist
Environmental Bureau

XC: Wayne Price, OCD Hobbs Office

Z 765 962 810

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

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TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, March 1993

NMOCD Inter-Correspondence

To: Jerry Sexton-District I Supervisor

From: Wayne Price-Environmental Engineer District I

Date: September 19, 1994

Reference: Salado Brine Sales DP# 320

Subject: Closure Activities

Comments: After discussing this issue with Roger, he indicated that any activities associated with closure must first go thur their office for review.

Please advise!

Thanks!

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Suite D, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

September 8, 1994

Cons. #2-2-94-I-570

William J. Lemay, Director
New Mexico Water Quality Control Commission
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Lemay:

This responds to your agency's public notice dated July 25, 1994, regarding the State of New Mexico's proposal to renew the discharge plan for the applicant listed below.

> **(BW-009) - Sims-McCasland Water Sales, Bob Patterson, Manager, for the proposed Sims-McCasland Brine Station,** located in the NE/4 NE/4 of Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Approximately 200 barrels per day of 1.2 specific gravity brine water is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 to 160 feet with a total dissolved solids concentration of 2,500 to 3,000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

We recommend that all brine water produced by the applicant be contained within a pipe, closed storage tank, or transport vehicle. No produced water should be discharged into a surface impoundment or open-topped tank where it could become available to wildlife, except in the event of an accidental breach of a pipe or storage tank. So long as the above recommendation is implemented, the U.S. Fish and Wildlife Service (Service) has no objection to the Oil Conservation Division granting approval for the discharge plan application outlined above.

A second proposal to issue the following discharge permit was also included in the public notice:

> **(BW-024) - Scurlock Permian Corporation, Owen Mobley, Vice President for the proposed Carlsbad Brine Station,** located in the SE/4 NW/4 of Section 23, Township 22 South, Range 27 East, NMPM Eddy County, New Mexico. An average of 1,000 barrels per day of 1.2 specific gravity brine water will be produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth from approximately 50 to 200 feet with a total dissolved solids concentration of approximately 4,000 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

No information is provided in the public notice regarding the disposition of the land proposed for use in constructing the new brine station. The proposed construction site should be evaluated for impacts to species listed or proposed to be listed as endangered or threatened. Endangered species with potential of occurring in the Carlsbad area include the interior least tern, northern aplomado falcon, Pecos gambusia, and Lloyd's hedgehog cactus. In addition, the threatened Pecos bluntnose shiner, gypsum wild buckwheat, and Lee's pincushion cactus may occur in the vicinity of the proposed brine station. Under Section 7(a)(2) of the Endangered Species Act (Act), Federal agencies are required to consult with the Service on any action that "may affect" a listed species. The proposed project should be reviewed for the potential for impacts to these species, including indirect impacts such as those occurring downstream, downslope, or downwind.

Construction should also be designed in an attempt to avoid or minimize impact to the following category 1 candidate species: Arkansas River shiner, Pecos pupfish, and Pecos springsnail. The following category 2 candidate species may also be found in the project area (see enclosure): occult little brown bat, swift fox, Baird's sparrow, ferruginous hawk, loggerhead shrike, western snowy plover, white-faced ibis, blue sucker, Rio Grande shiner, Dunes sagebrush lizard, Texas horned lizard, Ovate vertigo (snail), Texas hornshell (mussel), shining coralroot, Tharp's bluestar, and Wright's water-willow. Category 1 candidates are those species for which the Service has substantial information to support their listing as endangered or threatened. Development and publication of proposed rules for these species is anticipated. Category 2 candidates are those species for which the Service has information indicating that proposing to list is possibly appropriate, but for which substantial data on biological vulnerability or threats are not currently available to support the immediate preparation of proposed rules. Candidate species have no legal protection under the Act and are included in this document for planning purposes only.

We recommend that all brine water produced by the applicant be contained within a pipe, closed storage tank, or transport vehicle. No produced water should be discharged into a surface impoundment or open-topped tank where it could become available to wildlife, except in the event of an accidental breach of a pipe or storage tank. So long as none of the above federally listed species are impacted, and all brine water is kept unavailable to wildlife, the Service has no objection to the Oil Conservation Division granting approval for the discharge plan application outlined above.

Thank you for the opportunity to review and comment on these discharge plan applications. If you have any questions, please contact Mark Wilson at (505) 883-7877.

Sincerely,

Sonja Jahnsdorf

for Jennifer Fowler-Propst
State Supervisor

Enclosure

cc: (wo/enc)
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico

Species List
Proposed Construction of a Brine Station
September 8, 1994

Endangered

Interior least tern (Sterna antillarum athalassos) - This species nests on sandy beaches on shorelines of streams, rivers and lakes and is found on Bitter Lake National Wildlife Refuge.

Authority: John P. Hubbard, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9925.

Northern aplomado falcon (Falco femoralis septentrionalis) - This species is very rare in New Mexico. The historic range of this bird includes Catron, Chaves, Dona Ana, Eddy, Grant, Hidalgo, Lea, Lincoln, Luna, Otero, Sierra, and Socorro Counties. This species is found in open woodland, savanna, or grassland habitats.

Authority: Sandy Williams, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9914.

Pecos Gambusia (Gambusia nobilis) - This species is found in the Bitter Lake National Wildlife Refuge in Chaves County.

Authority: Jim Johnson, U. S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, New Mexico 87103-1306, (505) 766-3972.

Lloyd's hedgehog cactus (Echinocereus lloydii) - This endangered species occurs in Carlsbad National Park and west of Artesia in Eddy County. It is associated with dry rocky hills, slopes, and limestone and granite outcrops at approximately 5,000 feet elevation.

Authority: Robert Sivinski, New Mexico Energy, Minerals and Natural Resources Department, Forestry and Resources Conservation Division, P.O. Box 1948, Santa Fe, New Mexico 87504-1948, (505) 827-7865.

Threatened

Pecos bluntnose shiner (Notropis simus) - Present distribution is in the Pecos River from Santa Rosa to Artesia. Essential habitat for this species includes permanent water, main river channel habitat with sandy substrate, and a low velocity flow. Backwaters, pools, and riffles are used by subadults. Natural springs have also been found to contain some individuals.

Authority: Gerald Burton, U.S. Fish and Wildlife Service, Ecological Services, 3530 Pan American Highway, NE., Suite D, Albuquerque, New Mexico 87107, (505) 883-7877, and Dr. David Propst, Department of Game and Fish, Santa Fe, New Mexico 87503, (505) 827-9906.

Gypsum wild buckwheat (Eriogonum gypsophilum) - This species is presently restricted to gypsum soils between Carlsbad Caverns National Park and the Pecos River and in the Seven River Hills in Eddy County.

Authorities: Richard Spellenburg, New Mexico State University, Las Cruces, New Mexico 88003-0001, (505) 646-3732, and Jess Juen, U.S. Bureau of Land Management, P.O. Box 1778, Carlsbad, New Mexico 88220, (505) 887-6544.

Lee pincushion cactus (Coryphantha sneedii var. leei) - This species occurs on the eastern edge of the Guadalupe Mountains on limestone slopes, ledges, and ridgetops at 4,100 to 5,900 feet.

Authority: Robert Sivinski, New Mexico Energy, Minerals and Natural Resources Department, Forestry and Resources Conservation Division, P.O. Box 1948, Santa Fe, New Mexico 87504-1948, (505) 827-7865

Category 1 Candidates

Arkansas River shiner (Notropis girardi) - this silvery minnow inhabits shallow, often broad, turbid and unshaded channels of major streams. Prefers uniformly sandy substrates. Native range is in the Canadian River drainages of northeastern New Mexico and has been introduced in the Pecos River.

Authority: Dr. David Propst, New Mexico Department of Game and Fish, Villagra Building, Santa Fe, New Mexico 87503, (505) 827-9901.

Pecos pupfish (Cyprinodon pecosensis) - This species is found in the Pecos River and closely associated waters of the floodplain from Bitter Lake National Wildlife Refuge south into Texas. This species occurs in many habitats, but is most abundant in highly saline waters.

Authority: Dr. David Propst, New Mexico Department of Game and Fish, Villagra Building, Santa Fe, New Mexico 87503, (505) 827-9901.

Pecos springsnail (Fonticella pecosensis) - A minute snail with a narrowly elongate shell. It is found in mud and pebble substrate in natural springs.

Authority: Dr. Patricia Mehlhop, New Mexico Natural Heritage Program, University of New Mexico, 2500 Yale Blvd., SE, Albuquerque, New Mexico 87131-1091, (505) 277-1991.

Category 2 Candidates

Occult little brown bat (Myotis lucifugus occultus) - This species is a montane dweller and roosts in natural caves, mine tunnels, hollow trees, or buildings.

Authority: Scott Altenbach, University of New Mexico, Department of Biology, Albuquerque, New Mexico 87131, (505) 277-3411.

Swift fox (Vulpes velox) - prefers open desert and plains. Usually found in short-grass prairie with loose sandy soil.

Authority: John Hubbard, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9925.

Baird's sparrow (Ammodramus bairdii) - Baird's sparrow occupies areas of open prairie grassland with patches of shrubbery such as wolfberry, wild rose, and willow. The species also occupies moist meadows and tall grass prairies associated with dense grass or other dense herbaceous vegetation.

Authority: None.

Ferruginous hawk (Buteo regalis) - Found almost statewide during migration. This bird seems to key in on wide open grasslands and prairies, especially for nesting.

Authority: Sandy Williams, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9914.

Loggerhead shrike (Lanius ludovicianus) - This species inhabits grass/shrubland, open woodland, and chaparral. The bird is rare to fairly common at lower and locally at middle elevations; casual at higher elevations. Resident statewide.

Authority: Steve Lewis, U.S. Fish and Wildlife Service, Bishop Henry Whipple Federal Building, One Federal Drive, Fort Snelling, Minnesota, 55111-4056, (612) 725-313.

Western snowy plover (Charadrius alexandrinus nivosus) - Inhabits flat sandy areas, alkali flats, and areas near water which are devoid of vegetation or have very little vegetation.

Authority: Sandy Williams, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9914.

White-faced ibis (Plegadis chihi) - This species inhabits salt and freshwater marshes, shallow margins of muddy pools, ponds, and rivers.

Authority: Sandy Williams, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9914.

Blue sucker (Cycleptus elongatus) - Inhibits deep river channels, pools with moderate currents, reservoirs and deep lakes. Preferred habitat are run-riffles in large rivers.

Authority: Mr. Gerald Burton, U.S. Fish and Wildlife Service, New Mexico Ecological Services Office, 3530 Pan American Highway, NE., Suite D, Albuquerque, New Mexico 87107, (505) 883-7877.

Rio Grande shiner (Notropis jemezanus) - This species is a small (up to 3 inches) silvery fish with a dark, lateral stripe. The body is elongated and moderately compressed. The dorsal fin is triangular, pectoral bluntly pointed, pelvic short and truncate, and anal falcate. There are no spines on the dorsal fin. It inhabits open rivers and streams with gravel, sand, or cobble bottoms sometimes overlain with silt.

Authority: Dr. David Propst, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9906.

Dunes sagebrush lizard (Sceloporus arenicolous) - This species found in areas of bare sand in active sand dune areas of southeastern New Mexico and adjacent regions of Texas. Associated vegetation may include dwarf shinnery oak, sand sagebrush, and prairie yuccas. Research has indicated a strong correlation between shinnery oak removal and population declines in this species.

Authority: Charlie Painter, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9901.

Texas horned lizard (Phrynosoma cornutum) - Dark stripes radiate from the eye region on each side of its face. Two rows of pointed fringe scales on each side of the body. The lizard inhabits arid and semiarid open country with sparse plant growth--bunch grass, cactus, juniper, acacia, and mesquite. The substrate may be of sand, loam, hardpan, or rock. Some loose soil is usually present in which these lizards bury themselves. They also seek shelter under shrubs, in burrows of other animals, or among rocks.

Authority: Charlie Painter, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, New Mexico 87504, (505) 827-9901.

Ovate vertigo snail (Vertigo ovata) - this species is found in a low elevation marsh environment within a few meters of springbrooks, under cover of plants and litter, and on moist soil.

Authority: Mr. Gerald Burton, U.S. Fish and Wildlife Service, New Mexico Ecological Services Office, 3530 Pan American Hwy. NE., Suite D, Albuquerque, New Mexico 87107, (505) 883-7877.

Texas hornshell (Popenaias popei) - This species is found only in Eddy County, New Mexico. Very litte is known about this invertebrate.

Authority: None.

Shining coral root (Hexalectris nitida) - Terrestrial saprophyte with smooth, stout, slender, red-purple "stems" arising from a fleshy rhizome. It is found in moist, shaded canyons at mid to higher elevations, in pinyon-juniper, oak, and riparian woodlands.

Authority: Robert Sivinski, New Mexico Energy, Minerals and Natural Resources Department, Forestry and Resources Conservation Division, P.O. Box 1948, Santa Fe, New Mexico 87504-1948, (505) 827-7865.

Tharp's bluestar (Amsonia tharpii) - A low, herbaceous perennial having a woody rootstock. Stems are about 8 inches tall and covered with small, shaggy hairs. Leaves are 2 inches long and 1/2 inch wide. Leaves are crowded in the axils and dimorphic: Upper leaves are linear to linear-lanceolate: and lover leaves are elliptic-lanceolate. The inflorescence is terminal, few-flowered, and appear int April-May. The flowers occur on short pedicels with long hairs. The trumpet shaped flowers are pale blue-green white in color and have five elliptical-spreading petals. Occurs on limestone hills in the Transpecos area of Texas (Pecos County) and New Mexico (Eddy County).

Authority: Robert Sivinski, New Mexico Energy, Minerals and Natural Resources Department, Forestry and Resources Conservation Division, P.O. Box 1948, Santa Fe, New Mexico 87504-1948, (505) 827-7865.

Wright's water willow (Justicia wrightii) - A low branched perennial, with grey colored stems up to 8 inches tall. Leaves are rigid, obovate, and less than 1 inch in length. Flowers are solitary and sessile in the upper axils, somewhat bell-shaped with 2 lobes, about 8 mm in length and purplish-pink in color. Apparently, the flowers are short lived. Very little is known about habitat requirements other than it was collected on calcareous hills near Carlsbad, in Eddy County, New Mexico. This species is also known from the Edward Plateau of Texas. Warnock's water willow (J. warnockii) is sympatric with wright's water willow in New Mexico and west Texas.

Authority: Dr. Robert Sivinski, New Mexico Energy, Minerals and Natural Resources Department, Forestry and Resources Conservation Division, P.O. Box 1948, Santa Fe, New Mexico 87504-1948, (505) 827-7865.

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan and discharge plan renewal application have been submitted to the Director of the Oil Conservaiton Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(BW-024) - Scurlock Permian Corporation, Owen Mobley, Vice President, P.O. Box 4648, Houston, Texas, 77210-4648, has submitted a discharge plan application for their proposed Carlsbad Brine Station, located in the SE/4 NW/4 of Section 23, Township 22 South, Range 27 East, NMPM, Eddy County, New Mexico. An average of 1000 barrels per day of 1.2 specific gravity brine water will be produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth from approximately 50 to 200 feet with a total dissolved solids concentration of approximately 4000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(BW-009) - Sims-McCasland Water Sales, Bob Patterson, Manager, P.O. Box 98, Eunice, New Mexico, 88231, has submitted an application for the renewal of a discharge plan for the Sims-McCasland Brine Station, located in the NE/4 NE/4 of Section 32, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Approximately 200 barrels per day of 1.2 specific gravity brine water is produced for use in the oil industry. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of 140 to 160 feet with a total dissolved solids concentration of 2500 to 3000 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held.

A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 25th day of July, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/William J. LeMay, Director

Journal: August 2, 1994.

STATE OF NEW MEXICO
County of Bernalillo ss

OIL CONSERVATION DIVISION
RECEIVED
'94 SEP 9 AM 8 50

Bill Tafoya being duly sworn declares and says that he is Classified Advertising Manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being on the 2 day of August, 1994 and the subsequent consecutive publications on _____, 1994

Bill Tafoya

OFFICIAL SEAL
Megan Millage
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-20-98

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 2 day of Aug, 1994.

PRICE $42.28

Statement to come at end of month.

CLA-22-A (R-1/93) ACCOUNT NUMBER C80932

OK to pay CG

Affidavit of Publication

No. 14782

STATE OF NEW MEXICO,

County of Eddy:

Gary D. Scott being duly sworn, says: That he is the Publisher of The Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 days consecutive weeks on the same day as follows:

First Publication August 3, 1994

Second Publication

Third Publication

Fourth Publication

Gary D. Scott

Subscribed and sworn to before me this 16th day of August 19 94

Barbara Ann Boone
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1996

Copy of Publication

the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 25th day of July, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION
DIVISION
s- William J. LeMay
WILLIAM J. LEMAY
Director

SEAL

Published in the Artesia Daily Press, Artesia, N.M. August 3, 1994.

Legal 14782

LEGAL NOTICE

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

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan and discharge plan renewal application have been submitted to

NOTICE OF PUBLICATION

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

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A hearing will be held if the Director determines there is significant public interest.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 25th day of July, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

WILLIAM J. LEMAY, Director