1	PTGAL
DATE IN	6,4,12 SUSPENSE ENGINEER/1/1/J LOGGED IN 6,4,12 TYPES/11/D APP NO/215643039
	ABOVE THIS LINE FOR DIVISION USE ONLY NEW MEXICO OIL CONSERVATION DIVISION - Engineering Bureau - 1220 South St. Francis Drive, Santa Fe, NM 87505 - Hospak SWD 33 - Hospak SWD 33
	ADMINISTRATIVE APPLICATION CHECKLIST 30 - 031 - 2012 9
T Appli	 'HIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE cation Acronyms: [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] [DHC-Downhole Commingling] [CTB-Lease Commingling] [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] [WFX-Waterflood Expansion] [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase] [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]
[1]	TYPE OF ADDI ICATION Check These Which Apply for [A]
[1]	[A] Location - Spacing Unit - Simultaneous Dedication NSL NSP SD
	Check One Only for [B] or [C] [B] Commingling - Storage - Measurement DHC CTB PLC PC OLS OLM
	[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery SOUTH HOSPAH SWD 33
	[D] Other: Specify
[2]	NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply [A] X Working, Royalty or Overriding Royalty Interest Owners
	[B] X Offset Operators, Leaseholders or Surface Owner
	[C] X Application is One Which Requires Published Legal Notice $\frac{3}{760}$
	[D] X Notification and/or Concurrent Approval by BLM or SLO U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
	[E] X For all of the above, Proof of Notification or Publication is Attached, and/or,
	[F] 🗍 Waivers are Attached
[3]	SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE
[4] appro	CERTIFICATION: I hereby certify that the information submitted with this application for administrative oval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

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application until the required information and notifications are submitted to the Division.

Signature

1 t

Print or Type Name

CONSULTANT	10-31-11
Títle	Date

_	_	_	_
Da	ite		

brian@permitswest.com

e-mail Address

lexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John H. Bemis Cabinet Secretary

New M

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey Division Director Oil Conservation Division



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February 17, 2012

Nacogdoches Oil and Gas, Inc. Attn: Taylor Mathews 816 North Street Nacogdoches, Texas 75961

Email: taylor.mathews@nogtx.com

Re: Operator: Nacogdoches Oil and Gas, Inc. — OGRID #256689 Agreed Compliance Order 252

Dear Operator:

Enclosed is your copy of executed Agreed Compliance Order 252 (ACO 252).

ACO 252 allows Nacogdoches Oil and Gas, Inc. (NOG) to obtain an injection permit for the South Hospah Unit #033 (30-031-20124) without being barred by 19.15.5.9 NMAC, and in exchange, NOG has agreed to bring the South Hospah Unit #033 into compliance with 19.15.25.8 NMAC (the inactive well rule) by August 16, 2012 if it is the operator of record of the well on that date.

NOG should attach a copy of this letter to its injection permit application so that the engineering bureau of the Oil Conservation Division knows that NOG has Division approval to proceed and obtain an injection permit for the South Hospah Unit #033.

Please feel free to call me if you have any questions.

Sincerely,

Son My Swazo Assistant General Counsel, OCD

CC: Daniel Sanchez, OCD Enforcement and Compliance Manager William Jones, OCD Engineering Bureau David Burns, Dominion Production Company, LLC, <u>burnsdavid@verizon.net</u>

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

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance XXX Disposal Storage Application qualifies for administrative approval? Yes No							
II.	OPERATOR: NACOGDOCHES OIL AND GAS, INC.							
	ADDRESS: P. O. BOX 632418, NACOGDOCHES, TX 75963							
	CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120							
Щ.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.							
IV.	Is this an expansion of an existing project? Yes XXX No If yes, give the Division order number authorizing the project:							
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.							
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.							
VII.	Attach data on the proposed operation, including: <u>SOUTH HOSPAH SWD 33</u>							
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). 							
*VIII.	I. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.							
IX.	Describe the proposed stimulation program, if any.							
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).							
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.							
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.							
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.							
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.							
	NAME: BRIAN WOOD /							
	SIGNATURE: DATE: OCTOBER 31, 2011							
*	E-MAIL ADDRESS: brian@permitswest.com If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:							

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.
- XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 2

INJECTION WELL DATA SHEET



Side 1

INJECTION WELL DATA SHEET

Tub	bing Size: 2-3/8" J-55 4.7# Lining Material:		
Ту	pe of Packer: BAKER TENSION PACKER		
Pac	cker Setting Depth: 3,794' (18' ABOVE TOP OF OPEN HOLE)		
Oth	her Type of Tubing/Casing Seal (if applicable):		
	Additional Data		
1.	Is this a new well drilled for injection? (DISPOSAL)Yes XXX No		
	If no, for what purpose was the well originally drilled?		
	OIL WELL (HOSPAH SOUTH LOWER SAND)		
2.	Name of the Injection Formation: SWD; ENTRADA		
3.	Name of Field or Pool (if applicable): <u>SWD; ENTRADA</u> (POOL CODE 96436)		
4.	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.		
	OPEN HOLE 1,647' - 1,660'; WILL RUN LINER ACROSS INTERVAL & CEMENT	то	SURFACE
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:		
	OVER: UPPER HOSPAH (1,590'), LOWER HOSPAH (1,648'), DAKOTA (2,507')	
	UNDER: NONE WITHIN DOZENS OF MILES		

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General Purpose Worksheet



I. Purpose is water disposal into the Entrada zone.

 II. Operator: Nacogdoches Oil and Gas, Inc. Operator phone number: (936) 560-4747
 Operator address: P. O. Drawer 632418 Nacogdoches, TX 75963
 Contact: Brian Wood (Permits West, Inc.) Phone: (505) 466-8120

III. A. (1) Lease: BLM lease NMNM-012335 (excludes Upper Hospah Sand) Lease Size: 344.08 acres (see Exhibit A) Lease Area: NW4, W2NE4, & Lots 1-4; T. 17 N., R. 9 W. Closest Lease Line: 1,300' Well Name & Number: South Hospah SWD 33* (API 30-031-20124) *The well is currently South Hospah Unit 33, a shut-in Hospah Lower Sand, South water injection well. Unit has been terminated. Location: 1340' FNL and 1710' FWL Sec. 12, T. 17 N., R. 9 W. (Form C-102, Exhibit B)

A. (2) Surface casing (10-3/4", 32.75#) was set in 1969 at 61' in a 13-3/4" hole. Surface casing was cemented with 70 sacks of an unknown type of cement. Sundry Notice dated 9-12-69 indicates cement circulated to the surface.

Well was drilled to a TD of 1,660'. Production casing (7", 20#) was set at 1,647' in a 9-7/8" hole. Cemented with 125 sacks (type cement unknown) to a calculated top of \approx 1,250' based on 50% excess. Well was completed as an open hole in the South Hospah Lower Sand from 1,647' to 1,660'.

Plan to deepen the well and drill a 6-1/4" hole to 3,900' and then run a cement bond log prior to (and after) running the liner. Will run a 4-1/2", 10.5#, J-55 liner and set it at 3,812' (open hole completion). Will set a Type A open hole packer shoe in a hard



limestone cap that is just above the Entrada top (3,812'). Cement with 277 sacks (25% excess) premium light + 1% calcium chloride from 3,812' to 1,647'. Cement with 192 sacks premium light + 1% calcium chloride from 1,647' to surface.

- A. (3) Tubing will be 2-3/8", J-55, 4.7#. It will be set at \approx 3,791' (within 50', less the packer) which will be 21' above the top of the open hole.
- A. (4) A Baker Tension packer will be set at ≈3,794' (which will be 18' above the top of the open hole).
- B. (1) Disposal zone will be the Entrada sandstone (pool code 96436).
- B. (2) Disposal interval will be 3,812' to 3,900' (open hole).
- B. (3) Well was drilled by Tenneco in 1969 to 1,660'. It was completed as an open hole (1647' - 1660') Hospah Lower Sand, South oil well (pool code 33070). Well history is:

September 7, 1969 by Tenneco

spud well and drill to 64' set 2 joints 10-3/4" 32.75 casing in 13-3/4" hole at 61' cemented with 70 sacks and circulated to surface

September 10, 1969 by Tenneco

reach TD at 1,660' set 7" 20# casing in 9-7/8" hole at 1,647' cement with 125 sacks

September 12, 1969 by Tenneco ran 51 joints 2-7/8" EUE 6.5# tubing landed at 1,640' ran 2-1/4" pump on 65 of 3/4" x 25' sucker rods

September 7, 1972 by Tenneco receive approval (Case 4793, Order R-4389) from OCD for water injection



> <u>September 25, 1972 by Tenneco</u> Pull rods, tubing, & pump Set AD-1 tension packer at 1,596' run 50 joints 2-7/8" 6.4# J-55 internally plastic coated tubing

October 4, 1972 by Tenneco start injection at 140 Mcfd and 720 bwpd at 800 psi

November 1, 1987 Citation Oil & Gas Corp. succeeds Tenneco as operator

<u>May 17 - 31, 1991 by Citation</u> leak found from 160' to 515' squeezed with 180 sacks Class B and circulated to surface set packer at 1,592' and pressure test to 100 psi.

September 6, 1994 BC & D Operating, Inc. succeeds Citation as operator

> December 11, 2004 by BC & D Bradenhead test tubing to 190 psi

December 1, 2005 Mountain States Petroleum Corp. succeeds BC & D as operator

<u>August 31, 2007</u> Nacogdoches succeeds Mountain Sates as operator

Well will be for Nacogdoches' exclusive use and for the sole purpose of water disposal from present and future Nacogdoches wells.

- B. (4) Well bore has not been perforated. It is currently open hole from 1,647' to 1,660'. This interval will be covered with a cemented liner from the surface to 3,812'.
- **B. (5)** Top of the Entrada is at 3,812'. Bottom of the Entrada is at >3,900'. Proposed disposal interval will 3,812' 3,900'



PAGE 4

NACOGDOCHES OIL AND GAS, INC. SOUTH HOSPAH SWD 33 1340' FNL & 1710' FWL SEC. 12, T. 17 N., R. 9 W. McKINLEY COUNTY, NM

> Bottom of the closest oil or gas zone (Dakota) is at $\approx 2,739'$. There will be a $\approx 1,073'$ interval between the bottom of the Dakota and the top of the Entrada. Closest (686' northeast) historic Dakota producer is Nacogdoches' South Hospah 10 (30-031-60017). It has since been plugged back and it is now a Hospah Lower Sand, South oil well. Closest current Dakota producer is Nacogdoches' Whigham 3 (30-031-2-129) which is 2,272' southwest.

> There is no underlying producing zone. Oil is being produced elsewhere in the San Juan Basin from the Entrada. However, closest historic Entrada production is in the now plugged and abandoned Snake Eyes Field which is ≈ 21 miles north (20-21n-8w).

IV. This is not an expansion of an existing injection project. There is a water flood in the Hospah Field. However, all producing wells benefitting from that water flood are Hospah oil wells. This will be purely an Entrada disposal well.

V. A map (Exhibit C) showing the 59 existing wells within the half mile radius area of review is attached. (An 60th well is 11' beyond the 1/2 mile radius and is also included.) Only one of the wells penetrated the Entrada. That well is Nacogdoches' South Hospah 9 (30-031-20013). It is an Entrada SWD and is 2,103' northeast. All of the remaining wells were Mancos, Hospah Dakota, Hospah Upper Sand, South (HUSS), or Hospah Lower Sand, South (HLSS), or Hospah Lower and Upper Sands South (HLUSS). A tabulation of the wells within the half mile radius follows.

<u>OPERATOR</u>	<u>WELL</u> <u>A</u>	<u>PI 30-031-</u>	<u>t. 17 n., r. 9 W.</u>	ZONE	<u>STATUS</u>	TD	DISTANCE
Nacogdoches	S. Hospah 37X	20135	NWNW Sec. 12	HLSS	WO	1666'	434'
Citation	Hospah 34	20123	SENW Sec. 12	HLSS	P&A	1661'	480'
Nacogdoches	S. Hospah 14	20053	SWNW Sec. 12	HLSS	WO	1758'	516'
Nacogdoches	S. Hospah 47	20361	NENW Sec. 12	HLSS	OW	1780'	558'
Nacogdoches	S. Hospah 52	20243	NENW Sec. 12	HUSS	WIW	1622'	635'

PROVIDING PERMITS for LAND USERS

INC.

PAGE 5

NACOGDOCHES OIL AND GAS, INC. SOUTH HOSPAH SWD 33 1340' FNL & 1710' FWL SEC. 12, T. 17 N., R. 9 W. McKINLEY COUNTY, NM

<u>OPERATOR</u>	WELL_	<u>API 30-031-</u>	<u>T. 17 N., R. 9 W.</u>	ZONE	<u>STATUS</u>	TD	DISTANCE
Nacogdoches	S. Hospah 11	20016	SENW Sec. 12	HLSS	W	1774'	675'
Nacogdoches	S. Hospah 10	60017	NENW Sec. 12	HLSS	OW	2827'	686'
Nacogdoches	S. Hospah 4	05145	NENW Sec. 12	HUSS	OW	1640'	694'
Nacogdoches	S. Hospah 16	20056	SENW Sec. 12	HUSS	W	1710'	746'
Nacogdoches	S. Hospah 13	20054	SENW Sec. 12	HLUSS	OW	1720'	944'
Nacogdoches	S. Hospah 32	20125	NENW Sec. 12	HLUSS	OW	1647'	1029'
Nacogdoches	S. Hospah 46	20360	SWNW Sec. 12	HLSS	OW	1696'	1072'
Nacogdoches	S. Hospah 12	20020	SWNW Sec. 12	HLSS	OW	1840'	1091'
Nacogdoches	S. Hospah 48	20362	SWNE Sec. 12	HUSS	OW	1635'	1091'
Citation	S. Hospah 65	20614	SWNE Sec. 12	HUSS	P & A	1715'	1134'
Nacogdoches	S. Hospah 2	05139	SENW Sec. 12	HUSS	WO	1637'	1140'
Tenneco	Core Hole 1	20776	SWNE Sec. 12	HLSS	P&A	1719'	1167'
Nacogdoches	S. Hospah 51	20242	SWNW Sec. 12	HUSS	WIW	1662'	1173'
Tenneco	Hospah 67	20616	SWNW Sec. 12	HUSS	P & A	1715'	1198'
Tenneco	Core Hole 2	20777	SWNE Sec. 12	HLSS	P & A	1742'	1220'
Nacogdoches	S. Hospah 5	05146	NWNE Sec. 12	HUSS	WIW	1645'	1236'
Citation	Hospah 66	20615	SWNE Sec. 12	HUSS	P&A	1715'	1271'
Nacogdoches	S. Hospah 36	20118	NWNE Sec. 12	HLSS	WIW	1635'	1341'
BC & D	S. Hospah 18	20058	SWNE Sec. 12	HUSS	WIW	1750'	1355'
Nacogdoches	S. Hospah 61	20546	NWNE Sec. 12	HLSS	OW	1715'	1405'
Nacogdoches	S. Hospah 31	20122	NWNE Sec. 12	HLSS	OW	1651'	1490'
Nacogdoches	S. Hospah 17	20057	SWNE Sec. 12	HUSS	WIW	1787'	1585'
Nacogdoches	S. Hospah 24	20091	NWNE Sec. 12	HLSS	WO	1,711'	1602'
Petroleum	Santa Fe 46	05155	SESW Sec. 1	HLSS	P & A	1642'	1671'
Nacogdoches	Santa Fe 84	20372	SWSE Sec. 1	HLSS	WIW	1656'	1674'
Nacogdoches	S. Hospah 59	20410	SWNE Sec. 12	HLUSS	WIW	1657'	1725'
Nacogdoches	S. Hospah 21	05134	NESW Sec. 12	HUSS	WO	1647'	1733'
Nacogdoches	S. Hospah 15	20055	SWNW Sec. 12	HUSS	OW	1790'	1802'
Nacogdoches	S. Hospah 49	20363	NWNE Sec. 12	HLSS	OW	1639'	1839'
Nacogdoches	S. Hospah 57	20408	SWNW Sec. 12	HLSS	WIW	1746'	1860'
Nacogdoches	S. Hospah 22	05498	NWSW Sec. 12	HUSS	OW	1734'	1867'

EST, INC. S PROVIDING PERMITS for LAND USERS

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PAGE 6

NACOGDOCHES OIL AND GAS, INC. SOUTH HOSPAH SWD 33 1340' FNL & 1710' FWL SEC. 12, T. 17 N., R. 9 W. McKINLEY COUNTY, NM

<u>OPERATOR</u>	<u>WELL</u>	<u>API_30-031-</u>	<u>T. 17 N., R. 9 W.</u>	ZONE	<u>STATUS</u>	TD	<u>DISTANCE</u>
Nacogdoches	S. Hospah 8	20015	SWNE Sec. 12	HLSS	WO	1709'	1876'
Nacogdoches	S. Hospah 1	05142	SWNE Sec. 12	HUSS	OW	1565'	1953'
Nacogdoches	S. Hospah 30	20121	NWNE Sec. 12	HLUSS	OW	1622'	1958'
Whigham	CTV Hospah 1	05143	SWNE Sec. 12	Mancos	P & A	688'	1961'
BC&D	S. Hospah 19	05137	NWSE Sec. 12	HUSS	P & A	1638'	2012'
Nacogdoches	S. Hospah 9	20013	NWNE Sec. 12	Entrada	SWD	6945'	2103'
CTV	Whigham 2	05596	SENE Sec. 11	Gallup	P & A	1960'	2138'
Nacogdoches	Santa Fe 89	20422	SWSE Sec. 1	HLSS	OW	1769'	2211'
Nacogdoches	S. Hospah 29	20120	NWNE Sec. 12	HLSS	OW	1625'	2228'
Nacogdoches	S. Hospah 62	20545	NWNE Sec. 12	HLSS	WO	1710'	2236'
Nacogdoches	Whigham 3	20129	SESE Sec. 11	Hospah Dakota	WO	2885'	2272'
Citation	S. Hospah 23	20024	NESW Sec. 12	Hospah Dakota	WO	2968'	2285'
Nacogdoches	Santa Fe 79	20099	SWSE Sec. 1	HLSS	OW	1665'	2311'
Citation	S. hospah 55	20299	SENE Sec. 12	HUSS	P & A	1583'	2390'
Nacogdoches	S. Hospah 28	20095	NENE Sec. 12	HUSS	OW	1675'	2448'
Citation	S. Hospah 40	20161	SENE Sec. 12	HUSS	WO	1637'	2504'
Nacogdoches	Santa Fe 73	20019	SWSE Sec. 1	HLSS	WO	1665	2528'
Nacogdoches	S. Hospah 3	05140	SENE Sec. 12	HLSS	OW	1603'	2530'
Nacogdoches	S. Hospah 25	20092	NENE Sec. 12	HLSS	WO	1702'	2596'
Citation	S. Hospah 43	05655	NESE Sec. 11	HUSS	P&A	1753'	2611'
Citation	S. Hospah 41	20154	NENE Sec. 12	HLSS	P & A	1637'	2612'
Nacogdoches	Santa Fe 81	20134	SWSE Sec. 1	HLSS	WO	1655'	2617'
Citation	S. Hospah 56	20300	NENE Sec. 12	HUSS	P&A	1602'	2636'
Nacogdoches	S. Hospah 63	20544	NENE Sec. 12	HLSS	WIW	1695'	2651'

A map (Exhibit D) showing all 304 wells (139 producing oil wells + 29 water injection or disposal wells + 133 P & A wells + 3 water supply wells) within a two mile radius is attached.



Exhibit E shows all leases within a half mile radius. Details are:

<u>T. 17 N., R. 9 W.</u>	LESSOR	<u>LEASE</u>	LEASEHOLD OPERATOR
all Section 1	fee	fee	Nacogdoches
all Section 2	BLM	unleased	N/A
all Section 11	fee	fee	Nacogdoches
Lots 1-4, W2NE4, NW4 Sec. 12	BLM	NMNM-012335*	Nacogdoches
Lots 1-4, W2NE4, NW4 Sec. 12	BLM	NMNM-081208**	Nacogdoches
Lots 5 & 6, NWSE, & SW4 Sec. 12	BLM	NMNM-125263	Nacogdoches

*Entrada and all other zones excluding Upper Hospah sand **Upper Hospah sand only

A map (Exhibit F) showing all lessors within a two mile radius is attached. Lessors are BLM, fee, Navajo allotted (FIMO), or State (NMSLO).

VI. Only one well within a 1/2 mile radius penetrated the proposed disposal zone. It (South Hospah 9) is an Entrada salt water disposal well that is 2,103' northeast. See Exhibit G for its history, location, and construction.

VII. 1. Average injection rate will be \approx 5,000 bwpd.

Maximum injection rate will be \approx 7,500 bwpd.

- **2.** System will be closed. All needed infrastructure is in place. No additional facilities will be needed.
- 3. Average injection pressure will be ≈750 psi Initial maximum injection pressure will be ≈762 psi (≤0.2 psi x 3812' depth at top of open hole = 762.4 psi) Nacogdoches will conduct a step rate test to raise the maximum if justified by test results and approved by government agencies.
- 4. Water source will be existing and future Nacogdoches wells in the San Juan Basin. Nacogdoches has >100 existing wells in the basin. Analyses of Entrada water from the South Hospah 9 (receiving or target water) and Hospah sand (produced or source water to be disposed) are attached (Exhibit H). An April 19, 1967 Sundry Notice



> stated that Tenneco "rec salt wtr" from the Entrada in the South Hospah 9. A summary follows.

<u>Parameter</u>	<u>Entrada run 1</u>	<u>Entrada run 2</u>	<u>Hospah sand</u>	<u>SDWA*</u>
рН	7.65	7.63	8.97	6.5 - 8.5
resistivity	3.2	3.0		
specific gravity	1.011	1.011	1.00 1	
	(all mg/l)	(all mg/l)	(all mg/l)	(all mg/l)
barium	0	0	0	1.0
bicarbonate	85	98	720	
calcium	441	441	14	
carbonate	<1	<1		
chloride	400	600	410	250
hydroxide	0	0		
iron	0	0	8.25	0.3
magnesium	<0.5	<0.5	18.23	
potassium	3	5		
sodium	691	680	738	
sulfate	1900	1600	525	250
total dissolved solids	3517	3419	2434	500
total hardness CaCO3	1102	1102	110	

* Safe Drinking Water Act

5. The Entrada has not been found to be productive within two miles of the well. No oil or gas has been found in the 13 Entrada wells (Exhibit I) which have been drilled in Townships 16, 17, and 18 North and Ranges 8, 9, and 10 West.

Closest current Entrada production is the Eagle Springs 8 Federal 1H (30-043-20949). It >28 miles east-northeast in 8-19n-4w in the Arena Blanca Entrada, Southeast Pool.

In general, Entrada water near recharge zones (basin fringe) has a specific conductance of <1,500 μ mhos. Entrada water from deeper parts of the basin has a specific conductance of >10,000 μ mhos. Stone et al in <u>Hydrogeology and water resources of San Juan</u> <u>Basin, New Mexico</u> wrote, "Generally, however, water from the Entrada is not suitable for drinking, especially in deeper parts of the basin." Closest water disposal well in the Entrada is Nacogdoches'



South Hospah 9. It is 2,103' northeast in the NWNE Section 12. A total of 264,582 barrels were injected from June, 2010 through July, 2011.

VIII. The Entrada sandstone is a very porous and permeable æolian sandstone. It produces or produced oil elsewhere in the basin (Eagle Mesa, Leggs, Media, Ojo Encino, Papers Wash, Snake Eyes Fields). None of the 13 Entrada tests in T. 17 N., R. 8 W. and the eight surrounding townships have found oil or gas.

Formation tops in this well are:

Menefee Shale: 0' Point Lookout Sandstone: 290' Mancos Shale: 550' Upper Hospah Sandstone: 1590' Lower Hospah Sandstone: 1648' Dakota Sandstone: 2507' Morrison Formation: 2740' Todilto Limestone: 3750' Entrada Sandstone: 3812' Total Depth: 3900'

There is one water well (Exhibit J) within a one mile radius. The Sanders water well is 4,241' northwest. It is 585' deep and the likely aquifer is the Point Lookout. (Note that the State Engineer's point of diversion web site has the incorrect location. The correct location is shown on the well completion report. The distance above is based on the completion report.)

Next closest (7,384' northeast) water well is Nacogdoches' water supply well. It has a total depth of \approx 2,700'. It is not used for drinking water. Analyses from both wells are attached in Exhibit J.

No existing underground drinking water source is below the Entrada within a mile. There will be 3,227' of vertical separation between the bottom (585') of the only water well within a mile and the top of the Entrada (3,812').



IX. The well will be stimulated with 15% HCl.

X. A Schlumberger compensated formation density log is on file with OCD. A cement bond log will be run before and after Nacogdoches runs its liner.

XI. There is one water well within a one mile radius. It is 4,241' northwest and is 585' deep. An analysis from it is attached as Exhibit J.

XII. Nacogdoches is not aware of any geologic or engineering data which may indicate the Entrada is in hydrologic connection with any underground sources of water. There will be 3,227' of vertical separation between the top (3,812') of the Entrada and the bottom (585') of the only water well within a mile. This interval includes at least one shale zone (Mancos).

XIII. Notice (this application) will be sent (Exhibit K) to the surface owner (BLM), operators of all wells (only Nacogdoches), and all Entrada lease interest owners within a half mile. Legal ad (Exhibit L) was published on September 10, 2011.

<u>T. 17 N., R. 9 W.</u>	<u>LESSOR</u>	<u>LEASE</u>	OPERATING RIGHT
all Section 1	fee	fee	Nacogdoches
all Section 2	BLM	unleased	N/A
all Section 11	fee	fee	Nacogdoches
Lots 1-4, W2NE4, NW4 Sec. 12	BLM	NMNM-012335	Nacogdoches, BC&D, R&R
Lots 5 & 6, NWSE, & SW4 Sec. 12	BLM	NMNM-125263	Nacogdoches, R&R





NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACERAGE DEDICATION PLAT

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TELLIZECO OIL COMPARY HOSPAN Unit Letter Letton	ine Deficies Accenge 40 Arm below reptiliboth its to working I owners been classifiliated everse side of this forms if attorn unitization forced- the Commission
Unit Letter Letton 12 17 North 9 West County 1 F 12 17 North 9 West NcKinley 1340 testimine North 1710 testimine Nest 1340 testimine North 1710 testimine Nest 1340 testimine North 1710 testimine Nest 1340 testimine Nest 1340 testimine North 1710 testimine Nest 1340 testimine Nest 1340 testimine North 1710 testimine Nest 1340 testimine Nest 140 testimine testistimine testimine testistimine testi	ine Definition Autrenge 40 Arm_ below reptiliboth utrition working I owners been curved lated everse side of this forms if attorn unitization forced- the Commission
F 12 17 North 9 West NcKinley A num formige units of Wet 1340 North 1710 Net time in 1340 Neutral Formite North 1710 Net time in Nest 7060! UngradedNosph Lower Sand Hosph South (Lower Sand) Nest New Sand) 1 Outline the operage dedicated to the subject well by covered perceind home density the data in the ownership is devicated for the well, outline each and density here son the data interest and royally. If in one than one lease of different covership is devicated to the well on the uncented the uncertainty of a data in the ownership is devicated to the well on the uncertainty of a data in the uncertainty of a data is used in the uncertainty of a data data data data data data data d	ine Definise Astreage 40 Aim_ below reptilibuth its to working I owners been classifiliated everse side of this form if abor unitization forced- the Commission
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Total two if it is but right matrix Final right matrix Final Research is but right matrix 70601 UngradedHospah Lower Sand Hospah South (Lower Sand) 1 Outline the operage dedicated to the subject well by colored percific hochure marks on the plat I 2 If more than drepledse is be acaded to the well, but he each and identify the ownershy the interestion stoyalty 4 If more than and lease of different covershy is devicated to the well on the inductive induces the interests of click the thread the interest of the thread the interests of click the thread the interests of click the thread the interests of the thread the interest of the thread the thread the interest of the thread the interest of the inte	40 A m 40 A m below reptiliboth utritio working I owners been curred lated werse side of this form if attention forced- the Commission
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Yes two if onliver is well type at control dation	everse side of this form if abor whitization forced- the Commission
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0116 2 8 1969	
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OIL CON. COM. horein is true	and complete to the best of my
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G, A	• Ford
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Tenz	aco 011 Company
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i hereby cer	tily that the well location shown or
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- + - + - + - + - + - + + + + + + + + +	y me or under my supervision, and
ROBERT G that the same	s true and correct to the best of m
H, ERNST knowledge and	belief.
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COISTER STORE	Alla .
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kobert kobert	1. 15080 1

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4.5" 10.5# liner set @ 3748' & cemented to surface with 307 sx with 58 bbl displacement

TD = 3945'







BJ SERVICES Farmington District Lab Water Analysis Report

					Test # a	#9
Customer/Well	Information					
Company: Well Name: Location: State: Formation: Depth:	ANGELINA SOUTH HOS 00-000-0000 San Juan Co ENTRADA S 0	Well Spah#9 90 punty, NM Sand Zone	Date: Prepa Subm Prepa Wate	ared for: hitted by: ared by: r Type:	5/14/09 ALLEN EAK ALLEN EAK RON VALDE PRODUCED	ER ER Z
Background In	formation				· <u> </u>	
Reason for Tes Completion typ Well History: Comments:	sting: be:	routine RUN #1				
Sample Charac	teristics			1.0		
Sample Temp: pH: Specific Gravit S.G. (Corrected Resistivity (Me	y: d): as.):	63 (°F) 7.63 1.010 1.011 @ 60 °F 3.00 Ω-m	Visco Color Odor Turbl Filtra	osity: : : dity: tes:	1cP GREY HYDROCAR NONE SLIGHT	BON
Sample Compo	osition	=				
CATIONS			ma/l	me/l	nnm	
ANIONS	Sodium (calo Calcium Magnesium Barium Potassium Iron Chloride Sulfate Hydroxide Carbonate	D.)	680 441 < .5 0 5 0.00 600 1600 0 < 1	29.6 22.0 0.0 0.1 0.0 16.9 33.3 0.0	673 437 0 5 0.00 594 1584 0	
SUMMARY	Bicarbonate	red Solids(calc.)	98 3419	1.6	97 3385	
	Total Hardne	ess as CaCO3	1102	22.0	1091	
Scaling Tender CaCO3 Factor CaSO4 Factor	ncies	43051.36 Ca 705760 Ca	alcium Carbor alcium Sulfate	nate Scale Pi Scale Proba	robability> ability>	REMOTE REMOTE
Na & K Ca Mg	03 (tiff Plot 01	02	03	04 ci + HCO3 so4
						EXHIBIT H



BJ SERVICES Farmington District Lab Water Analysis Report

				Test # #9	
Customer/Well	Information				
Company: Well Name: Location: State: Formation: Depth:	ANGELINA SOUTH HOS 00-000-0000 San Juan Co ENTRADA S 0	WELL SPAH#9 00 Dounty, NM CAND ZONE	Date: Prepared for: Submitted by: Prepared by: Water Type:	5/14/09 ALLEN EAKER ALLEN EAKER RON VALDEZ PRODUCED	{ {
Background In	formation				
Reason for Tes Completion typ Well History: Comments:	bting: be:	routine run#2			
Sample Charac	teristics				
Sample Temp: pH: Specific Gravit S.G. (Corrected Resistivity (Me	y: 4): as.):	63 (°F) 7.65 1.010 1.011 @ 60 °F 3.20 Ω-m	Viscosity: Color: Odor: Turbidity: Filtrates:	1cP GREY HYDROCARB NONE SLIGHT	ON
Sample Compo	osition				
CATIONS			mg/l me/l	ppm	
	Sodium (calo Calcium Magnesium Barium Potassium Iron	.)	691 3 441 2 <.5 0 3 0.00	0.0 684 2.0 437 0.0 0 0.1 3 0.0 0.00	
ANIONS	Chloride Sulfate Hydroxide Carbonate Bicarbonate		400 1 1900 3 0 <1 85	1.3 396 9.6 1881 0.0 0 1.4 85	
SUMMARY	Diodi Donato	· · · · · · · · · · · · · · · · · · ·			
	Total Dissolv Total Hardne	red Solids(calc.) ess as CaCO3	3517 1102 2	3482 2.0 1091	
Scaling Tender	ncies				
CaCO3 Factor CaSO4 Factor		37669.94 C 838090 C	alcium Carbonate Scale alcium Sulfate Scale Pr	e Probability> RI obability> Ri	EMOTE EMOTE
Na & K Ca Mg		2 01 00	Stiff Plot 01 02 0	03 04	05 ~' HCO3 SO4
					EXHIBIT H

		•	Water Analy	sis Resu	its				•
Log # Sample ID	#080405 Hospab Prod Wat	ŧr -	••					: :	
· Client . Address	J. Environmental	Services	Sampled: Depth: BHT:	• .		ted: Sep By: JUI	ır. 5, 200 R	8	
	mg/L	·		mg/L	mæg/L	M	LIEQU	VALENTS	
CO2 (dissolved)	100.		Barium (Ba)	0.00	0.00	Cations		Anions	
O2 (dissolved)	' ND		Calcium (Ca)	14.00	0.70	Ca	0.70	HCO3	11.8
H2S	69,75		Iron (Fe)	8.25	0.29	Mg	I.50	SO4	10.9
Suspended		•	Magnesium (Mg)	18.23	1.50	Na	32.10	Cl	11.5
Solids (TSS)	84		Sodium (Na)-calc.	738.05	32,10	Ba	0.00		
Total Dissolved			Strontium (Ss)	nđ	nd	Sainra	tion Valu	es Dist. Water 2	0 C
Solids (TDS)	2434		Bioarbonate(HCO3)	720.00	11 80	CaCO3		13 mg/L	
рН	8.97		Chloride (Cl)	410.00	11.57	CaSO4 2	2H20	2090 mg/L	
Sp. Gravity	1.0010		Sulfare (SO4)	\$25.00	10,93	BaSO4		2,4 mg/l.	
Oil in Water	ND					The scaling	andices	indicate the	
Probable Miner	al Composition		Alkalinity (CaCO3)			tendency f	ir the sa	wpled water	to form
Compound	meq/L	mg/L	Phenolphilialein	0.01		seale. The	ormand	n of CaCO3	ix likely
BaSO4	0.00	0.00	Methyl Drange	720.00		il the inder	ls posit	ive. The form	nation
Ca(HCO3)2	0,70	56.61	Hardness (CaCO3)			of CaSOA:	s fikely a	f the Sat. Co	9 C
CaSO4	0.00	0.00	Total	. 110		is less than	that of	the probable	
CaCl2	0.00	0.00	Calcium	35		由中efal co	nposito	B.for C4504	<u></u>
Mg(HCO3)2	1.50	109.74	Calcium Carbonat	e Scaling In	dex]	Calciu	m Sulfe	ite Scaling I	Index
MgSO4	0.00	0.00	Temperature (F)	Scaling Int	ex	Temperati	ve (F)	Sat Conc.	(<u>mg/L)</u>
MgClZ	0.00	0.00	70	Negativ	e	70		#N/	4
NaHCO3	9.60	806.61	90	Negative	e	90		· #N//	A
Na2SO4	10.93	776.69	110	Negative	e	110	•	#N/.	A
NaCl	11.57	676.15	140	Negativ	e	140	•	#N/4	Ą
,, <u></u>			180	Neurativa	A .	180		HN1	A

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EXHIBIT H

Laboratory testing performed by MicroBac International, Inc.

918-499-1534 512-310-8900

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Sep 10 08 04:47p JEnvironmental Services Sep 03 08 01:54p Micro-Bac

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Log # Sample ID	#080407 Hospati Bresh V	Veter	•		•			•	
Client Address	J. Eavirynment	al Services	Sampled: Depth: BH'r;		. Tes	ted: Se By: JU	pt. 5, 200 R	8 	-
	mg/L		J	mg/L	meq/L	M	ILLIEQU	IVALENTS	
CO2 (dissolved)	66		Barium (Ba)	0,00	D.00	Cations		Anions	
O2 (dissolved)	· ND	•	Calcium (Ca)	8.00	0.40	Ca	0.40	HCO3	7.5
H2S	0.085		Iron (Fe)	0.00	0.00	Mg	0.30	504	15.6
Suspended			Magnesium (Mg)	3.65	0.30	Na	23.48	· Cl	0,9
Solids (TSS)	8		Sodium (Na)-calc.	539.84	23.48	Ba	0.00	L	
Total Dissolved			Strontium (Sr)	nđ	ba	Satur	ation Valu	cs Dist. Water 2	00
Solids (TDS)	1798		Bicarbonate(HCO3)	462.00	7.57	CaCO3		13 mg/L	
рн Carlotter	. 8.53		Chloride (Cl)	35.00	0.99		2H20	2090 mg/L	
Sp. Gravity	1.0000		(SO4)	120,00	15.62	88504		Z.4 mp/L	
Ou m water	ND		Alletinger (Coccos)			1.0030300	R HEGICES	Indicate me	
Compound		/T	Auxaimity (CaCOS)	0.01		Condency.	UT-182-58		
BaSO4	1 0.00	0.00	Methyl Orange	462.00		if the inde	vib nacit	ive. The form	e Unery Island
Ca(HCO3)2	0.00	32.35	Hardness (CaC(3))	100.00		of CaSOA	is hirdy i	f the Sat Cor	
CaSO4	0.00	0.00	Total	35		is less that	t that of	the:nrobable	
CaCl2	0.00	0.00	Calcium	20		mmeral ca	mpositio	n for CaSO4.	
Mg(HCO3)2	0.30	21.95	Calcium Carbonat	te Scaling In	dex	Calciu	um Sulfa	ate Scaling I	ndex
MgSO4	0.00	0.00	Temperature (F)	Scaling In	iex 🛛	. Tempera	ture (F)	Sat. Conc. ((mg/L)
MgCl2	0.00	0,00	70	Negativ	e	7()	#N//	1
NaHCO3	6.87	577.33	90 .	Negativ	e	90).	#N/A	۸.
Ne2SO4	15,62	1109.56	110	Negativ	e	11	0	#N/A	1
NaCl	0.99	57,72	140 .	Negativ	e l	14	0	. #N/A	۹.
		····	180	Negativ	e i	· 18	0	#N/A	1

Water Analysis Results

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XHIBIT

Laboratory tasting performed by MicroBac International, Inc.

Sanders well

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Hall Envi	ronmental Analy	vsis Labora	tory, L	1 C.	Kacogo water s	doches'	Date: 05-Oct-11
CLIENT:	Permits West			Clier	it Sample I	D: Hospah W	/sw
Lab Order:	1109B70	•		Co	llection Da	te: 9/27/2011	11:40:00 AM
Project:	Hospah			D	ate Receive	ed: 9/29/2011	
Lab ID:	1109B70-01				Matr	ix: AQUEOU	JS
Analyses		Result	PQL	Qual	Units	D.F	Date Analyzed
OIL AND GREASE Oil & Grease, Total Recoverable		640 100			mg/L	100	Analyst: JB 10/4/2011
SM2540C MOI	D: TOTAL DISSOLVED	SOLIDS					Analyst: KS

20.0

mg/L

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654

10/4/2011 7:03:00 PM

Qualifiers:

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4 Value exceeds Maximum Contaminant Level

Ε Estimated value

Total Dissolved Solids

Analyte detected below quantitation limits J

NC Non-Chlorinated

PQL Practical Quantitation Limit

- В Analyte detected in the associated Method Blank
- н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits S

October 31, 2011

BLM 1235 LaPlata Highway Farmington, NM 87401

Nacogdoches Oil and Gas, Inc. is applying (see attached application) to convert its South Hospah 33 oil well to a salt water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name:South Hospah SWD 33Total Depth: 3,900'Proposed Disposal Zone:Entrada (from 3,812' to 3,900')Location:1340' FNL & 1710' FWL Sec. 12, T. 17 N., R. 9 W.,
McKinley County, NM on BLM lease NMNM-012335Approximate Location:≈40 air miles north of Grants, NMApplicant Name:Nacogdoches Oil and Gas, Inc.(936) 560-4747Applicant's Address:P. O. Drawer 632418, Nacogdoches, TX 75963

<u>Submittal Information</u>: Application for a salt water disposal well will be filed with the NM Oil Conservation Division (NMOCD). If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

U.S. Postal Service	
For delivery Information visit our website st	
Postage & 24/50 10 000	
Cartified Fee Betwin Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required)	
Street, ADJ, NO.	
PS Form 3800. August 2005	

Sincerely,

Brian Wood

October 31, 2011

BC&D Oil & Gas Corp. P. O. Box 302 Hobbs, NM 88241-0302

Nacogdoches Oil and Gas, Inc. is applying (see attached application) to convert its South Hospah 33 oil well to a salt water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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Please call me if you have any questions.

Sav uruz zulu Uac	U.S. Postal Service TA CERTIFIED MAIL TA RECEIPT (Domestic Mail Only; No Insurance Coverage Provided) For delivery Information visit our website at www.usps.coms OFF V045502 USE Postage Certified Fe Certified Fe Certified Fe Endorsement Required Restincted Delivery Fee (Endorsement Required) Restincted Delivery Fee (Endorsement Required) Total Postage & Fees S 0, 1, 2, 3, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
נינרר בסשט ח	Restricted Delivery Fee (Endorsement Required) Total Postage & Fees Sent To Street, Apt. No.; or PO Box No.
	City, State, ZIP+4 PS Form 3800, August 2006 See Reverse for Instructions

Sincerely.

Brian Wood

October 31, 2011

R & R Royalty Ltd. 500 N. Shoreline Blvd., Suite 322 Corpus Christi, TX 78401

Nacogdoches Oil and Gas, Inc. is applying (see attached application) to convert its South Hospah 33 oil well to a salt water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: South Hospah SWD 33 Total Depth: 3,900' Proposed Disposal Zone: Entrada (from 3,812' to 3,900') Location: 1340' FNL & 1710' FWL Sec. 12, T. 17 N., R. 9 W., McKinley County, NM on BLM lease NMNM-012335 Approximate Location: ≈40 air miles north of Grants, NM Applicant Name: Nacogdoches Oil and Gas, Inc. (936) 560-4747 Applicant's Address: P. O. Drawer 632418, Nacogdoches, TX 75963

Submittal Information: Application for a salt water disposal well will be filed with the NM Oil Conservation Division (NMOCD). If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

25	U.S. Postal Service TM CERTIFIED MAIL TM RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)
Ē	For delivery information visit our website at www.usps.com⊕
н	OFFICIAL USE
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-	City, State, ZIP+4

Sincerely,

Brian Wood

Affidavit of Publication

STATE OF NEW MEXICO)SS

COUNTY OF MCKINLEY

Ås

REBECCA PAQUIN being duly sworn upon oath, deposes and says:

of The Independent, a newspaper

LEGAL CLERK published in and having a general circulation in McKinley County, New Mexico and in the City of Gallup, New Mexico and having a general circulation in Cibola County, New Mexico and in the City of Grants, New Mexico and having a general circulation in Apache County, Arizona and in the City of St. Johns and in the City of Window Rock, Arizona therein: that this affiant makes the affidavit based upon personal knowledge of the facts herein sworn to. That the publication, a copy of which is hereto attached was published in said newspaper during the period time of publication and said notice was published in the newspaper proper, and not in a supplement thereof, for One Time ____, the first publication being on the day of , <u>2011</u>, the second publication being on the day of , 2011, the third publication being on the day of ,2010, 10^{th} and the last publication being on the day of 2011. September That such newspaper, in which such notice or advertisement was published, is now and has been at all times material hereto, duly qualified for such purpose, and to publish legal notices and advertisements within the meaning of Chapter 12, of the statutes of the State of New Mexico, 1941 compilation, Affiant. Sworn and Subscribed to before me this 14th day of ALITSeptember . A.D., 2011. Public arv

LEGAL NO Gallup . McKinley Count New:Mexico. : Neoki Ve Nacogdoches Oil & Gas Inc. is ap plying for 4a 4 saltwater. disposals well. The South Hospah 33 will be deepened and converted; from an Injection will to discose into the Entrada from 3800, to 8900' . It is located at 1340. FNL & 1710 FWL Sec: 12, T.17, N., R.9W., McKin-ley County . The willois 23 miles east - northeast of Crownpoint, Maximum, disposal, mie will be 7, 500 bwpd. Maximum , injection pressures will be 760 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint' Francis Dr., Santa Fe; NM 87505 within, 15 days. Additional, information can be obtained by contained by contacting: Brian Wood, Permits West, Inc. 37 Verano Loop, Santa Fe, NM: \$7508. Phone 505) 466 -8120. •••

TCF

Legal # 12873 Published in The Independent September 10, 2011,

Jones, William V., EMNRD

From: Sent:	Jones, William V., EMNRD Tuesday, November 08, 2011 7:48 PM
To:	'brian wood'
Cc:	Ezeanyim, Richard, EMNRD; Sanchez, Daniel J., EMNRD; Perrin, Charlie, EMNRD; 'Jay Spielman@blm.gov'
Subject:	Disposal application from Nacogdoches Oil and Gas, Inc.: South Hospah SWD #33 30-031-20124 Entrada from 3812 to 3900 feet

Hello Mr. Brian,

Will the BLM require any other logs on the deepened hole other than the CBL? Or does Nacogdoches plan to run any others? (The OCD may require at least minimal logging.)

Do you know how far north of Highway I-40 this well is?

Is Nacogdoches willing to limit this well to oil field waste waters of less than 3500 TDS?

I did not see any Rule 5.9 explanation in the application – but our web site shows about 5 single-well bonds needed and 67 of 180 wells still inactive for this operator. I seem to remember the previous Entrada SWD well (SWD-1211 issued 4/7/10) as being necessary to reduce the number of inactive wells. Has it helped or is it helping?

Please let me know whenever there is an agreed compliance in place to allow us to release SWD permits for Nacogdoches – all I see is the bad news on the web site.

As always, thank you for the thorough application,

<u>William V Jones, P.E.</u> Engineering, Oil Conservation Division 1220 South St. Francis Drive, Santa Fe, NM 87505 Tel 505.476.3448 ~ Fax 505.476.3462

Jones, William V., EMNRD

From: Sent:	brian wood [brian@permitswest.com] Wednesday, November 09, 2011 7:21 AM
То:	Jones, William V., EMNRD
Cc:	MIKE ALLEN; JIM BRUCE
Subject:	Re: Disposal application from Nacogdoches Oil and Gas, Inc.: South Hospah SWD #33 30-031-20124 Entrada from 3812 to 3900 feet

1. BLM only required the CBL in their 8/15/11 approval.

I will check with Nacogdoches to see if there are plans to run other logs.

What logs will OCD require?

2. The well is 29 air miles northeast of the Prewitt Exit on I-40.

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On Nov 8, 2011, at 7:47 PM, Jones, William V., EMNRD wrote:

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<u>William V Jones, P.E.</u> Engineering, Oil Conservation Division 1220 South St. Francis Drive, Santa Fe, NM 87505 Tel 505.476.3448 ~ Fax 505.476.3462

<image001.jpg>

Thanks Brian, What is the CDL?

Nothing was attached... I assume you mean the water analysis attached to your original application,

Regards,

Will Jones New Mexico Oil Conservation Division Images Contacts

From: brian wood [mailto:brian@permitswest.com]
Sent: Monday, November 14, 2011 1:58 PM
To: Jones, William V., EMNRD
Subject: Nacogdoches South Hospah 33 (30-031-20124)

Nacogdoches will run CDL and IEL logs across the Dakota & Entrada.

Nacogdoches will accept the 3,500 TDS limit. Their current combined water stream is 2,434 TDS. See attached analysis.

We are checking on the compliance question.

<image002.jpg>

Jones, William V., EMNRD

From:	brian wood [brian@permitswest.com]
Sent:	Monday, November 14, 2011 3:04 PM
То:	Jones, William V., EMNRD
Subject:	Re: Nacogdoches South Hospah 33 (30-031-20124)
-	

Compensated Density Log

There was, and is, a jpg. attached.

If your firewall strips out the attachment, it is the last page of Exhibit H.

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On Nov 14, 2011, at 3:02 PM, Jones, William V., EMNRD wrote:

Jones, William V., EMNRD

From:	Swazo, Sonny, EMNRD
Sent:	Tuesday, May 22, 2012 6:14 PM
То:	Jones, William V., EMNRD
Cc:	Sanchez, Daniel J., EMNRD
Subject:	RE: Disposal application from Nacogdoches Oil and Gas, Inc.: South Hospah SWD #33 30-031-20124 Entrada from 3812 to 3900
	feet

Will:

There was an ACOI but you will have to check with the operator as we already told David Burns and the Nacogdoches person what it needed to do (i.e., submit the ACOI with any application so we know). Check with Daniel is any questions.

Thanks,

Sonny

From: Jones, William V., EMNRD
Sent: Tuesday, May 22, 2012 1:58 PM
To: Perrin, Charlie, EMNRD; Sanchez, Daniel J., EMNRD
Cc: Swazo, Sonny, EMNRD
Subject: FW: Disposal application from Nacogdoches Oil and Gas, Inc.: South Hospah SWD #33 30-031-20124 Entrada from 3812 to 3900 feet

Charlie and Daniel:

Here below is the only correspondence. Nothing else was received by me from Brian Wood or from Nacogdoches. If an ACOI is in place and Rule 5.9 is OK, let me know and I could proceed to work on this application.

Have a cool day,

Will

From: brian wood [mailto:brian@permitswest.com]
Sent: Wednesday, November 09, 2011 7:21 AM
To: Jones, William V., EMNRD
Cc: MIKE ALLEN; JIM BRUCE
Subject: Re: Disposal application from Nacogdoches Oil and Gas, Inc.: South Hospah SWD #33 30-031-20124 Entrada from 3812 to 3900 feet

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Do you know how far north of Highway I-40 this well is?

Is Nacogdoches willing to limit this well to oil field waste waters of less than 3500 TDS?

I did not see any Rule 5.9 explanation in the application – but our web site shows about 5 single-well bonds needed and 67 of 180 wells still inactive for this operator. I seem to remember the previous Entrada SWD well (SWD-1211 issued 4/7/10) as being necessary to reduce the number of inactive wells. Has it helped or is it helping?

Please let me know whenever there is an agreed compliance in place to allow us to release SWD permits for Nacogdoches – all I see is the bad news on the web site.

As always, thank you for the thorough application,

William V Jones, P.E. Engineering, Oil Conservation Division 1220 South St. Francis Drive, Santa Fe, NM 87505 Tel 505.476.3448 ~ Fax 505.476.3462

<image001.jpg>

Injection Permit Checklist (11/19/2010)
WFXPMXSWDPermit Date 0/23/12-UIC Qtr (A M/ V)
#Wells Well Name(s): Jou TH HOSPAH SWD#33
API Num: <u>30-031-2012</u> Spud Date: <u>1/196</u> New/Old: <u>(UIC primacy March 7, 1982)</u>
Footages 1340 FUL/1710 TWL Unit I Sec 12 Tsp 17N Rge 7W County 16 KINEY
General Location:
Operator: Nacog docker OIL and Goz, INC, Contact BRIAN WOOD
OGRID: 256687 BULE 5.9 Compliance (Wells) 67780 (Finan Assur) 5 IS 5.9 OK?
Well File Reviewed V Current Status: WIW in DEFUNE UNIT
Planned Work to Well: Drill John Run 4/2 CMT ToSwff.
Diagrams: Before Conversion After Conversion Elogs in Imaging File: Will Run CBL
Well Details: HolePipe Depths Tool Sx or Cf Method
New _Existing _Surface $37/4$ $37/4$ 61 _ 70 _ CIRC
New_Existing Granest 6/4 4/2 3812 469 CIRCCRL
New Existing Liner
New Existing OpenHole 3812-3900
Depths/Formations: Depths, Ft. Formation (Tops? Si HOSPAH UNIT Have Brend
UPPoz fospart - 570 - ermin AFIED
Formation(s) Above Court 12507 TOV OF VE
apprention TOP: 3812 ENTRAPA Max. PSI 10 OpenHole Perfs
Bottom BOTTOM: 2,00 / Tubing Size 10 Packer Deptid
Formation(s) Below
Capitan Reef?(Potach?Noticed?)-[WIPP?Noticed?] Salade Top/BetCliff House?
Fresh Water: Depths: <585 Formation RLD. Wells? L Analysis? Affirmative Statement
Disposal Fluid Analysis? Sources: Nacogolocher own wells only
Disposal Interval: Analysis? Production Potential/Testing:
Notice: Newspaper Date 9/10/11 Surface Owner BLM (10/31/11) Mineral Owner(s)
RULE 26.7(A) Affected Persons: No - There BCEDOILE Gos Corp
AOR: Maps? Well List? Producing in Interval? N Wellbore Diagrams?
Active Wells Repairs? WhichWells?
Issues: LIMIT To water < 200 TDS Request Sent Reply:

11/8/2011/6:11 PM

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Page 1 of 1

SWD_Checklist.xls/ReviewersList