

HITP - 5

**GENERAL
CORRESPONDENCE**

YEAR(S):

2008

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. dated 3/5/08

or cash received on in the amount of \$ 100⁰⁰

from TRC Transwestern

for HITP-5

Submitted by: Lawrence Romo Date: 3/20/08

Submitted to ASD by: Lawrence Romo Date: 3/20/08

Received in ASD by: Date:

Filing Fee New Facility Renewal

Modification Other

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund.

Full Payment or Annual Increment

Transwestern Pipeline Company, LLC
711 Louisiana Street, Houston TX 77002-2716
Houston Offices 281-714-2000

March 4, 2008

Mr. Brad Jones
New Mexico Oil Conservation Division (NMOCD)
1220 S. Saint Francis Drive
Santa Fe, New Mexico 87505

Subject: Transwestern Pipeline Company, LLC
Notice of Intent to Discharge Hydrostatic Test Water
12.75-inch natural gas pipeline, Valencia County, New Mexico

Dear Mr. Jones:

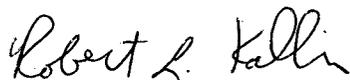
Transwestern Pipeline Company, LLC (Transwestern) is constructing a new natural gas pipeline lateral extending north from its existing pipeline to the Valencia Power Plant in Belen, Valencia County, New Mexico. This Notice of Intent (NOI) for discharge is being submitted for discharge of 110,000 gallons of water following hydrostatic testing of 3.4 miles of new 12.75-inch natural gas pipeline. Test water will be obtained from the New Mexico Water Service Company (NMWSC), a water provider to the City of Belen. Discharge will be into a sewer manhole that is part of the NMWSC sanitary wastewater collection system on Navarro Street.

Transwestern plans to test the pipeline on or about April 1, 2008.

The following documents are attached to this letter: Attachment 1, additional information about the proposed discharge, Attachment 2, supporting correspondence, and Attachment 3, a draft public notice. Also included is a check in the amount of \$100.00 (filing fee) as required in Section 3114 of 20.6.2.NMAC.

Thank you for your time and consideration.

Sincerely,



for Bill VanderLyn
Environmental Scientist

cc: D. Shauers, P.E., Rooney Engineering, Inc.

Attachments 1, 2, and 3
Filing fee (\$100.00)

ATTACHMENT 1
Description of Discharge

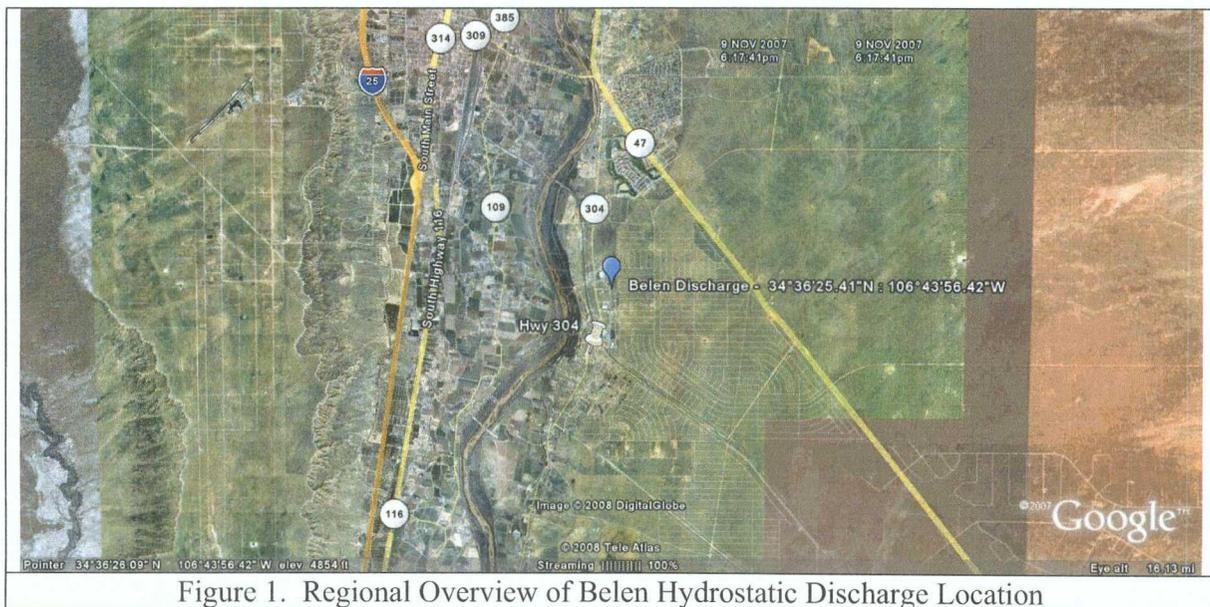
Transwestern Pipeline Company, LLC
Belen Hydrostatic Test Water Discharge
Valencia County, New Mexico

Transwestern Pipeline Company, LLC (Transwestern) is constructing a new 3.4-mile-long, 12.75-inch-diameter, natural gas pipeline lateral extending north from its existing mainline to the Valencia Power Plant in Belen, Valencia County, New Mexico. In accordance with the U.S. Department of Transportation requirements, Transwestern must hydrostatically test the pipeline before putting it into service. The hydrostatic test of the pipeline will require 110,000 gallons of water. The water will be potable and obtained from the New Mexico Water Service Company (NMWSC), a water provider for the City of Belen. Discharge will be into the NMWSC sanitary wastewater collection system on Navarro Street. The following provides additional information on the discharge:

- a) Name/address of the proposed discharger: Transwestern Pipeline Company, LLC
711 Louisiana Street, Suite 900
Houston, TX 77002
ATTN: Bill Vander Lyn (218) 714-2319
- b) The location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks:

NMWSC Wastewater Collection System (sewer)
Navarro Street in the Rio Grande Industrial Park
Belen, Valencia County, New Mexico

From Highway 304 (about 0.1 mile north of the Burlington Northern Railroad) turn right (coming from the south) or left (coming from the north) onto Lucero Drive for approximately 0.25 mile to Christine Drive. Turn north on Christine Drive and continue approximately 0.60 mile to Navarro Drive (immediately south of the Valencia Power Plant). Turn west on Navarro Drive and continue for approximately 0.1 mile. The discharge site will be a sewer manhole within Navarro Street, just east of the Burlington Northern spur line). See Figure 1 for overview map.



c) Legal description (Section/Township/Range) of the discharge location:

The NMWSC wastewater collection system sewer manhole on Navarro Street is located south of Tract 4-C-1-A-1, Lands of Valencia Power, and north of Tract A-1, Lands of Rio Grande Industrial Park, Ltd. Both tracts are located in Tome Grant, Valencia County, New Mexico (N 34°36'25.4"; W 106°43'56.4"). See Figure 2.

See Attachment 2 for NMWSC approval for discharge of hydrostatic test water.

d) Site specific and regional maps indicating the location of the pipelines to be tested and the proposed discharge location:

See Figure 3. USGS Quad Overview – Belen Lateral and Discharge Location

See Figure 4. Aerial Overview – Belen Lateral and Discharge Locations

e) A demonstration of compliance to the following siting criteria or justification for any exceptions:

i. within 200 feet of a watercourse, lakebed, sinkhole or playa lake;

A site visit and GIS review of the discharge site has been completed. There are no watercourses, lakebeds, sinkholes or playa lakes within 200 feet of the discharge site. See Figure 5.

ii. within an existing wellhead protection area or 100-year floodplain;

The discharge site is not located in an existing wellhead protection area or 100-year floodplain. See Figure 5 for location of wells and wellhead protection areas near the discharge site.

See Figure 6 for the nearest FEMA mapped 100-year floodplain. The nearest FEMA mapped 100-year floodplain is over 0.4 miles west of the discharge site.

iii. within 500 feet of, a wetland;

A visual and on-site inspection survey for wetlands was completed for the pipeline route and discharge site. There are no wetlands within 500 feet of the discharge site. See Figure 5.

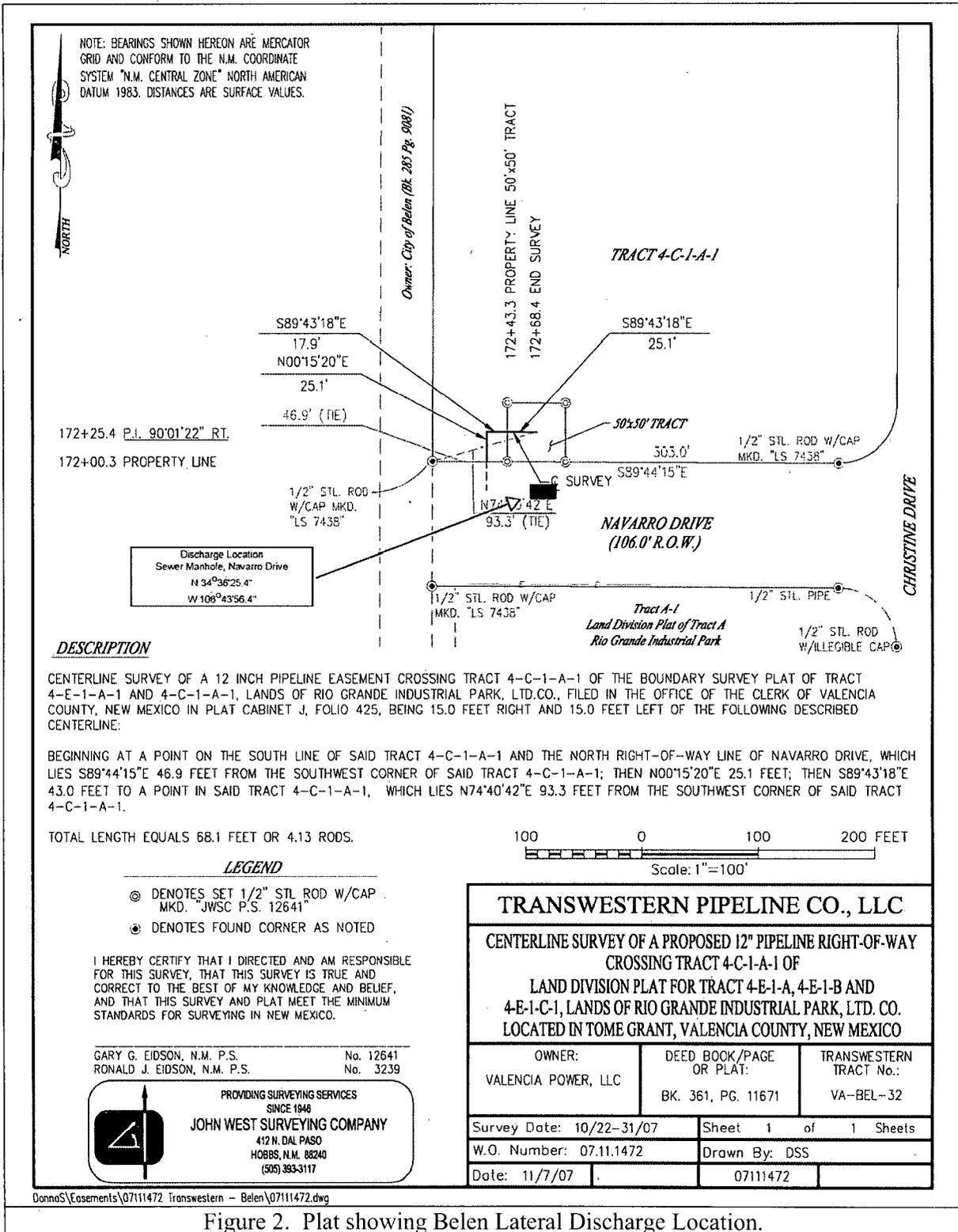


Figure 2. Plat showing Belen Lateral Discharge Location.

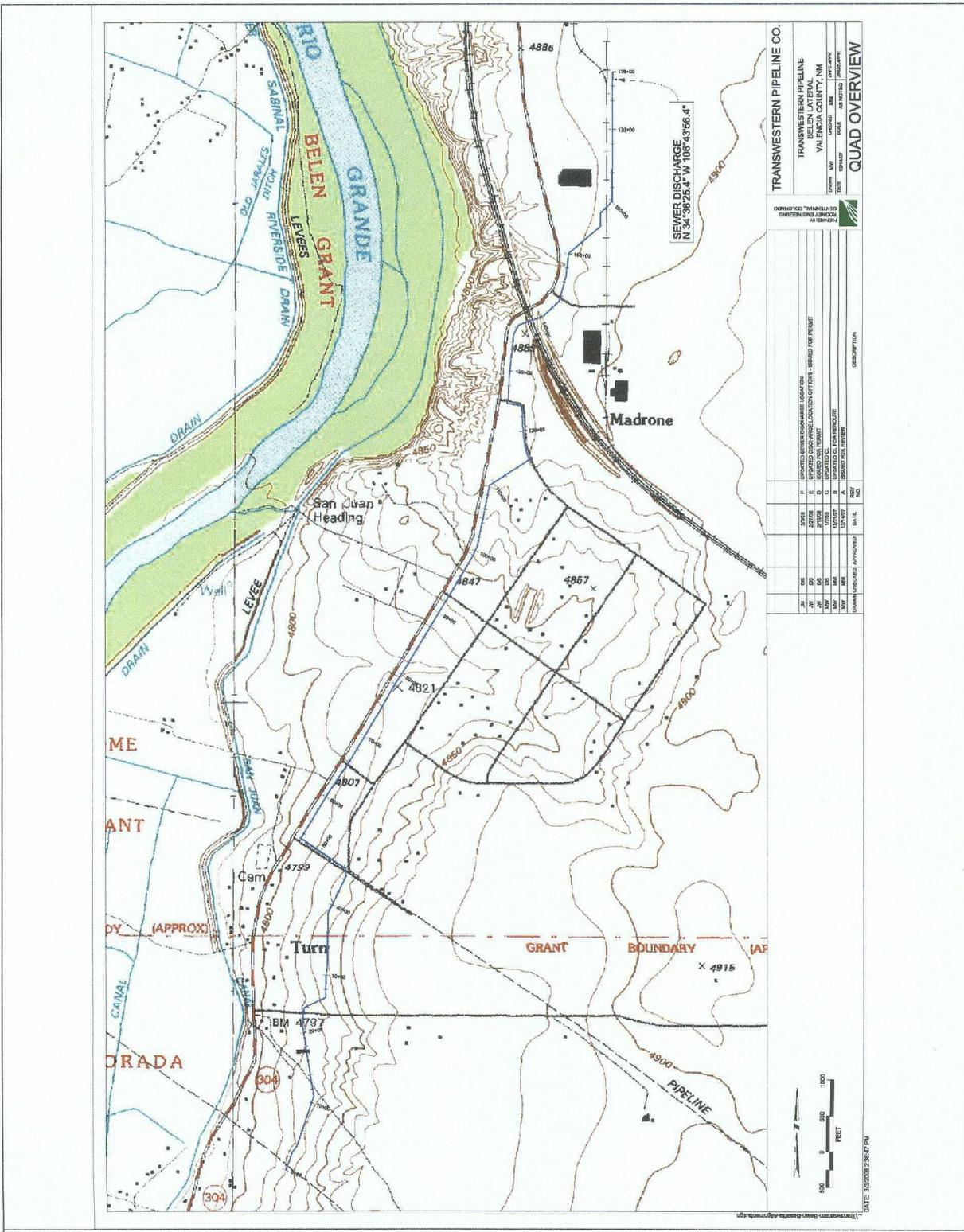


Figure 3. USGS showing Belen Lateral and Discharge Location.

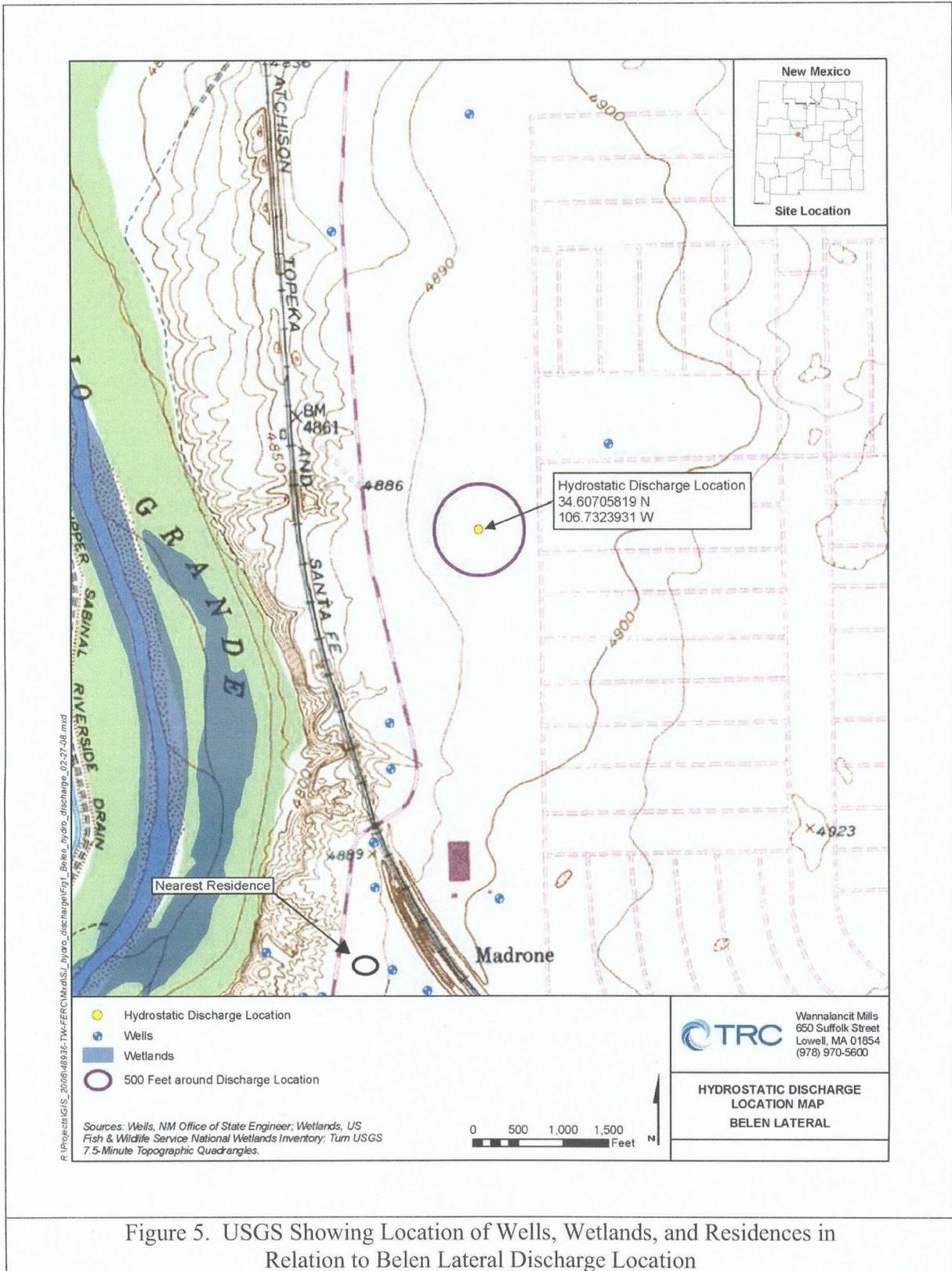
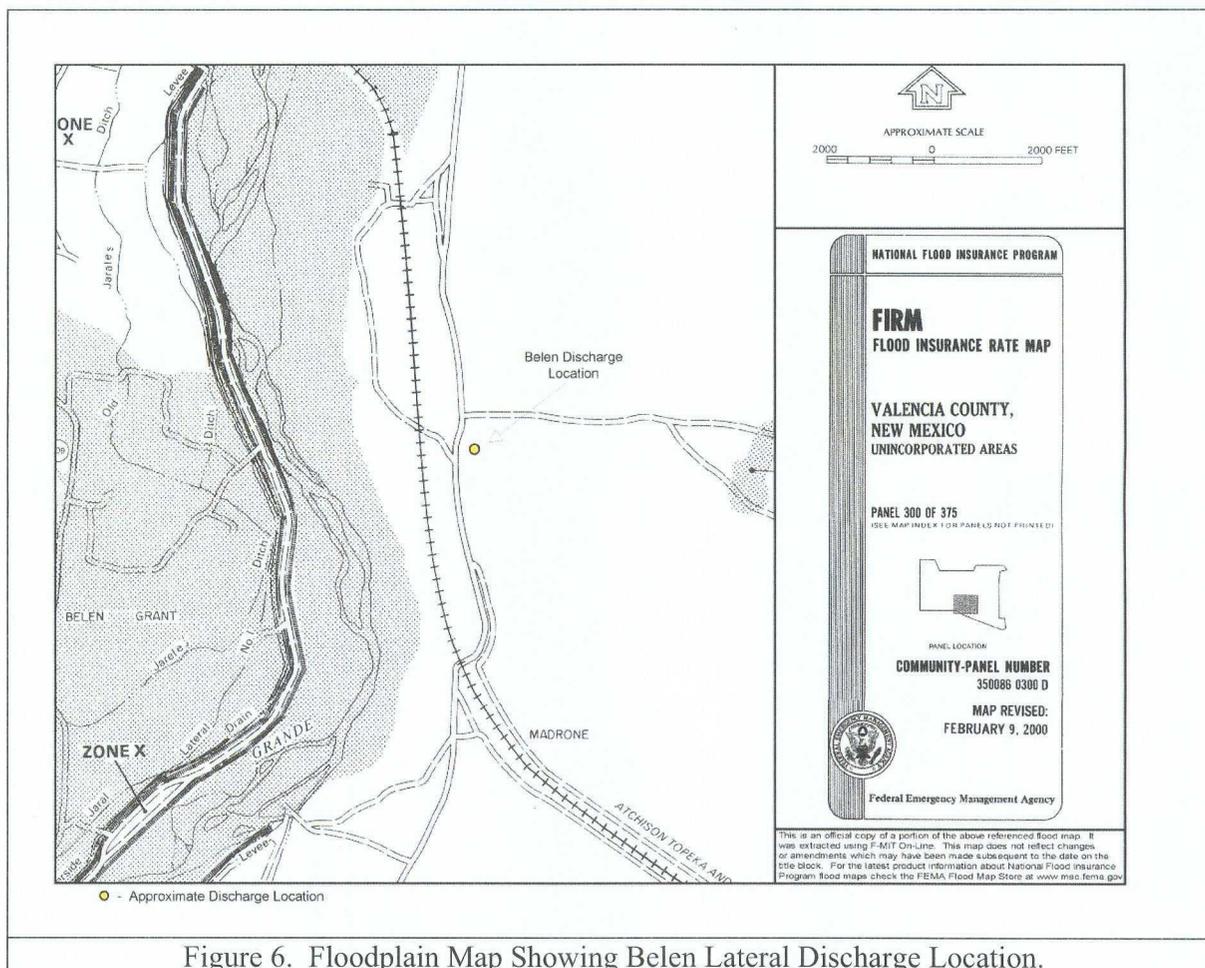


Figure 5. USGS Showing Location of Wells, Wetlands, and Residences in Relation to Belen Lateral Discharge Location



- iv. within the area overlying a subsurface mine; or

There is no subsurface mining in the general area of the discharge site, nor are there any subsurface mines near the discharge site. See Attachment 2 for copy of correspondence with the Database Coordinator New Mexico Bureau of Geology.

- v. within 500 feet from the nearest permanent residence, school, hospital, institution or church;

The discharge site is not located within 500 feet of a residence, school, hospital, institution or church. The nearest residence is nearly 1 mile from the discharge location. See Figure 5.

- f) A brief description of the activities that produce the discharge:

Transwestern is constructing a new 12" diameter 3.4-mile-long natural gas pipeline to supply gas to the Valencia Power Plant in Belen, New Mexico. In accordance with the

United States Department of Transportation (Title 49 CFR Part 192), the pipeline must be hydrostatically tested prior to placing the pipeline in service. This is a new pipeline. Potable test water will be obtained from the NMWSC, a water service provider to the City of Belen. No chemicals will be added to the hydrostatic test water. Following hydrostatic testing and sampling of the water, test water will be discharged from the pipeline to the NMWSC wastewater collection system via the sewer manhole in Navarro Street.

- g) the method and location for collection and retention of fluids and solids:

Approximately 110,000 gallons of municipal drinking water from the NMWSC, a water service provider to the City of Belen, will be pumped from a hydrant 183 feet west of the sewer manhole into the newly-installed pipeline. The hydrostatic test water will be contained in the pipeline following the test. Water samples will be collected from the pipeline and water will remain in the pipeline until tested and the results approved by the NMWSC.

- h) a brief description of best management practices to be implemented to contain the discharge onsite and to control erosion:

The hydrostatic test water will be discharged directly into the NMWSC wastewater collection system via the sewer manhole in Navarro Street. Flow of the discharged test water will be controlled to ensure that it does not exceed the capacity of the wastewater treatment system or cause flooding of Navarro Street.

- i) a request for approval of an alternative treatment, use, and/or discharge location (other than the original discharge site), if necessary:

Transwestern does not expect that contaminant levels in the hydrostatic test water will exceed the NMWSC requirements. In the event that contaminant levels are exceeded, Transwestern will transfer the test water to tanker trucks, using best management practices to prevent the release of any waste material, and the water will be transported to Key Energy Services Class I injection well for disposal.

- j) a proposed hydrostatic test wastewater sampling plan:

Because the Belen Lateral will be tested with water from a domestic potable water source, Transwestern may conduct sampling of the baseline water before insertion into the pipeline.

Following testing and prior to discharge, representative samples of the hydrostatic test discharge water will be collected by compositing single grab samples to obtain average water quality characteristics through the discharge period. A 250-ml grab sample will be collected at the beginning (i.e. south end) and termination (i.e. north end) of the pipeline. The two samples will be combined for analysis into one container. The water will be tested for the parameters set forth by NMWSC for approval or disapproval of

test water to be discharged into the NMWSC wastewater collection system at the Navarro Street sewer manhole.

- k) a proposed method of disposal of fluids and solids after test completion, including closure of any pits, in case the water generated from test exceeds the standards as set forth in Subsections A, B, and C of the 20.6.2.3103 NMAC (the New Mexico Water Quality Control Commission Regulations):

In the event that contaminant levels are exceeded, Transwestern will transfer the test water from the pipeline to tanker trucks, using best management practices to prevent the release of any waste material. The test water will be transported to Key Energy Services Class I injection well for disposal.

- l) a brief description of the expected quality and volume of the discharge:

The source water will be municipal potable water obtained the NMWSC, a water service provider for the City of Belen. Approximately 110,000 gallons of water will be used to test the pipeline. The discharge will be at a rate that can be accommodated by the NMWSC wastewater treatment system and will likely range between 100 and 300 gallons per minute. No chemicals will be used to dry the pipeline. Because this is a new pipeline, effects on the quality of the water will be limited, but can include an increase in total dissolved solids and total suspended solids, and minor changes to pH due to changes in ionic content; and oil and grease.

- m) geological characteristics of the subsurface at the proposed discharge site:

The subsurface geology is composed of Quaternary and Tertiary Alluvial deposits, of the Santa Fe Formation (http://capp.water.usgs.gov/gwa/ch_c/jpeg/C057.jpeg).

- n) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge; and

Groundwater elevation data obtained from USGS, monitoring well data from two monitoring wells located approximately 1.5 to 2 miles northeast of the proposed discharge location indicate that the static groundwater elevation is approximately 4,792 feet above mean sea level (http://ogw01.er.usgs.gov/countymaps/NM_061.html). Notes prepared on the USGS monitoring wells indicated that they were constructed within the Santa Fe Formation from surface elevations similar to the elevation of the discharge location. Based on this data, groundwater depth beneath the discharge site is expected to be approximately 100 feet below land surface.

The aquifer underlying the site is the Santa Fe Formation. Total dissolved solids are expected to be in the range of 0-500 milligrams per liter based on regional USGS mapping of Rio Grande aquifers (http://capp.water.usgs.gov/gwa/ch_c/jpeg/C063.jpeg).

- o) identification of landowners at and adjacent to the discharge and collection/retention site.

The immediate adjacent landowners are Valencia Power, LLC to the north and the Rio Grande Industrial Park, LLC to the south. Adjacent landowners within 1/3 mile of the discharge site are listed on Table 1.

If required, and in accordance with Subsections A and B of 20.6.2.3108 NMAC, Transwestern will provide notice to the general public by posting signs at the discharge site near the discharge site and by publishing a synopsis of the notice (in English and Spanish) in the Valencia County News-Bulletin as specified in Subsection D of 20.6.2.3108 NMAC. In addition, Transwestern will provide written notice by mail to all owners of record of all properties within 1/3 mile of the discharge site and by certified mail to the manager of the discharge site. See Attachment 3 for Draft Public Notice.

Table 1. Landowners Adjacent to the Belen Hydrostatic Discharge Site

Current Assessed Owner	Address	Brief Legal	Adjoining Side to Power Plant
Elizabeth Schnepf	P.O. Box 67, Cisco, IL 61830	Rio Grande Estates, Unit H, Block 1005, Lot 21.	East
Unknown		Rio Grande Estates, Unit H, Block 1005, Lot 22.	East
Bernie P. Graham	22011 Hiawatha Street, Unit 8, Chatsworth, CA 91311	Rio Grande Estates, Unit H, Block 1005, Lot 23.	East
William W. McClellan	300 Valencia Drive S.E., #131, Albuquerque, NM 87108	Rio Grande Estates, Unit H, Block 1005, Lot 24.	East
Paul L. Fisher, Jr., Trustee	1710 Woodrail Avenue, Columbia, MO 65203	Rio Grande Estates, Unit H, Block 1005, Lot 25.	East
May N. Ray	6234 Stage Coach Trail, San Angelo, TX 79601	Rio Grande Estates, Unit H, Block 1005, Lot 25.	East
Henry W. Trebelhorn & Ruth Trebelhorn	7120 Park Avenue South, Minneapolis, MN 55423	Rio Grande Estates, Unit H, Block 1004, Lots 1, 2 & 3.	East
Unknown		Rio Grande Estates, Unit H, Block 1004, Lot 4.	East
Ralph H. Manwiller & Virginia Manwiller	2220 Capri Drive, Clearwater, FL 33515	Rio Grande Estates, Unit H, Block 1004, Lots 5 & 6.	East
Unknown		Rio Grande Estates, Unit H, Block 1004, Lot 7.	East
Clay Holland, Jr. & Mary R. Holland	51 Brookside Road, W. Orange, NJ 07052	Rio Grande Estates, Unit H, Block 1004, Lot 8.	East
Unknown		Rio Grande Estates, Unit H, Block 1004, Lot 9.	East
Grace Fellowship	P.O. Box 448, Los Lunas, NM 87031	Rio Grande Estates, Unit H, Block 1004, Lot 10.	East
Unknown		Rio Grande Estates, Unit H, Block 1004, Lot 11.	East
Frank P. Seminara	C/O Geraldine Seminara, 3562 Coventry Gardens Drive, Las Vegas, NV 89135	Rio Grande Estates, Unit H, Block 1004, Lot 12.	East
Marie C. Powell	1007 Amapola, Torrance, CA 90501	Rio Grande Estates, Unit H, Block 1004, Lot 13.	East
Angel M. Gomez	10012 Plunkett Drive N.W., Albuquerque, NM 87114	Rio Grande Estates, Unit H, Block 1004, Lot 14.	East
City of Belen (reversionary rights held by Horizon Corporation)		Property situated within Rio Grande Industrial Park (reserved for the purpose of a railroad spur), located in the Tome Grant.	West
Rio Grande Industrial Park, LLC (Contract Purchaser); Horizon Industrial Development Company, LLC (Record Owner)	C/O Martin Sisneros, 2300 Roldan Drive, Belen, NM 87002	Tract A-1 (4.2117 acres), Land Division Plat of Tract A, Rio Grande Industrial Park, as shown on Plat, Cabinet J, Page 220; being located in Tome Grant	South
Rio Grande Industrial Park, LLC (Contract Purchaser); Horizon Industrial Development Company, LLC (Record Owner)	C/O Martin Sisneros, 2300 Roldan Drive, Belen, NM 87002	Tract 4-E-1-A-1 (113.2646 acres), Boundary Survey Plat Lands of Rio Grande Industrial Park; Ltd, Co., as shown on Plat, Cabinet J, Page 425; being located in Tome Grant	North

ATTACHMENT 2
Correspondence

Transwestern Pipeline Company, LLC
Belen Hydrostatic Test Water Discharge
Valencia County, New Mexico

From: Risso, Paul [mailto:PRisso@newmexicowater.com]
Sent: Wednesday, February 27, 2008 1:42 PM
To: Dean Shauers
Cc: Beck, Andrew; Geran, Cynthia; Hay, Ron; Towle, Bobby; Zielke, Berniece
Subject: RE: Transwestern: Request for Water Disposal Information
Importance: High

Good afternoon Dean. Per our phone conversation yesterday, this e-mail will serve as New Mexico Water Service Company's (NMWSC) response to Transwestern Pipeline Company's (TPC) request to discharge approximately 110,000 gallons of potable water into NMWSC's wastewater collection system.

As noted in a letter to us from Bill Vander Lynn of TPC dated February 21, 2008, the water to be discharged is being used to hydrostatically test 3.4 miles of new, 12" diameter Carbon Steel Natural Gas Pipeline.

NMWSC Operations Manager Ron Hay has determined that based on the information you've provided, NMWSC will allow such discharges into its wastewater collection system running through Navarro Street in the Rio Grande Industrial Park. However, inasmuch as the wastewater treatment facility receiving these discharges does not have sufficient capacity to treat additional inflows of this size in a single day, NMWSC will need at least 7-days prior notice before you desire to begin discharging so that we can determine how and when such discharges may be made. This can be done by contacting the following NMWSC representatives at our main office - (505) 864-2218, or on their cell phones as noted below:

Ron Hay, Operations Manager - (505) - 453-5511
Bobby Towle, Operations Supervisor (505) 463-1395
Paul Risso, General Manager (505) 264-4839

While NMWSC does not anticipate any negative impacts to the operations of its wastewater treatment facility as a result of the quality or constituents contained in your discharge water, should we have reason to believe this is occurring we will require that you discontinue your discharges. NMWSC will then determine what steps must be taken if we are to continue accepting any discharges. This may include, but not be limited to pretreatment of the water or testing of it by you.

In answer to your e-mail request that we provide you with NMWSC's discharge criteria, please see the attached copy of our Wastewater Discharge Agreement. Given the circumstances, at this point we will not be requiring you to enter into such an agreement, but this will serve as a guideline for you.

Also attached is a copy of NMWSC's Commercial Sewer Service usage rate, which is currently \$3.93 per thousand gallons. Based on your estimated discharge of 110,000 gallons the amount you will be charged is as follows:

110,000 gallons / 1,000 gallons per billing unit = 110 billing units
110 billing units X \$3.93 = \$432.30 usage charge.

Added to this amount are:

Regulatory fees @ .00506%, which equals \$2.19 ($\$432.30 \times .00506 = \2.19)
and;

Gross Receipts Tax of 6%, which equals \$25.94 ($\$432.30 \times .06 = \25.94)

Thus, the total charge due will be \$460.43. This e-mail will serve as your invoice. Checks can be delivered or mailed to:

New Mexico Water Service Company
401 Horner Street
Belen, NM 87002

Should you have any other questions or concerns please feel free to contact me at my numbers above.

Sincerely,

Paul Risso
General Manager

From: Dean Shauers [mailto:Dean.Shauers@rooney-eng.com]
Sent: Tue 2/26/2008 2:45 PM
To: Risso, Paul
Cc: Dean Shauers; VanderLyn, Bill
Subject: Transwestern: Request for Water Disposal Information

Hi Paul,

I was asked by Bill Vander Lyn of Transwestern Pipeline to follow-up with you with regard to the disposal of water from a hydrostatic test of a new carbon steel natural gas pipeline being built to the Valencia Power Plant there in Belen (see attached letter for details).

In particular, we would like to have the NMWS discharge criteria for water that is discharged to the sewer system located on Navarro Road (just south of the power plant). If you could forward the criteria via email or via fax (303-792-0227) I would appreciate it.

If you have any questions or would like to talk about specifics of the project please feel to call me at 303-929-6232 (cell) or 303-705-9341.

Thanks,

Dean

From: VanderLyn, Bill [mailto:Bill.VanderLyn@energytransfer.com]
Sent: Thursday, February 21, 2008 1:06 PM
To: prisso@newmexicowater.com
Cc: Dean Shauers; Hearn, Steven; Patterson, Patricia (Lowell,MA-US)
Subject: Request for Water Disposal Information

Dear Mr. Risso,

Attached is a letter requesting authorization for the disposal of hydrostatic test water at your facility.

Please review and provide us with any additional information you require in order to accept the hydrotest water.

Please call me if you have any questions.

Thanks,

Bill Vander Lyn
Transwestern Pipeline
Environmental Scientist
711 Louisiana Street, Suite 900
Houston, Texas 77002

281 - 714 - 2319 (office)
281 - 714 - 2176 (fax)
713 - 248 - 4995 (cell)

Transwestern Pipeline Company, LLC
711 Louisiana Street, Houston TX 77002-2716
Houston Offices 281-714-2000

February 21, 2008

Paul Risso - General Manager
New Mexico Water Service Company
401 Horner St.
Belen, NM 87002

Subject: Transwestern Pipeline - Hydrostatic Test Water Discharge

Dear Mr. Risso,

Transwestern Pipeline Company is constructing a new 3.4 mile long 12" Diameter Carbon Steel Natural Gas Pipeline lateral from our Mainline Transmission System north to the Valencia Power Plant currently under construction in Belen.

As a part of the Department of Transportation requirements the pipeline must be pressure tested prior to being placed in service. Transwestern has plans underway to pressure test the pipeline with potable water received from your firm. The pipeline will require approximately 110,000 gallons for the pressure test. Upon completion of the test Transwestern will need to dispose of the water in a manner consistent with the state of New Mexico. The hydrostatic test is planned for late March or early April of this year.

In discussions with your staff, one alternative that was raised was that Transwestern might be able to dispose of the water in the New Mexico Water Service (NMWS) sewer system running through Navarro Street. It is our understanding that the sewer is processed in a NMWS treatment plant in the vicinity.

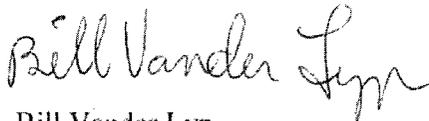
Transwestern would like to explore the disposal options with NMWS for this discharge.

As stated, the water would be initially received from your system via the hydrant located on the SW side of the Valencia Power Plant. The natural gas pipeline lateral is being constructed with new carbon steel pipe, and is not internally coated.

Transwestern respectfully requests written documentation from your firm as to the effluent limitations for discharge into the NMWS sewer system.

Please contact me at 281-714-2319 if you have any questions.

Sincerely,



Bill Vander Lyn
Environmental Scientist

cc: Brad Jones – NM OCD

-----Original Message-----

From: Niles, Ryan (Lowell,MA-US)
Sent: Friday, February 29, 2008 3:35 PM
To: Patterson, Patricia (Lowell,MA-US)
Subject: FW: FW: Hydrostatic Discharge

Pat,

The deposits are quaternary sediments around Belen. There are some sand and gravel quarries in the area (according to the attached) but no subsurface mines.

-Ryan

-----Original Message-----

From: Gretchen Hoffman [mailto:gretchen@gis.nmt.edu]
Sent: Thursday, February 28, 2008 4:58 PM
To: Niles, Ryan (Lowell,MA-US)
Cc: Maureen Wilks
Subject: Re: FW: Hydrostatic Discharge

Ryan:

I looked at Open-file report 462 on Construction aggregates on NM State

Trust Lands - within that report the NM highway department folios have been scanned. The area you are interested in is on Quad 53 - the Belen 15 min quadrangle. I have extracted the associated pages for this map and am attaching the pdf file. You can download the entire open-file report from our website at

<http://geoinfo.nmt.edu/publications/openfile/downloads/OFR400-499/451-475/462/>

or <ftp://geoinfo.nmt.edu/open-files/OFR400-499/451-475/462>

Regards
Gretchen Hoffman

Niles, Ryan (Lowell,MA-US) wrote:

> Gretchen and Maureen,

>

>

> You both helped us a few months ago regarding a hydrostatic test water
> discharge permit. One of the requirements of the permit application is
> that we demonstrate that our proposed discharge location does not
> overlie an underground mine. The previous location you cleared for us
> was in San Juan County. Now we have a proposed discharge location
> outside Belen, NM. There is no Township/Range/Section data for this area.

>

> Below is an email that I sent to Bob Eveleth that has not received an
> answer. Could you please take a look at the specified location and
> provide as assessment of the presence of underground mines?

>

> Thank You,

>
> Ryan Niles
> Environmental Geologist
> TRC
> Wannalancit Mills
> 650 Suffolk Street
> Lowell, MA 01854
> Phone: (978) 656-3629
> Fax: (978) 453-1995
> e-mail: rniles@trcsolutions.com <mailto:rniles@trcsolutions.com>

>
> -----

>
> *From:* Niles, Ryan (Lowell,MA-US)
> *Sent:* Monday, February 18, 2008 2:50 PM
> *To:* 'beveleth@gis.nmt.edu'
> *Cc:* Patterson, Patricia (Lowell,MA-US)
> *Subject:* Hydrostatic Discharge

>
> Mr. Eveleth,

>
> I contacted you a few weeks ago regarding a permit for hydrostatic test
> water discharge that required me to confirm that our proposed discharge
> location. Now I have another discharge location for which I must
> confirm the same.

>
> The location of this proposed discharge is outside Belen in Valencia
> County. Unfortunately, there is no Township, Range, and Section
> information for this area. I can tell you that the proposed discharge
> location is 34° 36' 26.21" N, 106° 43' 56.46" W. There is a topo map
> showing the location attached.

>
> Thank You.

>
> Ryan Niles
> Environmental Geologist
> TRC
> Wannalancit Mills
> 650 Suffolk Street
> Lowell, MA 01854
> Phone: (978) 656-3629
> Fax: (978) 453-1995
> e-mail: rniles@trcsolutions.com <mailto:rniles@trcsolutions.com>
>

EXPLANATION

QUAD No. 53

QUATERNARY		Alluvium	PERMIAN		Glorieta Sandstone
		Floodplain deposits			Yeso Formation
		Alluvial Aprons			Abo Formation
		Eolian deposits	PENNSYLVANIAN		Madera Limestone
		Pediment deposits			Granite
		Terrace deposits (Post Glacial)	PRECAMBRIAN		Quartzite
		Alluvial fan deposits			Metamorphic rocks undivided
		Cinders and Scoria			
		Basalt (Youngest or undiff.)			
		Intermediate Pediment deposits			
		Older Pediment deposits			
		Santa Fe Formation			
TERTIARY		Intrusive rocks undivided			
CRETACEOUS		Mesa Verde Group			
JURASSIC		Entrada Formation			
TRIASSIC		Triassic rocks undivided			
		San Andres Limestone			

	Established pit or quarry
	Prospect pit or quarry
	Fault downthrown side
	Anticline
	Syncline

CONSTRUCTION MATERIALS INVENTORY

MATERIAL PIT SUMMARY

Pit Number	5455	5456	55103	55104
Location	Section	not sectionalized	not sectionalized	not sectionalized
	Township & Range	Belen Grant	Nicolas Duran de Chavez Grant	Casa Colorado Grant
	County	Valencia	Valencia	Valencia
Formation	OTsf	Qt	Qt	OTsf
Rock Type	sand and gravel	sand and gravel	sand and gravel	sand and gravel
Source Rock (Gravel)	various	limestone and various	various	various
Quality of Material	fair	good	good	fair
Thickness of Material	76' plus	10' plus	8'	12'
Thickness of Cap (Caliche)	-	-	-	-
Material Underlying Formation	silt and clay	sandstone	gravel and sand	clay
Vegetation	cacti and grass	grass and greasewood	grass	greasewood and grass
Local Terrain	dissected slope	mesa slope	hilly	slope
Thickness of Overburden	3'	0-2'	0-3'	0-6'
P. I. (Overburden)	N.P.	N.P.	N.P.	N.P.
Estimated Quantity (cu. yds)	500,000	150,000 plus	200,000	200,000
Los Angeles Wear	29.4	28.0	26.2	26.0
Soundness Loss	6.1	8.6	3.5	15.0
Average Maximum Size	2"	2"	4"	2"
% Retained on 2" Sieve	1	6	11	3
Pit Average % Passing	Crushed to:	1"	as received	as received
	2"	-	97	100
	1"	100	90	84
	1/2"	98	79	62
	No. 4	68	59	45
	No. 10	45	42	38
No. 200	5	5	10	3
Plasticity Index	N.P.	N.P.	N.P.	N.P.
Remarks:				

Pit Number	5697	5698	5704	57104
Location	Section	not sectionalized	not sectionalized	NE 26
	Township & Range	Casa Colorado Grant	Casa Colorado Grant	8N 3E
	County	Socorro	Socorro	Valencia
Formation	Qt	Qt	OTsf	Oe
Rock Type	sand and gravel	sand and gravel	sand and gravel	sand
Source Rock (Gravel)	various	various	limestone	-
Quality of Material	fair	fair	good	good
Thickness of Material	12'	13' plus	10' plus	6'
Thickness of Cap (Caliche)	-	-	-	-
Material Underlying Formation	clay	silt and clay	clay	sandstone @ depth
Vegetation	cacti and grass	cacti and grass	grass	grass
Local Terrain	hilly	dissected terraces	slope	rolling
Thickness of Overburden	1-4'	1-6'	1-5'	0-2'
P. I. (Overburden)	8	6	N.P.	N.P.
Estimated Quantity (cu. yds.)	100,000	100,000	200,000	100,000
Los Angeles Wear	28.8	29.0	24.4	S.F. = 49.0
Soundness Loss	1.1	3.0	0.5	-
Average Maximum Size	3"	3"	16"	-
% Retained on 2" Sieve	18	15	25	-
Pit Average % Passing	Crushed to:	1"	1"	2"
	2"	-	-	100
	1"	100	100	71
	1/2"	68	81	53
	No. 4	47	57	37
	No. 10	31	38	31
No. 200	2	3	2	200:25
Plasticity Index	N.P.	N.P.	N.P.	N.P.
Remarks:				

CONSTRUCTION MATERIALS INVENTORY

MATERIAL PIT SUMMARY

Pit Number	57133	57136	57143	6401
Section	SW31	Not sectionalized	Not sectionalized	Not sectionalized
Location	Township & Range 7N 3E County Valencia	San Clemente Grant Valencia	Tome claim Valencia	Belen Grant Valencia
Formation	0t	0b	0Tsf	0Tsf
Rock Type	sand and gravel	basalt and dacite	sand and gravel	sand and gravel
Source Rock (Gravel)	various	-	various	various
Quality of Material	good	good	good	good
Thickness of Material	10' plus	70' plus	12' plus	20' plus
Thickness of Cap (Caliche)	-	-	-	-
Material Underlying Formation	silt	silt	clay	clay
Vegetation	sage and grass	tumble weed and grass	grass	grass
Local Terrain	dissected terrace	side hill	dissected terrace	slope
Thickness of Overburden	2'	none	none	2'
P. I. (Overburden)	N.P.	-	-	N.P.
Estimated Quantity (cu. yds.)	150,000	150,000	100,000	250,000
Los Angeles Wear	25.6	31.2	27.2	29.4
Soundness Loss	1.5	1.5	-	-
Average Maximum Size	6"	8"	3"	2"
% Retained on 2" Sieve	7	95	7	3
Crushed to:	2"	2"	2"	as received
Pit	1"	100	93	100
Average	1/2"	54	90	96
% Passing	No. 4	40	69	88
	No. 10	31	51	68
	No. 200	26	10	50
Plasticity Index	1	2	0	6
Remarks:	N.P.	N.P.	N.P.	N.P.

Pit Number	6468	6529	6739	6741
Section	NW33	Not sectionalized	Not sectionalized	NE10
Location	Township & Range 8N 3E County Valencia	San Clemente Grant Valencia	Pajarito Grant Bernalillo	8N 2E Bernalillo
Formation	Qa1	0b	0Tsf	0p(2)
Rock Type	sand and gravel	dacite	sand and gravel	sand and gravel
Source Rock (Gravel)	various	-	various	limestone and various
Quality of Material	good	good	good	good
Thickness of Material	12' plus	12' plus	12' plus	14'
Thickness of Cap (Caliche)	-	-	-	-
Material Underlying Formation	clay and sand	-	clay	clay
Vegetation	grass	grass	grass	grass
Local Terrain	canyon bottom	mountainous	slope	mesa top
Thickness of Overburden	2-4'	6'	1-6'	2'
P. I. (Overburden)	5	N.P.	N.P.	6
Estimated Quantity (cu. yds.)	100,000	500,000	250,000	250,000
Los Angeles Wear	20.0	21.2	24.4	25.2
Soundness Loss	1.2	7.4	2.8	3.6
Average Maximum Size	3"	6"	3"	2"
% Retained on 2" Sieve	9	18	7	2
Crushed to:	as received	as received	as received	as received
Pit	2"	86	89	86
Average	1"	82	79	69
% Passing	1/2"	74	68	55
	No. 4	57	58	41
	No. 10	43	51	34
	No. 200	6	1	3
Plasticity Index	N.P.	N.P.	N.P.	N.P.
Remarks:				

CONSTRUCTION MATERIALS INVENTORY

MATERIAL PIT SUMMARY

Pit Number	Section	6822	7208	7301	0913
Location	Township & Range	6N 3E	7N 3E	7N 3F	8N 1W
	County	Valencia	Valencia	Valencia	Bernalillo
Formation		Qt	Qt	QTsf	Qt
Rock Type		sand and gravel	sand and gravel	sand and gravel	sand
Source Rock (Gravel)		various	various	various	-
Quality of Material		excellent	excellent	good	fair
Thickness of Material		10' plus	15'	14' plus	1-3'
Thickness of Cap (Caliche)		-	-	-	-
Material Underlying Formation		sandstone	sand	clay	siltstone
Vegetation		grass	grass	grass	grass
Local Terrain		hilly	rolling	rolling	hilly
Thickness of Overburden		0-3'	0-2'	0-2'	0-2'
P. I. (Overburden)		N.P.	N.P.	N.P.	N.P.
Estimated Quantity (cu. yds.)		250,000	100,000	175,000	150,000
Los Angeles Wear		21.2	24.0	23.9	S.E. = 79
Soundness Loss		3.6	2.8	1.9	-
Average Maximum Size		3"	4"	4"	-
% Retained on 2" Sieve		6	10	10	-
	Crushed to:	as received	as received	as received	as received
	2"	94	88	87	-
Pit	1"	75	86	77	-
Average	1/2"	65	77	61	10:100
% Passing	No. 4	57	65	43	40:98
	No. 10	53	53	20	80:58
	No. 200	4	4	4	200:10
Plasticity Index		N.P.	N.P.	N.P.	N.P.
Remarks:					

Pit Number	Section	0914	0915	0916	0917
Location	Township & Range	8N 1E	9N 3E	8N 4E	Not sectionalized
	County	Bernalillo	Bernalillo	Bernalillo	La de Padilla Grant
Formation		Qc	QTsf	Psa	Valencia
Rock Type		scoria and cinders	coarse sand	limestone	Qal
Source Rock (Gravel)		-	various	various	gravel
Quality of Material		good	good	good	various
Thickness of Material		50' plus	6-10'	10'	poor
Thickness of Cap (Caliche)		-	-	-	5' plus
Material Underlying Formation		dacite @ depth	clay	shale	-
Vegetation		-	grass	grass and trees	clay
Local Terrain		mountainous	dissected slope	mountainous	sage and grass
Thickness of Overburden		-	0-2'	-	sloping plain
P. I. (Overburden)		-	N.P.	-	6'
Estimated Quantity (cu. yds.)		300,000	300,000	500,000	N.P.
Los Angeles Wear		48.4	25.2	37.8	15,000 plus
Soundness Loss		5.7	-	12.9	26.4
Average Maximum Size		-	3/4"	-	-
% Retained on 2" Sieve		-	none	-	6"
	Crushed to:	1"	as received	2"	30
	2"	-	-	100	as received
Pit	1"	100	100	58	65
Average	1/2"	51	94	26	54
% Passing	No. 4	30	79	12	45
	No. 10	22	66	7	34
	No. 200	3	1	1	21
Plasticity Index		N.P.	N.P.	N.P.	8
Remarks:					17

CONSTRUCTION MATERIALS INVENTORY

QUADRANGLE PAGE 53 (4)

MATERIAL PIT SUMMARY

Pit Number	0918	0919	0920	0921
Location	Section	SE12	Not sectionalized	Not sectionalized
	Township & Range	6N 2W	Tome claim	Tome claim
	County	Valencia	Valencia	Valencia
Formation	Ti	Psa	pEq	0af
Rock Type	diorite w/basalt	limestone	quartzite	gravel
Source Rock (Gravel)	-	-	-	granite and various
Quality of Material	good	good	good	good
Thickness of Material	2-10'	10' plus	75'	25' plus
Thickness of Cap (Caliche)	-	-	-	-
Material Underlying Formation	sandstone	shale	-	-
Vegetation	grass	greasewood	trees	grass and trees
Local Terrain	hilly	hilly	mountainous	mountainous
Thickness of Overburden	0-2'	0-2'	-	0-2'
P. I. (Overburden)	N.P.	6 plus	-	N.P.
Estimated Quantity (cu. yds)	175,000	200,000	500,000	175,000
Los Angeles Wear	15.1	35.2	19.2	19.7
Soundness Loss	2.5	25.8	3.8	6.1
Average Maximum Size	-	-	-	5"
% Retained on 2" Sieve	-	-	-	15
Pit Average % Passing	Crushed to:	1"	1"	2"
	2"	-	-	100
	1"	100	100	57
	½"	48	65	25
	No. 4	19	23	11
	No. 10	9	13	6
No. 200	2	3	1	2
Plasticity Index	N.P.	N.P.	N.P.	N.P.

Remarks:

Pit Number
 Location Section
 Township & Range
 County
 Formation
 Rock Type
 Source Rock (Gravel)
 Quality of Material
 Thickness of Material
 Thickness of Cap (Caliche)
 Material Underlying Formation
 Vegetation
 Local Terrain
 Thickness of Overburden
 P. I. (Overburden)
 Estimated Quantity (cu. yds.)
 Los Angeles Wear
 Soundness Loss
 Average Maximum Size
 % Retained on 2" Sieve
 Pit
 Average
 % Passing
 No. 4
 No. 10
 No. 200
 Plasticity Index
 Remarks:

CONSTRUCTION MATERIALS INVENTORY

MATERIAL PIT SUMMARY

Pit Number	6822	7208	7301	0913
Section	NE7	NW31	SE30	SW15
Location Township & Range	6N 3E	7N 3E	7N 3E	8N 1W
County	Valencia	Valencia	Valencia	Bernalillo
Formation	Qt	Qt	QTsf	Qe
Rock Type	sand and gravel	sand and gravel	sand and gravel	sand
Source Rock (Gravel)	various	various	various	-
Quality of Material	excellent	excellent	good	fair
Thickness of Material	10' plus	15'	14' plus	1-3'
Thickness of Cap (Caliche)	-	-	-	-
Material Underlying Formation	sandstone	sand	clay	siltstone
Vegetation	grass	grass	grass	grass
Local Terrain	hilly	rolling	rolling	hilly
Thickness of Overburden	0-3'	0-2'	0-2'	0-2'
P. I. (Overburden)	N.P.	N.P.	N.P.	N.P.
Estimated Quantity (cu. yds)	250,000	100,000	175,000	150,000
Los Angeles Wear	21.2	24.0	23.9	S.E. = 79
Soundness Loss	3.6	2.8	1.9	-
Average Maximum Size	3"	4"	4"	-
% Retained on 2" Sieve	6	10	10	-
Crushed to:	as received	as received	as received	as received
Pit 2"	94	88	87	-
Average 1"	75	86	77	-
% Passing 1/2"	65	77	61	10:100
No. 4	57	65	43	40:98
No. 10	53	53	20	80:58
No. 200	4	4	4	200:10
Plasticity Index	N.P.	N.P.	N.P.	N.P.
Remarks:				

Pit Number	0914	0915	0916	0917
Section	NE18	SE32	NW12	Not sectionalized
Location Township & Range	8N 1E	9N 3E	8N 4E	La de Padilla Grant
County	Bernalillo	Bernalillo	Bernalillo	Valencia
Formation	Qc	QTsf	Psa	Qal
Rock Type	scoria and cinders	coarse sand	limestone	gravel
Source Rock (Gravel)	-	various	-	various
Quality of Material	good	good	good	poor
Thickness of Material	50' plus	6-10'	10'	5' plus
Thickness of Cap (Caliche)	-	-	-	-
Material Underlying Formation	dacite @ depth	clay	shale	clay
Vegetation	-	grass	grass and trees	sage and grass
Local Terrain	mountainous	dissected slope	mountainous	sloping plain
Thickness of Overburden	-	0-2'	-	6'
P. I. (Overburden)	-	N.P.	-	N.P.
Estimated Quantity (cu. yds.)	300,000	300,000	500,000	15,000 plus
Los Angeles Wear	48.4	25.2	37.8	26.4
Soundness Loss	5.7	-	12.9	-
Average Maximum Size	-	3/4"	-	6"
% Retained on 2" Sieve	-	none	-	30
Crushed to:	1"	as received	2"	as received
Pit 2"	-	-	100	65
Average 1"	100	100	58	54
% Passing 1/2"	51	94	26	45
No. 4	30	79	12	34
No. 10	22	66	7	21
No. 200	3	1	1	8
Plasticity Index	N.P.	N.P.	N.P.	17
Remarks:				

ATTACHMENT 3
Draft Permit Notice

Transwestern Pipeline Company, LLC
Belen Hydrostatic Test Water Discharge
Valencia County, New Mexico