

DATE 3/8/13	SUSPENSE —	ENGINEER WVS	LOGGED IN	TYPE SWD	APP NO. PWT 1307548487
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ABOVE THIS LINE FOR DIVISION USE ONLY

1346A

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [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  
 WFX  PMX  SWD  IPI  EOR  PPR

[D] Other: Specify \_\_\_\_\_

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

SLIGHT AMENDMENT

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

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

J. E. B. RODRIGUEZ

Print or Type Name

Signature

V-P REGULATORY

Title

Date

JEB@R360ES.COM

e-mail Address



Greenspoint Plaza 4  
16945 Northchase Drive, Suite 2200  
Houston, Texas 77060  
281.872.R360 (7360) Office  
www.r360environmentalsolutions.com

State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
Attn: William Jones  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

RECEIVED OGD  
2013 MAR -8 A 11:20

RE: Disposal Well Amendment Request  
R360 Permian Basin, LLC  
Avalon SWD, Well No. 1D (API 30-015-NA)  
Eddy County, New Mexico

40733

Dear Mr. Jones,

On July 26, 2012, your office approved a disposal well application for our R360 Permian Basin, LLC's Avalon site (permit attached). To date, we have not drilled but are anxious to get started soon. But before we begin drilling operations, we would like to amend the original application and disposal permit to reflect the following changes:

1. Drill the well to a total depth (TD) of 5850' instead of 6500' as originally requested. Please be aware that the permitted disposal interval is from 4300' to 5850' and no changes are being requested to amend the permitted interval.
2. Construct a cased hole completion to 5850' (TD) with 26# or 29# ppf 7" casing and selectively perforate the permitted zone instead of an open hole completion as originally applied for.
3. Bring top of cement (TOC) on the long string casing to the regulatory requirement of 3800' instead of TOC to surface as originally applied for.
4. Install and set an Arrowset AX 1-X packer instead of the tension packer stated in the permit.

*Ball Comp  
Eddy County*

As you have recommended, I have included a brief C-108 application with clearly labeled wellbore diagram with formation tops marked along with this amendment request.



Greenspoint Plaza 4  
16945 Northchase Drive, Suite 2200  
Houston, Texas 77060  
**281.872.R360 (7360) Office**  
[www.r360environmentalsolutions.com](http://www.r360environmentalsolutions.com)

Your assistance on this matter is greatly appreciated. Should you have any questions or concerns, please do not hesitate to call me (210.275.0839) or email me at [jrodriguez@r360es.com](mailto:jrodriguez@r360es.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Joe B. Rodriguez". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

Joe B Rodriguez, P.G.  
Vice President – Regulatory Affairs  
R360 Environmental Solutions, LLC

Enclosures

cc: Wayne Crawley – R360 Environmental Solutions, LLC  
Clayton McDonald – R360 Permian Basin, LLC  
Zach Davis – R360 Permian Basin, LLC

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ Yes \_\_\_\_\_ No

II. OPERATOR: R360 Permian Basin, LLC

ADDRESS: 16945 Northchase Drive, Ste 2200, Houston, Texas 77060

CONTACT PARTY: Joe B. Rodriguez, Vice President Regulatory Affairs PHONE: 210-275-0839

III. 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  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:  
1. Proposed average and maximum daily rate and volume of fluids to be injected;  
2. Whether the system is open or closed;  
3. Proposed average and maximum injection pressure;  
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,  
5. 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. 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: Joe B. Rodriguez TITLE: Vice President - Regulatory Affairs

SIGNATURE: [Signature] DATE: 3/7/13

E-MAIL ADDRESS: joeb@R360ES.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: Previously Submitted 3/19/12

### 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.

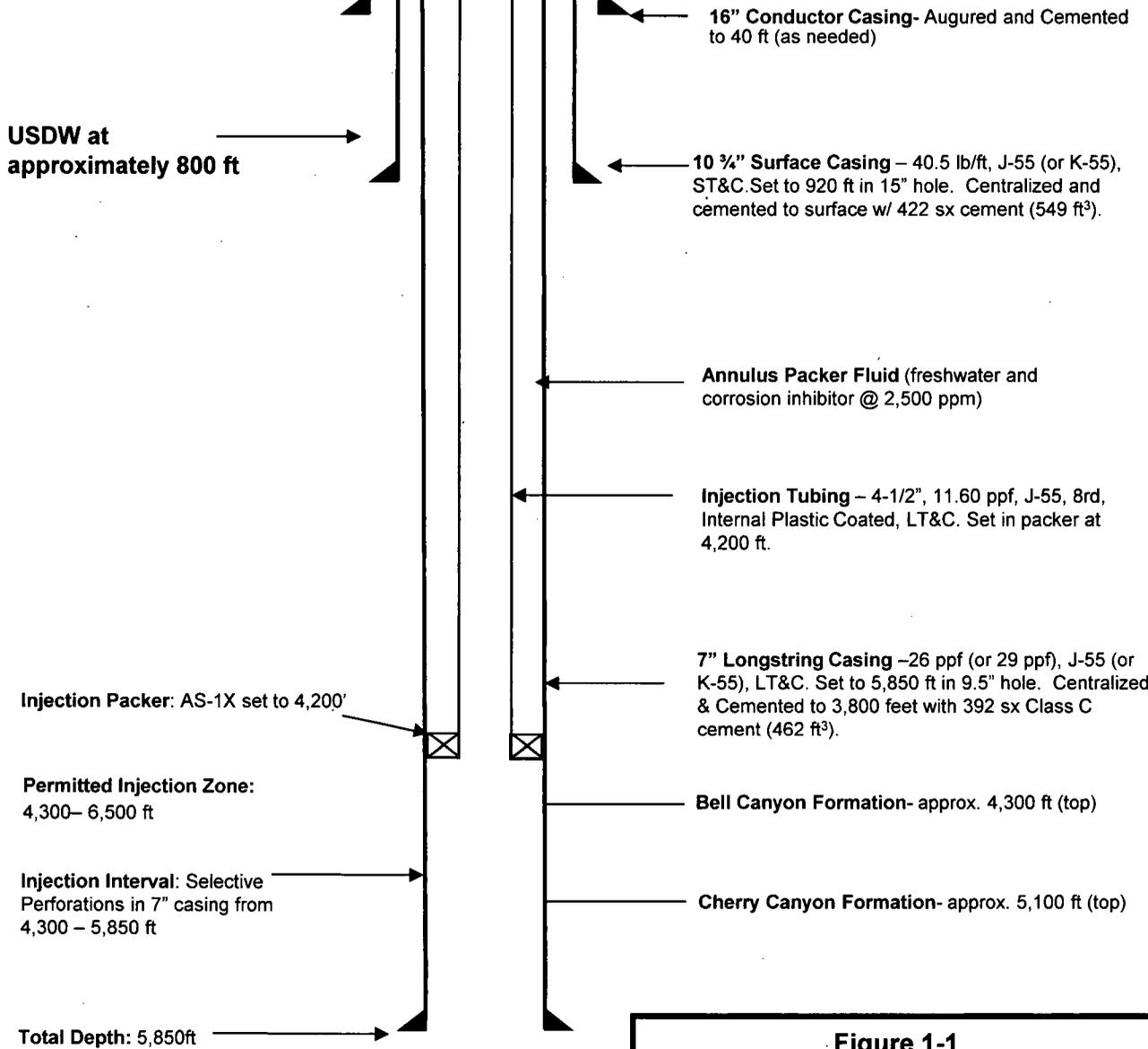
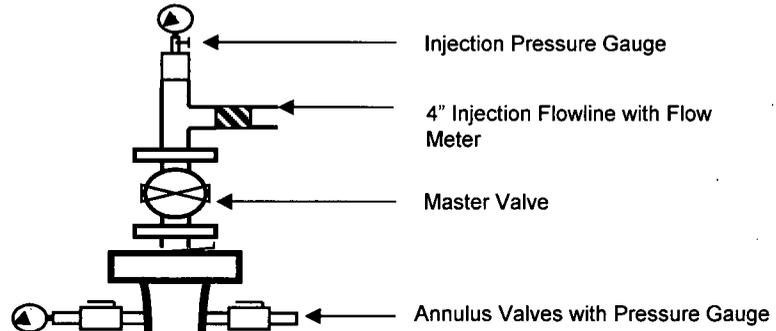
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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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.

**R360 Permian Basin, LLC  
Avalon SWD #1  
Eddy County, NM**

Note: All depths are referenced to ground level.



**Figure 1-1**

Drawn by: WMJ      Date: 03-06-13 rev.2  
Checked by:

**R360 Permian Basin, LLC  
Avalon SWD #1; Eddy County, NM**

INJECTION WELL DATA SHEET

OPERATOR: R360 Permian Basin, LLC

WELL NAME & NUMBER: Avalon SWD #1

WELL LOCATION: 350 FNL and 2450 FEL FOOTAGE LOCATION B UNIT LETTER 36 SECTION 26S TOWNSHIP 31E RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 15 in Casing Size: 10 3/4 in
Cemented with: 422 sx. or 549 ft^3
Top of Cement: surface Method Determined: calculated

Intermediate Casing

Hole Size: Casing Size:
Cemented with: sx. or ft^3
Top of Cement: Method Determined:

Production Casing

Hole Size: 9 1/2 in Casing Size: 7 in
Cemented with: 392 sx. or 462 ft^3
Top of Cement: 3800 ft Method Determined: calculated
Total Depth: 5850 ft

Injection Interval

4300 feet to 5850 feet (perforated)

(Perforated or Open Hole; indicate which)

**INJECTION WELL DATA SHEET**

Tubing Size: 4 1/2 in Lining Material: Plastic Coating

Type of Packer: AS-1x (or equivalent)

Packer Setting Depth: 4,200 feet

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

1. Is this a new well drilled for injection?  Yes  No

If no, for what purpose was the well originally drilled? \_\_\_\_\_

\_\_\_\_\_

2. Name of the Injection Formation: Delaware Sand; Cherry and Brushy Canyon

3. Name of Field or Pool (if applicable): North Mason Delaware is the shallower sand

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. \_\_\_\_\_

Not Applicable

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_

Shallower Zones: Delaware Sand at 4150 feet.

No Productive Zones Deeper in the area.

\_\_\_\_\_

Run INT Survey  
 Injection Permit Checklist (11/15/2010) 3/16/13  
 WFX PMX SWD 1346-A Permit Date 3/16/13 UIC Ctr JAN 04

# Wells 1 Well Name(s): AVALON SWD #1D

API Num: 30-0 15-NA Spud Date: Not Yet New/Old: N (UIC primacy March 7, 1982)

Footages: 332 350 FNL/43 FEL Unit B Sec 36 Tsp 265 Rge 31E County EDDY

General Location: 45 mi SE of MALACA / DIRECTLY East of Red Bluff

Operator: R360 PERMIAN BASIN LLC Contact: Joe B. Rigway  
MARK J. LARSON

OGRID: 289736 RULE 5.9 Compliance (Wells) \_\_\_\_\_ (Finan Assur) \_\_\_\_\_ IS 5.9 OK? \_\_\_\_\_

Well File Reviewed  Current Status: NOT Drilled or Permitted

Planned Work to Well: Drill

Diagrams: Before Conversion  After Conversion  Elogs in Imaging File: \_\_\_\_\_

Well Details:	Sizes Hole.....Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> Surface	<u>15 - 13 3/4</u>	<u>920'</u>		<u>4225K</u>	<u>CIRC</u>
New <input checked="" type="checkbox"/> Existing <input type="checkbox"/> <u>LONG</u> Interm	<u>9 1/2 - 7"</u>	<u>4300'</u>		<u>778</u>	<u>CIRC</u>
New <input type="checkbox"/> Existing <input type="checkbox"/> <u>LongSt</u>		<u>5840</u>			
New <input type="checkbox"/> Existing <input type="checkbox"/> Liner					
New <input type="checkbox"/> Existing <input type="checkbox"/> OpenHole		<u>578</u> <u>4300</u> <u>6500</u>			

Depths/Formations:	Depths, Ft.	Formation	Tops?
Formation(s) Above	<u>4130</u> <u>5040</u>	<u>Del (Bell)</u> <u>cherry C.</u>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<u>D.M.G.</u> Injection TOP:	<u>4300'</u>	<u>Bell C.</u>	Max. PSI <u>860</u> OpenHole <input checked="" type="checkbox"/> Perfs <input checked="" type="checkbox"/>
Injection BOTTOM:	<u>5840'</u>	<u>above brushy</u> <u>cherry C.</u>	Tubing Size <u>4 1/2</u> Packer Depth <u>4150</u>
Formation(s) Below	<u>7875</u> <u>6285</u> <u>8180</u>	<u>Brushy</u> <u>cherry C.</u> <u>Bones.</u>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

Capitan Roof?  (Plash?  Noticed?  ) (WIPP?  Noticed?  ) Salado Top/Bot ? - ? Cliff House?   
 Fresh Water: Depths: 180-240 Formation Malala Wells?  Analysis?  Affirmative Statement

Disposal Fluid Analysis? Sources: COMMERCIAL

Disposal Interval: Analysis?  Production Potential/Testing: Total in Deep well

Notice: Newspaper Date 7/10/12 Surface Owner DAVID KIRK Mineral Owner(s) STO.

RULE 26.7(A) Affected Persons: HANSON / AGUIRRE / Legacy 3/19/12 Sabara 7/5/12

AOR: Maps?  Well List?  Producing in Interval? NO Wellbore Diagrams?  3/10/12

.....Active Wells  Repairs?  Which Wells? \_\_\_\_\_

.....P&A Wells 1 Repairs?  Which Wells? \_\_\_\_\_

Issues: Said NOTICE To Sabara about TEXAS Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_