District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 23 2015
RECEIVED

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Owl SWD Operating, LLC 8214 Westchester Dr., Ste.850, Dallas, TX 75255	308339
	3. API Number 30-015- 43316
4. Property Code 313988	5. Property Name: Mills Ranch SWD
	6. Well No. 1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	6	23 S	31 E		2491'	South	1148'	West	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
SWD; Devonian	96101

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	S	R	P	3303'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	17100'	Devonian / Silurian	Sidewinder	8/15/2015

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
346'	> 1 mile	unknown

[X] We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	24.0"	20.0"	106.5# J-55 ST&C	1000'	1132 sx 'C'	Circ. to Surf.
Intermediate	17.5"	13.375"	68.0# HPC-110 ST&C	4000'	3286 sx 'C'	Circ. to Surf.
Intermediate	12.25"	9.875"	62.8# P-110 BT&C	11800'	2250 sx 'H'	Circ. to Surf.

Casing/Cement Program: Additional Comments

Prod. Lnr.	8.5"	7.0"	32.0#	11500'-15600'	619 sx 'H'	11500' TOL

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Blind Ram Hydraulic	5000 psi	8000 psi	TBD (Schaffer/Hydril Equiv.)

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.
Signature: Ben Stone

Printed name:	Ben Stone
Title:	Agent for Owl SWD Operating, LLC
E-mail Address:	ben@sosconsulting.us
Date: 7/23/2015	Phone: 903-488-9850

OIL CONSERVATION DIVISION

Approved By: K Dade
Title: Dist II Supervisor
Approved Date: 8-27-15 Expiration Date: 8-26-17
Conditions of Approval Attached

DISTRICT I
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Phone: (575) 393-6161 Fax: (575) 393-0720

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1220 S. St. Francis Dr., Santa Fe, NM 87505
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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-43316	96101	SWD; Devonian

Property Code	Property Name	Well Number
313988	Mills Ranch SWD	1

OGRID No.	Operator Name	Elevation
308339	Owl SWD Operating, LLC	3303'

Surface Location

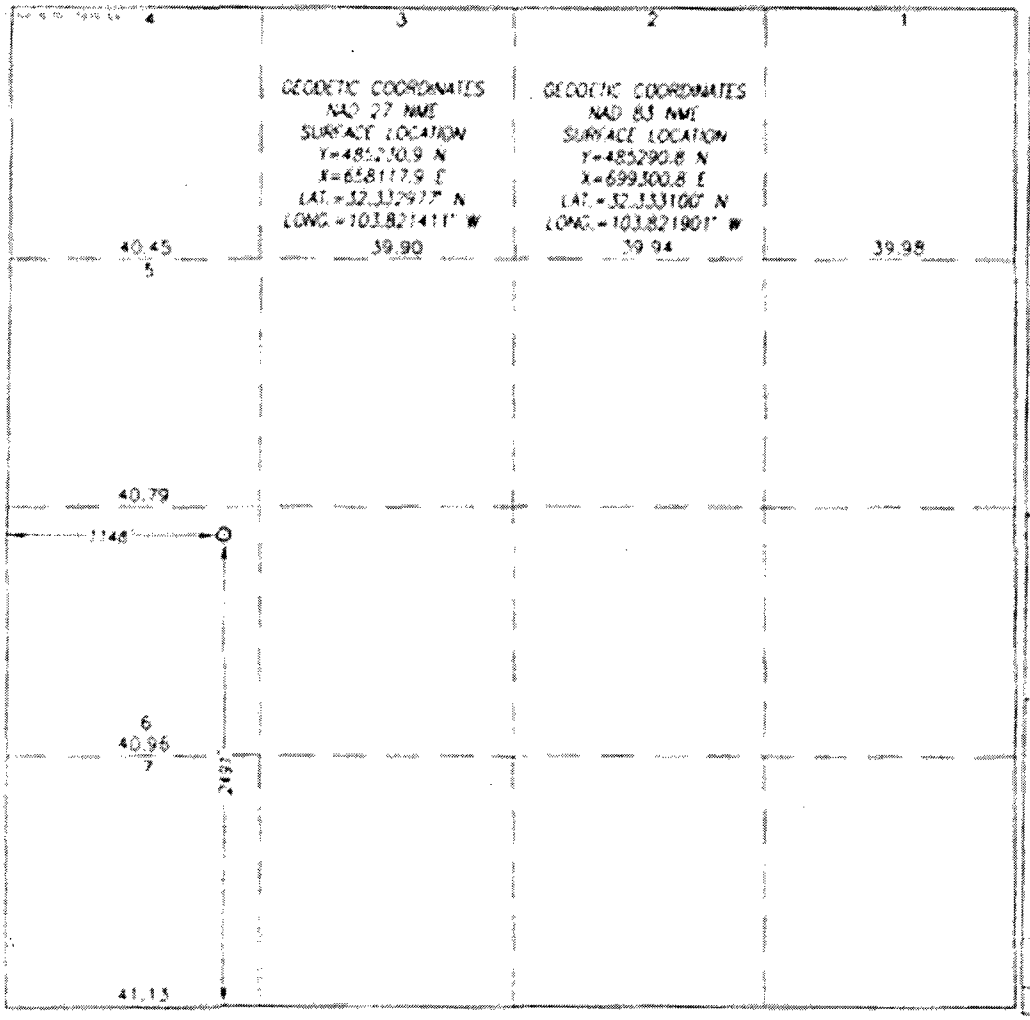
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	6	23-S	31-E	6	2491	SOUTH	1148	WEST	EDDY

Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Ben Stone 2/27/2015
Signature Date

Ben Stone
Printed Name

ben@sosconsulting.us
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

FEBRUARY 23, 2015
Date of Survey

Signature & Seal of Professional Surveyor

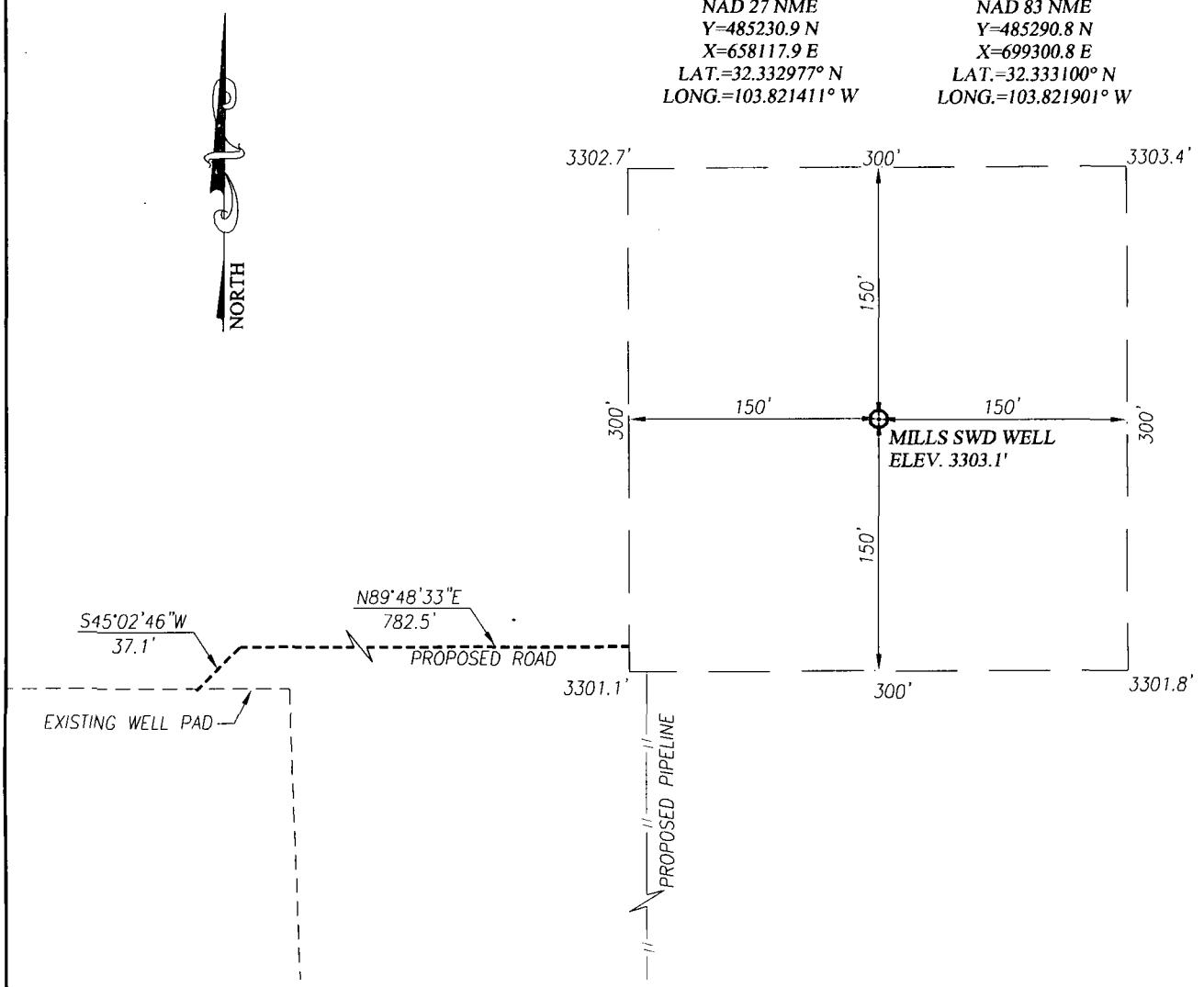
NEW MEXICO
3239
SURVEYOR

Ronald J. Eidson 02/25/2015

Certificate Number: Gary L. Jones 12641
Ronald J. Eidson 3239

ACK: JW S.C. W.O.: 15.11.0234

GEODETIC COORDINATES NAD 27 NME	GEODETIC COORDINATES NAD 83 NME
Y=485230.9 N	Y=485290.8 N
X=658117.9 E	X=699300.8 E
LAT.=32.332977° N	LAT.=32.333100° N
LONG.=103.821411° W	LONG.=103.821901° W



NOTE:
1) SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

DIRECTIONS TO MILLS SWD WELL:

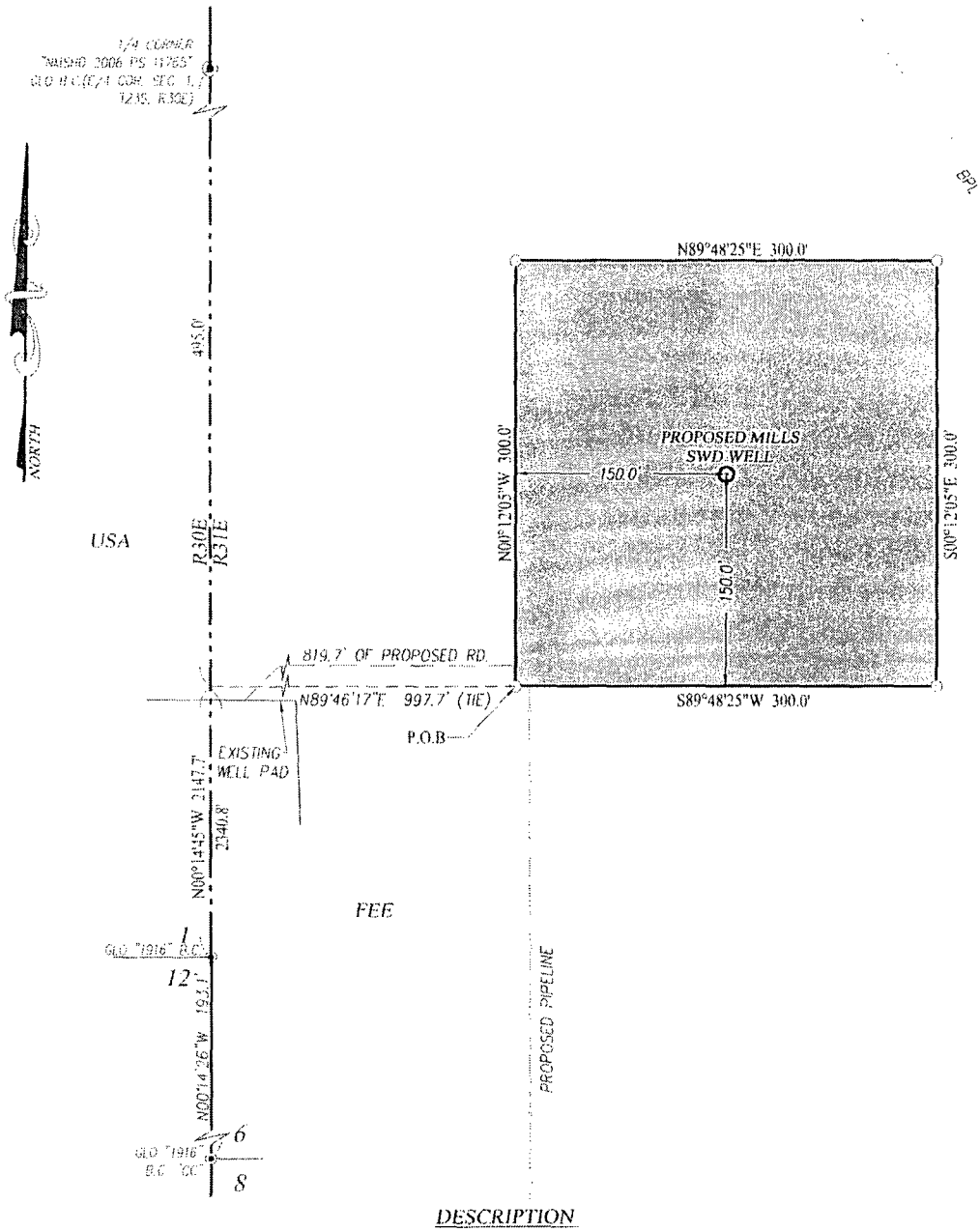
FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. 802, GO NORTH ON CO. RD. 802 APPROX. 0.5 MILES TO MILLS RANCH RD., TURN RIGHT AND GO EAST APPROX. 141 FEET TO EXISTING PAD CORNER. THEN FROM THE NORTHEAST PAD CORNER FOLLOW STAKED ROAD NORTHEAST APPROX. 37 FEET THEN EAST 782 FEET TO SOUTHWEST PAD CORNER.

OILFIELD WATER LOGISTICS

MILLS SWD WELL
LOCATED 2491 FEET FROM THE SOUTH LINE
AND 1148 FEET FROM THE WEST LINE OF SECTION 6,
TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

Survey Date: 2/23/15	CAD Date: 2/25/15	Drawn By: ACK
W.O. No.: 15110254	Rev: .	Rel. W.O.:	Sheet 1 of 1



DESCRIPTION

A PROPOSED PAD SITUATED IN THE SOUTHWEST QUARTER OF SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE PROPOSED TRACT WHICH LIES N00°14'26"W 2340.8 FEET AND N89°46'17"E 997.7 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 6; THEN N00°12'05"W 300.0 FEET; THEN N89°48'25"E 300.0 FEET; THEN S00°12'05"E 300.0 FEET; THEN S89°48'25"W 300.0 FEET TO THE POINT OF BEGINNING AND CONTAINING 2.07 ACRES MORE OR LESS.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J. Eidson

DATE: 02/25/2015

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

○ DENOTES SET SPIKE NAIL

100 0 100 200 Feet

Scale: 1"=100'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240

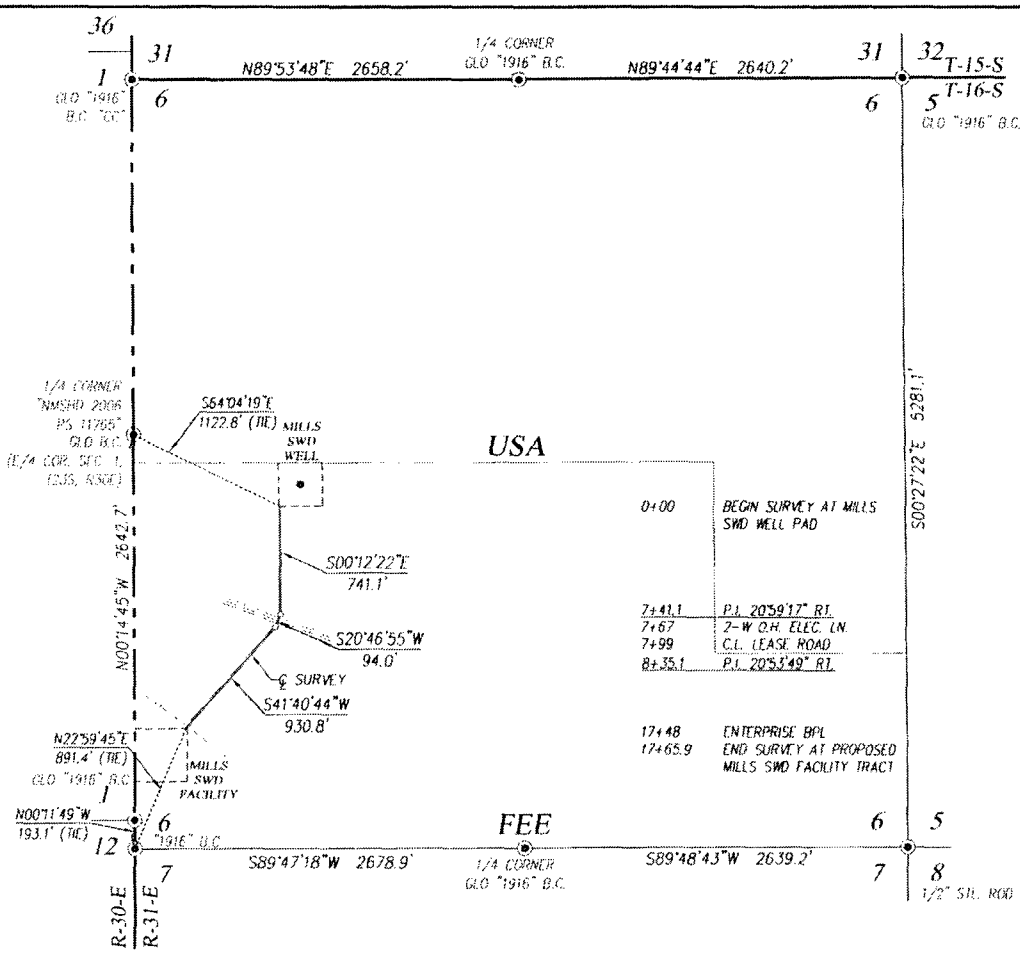
(575) 393-3117 www.jwsc.biz

TBPLS# 10021000

OILFIELD WATER LOGISTICS

SURVEY FOR MILLS SWD WELL PAD
SITUATED IN THE SW/4 OF SECTION 6,
TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Survey Date: 2/23/15	CAD Date: 2/24/15	Drawn By: ACK
W.O. No.: 15110254	Rev: .	Rel. W.O.: 14111112	Sheet 1 of 1



DESCRIPTION

SURVEY FOR A PIPELINE CROSSING SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, WHICH LIES S64°04'19"E 1122.8 FEET FROM THE WEST QUARTER CORNER; THEN S00°12'22"E 741.1 FEET; THEN S20°46'55"W 94.0 FEET; THEN S41°40'44"W 930.8 FEET TO A POINT; WHICH LIES N22°59'45"E 891.4 FEET FROM THE SOUTHWEST CORNER.

TOTAL LENGTH EQUALS 1765.9 FEET OR 107.02 RODS.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J. Eidson

DATE: 02/24/2015

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

Scale: 1"=1000'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240

(575) 393-3117 www.jwsc.biz

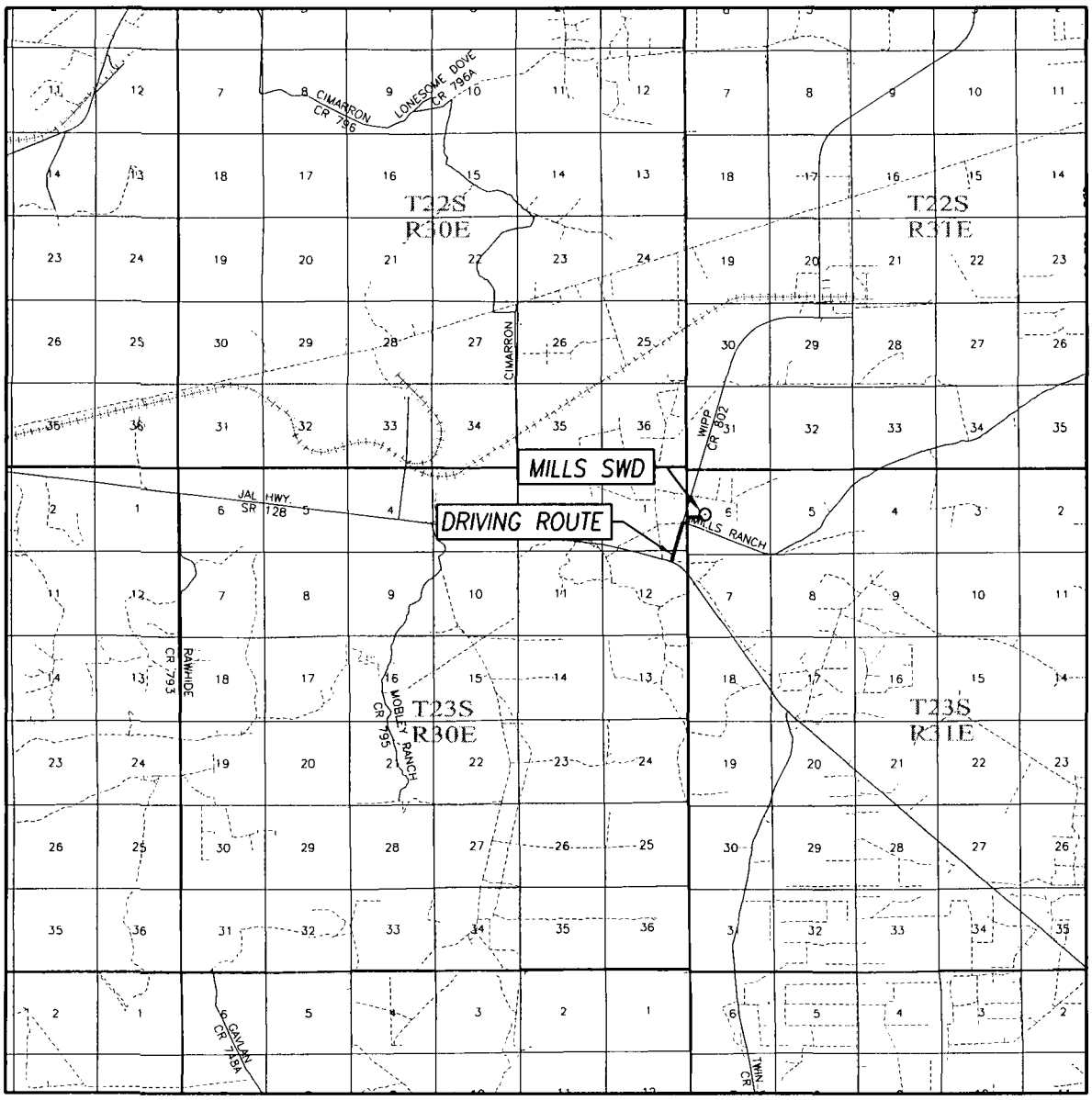
TBPLS# 10021000

OILFIELD WATER LOGISTICS

SURVEY FOR A PIPELINE TO THE MILLS SWD WELL CROSSING SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 2/23/15	CAD Date: 2/24/15	Drawn By: ACK	
W.O. No.: 15110254	Rev: .	Rel. W.O.: 14111112	Sheet 1 of 1

VICINITY MAP



SCALE: 1" = 2 MILES

DRIVING ROUTE: SEE TOPOGRAPHICAL AND ACCESS ROAD MAP

SEC. 6 TWP. 23-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2491' FSL & 1148' FWL

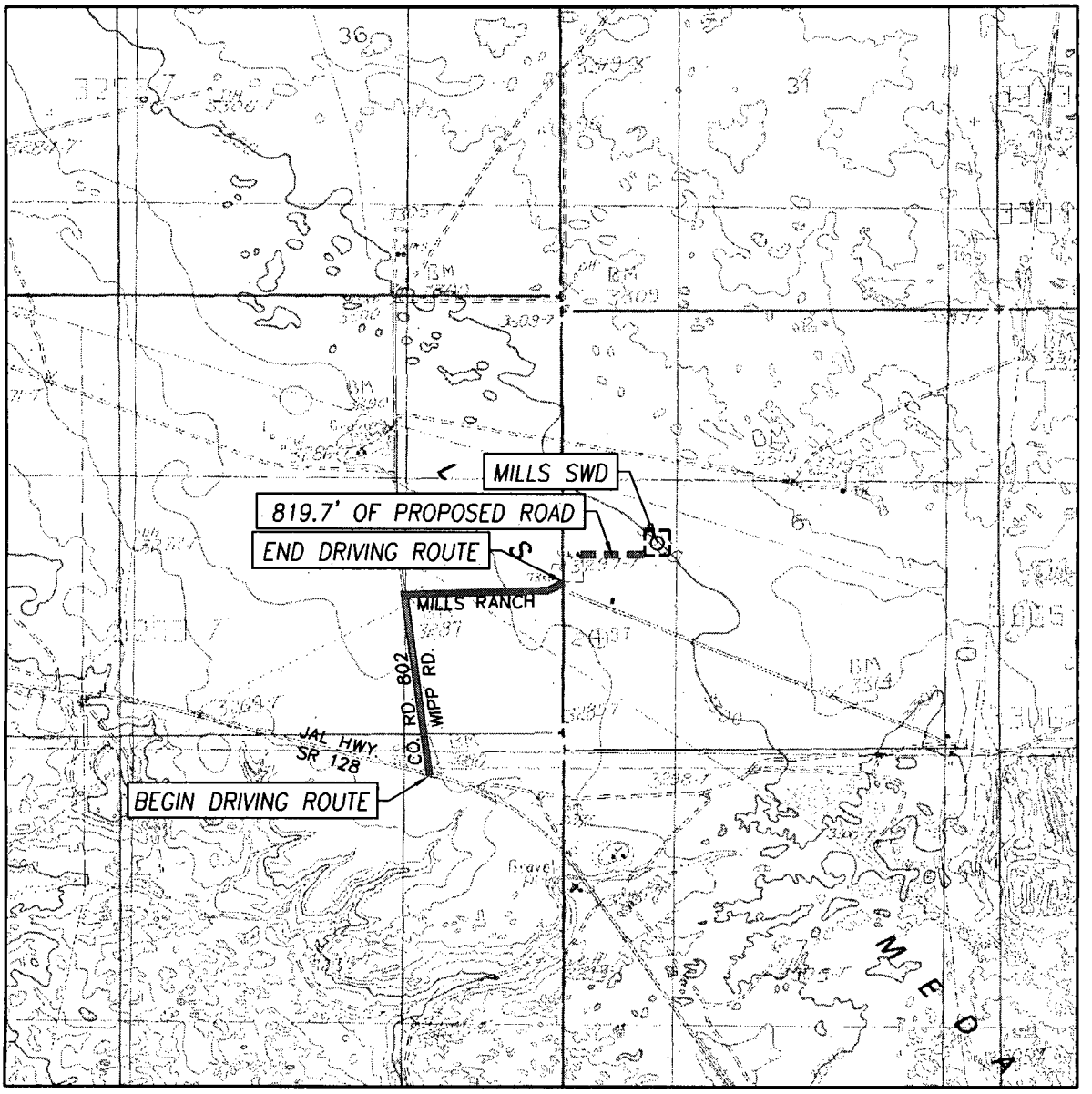
ELEVATION 3303'

OPERATOR OILFIELD WATER LOGISTICS

LEASE MILLS SWD

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

TOPOGRAPHICAL AND ACCESS ROAD MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LOS MEDANOS, N.M. – 10'

SEC. 6 TWP. 23-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2491' FSL & 1148' FWL

ELEVATION 3303'

OPERATOR OILFIELD WATER LOGISTICS

LEASE MILLS SWD

U.S.G.S. TOPOGRAPHIC MAP
LOS MEDANOS, N.M.

DIRECTIONS TO MILLS SWD WELL:

FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. 802, GO NORTH ON CO. RD. 802 APPROX. 0.5 MILES TO MILLS RANCH RD., TURN RIGHT AND GO EAST APPROX. 141 FEET TO EXISTING PAD CORNER. THEN FROM THE NORTHEAST PAD CORNER FOLLOW STAKED ROAD NORTHEAST APPROX. 37 FEET THEN EAST 782 FEET TO SOUTHWEST PAD CORNER.

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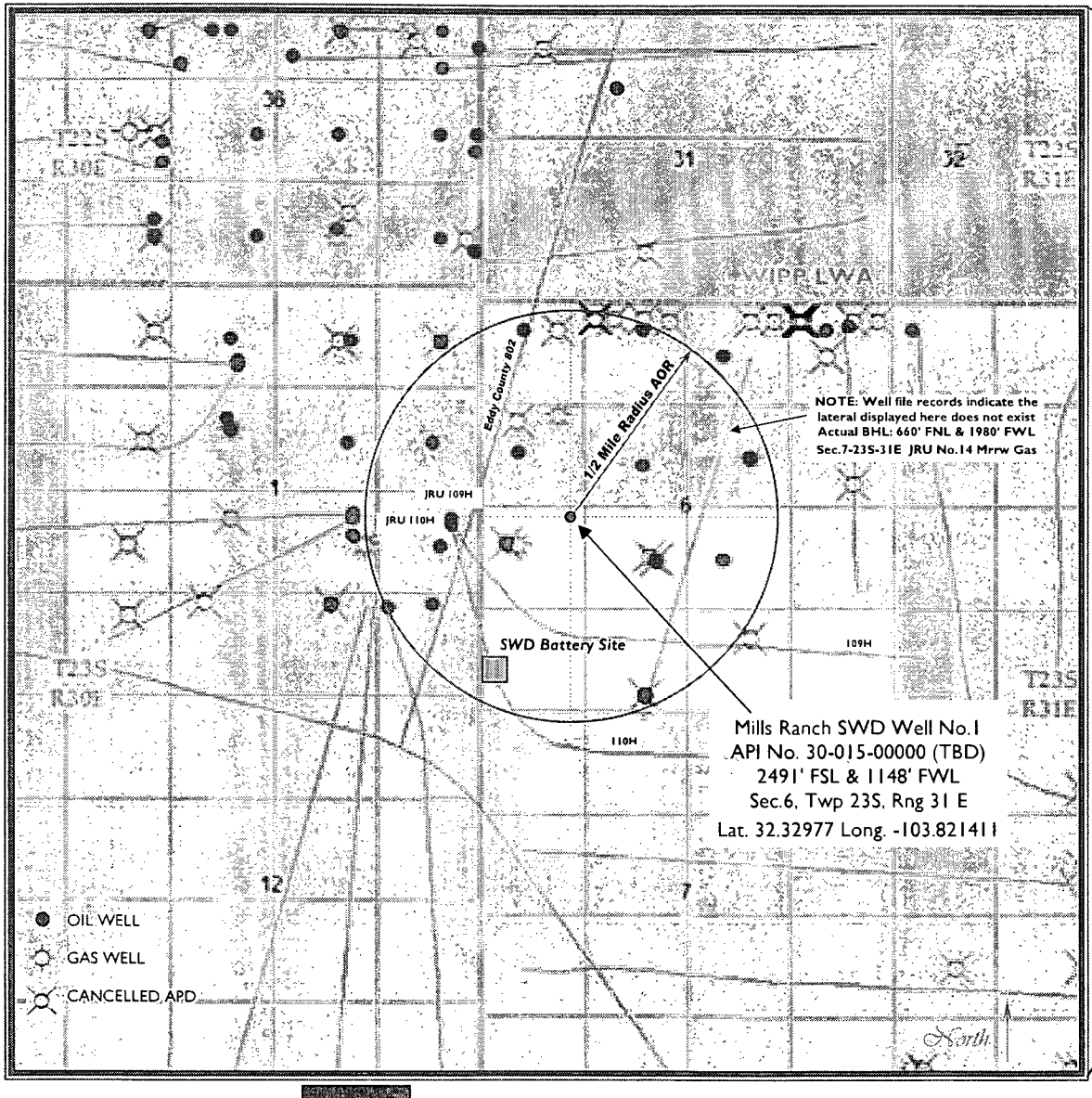
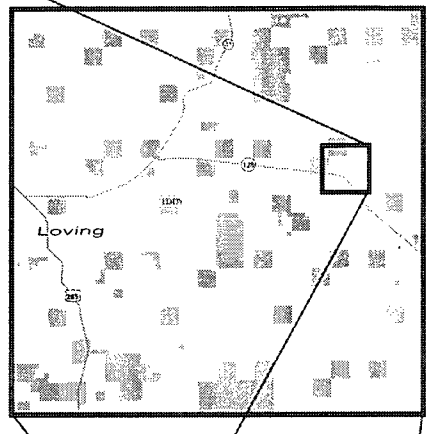
TBPLS# 10021000

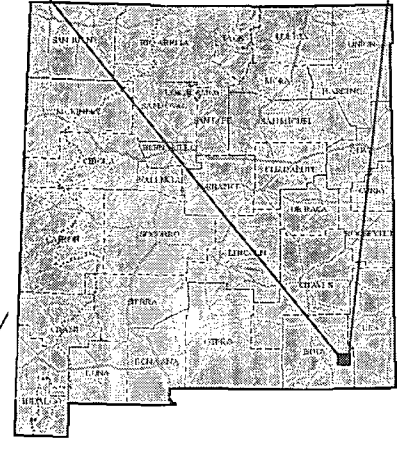
Mills Ranch SWD Well No.1 - Area of Review / Overview Map

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



~20 miles East of Loving, NM



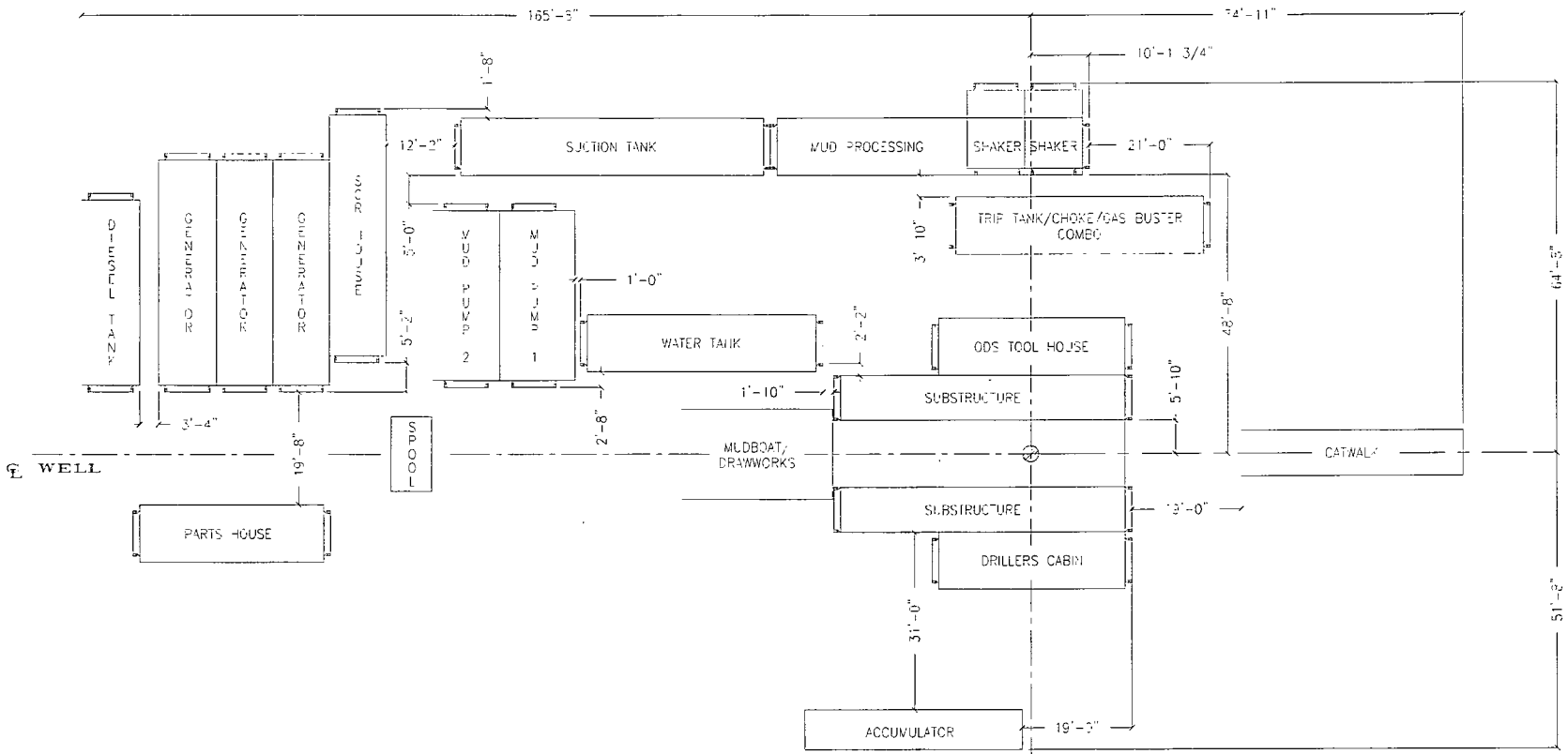


Eddy County, New Mexico

Owl SWD Operating, LLC

SOS Consulting, LLC

RIG 224 LAYOUT



MINIMUM LOCATION SIZE	
FROM WELL CENTER	
TO CATWALK	150'-0"
TO GENERATORS	190'-0"
TO RESERVE PIT	80'-0"
TO DOG HOUSE SIDE	125'-0"

Mills Ranch SWD No.1 Setup

North

0'-0" 20'-0" 40'-0"

MOUSE HOLE CONFIGURATION

℄ WELL

6'-4"

SCALE 4X

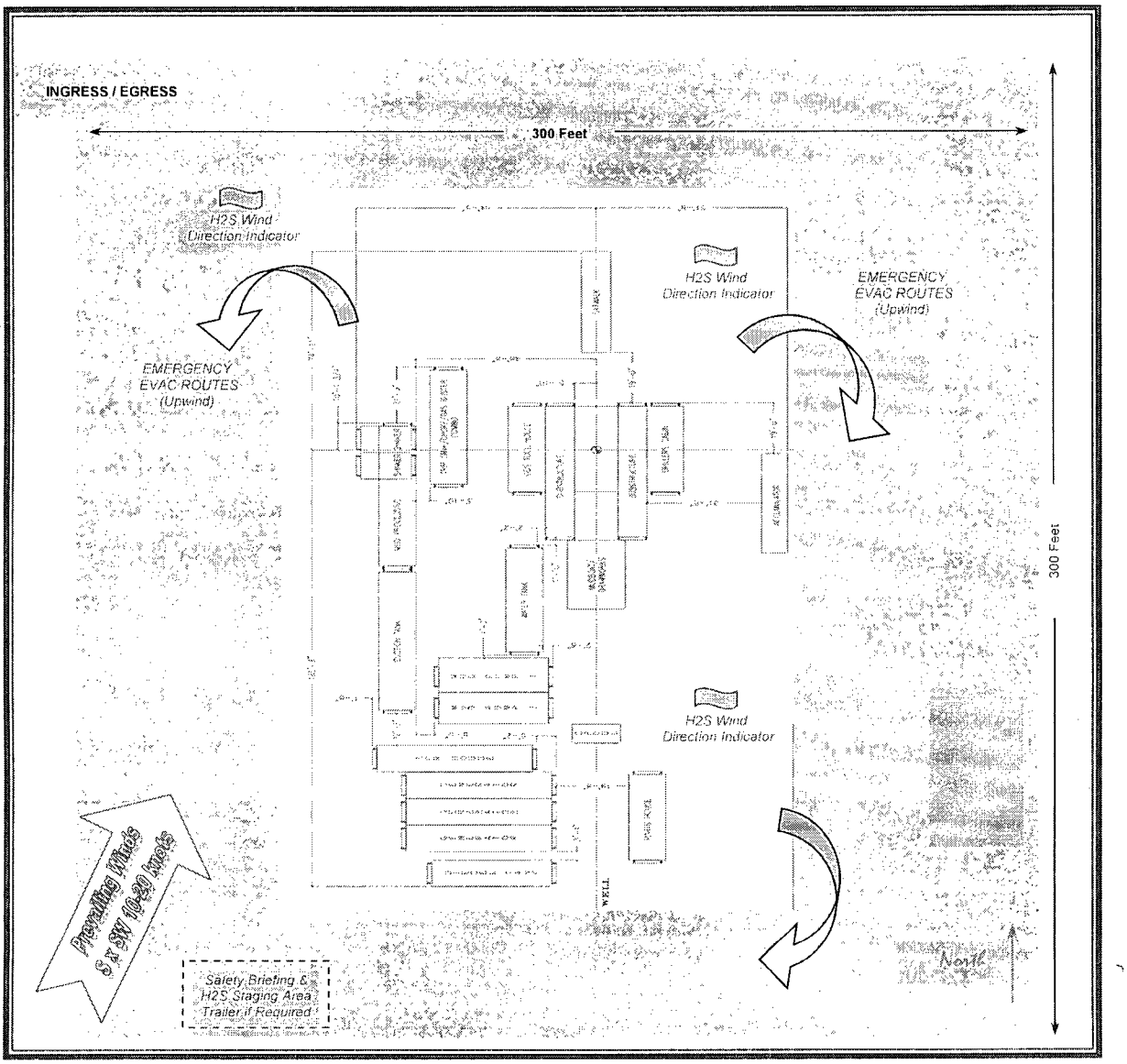
RAT HOLE DEPTH-68' AT 2° SLOPE

SIDEWINDER DRILLING

JAN 31, 2015

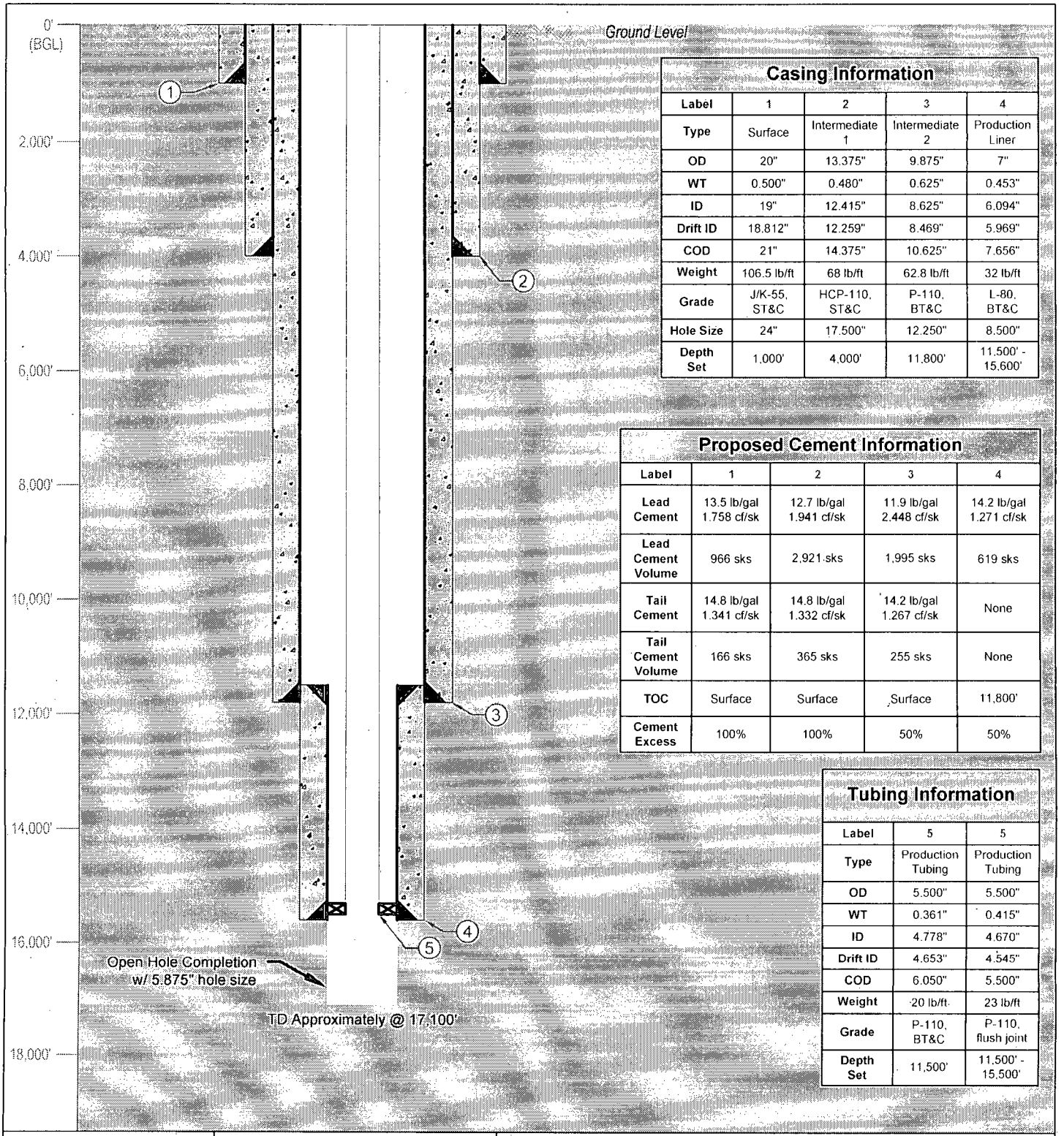
OILFIELD WATER LOGISTICS

Mills Ranch SWD No.1 – Site Layout w/ H2S & Safety Items
Sidewinder Rig 224



1. MIRU Drilling and drilling support contractors / equipment.
2. Set up H2S wind direction indicators; brief all personnel on Emergency Evacuation Routes.
3. All contractors conduct safety meeting prior to current task.
4. If H2S levels >20ppm detected, implement H2S Plan *accordingly*. (e.g., cease operations, shut in well, employ H2S safety trailer & personnel safety devices, install flare line, etc. - refer to plan.)
5. All equipment inspected daily. Repair / replace as required.
6. Mud logger monitoring returns; cuttings & waste hauled to specified facility. CRI - LEA COUNTY
7. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD within 24 hours. Remediation started ASAP if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.
8. Sundry forms filed as needed - casing, cement, etc. - operations continue to completion

SOS Consulting, LLC



Casing Information

Label	1	2	3	4
Type	Surface	Intermediate 1	Intermediate 2	Production Liner
OD	20"	13.375"	9.875"	7"
WT	0.500"	0.480"	0.625"	0.453"
ID	19"	12.415"	8.625"	6.094"
Drift ID	18.812"	12.259"	8.469"	5.969"
COD	21"	14.375"	10.625"	7.656"
Weight	106.5 lb/ft	68 lb/ft	62.8 lb/ft	32 lb/ft
Grade	J/K-55, ST&C	HCP-110, ST&C	P-110, BT&C	L-80, BT&C
Hole Size	24"	17.500"	12.250"	8.500"
Depth Set	1,000'	4,000'	11,800'	11,500' - 15,600'

Proposed Cement Information

Label	1	2	3	4
Lead Cement	13.5 lb/gal 1.758 cf/sk	12.7 lb/gal 1.941 cf/sk	11.9 lb/gal 2.448 cf/sk	14.2 lb/gal 1.271 cf/sk
Lead Cement Volume	966 sks	2,921 sks	1,995 sks	619 sks
Tail Cement	14.8 lb/gal 1.341 cf/sk	14.8 lb/gal 1.332 cf/sk	14.2 lb/gal 1.267 cf/sk	None
Tail Cement Volume	166 sks	365 sks	255 sks	None
TOC	Surface	Surface	Surface	11,800'
Cement Excess	100%	100%	50%	50%

Tubing Information

Label	5	5
Type	Production Tubing	Production Tubing
OD	5.500"	5.500"
WT	0.361"	0.415"
ID	4.778"	4.670"
Drift ID	4.653"	4.545"
COD	6.050"	5.500"
Weight	20 lb/ft	23 lb/ft
Grade	P-110, BT&C	P-110, flush joint
Depth Set	11,500'	11,500' - 15,500'

LUNQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
AUSTIN | WICHITA
HOUSTON | CALGARY
Texas License F-8952
3345 Bee Cave Road, Suite 201
Austin, Texas 78746
Tel: 512.732.9812
Fax: 512.732.9816

OWL SWD Operating, Inc.

Mills Ranch SWD No. 1

Country: USA	**State/Province:** New Mexico	**County/Parish:** Eddy
Survey/STR:	**Site:**	**Status:** To Be Drilled
API No.:	**Field:**	**Ground Elevation:**
State ID No.:	**Project No:** 1117	**Date:** 7/15/15
Drawn: MMC	**Reviewed:** RSC	**Approved:** SLP
Rev No:	**Notes:** 9.875" intermediate 2 string used to ensure 0.422 diametrical clearance.	

APD Calulation Summary - C295:K384

2nd Dia

20	surface csg in a	24	inch hole.		Design Factors		SURFACE	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	106.50	K 55	ST&C	9.01	1.37	1.07	1,000	106,500
"B"							0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,251			Tail Cmt	does not	circ to sfc.		Totals:	1,000	106,500

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
24	0.9599	1132	1921	1039	85	10.80	1364	2M	1.50

3rd Dia

13 3/8	casing inside the	20			Design Factors		INTERMEDIATE	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	68.00	HCP 110	ST&C	4.77	1.27	1.04	4,000	272,000
"B"							0	0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	4,000	272,000

The cement volume(s) are intended to achieve a top of 0 ft from surface or a 1000 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	3286	6156	3114	98	10.80	4024	5M	1.56

4th Dia

9 7/8	casing inside the	13 3/8			Design Factors		PRODUCTION	
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	62.80	p 110	BUTT	2.14	1.55	1.39	11,800	741,040
"B"							0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,596							Totals:	11,800	741,040

The cement volume(s) are intended to achieve a top of 0 ft from surface or a 4000 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.2866	2250	5207	3489	49	10.80	5320	10M	0.81

Class 'H' tail cmt yld > 1.20 MASP is within 10% of 5000psig, need exrta equip?

5th Dia

7	Liner w/top @	11500			Design Factors		LINER	
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	Weight
"A"	32.00	P 110	BUTT	2.05	1.23	1.33	4,100	131,200
"B"							0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,341							Totals:	4,100	131,200

The cement volume(s) are intended to achieve a top of 11500 ft from surface or a 300 overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 1/2	0.1268	619	787	532	48	10.80			0.422

Capitan Reef est top XXXX. MASP is within 10% of 5000psig, need exrta equip?

Owl SWD Operating, LLC
Mills Ranch SWD Well No.1
Section 6, Twp 23-S, Rng 31-E
Eddy County, New Mexico

Well Program - New Drill

Objective: Drill new well for commercial salt water disposal into the Devonian, Silurian and Ordovician formations. (Note: Ordovician might only be accessed for logging rathole, mudlogging and e-logging to determine final depths.)

Note: The well site is within the Secretarial Order and R-111-P Potash Area. The site has been selected in consent with Mosaic Potash Company and BLM mining and geological staff.

1. **Geologic Information** - Devonian Formation

This area of the Devonian consists of dolomites with some cherty dolomites characterized by intercrystalline and vugular porosity. Additional porosity can be found when the well bore encounters detrital carbonates interspersed throughout.

Estimated Formation Tops:

T/Fresh Water	346
T/Rustler	191
T/Salado	556
T/Lamar	3536
Delaware Sand	3581
Bone Spring	7384
Wolfcamp	10693
Middle Wolfcamp	11351
Strawn	12283
Atoka	12395
Morrow	12254
Middle Morrow	13520
Lower Morrow	13915
Mississippian	14662
Woodford	15122
Devonian	15291
Silurian	16200
TD	*17100

*May TD approximately 17,000' based on mudlogging.

2. **Drilling Procedure**

a. MIRU drilling rig and associated equipment. Set up H_2S wind direction indicators; brief all personnel on Emergency Evacuation Routes.
b. All contractors conduct safety meeting prior to current task. All equipment inspected daily. Repair / replace as required.
c. Well spud operations commence.
d. Mud logger monitoring returns; cuttings & waste hauled to specified facility. (Lea Land, Carlsbad Hwy; NMOCD permit NM1-035.)

Well Program - New Drill (cont.)

e. After surface casing set/drilled; if H_2S levels >20ppm detected, implement H_2S Plan accordingly. (e.g., cease operations, shut in well, employ H_2S safety trailer & personnel safety devices, install flare line, etc. - refer to plan.)
f. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD within 24 hours. Remediation started ASAP if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.
g. Sundry forms filed as needed - casing, cement, etc. - operations continue to completion.

3. **Casing program** - Casing designed as follows:

STRING	HOLE SZ	DEPTH	CSG SZ	COND	WT/GRD	CLLPS/BRS	TNSN
Surface	24.0"	0-1,000'	20.0"	New	106.5 lb. J/K-55 ST&C	1.125/1.1	1.8
Intermediate	17.5"	0-4,000'	13.375"	New	68 lb. HPC-110 ST&C	1.125/1.1	1.8
2nd Inter	12.25"	0-11,800'	9.875"	New	62.8 lb. P-110 BT&C	1.125/1.1	1.8
Prod/ Liner	8.5"	11,500'-15,600'	7.0"	New	32.0 lb. L-80 BT&C	1.125/1.1	1.8
Openhole	5.875" hole	15,600'-17,100'	OH	n/a	n/a	n/a	n/a

Notes:

- ✓ On both Intermediate casing strings, the cement will be designed to circulate to surface. Both strings will have cement bond logs run (radial, CET or equivalent) to surface.
- ✓ While running all casing strings, the pipe will be kept a minimum of 1/3 full at all times to avoid approaching the collapse pressure of casing.
- ✓ Based on mudlogging and e-logs, 7.0" casing shoe may be set between 15,400' and 15,600'. Similarly, TD may be from 16,800' to 17,100' as determined by logging and suitable porosity has been exposed. IN ANY EVENT, maximum openhole interval would be from 15,400' to 17,100'.

4. **Cementing Program:**

Surface – LEAD 966 sx (13.5#; 1.76 ft^3/sk); TAIL 166 (14.8#; 1.34 ft^3/sk) w/ 50 % excess; circulated to surface
1st Intermediate – LEAD 2921 sx (12.7#; 1.94 ft^3/sk); TAIL 365 sx (14.8#; 1.33 ft^3/sk) 50% excess; circulated to surface
2nd Intermediate – LEAD 1995 sx (11.9#; 2.45 ft^3/sk); TAIL 255 sx (14.2#; 1.27 ft^3/sk) 30% excess; circulated to surface.
Prod Liner – 619 sx (14.2#; 1.27 ft^3/sk) 30% excess; TOC = 11,500' calc. to Top of Liner.

- ✓ Cement Program is included as an attachment to APD package. Volumes may be adjusted to caliper log.

5. **Pressure Control** - BOP diagram is attached to this application. All BOP and related equipment shall comply with well control requirements as described in NMOCD Rules and Regulations. Minimum working pressure of the BOP and related equipment required for the drillout shall be 5000 psi. The NMOCD Artesia district office shall be notified a minimum of 4 hours in advance for a representative to witness BOP pressure tests. The test shall be performed by an independent service

Well Program - New Drill (cont.)

company utilizing a test plug (no cup or J-packer). The results of the test shall be recorded on a calibrated test chart submitted to the Carlsbad field office. Test shall be conducted at:

a. Installation;
b. after equipment or configuration changes;
c. at 30 days from any previous test, and;
d. anytime operations warrant, such as well conditions

6. **Mud Program & Monitoring** - Mud will be balanced for all operations as follows:

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0-1000'	FW Spud Mud	8.5-9.2	70-40	20	12	NC	10.0
1000'-4000'	Brine Water	9.8-10.2	28-32	NC	NC	NC	10.0
4000'-11,800'	FW/Gel	8.7-9.0	28-32	NC	NC	NC	9.5-10.5
11,500'-15,600'	XCD Brine Mud	11.0-	45-48	20	10	<5	9.5-10.5
15,600'-17,001'	FW Mud	8.4-8.6	28-30	NC	NC	NC	9.5-10.5

Mud and all cuttings monitored w/ cuttings recovered for disposal. Returns shall be visually and electronically monitored. In the event of H2S, mud shall be adjusted appropriately by weight and H2S scavengers.

7. **Auxiliary Well Control and Monitoring** – Hydraulically remote control for BOPs.

8. **H_2S Safety** - This well and related facilities are not expected to have H2S releases. However, there may be H2S in the area. There are no private residences or pubic facilities in the area but a contingency plan has been developed. Owl SWD Operating, LLC will have a company representative available to personnel throughout all operations. If H2S levels greater than 10ppm are detected or suspected, the H2S Contingency Plan will be implemented at the appropriate level.

H2S Safety - There is a low risk of H2S in this area. The operator will comply with all applicable rules and regulation to ensure safety of all personnel and the public.

a) Monitoring - all personnel will wear monitoring devices.

b) Warning Sign - a highly visible H2S warning sign will be placed for obvious viewing at the vehicular entrance point onto location.

c) Wind Detection - two (2) wind direction socks will be placed on location.

d) Communications - will be via cellular phones and/or radios located within reach of the driller, the rig floor and safety trailer when applicable.

e) Alarms - will be located at the rig floor, circulating pump / reverse unit area and the flareline and will be set for visual (red flashing light) at 15 ppm and visual and audible (115 decibel siren) at 20 ppm.

f) Mud program - If H2S levels require, proper mud weight, safe drilling practices and H2S scavengers will minimize potential hazards.

Well Program - New Drill (cont.)

g) Metallurgy - all tublars, pressure control equipment, flowlines, valves, manifolds and related equipment will be rated for H2S service if required.

The H2S Contingency Plan is included as attachment to the APD and will be implemented if levels greater than 10ppm H2S are detected.

9. **Logging, Coring and Testing** – Owl SWD Operating expects to run;
   a. CBL (Radial, CET or equivalent) on both intermediate casing strings.
   b. Standard porosity suite from TD to approximately 15,000'.
   c. No corings or drill tests will be conducted. (The well may potentially be step rate tested in the future if additional injection pressures are required.)

10. **Potential Hazards** - No abnormal pressures or temperatures are expected.

No loss of circulation is expected to occur with the exception of drilling into the target disposal zone. All personnel will be familiar with the safe operation of the equipment being used to drill this well.

The maximum anticipated bottom-hole pressure is 9000 psi and the maximum anticipated bottom-hole temperature is 190° F.

11. **Waste Management** - All drill cuttings and other wastes associated with and drilling operations will be transported to the Lea Land facility on Carlsbad Highway, permitted by the Environmental Bureau of the New Mexico Oil Conservation Division; NMOCD permit NM1-035.

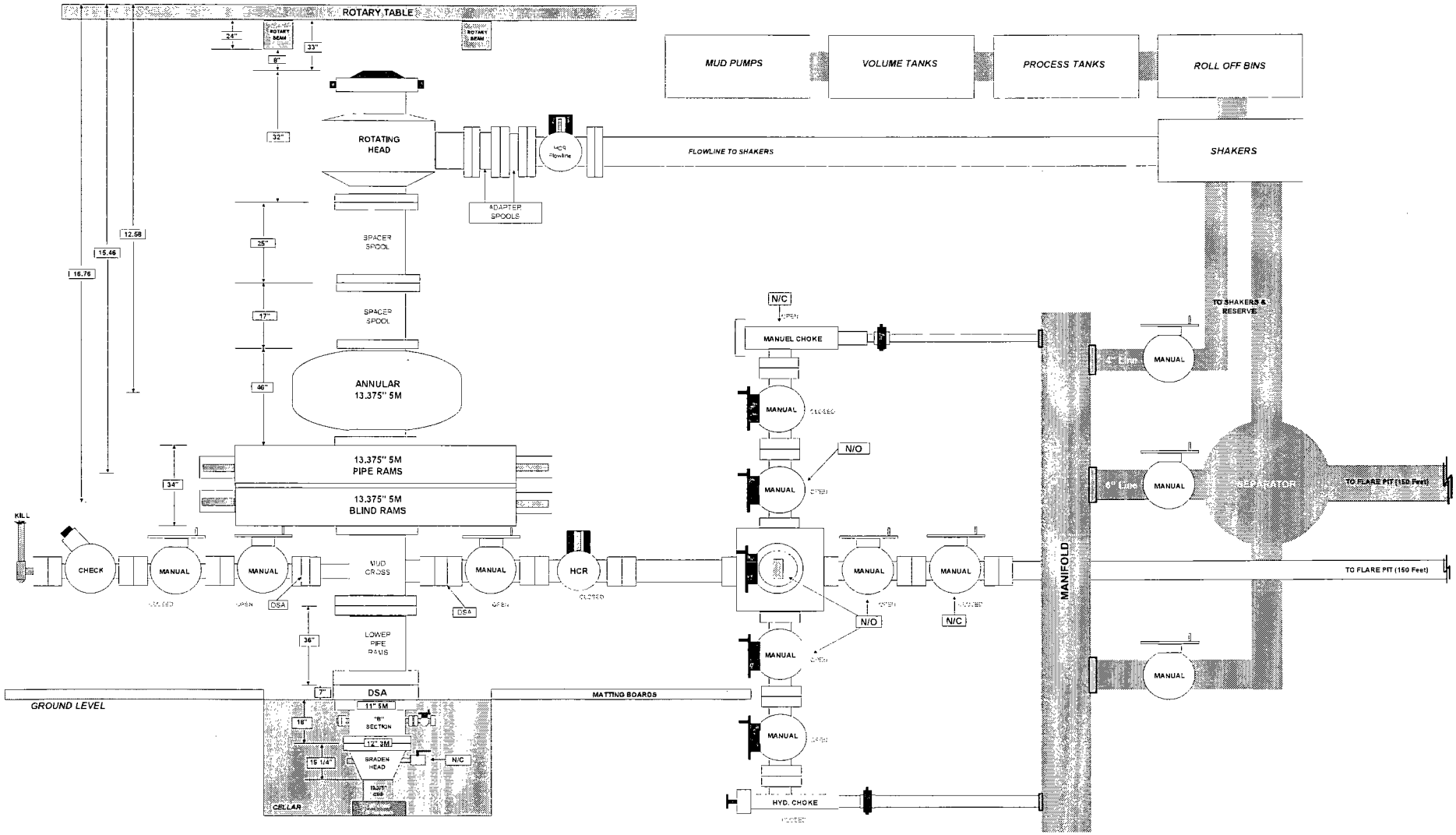
12. **Anticipated Start Date** - Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take six to seven weeks. Installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment. At the time of this submittal, and subject to the availability of the drilling contractor, the anticipated start date is:

August 15, 2015.

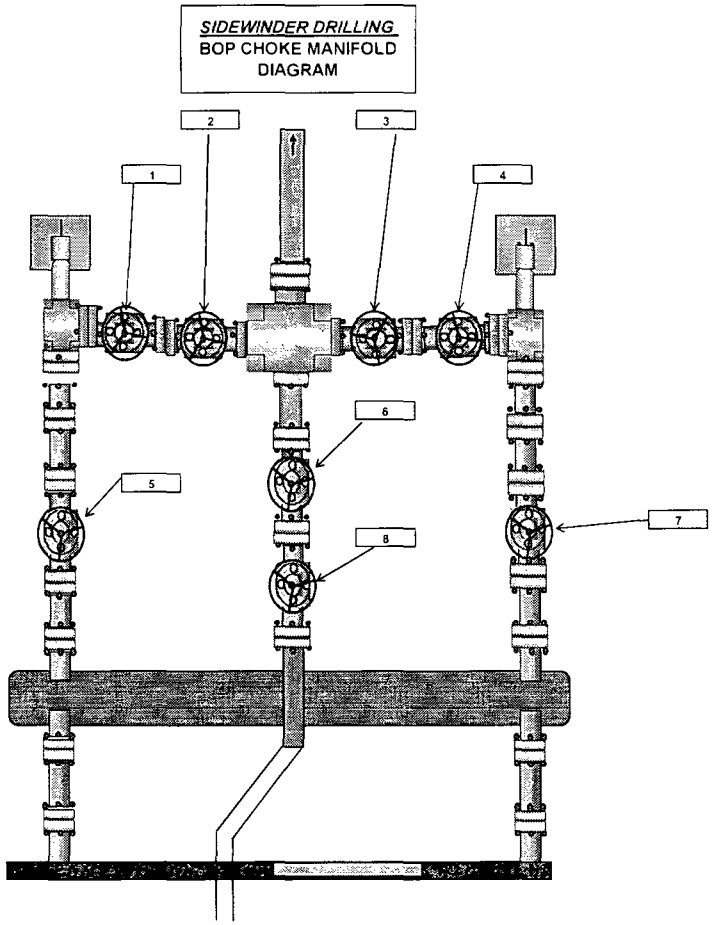
13. **Configure for Salt Water Disposal** – Pursuant to SWD-1536. Subsequent and prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity. Anticipated daily maximum volume is 25,000 bpd and average of 15,000 bpd at a maximum surface injection pressure of 3080 psi (0.2 psi/ft to uppermost injection interval, i.e., casing shoe). If satisfactory disposals rates cannot be achieved at default pressure of .2 psi/ft, Owl Oil and Gas, LLC will conduct a step-rate test and apply for an injection pressure increase 50 psi below parting pressure.

HYDRIL BOP & CLOSED LOOP - SIDEWINDER RIG 224

BOPE 5K & Closed-Loop Schematic
(w/ 13.375" Rams)



Rig	224
Qty.	**BOP Inventory Sheet**
	Annular Preventer
Model	hydril
Size	13 5/8
Working Pressure	3000
Serial Number	307291
Top Connection	3000
Bottom Connection	5000
	Ram Preventers
Double / Single	double
Model	tasam s
Size	13 5/8
Working Pressure	5000
Serial Number	134754
Top Connection	5000
Bottom Connection	5000
Qty. Side Outlets	4
Size of Side Outlets	4"
PSI Rating of Side Outlets	5000
	Ram Preventers
Double / Single	n/a
Model	n/a
Size	n/a
Working Pressure	n/a
Serial Number	n/a
Top Connection	n/a
Bottom Connection	n/a
Qty. Side Outlets	n/a
Size of Side Outlets	n/a
PSI Rating of Side Outlets	n/a
	Rams
Size & Designation	varibale rams / top
Size & Designation	blindes / bottom
Size & Designation	
Size & Designation	
Size & Designation	
	Wing Valves
Size	4"
Working Pressure	5000
Serial Number	v062
Designation	kill side
Flange Size	px160
Flange Rating	5000
	Wing Valves
Size	4"
Working Pressure	5000
Serial Number	n/a
Designation	chock side
Flange Size	px160
Flange Rating	5000
	Drilling Spool
Size	13 5/8
Working Pressure	5000
Serial Number	112012679>
Top Connection	5000
Bottom Connection	5000
Qty. Side Outlets	2
Size of Side Outlets	4
PSI Rating of Side Outlets	5000
	Choke Manifold #1 Valve
Make	n/a
Model	n/a
Serial Number	n/a
	Choke Manifold #2 Valve
Make	horn equipment
Model	130053
Serial Number	39890
	Choke Manifold #3 Valve
Make	horn equipment
Model	130053



CHOKE MANIFOLD DIAGRAM - SIDEWINDER RIG 224

PRIVATE SURFACE OWNER AGREEMENT

MILLS RANCH SWD LEASE

1. Grantors: Stacey Mills, Owner
   P.O. Box 1358
   Loving, New Mexico 88256

2. Grantee: Owl SWD Operating, LLC
   8214 Westchester Dr., Ste.850, Dallas, TX 75255

3. Effective Date: September 4, 2015

4. Duration: 12 months from the Effective Date to obtain SWD permit and begin construction. After operations begin, the lease is perpetual unless operations ceases for 12 months. Then the lease terminates.

5. Purpose: Lease the site for the drilling and completion of a salt water disposal well and related facilities.

Permit Conditions of Approval

API: 30-0 15-41590 Mills Ranch SWD #1

OCD Reviewer	Condition
	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string