

NM2 - _____ 18 _____

**CLOSURE
PLAN
APPROVAL**

Oct. 15, 2013

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



October 15, 2013

Mr. Bill Priebe
Stanolind Operating LLC dba Stanolind NM LLC
550 W. Texas Avenue # 900
Midland, Texas 79701-4273

**Re: Closure and Post-Closure Care Plan Review
Stanolind Operating LLC dba Stanolind NM LLC
Permit NM2-018 Centralized Surface Waste Management Facility
Location: Unit J of Section 34, Township 18 South, Range 26 East, NMPM,
Eddy County, New Mexico**

Dear Mr. Priebe:

The Oil Conservation Division (OCD) has received Stanolind Operating LLC dba Stanolind NM LLC's (Stanolind) closure and post-closure care plan, dated October 10, 2013 and submitted by Etech Environmental & Safety Solutions, Inc. on Stanolind's behalf, for the closure of the produced water evaporation pond at Stanolind's centralized surface waste management facility. OCD has reviewed the proposed closure plan and has determined that it satisfies the regulatory requirements of 19.15.36 NMAC and the closure conditions specified in Permit NM2-018.

Based on the information provided in the request, the closure and post-closure care plan is hereby approved with the following understandings and conditions:

1. Stanolind shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), and all conditions specified in this approval and shall close the project in accordance with the October 10, 2013 closure and post-closure care plan;
2. Stanolind shall maintain the re-vegetation cover through two successive growing seasons during the post-closure care period; and
3. Stanolind shall submit a closure report which summarizes and documents the completed closure and post-closure care activities with the request to release financial assurance.

Please be advised that approval of this request does not relieve Stanolind of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Stanolind of its responsibility to comply with any other applicable governmental authority's rules and regulations.

Stanolind Operating LLC dba Stanolind NM LLC
NM2-018
October 15, 2013
Page 2 of 2

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', enclosed within a large, loopy scribble.

Brad A. Jones
Environmental Engineer

BAJ/baj

Cc: OCD District II Office, Artesia
Fred Holmes, Etech Environmental & Safety Solutions, Inc., Midland, Texas 79708-8469



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October 10, 2013

Mr. Brad Jones
New Mexico Oil conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Pit
Permit No.: NM-02-00018
Notification of Cessation of Activities & Closure Plan Submittal

Dear Mr. Jones,

In February of 2012, Stanolind Operating LLC dba Stanolind NM LLC (Stanolind) applied for and was approved by the New Mexico Energy, Minerals and Natural Resources Department (NMEMNRD) the transfer of a permit for the Surface Waste Management Facility previously permitted to Premier Natural Resources, LLC.

Stanolind has determined the impoundment no longer needs to be utilized. Subsequently, Stanolind is submitting the attached plan in accordance with 19.15.36 of the New Mexico Administrative Code (NMAC) for the closure of the impoundment and as initial notification of cessation of operations.

Should you have any questions regarding the attached closure plan, please contact me at (432) 563-2200 or via email, fred@etechenv.com. Thank you for your assistance. I look forward to your response

Respectfully,

Fred Holmes, B.SC.
Environmental Professional
Etech Environmental & Safety Solutions, Inc.



Closure Plan

Surface Waste Management Pit

Eddy County, NM



Prepared For: Stanolind Operating LLC dba Stanolind NM LLC
310 West Wall Street, Suite 1000
Midland, TX 79701

Prepared By: Etech Environmental & Safety Solutions, Inc.
Date Prepared: October 7, 2013
Project Number: 351-3832-000

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Introduction

In February of 2012, Stanolind Operating LLC dba Stanolind NM LLC (Stanolind) applied for and was approved by the New Mexico Energy, Minerals and Natural Resources Department (NMEMNRD), the transfer of a permit for the Surface Waste Management Facility previously permitted to Premier Natural Resources, LLC.

Stanolind has determined the impoundment no longer needs to be utilized. Subsequently, Stanolind is submitting this plan in accordance with 19.15.36 of the New Mexico Administrative Code (NMAC) for the closure of the impoundment and as initial notification of cessation of operations. The particulars of, and closure plan of, the facility are as follows:

Site Information

Date First Permitted:..... March 3, 1983
Permit No.:NM-02-00018
Location:..... Unit J, Sec 34, T 18S, R 26E, Eddy Co., NM
Latitude: 32.70356
Longitude:-104.368072
Overall Dimensions:..... 316'L x 154'W x 5'D
Inspection Sumps..... 2
Contents: Produced Water Residue & Hydrocarbon Solids

Site Maps and Aerial Imagery are provided in Attachment A. Diagrams showing the overall profile of the pit are provided in Attachment B. (Note: The profile was developed based upon the information provided in the original permit.)

Closure Procedures

1. The gathering system will be disconnected from the impoundment. The majority of the gathering system will remain in-place. Fluids from the other facilities will be directed to the Fikes Well #1, API No. 30-15-00269. The lines to the impoundment that are were part of the gathering system that will no longer be in use will be removed. A diagram showing the changes to the gathering system and lines to be removed is provided in Attachment C.
2. All readily available free liquids will be removed from the impoundment. Probing of the impoundment estimates there is approximately .75 feet of sludge/solids in the bottom of the pit.
3. All surface appurtenances (fencing, netting, posts, etc.) will be removed and staged to a designated area southeast of the pit to be evaluated for reuse. Items that can be reused such as metal posts, cabling, each will be staged to another facility and utilized as needed on existing leases. Materials that cannot be reused will be sent for recycling or disposal at an approved disposal facility. The disposal facilities that will be used are as follows:
 - Sludge Disposal Facility:.....R360 Disposal Facility, Permit No.: NM1-006
 - Produced Water Disposal:Stanolind Fikes #1 SWD Well, API No. 30-015-00269
 - Hydrocarbon Recycling: Permian Disposal, Seminole, TX, Permit No.: 8A-0320
 - Liner & Netting Disposal:R360 Disposal Facility, Permit No.: NM1-006
 - Impacted Soil Disposal:R360 Disposal Facility, Permit No.: NM1-006

**Stanolind Operating
Surface Waste Management Pit – Closure Plan
(Continued)**

4. Because it is anticipated that the sludge in the bottom of the impoundment will have some plasticity, it will be stabilized with soil from the sidewalls of the pit. The liner on the sidewalls will be rolled back to expose the side walls and not risk the possibility of releasing the contents of the impoundments. Soil will be added to the sludge and blended on top of the liner in the bottom of the impoundment. If at the time of preparing to stabilize the sludge it is determined the sidewalls cannot be utilized and are needed for containment, then additional soil will be sourced from a nearby caliche pit to ensure the sludge is stabilized where it will not leak fluids during transport. Stabilized soil will be skimmed and piled to one corner of the impoundment for loading. All efforts will be made to not come in contact with the bottom of the liner during this operation. Once all material has been removed to the point where there is no risk of impacting the soil underneath the liner, the liner will then be removed.
5. Stabilized soils will be loaded and transported to the disposal facility listed in Item 2 (R360) by a registered C-133 transporter. All soils will be transported under a C-138 manifest. All transports will be lined.
6. When the pit contents have been removed, the liner will be removed in sections, bundled and transported to the disposal facility listed in Item 2 (R360). All loads transported will be manifested under a C-138 manifest.
7. The inspection sumps will be excavated and the materials associated with the sumps removed and disposed of at the R360 disposal facility.
8. When all of the contents of the impoundment and liner have been removed, the pit area (including lines and sumps) will be gridded off into 7 sections. Within each section a minimum of 3 grab samples of the 0-6" interval will be collected from variant points to determine clean closure. All grab samples will be sent to Cardinal Laboratories to be individually analyzed in accordance with the procedures specified in chapter nine of EPA publication SW-846, test methods for evaluating solid waste, physical/chemical methods for TPH, BTEX, metals and other inorganics listed in Subsections A and B of 20.6.2.3103. Also, a background sample will be collected and analyzed for the same parameters. A copy of the analytical parameters and a site diagram showing the sampling grids and sampling points is provided in Attachment D.

All samples collected will be placed into certified clean glass jars with Teflon seals, labeled with the respect to area, depth, date and time collected, then immediately chilled and maintained so until delivered to the laboratory. Routine chain-of-custody will be observed at all times. Nitrile gloves will be worn during the collection of samples and changed for each sample processed. All sampling equipment will be decontaminated between each sampling event by washing the equipment with freshwater and Alconox and then triple rinsed with clean fresh water.

9. If the analyses determines the results meet clean closure standards (equal to or less than background sample data), the pit and all adjoining areas associated with clean closure activities will be considered acceptable to move to reclamation. In the event the analytical results do not meet clean closure standards (equal to or less than background sample data), corrective action will be pursued in accordance with 19.15.30 NMAC and 19.15.29 NMAC as applicable in post closure.

**Stanolind Operating
Surface Waste Management Pit – Closure Plan
(Continued)**

10. Once the clean closure objectives are met and reclamation completed, a report will be generated and submitted to document all of the activities described in this closure report.

Schedule

Operations are scheduled to take approximately 4-5 weeks to complete. A copy of the proposed schedule for the completion of the above scope of work is provided in Attachment E.

Reclamation

The former impoundment site and adjoining areas disturbed or excavated areas during closure activities will backfilled to within 6-12" of surface with clean fill material from a nearby caliche pit. The remainder of the backfill will be achieved by installing clean top soil from the surrounding area. Once complete, erosion control berms will be installed and the site as well as disturbed areas seeded by broadcasting an application of BLM #1 seed mix which is presented below:

COMMON NAME	BOTANICAL NAME	PLS/LBS/ACRE*
Blue Grama	<i>Bouteloua gracilis</i>	3.00
Sand Dropseed	<i>Sporobolus cryptandrous</i>	2.00
Sideoats Grama	<i>Bouteloua curtipendula</i>	10.00

* PLS = Pure Live Seed

Once the seed is broadcasted, the site will be lightly harrowed to ensure the seed is anchored. A copy of the proposed reclamation profile is provided in Attachment F.

Per 19.15.36.18 (6), Re-vegetation, shall consist of establishment of a vegetative cover equal to 70 percent of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) or scientifically documented ecological description consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons

Post Closure

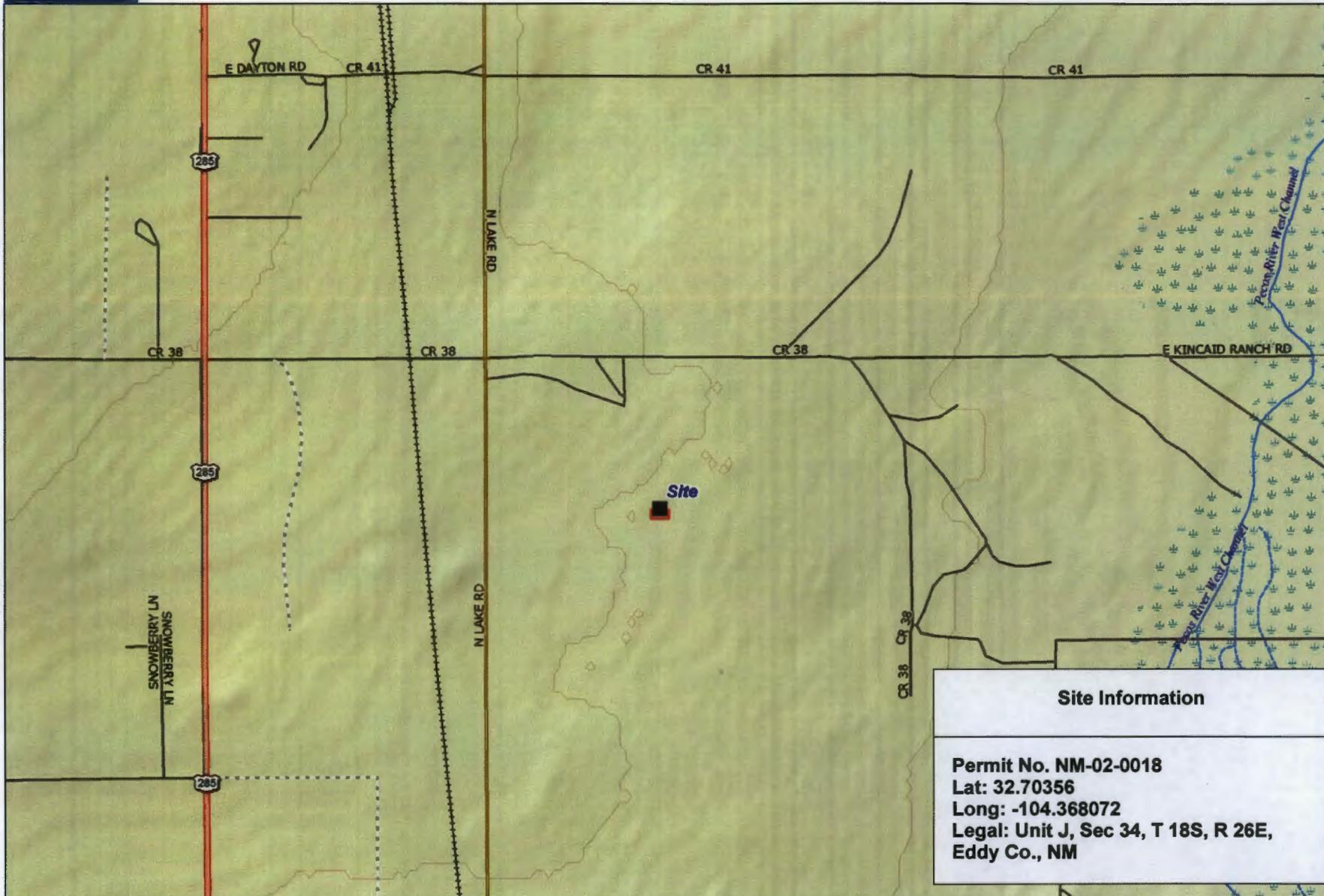
As stipulated in NMAC 19.15.36.18, (F.), after clean closure is achieved the post-closure care period for the site shall be three years if clean closure has been achieved. During that period the site shall be regularly inspected and maintain required revegetation for a period of 3 years. If there has been a release to the vadose zone or to ground water, then Stanolind shall comply with the applicable requirements of 19.15.30 NMAC and 19.15.29 NMAC.

Prepared By:

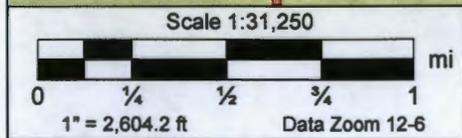
A handwritten signature in black ink, appearing to read "Fred Holmes". The signature is written in a cursive, flowing style.

Fred Holmes, B.SC.
Environmental Professional
Etech Environmental & Safety Solutions, Inc.

Attachment A
Site Maps and Aerial Imagery



Site Information
Permit No. NM-02-0018
Lat: 32.70356
Long: -104.368072
Legal: Unit J, Sec 34, T 18S, R 26E, Eddy Co., NM



**Stanolind Operating LLC dba Stanolind NM LLC
 Surface Waste Management Facility
 Site Location Map**



Data use subject to license.

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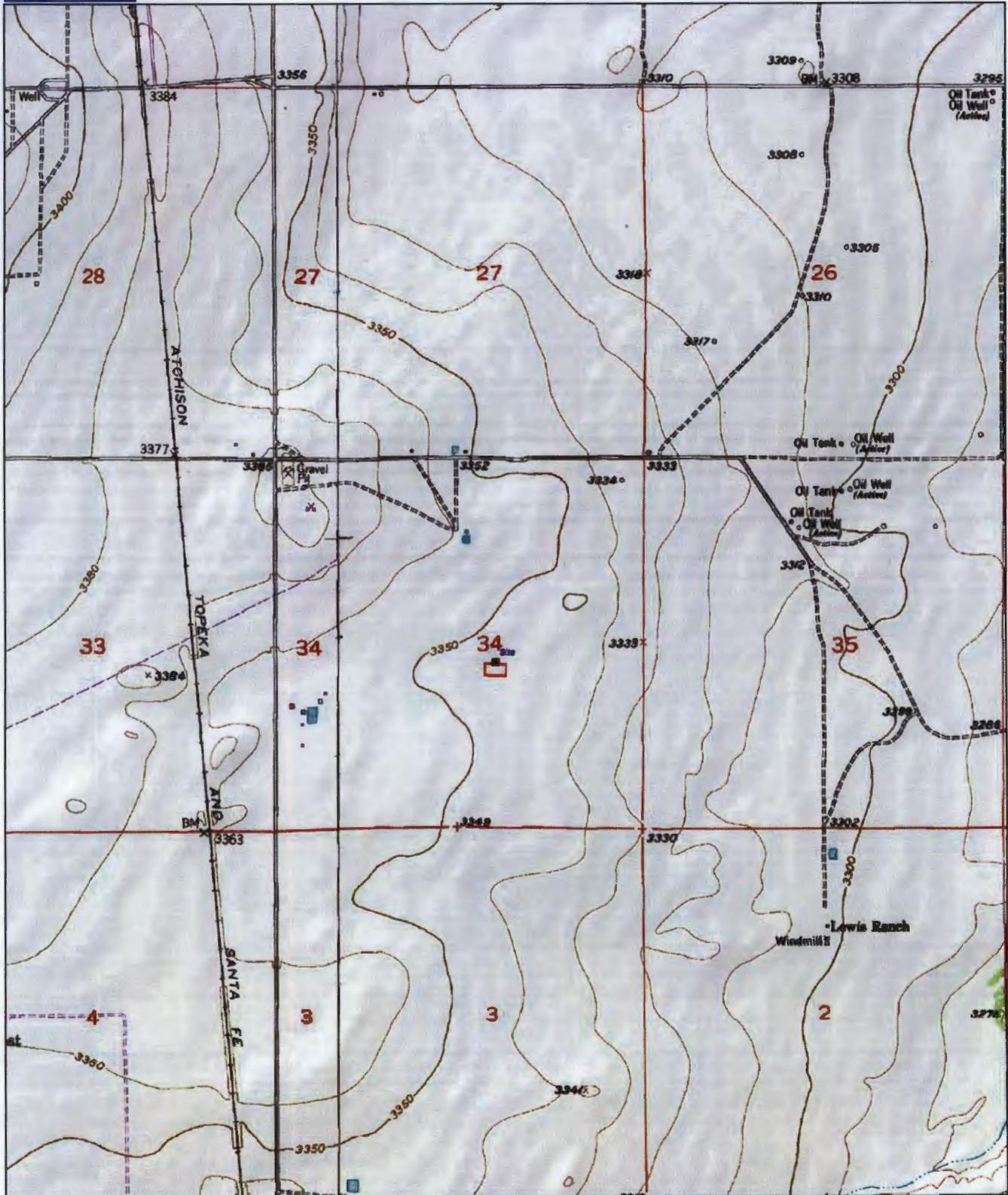
Site Information

Overall Dimensions:
316'L x 154'W x 5'D
Note: .5' Is Below Grade
Contents: Produced Water &
Hydrocarbon Solids



Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Facility
Site Information Aerial





Scale 1:24,000



1" = 2,000.0 ft Data Zoom 14-0

Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Facility
Topographic Map



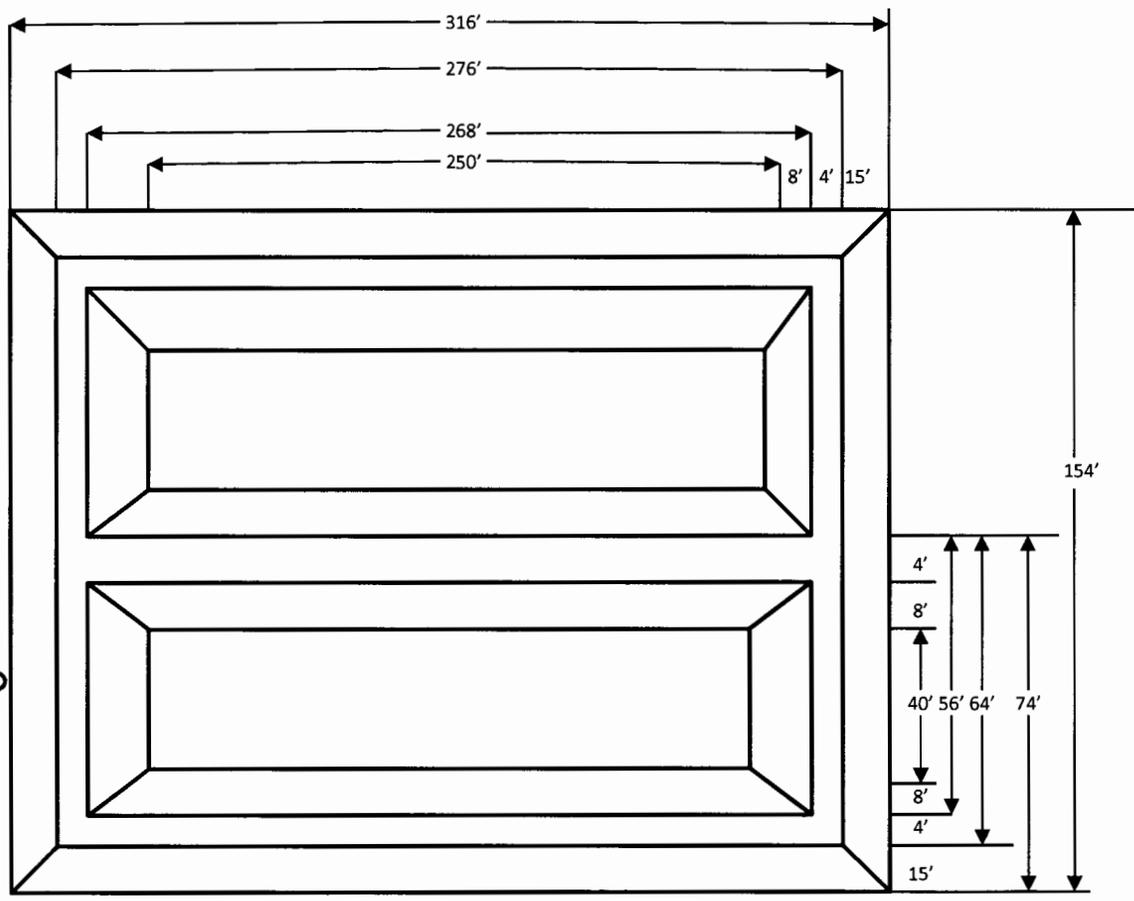
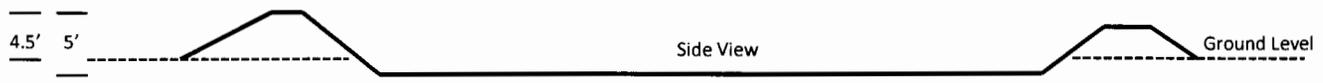
MN (7.7° E)

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Attachment B
Existing Pit Profile

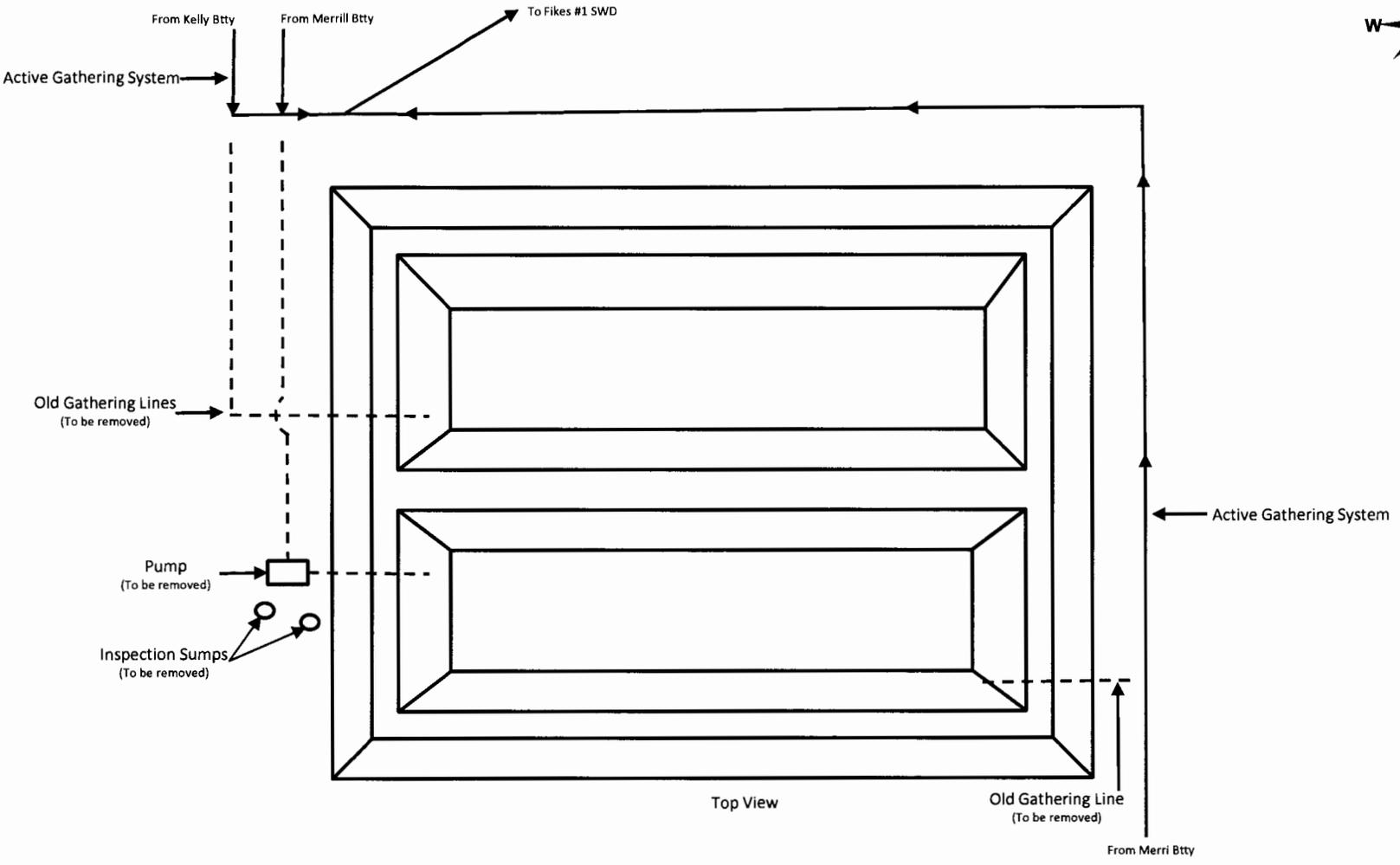


Inspection
Sumps

Top View

Stanolind Operating LLC dba Stanolind NM LLC
 Surface Waste Management Pit Profile
 (Not to Scale)

Attachment C
Gathering System Diagram



Top View

Old Gathering Line
(To be removed)

**Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Pit & Gathering System
(Not to Scale)**

Attachment D
Sampling Locations



**Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Facility
Sample Location Map**



Data use subject to license.

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20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "methods for chemical analysis of water and waste of the U.S. environmental protection agency," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

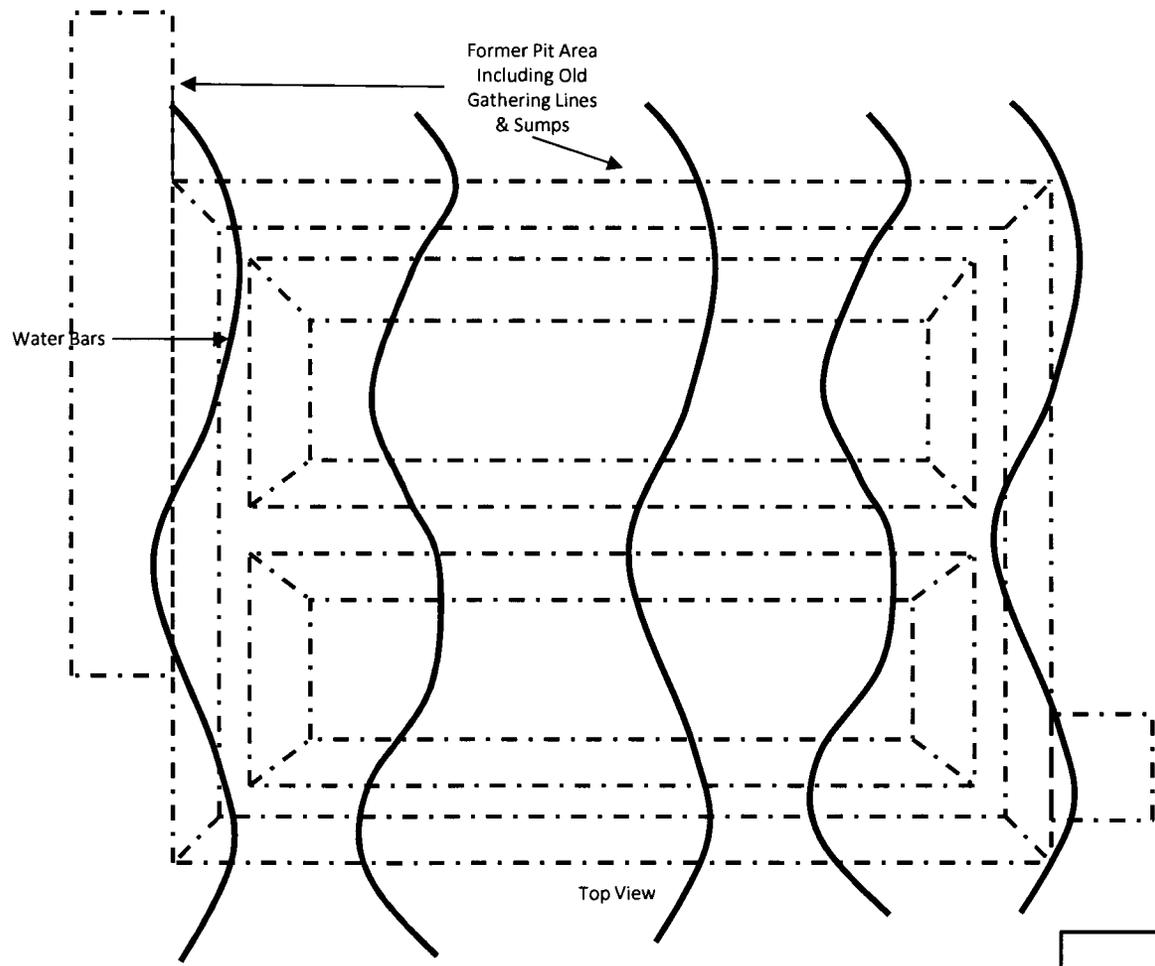
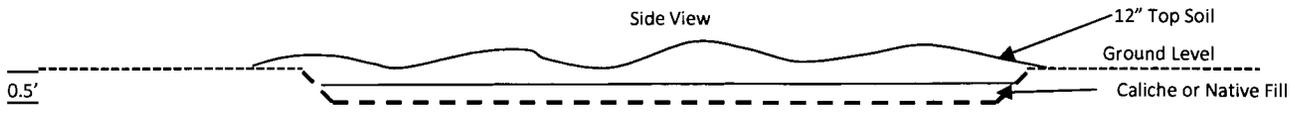
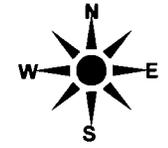
(1)	Arsenic (As).....	0.1 mg/l
(2)	Barium (Ba).....	1.0 mg/l
(3)	Cadmium (Cd).....	0.01 mg/l
(4)	Chromium (Cr).....	0.05 mg/l
(5)	Cyanide (CN).....	0.2 mg/l
(6)	Fluoride (F).....	1.6 mg/l
(7)	Lead (Pb).....	0.05 mg/l
(8)	Total Mercury (Hg).....	0.002 mg/l
(9)	Nitrate (NO ₃ as N).....	10.0 mg/l
(10)	Selenium (Se).....	0.05 mg/l
(11)	Silver (Ag).....	0.05 mg/l
(12)	Uranium (U).....	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228.....	30 pCi/l
(14)	Benzene.....	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's).....	0.001 mg/l
(16)	Toluene.....	0.75 mg/l
(17)	Carbon Tetrachloride.....	0.01 mg/l
(18)	1,2-dichloroethane (EDC).....	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE).....	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE).....	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE).....	0.1 mg/l
(22)	ethylbenzene.....	0.75 mg/l
(23)	total xylenes.....	0.62 mg/l
(24)	methylene chloride.....	0.1 mg/l
(25)	chloroform.....	0.1 mg/l
(26)	1,1-dichloroethane.....	0.025 mg/l
(27)	ethylene dibromide (EDB).....	0.0001 mg/l
(28)	1,1,1-trichloroethane.....	0.06 mg/l
(29)	1,1,2-trichloroethane.....	0.01 mg/l
(30)	1,1,2,2-tetrachloroethane.....	0.01 mg/l
(31)	vinyl chloride.....	0.001 mg/l
(32)	PAHs: total naphthalene plus monomethylnaphthalenes.....	0.03 mg/l
(33)	benzo-a-pyrene.....	0.0007 mg/l

B. Other Standards for Domestic Water Supply

(1)	Chloride (Cl).....	250.0 mg/l
(2)	Copper (Cu).....	1.0 mg/l
(3)	Iron (Fe).....	1.0 mg/l
(4)	Manganese (Mn).....	0.2 mg/l
(6)	Phenols.....	0.005 mg/l

Attachment E
Project Schedule

Attachment F
Reclamation Diagrams



Notation: Wavy lines represent water bars for erosion control. Each water bar is approximately 18" tall. Alternating contours are used to assist in creating seed traps for wind-blown native seed in addition to broadcast seeding of the site.

Stanolind Operating LLC dba Stanolind NM LLC
Surface Waste Management Pit
Standard Reclamation Plan
(Not to Scale)