Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

***SUBMIT IN TRIPLICATE** – Other instructions on page 2.*

5. Lease Serial No.
NMNM110332

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
WEST INDIAN 11 FEDERAL #1

2. Name of Operator
LEGACY RESERVES OPERATING LP

9. API Well No.
30-015-33321

3a. Address
PO BOX 10848
MIDLAND, TX 79702

3b. Phone No. *(include area code)*
432-689-5200

10. Field and Pool or Exploratory Area
INDIAN BASIN; MORROW, WEST (GAS)

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
2134' FSL & 990' FEL, UNIT LETTER I, SEC 11, T21S, R22E

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☑ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☑ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

FORMATION : MORROW
WATER PRODUCED : 0
STORED : WATER TANK
MOVED : TRUCKED
DISPOSAL : NIX ANN SWD #1 API #30-015-23580
LOCATION : 18-T19S-R26E
PERMIT # : 246

RECEIVED
MAR 19 2013
NMOCD ARTESIA

APPROVED
MAR 17 2013
JAMES A. AMOS
SUPERVISOR-EPS

SEE ATTACHED FOR CONDITIONS OF APPROVAL

JRWade 3/27/13
Accepted for record
NMOCD

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
KEVIN BRACEY

Title OPERATIONS SUPERINTENDENT

Signature

Date 02/19/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972

Conditions of Approval

Legacy Reserves Operating LP
West Indian 11 Federal #1
Lease NM110332 3001533321

1. Tank battery must be bermed/diked (must be able to contain 1 1/2 times the volume of the largest tank).
2. Submit for approval of water disposal method.
3. Submit updated facility diagrams as per Onshore Order #3
4. This agency shall be notified of any spill or discharge as required by NTL-3A.
5. All outstanding environmental issue must be addressed within 90 days. Contact Jim Amos for inspection and to resolve environmental issues. 575-234-5909
6. Install legible well sign on location with operator name, well name and number, lease number, unit number, 1/4 1/4, section, township, and range. NMOCD requires the API number on well signs.
7. Subject to like approval by NMOCD.

WATER DISPOSAL ONSHORE ORDER #7

The following information is needed before your method of water disposal can be considered for approval.

1. Name(s) of formation (s) producing water on the lease.
   Morrow
2. Amount of water produced from each formation in barrels per day.
   0
3. How water is stored on the lease.
   Water Tank
4. How water is moved to disposal facility.
   Trucking
5. Operator's of disposal facility
   a. Lease name or well name and number Nix Ann SWD
   b. Location by ¼ ¼ Section, Township, and Range of the disposal system
      Sec. 18 - T19S - R26E
   c. The appropriate NMOCD permit number
      # 246

Production Phase

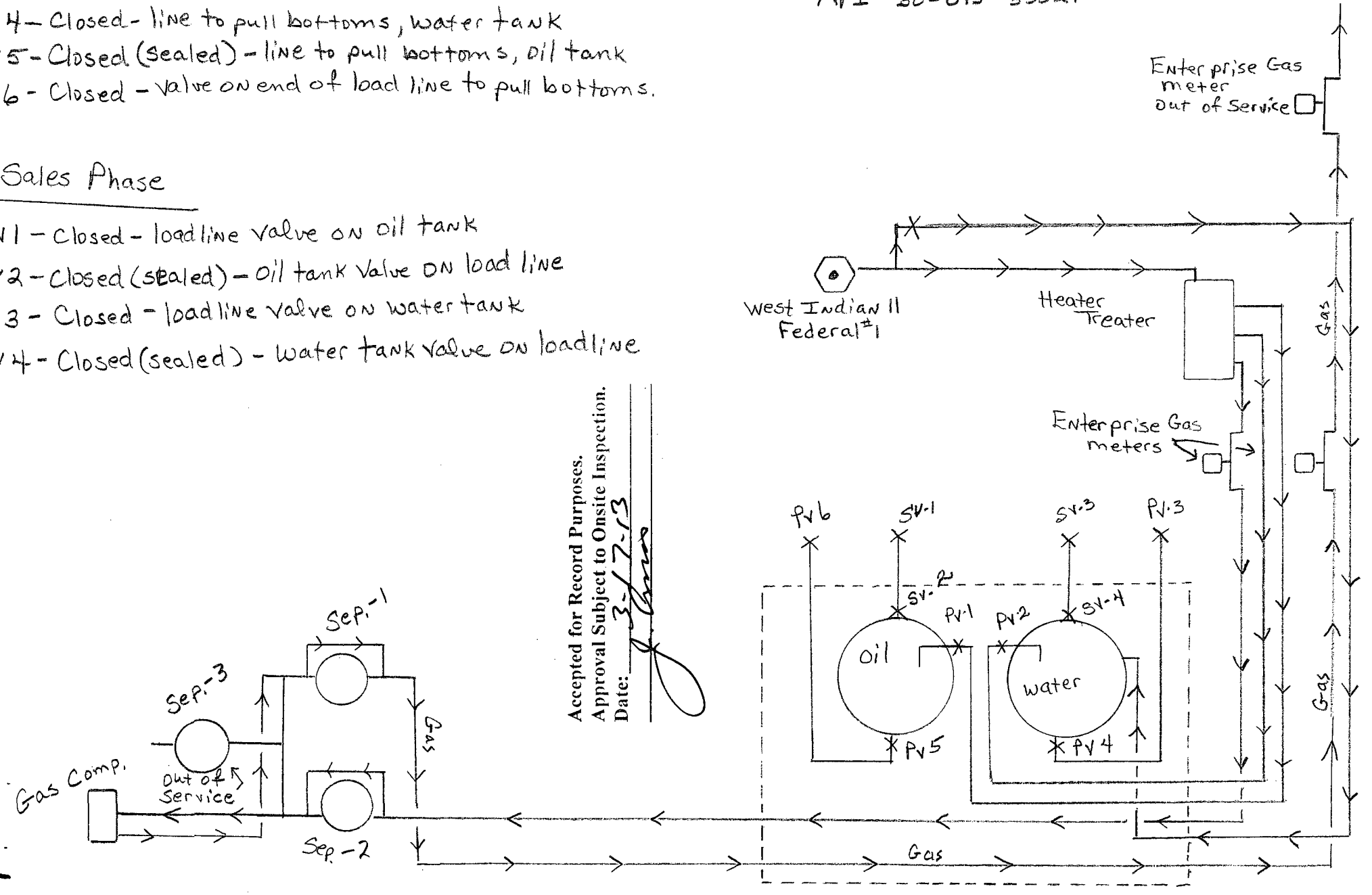
PV 1 – open – Fill line for oil tank
PV 2 – open – Fill line for water tank
PV 3 – Closed – Valve on end of load line to pull bottoms
PV 4 – Closed – line to pull bottoms, water tank
PV 5 – Closed (sealed) – line to pull bottoms, oil tank
PV 6 – Closed – valve on end of load line to pull bottoms.

Sales Phase

SV 1 – Closed – load line valve on oil tank
SV 2 – Closed (sealed) – oil tank valve on load line
SV 3 – Closed – load line valve on water tank
SV 4 – Closed (sealed) – water tank valve on load line

Legacy Reserves

West Indian 11 Federal 1
State ID – NM 110332
Sec. I – 11 – 21S – 22E
API 30-015-33321



WATER ANALYSIS REPORT

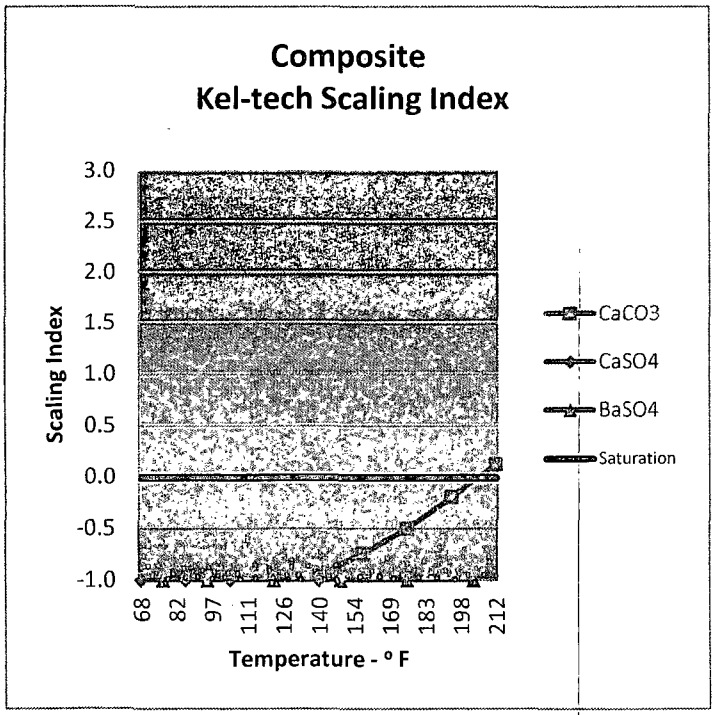
SAMPLE

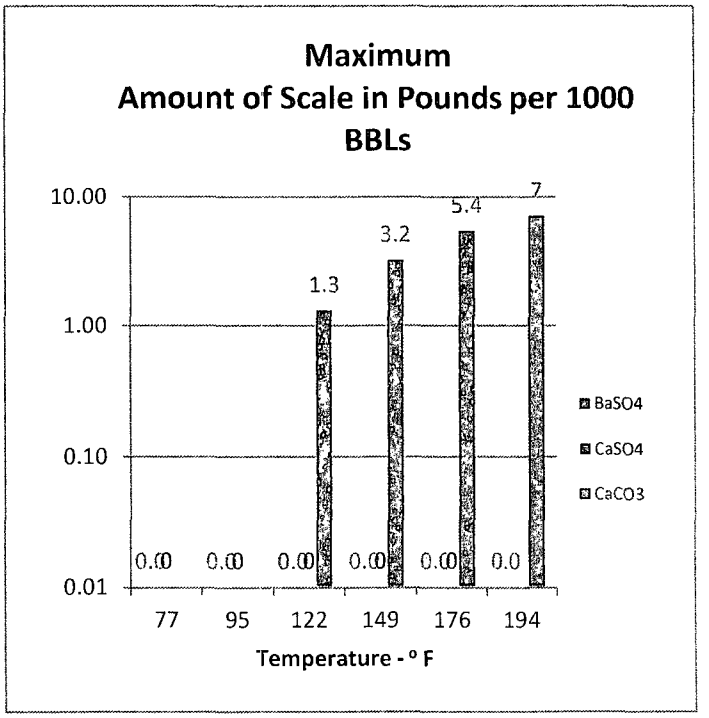
Oil Co: LEGACY
Lease: WEST INDIAN
Well No.: 11 FED-1
Location: TANK
Attention: ACCT. MANAGER

Date Sampled: 01/10/13
Date Analyzed: 01/11/13
Lab ID Number: 01/11/13LEGACYWEST INDIAN11 FED-1
Account Manager: B STRUBE
Requested By: LAB
File Name: 01/11/13LEGACYWEST INDIAN11 FED-1
Note: 0
BECCA

ANALYSIS

				MG/L	EQ. WT	MEQ/L
1	pH		5.3			
2	Specific Gravity		1.000			
3	$CaCO_3$ Saturation Index	@80 F	-1.64			
		@140 F	-0.93			
	DISSOLVED GASES					
4	Hydrogen Sulfide			0		
5	Carbon Dioxide			35		
6	Dissolved Oxygen			NOT DETERMINED		
	CATIONS					
7	Calcium	(Ca^{++})		400	20.1	19.90
8	Magnesium	(Mg^{++})		36	12.2	2.99
9	Sodium	(Na^{++})	(Calculated)	1,550	23.0	67.39
10	Barium	(Ba^{++})		7	68.7	0.10
	ANIONS					
11	Hydroxyl	(OH^{+})			17.0	0.00
12	Carbonate	(CO_3^{--})			30.0	0.00
13	Bicarbonate	(HCO_3^{-})		171	61.1	2.80
14	Sulfate	(SO_4^{--})		0	48.8	0.00
15	Chloride	(Cl^{-})		3,000	35.5	84.51
16	Total Dissolved Solids			5,255		
17	Total Iron	(Fe)		56	18.2	3.07
18	Total Hardness as $CaCO_3$			1,150		
19	Resistivity-NaCl equivalent@	69 °F		0.9091	OHM~METERS	





Post Office Box 11383 Midland,Texas 79702 (432) 684-4700 (432) 686-8000

1.0 FACILITY INFORMATION

1.1 Facility Type and Location

Facility	West Indian 11 Fed #1		
Type Facility	Onshore Oil and Gas Production		
State Identification:	API 30-015-33321		
Facility Location	26 miles northwest of Artesia		
County:	Eddy	State:	New Mexico
Latitude:	32.49120 N		
Longitude:	104.66864 W		
Directions to Facility:	Refer to Facility Location Map, Attachment 1		

1.2 Facility Owner and Operator

Name and address of owner:

Name:	Legacy Reserves
Address:	303 W. Wall, Suite 1400
	Midland, Texas 79701
Telephone:	(432) 682-2516

Name and address of operator:

Name:	Legacy Reserves
Address:	303 W. Wall, Suite 1400
	Midland, Texas 79701
Telephone:	(432) 682-2516

1.3 Designated Person Accountable for Oil Spill Prevention at Facility

This person is accountable for discharge prevention and response activities at the subject facility. See Spill Response Plan, Appendix A for designated person.

2.0 DESCRIPTION OF FACILITY OPERATIONS

The West Indian 11 Fed #1 facility is located in Eddy County, New Mexico as shown on Figure 1, Location Map. Figure 2 is a Topographic Map of the area surrounding the site. The site is located on the USGS Cawley Draw, New Mexico Quadrangle Map. The surface drainage from the facility site is described in Section 5.0.

The lease production flows from the wells through flow lines to the tank battery facility for separation and storage. Production separators and/or treaters separate the oil, water and gas produced from the wells. Produced fluids are removed from the facility as described in Section 2.2 below. Figure 3 is a Site Plan of the subject facility.

This is an unmanned facility that processes and stores produced fluids 24 hours per day. This facility is inspected at least once every day by operations personnel.

2.1 Tank Battery

The storage tanks at this facility are constructed to API specifications. The tank construction material is compatible with the fluids to be stored in each tank as detailed in Table 1 below. Each tank is equipped with vent lines and vacuum/pressure relief hatches to prevent tank rupture or collapse during product filling or removing operations. Multiple tank installations also include equalizing lines between the tanks to prevent accidental overflow of a tank. A description of the secondary containment structure for this tank battery facility is included in Section 4.0 below.

Table 1
DESCRIPTION OF OIL TANK BATTERY

CONTENTS OF TANKS	CAPACITY (BBLS)	TANK CONSTRUCTION	SERIAL NUMBER	CONDITION
Oil	500	Steel	12879	Good
Water	500	Steel	14329	Good
Total Storage Capacity:		Oil: 500 BBLS		22,584 Gallons
		Water: 500 BBLS		22,584 Gallons

Table 2
DESCRIPTION OF OIL INJECTION STATION

CONTENTS OF TANKS	CAPACITY (BBLS)	TANK CONSTRUCTION	SERIAL NUMBER	CONDITION
Oil				
Oil				
Oil				
Water				
Water				
Total Storage Capacity:		Oil: 0 BBLS		0 Gallons
		Water: 0 BBLS		0 Gallons

2.2 Transfer Facilities

The produced oil is removed from this facility by: Transport Truck ☒ Pipeline ☐

The transfer valve is located within the secondary containment structure. Yes ☐ No ☒

A containment vessel is located on the load line valve. Yes ☒ No ☐

The produced water is removed from this facility by: Transport Truck ☒ Pipeline ☐ Injection ☐

The transfer valve is located within the secondary containment structure. Yes ☐ No ☒

A containment vessel is located on the load line valve. Yes ☒ No ☐

A full secondary containment structure for the truck loading area is not practical due to the terrain and site restrictions at the subject facility. All drivers will perform a walk-around inspection prior to moving the truck from the loading area. The driver will ensure that transfer lines are disconnected and properly secured, all valves are fully closed, and inspect for leaks from the truck and tank valves.

2.3 Treating and Processing Equipment (ft):

Separators	2 - 2.25' x 12', vertical, Capacity: 9 BBLS 1 – 2.25' x 10', vertical, Capacity: 8 BBL
Treaters:	1 – 1.67' x 10', vertical, Capacity: 4 BBLS
Injection Pumps:	None

2.4 Description of Flow lines

The steel flow line(s) from the producing well(s) to the subject facility is buried. Yes ☒ No ☐

Steel flow lines have cathodic protection. Yes ☒ No ☐

Secondary containment for buried flow lines is not practical due to the depth of burial Secondary containment for flow lines laid on the surface of the ground is not practical due to the terrain and potential erosion of the ground.

A program for flow line maintenance is detailed in the Legacy Reserves Discharge Prevention Plan. The flow line rights-of-ways are routinely checked for leaks and spills and the lines are repaired or replaced as necessary.

2.5 Types of Fluids Handled and Stored at Facility

This facility processes and stores produced oil and water from oil field operations.

2.6 Site Security

This oil production facility is not subject to the security provisions of 40 CFR 112.7 (g).

3.0 FREEBOARD STANDARD FOR SECONDARY CONTAINMENT

Tank and flow-through process vessel (production equipment) installations include a means of secondary containment sufficient to contain 110% of the capacity of the largest tank/vessel. Calculations to determine the net capacity of each secondary containment structure (Sections 4.1 and 4.2) include adjustments for the displacement due to additional tanks and/or other obstructions within the containment structure.

4.0 DESCRIPTION OF SECONDARY CONTAINMENT

The secondary containment structure(s) will be maintained in a manner to assure the structure is capable of retaining the required volume of fluid in the event of an accidental discharge. Legacy Reserves depends on early detection and quick response to contain any leaks from company facilities. Response procedures for spills are detailed in the Legacy Reserves Spill Response Plan (SRP). Procedures for the drainage of accumulated rainwater from the secondary containment structure(s) are detailed in the Legacy Reserves Discharge Prevention Plan (DPP).

4.1 Tank Battery

A secondary containment structure surrounds the tank battery installation to prevent the spread of produced oil and water from an accidental discharge of fluids from the tank battery.

Dimensions of Secondary Containment (ft.):	90 x 55 x 1
Total Capacity of Secondary Containment:	882 BBLS
Capacity of Largest Tank:	500 BBLS
Net Capacity of Secondary Containment:	848 BBLS
Required Secondary Containment Capacity:	550 BBLS
Type and condition of Berm:	Earth with rock cap, good
Type and Condition of Containment Floor:	Pea gravel, good
Type of Drain:	None
Direction of flow away from the tank battery area:	South

4.2 Production Equipment

The treating and processing facilities at this site are within a secondary containment area.
Yes ☐ No ☒ One Separator and the Heater/Treater have no secondary containment

The secondary containment area is separate from the tank battery. Below is a description of this area.

Dimensions of Secondary Containment (ft.):	25 x 20 x 2
Total Capacity of Secondary Containment:	178 BBLS
Volume of Largest Production Vessel:	9 BBLS
Net Capacity of Secondary Containment:	177 BBLS
Required Secondary Containment Capacity:	9.9 BBLS
Type and condition of Berm:	Earth with rock cap, good
Type and Condition of Containment Floor:	Pea gravel, good
Type of Drain:	None
Direction of flow away from the tank battery area:	South

5.0 PROBABLE DIRECTION AND RATE OF FLOW OF DISCHARGES

This facility processes 0 BBLS of oil, 0.5 BBLS of water, and 89.2 MCF of gas per 24-hour day. The surface drainage from this area is south for 0.15 miles toward an unnamed waterway that then runs southeast to Stinking Draw.

Areas where potential for an oil spill to exist are:

1. Tanks — Leak from tank due to overflow, corrosion hole in tank shell, failure of vent/vacuum system, or lightning striking tank resulting in explosion with spillage and/or fire.
2. Load Lines — Valve leak or overflow of containment system.
3. Flow Lines — Corrosion leak in line, damage due to construction activity.
4. Vessels — Leaks and equipment failure, pressure relief valve operation.
5. Connections — Leaks at connections, valves and fittings.
6. Wellhead — Leaks and equipment failure, stuffing box.

Table 3
Storage Capacity and Potential Discharge

Source	Contents of Vessel	Total Volume (BBLS)	Leak Rate (BBLS/Hr.)	Secondary Containment
Tank 2	Oil	500	125	Dike
Tank 1	Water	500	125	Dike
Separator 1	Oil/Water	8	0.02	Dike
Separator 2	Oil/Water	8	0.02	Dike
Separator 3	Oil/Water	7	0.02	None
Treater	Oil/Water	5.6	0.02	None
Wellhead/Flow line	Oil/Water	NA	0.02	None

6.0 PLANS FOR THE PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS

The following measures have been established to protect all environmentally sensitive areas. These items are either in place at this facility or are readily available to company personnel.

Secondary Containment around: Tank Battery ☒ Production Equipment ☒ (2 separators only)

Compressor Skid Sump ☐ Dehy Sump ☐ Absorbent Pads ☒

Weir Booms ☒ Hand Tools ☒ DPP & SRP Plans ☒

7.0 DISCHARGE PREVENTION PLAN

The Legacy Reserves Discharge Prevention Plan is considered to be an integral part of this SPCC Plan. The Discharge Prevention Plan details information and procedures for: facility inspection, facility drainage, spill reporting and analysis, personnel training, and drilling and work over activities.

1. A section for filing required Facility Inspection Forms can be found at the end of this section of the SPCC Plan.

2. A section for filing required Spill Report Forms can be found at the end of this section of the SPCC Plan.

8.0 SPILL RESPONSE PLAN

The Legacy Reserves Spill Response Plan is considered to be an integral part of this SPCC Plan. The Spill Response Plan provides information and procedures to be utilized in the event of a discharge of oil from the subject facility.

9.0 PERSONNEL AND EQUIPMENT AVAILABLE FOR RESPONSE

1. See Spill Response (Emergency Response) Plan, Appendix A, for listing of Company Personnel and Equipment.

2. See Spill Response (Emergency Response) Plan, Appendix B, for listing of Contract Personnel and Equipment.

10. ACTION ITEMS

Any action items that are required by this Plan or recommended by the Professional Engineer to bring the Facility into compliance with the SPCC requirements shall be identified below. This Plan is conditionally approved and certified by the Professional Engineer based upon satisfactory completion and documentation of the Action Items.

ACTION ITEM	COMPLETED	
	DATE	SIGNATURE
Provide secondary containment for Separator 3		
Provide secondary containment for the Heater/Treater		

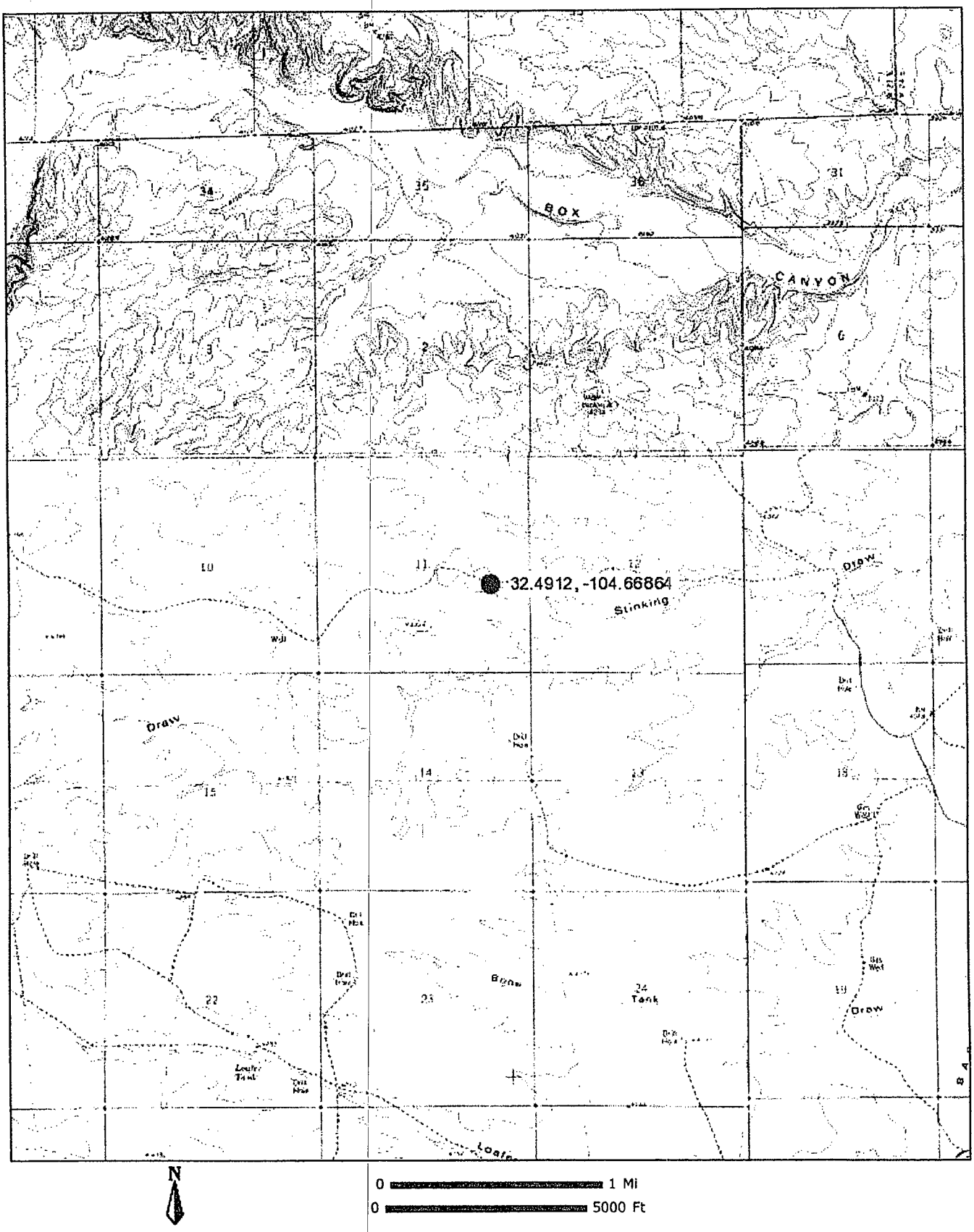
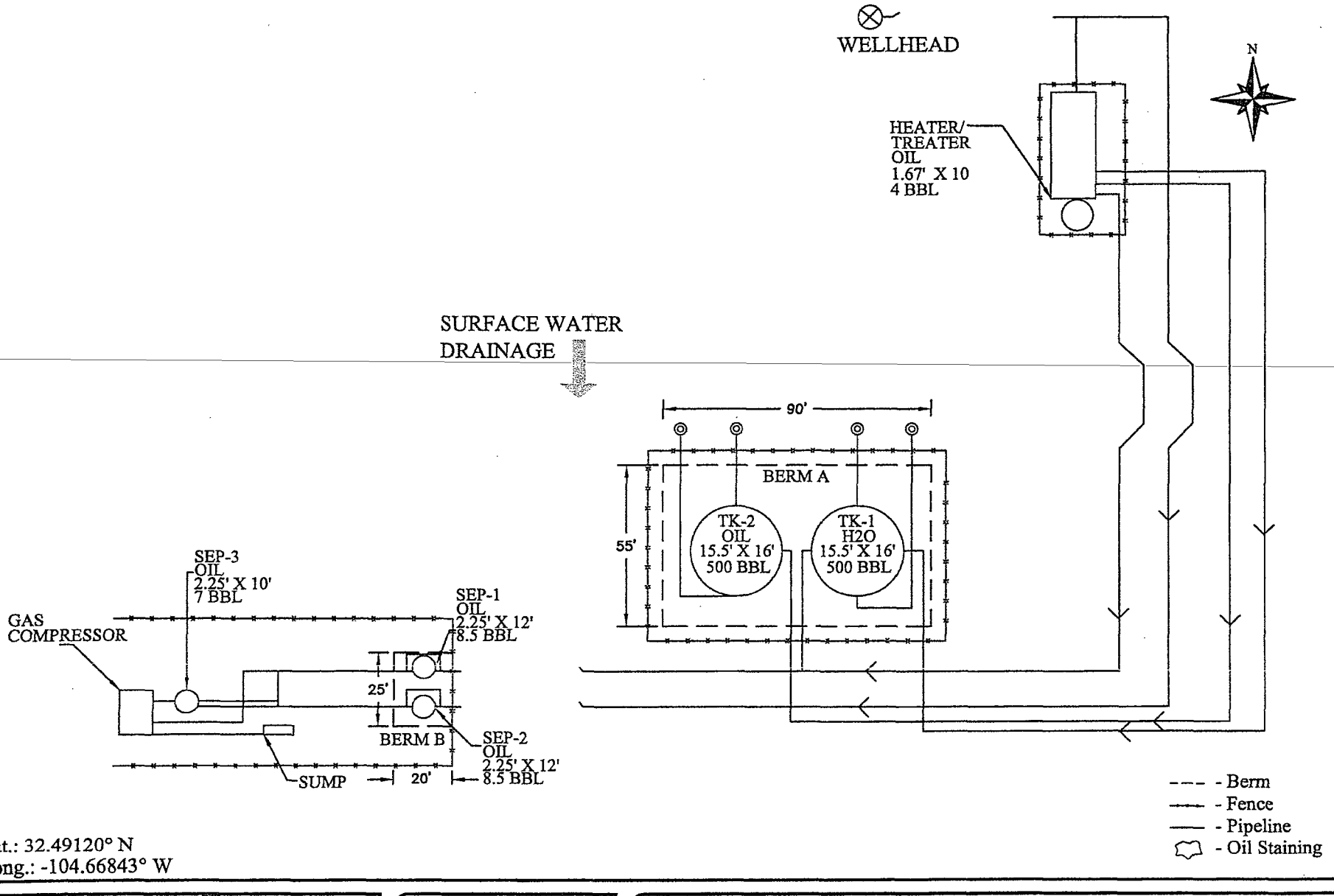


Figure 2-
Topographic Map

Legacy Reserves / West Indian 11 Fed #1
Lea County, New Mexico



Lat.: 32.49120° N
Long.: -104.66843° W

TALON LPE

Date:	06/07/2012
Scale:	NTS
Drawn By:	EMF

West Indian 11 Federal #1
Legacy Reserves
Eddy County, New Mexico
SPCC Site Plan

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972

Disposal of Produced Water From Federal Wells
Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency shall be notified of any change in your method or location of disposal.
2. Compliance with all provisions of Onshore Order No. 7.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. All above ground structures on the lease shall be painted Shale Green (5Y 4/2), or as per approved APD stipulations. This is to be done within 90 days, if you have not already done so.
6. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
8. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.

9/22/09