Oil Field Remediation Programs and Resources

Sire Remediation Section | Oil and Gas Division

Peter G. Pope, P.G.
Site Remediation Manager

Dr. Andy Piñon
VCP | BRP Coordinator









Presentation Outline

- Learning Objectives
- Site Remediation Overview
- Statutory Authority & Applicable Cleanup Rules
- Site Remediation Procedural Process
  - Notification
  - Defining Goals
  - Non-Sensitive Areas
  - Sensitive Areas or Other
- Site Remediation Cleanup Programs
- Questions and Answers

Learning Objectives

Learning Objective 1:

Know what to expect after a spill or other contamination source is reported.

Learning Objective 2:

Understand how environmental assessment and cleanup goals are determined.

Learning Objective 3:

Know how the different programs in the Site Remediation Section function and interact.

Learning Objective 4:

Know where the Section fits into the regulatory structure of the Oil & Gas Division.

Site Remediation Overview (1 of 2)

- Site Remediation(SR) Primary Role:
  - Cleanup abandoned oilfield sites and to oversee operator cleanups of complex sensitive area sites.

- Cleanup Programs:
  1. State Managed Cleanup Program (SMCU)
  2. Operator Cleanup Program (OCP)
  3. Voluntary Cleanup Program (VCP)
  4. Brownfields Response Program (BRP)

Crude Oil Storage Facility
Operator Cleanup

Site Remediation Overview (2 of 2)

State Managed Cleanup

Statutory Authority & Applicable Rules (1 of 3)

1. Contamination

- Statutory Authority:

TWC 26.131 (1) –RRC responsible for controlling and disposing waste to include prevention of pollution associated with O&G activity.

- **TNRC 91.1011** – "O&G waste" is waste that arises out of or incidental to the drilling for or producing of oil and gas.

TNRC 91.101 – Authorizes RRC to adopt and enforce rules and orders to prevent pollution.

2. Assessment

- Statutory Authority:

TNRC 91.1131 (a) – RRC may establish risk assessment as the guide for conducting:

- Site Investigations and Environmental Assessments
- Control and cleanup oil and gas wastes, and other substances and materials

3. Cleanup

- Statutory Authority:

1) **TNRC 91.113 (b) TWC 26.131:** Determine "Responsible Person"

2) **TNRC 91.113 (a)** – RRC authorized to spend (and recover) oil field cleanup funds to:

- Investigate, assess, control or cleanup O&G wastes, other substances or materials regulated by the RRC.

Statutory Authority & Applicable Rules (2 of 3)

Who is a "Responsible Person"?

- Texas Natural Resource Code (TNRC) 91.113 (b) - Any operator or other person required by law, rules adopted by the Commission, or a valid order of the Commission to control or clean up the O&G wastes or other substances or materials.

- Commission authorized to spend (and recover) oil field cleanup funds (TNRC 91.113(a)) on the following conditions:
  1. Responsible person has failed or refused to control or clean up after notice and opportunity for hearing;

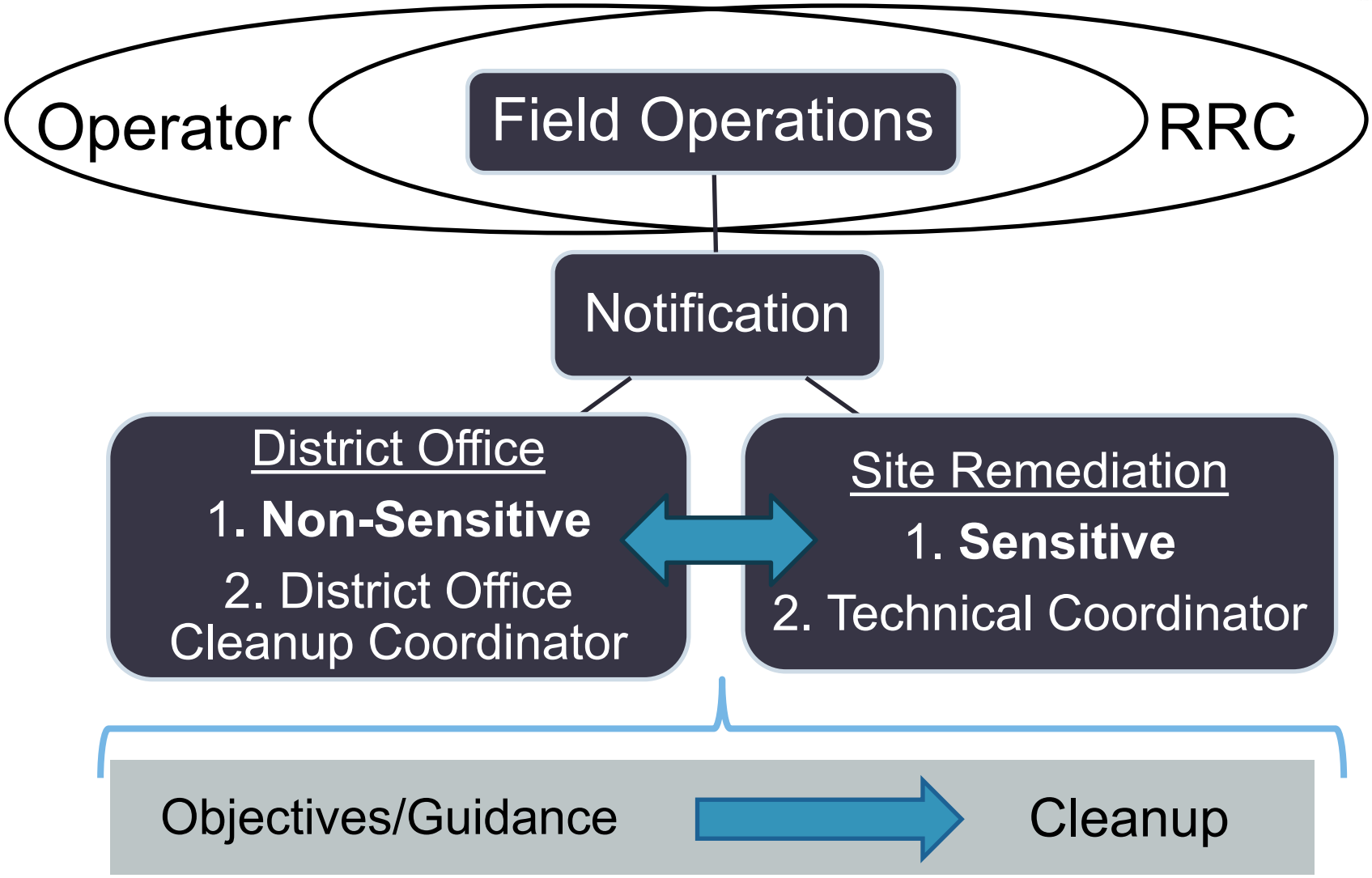
  2. Responsible person is unknown, cannot be found, or has no assets with which to control or cleanup; OR-

  3. The O&G wastes or other substances or materials are causing the pollution of surface or subsurface water.

Statutory Authority & Applicable Rules (3 of 3)

- Other applicable rules:
  - **Water Protection** (SWR8 → 16TAC Chapter 4 Subchapter A): No pollution of surface or sub-surface water (SWR8) → Oil and Gas Waste Management (16TAC Chapter 4 Subchapter A)
  - **Hazardous Waste** (16TAC 3.98): Prevent pollution of surface/sub-surface Texas waters and prevent injury to life/property caused by mismanagement of hazardous oil and gas waste.
  - **NORM Waste** (16TAC 4.6): Requirements for the identification, treatment, and/or disposal of O&G NORM waste

Site Remediation Procedural Process



Notification (1 of 2)

Required Notification

- Operators must (16 TAC 3.20):
  1. Provide **immediate** notice of a fire, leak, spill, or break to the appropriate commission district office.
  2. Report what steps taken, or are in progress, to remedy the reported situation.
  3. Report the quantity of oil*, gas, or geothermal resources that have been lost, destroyed, or permitted to escape.
     - * Only when: oil loss > 5 barrels in the aggregate.
     - Form H-8: Loss report

Notification (2 of 2)

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Form H-8
(Eff. 6/4/70)

CRUDE OIL, GAS WELL LIQUIDS, OR ASSOCIATED PRODUCTS LOSS REPORT

1. Field Name (as per current proration schedule, including reservoir, if applicable)		2. RRC District
3. Company	Check appropriate block(s): ☐ Producer ☐ Transporter ☐ Other ____	4. County
5. Lease Name(s) and RCC Lease Number(s) (if applicable)		
6. Location where Liquid Hydrocarbon (crude oil, gas well liquids, or associated products) Loss occurred (Section, Block, & Survey)		
7. Description of Facility from which Liquid Hydrocarbon Loss Occurred		
8. Name of Landowner where Liquid Hydrocarbon Loss Occurred	9. Type of Liquid Hydrocarbon Loss ☐ Crude Oil ☐ Gas Well Liquid ☐ Other _____	
10. Date Liquid Hydrocarbon Loss Occurred	11. Date Liquid Hydrocarbon Loss Reported to RRC District Office by Telephone or Telegraph	
12. Total Barrels of Liquid Hydrocarbon Lost in Lost in Leak or Spill	13. Total Barrels of Liquid Hydrocarbon Recovered	14. Barrels of Liquid Hydrocarbon Unrecovered (Net Loss)
15. Did Liquid Hydrocarbon Loss Affect Inland or Coastal Water? (If yes, explain.)		

Defining Goals (1 of 1)

- The **location and source** of a spill determine the assessment and cleanup objectives.
  - **Location**:
    - Non-Sensitive Area: That which is not sensitive as defined by Rule §3.91
    - Sensitive Area: Defined in Rule §3.91
      - Shallow groundwater
      - Proximity to surface water
      - Natural wildlife refuge
      - Residential areas
  - **Source**: Crude oil or other source

Non-Sensitive Areas (1 of 7)

Weathered Crude Oil

Crude Oil Leak

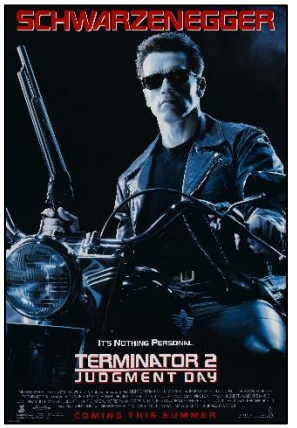
Non-Sensitive Areas (2 of 7)

Cleanup Objectives

- 16 TAC 3.91 (SWR 91)
  - Establishes cleanup criteria for non-sensitive/sensitive areas

- Crude Oil in Non-Sensitive Area
  - Remove Free Oil
  - Excavate soil over 1% TPH by weight
  - Prevent runoff – manage, mix, or remove >5%
  - Cleanup to below 1% TPH within one year

Non-Sensitive Areas (3 of 7)



Rule 91

- Technical Background
  - 1991 “Oil on Soil Standards Study”
  - “Minimum level of (TPH) cleanup that would protect human health, prevent future contamination of surface water and/or groundwater”
  - Prepared six different weight percent mixtures of crude oil and soil (clay and sandy loam) in the laboratory

Non-Sensitive Areas (4 of 7)

Technical Background (Cont.)

- 0.01% and 0.1% mixtures - no discoloration, odor or oily feel, no sheen.
- 1% mixture – barely perceptible darker color, slight petroleum odor, no oily feel, no sheen.
- 5% mixture – color of “stained soil, slight petroleum odor, no oily feel, no sheen.
- 10% mixture – noticeably darker color, noticeable petroleum odor, slight oily feel, absorption capacity of soil reached, free oil forming on soil particles, oil sheen on water.

Non-Sensitive Areas (5 of 7)

Technical Background (Cont.)

- Study Conclusions:
  - Cleanup to 1% (by weight) crude will protect surface water and groundwater from runoff and leaching.
  - Soil with up to 5% crude can be treated on the land surface without concern for stormwater runoff
  - Soil treated on land surface with greater than 5% crude should have stormwater controls

Non-Sensitive Areas (6 of 7)

- ✓ Confirmation of cleanup is determined through sampling and testing for soil TPH concentration in the laboratory
- ✓ Typically reported as mg/Kg
- ✓ 1% crude by weight is roughly equivalent to 10,000 mg/kg TPH in soil.
- ✓ TPH measurement methods have improved since 1991

Non-Sensitive Areas (7 of 7)

Guidelines

- Field Guide For Reportable Surface Releases of Crude Oil in Non-Sensitive Areas
  - https://www.rrc.texas.gov/oil-and-gas/publications-and-notices/publications/surface-releases-spill-incident/

Sensitive Areas or Other (1 of 15)

Residential Property

Fresh Water

Sensitive Areas or Other (2 of 15)

Rule 91

- Sensitive Area or Other (Rule §3.91(b)):
  - Does not apply:
    - Hydrocarbon condensate spills
    - Crude oil spills in sensitive areas
    - Crude oil spills that occurred prior to the effective date (i.e., November 1993)
  - Cleanup requirements:
    - Determined on a case-by-case basis
    - Operator must consult with the appropriate district office on proper cleanup standards and methods

Sensitive Areas or Other (3 of 15)

Guidelines

- Field Guide for the Assessment and Cleanup of Soil and Groundwater Contaminated with Condensate From a Spill Incident.
  - https://rrc.texas.gov/oil-gas/environmental-cleanup-programs/guidance-documents-and-helpful-links/condensate-spill-guidance/

- Introduces BTEX, land use considerations (Residential, Commercial/Ind), groundwater classification, media specific limits – Risk Assessment Concepts

Sensitive Areas or Other (4 of 15)

Risk Assessment

- Texas Risk Reduction Program (TRRP)
  - Texas Commission on Environmental Quality (TCEQ)
  - 30 TAC Chapter 350: Established response action requirements for remediation

- TRRP Application:
  - Industry-wide use
  - Provides direction on how to address contamination & remediation planning
    - Assessment levels
    - Cleanup levels

Sensitive Areas or Other (5 of 15)

Risk Assessment

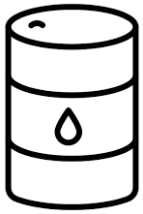
- Risk = Probability of Harm
  - Increased risk of cancer in a lifetime
    - Exposure to contaminant (benzene/NORM)
  - Cleanup reduces risk
    - Reduces contamination and exposure

- Hazard = Harmful Condition
  - Harmful effect at time of exposure
    - Exposure to H2S in the oil field

- Risk Assessment Determines How Much Cleanup is Needed
  - Movement & decay of chemicals in the environment
  - Point of exposure
  - Acceptable media concentrations (PCLs)

Sensitive Areas or Other (6 of 15)

Exposure Assessment



Source
Chemicals of Concern (COCs)

Exposure Pathway
Surface soil, vapors

Receptor
Resident

Intake
Ingestion, inhalation, skin contact

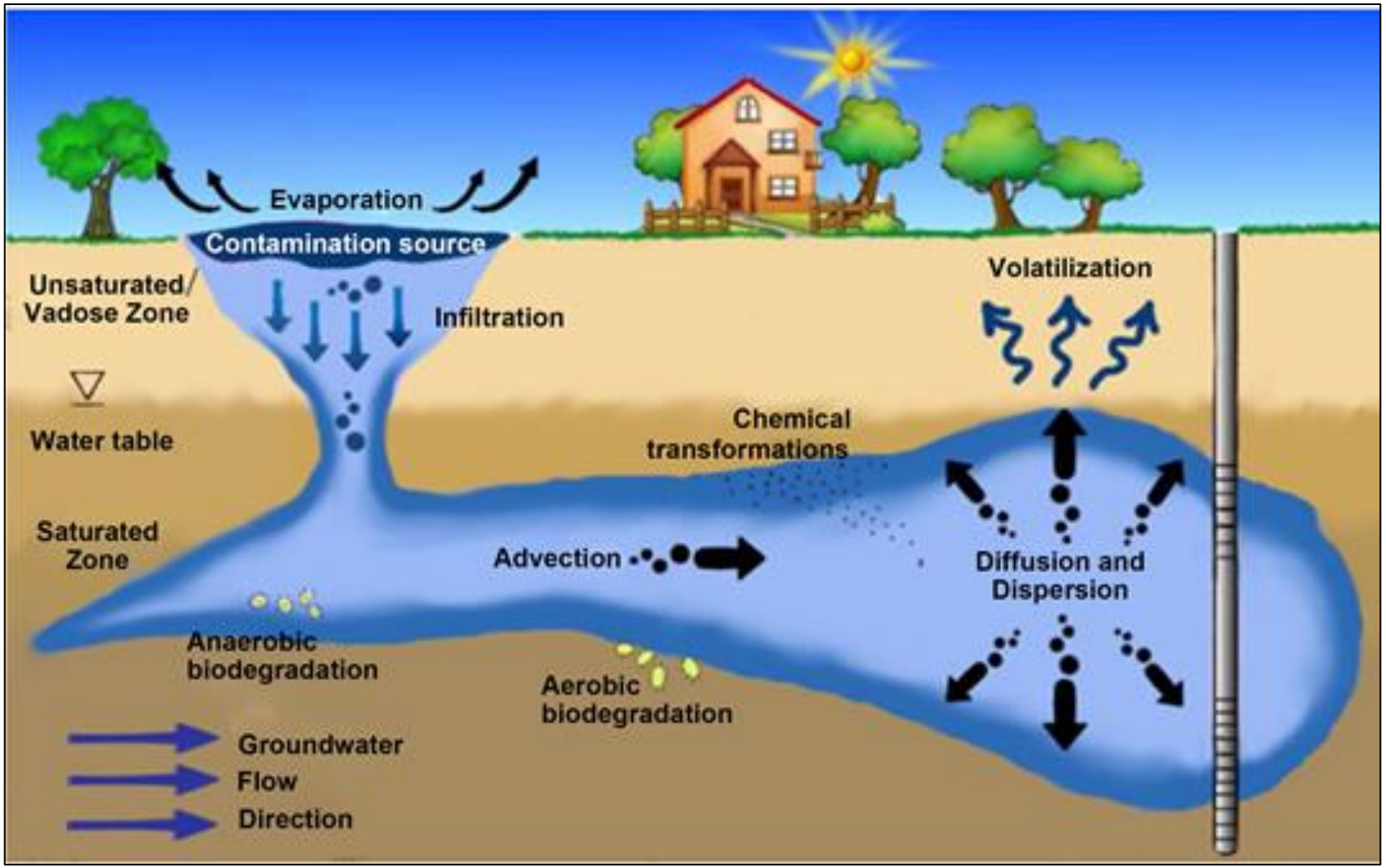
Exposure Assumptions
Breathing rate, amount of skin exposed, body weight, etc.

Component of Risk Assessment

Sensitive Areas or Other (7 of 15)

Sensitive Areas or Other (8 of 15)

Exposure Assessment



Sensitive Areas or Other (9 of 15)

Exposure Assessment

SOURCE → PATHWAY → RECEPTOR = DOSE

$$\frac{Cs \times EF \times ED \times IR}{AT \times BW}$$

Exposure assumptions

DOSE x TOXICITY = RISK (risk or hazard)

(forward risk assessment)

Sensitive Areas or Other (10 of 15)

Cleanup Value

ALLOWABLE RISK → RECEPTOR

(1 in a million chance)

DOSE → PATHWAY → SOURCE CONC.

$$Cs = \frac{AT \times BW \times TR}{EF \times ED \times IR \times Tox}$$

DOSE

TARGET RISK

(backward risk assessment)

Sensitive Areas or Other (11 of 15)

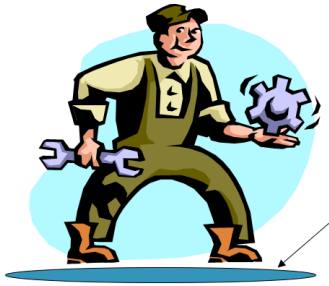
Cleanup Value

Exposure-Specific:

- **Ingestion** of chemicals
- **Dermal contact** with soil (skin surface area)
- **Inhalation** of chemicals in soil (inhalation rate).

ALLOWABLE RISK → RECEPTOR
(1 in a million chance)

DOSE → PATHWAY → SOURCE CONC.



$$Cs = \frac{AT \times BW \times TR}{EF \times ED \times IR \times Tox}$$

DOSE

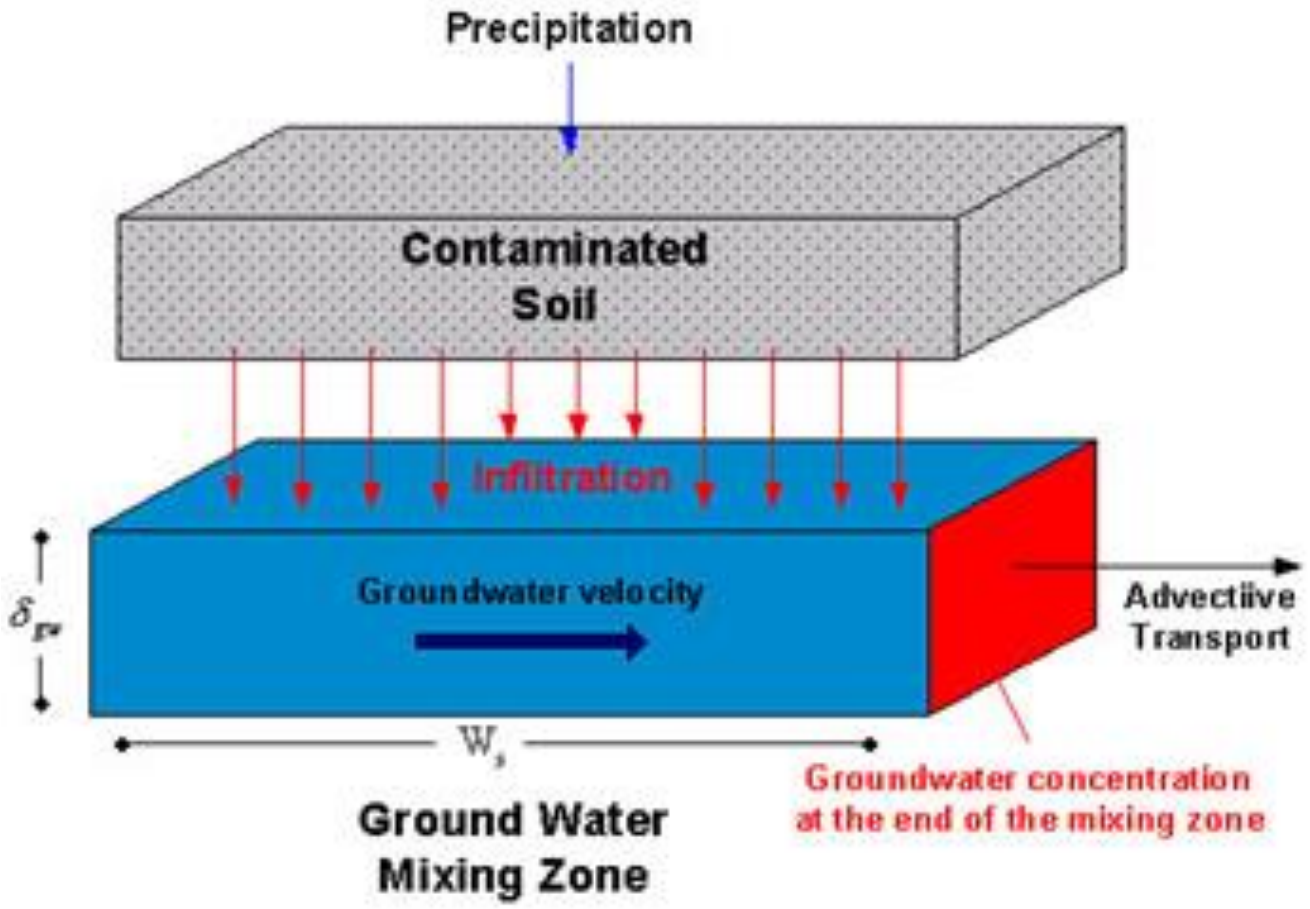
TARGET RISK

(backward risk assessment)

Also, need to look at groundwater protection.

Sensitive Areas or Other (12 of 15)

Groundwater Contamination



Strassberg, G., Maidment, D.R., and L.E. Katz. Dilution attenuation factors in susceptibility assessments. A GIS based method. Center for Research in Water Resources, The University of Texas at Austin. Accessed June 9, 2025 (ttps://proceedings.esri.com/library/userconf/proc02/pap0927/p0927.htm).

Sensitive Areas or Other (13 of 15)

TRRP RESIDENTIAL AND COMMERCIAL/INDUSTRIAL PCLS

(Source: 2018-pcl-Tables - April 27, 2018)

	RESIDENTIAL SOIL							
	0.5 ac. Source				30 ac. Source			
	SOIL DIRECT	SOIL TO GROUNDWATER		SOIL TO AIR	SOIL DIRECT	SOIL TO GROUNDWATER		SOIL TO AIR
Chemical of Concern	$^{Tot}Soil_{Comb}$ (mg/kg)	$^{GW}Soil_{Ing}$ (mg/kg)	$^{GW}Soil_{Class\ 3}$ (mg/kg)	$^{Air}Soil_{Inh\text{-}V}$ (mg/kg)	$^{Tot}Soil_{Comb}$ (mg/kg)	$^{GW}Soil_{Ing}$ (mg/kg)	$^{GW}Soil_{Class\ 3}$ (mg/kg)	$^{Air}Soil_{Inh\text{-}V}$ (mg/kg)
Benzene	120	0.026	2.6	160	69	0.013	1.3	84
Toluene	5,900	8.2	820	63,000	5,400	4.1	410	32,000
Ethylbenzene	6,400	7.6	760	29,000	5,300	3.8	380	15,000
Total Xylenes	6,000	120	12,000	9,400	3,700	61	6,100	4,800
TPH (C6-C12)[1]	1,600	65	6,500	3,100	1,100	33	3,300	1,600
TPH (C12-C28)[1]	2,300	200	20,000	15,000	2,000	99	9,900	7,800
TPH (C28-C35)[1]	2,300	200	20,000	15,000	2,000	99	9,900	7,800
Arsenic	24	5	500	---	24	2.5	250	---
Barium	8,100	440	44,000	---	8,100	220	22,000	---
Lead	500	3	300	---	500	1.5	150	---
Mercury (pH = 4.6)	3.6	0.0078	0.78	4.6	2.1	0.0039	0.39	2.4
Mercury (pH = 6.8)	8.3	2.1	210	16	5.5	1	100	8
Chloride[2]	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
	Surface soils (0-15 ft. bgs to GWBU)	*Class 1 or 2 Groundwater*	*Class 3 Groundwater*	*Subsurface soils (15 ft. bgs to GWBU)*	*Surface soils (0-15 ft. bgs to GWBU)*	*Class 1 or 2 Groundwater*	*Class 3 Groundwater*	*Subsurface soils (15 ft. bgs to GWBU)*

	COMMERCIAL/INDUSTRIAL SOIL							
	0.5 ac. Source				30 ac. Source			
	SOIL DIRECT	SOIL TO GROUNDWATER		SOIL TO AIR	SOIL DIRECT	SOIL TO GROUNDWATER		SOIL TO AIR
Chemical of Concern	$^{Tot}Soil_{Comb}$ (mg/kg)	$^{GW}Soil_{Ing}$ (mg/kg)	$^{GW}Soil_{Class\ 3}$ (mg/kg)	$^{Air}Soil_{Inh\text{-}V}$ (mg/kg)	$^{Tot}Soil_{Comb}$ (mg/kg)	$^{GW}Soil_{Ing}$ (mg/kg)	$^{GW}Soil_{Class\ 3}$ (mg/kg)	$^{Air}Soil_{Inh\text{-}V}$ (mg/kg)
Benzene	240	0.026	2.6	270	130	0.013	1.3	140
Toluene	42,000	8.2	8,200	88,000	29,000	4.1	410	45,000
Ethylbenzene	29,000	7.6	760	41,000	17,000	3.8	380	21,000
Total Xylenes	12,000	120	12,000	13,000	12,000	120	12,000	13,000
TPH (C6-C12)[1]	3,900	190	19,000	4,300	2,100	97	9,700	2,200
TPH (C12-C28)[1]	12,000	590	59,000	21,000	7,800	300	30,000	11,000
TPH (C28-C35)[1]	12,000	590	59,000	21,000	7,800	300	30,000	11,000

Sensitive Areas or Other (14 of 15)

	GROUNDWATER							
	RESIDENTIAL				COMMERCIAL/INDUSTRIAL			
			0.5 ac source	30 ac. Source			0.5 ac source	30 ac. Source
	GW DIRECT		GW TO OUTDOOR AIR		GW DIRECT		GW TO OUTDOOR AIR	
Chemical of Concern	$^{GW}GW_{Ing}$ (mg/L)	$^{GW}GW_{Class3}$ (mg/L)	$^{Air}GW_{Inh\text{-}V}$ (mg/L)	$^{Air}GW_{Inh\text{-}V}$ (mg/L)	$^{GW}GW_{Ing}$ (mg/L)	$^{GW}GW_{Class3}$ (mg/L)	$^{Air}GW_{Inh\text{-}V}$ (mg/L)	$^{Air}GW_{Inh\text{-}V}$ (mg/L)
Benzene	0.005	0.5	180	23	0.005	0.5	300	39
Toluene	1	100	64,000	8,200	1	100	89,000	12,000
Ethylbenzene	0.7	70	30,000	3,800	0.7	70	42,000	5,400
Total Xylenes	10	1,000	10,000	1,300	10	1,000	14,000	1,900
TPH (C6-C12)[1]	0.98	98	1,800	230	3	290	2,500	320
TPH (C12-C28)[1]	0.98	98	7,500	970	3	290	10,000	1,400
TPH (C28-C35)[1]	0.98	98	7,500	970	3	290	10,000	1,400
Arsenic	0.01	1	---	---	0.01	1	---	---
Barium	2	200	---	---	2	200	---	---
Lead	0.015	1.5	---	---	0.015	1.5	---	---
Mercury (pH = 4.6)	0.002	0.2	7.3	0.94	0.002	0.2	10	1.3
Mercury (pH = 6.8)	0.002	0.2	7.3	0.94	0.002	0.2	10	1.3
Chloride[2]	300	300	300	300	300	300	300	300

Notes:

1. PCL values shown are for TCEQ Method 1005. TCEQ Method 1006 may be used to calculate a site-specific mixture PCL at an affected property.
2. No regulated PCL for chloride. Level shown is recommended. Background concentrations should be determined.

Sensitive Areas or Other (15 of 15)

Cleanup of Soil – Crude Oil Spill

- The **location and source** of a spill determine the assessment and cleanup objectives.
  - **Location**:
    - Non-Sensitive Area: That which is not sensitive as defined by Rule §3.91
    - Sensitive Area: Defined in Rule §3.91
      - Shallow groundwater
      - Proximity to surface water
      - Natural wildlife refuge
      - Residential areas
  - **Source**: Crude oil or other source

Site Remediation Cleanup Programs (1 of 9)

State Managed Cleanup Program

Operator Cleanup Program

Voluntary Cleanup Program

Brownfield Response Program

State Managed Cleanup Program

- Abandoned sites:
  - Responsible party fails or refuses to take action, or is unknown, deceased, or bankrupt.
  - Cleanup prioritized based on: (1) public health, (2) safety, (3) protection of environment

- Oil Field Cleanup Fund (TNRC 91.113(a)):
  - Assessment & cleanup of contamination of abandoned sites
  - Generated from regulatory fees, permit fees, and bond fees paid by O&G industry.

- Oversight:
  - Administered by Austin staff with District Office support – cleanups, site investigation

Operator Cleanup Program

- Ensures pollution in complex sensitive areas are promptly addressed:
  - Beyond routine non-sensitive crude oil spills
  - Conducted by the “responsible” operator/third-parties
    - Operator funded
  - RRC Technical Coordinator oversight
  - Long-term remediation projects

- Cleanup options:
  - Rule 91 criteria – Crude oil spills in non-sensitive areas (District Office)
  - Background – Pre-release conditions
  - Risk-based criteria – TCEQ TRRP

Site Remediation Cleanup Programs (3 of 9)

RRC Deliverable - No Further Action Letter

CHRISTI CRADDICK, CHAIRMAN
WAYNE CHRISTIAN, COMMISSIONER
JIM WRIGHT, COMMISSIONER

DANNY SORRELLS
DIRECTOR, OIL AND GAS DIVISION
DAVID LINDLEY
ASSISTANT DIRECTOR, FIELD OPERATIONS

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

June 6, 2025

Mr. James Bond and Mrs. Honey Ryder
Bond and Ryder, LLC
James Honey Avenue
Houston, TX 78998

RE: ***No Further Action***
52-Acres of Land, Bond and Ryder Land (Site)
Houston, Harris County, Texas
Voluntary Cleanup Number 03-99999

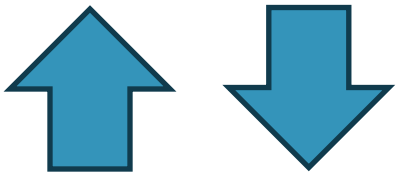
Dear Mr. Bond and Mrs. Ryder:

The Railroad Commission of Texas (RRC) Operator Cleanup Program (OCP) are pleased to provide the enclosed No Further Action letter for the above-mentioned Site. Subsequent sections of this letter detail the history of the Site and environmental investigations performed. The RRC OCP Staff reviewed the following reports:

Site Remediation Cleanup Programs (4 of 9)

Voluntary Cleanup Program

- Incentive program:
  - Remediate sites environmentally impacted by activities under RRC jurisdiction.
  - Non-responsible parties = Commission release liability to the state.



  - Commission = Collection of oversight fees, faster cleanup/restore properties.

- Procedures and Requirements (16TAC 4.4) to assure:
  - Assessments meet objectives of identifying oil field contamination.
  - Cleanup restores properties to conditions appropriate for the proposed future land use.

Site Remediation Cleanup Programs (5 of 9)

RRC Deliverable – Certificate of Completion Letter

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

June 6, 2025

Cpt. S'Chn T'Gai Spock and Mrs. T'Pring Spock
Spock Oil, LLC
Vulcan Avenue
Houston, Tx 78998

RE: **Certificate of Completion**
32-Acres of Land, Vulcan Land (Site)
Houston, Harris County, Texas
Voluntary Cleanup No. 03-99999

Mr. and Mrs. Spock:

Staff of the Railroad Commission of Texas (RRC) Voluntary Cleanup Program (OCP) are pleased to provide the enclosed Certificate of Completion Letter for the above-mentioned Site. Subsequent sections of this letter detail the history of the Site and environmental investigations performed. The RRC VCP Staff reviewed the following reports:

Site Remediation Cleanup Programs (6 of 9)

Brownfield Response Program

- BRP Purpose – restore brownfield properties in communities by increasing redevelopment potential of **abandoned** O&G sites.
  - Federally funded
  - Phase I/II ESA, supplemental assessments
  - Cleanup on qualified sites
  - BRP Coordinator facilitates site progress and closure

- Eligible applicants:
  - State, local, and tribal governments
  - Non-profit organizations
  - Quasi-governmental agencies
  - Private landowners with community-supported projects
  - Universities and school districts
  - Economic Development Corporations

Site Remediation Cleanup Programs (7 of 9)

For Use for OCP and VCP - Template Language

*Restrictive Covenant for **Residential Use** and Contaminated Soil and Groundwater*

Railroad Commission of Texas
Environmental Restrictive Covenant

STATE OF TEXAS §
§
COUNTY OF (***NAME***) §

This Environmental Restrictive Covenant ("Restrictive Covenant") is filed and recorded in the Real Property Records of (***Insert Name of County***) County, Texas pursuant to the authority of the Railroad Commission of Texas ("Commission") to control and clean up pollution caused by activities over which the Commission exercises jurisdiction in accordance with Section 91.113 of the Texas Natural Resources Code and affects the real property described as follows:

(Insert landowner name) is the record Owner of fee title to the real property and premises, and appurtenances thereto, located in (***Insert Name of County)***, County Texas, consisting of a (*____Acre Tract out of the ___ Survey, Section __, Abstract No. __, in ____County, Texas), according to deed recorded in Volume __, Page __, in the Deed Records of the office of the County Clerk* (***Insert Name of County)***,*County, Texas,* and more fully described on **Exhibit A**, which is attached hereto and incorporated herein, and identified as the "Property".

Soil and/or groundwater on a portion of the Property is impacted by certain identified constituents of concern ("COCs"). This portion, considered to be the **Affected Property**, is presented on **Exhibit B,** and can be described as follows:

> Commencing at the ***(insert legal description language)*** *(__Acre Tract out of the ___ Survey, Section __, Abstract No. __, in ____County, Texas, according to deed recorded in Volume __, Page __, in the Deed Records of the office of the County Clerk of _____ County, Texas:*
>
> *Thence N____° __' __"E, along the ____line of said ___Acre Tract, a distance of ___feet;*
>
> *Thence N____° __' __"W, perpendicular to the Southeast line of the said ___Acre Tract, a distance of ____feet to the Place of Beginning of the Description of areas __ hereinafter described;);*

Environmental Restrictive Covenant

(Residential/Commercial)

Restrict soil and groundwater use as needed

Site Remediation Cleanup Programs (8 of 9)

State Managed Cleanup Program

Operator Cleanup Program

Site Remediation

Voluntary Cleanup Program

Brownfield Response Program

Questions and Answers

Contacts

- Peter G. Pope, P.G. – Site Remediation Manager
  - Peter.Pope@rrc.texas.gov
  - (512) 463-8202
- Chris Heiligenstein – State Managed Cleanup Team Lead
  - christopher.heiligenstein@rrc.texas.gov
  - (512) 463-6219
- Jennifer Delgado – State Managed Cleanup Coordinator
  - Jennifer.Delgado@rrc.Texas.gov
- Amanda Kindt – Toxicologist, Operator Cleanup Team Lead
  - Amanda.Kindt@rrc.texas.gov
  - (512) 475-3089
- Dr. Andrea (Andy) Pinon – VCP/BRP Coordinator
  - Andrea.pinon@rrc.texas.gov
  - (512) 463-6755