

MARTIN YATES, III  
1912-1985

FRANK W. YATES  
1936-1986

S.P. YATES  
1914-2000



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

JOHN A. YATES  
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EXECUTIVE V.P. OF MONETIZATION  
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JAMES S. BROWN  
CHIEF OPERATING OFFICER

November 6, 2014

Mr. Mike Bratcher  
NMOCD District II  
811 S. First St.  
Artesia, NM 88210

Re: Central Dagger Draw Water Station  
Section 3, T20S-R24E  
Eddy County, New Mexico

Dear Mr. Bratcher,

Yates Petroleum Corporation is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 reports dated September 11, 2014 and October 8, 2014.

**If there are no objections with the scope of work described in the plan, Yates will have a contractor begin work on or after the day of November 24, 2014.**

If you have any questions, feel free to call me at (575) 748-4171

Thank you.

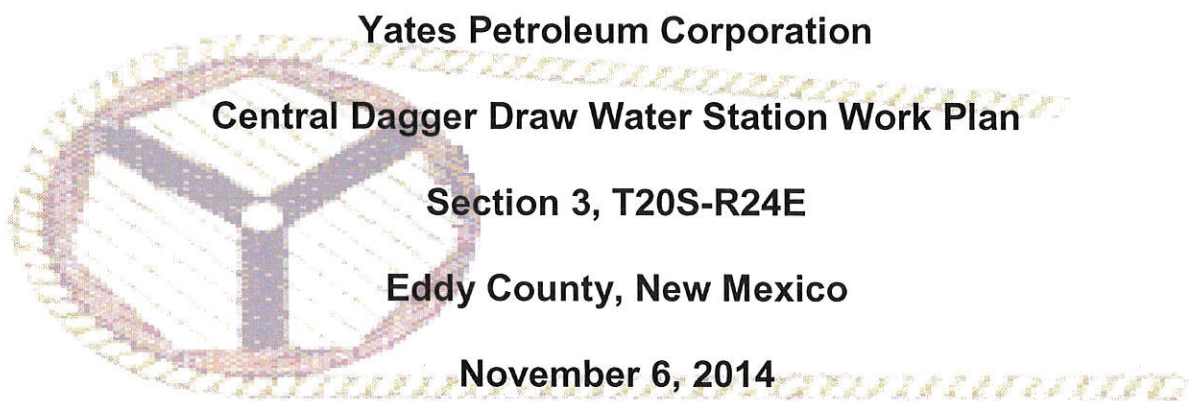
YATES PETROLEUM CORPORATION

Chase Settle  
Environmental Regulatory Agent

Enclosure(s)

KATHY H. PORTER  
SECRETARY

DENNIS G. KINSEY  
TREASURER



**Yates Petroleum Corporation**

**Central Dagger Draw Water Station Work Plan**

**Section 3, T20S-R24E**

**Eddy County, New Mexico**

**November 6, 2014**

## **I. Location**

The release is located approximately 15 miles south of Artesia and 11 miles west on Rock Daisy Road.

## **II. Background**

On September 11, 2014, Yates submitted to the NMOCD District II office a Form C-141 for the release of 40 B/PW with 25 B/PW recovered. The area affected is approximately 50 feet by 50 feet east of the pump house in the bermed battery. The release was caused by the failure at a Halliburton meter. Then on October 08, 2014, Yates submitted to the NMOCD District II office a Form C-141 for the release of 20 B/PW with 10 B/PW recovered. The affected area is approximately 150 feet by 50 feet within the second bermed battery of the pump house, and an area approximately 50 feet by 50 feet being in a lined and bermed portion of the battery. The release was due to an overflow of a produced water tank and strong rains caused the release to flow over a lined battery berm into an unlined, but bermed area around the pump house. Initial delineation samples were taken (10/28/2014) and sent to a NMOCD approved laboratory (11/04/2014, results enclosed).

## **III. Surface and Ground Water**

Area surface geology is Cenozoic Quaternary. The ChevronTexaco Trend Map displays at this location (Section 3, T20S-R24E) that depth to groundwater is approximately 228' feet making the site ranking for this site a zero (0). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is ten (0) based on the as following:

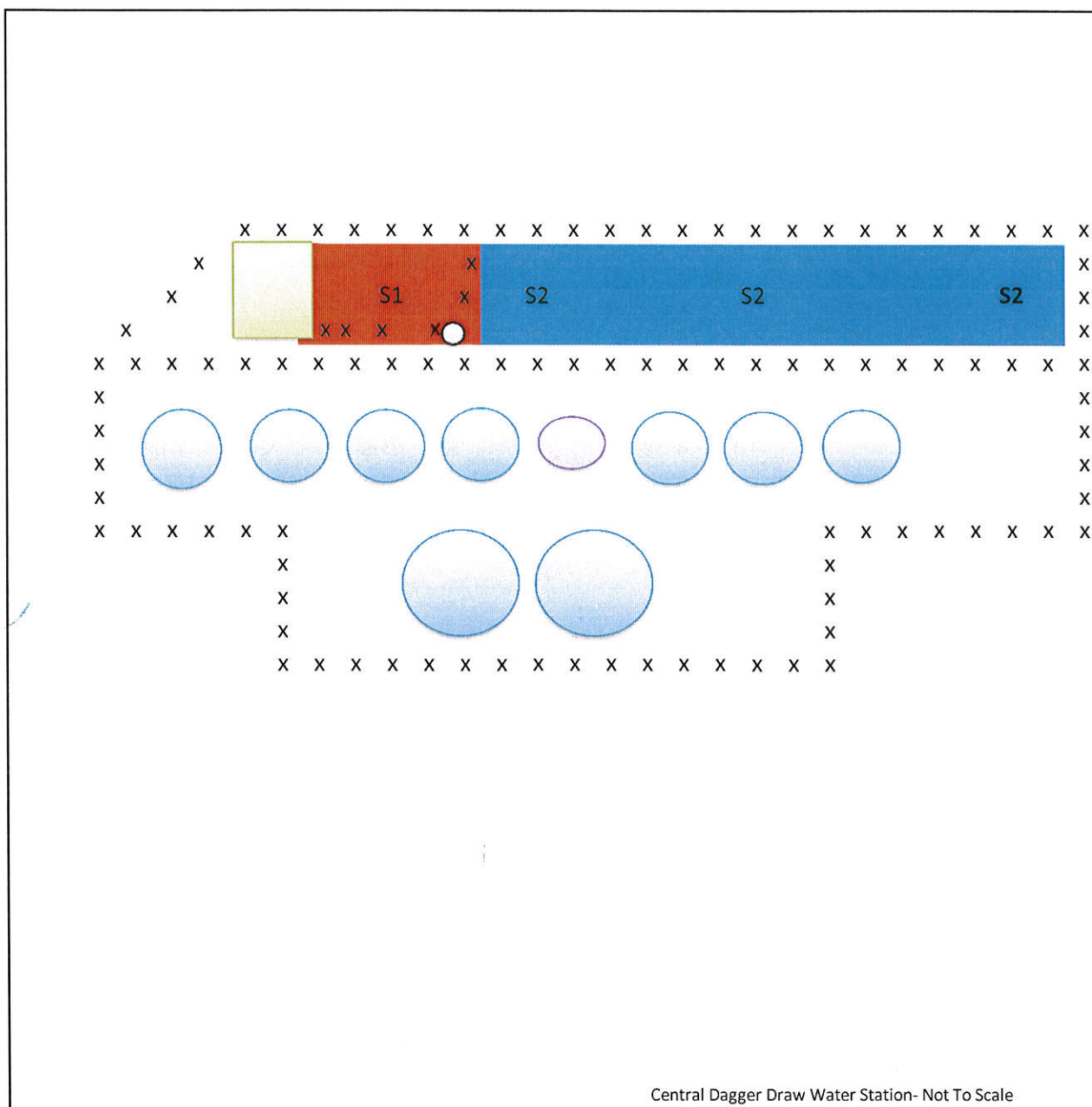
Depth to ground water	> 100'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

## **IV. Soils**

The area consists of soils that are caliche and loamy top soil and are interspersed with clay seams providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface.

## **V. Scope of Work**

Based on enclosed analytical results, the depth to groundwater (228'), and an impenetrable rock layer, Yates Petroleum Corporation proposes to excavate all soil above the rock layer in the S2 sample area (approximately 2 feet), then backfill with two (2) feet of caliche. All excavated soil will be hauled to a NMOCD approved facility for disposal. The solid rock layer (which a backhoe was unable to break through at multiple locations during sampling) at this location has served, and will serve as a natural barrier to any releases that may occur. The TPH & BTEX are within the RRAL's for BTEX (50 ppm) and TPH (5000 ppm) for the Total Ranking Score of zero (0), no further analytical testing of TPH and/or BTEX will be conducted (all chloride analytical results are for documentation). When remediation work is completed a C-141, Final Report, analytical results and a site sample diagram will be submitted to the NMOCD and request closure of the site.



S1 Release Area (8/27/14)



S1 Sample Point



S2 Release Area (9/23/14)



S2 Sample Point

H401923	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	Release Area	6/19/2014	Backhoe	1'	<0.3	<10.0	80.8	1410
S2-1'	Release Area	6/19/2014	Backhoe	1'	<0.3	<10.0	<10.0	5680

Site Ranking is Zero (0). >100' (228', Section 3, T20S-R24E, Trend Map

All results are ppm. Chlorides for documentation

Released: 40 B/PW; Recovered: 25 B/PW Release Date: 08/27/2014

Released: 20 B/PW; Recovered: 10 B/PW Release Date: 09/23/2014

November 04, 2014

CHASE SETTLE

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: CENTRAL DAGGER DRAW WATER STATION

Enclosed are the results of analyses for samples received by the laboratory on 10/30/14 11:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

YATES PETROLEUM CORPORATION  
CHASE SETTLE  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received:	10/30/2014	Sampling Date:	10/28/2014
Reported:	11/04/2014	Sampling Type:	Soil
Project Name:	CENTRAL DAGGER DRAW WATER STATI	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

**Sample ID: S1-1' (H403350-01)**

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/31/2014	ND	2.02	101	2.00	12.4		
Toluene*	<0.050	0.050	10/31/2014	ND	1.92	96.2	2.00	12.9		<a href="http://www.hard-hexes.com/files">www.hard-hexes.com/files</a>
Ethylbenzene*	<0.050	0.050	10/31/2014	ND	1.81	90.7	2.00	12.2		
Total Xylenes*	<0.150	0.150	10/31/2014	ND	5.39	89.8	6.00	11.5		
Total BTEX	<0.300	0.300	10/31/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	10/31/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/31/2014	ND	181	90.3	200	0.617		
DRO >C10-C28	<10.0	10.0	10/31/2014	ND	178	89.1	200	5.97		

Surrogate: 1-Chlorooctane 117 % 47.2-157

Surrogate: 1-Chlorooctadecane 153 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
CHASE SETTLE  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received:	10/30/2014	Sampling Date:	10/28/2014
Reported:	11/04/2014	Sampling Type:	Soil
Project Name:	CENTRAL DAGGER DRAW WATER STATI	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

**Sample ID: S2-1' (H403350-02)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/31/2014	ND	2.02	101	2.00	12.4	
Toluene*	<0.050	0.050	10/31/2014	ND	1.92	96.2	2.00	12.9	
Ethylbenzene*	<0.050	0.050	10/31/2014	ND	1.81	90.7	2.00	12.2	
Total Xylenes*	<0.150	0.150	10/31/2014	ND	5.39	89.8	6.00	11.5	
Total BTEX	<0.300	0.300	10/31/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 105 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4360	16.0	10/31/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/31/2014	ND	181	90.3	200	0.617	
DRO >C10-C28	<10.0	10.0	10/31/2014	ND	178	89.1	200	5.97	

Surrogate: 1-Chlorooctane 113 % 47.2-157

Surrogate: 1-Chlorooctadecane 165 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





**ARDINAL LABORATORIES**  
101 East Marland, Hobbs, NM 88240

(505) 393-2326 FAX (505) 393-2476

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Chase Settle

Company (505) 393-2326 Yates Petroleum Corporation

Company Address: 105 South 4th Street

City/State/Zip: Artesia, NM 88210

Telephone No: 575-748-4171

Sampler Signature: [Signature]

Fax No: 575-748-4131  
e-mail: [csettle@yatespetroleum.com](mailto:csettle@yatespetroleum.com)

Project Name: Central Dagger Draw Water Station

Project #:

Project Loc: Central Dagger Draw Water Station

PO #: 205750

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #:

H403350

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Preservation & # of Containers

Matrix

Ice ☒ HNO<sub>3</sub> ☒ HCl ☒ H<sub>2</sub>SO<sub>4</sub> ☒ NaOH ☒ Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> ☒ None ☒ Other (Specify) ☐  
DW=Drinking Water SL=Sludge  
GW = Groundwater S=Soil/Solid  
NP=Non-Potable Specify Other

TPH: 418.1 8015M 8015B

TPH: TX 1005 TX 1006

Cations (Ca, Mg, Na, K)

Anions (Cl, SO<sub>4</sub>, Alkalinity)

SAR / ESP / CEC

Metals: As Ag Ba Cd Cr Pb Hg Se

Volatiles

Semivolatiles

BTEX 8021B/5030 or BTEX 8260

RCI

N.O.R.M.

Chlorides

SAR

RUSH TAT (Pre-Schedule) 24, 48, 72 hrs

Standard TAT

Analyze For:

TCLP:

TOTAL:

Special Instructions:

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

Sample Containers Intact? ☒  
VOCs Free of Headspace? ☒  
Labels on container(s) ☒  
Custody seals on container(s) ☒  
Custody seals on cooler(s) ☒  
Sample Head Delivered by Sample/Client Rep.? ☒  
by Courier? ☒ UPS ☒ DHL ☒ FedEx ☒ Lone Star

Temperature Upon Receipt: 58 °C