



Certified Return Receipt: #7011 2970 0003 9281 8015

September 26, 2012

Mr. John Kieling, Chief
NMED - Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, NM 87505-6303



RE: Approval with Modifications
Requirement to Resurvey Ground Water Monitoring Wells and
Recovery Wells
Western Refining Company, Southwest, Inc., Gallup Refinery
EPA ID #NMD000333211
HWB-WRG-11-003

Dear Mr. Kieling:

Western Refining Southwest, Gallup Refinery has prepared the following responses to the comments listed regarding the above referenced matter dated September 26, 2012.

Comment 1

In comment 3 of NMED's May 18, 2012 Third Notice of Disapproval (NOD), the Permittee was required to verify that all horizontal data from the June 2011 survey was correct and represented the actual locations of the monitoring wells surveyed. The Permittee cross referenced survey data from Sterling & Mataya Engineers collected on May 13, 1991 (May 1991) and data acquired by Lynn Engineering and Surveying collected on June 21, 2007 (June 2007) to verify the monitoring well locations. Survey data from the May 1991 survey was converted from NAD 27 to NAD 83; however, the Permittee did not provide conversions for all of the May 1991 survey data. Provide revised coordinate verification worksheets that include all monitoring wells from the May 1991 survey. In addition, there is a typographical error in the reported elevation for the OW-11 monitoring well conversion. The Permittee reports an elevation of 6923.59 feet and the May 1991 reports it as 6923.89 feet. Correct the typographical errors in the revised coordinate verification worksheets.

Response: *Per NMED's request, the coordinate verification has been cross referenced for all wells listed on the Sterling & Mataya Engineers survey information dated May 13, 1991. Previous cross check for coordinate verification submitted was for only the active monitoring wells. Typographical error for elevation on OW-11 has been corrected on the coordinate verification form submitted as Attachment 1.*

Comment 2

In the *2011 Corrected Well Elevation Summary Table – Revision 3 (June 12, 2012)*, the Permittee did not report a stick up length measurement for BW-1B in the “2011 Survey Stick-up Length (feet)” column. In addition, the Permittee did not define the asterisk from the OW-1 “2011 Measuring Point Description” column. Define the symbol in the “Notes” section or remove it from the revised data table. The Permittee is reminded that all data tables must be reviewed and corrected for errors prior to submission. Correct the typographical errors and provide a revised table.

Response: *Stick up length measurement for BW-1B has been entered in the “2011 Survey Stick-up Length (feet)” column and the asterisk has been removed from OW-1 “2011 Measuring Point Description” column. A revised table is submitted as Attachment 2.*

Comment 3

Comments 8 and 11 of NMED’s September 24, 2012 Disapproval letter for the *Facility-Wide Ground Water Monitoring Work Plan – 2011 Updates* requires the Permittee to resubmit the tables in Appendix C with the approved survey data in the revised work plan. The Permittee must review these tables and ensure the correct information from this Report is incorporated into the final version of the tables in the revised Work Plan.

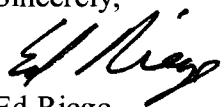
Response: *The approved survey data will be resubmitted in the revised Work Plan.*

If you have any questions regarding Western’s responses, please do not hesitate to contact Cheryl Johnson of my staff at (505) 722-0231.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Ed Riege
Environmental Manager

cc: K. Van Horn, NMED HWB w/attach
C. Chavez, OCD w/attach
C. Johnson, Western-Gallup

ATTACHMENT 1

Sterling & Mataya

D.E. Sterling, P.E. & L.S.
W.P. Mataya, L.S.

Engineers - Surveyors
Gallup, New Mexico 87301
(505) 863-5440

601 W. Aitza
P.O. Box 876

May 13, 1991

Well No.	Elevation Top Inside Pipe at V Notch	New Mexico State Plane Coordinates (west zone)		Point No. S & M Map (9-29-89)
		X	Y	
SMW-6	6880.71	320,839.52	1,635,867.66	532
SMW-5	6878.02	320,778.61	1,636,054.28	530
MW-1	6878.52	320,903.76	1,636,112.13	529
SMW-4	6880.08	320,974.85	1,636,153.54	528
MW-2	6880.84	321,035.35	1,636,184.06	527
MW-5	6883.32	321,233.03	1,636,212.58	526
SMW-3	6884.56	321,397.90	1,635,948.75	524
SMW-2	6884.44	321,542.80	1,635,592.65	523
SMW-1	6883.29	321,501.32	1,635,501.43	522
MW-4	6882.54	321,602.07	1,635,066.25	539
OW-11	6923.89	323,167.68	1,632,185.21	645

Notes:

1. Geological Survey Monument ET 6 GT 1962 was the basis for this survey. The combined factor equals 0.99960744.
2. NGS Bench Mark Z 426 - 1983 having a normal ortho. Height of 2100.35015 meters (elev. 6890.91 feet) was used for this survey.
3. A Bench Mark was established for this project at SMW-3, Top of concrete pad at the south edge of the well casing. The elevation being 6882.64 feet.
4. Subtracting 0.37 feet from the elevations shown for this project should equal the elevations in this area shown on our 1989 map which was based on datum furnished by Giant Refinery.



Western Refining Company - Gallup Refinery

Coordinate Verification

26 September 2012

INPUT

State Plane, NAD27
3003 - New Mexico West, U.S. Feet
Vertical - NAVD88, U.S. Feet

OUTPUT

State Plane, NAD83
3003 - New Mexico West, U.S. Feet
Vertical - NAVD88, U.S. Feet

Accuracies of conversions from NAD 27 to NAD 83 are typically 12 to 18 cm.

SMW-6

1/11

Northing/Y: 1635867.66	Northing/Y: 1635926.894
Easting/X: 320839.52	Easting/X: 2543747.542
Elevation/Z: 6880.71	Elevation/Z: 6880.710
Convergence: -0 20 58.10191	Convergence: -0 20 59.42244
Scale Factor: 0.999953403	Scale Factor: 0.999953478
Combined Factor: 0.999624400	Combined Factor: 0.999627692
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.599, Delta Lon = 57.273	

SMW-5

2/11

Northing/Y: 1636054.28	Northing/Y: 1636113.514
Easting/X: 320778.61	Easting/X: 2543686.632
Elevation/Z: 6878.02	Elevation/Z: 6878.020
Convergence: -0 20 58.55339	Convergence: -0 20 59.87396
Scale Factor: 0.999953428	Scale Factor: 0.999953503
Combined Factor: 0.999624554	Combined Factor: 0.999627846
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.597, Delta Lon = 57.274	

MW-1

3/11

Northing/Y: 1636112.13	Northing/Y: 1636171.364
Easting/X: 320903.76	Easting/X: 2543811.783
Elevation/Z: 6878.52	Elevation/Z: 6878.520
Convergence: -0 20 57.68198	Convergence: -0 20 59.00253
Scale Factor: 0.999953376	Scale Factor: 0.999953452
Combined Factor: 0.999624478	Combined Factor: 0.999627770
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.597, Delta Lon = 57.273	

SMW-4

4/11

Northing/Y: 1636153.54	Northing/Y: 1636212.774
Easting/X: 320974.85	Easting/X: 2543882.873
Elevation/Z: 6880.08	Elevation/Z: 6880.080
Convergence: -0 20 57.18807	Convergence: -0 20 58.50860
Scale Factor: 0.999953347	Scale Factor: 0.999953422
Combined Factor: 0.999624375	Combined Factor: 0.999627667
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.597, Delta Lon = 57.272	

Remark: Verification requirement by NMED. Cross check DePauli Survey to Sterling Mataya Survey 1991.

Western Refining Company - Gallup Refinery

Coordinate Verification

26 September 2012

INPUT

State Plane, NAD27
3003 - New Mexico West, U.S. Feet
Vertical - NAVD88, U.S. Feet

OUTPUT

State Plane, NAD83
3003 - New Mexico West, U.S. Feet
Vertical - NAVD88, U.S. Feet

Accuracies of conversions from NAD 27 to NAD 83 are typically 12 to 18 cm.

MW-2

5/11

Northing/Y: 1636184.06	Northing/Y: 1636243.294
Easting/X: 321035.35	Easting/X: 2543943.374
Elevation/Z: 6880.84	Elevation/Z: 6880.840
Convergence: -0 20 56.76713	Convergence: -0 20 58.08765
Scale Factor: 0.999953322	Scale Factor: 0.999953398
Combined Factor: 0.999624314	Combined Factor: 0.999627605
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.596, Delta Lon = 57.271	

MW-5

6/11

Northing/Y: 1636212.58	Northing/Y: 1636271.813
Easting/X: 321233.03	Easting/X: 2544141.056
Elevation/Z: 6883.32	Elevation/Z: 6883.320
Convergence: -0 20 55.38266	Convergence: -0 20 56.70314
Scale Factor: 0.999953241	Scale Factor: 0.999953317
Combined Factor: 0.999624114	Combined Factor: 0.999627406
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.596, Delta Lon = 57.270	

SMW-3

7/11

Northing/Y: 1635948.75	Northing/Y: 1636007.984
Easting/X: 321397.9	Easting/X: 2544305.927
Elevation/Z: 6884.56	Elevation/Z: 6884.560
Convergence: -0 20 54.19144	Convergence: -0 20 55.51185
Scale Factor: 0.999953174	Scale Factor: 0.999953249
Combined Factor: 0.999623987	Combined Factor: 0.999627279
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.599, Delta Lon = 57.268	

SMW-2

8/11

Northing/Y: 1635592.65	Northing/Y: 1635651.884
Easting/X: 321542.8	Easting/X: 2544450.829
Elevation/Z: 6884.44	Elevation/Z: 6884.440
Convergence: -0 20 53.12879	Convergence: -0 20 54.44912
Scale Factor: 0.999953115	Scale Factor: 0.999953190
Combined Factor: 0.999623934	Combined Factor: 0.999627225
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.602, Delta Lon = 57.266	

Remark: Verification requirement by NMED. Cross check DePauli Survey to Sterling Mataya Survey 1991.

Western Refining Company - Gallup Refinery

Coordinate Verification

26 September 2012

INPUT

State Plane, NAD27
3003 - New Mexico West, U.S. Feet
Vertical - NAVD88, U.S. Feet

OUTPUT

State Plane, NAD83
3003 - New Mexico West, U.S. Feet
Vertical - NAVD88, U.S. Feet

Accuracies of conversions from NAD 27 to NAD 83 are typically 12 to 18 cm.

SMW-1

9/11

Northing/Y: 1635501.43	Northing/Y: 1635560.664
Easting/X: 321501.32	Easting/X: 2544409.348
Elevation/Z: 6883.29	Elevation/Z: 6883.290
Convergence: -0 20 53.40847	Convergence: -0 20 54.72879
Scale Factor: 0.999953132	Scale Factor: 0.999953207
Combined Factor: 0.999624006	Combined Factor: 0.999627297
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.603, Delta Lon = 57.267	

MW-4

10/11

Northing/Y: 1635066.25	Northing/Y: 1635125.485
Easting/X: 321602.07	Easting/X: 2544510.099
Elevation/Z: 6882.54	Elevation/Z: 6882.540
Convergence: -0 20 52.64584	Convergence: -0 20 53.96608
Scale Factor: 0.999953091	Scale Factor: 0.999953166
Combined Factor: 0.999624001	Combined Factor: 0.999627292
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.607, Delta Lon = 57.266	

OW-11

11/11

Northing/Y: 1632185.21	Northing/Y: 1632244.448
Easting/X: 323167.68	Easting/X: 2546075.724
Elevation/Z: 6923.89	Elevation/Z: 6923.890
Convergence: -0 20 41.29121	Convergence: -0 20 42.61069
Scale Factor: 0.999952454	Scale Factor: 0.999952529
Combined Factor: 0.999621388	Combined Factor: 0.999624676
Grid Shift (U.S. ft.): X/Easting = 2222908.0, Y/Northing = 59.2	
Datum Shift (m.): Delta Lat. = 2.634, Delta Lon = 57.250	

Remark: Verification requirement by NMED. Cross check DePauli Survey to Sterling Mataya Survey 1991.

ATTACHMENT 2