NI 43-101 TECHNICAL REPORT
2015 FEASIBILITY STUDY
for the
PAN GOLD PROJECT
White Pine County, Nevada

PREPARED FOR MIDWAY GOLD

Report Date:
June 25, 2015
Effective Date: May 1, 2015

Qualified Persons:

Donald E. Hulse, PE, SME-RM
J. Gordon Sobering, PE, SME-RM
Zachary J. Black, SME-RM
Deepak Malhotra, PhD, SME-RM

GUSTAVSON ASSOCIATES

DONALD E. HULSE, P.E., Q.P

Vice President

Gustavson Associates, LLC
274 Union Boulevard, Suite 450
Lakewood, Colorado 80228
Telephone: 720-407-4062 Facsimile: 720-407-4067
Email: dhulse@gustavson.com

CERTIFICATE of AUTHOR

I, Donald E. Hulse do hereby certify that:

1. I am currently employed as Vice President of Mining with Gustavson Associates, LLC at:

   274 Union Boulevard
   Suite 450
   Lakewood, Colorado 80228

2. I am a graduate of the Colorado School of Mines with a Bachelor of Science in Mining Engineering (1982), and have practiced my profession continuously since 1983.

3. I am a registered Professional Engineer in the State of Colorado (35269), and a registered member of the Society of Mining Metallurgy & Exploration (1533190RM).

4. I have worked as a mining engineer for a total of 30 years since my graduation from university; as an employee of a major mining company, a major engineering company, and as a consulting engineer. I have performed resource estimation and mine planning on numerous precious and base metals deposits for over 11 mining companies in three countries working as a consultant as well as an engineer or engineering manager for the Projects

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of the report titled "NI 43-101 Technical Report 2015 Feasibility Study for the Pan Gold Project, White Pine County, Nevada," dated June 25, 2015, with an effective date of May 1, 2015 (the "Technical Report"), with specific

responsibility for the Sections 1 through 11, 15 through 16, and 18 through 27. I most recently visited the property on April 29 to 30, 2015 for 2 days.

7. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.
8. I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with that instrument and form.
9. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.
10. As of the effective date of this report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 25 day of June, 2015

/s/ Donald E. Hulse

Signature of Qualified Person

Donald E. Hulse .

Print name of Qualified Person

Zachary J. Black
Director of Geology and Resources
3L Resources Ltd.
10901 W. Toller Drive, Suite 205
Littleton, Colorado 80127
Telephone: 720-648-2625
Email: zjblack@3lresources.com

CERTIFICATE of QUALIFIED PERSON

I, Zachary J. Black do hereby certify that:

1. I am currently employed as Director of Geology and Resources by 3L Resources Ltd at:

    10901 W. Toller Drive,
    Suite 205
    Littleton, Colorado 80127

2. I am a graduate of the University of Nevada Reno with a Bachelor of Science in Geological Engineering, and have practiced my profession continuously since 2005.
3. I am a registered member of the Society of Mining Metallurgy and Exploration (No. 4156858RM).
4. I am a Resource Geologist for Hard Rock Consulting, LLC, and a Qualified Person as defined by NI 43-101. I have 10 years' experience working on structurally controlled gold and silver mineral resources in Sierra Madre Occidental of Mexico and the within the Great Basin geologic province of the United States. I have completed the resource estimate for the Pan Project. I am responsible for Items 7-12 and 14.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for the preparation of the report titled "NI 43-101 Technical Report 2015 Feasibility Study for the Pan Gold Project, White Pine County, Nevada," dated June 25, 2015, with an effective date of May 1, 2015 (the "Technical Report"), with specific responsibility for the Sections 7-12 and 14. I visited the property that is the subject of this Technical Report on April 29-30, 2015 for two days.
7. I have had prior involvement with the property that is the subject of this Technical Report, including the previous Feasibility Study, resource and reserve statements and updates.
8. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.

9. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.
11. As of the date of this Technical Report and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 25 day of June, 2015

/s/ Zachary J. Black
Signature of Qualified Person

Zachary J. Black
Print name of Qualified Person

DEEPAK MALHOTRA, PhD

President

Resource Development, Inc. (RDi)
11475 West I-70 Front Road North
Wheat Ridge, Colorado 80033
Telephone: (303) 422-1176 Facsimile: (303) 424-8580
Email: deepak@rdiminerals.com

CERTIFICATE OF AUTHOR

I, Deepak Malhotra, PhD do hereby certify that:

1. I am President of:

    Resource Development, Inc. (RDi)
    11475 W. I-70 Frontage Road North
    Wheat Ridge, CO, USA, 80033

2. I graduated with a Master of Science degree from Colorado School of Mines in 1973. In addition, I have obtained a PhD in Mineral Economics from Colorado School of Mines in 1977.

3. I am a registered member of the Society of Mining, Metallurgy and Exploration, Inc. (SME), member No. 2006420RM.

4. I have worked as a Metallurgist/Mineral Economist for a total of 40 years since my graduation from university; as an employee of several mining companies, an engineering company, a mine development and mine construction company, an exploration company, and as a consulting engineer.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of the report titled "NI 43-101 Technical Report 2015 Feasibility Study for the Pan Gold Project, White Pine County, Nevada," dated June 25, 2015, with an effective date of May 1, 2015 (the "Technical Report"), with specific

responsibility for the Sections 13 and 17. I visited the property that is the subject of this Technical Report on April 29-30, 2015 for two days.

7. I have had prior involvement with the property that is the subject of this Technical Report, including the previous Feasibility Study, resource and reserve statements and updates.

8. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.

9. I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with that instrument and form.

10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

11. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 25 day of June, 2015

/s/ Deepak Malhotra

Signature of Qualified Person

Deepak Malhotra

Print name of Qualified Person

James Gordon Sobering, P.E., Q.P

Principal Mining Engineer

Gustavson Associates, LLC
274 Union Boulevard, Suite 450
Lakewood, Colorado 80228
Telephone: 720-407-4062 Facsimile: 720-407-4067
Email: gsobering@gustavson.com

CERTIFICATE of AUTHOR

I, James Gordon Sobering do hereby certify that:

1. I am currently employed as a Principal Mining Engineer by Gustavson Associates, LLC at:

   274 Union Boulevard
   Suite 450
   Lakewood, Colorado 80228

2. I am a graduate of Montana Tech of the University of Montana with a Bachelor of Science in Mining Engineering (1990) and Lakehead University with a Bachelor of Science in Geology (1985), and have practiced my profession continuously since 1985.

3. I am a registered Professional Engineer in the State of Colorado (49491), and a registered member of the Society of Mining Metallurgy & Exploration (4061917RM).

4. I have worked as a mining engineer for a total of 25 years since my graduation from Montana Tech; as an employee of a major mining company, a major engineering company, and as a consulting engineer. I have performed mine planning on numerous precious and base metals deposits for over 6 mining companies in two countries working as a consultant as well as an engineer for the Projects

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of the report titled "NI 43-101 Technical Report 2015 Feasibility Study for the Pan Gold Project, White Pine County, Nevada," dated June

25, 2015, with an effective date of May 1, 2015 (the "Technical Report"), with specific responsibility for the Sections 16 and 19 through 23. I have not visited the Pan property.

7. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.
8. I have read National Instrument 43-101 and Form 43-101, and the Technical Report has been prepared in compliance with that instrument and form.
9. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.
10. As of the effective date of this report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 25 day of June, 2015

/s/ James Gordon Sobering

Signature of Qualified Person

James Gordon Sobering

Print name of Qualified Person

TABLE OF CONTENTS

Section **Page**

1 SUMMARY ... 12

1.1 INTRODUCTION ... 12
1.2 PROPERTY DESCRIPTION AND OWNERSHIP ... 12
1.3 GEOLOGY AND MINERALIZATION ... 14
1.4 CONCEPT AND STATUS OF EXPLORATION ... 16
1.5 DEVELOPMENT AND OPERATIONS ... 17
1.6 MINERAL RESOURCE ESTIMATE ... 19
- *Comparison with Inverse Distance and Nearest Neighbor Models ... 20*
- *Swath Plots ... 20*
- *Section Inspection ... 20*
- *Comparison to Current Production Blast Hole Model ... 20*

1.7 MINERAL RESERVE ESTIMATE ... 21
1.8 CONCLUSIONS AND RECOMMENDATIONS ... 24

2 INTRODUCTION ... 27

2.1 PURPOSE ... 27
2.2 EFFECTIVE DATE ... 27
2.3 QUALIFIED PERSONS ... 27
2.4 SITE VISIT OF QUALIFIED PERSONS ... 27
2.5 SOURCES OF INFORMATION ... 28

3 RELIANCE ON OTHER EXPERTS ... 30

4 PROPERTY DESCRIPTION AND LOCATION ... 31

4.1 LOCATION ... 31
4.2 MINERAL TENURE, AGREEMENTS, AND EXPLORATION PERMITS ... 32
4.2.1 Mineral Rights ... 32
4.2.1.1 Newark Valley Mining Agreement ... 33
4.2.1.2 Additional Claims ... 34
4.3 ENVIRONMENTAL LIABILITIES AND PERMITTING ... 34

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY ... 36

5.1 ACCESSIBILITY, INFRASTRUCTURE, AND LOCAL RESOURCES ... 36
5.2 TOPOGRAPHY, ELEVATION, VEGETATION, AND CLIMATE ... 36

6 HISTORY ... 39

6.1 EXPLORATION HISTORY ... 39
6.2 HISTORICAL RESOURCE AND RESERVE ESTIMATES ... 41
6.2.1 Echo Bay ... 41
6.2.2 Alta Bay ... 41
6.2.3 Latitude ... 43
6.2.4 Castleworth Ventures ... 44

7 GEOLOGICAL SETTING AND MINERALIZATION ... 46

7.1 Regional Geology ... 46
7.2 Property Geology ... 50
7.2.1 Lithological Units ... 52
7.2.1.1 Simonson Dolomite (Ds) - Devonian ... 52
7.2.1.2 Devil's Gate Limestone (Dd) - Late Devonian ... 52
7.2.1.3 Pilot Shale (MDp) - Late Devonian to Early Mississippian ... 52
7.2.1.4 Joana Limestone (Mj) - Mississippian ... 52
7.2.1.5 Chainman Shale (Mc) - Mississippian ... 52
7.2.1.6 Diamond Peak Formation (Md) - Mississippian ... 53
7.2.1.7 Ely Limestone (Pe) - Pennsylvanian ... 53
7.2.1.8 Intrusives - Cretaceous ... 53
7.2.1.9 Volcanic Units (Tv) - Tertiary ... 53
7.2.1.10 Pinto Basin Tuff (Tvpb) ... 53
7.2.1.11 Richmond Mountain Andesite (Tvb) ... 53
7.2.1.12 Pancake Summit Tuff (Tvps) ... 54
7.2.1.13 Bates Mountain Tuff (Tvbm) ... 54
7.2.1.14 Debris Flow (Tvdf) ... 54
7.2.1.15 Quaternary Deposits ... 54
7.2.1.16 Older Gravel (QTog) ... 54
7.2.1.17 Colluvium (Qc) ... 54
7.2.1.18 Alluvium (Qal) ... 54
7.2.2 Structural Geology ... 54
7.3 Mineralization ... 55
7.3.1 Alteration ... 56
7.3.2 Geometry of Mineralization ... 56

8 DEPOSIT TYPES ... 59

9 EXPLORATION ... 60

9.1 Previous Operators Exploration Work ... 60
9.2 Midway Exploration Work ... 60
9.2.1 Surface Geochemistry ... 60
9.2.2 Surface Trenching ... 60
9.2.3 Rock Samples ... 60
9.2.4 Geologic Mapping ... 61
9.2.5 Geophysical Surveys ... 61

10 DRILLING ... 62

10.1 Introduction ... 62
10.2 Historic, pre-Midway Drilling ... 64
10.3 Drilling by Midway ... 64
10.3.1 Drilling Procedures and Conditions ... 67
10.3.2 Drill Hole Collar Surveys ... 67
10.3.3 Down Hole Surveys ... 68
10.3.4 Midway Data Compilation and Grid Conversion ... 68
10.4 Sampling Method and Approach ... 68

10.4.1 Historic Sampling Method and Approach 68
10.4.2 Midway Sampling Method and Approach 68

11 SAMPLE PREPARATION, ANALYSES, AND SECURIITY 70

11.1 SAMPLE HANDLING – HISTORIC PROGRAMS 70
11.2 SAMPLE HANDLING – MIDWAY 71
11.3 SAMPLE PREPARATION AND ANALYSIS PROCEDURES 71
11.3.1 Historic Sample Preparation and Analysis Procedures 71
11.3.1.1 Amselco 71
11.3.1.2 Hecla 71
11.3.1.3 Echo Bay 72
11.3.1.4 Alta Bay and Alta Gold 72
11.3.1.5 Latitude and Degerstrom 72
11.3.1.6 Castleworth and Pan-Nevada 72
11.3.2 Midway Sample Preparation and Analysis Procedures 73
11.3.2.1 Standard Sample Analysis 74
11.3.2.2 Blank Sample Analysis 75
11.3.2.3 Duplicate Sample Analysis 76
11.3.2.4 Laboratory QA/QC 77
11.3.2.5 Conclusions – Midway Sample Preparation and Analysis Procedures 77

12 DATA VERIFICATION 78

12.1 RC-CORE TWIN HOLE COMPARISONS 79
12.2 RC-CORE TWIN HOLE COMPARISONS 81
12.3 GOLD ASSAY VERIFICATION SAMPLES 86

13 MINERAL PROCESSING AND METALLURGICAL TESTING 88

13.1 ORE SAMPLING AND TEST WORK 88
13.2 RECENT METALLURGICAL TEST WORK 88
13.2.1 Head Assays 89
13.2.2 XRF Analyses 91
13.2.3 XRD Analysis 93
13.2.4 ICP Analysis 94
13.2.5 Crushability Work and Abrasion Index 96
13.2.6 Static Bucket Leach Tests for Surface Samples 97
13.2.7 Bottle Roll Leach Tests 98
13.2.8 Column Leach Tests 101
13.2.8.1 Assay-by-Size Fraction for Gold 101
13.2.8.2 Test Results 103
13.2.8.3 % Slump 106
13.2.8.4 Drain Down and Maximum Percolation Rate 106
13.2.8.5 Tailing Analyses 107
13.2.8.6 Pregnant Solution Analysis 108
13.2.9 Coarse Ore Bottle Roll Leach Tests on North Pan Samples 111
13.2.10 Agglomeration Tests 111
13.2.11 Carbon Loading Tests 112
13.2.12 Large-Scale Column Tests 113

13.2.13 2013 Phillips Enterprises 117
13.2.14 2014 Kappes Cassidy and Associates (KCA) 117
13.2.15 Metallurgical Testing Conclusions 118

14 MINERAL RESOURCE ESTIMATE 119

14.1 GEOLOGIC MODEL 119
14.2 DATA 120
14.2.1 Database Audit 120
14.2.2 Cyanide Adjustment Factor 120
14.3 BLOCK MODEL 123
14.4 DENSITY 123
14.5 ESTIMATION DOMAINS 124
14.5.1 North Pan 124
14.5.2 Central Pan 125
14.5.3 South Pan 125
14.6 COMPOSITING 127
14.7 CAPPING 127
14.8 VARIOGRAPHY 128
14.9 ESTIMATION METHODOLOGY 131
14.10 ESTIMATE VALIDATION 131
14.10.1 Comparison with Inverse Distance and Nearest Neighbor Models 132
14.10.2 Swath Plots 133
14.10.3 Section Inspection 137
14.10.4 Comparison to Production Model 141
14.11 MINERAL RESOURCE TABULATION 141
14.11.1 Economic Parameters Used for Pit Shell 142
14.11.2 Mineral Resource Classification 142
14.11.3 In Pit (Reported) Resources 143

15 MINERAL RESERVE ESTIMATE 144

15.1 MAXIPIT PIT OPTIMIZATION 144
15.1.1 Cutoff Grade Equations 145
15.2 MINERAL RESERVE ESTIMATE 146

16 MINING METHOD 149

16.1 OPEN PIT MINE PLAN 149
16.1.1 Pit Design 149
16.1.2 Waste Dumps 152
16.1.3 Annual Mine Plans 152
16.1.4 Mining Equipment 152
16.1.5 Support Equipment 153
16.2 GEOTECHNICAL DESIGN – HEAP LEACH, PONDS, STORM WATER DIVERSIONS 153
16.2.1 Heap Leach Pad 154
16.2.2 Pregnant and Barren Process Ponds 155
16.2.3 Liner System 155
16.2.4 Solution Collection System 156

16.2.5 *Solution Piping* ... 156
16.2.6 *Solution Channel* ... 156
16.2.7 *HLP Slope Stability* ... 156
16.2.8 *Waste Rock Disposal Areas (WRDA)* ... 158
16.3 HYDROLOGY ... 158
16.4 PRODUCTION SCHEDULE ... 159
16.4.1 *Pit Design Schedule Sequence* ... 161
16.4.2 *Production Schedule Parameters* ... 163
16.4.3 *Drill and Blast Parameters* ... 163
16.4.4 *Loading and Haulage* ... 163

17 RECOVERY METHODS ... 164

17.1 PROCESS ENGINEERING AND DESIGN ... 164
17.1.1 *Production Rate and Products* ... 164
17.1.2 *Process Description* ... 164
17.1.3 *Primary Crushing* ... 166
17.1.4 *Secondary and Tertiary Crushing (North Pan and Central Pan only)* ... 168
17.1.5 *Ore Delivery to the Leach Pad* ... 168
17.1.6 *Heap Leach* ... 168
17.1.7 *ADR Gold Recovery Plant* ... 168
17.1.8 *Equipment List* ... 169

18 PROJECT INFRASTRUCTURE ... 171

18.1 FACILITIES ... 171
18.1.1 *Office Building* ... 171
18.1.2 *Warehouse/Truck Maintenance Facility* ... 171
18.1.3 *Laboratory* ... 171
18.1.4 *Guard house/Security and First Aid Building* ... 172
18.1.5 *Emergency Vehicle Garage* ... 172
18.1.6 *Process Building* ... 172
18.1.7 *Mining Contractor Administration Building* ... 172
18.2 ROADS ... 175
18.3 SECURITY ... 175
18.4 SEPTIC SYSTEMS ... 175
18.5 WATER ... 175
18.6 POWER ... 176
18.7 FUEL DEPOT ... 177
18.8 COMMUNICATIONS ... 178

19 MARKET STUDIES AND CONTRACTS ... 179

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT ... 180

20.1 LIST OF BLM CLAIMS AND SERIAL NUMBERS ... 180
20.2 LAND STATUS ... 180
20.3 DISTURBANCE FROM PAST AND PRESENT OPERATORS ... 180
20.4 EXISTING AND AUTHORIZED OPERATIONS ... 180

20.4.1 History *180*
20.4.2 Overview *184*
20.4.3 Access *184*
20.4.4 Exploration Drill Roads and Drill Sites *185*
20.4.5 Groundwater Monitoring Wells *185*
20.5 DEVELOPED OPERATIONS 185
20.5.1 Period of Operations *186*
20.6 ENVIRONMENTAL IMPACT STATEMENT 187
20.6.1 Potential impacts to local sensitive species: *187*
20.6.2 Potential impacts to segments of the Lincoln Highway/Hamilton Stage Road, Carbonari sites, and other historic/archaeological sites. *188*
20.6.3 Geochemistry *189*
20.6.4 Air permitting *189*
20.6.5 Permits Required *190*
20.7 PLANNED OPERATING PROCEDURES 190
20.7.1 Air Emissions *190*
20.7.2 Cultural Resources *190*
20.7.3 Erosion and Sediment Control *191*
20.7.4 Waters of the State and Waters of the United States *192*
20.7.5 Hazardous Materials *192*
20.7.6 Solid Waste *192*
20.7.7 Monitoring *193*
20.7.8 Plant Growth Medium and Woody Debris Storage *193*
20.7.9 Wildlife Including Migratory Birds *193*
20.7.10 Protection of Survey Monuments *193*
20.7.11 Noxious Weeds and Invasive Non-Native Species *194*
20.7.12 Reclamation Plan *194*

21 CAPTIAL AND OPERATING COSTS 197

21.1 CAPITAL COST ESTIMATE 197
21.2 OPERATING COST ESTIMATE 199
21.2.1 Project Cost and Basis *199*
21.2.2 Project Manpower *199*
21.2.3 Mine Operating Costs *201*
21.2.4 General and Administration Costs *203*
21.2.5 Insurance *203*
21.2.6 Transportation *203*
21.2.7 Net Proceeds of Minerals/Property Tax *203*
21.2.8 Income Tax *204*

22 ECONOMIC ANALYSIS 205

22.1 ANALYSIS 205
22.2 COMMODITY PRICE(S) 205
22.3 ROYALTIES AND TAXES 205
22.4 CASH FLOW ANALYSIS 205

22.5 ECONOMIC PROJECTION 206
22.6 SENSITIVITY ANALYSIS 206

23 ADJACENT PROPERTIES 208

24 OTHER RELEVANT DATA AND INFORMATION 209

25 INTERPRETATION AND CONCLUSIONS 210

25.1 CONCLUSIONS 210
25.2 RISK ASSESSMENT 210

26 RECOMMENDATIONS 212

27 REFERENCES 212

LIST OF FIGURES

Figure **Page**

Figure 1-1 Property Location 13
Figure 1-2 Pan Stratigraphy 15
Figure 4-1 Property Location 31
Figure 4-2 Claim Boundary 32
Figure 5-1 Pan Project Area 37
Figure 7-1 Regional Geology, Pancake RangeLocal Geology 47
Figure 7-2 Pan Stratigraphy 49
Figure 7-3 Generalized map of the Pan Mine area showing projected mine pits 51
Figure 7-4 East-West Section across North Pan, Looking North....58
Figure 7-5 East-West Section across South Pan, Looking North....58
Figure 10-1 Locations of Historic Drill Holes....63
Figure 10-2 Pan Project Midway Drill Hole Distribution 66
Figure 11-1 OREAS Standard 15f 74
Figure 11-2 OREAS Sandard 2Pd....75
Figure 11-3 Blank Analytical Results....76
Figure 11-4 Duplicate Analyses - August 2011 to Present....77
Figure 12-1 Grade vs. Depth Comparison 1....82
Figure 12-2 Grade vs. Depth Comparison 2....83
Figure 12-3 RC-Core Twin Hole Comparison 84
Figure 12-4 RC-Core Twin Hole Comparison 84
Figure 12-5 RC-Core Twin Hole Comparison 85
Figure 12-6 RC-Core Twin Hole Comparison 85
Figure 12-7 RC-Core Twin Hole Comparison 86
Figure 13-1 South Pan Gold Recovery vs Crush Size....115
Figure 14-1 Oblique View of the Pan Project Geologic Model with Faults Shown in Black....119
Figure 14-2 Raw Cyanide vs Fire Assay Data Comparison 121
Figure 14-3 Adjusted Cyanide vs. Fire Assay 122
Figure 14-4 Pan Estimation Domains....124

Figure 14-5 Blast Hole data with the approximate location of the Branham fault in the South Domain 126
Figure 14-6 Cumulative Frequency Plot for Gold (opt) by Domain 128
Figure 14-7 South Domain Variogram Models 130
Figure 14-8 Cumulative Frequency Plot - Model Comparison (Capped Composites – Black, NN –Blue, ID – Green, OK – Red) 133
Figure 14-9 East/West Gold swath Plot all Domains 134
Figure 14-10 North/South Gold swath Plot all Domains 135
Figure 14-11 Elevation Gold swath Plot all Domains 136
Figure 14-12 South Pan Section 14,271,530E Looking North 138
Figure 14-13 South Pan Section 1,998,450N Looking East 139
Figure 14-14 South Pan Bench Plan at Elevation 6,650...140
Figure 14-15 Bench by Bench comparison of Resources vs Grade Control Model 141
Figure 16-1 Final Pit, Waste Dumps and Heap Configuration 151
Figure 17-1 Processing and Mining Flow Diagram at Pan 165
Figure 17-2 Primary Jaw Crusher...167
Figure 17-3 ADR Processing Facility General Arrangement...169
Figure 18-1 Office Building 173
Figure 18-2 Guard House / First Aid / Emergency Vehicles Bldgs 174
Figure 18-3 Typical Access Road Section 175
Figure 20-1 Mine Layout included in POO...182
Figure 22-1 Price and cost Sensitivity 207

LIST OF TABLES

Table **Page**

Table 1-1 Pan Project Drilling History 17
Table 1-2 Pan Mineral Resources with $1500 Pit Shell 20
Table 1-3 South Pan and South Satellite Pit Mineral Reserves 22
Table 1-4 North, Central Pan and Red Hill Pit Mineral Reserves 23
Table 1-5 Total Pan Mineral Reserves 23
Table 1-6 Estimated Recommendations Budget 26
Table 2-1 List of Abbreviations 29
Table 4-1 Pan Royalty Schedule 33
Table 4-2 Permits and Authorizations Required for Project Development 34
Table 6-1 Pan Project Drilling History 40
Table 6-2 Echo Bay Polygonal "Ore Reserve" Calculation 41
Table 6-3 Alta Bay Polygonal "Geologic Ore Reserves" 42
Table 6-4 Alta Bay Computer Generated "Ore Reserves" 42
Table 6-5 Alta Bay Polygonal "Geologic Ore Reserves" 42
Table 6-6 Alta Bay Computer Generated "Recoverable Ore Reserves" 43
Table 6-7 Latitude Resource Estimate 44
Table 6-8 Castleworth Ventures Resource Estimate 45
Table 10-1 Pan Project Drilling History through 2015 (database) 62
Table 10-2 Midway Drilling Exploration Summary 64
Table 11-1 Drill Data by Analytical Method 70
Table 12-1 RC-RC Twin Comparison for Pan Project 80
Table 12-2 Confirmation of Gross Tenor of the Original Assays 87
Table 13-1 Lithology of Composite Samples 89
Table 13-2 Head Analyses of Composite Samples 90
Table 13-3 XRF Analyses of Surface Samples 92
Table 13-4 XRF Analysis – Different Rock Types 93
Table 13-5 XRD Test Results 93
Table 13-6 ICP Analyses of Composite Samples 94
Table 13-7 Crushability and Abrasion Test Results 97
Table 13-8 Static Bucket Leach Test Results 98
Table 13-9 Bottle Roll Cyanidation Test Results – Composite Sample, 6-mesh 99
Table 13-10 Bottle Roll Cyanidation Test Results – Composite Sample, 200-mesh 100
Table 13-11 Assay-by-Size Fraction Data 102
Table 13-12 Summary of Column Leach Test Results for North Pan Samples 104
Table 13-13 Summary of Column Leach Test Results for South Pan Samples 105
Table 13-14 Percolation Test Results 107
Table 13-15 Residue Assay-by-Size Data 108
Table 13-16 A Pregnant Solution Analyses 109
Table 13-17 Bottle Roll Cyanide Leach Test Results 111
Table 13-18 Agglomeration Test Results 112
Table 13-19 Size Distribution of Feed to Different Size Columns 113
Table 13-20 Summary of Column Leach Test Results 114

Table 13-21 Summary of Locked-Cycle Column Leach Test Results Performed at PE 116
Table 13-22 Gold Extraction as a Function of Feed Size 116
Table 13-23 Summary of Column Leach Test Results 116
Table 14-1 Comparison of Means and Medians of Sample Populations 123
Table 14-2 Block Model Parmeters 123
Table 14-3 Core Sample Density Test Results 124
Table 14-4 Composite descriptive statistics 127
Table 14-5 Capped Composite Descriptive Statistics 127
Table 14-6 Modeled Variogram Parameters 129
Table 14-7 Pan Estimation Parameters 131
Table 14-8 Gold Model Descriptive Statistical Comparison 132
Table 14-9 Parameters used for Resource Pit Shell Generation 142
Table 14-10 Mineral Resource Statement for the Pan Mine, White Pine County, Nevada, Gustavson Associates, LLC, May 1, 2015 143
Table 15-1 Pit Optimization Parameters 145
Table 15-2 Calculated Cutoffs 146
Table 15-3 South Pan and South Satellite Pit Mineral Reserves 147
Table 15-4 North, Central Pan and Red Hill Pit Mineral Reserves 148
Table 15-5 Total Pan Mineral Reserves 148
Table 16-1 Pit Design Criteria 150
Table 16-2 Mine Production Equipment 153
Table 16-3 Summary of HLP Design Parameters 154
Table 16-4 Material Properties for HLP Slope Stability Evaluation 157
Table 16-5 Summary of Slope Stability Analyses and Results for HLP 158
Table 16-6 WRDA Design Parameters and Dimensions Summary 158
Table 16-7 Yearly Production Schedule 160
Table 16-8 Pan Production Schedule by Pit 162
Table 17-1 Estimated Reagent Consumption 168
Table 17-2 ADR Plant Equipment Listing 170
Table 18-1 Maximum Water Usage 176
Table 18-2 Pan Project Estimated Electrical Load with Crushing, Conveying and Agglomeration 177
Table 20-1 Summary of Proposed Disturbance with the Project Area 183
Table 21-1 Pan Project Capital Cost Estimate 198
Table 21-2 Pan Operating Cost Summary by Cost Type 199
Table 21-3 Processing Cost Breakdown for North and South Pan 199
Table 21-4 Pan Labor List and Wages for Salary Employees 200
Table 21-5 Pan Labor List and Wages for Hourly Employees 201
Table 21-6 Pan Yearly Plant Operating Costs 202
Table 21-7 Yearly G&A Cost Statistics 203
Table 22-1 Economic Projection at Varying Gold Price ($x1000) 206
Table 1-6 Estimated Recommendations Budget 213

LIST OF APPENDICES

APPENDIX A
PAN PROJECT LIST OF CLAIMS

APPENDIX B
PAN END OF MONTH & QUARTER PIT MAPS

APPENDIX C
PAN PROJECT CASH FLOW

1 SUMMARY

1.1 Introduction

Gustavson Associates, LLC (Gustavson) was commissioned by Midway Gold Corp. (Midway) to prepare an update to the 2011 Feasibility Study and resulting Technical Report for the Pan Project located White Pine County, Nevada. The purpose of this report is to present the findings of the 2015 Feasibility Study in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101), NI 43-101 Form F1, and Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Best Practices and Reporting Guidelines." The effective date of this report is May 1, 2015. At startup, the Pan project did not perform as expected and this report takes steps to address changes made from the prior (2011) Feasibility Study with new information from the operation.

It is important to note that in addition to the in place reserves calculated by Gustavson in Table 1-2, 4.0 million tons of ore have been previously placed on the leach pad at Pan. These ounces will be recovered within the Project's schedule and are included in this report's cash flow with no additional operating costs applied to them. However, royalty and treatment charges for the metal production have been applied to these ounces.

Also any reference to the North Pan pits includes the Central Pan and Red Hill pits. Similarly, any reference the South Pan pit includes the Satellite South pit.

1.2 Property Description and Ownership

The Pan property is situated in the northern portion of the Pancake Range in White Pine County, Nevada, 22 miles southeast of the town of Eureka and 50 miles west of Ely (Figure 1-1). The project area encompasses approximately 10,373 acres (4,198 ha), all located within surveyed townships. The geographic center of the property is located at 39°17'N latitude and 115°44'W longitude, and the primary zones of mineralization on the property are located in Sections 25 and 36, Township 17 North, Range 55 East (T17N, R55E) and Section 1, T16N, R55E, Mount Diablo Base and Meridian (MDBM). The Pan property consists of 550 contiguous, active, unpatented lode mining claims. These claims are shown in Figure 4-2 and listed in Appendix A.

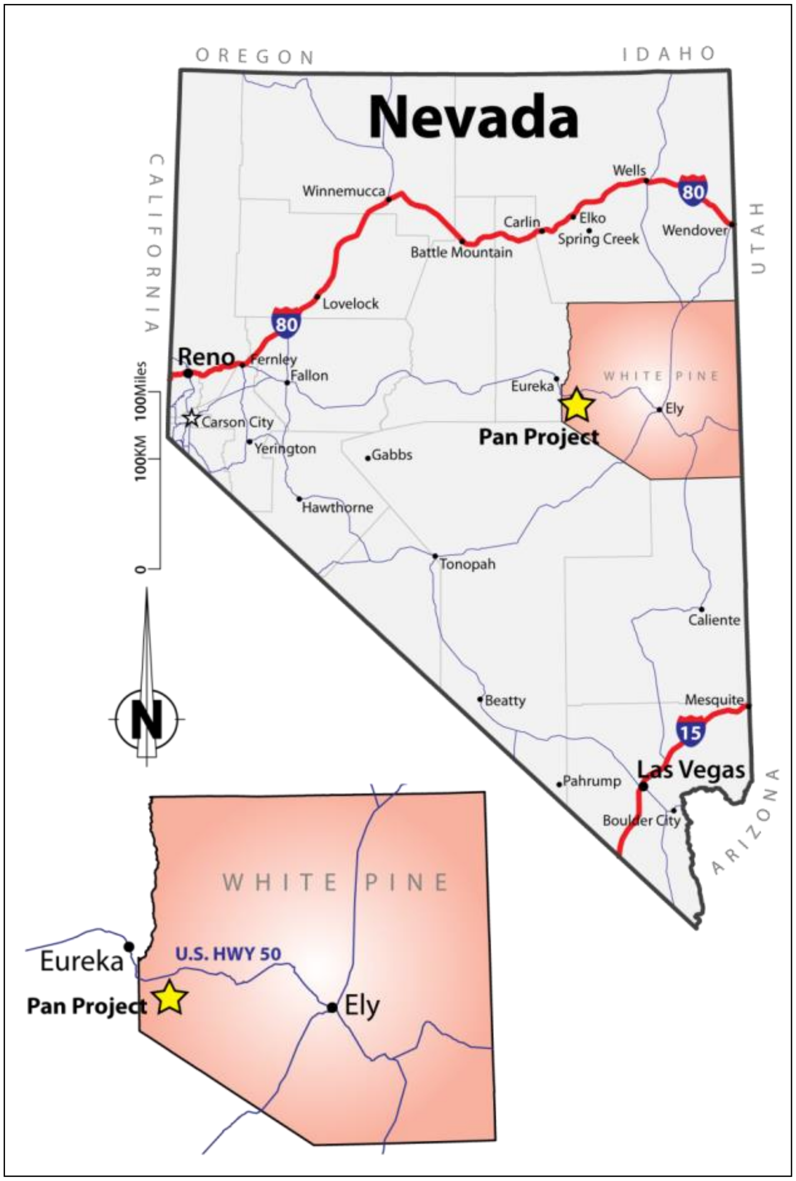


Figure 1-1 Property Location

Gustavson is of the opinion that the surface rights are adequate for mining operations.

The projected mining period is 3 years, with associated operations, closure, reclamation, heap drain down, and post-closure monitoring periods extending the Project life to approximately 38 years. The pits, waste rock disposal areas, heap leach facility, roads, and ancillary facilities will result in about 3,200 acres of total disturbance. Upon completion of mining, the operation will be closed and reclaimed.

1.3 Geology and Mineralization

The Pan property is located in the core of the northern portion of the Pancake Range of east-central Nevada. The Pancake Range is part of the Basin and Range Province, a large physiographic region characterized by a series of normal faults expressed as a sequence of north-south trending narrow mountain ranges separated by flat, arid valleys. The Pancake Range is approximately 85 miles long and 8 to 10 miles wide and is composed of Paleozoic carbonate and clastic sedimentary rocks, Cretaceous igneous intrusives, and Tertiary volcanics.

The Pan property is bounded to the east and west by the Newark Valley. Devonian, Carboniferous, and Permian carbonate and clastic sedimentary rocks form the core of the Pancake Range, and are exposed in bedrock outcrop in the project area. A representative stratigraphic section is presented as Figure 1-2.

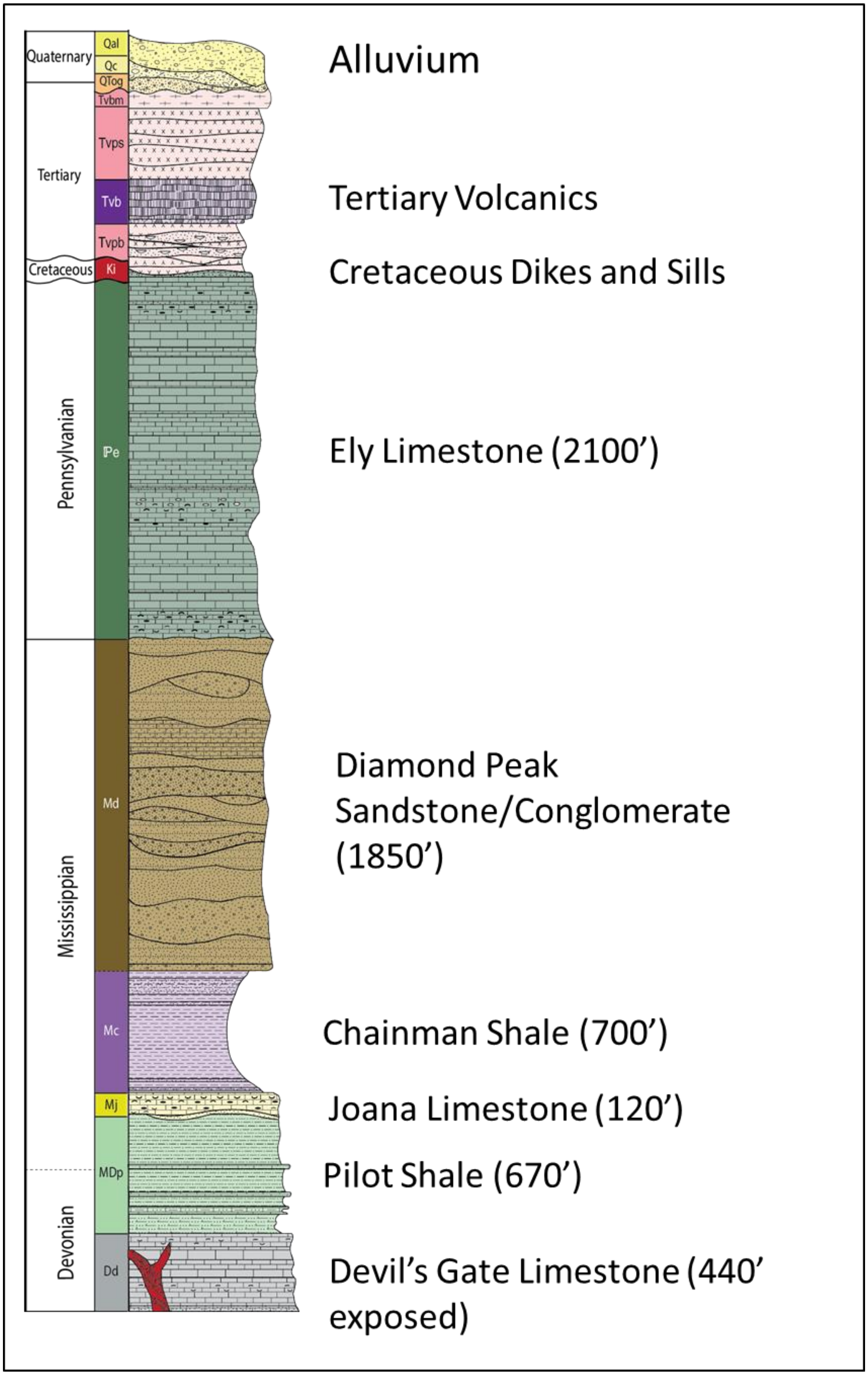


Figure 1-2 Pan Stratigraphy

The geology of the Pan property is dominated by Devonian to Permian carbonate and clastic sedimentary rocks cut by the Branham fault, a steeply dipping normal fault that trends north-south. The Branham fault juxtaposes gently west dipping sedimentary units on the west side of the fault, and steeply northeast dipping sedimentary units on the east side. Post-mineral Tertiary volcanic rocks nonconformably overlie the faulted Devonian through Permian sedimentary units.

The Pan Project can be separated into three general geographic zones: North Pan, South Pan, and Central Pan. Gold mineralization at the Pan Project is encountered in all three zones. Mineralization is both structurally and stratigraphically controlled, occurring primarily in breccias along the trend of the Branham fault, within high-angle northwest- and northeast-trending structural zones, and within calcareous shale beds. Solution/collapse breccias in the upper Devil's Gate Limestone and favorable stratigraphic units that developed within the Devil's Gate Limestone below the solution/collapse breccia zones likely acted as conduits for gold-bearing hydrothermal solution.

Midway interprets gold deposits at the Pan Project to be a Carlin-style, epithermal, disseminated gold hosted in Devonian and Mississippian sedimentary units. This type of system falls under the general classification of low sulfidation epithermal deposits. Gold particles occur as micron to submicron size disseminations. Visible or coarse gold is not common in this type of deposit, and has not been observed at Pan.

Controls on mineralization in Carlin-style systems and at the Pan Project include both structure and stratigraphy. Gold mineralization is generally distributed along high-angle faults, and in a more tabular fashion subparallel to stratigraphy. Dissolution breccias developed in association with faults at the Pan Project serve as the primary host for gold mineralization. Additional mineralization is hosted in favorable stratigraphy, primarily the upper Devil's Gate Limestone and, to a less extent, the lower Pilot Shale.

Similar type gold deposits in the surrounding area include Bald Mountain, Maverick Springs, Emigrant Springs, and Midway's Gold Rock deposit.

1.4 Concept and Status of Exploration

Since acquiring the Pan Project in 2007, Midway has completed 287 holes, of which 260 were reverse circulation and 27 diamond core drill holes for a total of 136,507 feet. Drilling efforts have generally focused on expanding the known mineralization, but also include confirmation drilling and exploration drilling in several potential target areas on the Pan property. In addition to exploration drilling, Midway has completed geologic mapping, soil and outcrop sampling, and gravity survey at Pan.

Drilling activities at the Pan property were initiated by Amselco in 1978, with intermittent programs conducted through subsequent years, to the present. A total of 1,081 drill holes have been completed, totaling 339,780 feet. Of these, 1,036 holes were drilled by reverse circulation (RC) and rotary methods for 325,089 feet, and 45 diamond drill holes have been completed totaling 14,691 feet. The Midway drill hole database incorporates 1,004 total drill holes totaling 312,196 feet. MDA (2005), and Gustavson (2010, 2011, 2012, 2015) have reported on validation of the existence of drill hole collar location information, drilling logs and assay records for the drill holes incorporated into the Midway database, including the 287 holes completed by Midway and the historic drilling totaling 794 holes.

Table 1-1 Pan Project Drilling History

Company	Year(s)	No. of Holes Drilled	Footage Drilled	Drill Type
Amselco	1978-1985	84	21,771	RC
Hecla	1986	10	2,035	RC
Echo Bay	1987-1988	108/5	21,050/825	RC/Core (Met)
Alta Bay Venture	1988-1991	213	66,960	RC
Alta Gold*	1991-1992	10/7	2,645/958	RC (Twin)/Core (Met)
Southwestern Gold*	1993	7	1,415	RC
Latitude/Degerstrom JV	1999-2001	54	16,143	RC
Castleworth Ventures	2003-2006	290/6	68,180/1,291	RC/Core
Midway	2007-2015	260/27	124,890/11,617	RC/Core
Totals		1,036/45	325,089/14,691	RC/Core

*****Alta Gold and Southwestern Gold drill holes not incorporated into the Midway database for lack of verifiable collar locations, geology and/or assay results.

******In addition, Midway drilled 7 water wells/monitoring wells in 2012. These were logged for geology, but not assayed; and are not included in this table.

It is important to note that Southwestern Gold Corporation was briefly involved in the property during 1993. Southwestern held a small section of claims around the Nana zone and completed 7 reverse circulation holes (1,415 feet). Although collars have been identified in the field relating to this drilling, confirmation drilling during 2007 could not confirm the reported results. Alta Gold and Southwestern Gold drill holes are not incorporated into the Midway database for lack of verifiable collar locations, geology and/or assay results.

1.5 Development and Operations

The Pan gold deposit contains mineralization at or near the surface and spatially distributed in a manner that is appropriate for open pit mining methods. Gold grade distribution and the results of mineral processing test work indicate that ore from the Pan deposit can be processed by conventional heap leaching methods. This material will be mined in a conventional truck and loader operation.

The initial operation of the heap leach with South Pan ore indicates permeability problems due to the presence of clayey material. The low permeability of this ore has prompted the interim plan for mining, crushing and processing of higher permeability North Pan pit ore concurrent with the production of overliner material for the construction of the Phase 2 leach pad expansion. This activity will utilize a rented 2-stage crushing and screening plant until a permanent crushing and screening plant and agglomeration system is sourced.

The Pan mine schedule begins in July 2015 with mining starting from the North Pan open pit as ROM ore is placed on the Phase 1A leach pad solely until the Phase 2 expansion of the leach pad is complete, expected at the end of the third quarter of 2015. In the fourth quarter of 2015, crushed North Pan ore will be blended with run of mine South Pan ore and placed on the Phase 2 leach pad until the permanent primary crushing plant and agglomeration system is installed, at the end of 2015. Once the permanent crushing and agglomeration facilities are commissioned, all production will be sourced from the South Pan series of pits until those reserves are depleted. Production will then return to the North Pan series of pits until the reserve is depleted.

As ore is mined and processed from the South Pan pits, a single stage crushing and agglomerating plant will be augmented with secondary and tertiary crushers ready to process North Pan ores once all South Pan pit ores are mined out.

North Pan ore will be crushed in three stages to a P80 minus ½ inch prior to agglomeration (if required). Crush size, leach kinetics, and recoveries are based on current metallurgical testing.

Ore production is planned at a nominal rate of 19,700 tpd, equivalent to 7.0 million tons per annum with a 3 year mine life. Mining is planned on a 7 day per week schedule, with two 12 hour shifts per day, 355 days per annum. Peak ore and waste production is estimated at 46,700 tpd. The average life of mine stripping ratio is 0.91:1 waste-to-ore, using a 0.004 opt internal cutoff for the South and Central Pan pits and a 0.005 opt internal cutoff on the North Pan pits. The change in cutoff grade from one pit to the next is a result of the metallurgical test work which showed the South and Central pits have an expected average recovery of 85% and the North pit has an expected recovery of 62%.

Optimized pit surfaces were generated using the Lerchs-Grossmann method, which maximized economic gold ounces in conjunction with the Pan block model, mining parameters, and operating costs. Open pit road designs were based on the mining equipment utilized while pit slope parameters were established in part on geologic criteria provided in the April 2011 Pit Slope Evaluation report produced by Golder Associates.

Waste rock disposal areas (WRDAs) at Pan were designed to emulate natural terrain and drainages. The maximum slope angle of the waste dumps is limited to 3H:1V. SRK prepared a complete Engineering Design Report (EDR) for the Heap Leach pads, ponds and storm water diversion facilities in July of 2012 for project development which has also been used in discussions with regulatory agencies (NDEP and BLM). Mining is anticipated to generate approximately 20 million tons of waste rock which will be placed in two WRDAs.

Site-scale hydrogeologic data is available from on-site boreholes and a few existing and historical wells in the Pan Project vicinity.

The preproduction requirements at Pan are minimal given the existing development and exposure of mineable ore in both the North and South Pan pits. The production schedule is driven by the nominal rate of 19,700 tpd. The production schedule has been calculated on a monthly basis through the 2015 and quarterly for the balance of the life of the mine. Peak ore and waste production is estimated at 46,700 tpd. The expected mine life at this time is about 3 years.

A gold price of $1,200/troy ounce was used as the basis for this study based on a gold price forecast from several lending institutions in the US and Canada.

1.6 Mineral Resource Estimate

The updated mineral resource estimate reported for the Pan Gold project as part of the updated Feasibility Study was completed by Zachary J. Black, SME-RM, and Associate Resource Geologist for Gustavson. The mineral resource estimate is compliant with NI 43-101 Standards of Disclosure for Mineral Projects and CIM Definition Standards.

In order to accommodate statistical search parameters appropriate for individual mineralization styles and structural orientations, the block model was divided into 3 domains. Domains were delineated based on distinguishing characteristics of one or several target areas grouped together. The three domains of the project area, North, Central, and South Pan, were based on the individual characteristics of the area.

Because of the density of drilling in the higher grade zones and the complex interaction between stratigraphic mineralization and solution breccias, an Ordinary Kriging (OK) algorithm using dynamic search ellipses was selected to estimate the gold grades. With this method, the orientation of the search ellipse changes on a block by block basis utilizing wireframe interpretations of the primary orientations. In this model, 7 separate surfaces were created and utilized to model the structural fabric of the geometry associated with the mineralization for each domain. These wireframes were created based on surface geology maps, mine production data, domain bounding faults, and the modeled contact surfaces of the stratigraphy. Areas not defined by a wireframe used the directions established in variography.

The gold grades were estimated from 20 foot down-hole composites using Ordinary Kriging. Composites were coded according to their domain. The search volumes were established based on the second structure of the variogram model for each domain and are summarized in Table 14-7. The estimation was completed in 3 passes of expanding search volumes with the maximum search volume extending to 1 ½ times the range of the second structure from the variogram models. Each block was estimated using a minimum of 4 composites, a maximum of 8 composites, and no more than 2 composites from a single drill hole.

Gustavson used an indicator solid generated in Leapfrog Geo software from the 20 foot downhole composites to delineate areas where the continuity of the mineralization is similar to what can be achieved in the mining operation. The indicator cutoff value was established at 0.003 opt gold and a probability threshold of 60%. Estimated blocks outside of the indicator shell where classified as Inferred resources, while estimated blocks within the indicator shell were classified based on the pass in which the block was estimated. All other estimated blocks are classified as Inferred.

Historically it was considered that a potential bias has been presented by the low value of the cyanide solution assays relative to the corresponding fire assays. With an apparent bias of the resource model versus the blast holes, Gustavson decided to reevaluate the relationship of this data. A three parameter regression analysis was developed to convert previously unused cold cyanide assays to an expected equivalent total gold value.

The model was validated by:

- Comparison with Inverse Distance and Nearest Neighbor Models
- Swath Plots
- Section Inspection
- Comparison to Current Production Blast Hole Model

The mineral resource estimate for Pan is summarized in Table 1-2. This mineral resource estimate includes all drill data obtained as of May 1, 2015 and has been independently verified by Gustavson. The economics of the project indicated that the optimum cutoff grades for mining are 0.005 opt for North and Central Pan areas, and 0.004 opt for both South Pan areas.

Table 1-2 Pan Mineral Resources with $1,500 Pit Shell

	MEASURED			INDICATED			M&I			INFERRED		
Cutoff	Tons	Grade	Contained	Tons	Grade	Contained	Tons	Grade	Contained	Tons	Grade	Contained
(opt)	('000s)	(opt)	('000s oz)	('000s)	(opt)	('000s oz)	('000s)	(opt)	('000s oz)	('000s)	(opt)	('000s oz)
0.008	15,676	0.017	264.7	12,208	0.014	167.4	27,886	0.016	433.3	6,014	0.015	88.4
0.006	18,339	0.015	283.3	15,818	0.012	192.8	34,157	0.014	477.1	9,517	0.012	112.5
0.004	20,430	0.014	293.4	19,185	0.011	210.1	39,614	0.013	503.8	15,400	0.009	141.1

Note: Open pit optimization was used to determine potentially mineable tonnage. Measured, Indicated and Inferred mineral classification was determined according to CIM Standards. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability. The 2015 Measured, Indicated and Inferred resource is constrained within a $1,500 Lerchs-Grossmann Pit shell. The base case estimate applies a cutoff grade of 0.004 opt based on the current operating costs, the 2011 Feasibility Study recoveries, and a $1,200 gold price.

Mineral resources that are not mineral reserves do not demonstrate economic viability. The quantity and grade of Inferred resources reported herein are uncertain in nature and exploration completed to date is insufficient to define these mineral resources as Indicated or Measured. There is no guarantee that further exploration will result in the Inferred mineral resources being upgraded to an Indicated or Measured mineral resource category. Quantity and grade are estimates and are rounded to reflect the fact that the resource estimate is an approximation.

Gustavson knows of no environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors that could materially affect the mineral resource.

1.7 Mineral Reserve Estimate

Gustavson's Feasibility Study demonstrates that the Pan Project is economically viable, based on Measured and Indicated Mineral Resources. The Pan Mineral Reserve estimate is reported using a 0.005 opt internal cutoff for the North and Central pits and an internal cutoff of 0.004 opt for the South pits. Cutoff grades for both pits were chosen to maximize the economic recoverable ounces within the pit shells. Pit designs were based on geologic criteria provided in the April 2011 Pit Slope Evaluation report produced by Golder Associates. The limestone units were designed with a 70° highwall angle, with three 20 foot high benches followed by a 30 foot catch bench, resulting in a 50° inter-ramp wall angle and assumes pre-split blasting. All other rock units are designed using a 65° highwall angle, with three 20 foot high benches followed by a 30 foot catch bench, resulting in a 45° inter-ramp wall angle, again assuming pre-split blasting.

Gustavson generated a series of pit shells on the South and North resource blocks based on profit factors which calculates the profit of each block within the resource model based on the revenue minus operating costs using Datamine's Maxipit software. A gold price of $1,200/ounce was used to generate the optimized pit shells. Eighty-five pit shells were generated on the North and eighty-eight for the South resource areas separately. The series of pit optimizations were evaluated and graphed to select appropriate economic phases. The Phase 1 South pit was based on a 33% profit factor optimization shell while the Phase 1 North pit was based on the 19% profit factor optimization shell. Both final Phase 2 pits for the North and South pits were based on the maximum value $1,200/ounce pit shells.

A heap leach recovery factor of 62% and 85% for North Pan and South Pan, respectively were used in the optimization runs. Operating costs were based upon the current mine Contractors agreement and an estimate of processing operating costs based on planned changes in crushing and agglomeration. Mining costs were estimated to be $2.00 per ton of material moved for the pit optimization. Processing costs for the North Pan area which includes Central Pan and Red Hill have been calculated at $3.00 per ore ton and assumes secondary and tertiary crushing with no agglomeration. Processing costs for South Pan, which includes the South Satellite pit have been calculated at $2.75 per ore ton and assume primary crushing and agglomeration. Processing costs include ADR and leaching costs. General and administration costs were estimated at $0.80 per ore ton. Only Measured and Indicated resources were considered in the evaluation, Inferred resources were treated as waste.

Proven and Probable Reserves total of 21.2 million tons at a grade of 0.0143 opt for a total of 302,000 ounces of contained gold in the final reserves. Table 1-3 through Table 1-5 shows the contained reserves by pit design.

Table 1-3 South Pan and South Satellite Pit Mineral Reserves

South Pan and South Satellite	Tons	Gold	
Cutoff Grade: 0.004 opt (0.14 gpt)	**(x1000)**	**opt**	**ounces (x1000)**
South Pan			
Proven Reserves	6,304	0.0142	89.6
Probable Reserves	2,969	0.0108	32.0
Proven & Probable Reserves	9,273	0.0131	121.6
Waste within Designed Pit	9,264		
Total Tons within Designed Pit	18,537		
South Satellite			
Proven Reserves	351	0.0135	4.7
Probable Reserves	195	0.0090	1.8
Proven & Probable Reserves	546	0.0119	6.5
Waste within Designed Pit	772		
Total Tons within Designed Pit	1,318		

Table 1-4 North, Central Pan and Red Hill Pit Mineral Reserves

North, Central Pan and Red Hill	Tons	Gold	
Cutoff Grade: 0.005 opt (0.17 gpt)	**(x1000)**	**opt**	**ounces (x1000)**
North Pan			
Proven Reserves	6,889	0.0159	109.8
Probable Reserves	3,797	0.0128	48.5
Proven & Probable Reserves	10,685	0.0148	158.3
Waste within Designed Pit	8,038		
Total Tons within Designed Pit	18,724		
Red Hill			
Proven Reserves	327	0.0342	11.2
Probable Reserves	10	0.0159	0.2
Proven & Probable Reserves	337	0.0337	11.4
Waste within Designed Pit	958		
Total Tons within Designed Pit	1,295		
Central Pan			
Proven Reserves	134	0.0152	2.0
Probable Reserves	222	0.0120	2.7
Proven & Probable Reserves	355	0.0132	4.7
Waste within Designed Pit	256		
Total Tons within Designed Pit	612		

Table 1-5 Total Pan Mineral Reserves

Total Reserves	Tons	Gold	
All Pits	**(x1000)**	**opt**	**ounces (x1000)**
Proven Reserves	14,004	0.0155	217.4
Probable Reserves	7,192	0.0118	85.1
Proven & Probable Reserves	21,196	0.0143	302.4
Waste within Designed Pits	19,289		
Total Tons within Designed Pits	40,486		

Gustavson knows of no mining, metallurgical, infrastructure, permitting or other factors that could materially affect the mineral reserve.

1.8 Conclusions and Recommendations

This study demonstrates that a profitable operation of the Pan Project is feasible. Past errors have impacted the project and its cash flows. Gustavson believes that this technical report is a reasonable presentation of the project potential.

The project is projected to have a total lifespan of 3 years. During the life of mine about 302,400 ounces of gold are projected to be mined and about 215,400 ounces of gold recovered and produced for sale. An additional 17,381 ounces is expected to be recovered from ore currently on the leach pad at Pan.

An additional capital investment of $60.57 million, including contingency is expected to be required including reclamation, leach pad expansion and sustaining capital for the process plant. The cash operating cost is projected to be $727 per ounce of gold.

The Pan Project is not without risks. Gustavson believes that these can be mitigated. Such risks include:

Resource –In this study, the mineral resource model has been modified to correlate with a small area of the South Pan pit. If this area is not representative of the North Pan or Wendy areas, there may be further changes.

Recovery – Although the expected performance of the leach pads and gold recovery appear reasonable given current experience, knowledge and previous test work, there still exist elements which have no specific test work to address. Ongoing metallurgical test work will be needed.

Rock Density- Based on several samples taken at the Pan Project site, a decision to adjust the bulk densities of the rock in the block model was undertaken. Specifically the Argillic Shale (containing much of the ore in South Pan and the Wendy Zone) was reduced by 9.9% while the Breccia and Argillic Breccia (containing some of the higher grade ore) was reduced by 6.8% and 6.5% respectively. The result of this is the reduction in ore tons and in contained ounces of gold. Current site work for bulk material testing may adjust density values.

Gold Price - The Company has no plans to hedge the gold production from the Pan Project. Therefore, the project will be fully exposed to the risk and reward associated with the market fluctuations in the price of gold.

Financing and Liquidity - In order to develop and operate the project the company will have to raise the required financing. There is risk associated with an inability to raise the funds necessary to upgrade and continue the Pan Operation.

Predicted NPV – The predicted NPV is a direct function of most of the factors included in the feasibility study. The aggregate risk to the NPV going forward is deemed to be low.

Gustavson recommends the following:

- Assess the block model to determine if there are regions within the resource area limits that are overly influenced by fire assays from the Alta Bay generation drilling. Analysis of the historic data indicates these fire assays are typically bias low relative to multiple other lab results. Significant areas dominated by these earlier results could potentially be upgraded for gold grade with additional drilling.
- Assess the block model to determine if there are regions within the resource area limits, currently defined as inferred resource owing to the influence of AuCN assays that could potentially be upgraded for gold grade and confidence levels by additional drilling. Positive upgrades may result in addition to the measured and indicated resources, if areas of significance are identified.
- Exploration drilling to upgrade Inferred material in and near the pits.
- Near pit exploration drilling where mineralization is open along trend to add resource to the model.
- Continuing work on refinement of bulk density estimate of ore.
- Conduct a significant check assay program utilizing a number of labs in addition to ALS. While standard and blank analysis results of Midway's QA/QC program do not raise questions relative to ALS's results, the check assay program ensures a test of any potential bias in the existing results. This recommendation applies to production sampling as well as for exploration data.
- Metallurgical test work is needed for both South and North Pan material. This will include bulk samples in large columns investigating crush size, agglomeration and leach rates as the mine advances.
- Development and implementation of a 3 dimensional ore control system and a cost benefit analysis of using reverse circulation drilling to reduce dilution and improve head grade to the leach pad.

The recommended budget to complete these recommendations is shown in Table 1-6. This work can be completed in one phase.

Table 1-6 Estimated Recommendations Budget

Task	Cost
Analysis of cyanide assay impacts	$25,000
Analysis and drilling to upgrade inferred resource.	$2,500,000
Near pit exploration drilling	$2,500,000
In Situ Bulk Density Sampling	$10,000
Assay QA/QC program	$10,000
Metallurgical test work	$500,000
Ore control upgrade	$60,000
Total	$5,605,000

2 INTRODUCTION

2.1 Purpose

Gustavson Associates, LLC (Gustavson) was commissioned by Midway to prepare an update to a resource block model and project economics in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101), NI 43-101 Form F1, and Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Best Practices and Reporting Guidelines." This Technical Report is part of an ongoing effort by Midway to optimize the Pan Project based on an improved understanding of the geologic controls on mineralization and information from the ramping up of operations.

2.2 Effective Date

The effective date of this report is May 1, 2015

2.3 Qualified Persons

The Qualified Persons responsible for this report are:

- Donald E Hulse, P.E, Vice President, Mining, Gustavson is responsible for Sections 1 through 6, 15 through 16 and 18 through 27.
- James Gordon Sobering, Principal Mining Engineer, Gustavson is responsible for Sections 16 and 19 through 23.
- Zachary J. Black, SME-RM, Associate Geological Engineer, Gustavson is a QP as defined by NI 43-101 and is responsible for Sections 7 through 12 and 14.
- Deepak Malhotra, PhD, SME-RM, President, Resource Development Inc., is a QP as defined by NI 43-101 and is responsible for Sections, 13 and 17.

2.4 Site Visit of Qualified Persons

Donald Hulse, Zachary J. Black and Deepak Malhotra visited the Pan site on April 29 to 30, 2015. While on site these personnel reviewed existing documentation, geology, exploration and drilling, metallurgy, operation plans and existing development.

2.5 Sources of Information

The information, opinions, conclusions, and estimates presented in this report are based on the following:

- Information and technical data provided by Midway
- Review and assessment of previous investigations
- Assumptions, conditions, and qualifications as set forth in the report
- Review and assessment of data, reports, and conclusions from other consulting organizations and previous property owners
- A review of actual operating data and performance

These sources of information are presented throughout this report and in Section 27 – References. The Qualified Persons are unaware of any material technical data other than that presented in this Technical Report.

Unless stated otherwise, all measurements reported here are in US Standard units, and currencies are expressed in constant 2015 US dollars. Below is a list of abbreviations that are typical to the mining industry and may be used in this report.

Table 2-1 List of Abbreviations

ac-feet/yr	acre-feet per year
ADR	adsorption/desorption/refining
Ag	silver
Ai	Abrasion Index
Al	aluminum
amsl	above mean sea level
ARD	acid rock drainage
As	arsenic
Au	gold
AuCN	gold analyzed by cyanide extraction assay
AuFA	gold analyzed by fire assay
Ba	barium
BAPC	Bureau of Air Pollution Control
BARCAS	Basin & Range Carbonate-Rock Aquifer System
bgs	depth below ground surface
Bi	bismuth
Ca	calcium
Cd	cadmium
Co	cobalt
Cr	chromium
Cu	copper
EA	environmental assessment
EIS	environmental impact statement
EPCM	Engineering Procurement & Construction Mgmt
ET	evapotranspiration
Fe	iron
FONSI	finding of no significant impact
g	grams
g/L	grams per liter
gpt	grams per ton
gal	gallons
GI	Gold Institute
GM	geomembrane
gpm	gallons per minute
gpt	grams per ton
HLDE	heap leach draindown estimator
ICP	inductively coupled plasma
IRR	internal rate of return
kgpt	kilograms per ton
KOP	key observation points
kWh/st	kilowatt hours per short ton
LCRS	leak collection and recovery system
LFC	Lyle F. Campbell Trust
LPSL	low permeability soil layer
Mg	magnesium
mg/L	milligrams per liter
Midway	Midway Gold Corp.
Mn	manganese
Mo	molybdenum
MPO	Mine Plan of Operations
Na	sodium
NAC	Nevada Administrative Code
NaCN	sodium cyanide
NAD	North American Datum
NDEP	Nevada Dept of Environmental Protection
NDOW	Nevada Department of Wildlife
NDWR	Nevada Division of Water Resources
NEPA	National Environmental Protection Act
Ni	nickel
NPV	net present value
NRHP	National Register of Historic Places
NSR	net smelter return
NVMC	Newark Valley Mining Corp
Opt	ounces per ton
Oz	ounces
PAG	potentially acid generating
Pb	Lead
PGA	peak horizontal ground acceleration
PNV	Pan Nevada Gold Corporation
PoO	Plan of Operations
ppm	parts per million
QP	Qualified Person
RC	reverse circulation
RDi	Resource Development Inc.
RL	Registered Landman
ROD	record of decision
RQD	rock quality designation
Sr	strontium
SRM	Standard Reference Materials
Tl	thallium
tpd	Tons per day
TSX	Toronto Stock Exchange
TSX-V	Toronto Stock Exchange Venture
Tv	Volcanic Units (Tertiary)
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VOIP	voice over internet protocol
W	tungsten
WGC	co
Wi	work index
WRCC	Western Regional Climate Center
Wt	weight
XRF	x-ray fluorescence
Zn	zinc

3 RELIANCE ON OTHER EXPERTS

The qualified persons relied in good faith on information provided by Mr. R.J. Smith, a Registered Landman formerly with Midway, regarding land agreements, options, claims of accuracy of title, and royalty information, (Sections 4.2, 4.3, 4.4 and 22.3). The qualified persons have not independently verified the status of the property ownership or mineral tenure.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Pan property is situated in the northern portion of the Pancake Range in White Pine County, Nevada, 22 miles southeast of the town of Eureka and 50 miles west of Ely (Figure 4-1). The project area encompasses approximately 10,373 acres (4,198 ha), all located within surveyed townships (Figure 4-2). The geographic center of the property is located at 39°17'N latitude and 115°44'W longitude, and the primary zones of mineralization on the property are located in Sections 25 and 36, Township 17 North, Range 55 East (T17N, R55E) and Section 1, T16N, R55E, Mount Diablo Base and Meridian (MDBM).

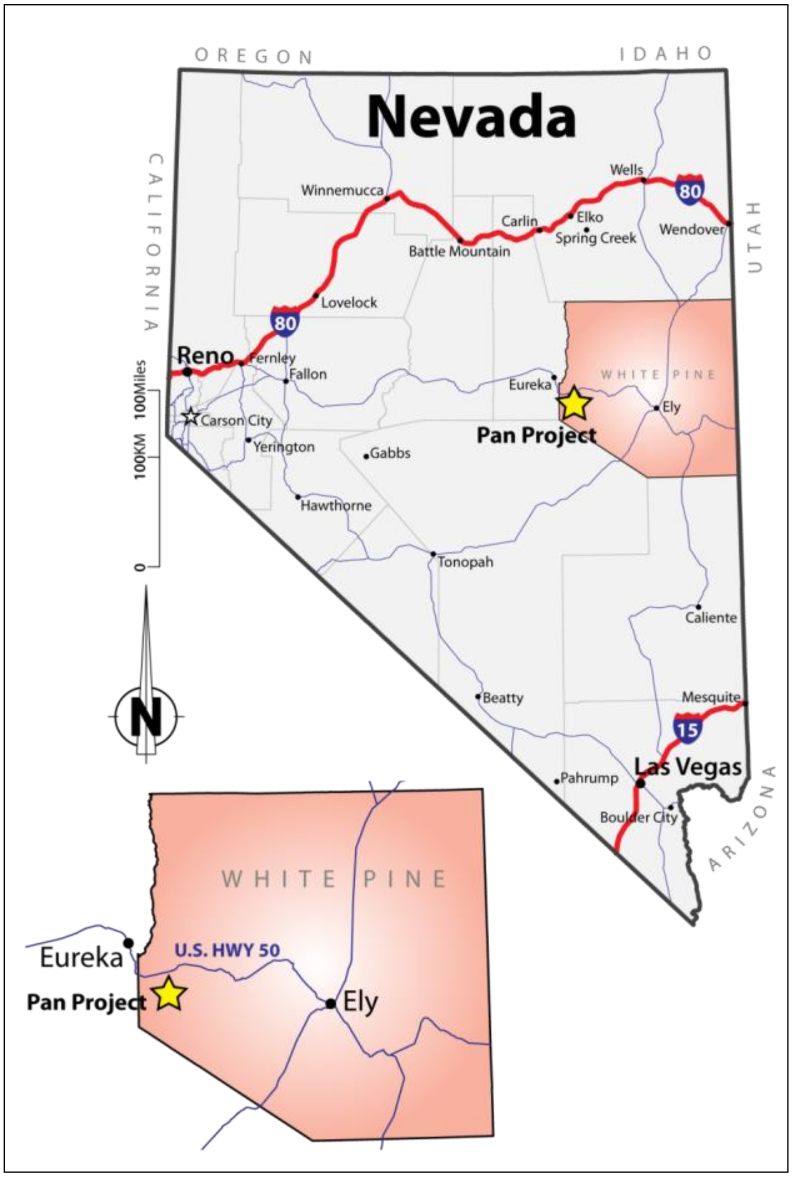


Figure 4-1 Property Location

4.2 Mineral Tenure, Agreements, and Exploration Permits

4.2.1 Mineral Rights

The Pan property consists of 550 contiguous, active, unpatented lode mining claims covering portions of Sections 12 through 15, 22 through 27, and 34 through 36, T17N, R55E; portions of Sections 19, 30, and 31, T17N, R56E; portions of Sections 1 through 3, 10, through 12, 14, 15, 22, and 23, T16N, R55E; and portions of Sections 6 and 7, T16N, R56E, as shown on Figure 4-2.

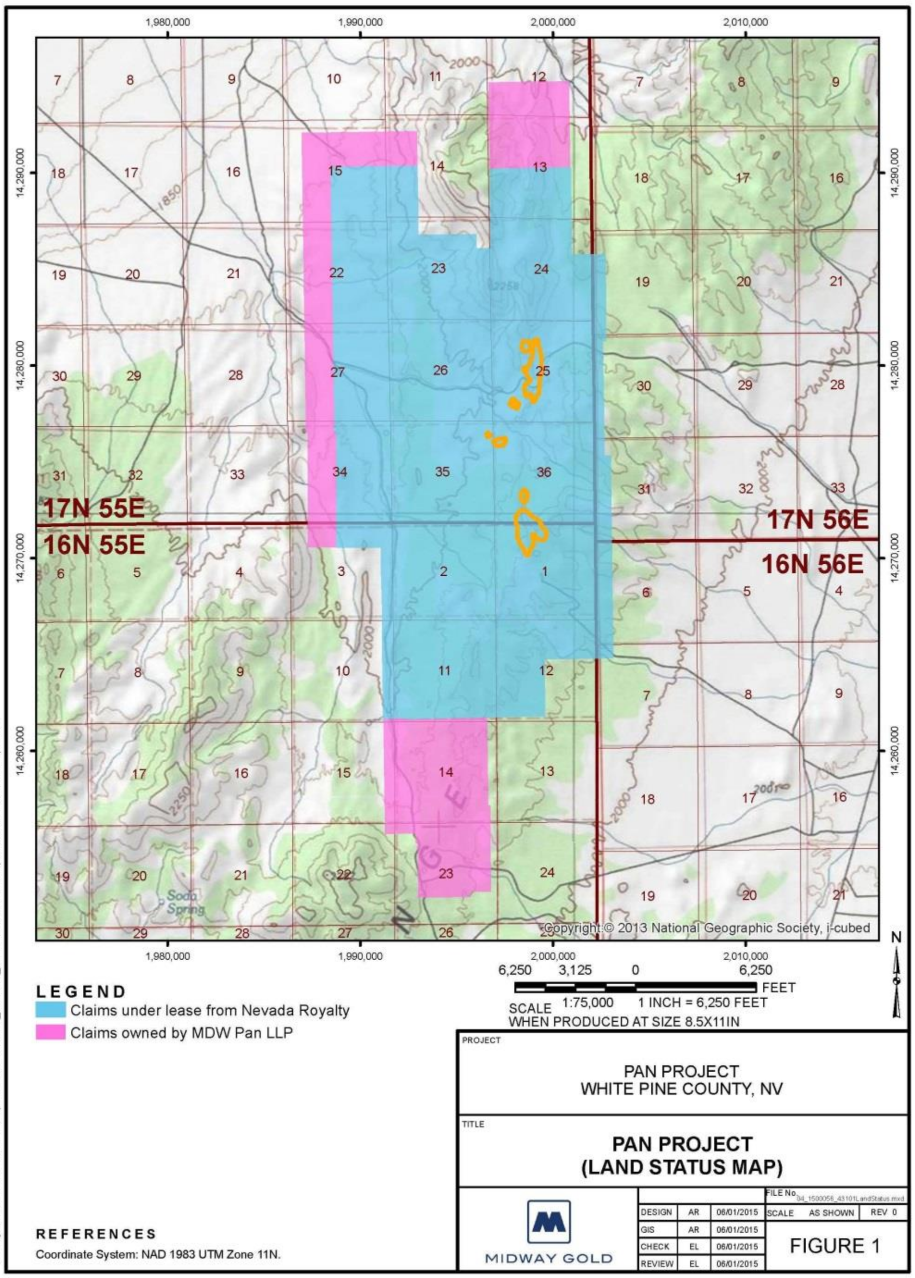


Figure 4-2 Claim Boundary

The unpatented lode claims were individually surveyed at time of location. Claim maps filed with the BLM and White Pine County are kept active through payments of an annual maintenance fee on or before September 1. A complete listing of the claims on file with the BLM and White Pine County is available in Appendix A.

4.2.1.1 *Newark Valley Mining Agreement*

Pursuant to acquisition of the Pan Nevada Gold Corporation effective April 16, 2007, Midway acquired a 100% interest in the January 7, 2003 mineral lease agreement by and between Pan Nevada Gold Corporation (formerly Castleworth Ventures, Inc. and Newark Valley Mining Corp. (now Nevada Royalty Corp.), derivative successor in interest to the Lyle F. Campbell Trust. In May 2013 the lease was assigned to MDW Pan LLP an indirect subsidiary to Midway. On or before January 5 of each year, MDW Pan LLP must pay an advance minimum royalty of the greater of US$60,000 or the US dollar equivalent of 174 ounces of gold valued by the average of the London afternoon fixing for the third calendar quarter preceding January 1 of the year in which the payment is due. All minimum advance royalties will be creditable against a sliding scale gross production royalty of between 2.5% and 4% (Table 4-1).

If the total amount of gross production royalty due Nevada Royalty Corp. in any calendar year exceeds the advance minimum royalty due within that year, MDW Pan LLP can credit all un-credited advance minimum royalties paid in previous years against 50% of the gross production royalty due Nevada Royalty Corp. within that calendar year. Ten claims are also subject to an overriding 1% Net Smelter Royalty (NSR) royalty payable to a third party.

MDW Pan LLP must incur a minimum of US$65,000 per year work expenditures, including claim maintenance fees, during the term of the mining lease.

Table 4-1 Pan Royalty Schedule

Price of Gold	Percentage
To and including $340.00/oz.	2.5%
From $340.00/oz. to $450.00/oz.	3.0%
$450.00/oz. and greater	4.0%

(Source: Midway)

The original lease encompassed 98 claims and established a 1-mile area of interest within which all new claims located by MDW Pan LLP or an affiliate are subject to the lease agreement. MDW Pan LLP (or its predecessors) expanded the claim holdings within the area of interest to a total of 429 unpatented claims.

4.2.1.2 *Additional Claims*

Over the years, Midway's subsidiary has staked 121 additional unpatented claims (10 PC, 56 NC, 53 GWEN, and 2 REE claims), within the Pan property that are without royalty burden and are not subject to the Nevada Royalty Corp. area of interest.

4.3 Environmental Liabilities and Permitting

Environmental liabilities are discussed in Section 20 of this report.

Midway has acquired the permits and authorizations presented in Table 4-2, as required to begin operations. Delineation studies have determined that there are no Wetlands or Waters of the US at the site. The US Corps of Engineers has confirmed this delineation. Therefore, no Clean Water Act (CWA) Section 404 Wetlands permit was required and CWA Section 401 Water Certification was not required.

Table 4-2 Permits and Authorizations Required for Project Development

Permit/Approval	Granting Agency	Permit Purpose
Federal Permits Approvals and Registrations		
Plan of Operations/EIS (Plan of Operations submitted and deemed complete)	U.S. Bureau of Land Management	Prevent unnecessary or undue degradation associated with Plan of Operations, EIS to disclose environmental impacts and project alternatives. Requires financial assurance. Currently have Plan for exploration with amendment in progress
Explosives Permit	U.S. Bureau of Alcohol, Tobacco & Firearms	Storage and use of explosives
EPA Hazardous Waste ID No.	U.S. Environmental Protection Agency	Registration as a large-quantity generator of wastes regulated as hazardous
Notification of Commencement of Operations	Mine Safety & Health Administration	Mine safety issues, training plan, mine registration
Endangered Species Act	U.S. Fish and Wildlife Service	Only if project affects species listed as threatened or endangered (not anticipated to be necessary)
Federal Communications Commission	FCC	Frequency registrations for radio/microwave communication facilities
State Permits		
Air Quality Operating Permit to Construct	NV Division of Environmental Protection/Bureau of Air Pollution Control	Regulates project sources of air emissions.
Mercury Operating Permit to Construct Air	NV Division of Environmental Protection/Bureau of Air Quality Planning/ Nevada Mercury Air Emissions Control Program	Requires use of NVMACT for all thermal units that have the potential to emit mercury

Permit/Approval	Granting Agency	Permit Purpose
Reclamation Permit	NV Division of Environmental Protection/Bureau of Mining Regulation & Reclamation	Reclamation of surface disturbance due to mining and mineral processing includes financial assurance requirements. Site currently operates under Reclamation Permit No. 0350.
Water Pollution Control Permit	NV Division of Environmental Protection/Bureau of Mining Regulation & Reclamation	Prevent degradation of waters of the state from mining, establishes minimum facility design and containment requirements. Site currently operates under WPCP NEV2012107.
Petroleum-Contaminated Soil Management Plan	NV Division of Environmental Protection/Bureau of Mining Regulation & Reclamation	On-site treatment and management of hydrocarbon-contaminated soils
Solid Waste Class III Landfill Waiver	NV Division of Environmental Protection/Bureau of Solid Waste	On-site disposal of non-mining, non-hazardous solid wastes
General Storm water Discharge Permit	NV Division of Environmental Protection/Bureau of Water Pollution Control	Management of site storm water
Permit to Appropriate Water	NV Division of Water Resources	Water appropriation
Permit to Construct Impoundments	NV Division of Water Resources	Design and construction of a tailings embankment or other structures with a crest height 20 feet or higher, as measured from the downstream toe to the crest, or that will impound 20 acre-feet or more
Industrial Artificial Pond Permit	NV Department of Wildlife	Ponds containing chemicals directly associated with the processing of ore.
Liquefied Petroleum Gas License	NV Board of the Regulation of Liquefied Petroleum Gas	Tank specification and installation, handling, and safety requirements
Potable Water System Permit	NV Bureau of Safe Drinking Water	Water system for drinking water and other domestic uses (e.g., lavatories)
Radioactive Materials License	NV Bureau of Safe Drinking Water	Nuclear flow and mass measurement devices if used in the mineral processing facilities
Septic Treatment Permit Sewage Disposal System	NV Division of Environmental Protection/Bureau of Water Pollution Control	Design, operation, and monitoring of septic and sewage disposal systems
Hazardous Materials Storage Permit	Nevada Fire Marshall	Hazardous materials safety
Local Permits		
Building Permits	White Pine County Building Planning Department	
Conditional Special Use Permit	White Pine County Building Planning Department	
County Road Use and Maintenance Permit	White Pine County Building Planning Department	Use and maintenance of county roads

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility, Infrastructure, and Local Resources

Access to the Pan property is provided by a gravel road that intersects US Highway 50 approximately 17 miles southeast of Eureka, Nevada. It is approximately 5 miles by road from US 50 to the Pan Project site. The road is constructed as a gravel embankment and has been constructed specifically for the Pan Project. The property is accessible year-round, but weather conditions occasionally make access and on-site travel difficult during the winter months.

The Pan Project is wholly located on and operations will be contained within Midway land holdings. A 69kV power line has been built, 32 miles in length from US Highway 50 around the western extents of the Pan property to avoid sage grouse habitat. Water to support operations is supplied from 3 wells. Water rights have been secured to provide for year-round water on site for a term of 25 years with an option to renew.

The town nearest to the project site, Eureka, Nevada, hosts a population of 610 according to 2010 US Census data. Greater Eureka County and White Pine County host area populations of 1987 and 10,030 respectively, though population is centered primarily in Eureka and Ely, Nevada. Elko, Nevada, population of 18,297, is the nearest major city to the project site and is located approximately 110 miles to the north by road.

Logistical support is available in Eureka, Ely, and Elko, all of which currently support large open pit mining operations. Barrick Gold Corporation currently owns the Ruby Hill Mine near Eureka and the Bald Mountain Mine approximately 50 miles to the north of the Pan site. Robinson Nevada Mining Company operates the Ruth Copper pit near Ely, and large-scale mining by Barrick and Newmont Mining Corporation is ongoing near Elko and Carlin, Nevada to the north. Mining personnel and resources for operations at Pan are expected to be available from Eureka, White Pine, and Elko Counties.

The infrastructure discussion is contained in Section 18 of this report.

5.2 Topography, Elevation, Vegetation, and Climate

The Pan property is located within the rolling hills of the northernmost portion of the Pancake Range. The terrain is gentle to moderate throughout most of the project area, with no major stream drainages. Elevation ranges from 6,400 to 7,500 feet above mean sea level. Local vegetation includes Pinyon-Juniper woodlands broken by open areas of sagebrush and grass. No springs are known to exist on the property.

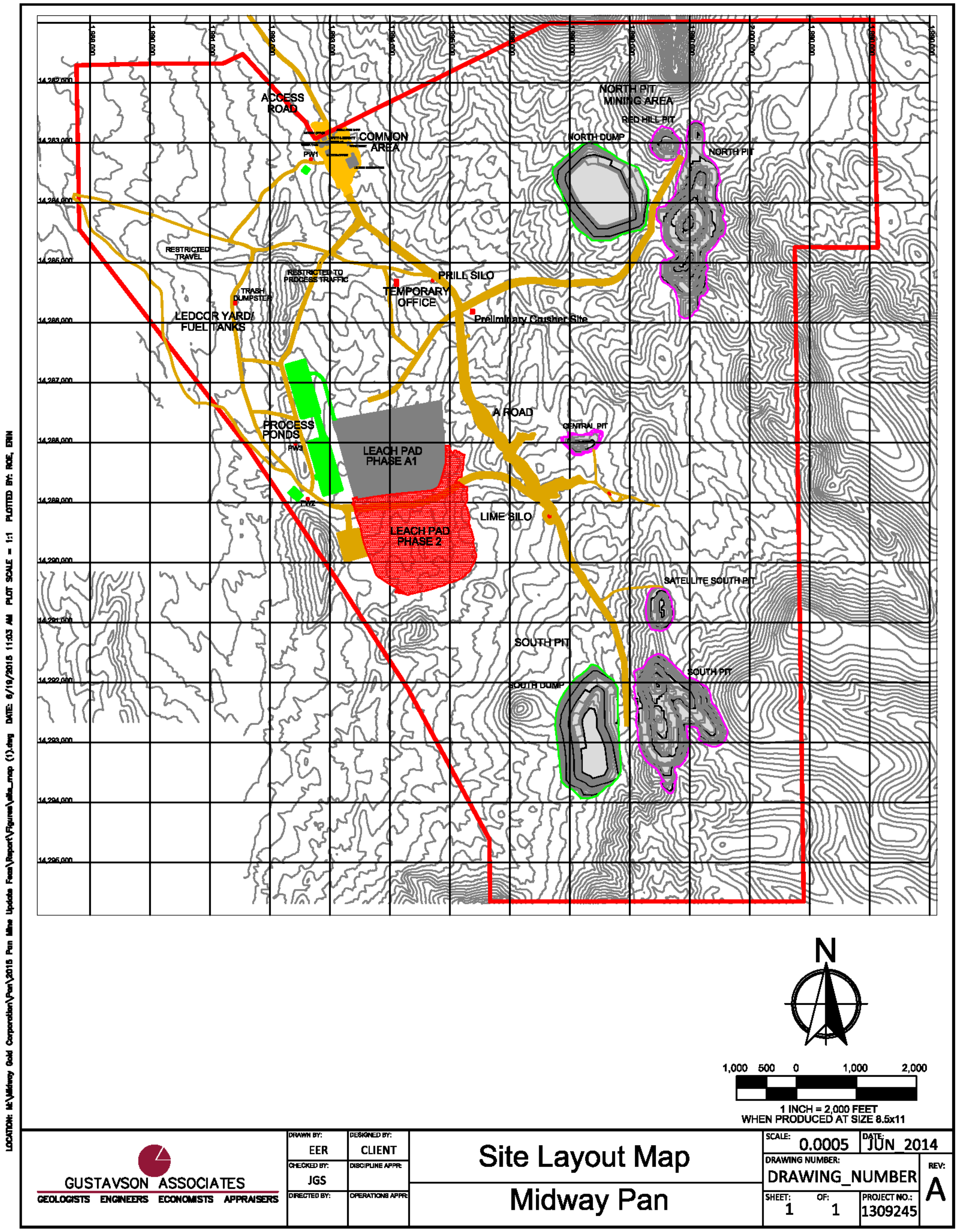


Figure 5-1 Pan Project Area

The local climate is typical for the high desert of east-central Nevada and the Basin and Range province. Climate data shows average annual precipitation of 11.85 inches, average temperatures ranging from 17°F in the winter to 86°F in the summer. Daytime temperatures in Eureka commonly exceed 90°F during the months of July and August (Western Regional Climate Center, 2008).

6 HISTORY

6.1 Exploration History

Mr. Lyle Campbell discovered the Pan deposit while prospecting in 1978, when he encountered gold-bearing jasperoid, now referred to as Campbell Jasperoid. Mr. Campbell staked 147 original unpatented mining claims, and transferred ownership of the claims to the LFC Trust in 1986. The LFC Trust was bought out in 2008 and is now owned by NVMC.

Several companies have conducted exploration on the property since 1978. The following paragraphs summarize exploration activities at Pan based on information provided in previously issued technical reports:

- Mr. Campbell leased his claims to Amselco in 1978. The majority of drilling exploration carried out by Amselco took place in North Pan.
- In 1986, Hecla conducted a drilling exploration program in the central portion of the Pan property.
- Echo Bay leased the claims in 1987 and completed an exploration drilling program that resulted in the discovery of gold mineralization at South Pan.
- The Pan property was explored under a joint venture between Alta Gold and Echo Bay from 1988 through 1991. Drilling was conducted in both North and South Pan, in conjunction with geologic mapping, geochemical sampling, and an induced polarization geophysical survey. The Alta Bay joint venture initiated studies in support of mining development, including an archaeological survey, additional metallurgical test work, and preliminary mineral reserve estimations and mine designs.
- Alta Gold retained ownership of the Pan Project after dissolution of the joint venture until 1992. Drilling exploration was reported, but the associated holes have not been validated and are not included in the modern day resource database.
- In 1993, Southwestern Gold Corporation completed drilling exploration on a small section of claims that they held at that time west of North Pan. The associated drill hole collars have been identified in the field, but no other information has been validated and these holes are not included in the modern resource database.
- The Pan Project was dormant from 1993 until 1999, when Latitude leased the property from LFC Trust. Between 1999 and 2001, Latitude explored the property as part of a joint venture with Degerstrom. Geologic mapping and outcrop and soil sampling were completed under the joint venture, as were drilling and metallurgical testing.
- Latitude drilling focused primarily on North and South Pan mineralization, but also resulted in the discovery of mineralization in the modern day Syncline and Black Stallion target areas of Central Pan. Latitude terminated the joint venture with Degerstrom in mid-2001, and joint ventured the project to Metallica later that year. From LFC Trust files, it appears that Metallica focused on thermal imagery and

lineament study of satellite data over the Pan area. No additional subsurface exploration work was completed. The LFC Trust terminated the lease agreement with Latitude in 2002, citing Latitude's inability to meet financial obligations.

- Castleworth Ventures. Inc. leased the Pan claims in January 2003. The company completed drilling exploration and conducted geologic mapping, sampling, metallurgical test work, and resource estimation. On April 16, 2007, Pan Nevada Gold Corporation (formerly Castleworth Ventures, Inc.) was acquired by Midway.
- Since acquiring the Pan Project in 2007, Midway has completed 287 holes, of which 260 were reverse circulation and 27 diamond core drill holes for a total of 136,507 feet. Drilling efforts have generally focused on expanding known mineralization, but have also included confirmation drilling and exploration drilling in several potential target areas on the Pan property. In addition to drilling exploration, Midway has completed geologic mapping, soil and outcrop sampling, and a gravity survey.

Table 6-1 Pan Project Drilling History

Company	Year(s)	No. of Holes Drilled	Footage Drilled	Drill Type
Amselco	1978-1985	84	21,771	RC
Hecla	1986	10	2,035	RC
Echo Bay	1987-1988	108/5	21,050 / 825	RC / Core (Met)
Alta Bay Venture	1988-1991	213	66,960	RC
Alta Gold*	1991-1992	10/7	2,645 / 958	RC (Twin) / Core (Met)
Southwestern Gold*	1993	7	1415	RC
Latitude/Degerstrom JV	1999-2001	54	16,143	RC
Castleworth Ventures	2003-2006	290/6	68,180 / 1,291	RC/Core
Midway	2007-2015	260/27	124,890/11,617	RC/Core
Totals		1,036/45	325,089/14,690	RC/Core

It is important to note that Southwestern Gold Corporation was briefly involved in the property during 1993. Southwestern held a small section of claims around the Nana zone and completed 7 reverse circulation holes (1,415 feet). Although collars have been identified in the field relating to this drilling, confirmation drilling during 2007 could not confirm the reported results. Alta Gold, Southwestern Gold, and Echo Bay core drill holes not incorporated into the Midway database for lack of verifiable collar locations, geology and/or assay results.

In addition, Midway drilled 7 water wells/monitoring wells in 2012. These were logged for geology, but not assayed and are not included in this table.

6.2 Historical Resource and Reserve Estimates

As detailed in the 2005 report produced by Mine Development Associates (MDA), the following resource and reserve estimates have not been verified, are not NI 43-101 compliant or considered reliable, are not relevant to the mineral resource or mineral reserves presented in this report, and are mentioned here for historical completeness only.

6.2.1 Echo Bay

Echo Bay completed a cross sectional polygonal "ore reserve" estimation in 1988. The estimate was prepared based on grade cutoffs of 0.015 opt Au and 0.020 opt Au over minimum drill lengths of 10 feet. The area of influence allowed per hole was ½ the distance to the adjacent cross section, up to 100 feet, in the north-south direction, and ½ the distance to the nearest hole, up to 50 feet, in the east-west direction. Tonnage factors used were 15 feet3/ton at North Pan, and 13 feet3/ton at South Pan. Echo Bay's "Ore Reserve Calculation" is presented as Table 6-2. These resource and reserve estimates have not been verified, are not considered reliable, are not relevant to the updated mineral resource presented in this report, and are mentioned here for historical completeness only

Table 6-2 Echo Bay Polygonal "Ore Reserve" Calculation

	0.015 opt Au Cutoff			0.020 opt Au Cutoff		
Area	**Tons**	**Gold Grade (opt)**	**Contained Au Ounces**	**Tons**	**Gold Grade (opt)**	**Contained Au Ounces**
North Pan	2,877,822	0.027	76,258	1,869,200	0.032	59,146
South Pan	2,476,340	0.031	76,689	1,958,365	0.035	68,244
Total	5,354,162	0.029	152,947	3,827,565	0.033	127,390

(Jeanne, 1988, MDA, 2005)

6.2.2 Alta Bay

Alta Bay calculated a polygonal "geologic ore reserve" in 1988 from 100 feet spaced sections. The estimation was completed at a 0.020 opt Au cutoff and an area of influence of 100 by 50 feet per drill hole. Tonnage factors used were 15 cubic feet per ton at South Pan and 13 cubic feet per ton at North Pan. Alta Bay's estimated "Ore Reserves" are presented in Table 6-3 through Table 6-6.

Table 6-3 Alta Bay Polygonal "Geologic Ore Reserves"

Area	Tons	Gold Grade (opt Au)	Contained Ounces
North Pan	6,744,406	0.021	140,942
South Pan	4,191,765	0.025	106,130
Total	10,936,171	0.023	247,072

(Myers, 1990, MDA, 2005)

In 1989 Alta Bay reported the results of computer generated "ore reserves" for the Pan Project. The annual report to LFC Trust indicates a strip ratio of 1.87 for North Pan and 1.63 for South Pan, but no other details are provided in the report. No original work could be located to further document this historic estimate.

Table 6-4 Alta Bay Computer Generated "Ore Reserves"

Area	Tons	Gold Grade (opt Au)	Contained Ounces
North Pan	5,125,240	0.022	112,509
South Pan	5,874,519	0.020	117,972
Total	10,999,759	0.021	230,481

(Myers, 1990, MDA, 2005)

In 1991, Alta Bay updated the polygonal "geologic ore reserves" for the project. This estimate was prepared using tonnage factors of 13 cubic feet per ton for North Pan, and all material at South Pan except argillaceous material which has a tonnage factor of 14 cubic feet per ton. All other parameters are the same as used in the previous estimation.

Table 6-5 Alta Bay Polygonal "Geologic Ore Reserves"

Area	Tons	Gold Grade (opt Au)	Contained Ounces
North Pan	6,744,406	0.0209	140,942
South Pan	4,687,126	0.0238	111,641
Total	11,431,532	0.0231	252,583

(Myers, 1991, MDA, 2005)

Also in 1991, Alta Bay reported "recoverable geologic ore reserves" for the Pan deposit. This represents the first effort at computer/model generated "reserves", and was completed using a tonnage factor of 13 feet3/ton for North Pan and South Pan, a gold recovery rate of 65%, and a gold price of $400/ounce (Myers, 1991). No geology was used to constrain the model, and no other details were reported in the annual report to LFC Trust.

Table 6-6 Alta Bay Computer Generated "Recoverable Ore Reserves"

Area	Contained Ounces (**back calculated from recovery)	Recoverable Gold Ounces
North Pan	153,762	99,945
South Pan	115,343	74,973
Total	**259,105**	**174,918**

(Myers, 1991, MDA, 2005)

Documentation of the Alta Bay "resource" and "reserve" estimates is limited to annual reports submitted to LFC Trust, and none appear to be in compliance with NI 43-101 standards.

6.2.3 Latitude

Prior to performing any surface work at the Pan Project, Latitude contracted Lynn Canal Geological Services of Juneau, Alaska to compile a digital drilling database, construct a three dimensional geologic model, and estimate mineral "resources" on the property. The resource was modeled by performing variography on composited drill data to establish reasonable estimation parameters and estimated gold grades. Faults and lithologic contacts were used as hard boundaries. Tonnage factors applied were 13 feet3/ton at North Pan and 14 feet3/ton at South Pan. The resource estimate is summarized in Table 6-7, and according to MDA appears to conform to definitions and criteria set out in NI 43-101. This model was not reviewed for the current report and is set forth for historical purposes only. Growth of the resource from previous estimates appears to be the result of a lower cutoff grade being applied.

Table 6-7 Latitude Resource Estimate

Indicated Resources									
	North Pan			South Pan			Total Indicated		
Cutoff (opt Au)	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces
0.010	10.41	0.017	172,800	8.46	0.017	144,300	18.86	0.017	317,100
0.015	4.88	0.022	107,900	4.26	0.022	94,900	9.14	0.022	202,800
0.020	2.37	0.028	66,100	2.25	0.027	61,300	4.62	0.028	127,400
Inferred Resources									
	North Pan			South Pan			Total Indicated		
Cutoff (opt Au)	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces
0.010	3.46	0.013	44,500	3.89	0.013	50,600	7.34	0.013	95,100
0.015	0.78	0.017	13,900	0.94	0.018	17,300	1.72	0.018	31,200
0.020	0.14	0.024	3,400	0.31	0.022	6,900	0.45	0.023	10,300

(White and Buxton, 1999)

6.2.4 Castleworth Ventures

After two years of exploration drilling, Castleworth Ventures commissioned MDA to complete a NI 43-101-compliant resource estimate on the Pan Project. Parameters for the estimate are thoroughly discussed in the 2005 MDA report, and the results are summarized in Table 6-8. Using a 0.010 opt Au cutoff, the measured and indicated total resource is 18.97 million tons grading 0.019 opt Au (361,400 gold ounces contained). The inferred total was 8.30 million tons grading 0.017 opt Au (140,600 gold ounces contained). This resource evaluation used an economic cutoff of 0.010 opt Au, and no Lerchs-Grossmann cone was applied. This resource estimate included drilling through the end of 2004, and is the last historical resource completed on the project.

Table 6-8 Castleworth Ventures Resource Estimate

Measured Resources									
	North Pan			South Pan			Total Measured		
Cutoff (opt Au)	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces
0.010	3.09	0.019	59,600	-	-	-	3.09	0.019	59,600
0.015	1.66	0.026	42,700	-	-	-	1.66	0.026	42,700
0.020	1.03	0.031	32,200	-	-	-	1.03	0.031	32,200
0.030	0.40	0.043	17,300	-	-	-	0.40	0.043	17,300
0.040	0.19	0.054	10,300	-	-	-	0.19	0.054	10,300
0.050	0.10	0.064	6,100	-	-	-	0.10	0.064	6,100
Indicated Resources									
	North Pan			South Pan			Total Indicated		
Cutoff (opt Au)	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces
0.010	9.13	0.018	162,600	6.75	0.021	139,200	15.88	0.019	301,800
0.015	4.88	0.023	111,300	4.53	0.025	112,500	9.31	0.024	223,800
0.020	2.50	0.029	73,500	2.84	0.030	84,100	5.34	0.029	157,600
0.030	0.77	0.042	32,600	1.04	0.040	41,800	1.81	0.041	74,300
0.040	0.36	0.052	18,700	0.42	0.050	20,700	0.77	0.051	39,400
0.050	0.20	0.058	11,600	0.15	0.061	9,300	0.35	0.060	21,00
Inferred Resources									
	North Pan			South Pan			Total Inferred		
Cutoff (opt Au)	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces	Tons (Mt)	Gold Grade (opt Au)	Gold Ounces
0.010	2.82	0.017	49,200	5.49	0.017	91,400	8.30	0.017	140,600
0.015	1.46	0.023	32,900	3.17	0.020	62,900	4.62	0.021	95,900
0.020	0.79	0.028	22,000	1.12	0.026	28,800	19.1	0.027	50,800
0.030	0.26	0.036	9,600	0.28	0.036	9,200	0.52	0.036	18,700
0.040	0.08	0.045	3,600	0.04	0.045	2,000	0.12	0.045	5,500
0.050	0.01	0.051	700	0.01	0.053	400	0.2	0.052	1,200

(MDA, 2005)

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Pan property is located in the core of the northern portion of the Pancake Range of east-central Nevada. The Pancake Range is part of the Basin and Range Province, a large physiographic region characterized by a series of normal faults expressed as a sequence of north-south trending narrow mountain ranges separated by flat, arid valleys. The Pancake Range is approximately 85 miles long and 8 to 10 miles wide and is composed of Paleozoic carbonate and clastic sedimentary rocks, Cretaceous intrusives, and Tertiary volcanics. A regional geologic map of the northern Pancake Range is presented as Figure 7-1.

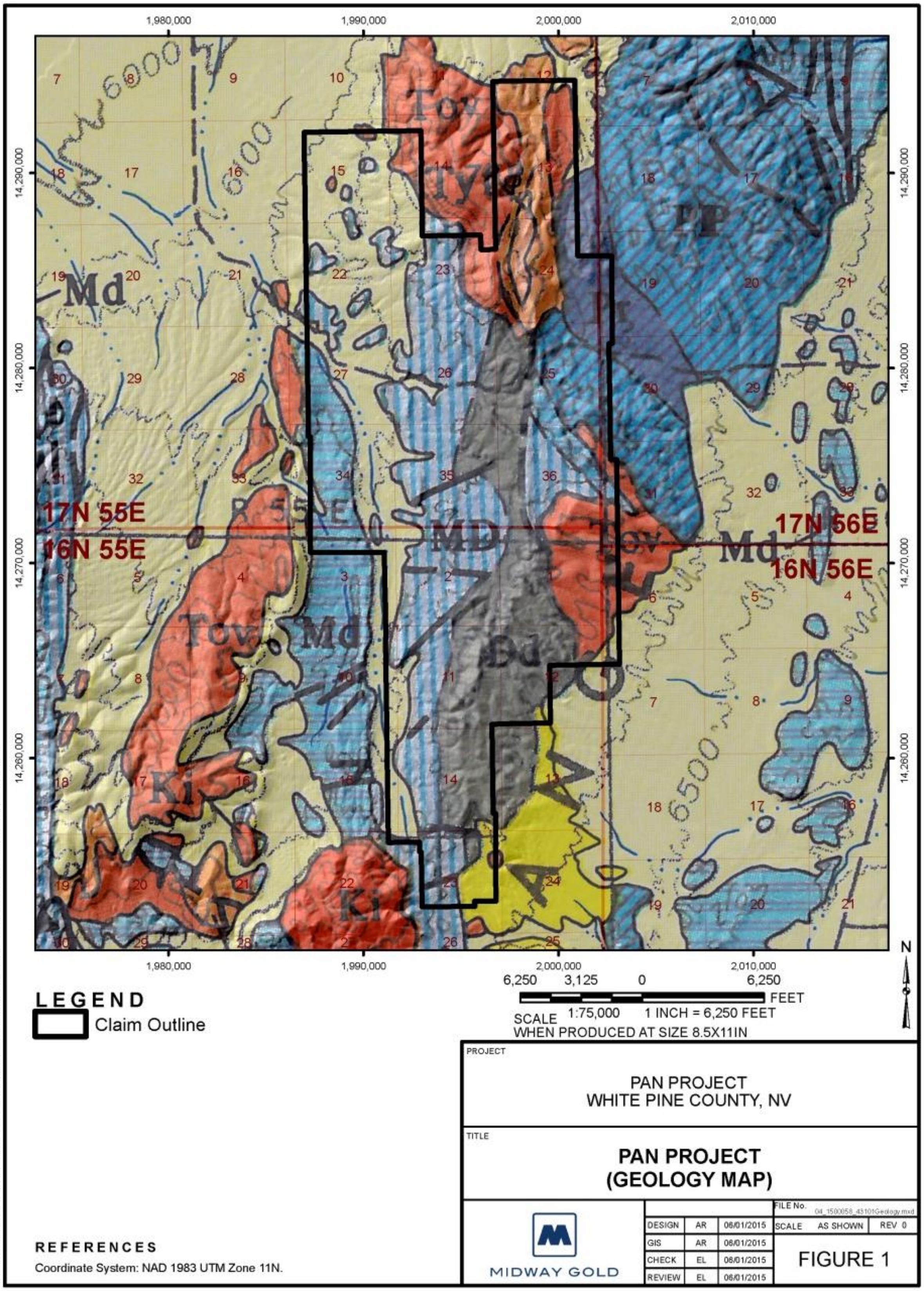


Figure 7-1 Regional Geology, Pancake RangeLocal Geology

The Pan property is bounded to the east and west by the Newark Valley. Devonian, Carboniferous, and Permian carbonate and clastic sedimentary rocks form the core of the Pancake Range, and are exposed in bedrock outcrop in the project area. In 2013, Midway geologists measured the individual lithologic units in order to better define the property stratigraphy. Measurement locations were selected based on the quality of the exposure of the target unit. Measurements were collected using a Jacob's Staff and Brunton compass and were recorded on tablet computers. The generalized stratigraphic section compiled from the measurements is presented as Figure 7-2.

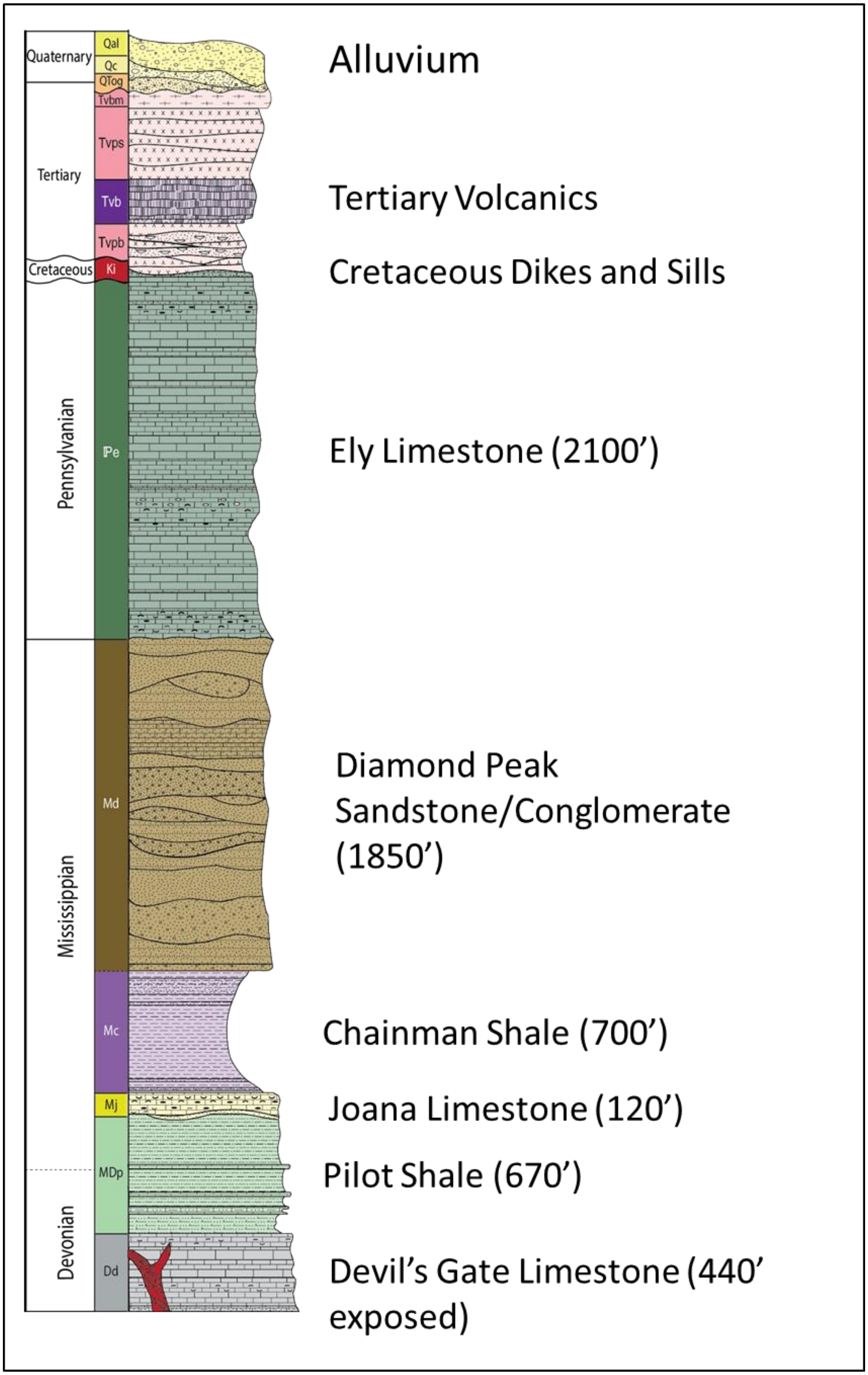


Figure 7-2 Pan Stratigraphy

An intrusion of quartz monzonite is present just south of the Pan Project area and a quartz monzonite sill intrudes along an east-west fault in the south central portion of the property. These intrusives are assumed to be age related to the Cretaceous Seligman and Monte Cristo stocks, which outcrop in the Mount Hamilton area to the east of the Pan property. The Seligman and Monte Cristo stocks may have provided a heat source for the Pan mineral deposits. Post-mineral Tertiary volcanic rocks, including basalt and crystal-rich quartz latite airfall tuff (probably equivalent to the Oligocene Pinto Basin Tuff), nonconformably cap the Devonian to Permian sedimentary bedrock geology in the vicinity of the Pan Project.

7.2 Property Geology

The geology of the Pan property is dominated by Devonian to Permian carbonate and clastic sedimentary rocks cut by the Branham (Pan) fault, a vertical or steeply west dipping fault that trends north-south (Figure 7-3). The Branham fault juxtaposes gently west dipping sedimentary units on the west side of the fault, and steeply northeast dipping sedimentary units on the east side. Post-mineral Tertiary volcanic rocks nonconformably overlie the faulted Devonian through Permian sedimentary units. Individual lithologic units identified at the project site are described below, from oldest to youngest.

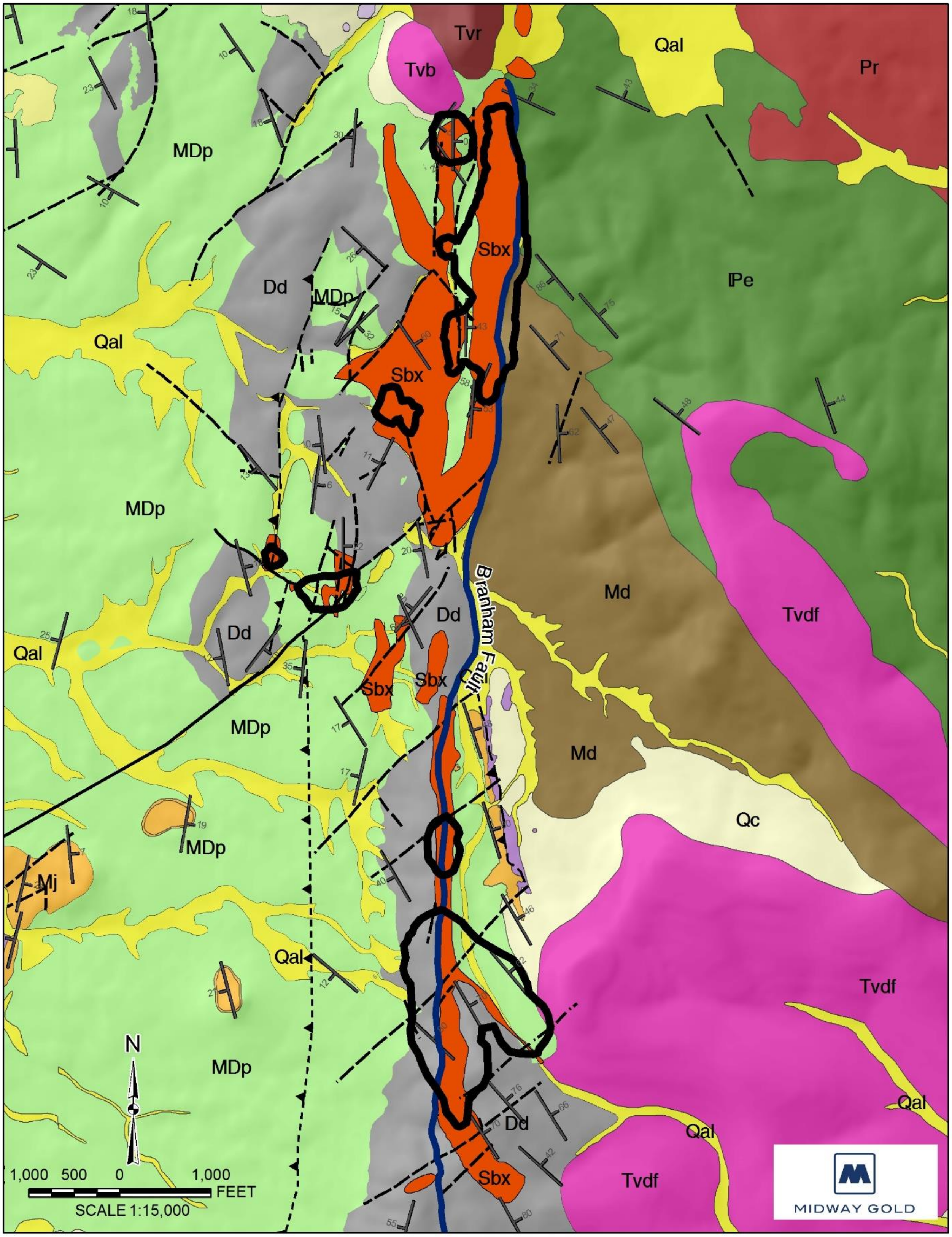


Figure 7-3 Generalized map of the Pan Mine area showing projected mine pits

7.2.1 Lithological Units

7.2.1.1 *Simonson Dolomite (Ds) - Devonian*

The Simonson Dolomite is the lowermost lithologic unit intersected by drilling at the Pan property. This unit is not exposed on the surface. Thickness ranges from 500 to 1,300 feet thick in White Pine County (Smith, 1976), but only the top portion of the dolomite has been drilled at South Pan. The dolomite is a light gray, massively bedded unit. This unit has no surface exposure in the Pan Project area and so was not measured by Midway geologists.

7.2.1.2 *Devil's Gate Limestone (Dd) - Late Devonian*

The oldest lithologic unit exposed in the northern Pancake Range is the Late Devonian Devil's Gate Limestone. Thickness of the unit ranges from about 1,000 feet to 2,500 feet locally, but at Pan only the topmost 438 feet were measured on the surface. The section measured was interpreted to be a part of the Hayes Canyon Member which consists of medium to massive bedded, sparitic to micritic limestone that is often mildly argillaceous with some sandy beds. Amphipora, rugose and gastropod fossils are common. The Devil's Gate Limestone is a host of gold mineralization at the Pan property.

7.2.1.3 *Pilot Shale (MDp) - Late Devonian to Early Mississippian*

On the surface at Pan, 678 feet were measured, of which the lower half consists of calcareous, carbonaceous flaggy siltstone with silty limestone interbeds near the base. It is dark grey on a fresh surface which weathers to buff or tan. The upper unit is mostly thin bedded siltstone with zones of thin bedded papery siltstone. Silicified and argillized lower Pilot Shale is a host of gold mineralization at the Pan property.

7.2.1.4 *Joana Limestone (Mj) - Mississippian*

The Joana Limestone is a gray, medium grained, unevenly bedded limestone with abundant fossil fragments, chert nodules, and detrital limestone interbeds. Reported fossil types include echinoderm, bryozoans, foraminifera, algae, and crinoids. Locally, quartz arenite sandstone is present at the base of the unit. Thickness of the Joana Limestone is measured at 120 feet at the Pan property, though the total thickness reportedly ranges from 90 to 500 feet throughout the county (Smith, 1976).

7.2.1.5 *Chainman Shale (Mc) - Mississippian*

The Chainman Shale consists of dark gray to black shale with thin interbeds of olive gray silty shale and siltstone. The upper most portions contain relatively thin beds of rusty colored sandstones which grade upward into the Diamond Peak Formation. Thickness of the unit ranges from 1,000 to 2,000 feet (Smith, 1976) and was measured at 700 feet at the Pan property, possibly indicating structural thinning.

7.2.1.6 *Diamond Peak Formation (Md) - Mississippian*

The Diamond Peak Formation consists of irregular beds of chert pebble orthoconglomerate, paraconglomerate and litharenite sandstone. Thickness of the formation ranges from less than 1,000 to 3,700 feet, and was measured at about 1,700 feet near the Pan area.

7.2.1.7 *Ely Limestone (Pe) - Pennsylvanian*

The Ely Limestone was measured at 2,070 feet in the Pan area. The lower 700 feet consist of thin to medium bedded micrite to fine sparite with abundant brachiopod beds and tan to grey chert stringers and nodules. The upper 1,370 feet is medium to thin bedded limestone and silty limestone with minor chert nodule horizons. The siliciclastic content increases near the top of the unit.

7.2.1.8 *Intrusives - Cretaceous*

Intrusive rocks are not common in the Pan area. In the Mount Hamilton area to the east, both the Seligman and Monte Cristo stock have been age dated at 90.4 to 128.0 Ma (Adair and Stringham, 1960). A small intrusive body south of the Pan property, the Pancake stock, was age dated at 108 Ma (Smith, 1976). Just southwest of the Pan deposit, a quartz monzonite sill intrudes along an east-west fault in the south-central portion of the property. Within the deposit area, rocks interpreted as thin dikes have been intercepted in a few drill holes, which consist of pinkish monzonite porphyry containing irregular feldspar, hornblende, and biotite phenocrysts in a fine quartz-orthoclase matrix. These dikes are thought to be of Cretaceous age due to the similarity of texture with the age-dated intrusions in the area.

7.2.1.9 *Volcanic Units (Tv) - Tertiary*

Tertiary volcanic flows and tuffs cover the sedimentary units at the north end of North Pan, and a fairly young volcanic debris flow mantles the sediments southeast of the South Pan pit. At the north end of the North Pan mineralization, drilling has penetrated through these volcanic units and intercepted mineralized sediments. This would indicate that mineralization is older than the volcanic units.

7.2.1.10 *Pinto Basin Tuff (Tvpb)*

The Pinto Basin tuff is a light colored pumice rich, non-welded air fall tuff. It has been measured at 285 feet near Pan and has been dated at other locations at 34.6 Ma (Nolan and others, 1974).

7.2.1.11 *Richmond Mountain Andesite (Tvb)*

The Richmond Mountain andesite is a dark, aphanitic to glassy flow with flow banding, minor cooling jointing and a basal layer of scoria. Near Pan the unit measured 240 feet thick.

7.2.1.12 *Pancake Summit Tuff (Tvps)*

Tan or pink, crystal-rich, moderately welded ash flow tuff with coarse smoky quartz, sanidine, and biotite crystals. It measures at 400 feet thick near Pan.

7.2.1.13 *Bates Mountain Tuff (Tvbm)*

Densely welded crystal poor tuff with common spherulitic textures and vapor phase alteration. It has been measured at 50 feet near Pan.

7.2.1.14 *Debris Flow (Tvdf)*

Heterolithic, unconsolidated debris flow consisting of basaltic and siliciclastic cobbles and boulders in finer pumice rich matrix. Thickness is variable and it is interpreted as a volcanic unit.

7.2.1.15 *Quaternary Deposits*

Young aerial and alluvial deposits of gravel, fill and silt.

7.2.1.16 *Older Gravel (QTog)*

Older gravel commonly cemented by caliche, incised by alluvium and overlain by colluvium.

7.2.1.17 *Colluvium (Qc)*

Generally slope debris of various compositions and variable thickness largely cobble to gravel in size.

7.2.1.18 *Alluvium (Qal)*

Graded channel deposits largely restricted to currently active intermittent stream channels. Generally gravel sand or silt is size.

The units most commonly mineralized at Pan are the basal Pilot shale and the top of the Devil's Gate limestone. Other sedimentary units or contacts may also have the potential to be mineralized but remain untested or are not present near the currently delineated mineralization at Pan. Future exploration should explore these areas.

7.2.2 Structural Geology

The geology of the Pan property is structurally dominated by the north-south trending, high angle Branham fault. Based on exposure in the exposed southern high wall, the fault zone is nearly vertical. On the west side of the fault, Devonian through Mississippian stratigraphy strikes north-south and dips 10° to 30° westward. On the east side of the fault, Devonian through Permian stratigraphy strikes about 30° to 35° to the northwest and dips 65° to 70° to the northeast.

The stratigraphic units on the east side of the Branham fault comprise the southwest limb of a northwest trending syncline which is truncated by the Branham fault. The Branham fault is recognizable in the field by the juxtaposition of younger sedimentary rocks to the east against older sedimentary rocks to the west, and can be tracked north until covered by Tertiary volcanic units. To the south, the Branham fault may be offset by cross-cutting northeast trending faults and may either proceed south without the distinctive alteration and mineralization in the Pan deposit area or may horse tail to the southwest along the trend of some weaker surface mineralization south of the South Pan Pit.

The terrain west of the Branham fault is cut by a number of northeasterly trending high angle faults with varying displacement senses. There are also a number of northerly trending faults, which may include high angle, dip-slip faults, and low angle, easterly-directed thrust faults.

Considerable solution/collapse breccia is present along and in proximity to the Branham fault and other associated structures to the west. The breccias host a substantial portion of the gold resource at the Pan Project and are interpreted as solution/collapse breccia and hydrothermal breccia formed during the mineralizing event. The resultant geometry is one of elongate pods of brecciation and alteration that form along north-south or northeasterly trending faults, along with brecciation and alteration forming along bedding of preferential units, most notably along the contact of the Pilot Shale and Devil’s Gate Limestone. The breccia varies from clast to matrix supported, and contains angular to subrounded sedimentary fragments. Associated crackle breccia, wherein the rock is shattered but fragments remain roughly in place and not rotated, occurs marginal to or as relicts within the breccia bodies, and is altered and mineralized in a manner similar to the more actively transported breccias.

7.3 Mineralization

The Pan Project can be separated into three general geographic zones: North Pan, South Pan, and Central Pan. Gold mineralization at the Pan Project is encountered in all three zones. Mineralization is both structurally and stratigraphically controlled, occurring primarily along the trend of the Branham fault, within high-angle northwest- and northeast-trending structural zones, and within favorable stratigraphic bedding, and is generally associated with solution/collapse breccias or strong silica or argillic alteration

Stratigraphically controlled mineralization occurs along contacts between the Pilot Shale and Devil’s Gate Limestone. Better mineralization along these contacts tends to be hosted within the Pilot Shale. This style of mineralization is found adjacent to the larger breccia pods in North Pan and forms significant ore bodies in the Wendy area of South Pan and in the Black Stallion and Syncline areas of Central Pan.

Estimation domains were delineated within the North Pan, South Pan, and Central Pan zones based on the style and orientation of mineralization in each area. Both styles of mineralization can be present within the same zone, though one is usually dominant. The search parameters within each domain were restricted to those most appropriate for the dominant style of mineralization.

7.3.1 Alteration

Alteration associated with the Pan deposits is typical of Carlin-style gold systems, and includes silicification, argillization, decalcification, and oxidation. Breccia bodies may be silicified (jasperoid) or argillized and can contain variably altered fragments, including silicified, clay altered, and/or decalcified fragments. The Pilot Shale-Devil's Gate Limestone contact may be argillized and/or decalcified.

Silicification is characterized by multi-phase breccia and passive silica flooding along bedding and structures. Silicification occurs in breccia zones and in the Pilot Shale, and small zones have also been identified in the Devil's Gate Limestone. Minor quartz veining has been reported in the North Pan zone, particularly in association with the Campbell Jasperoid.

Clay alteration is generally associated with hydrothermal alteration and carbonate destruction. Clay along faults and bedding is common in both the Pilot Shale and Devil's Gate Limestone, and is a common matrix of solution/collapse breccias. Clay content in some South Pan ores can be upwards of 30% of the rock by weight, and is dominantly composed of illite and lesser amounts of kaolinite.

Decalcification of both the Devil's Gate Limestone and calcareous siltstones of the Pilot Shale is spatially associated with mineralization encountered at Pan. Decalcification results in a sanded, punky texture, especially in lithologic units with high original carbonate content.

Mineralization at Pan occurs in strongly oxidized rock. Oxidation is prevalent throughout each of the zones with strong development of iron oxides (hematite and limonite). Liesegang banding is formed in the Pilot Shale in association with oxidation. Sulfide minerals have rarely been described in drill logs at Pan, and are not associated with the gold mineralization.

The bulk of the mineralized area contains elevated barite levels, typically above 0.2%. Hydrothermal barite veins are present in the southeast portion of the property in association with the old Cue Ball Barite Mine, briefly worked in the 1970s.

7.3.2 Geometry of Mineralization

Gold deposits at the Pan Project generally occur as elongate pods in association with structures and solution or hydrothermal breccia bodies hosted by the Pilot Shale and, to a lesser extent, the Devil's Gate Limestone. Gold deposits also occur as more tabular bodies hosted by altered and mineralized sedimentary horizons. Mineralization occurs along a north-south trend approximately 5,000 feet long and 500 to 1,000 feet wide. Cross sections typical of the North and South Pan zones are shown on Figure 7-4 and Figure 7-5.

North Pan mineralization is predominantly hosted in breccias developed in the moderately folded Pilot Shale along the Branham fault and other structures to the west. Gold mineralization has been identified to depths up to 650 feet, but remains open at depth and to the north under volcanic cover.

The Central Pan zone contains mostly sub-horizontal, tabular mineralization hosted along the Pilot Shale- Devil's Gate Limestone contact. Mineralization in the Black Stallion and Syncline areas is dominantly hosted in folded and faulted Pilot Shale, but also occurs in Devil's Gate Limestone. This area of mineralization has potential for expansion with additional drilling.

In South Pan, there are two important ore zones; the South Pan Main zone and the Wendy zone (Figure 7-5). The South Pan Main zone is associated with solution/collapse breccia along or adjacent to the Branham fault zone. It is 100 feet to perhaps 300 feet wide in plan view. The zone is strongly argillized breccias of host rock shale or limestone which have lost most or all of their primary texture. Sporadic or irregular silicification is also present. Mineralization is irregularly distributed in patterns suggestive of en echelon pods. This pattern may be truly indicative of en echelon fracture in the breccia zone or may possibly represent bedding planes that are more amenable to mineralization which were upturned into the Branham fault prior to breccia formation and mineralization.

The Wendy zone is stratiform and straddles the contact between the Pilot Shale and the Devil's Gate Limestone in the domain to the east of the Branham fault zone. This zone can be up to 300 feet wide perpendicular to bedding and extends down-dip from the surface to as deep as drilling has penetrated the zone at about 700 feet deep. Mineralization generally extends further into the Pilot shale than the Devil's Gate Limestone, and may be slightly better grade in the Pilot shale as well. The zone is not tabular, but pinches and swells along strike and down-dip. The mineralization is largely associated with moderate to strong argillic alteration but pods of strong silicification are present associated with layer parallel solution/collapse breccias or possibly sandy, more permeable beds. At present, large amounts of altered limestone ore have been mined and occur in the South Pan highwall. Once the trace of the Pilot Shale-Devil's Gate Limestone contact intercepts the Branham fault, the contact plunges down to the north below the surface. Drilling along this plunging contact has intercepted mineralization well to the north of the current South Pan pit.

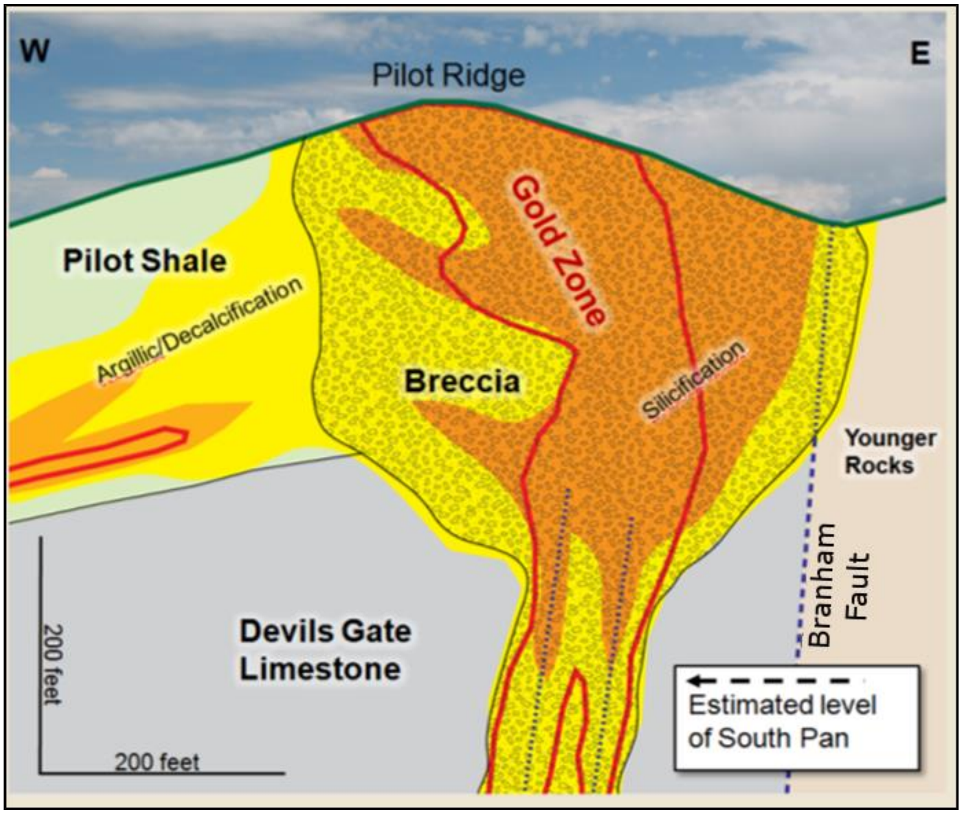


Figure 7-4 East-West Section across North Pan, Looking North

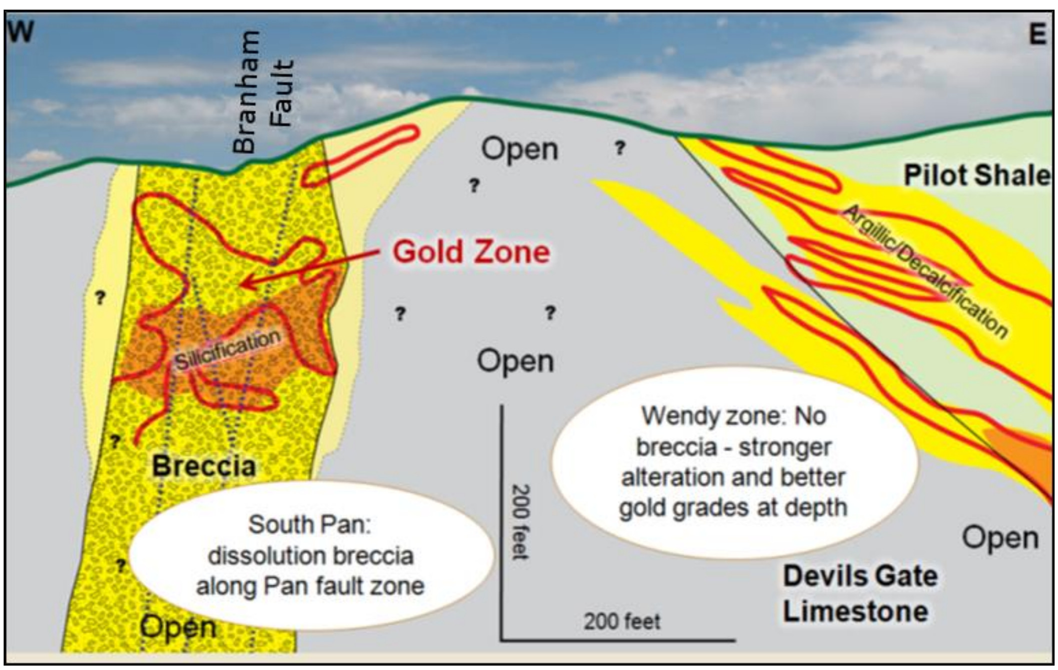


Figure 7-5 East-West Section across South Pan, Looking North

8 DEPOSIT TYPES

Midway interprets gold deposits at the Pan Project to be Carlin-style, epithermal, disseminated gold hosted in Devonian and Mississippian sedimentary units. Gold particles occur as micron to submicron size disseminations. Visible or coarse gold is not common in this type of deposit, and has not been observed at Pan.

Controls on mineralization in Carlin-style systems and at the Pan Project include both structure and stratigraphy. Gold mineralization is generally distributed along high-angle faults, and in a more tabular fashion subparallel to stratigraphy. Solution breccias developed in association with faults at the Pan Project serve as the primary host for gold mineralization. Additional mineralization is hosted in favorable stratigraphy, such as the lower Pilot Shale and the upper Devil's Gate Limestone.

Similar type gold deposits in the surrounding area include Alligator Ridge, Maverick Springs, Emigrant Springs, and Midway's Gold Rock deposit.

9 EXPLORATION

Exploration at the Pan Project is a comprehensive effort utilizing a variety of methodologies, including:

- Geochemical sampling and trenching
- Geophysics
- Surface and subsurface geologic mapping
- Drilling within the known resource area
- Drilling on exploration targets

9.1 Previous Operators Exploration Work

Previous exploration work includes geologic mapping, metallurgy, geochemical sampling, geophysical surveys, and drilling as described in Section 6 of this report.

9.2 Midway Exploration Work

Since acquiring the Pan property in 2007, Midway has conducted exploration using a number of different investigative techniques. Drill targets proximal to North and South Pan and additional exploration targets throughout the project area have been identified based on the results of surface geochemical surveys, chip sample analysis, geologic mapping, and geophysical surveys.

9.2.1 Surface Geochemistry

Soil sampling on 100 x 200 feet and 200 x 200 feet grids was carried out by Pan Nevada (2006) and Midway (2007 and 2008). This grid covered the majority of the property and consisted of collection and analysis of 8,724 verifiable soil samples. Soils were sieved to the -10+80 mesh size fraction and assayed for gold at ALS Chemex. ALS Chemex is a certified laboratory located in Reno, Nevada. Assay for gold was accomplished by standard fire assay methods on a 30 gram subsample, and for an additional 50 elements by aqua regia digestion of a 0.5 gram subsample and inductively coupled plasma (ICP) finish.

9.2.2 Surface Trenching

In 2014, Midway constructed 7 shallow dozer trenches adjacent to the north end of the planned South Pan pit. These trenches exposed the altered and mineralized trend of the South Pan Main zone. The geology exposed by these trenches was mapped and the trenches were sampled in ten foot intervals. 179 samples were collected from these trenches.

9.2.3 Rock Samples

Also in 2014, Midway conducted line sampling, in which chip samples were taken every 10 to 20 feet along a line perpendicular to the mineralized trend. This worked well in areas of good exposure of outcrop and even sub-crop and near-surface float. Sample lines were established across the South extension of South Pan, over the Limestone Canyon exploration target, and over the south extension of the North Pan pit as well. A total of 529 additional samples were collected from this program.

Between 2003 and 2008, Midway and Pan Nevada collected and analyzed a total of 786 surface rock samples. Individual chip samples were collected from outcrops scattered throughout the property, and 10 feet continuous chip samples were collected from Pilot Ridge in the south central portion of North Pan. Samples were collected during geologic reconnaissance traverses, prospect mapping, and target delineation. Rock chips were crushed to 70% passing 2 mm with a nominal 250 gram split, pulverized to 85% passing 75µm, and were then assayed by standard fire assay methods by ALS. Only a small number of samples were analyzed for an additional 50 elements by aqua regia digestion of a 0.5 gram subsample and ICP finish.

9.2.4 Geologic Mapping

Latitude produced a geologic map of the Pan property at a scale of 1:6,000 in 2001, focusing on North and South Pan. Midway completed reconnaissance mapping, scale 1:12,000 and more detailed local mapping, scale 1:6,000, in 2007 in order to extend map coverage over the entire Pan Project area. This work helped to clarify the geologic setting, identify structural trends, and indicate prospective areas for additional exploration. In 2013 geologic mapping was done adjacent to the Pan Project.

9.2.5 Geophysical Surveys

MaGee Geophysical Services conducted a ground gravity survey at the Pan property in 2008. J.L. Wright Geophysics of Spring Creek, Nevada, interpreted the results of the survey, which identified several major structural features and were used to identify target areas for future drilling.

Sampling methods and quality are described in Section 10 and 11 of this report.

10 DRILLING

10.1 Introduction

Drilling activities at the Pan property were initiated by Amselco in 1978, with intermittent programs conducted through subsequent years, to the present. A total of 1,091 drill holes have been completed, totaling 339,780 feet. Of these totals, 1,036 holes were drilled by reverse circulation (RC) and rotary methods for 325,089 feet, and 45 diamond drill holes have been completed totaling 14,691 feet. MDA (2005), and Gustavson (2010, 2011) have reported on validation of the existence of drill hole collar location information, drilling logs and assay records for the drill holes incorporated into the Midway database. Since the 2011 resource report Midway has added 12 additional core holes for 5,805 feet, and an additional 27 RC holes for 17,225 feet. Figure 10-1 shows the location of all historic drilling and Table 10-1 gives the breakdown by company.

Table 10-1 Pan Project Drilling History through 2015 (database)

Company	Year(s)	No. of Holes Drilled	Footage Drilled	Drill Type
Amselco	1978-1985	84	21,771	RC
Hecla	1986	10	2,035	RC
Echo Bay	1987-1988	108/5	21,050/825	RC/Core
Alta Bay Venture	1988-1991	213	66,960	RC
Alta Gold*	1991-1992	10/7	2,645/958	RC (Twin)/Core
Southwestern Gold*	1993	7	1,415	RC
Latitude/Degerstrom JV	1999-2001	54	16,143	RC
Castleworth Ventures / Pan Nevada	2003-2006	290/6	68,180/1,291	RC/Core
Midway	2007-2015	260/70	124,890/37,688	RC/Core
Totals		1,036/45	325,089/14,960	RC/Core

*****Alta Gold, Southwestern Gold, and Echo Bay core drill holes not incorporated into the Midway database for lack of verifiable collar locations, geology and/or assay results.

******In addition, Midway drilled 7 water wells/monitoring wells in 2012. These were logged for geology, but not assayed; and are not included in this table.

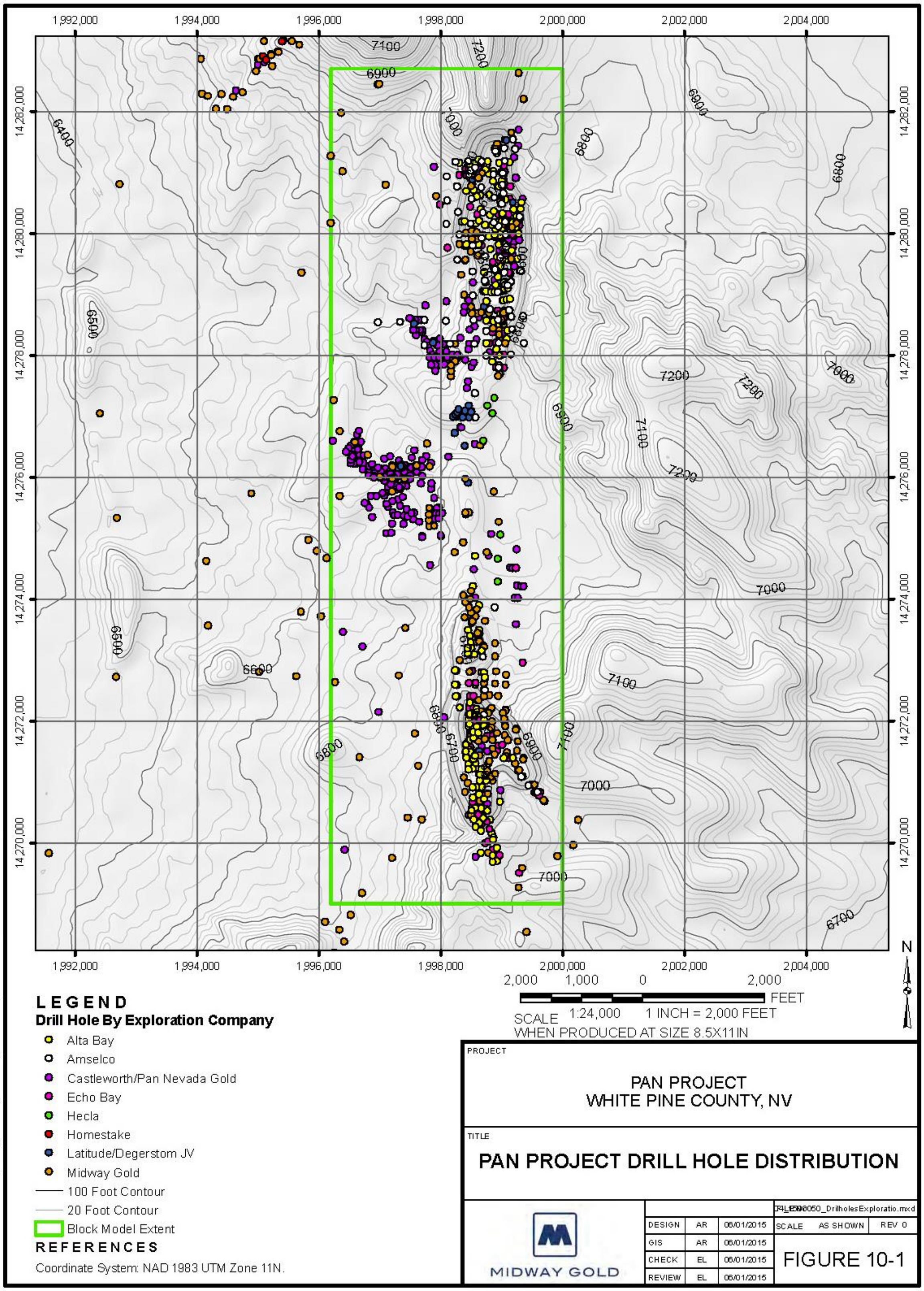


Figure 10-1 Locations of Historical Drill Holes

10.2 Historical, pre-Midway Drilling

MDA (2005) compiled and reported available details of the historic drilling programs completed prior to the Castleworth Ventures programs in 2005 and 2006. Gustavson has confirmed the general conclusions of the MDA compilation through its review of historic documents, drill logs and assay files stored in the Midway office in Ely, Nevada, including a review of Castleworth data generated subsequent to the MDA report.

Historic drilling, with the exception of 18 diamond core holes, was completed by reverse circulation or, to a lesser extent, rotary methods. Approximately two-thirds of the drilling was in vertical holes, with one-third in angle holes. Groundwater levels are in excess of 1,000 feet deep; therefore reverse circulation drilling was completed dry or using injection of minor water. Drill holes lacking collar coordinates and/or geologic and assay logs are not included in the Midway database. True thickness of mineralized intervals is difficult to assess as the controls on mineralization at Pan include sedimentary bedding and higher angle structures and breccia zones. True thickness of intercepts is therefore dependent upon the angle and azimuth of the drill hole, and type or types of mineralized zones encountered.

The MDA (2005) electronic database and updated Midway database include collar coordinates and elevations compiled from the various historic programs (including the full Castleworth program); with coordinates listed in NAD 1983 UTM Zone 11N. Down-hole surveys were not completed or documented on any of the historic drill holes.

10.3 Drilling by Midway

As of May 24, 2013, Midway has drilled a total of 287 holes for a total of 136,506 feet. Of the 287 holes drilled by Midway, 260 were drilled using reverse circulation, and 27 are diamond core holes. Drilling exploration conducted by Midway is summarized in Table 10-2, and drill hole distribution is shown on Figure 10-2.

Table 10-2 Midway Drilling Exploration Summary

Midway Exploration Program (Year)	Number of Holes Drilled	Total Footage	Type of Drill Hole
2007-2008	161	61,875	RC
2010	15	5,812	Core
2011	37/5	33,105/3,645	RC/Core
2012	14/7	8,170/2,160	RC/Core
2013	13	9,055	RC
2015	35	12,685	RC

The 2011 resource estimate included all Midway drill holes from 2007, 2008, and 2010. It also included the 29 of the 37 RC holes drilled in 2011. The 5 core holes were drilled in late 2011 and were not utilized in the 2011 resource update. This resource update includes all Midway drilling from 2011 to 2015 (Table 10-2). In addition, Midway completed 7 water and monitoring wells in 2012. These holes show that the water table is greater than 1,000 feet from the surface and were also logged for geology, but were not assayed. The geologic data was added to the project database, but these holes are not included in the drilling summary in Table 10-2.

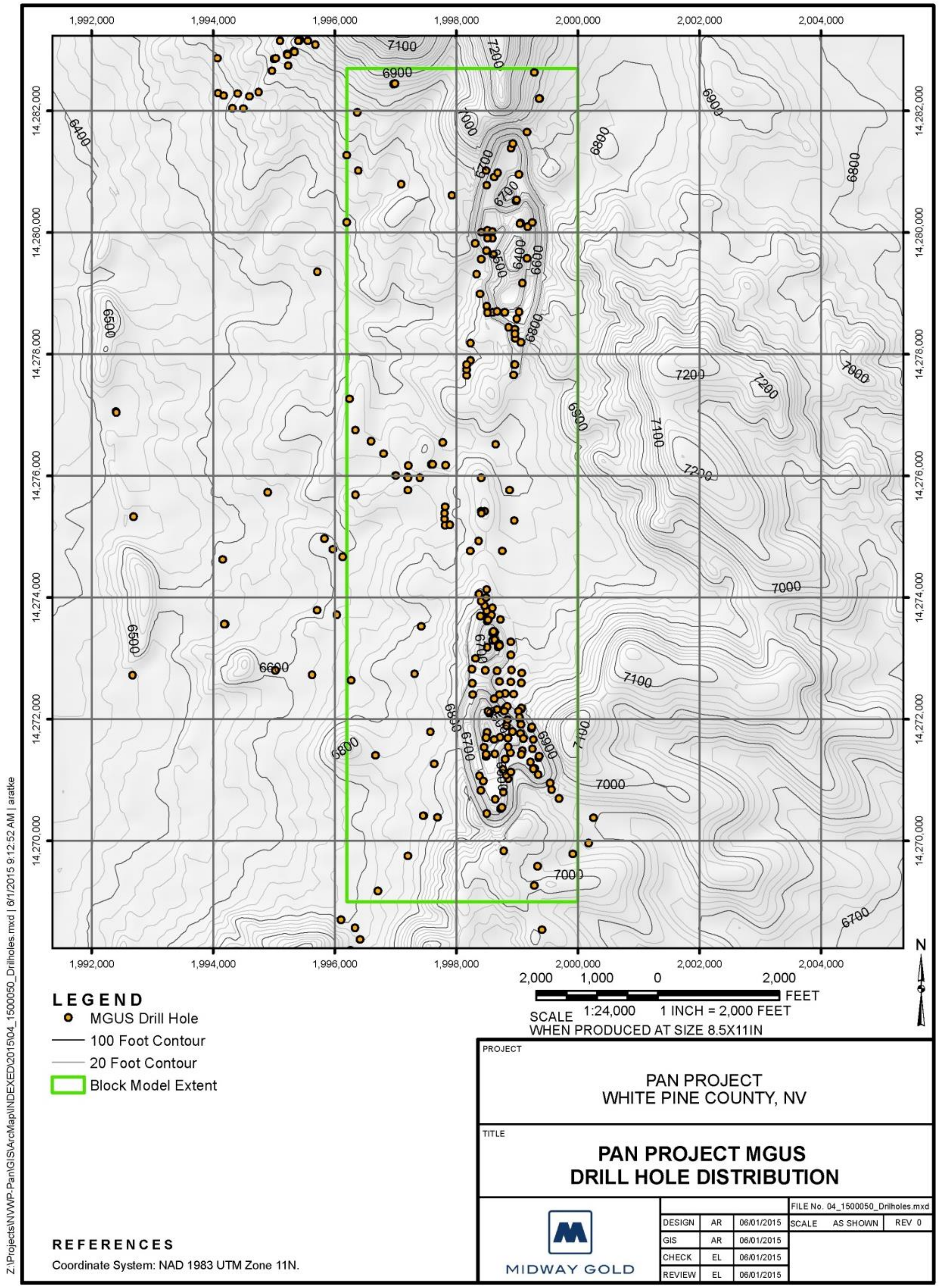


Figure 10-2 Pan Project Midway Drill Hole Distribution

10.3.1 Drilling Procedures and Conditions

Drilling conditions at Pan are favorable given the moderate terrain and existing road network. Drill sites are prepared by digging a sump and leveling a pad for the drill rig, if necessary. Holes are generally collared in bedrock and completed above the water table.

Midway has employed a mix of RC and diamond core drilling for its programs at Pan. RC drilling was generally carried out using a down hole hammer with hammer bits ranging in diameter from 5 ½ to 5 ¾ inches. The use of Tricone bits was limited to a small number of holes where drilling conditions prevented penetration and sample recovery using the down hole hammer. RC holes were cased to depths of 10 to 20 feet where necessary. RC drilling was performed with minor water injection to ensure proper transport of drill cuttings through the drill stem, cyclone and sampling equipment, and for dust control. RC drilling in early 2011 was completed by O'Keefe Drilling of Butte, Montana; later 2011, 2012, and 2013 RC drilling was completed by National Exploration, Wells and Pumps of Elko, Nevada employing a Schramm T450GT rig. In 2015, RC drilling was also completed using a SchramT450GT rig, but operated by Boart Longyear of Elko, Nevada.

Midway core holes were completed using HQ (2½ inches) size core from ground surface and with no precollars. Core recovery was generally good, but core loss increased in highly fractured and brecciated rock commonly associated with mineralization. Core recovery averaged 92.3% for the 2011 and 2012 programs. Diamond drilling was completed by KB Drilling of Moundhouse, Nevada using a Hitachi CG70 rig.

10.3.2 Drill Hole Collar Surveys

A licensed surveyor surveyed collar locations of all Midway holes completed between 2007 and 2013. In 2015, Pan surveyors were utilized. The UTM Zone 11N NAD 83 coordinate locations of Midway holes were compared to associated proposed locations, topography, and GPS coordinates to evaluate accuracy and identify errors. There were no errors documented. Geologic logs were completed for each drill hole and are compiled in the Pan Project database. Since 2007, Midway geologists have logged RC cuttings and core data directly into Microsoft Excel® spreadsheets using an on-site laptop station during drilling. The logging terminology for formation, lithology, alteration, oxidation, and waste type were preapproved, and any changes to the form required the approval of the project manager. Midway collected skeleton core samples from the 2010, 2011 and 2012 core drilling programs. All project drill logs are printed and catalogued by hole name, together with related drill information, in binders maintained by Midway. All collar and drill log information was imported into a secure Microsoft Access® database, stored on the main project computer, and backed up to the corporate server.

10.3.3 Down Hole Surveys

Down hole surveys were completed at Pan for all Midway drilling since 2007, with the exception of several vertical holes drilled in 2015 and drill hole PN12-09C, by International Directional Services of Elko, Nevada, using a Surface Recording Gyroscope, model DG-69.

10.3.4 Midway Data Compilation and Grid Conversion

For the 2005 resource estimate, MDA (2005) converted the Pan database from a local coordinate system to NAD83, Zone 11 UTM coordinates, expressed in Imperial units - feet.

10.4 Sampling Method and Approach

The Pan drill hole database includes sample data from reverse circulation, core, and rotary drilling. Drilling was performed by a variety of operators during a total of nine drilling campaigns over a 20-year period. Drill spacing is on nominal 100 feet centers at North Pan and Central Pan, and nominal 165 feet centers at South Pan. Drill spacing tighter than 100 feet centers occurs in some areas of mineralization at North Pan and Central Pan. Most RC and rotary samples (99%) were collected on 5 feet intervals, and all core samples were collected on intervals of 5 feet or less.

10.4.1 Historic Sampling Method and Approach

Very little documentation is available on drilling and sampling procedures employed prior to 2004. However, the drilling was conducted by companies experienced in exploration and production and is considered reliable.

MDA (2005) described the Latitude sampling of RC drilling as “standard dry RC sampling”, whereby dry cuttings were collected in a cyclone, with the sample then passed through a riffle splitter to derive the sample for each 5-foot interval. This was standard practice at the time, and was likely the procedure used throughout the early programs at Pan.

MDA (2005) also documented the procedures employed by Castleworth during its 2003 and 2004 programs.

10.4.2 Midway Sampling Method and Approach

Midway performed RC drilling at Pan in 2007, 2008, 2011, 2012, 2013, and 2015. The drilling was performed wet, with water injection between 1 and 2 gallons per minute. Groundwater was encountered in the deeper holes, the deepest of which was drilled to a depth of 1,500 feet.

RC samples were collected on 5-foot intervals by a designated and trained sampler provided by the drilling contractor. Sampling was monitored by an onsite geologist. Cuttings from each interval were passed through a cyclone and into a rotary vane splitter with 16 openings. The number of splitter openings was adjusted to maintain a roughly constant sample size of 7 kg. A representative split from the discharge material was placed into a plastic RC chip tray for geological logging. The chip tray was marked with the drill hole name and down-hole interval.

RC samples were collected in large micro-pore bags marked with the sample number and suspended from the discharge tube of the splitter. Overflow was minimal because of low water injection rates and lack of groundwater. Nominal sample weight was 5 to 10 kg.

RC samples were allowed to drain at the drill site and were taken to a Eureka (2007-2008) or Ely (2010-2012) office facility at the end of each day by Midway personnel. Beginning in 2012, samples were stored in secure bins until custody was transferred to certified assay laboratory personnel who loaded samples into a truck for transport to the lab facilities in Reno, Elko or Winnemucca, Nevada (ALS Chemex/ALS in 2010-2014, and American Assay in 2015). During the 2010 core drilling campaign carried out by Midway, Geotechnical measurements including RQD and rock strength data were collected by geotechnical consultants, and then placed in the core box. Core boxes were picked up from the rig daily and transported to the Midway logging facility. Then the core was washed and photographed. A geologist selected appropriate intervals for sampling, and logged and photographed the core prior to splitting or sampling. The preferred sample interval and maximum sample length was 5 feet. Smaller intervals were used where significant geological breaks occurred, but not less than 1 foot in length. During the 2011 and 2012 programs, geotechnical measurements were made on-site at the drill rig by a Midway geologist prior to boxing core and transporting to the Ely office facility by Midway personnel.

In the Midway Ely facility, core was split using a diamond saw in competent rock intervals; otherwise, a manual splitter was used for core not suitable for sawing. In soft clay zones, a putty knife was used to split the core. A half split was used for assay purposes. In 2010, core was sampled for metallurgical and waste rock characterization testing. Skeleton core, a small piece every 2 to 3 feet, was saved for the core archive. The remainder of the core was consumed for metallurgical lab test work. For core drilled in 2011 and 2012, the half split that was not sampled remains in storage in Ely, Nevada.

11 SAMPLE PREPARATION, ANALYSES, AND SECURIITY

Based on available assay certificate information, samples collected during the ten drilling campaigns at Pan were analyzed for gold by fire assay (AuFA) and/or gold cyanide extraction assay (AuCN). Table 11-1 summarizes the type of assay data currently in the database.

Table 11-1 Drill Data by Analytical Method

Company	Number AuFA Determinations	Number AuCN Determinations	AuCN/AuFA Pairs	AuCN Only	% of Data Represented Only by AuCN Data
Amselco	610	3,641	303	3,338	84.6
Hecla	121	0	0	0	0
Echo Bay	3,980	0	0	0	0
Alta Bay	6,288	13,318	6,284	7,034	52.8
Latitude	2,874	0	0	0	0
Castleworth/ Pan Nevada	13,738	254	254	0	0
Southwest	282	0	0	0	0
Midway	54,849	5,181	5,168	0	0
TOTAL	**82,742**	**22,394**	**12,009**	**10,372**	**11.1**

11.1 Sample Handling – Historic Programs

As reported by MDA (2005) and confirmed by Gustavson, there is no documentation indicating sample handling protocols at drill sites, and only limited documentation of sample handling between the drill site and assay laboratory for programs conducted prior to 2004. Latitude reported (MDA, 2005) that it stored drill samples in one of two staging areas on the Pan property on a daily basis until they were periodically transported to the assay lab. There were no particular security protocols in effect at the storage site.

MDA (2005) reports similar handling during the RC drilling campaign of Castleworth, with temporary on-site storage of drill samples prior to pick up of samples by ALS Chemex personnel, who thereafter transported the samples to the ALS Chemex facility in Elko, Nevada. Full core boxes were transported to Castleworth's secure storage in Eureka, Nevada at the end of each day, with partial core boxes locked in a drill truck overnight, on-site. Kappes, Cassiday & Associates ("KCA") of Reno, Nevada, picked up and transported the RC duplicate and core samples from the Eureka facility at the end of the drilling program. Similar sample handling is assumed by Gustavson for the Castleworth 2005 and 2006 time periods.

11.2 Sample Handling – Midway

RC samples and whole core were transported to secure Midway facilities in Eureka, Nevada (2007-2008) and Ely, Nevada (2010-2012) at the end of each day by Midway personnel. RC samples from the 2013, and 2015 programs were secured in lockable storage bins at the site, and core was secured inside the Midway Ely facility until custody were transferred to ALS lab personnel for transport to the lab.

11.3 Sample Preparation and Analysis Procedures

Samples from the nine drilling campaigns were analyzed for gold by fire assay (AuFA) and/or gold cyanide extraction assay (AuCN). There is no documentation of sample preparation and assay techniques used by the various laboratories prior to 2004. Assay certificates are available for most drill samples, but neither MDA (2005) nor Midway nor Gustavson have found records of sample preparation or internal quality control protocols used. The information on each drill campaign completed prior to 2005 has been excerpted from the MDA technical report issued in 2005. Approximately 17.1% of the gold assay data is represented by an AuCN assay only. This could potentially under-report the total gold content for that drill interval, because the AuCN value only represents the cyanide soluble gold, and not the total gold in the sample.

11.3.1 Historic Sample Preparation and Analysis Procedures

11.3.1.1 *Amselco*

Amselco used Monitor Geochemical Laboratory (Elko, Nevada), Hunter Mining Laboratory (Sparks, Nevada) and Amselco's own laboratory (Sparks, Nevada) to process samples. There are 3,948 sample intervals from Amselco drilling in the Pan database. A process of fire assay with atomic absorption finish was used for 609 samples. For 3,641 samples, results from a process of digestion / AA results were posted, but are of unknown origin. However, it appears that these are most likely cyanide digestion analysis, when compared to the Au-FA results. There are 302 pairs, with both sets of overlapping data. No other information on sample prep, procedures, or QA/QC is available.

11.3.1.2 *Hecla*

Hecla used Rocky Mountain Geochemical of Sparks, Nevada to analyze RC samples. The analytical method reported on the assay certificates is an acid digestion, followed by an AA determination. No further information is available on these samples, which amounts to 124 sample intervals.

11.3.1.3 *Echo Bay*

Echo Bay utilized Rocky Mountain Geochemical Corporation, West Jordan, Utah for their Pan samples. A 30 gram fire assay with an atomic absorption finish was used to analyze the 3,980 samples. No further information is available on these samples.

11.3.1.4 *Alta Bay and Alta Gold*

Drill samples collected by the Alta Bay joint venture were prepared and analyzed at the Alta Gold controlled mine laboratories at Robinson, Illipah, and Easy Junior mining operations. The records and assay certificates from the Illipah and Robinson assay laboratories state that the analyses were done by cold cyanide digestion, followed by AA determination of gold content in the pregnant cyanide solution. If the initial result returned values above 0.012 opt Au, then the sample pulp was fire assayed and gold content determined by AA. However, there are 41 samples (out of 7,034) that are above this cutoff, without AuFA data. There is no information on the procedure at the Easy Junior laboratory.

For the Alta Bay drilling, there are 13,322 sample intervals with assay data. This includes 6,288 AuFA analyses and 13,318 AuCN analyses. Of the 6,288 AuFA results, 6,284 have corresponding AuCN data. This corresponds to a 0.012 opt Au cutoff, as noted in the lab protocol.

After dissolution of the Alta Bay Joint venture, Alta Gold contracted Analytical Services, Elko, Nevada to process and analyze samples from the 1991 program. These were analyzed by cyanide digestion followed by AA, as well as a fire assay by AA finish. However, this drill data is currently not stored in the Pan database due to substandard drill hole location information.

11.3.1.5 *Latitude and Degerstrom*

All of the drill samples collected by Latitude and Degerstrom were processed and analyzed at the Degerstrom Laboratory in Spokane, Washington. Degerstrom passed the RC cuttings through a riffle splitter and collected a split of between 500 and 1,000 gram, which was crushed to a nominal -150 mesh. A total of 2,892 sample intervals were analyzed by a 30 gram fire assay with AA finish.

11.3.1.6 *Castleworth and Pan-Nevada*

The RC samples collected by Castleworth and Pan-Nevada were processed by Chemex, Elko, Nevada. Each sample was crushed to 70% passing 2 mm and passed through a riffle splitter to obtain a 250 gram split, which was pulverized to 85% passing 75 microns. The pulps were shipped to the ALS Chemex laboratory in Vancouver, British Columbia and analyzed by a one-assay ton fire assay, with an AA finish. Higher grade samples (>0.291 opt Au) received a gravimetric finish. There are 13,528 RC sample intervals with AuFA determinations. Castleworth did not perform any AuCN determinations on the RC material.

The core drilled in 2004 was sampled, prepared, and analyzed by KCA (Albert, 2004). The core was sampled on five foot intervals. The core was then crushed to -2 inch, and a 1,000 gram subsample collected. Each subsample was pulverized to -10 mesh and split to a 200 gram sample. This was pulverized to 80% passing 150 mesh. A 30 gram sample was then fire assayed with an AA finish for gold and silver. Each pulp was also analyzed for cyanide soluble gold. A 10 gram split was added to 25 ml of 5g/l NaCN solution and agitated for 24 hours. The pregnant solution was evaluated using an AA determination of gold content.

11.3.2 Midway Sample Preparation and Analysis Procedures

During Midway's program history on the Pan Project, RC samples have been processed by American Assay labs of Reno, Nevada, ALS Chemex/ALS, Elko and Winnemucca, Nevada and SGS Laboratories, Elko, Nevada. For the 2015 35-hole RC program, American Assay Lab was utilized for the assay lab. All samples collected during the period from August, 2011 through the end of 2013 were processed through ALS Chemex, primarily at its Winnemucca, Nevada facility. All RC samples generated in 2007 and 2008 were picked up in the field at the end of each day shift and stored in a secure facility in Eureka, Nevada. Samples from programs in 2010 through 2012 were similarly retrieved at the end of each day shift and transported to the secure Midway facility in Ely, Nevada. For the 2013 and 2015 programs, samples were stored in secure lockable bins until they could be picked up from the site by lab personnel and trucked to the assay lab. Standards, blanks and duplicate samples (generated by a separate split of RC cuttings at the drill site) were inserted into the sample set prior to dispatch to the laboratory. Standards, blanks and duplicates are included in each sample batch at the rate of one in twenty (5%), but a minimum of four per drill hole.

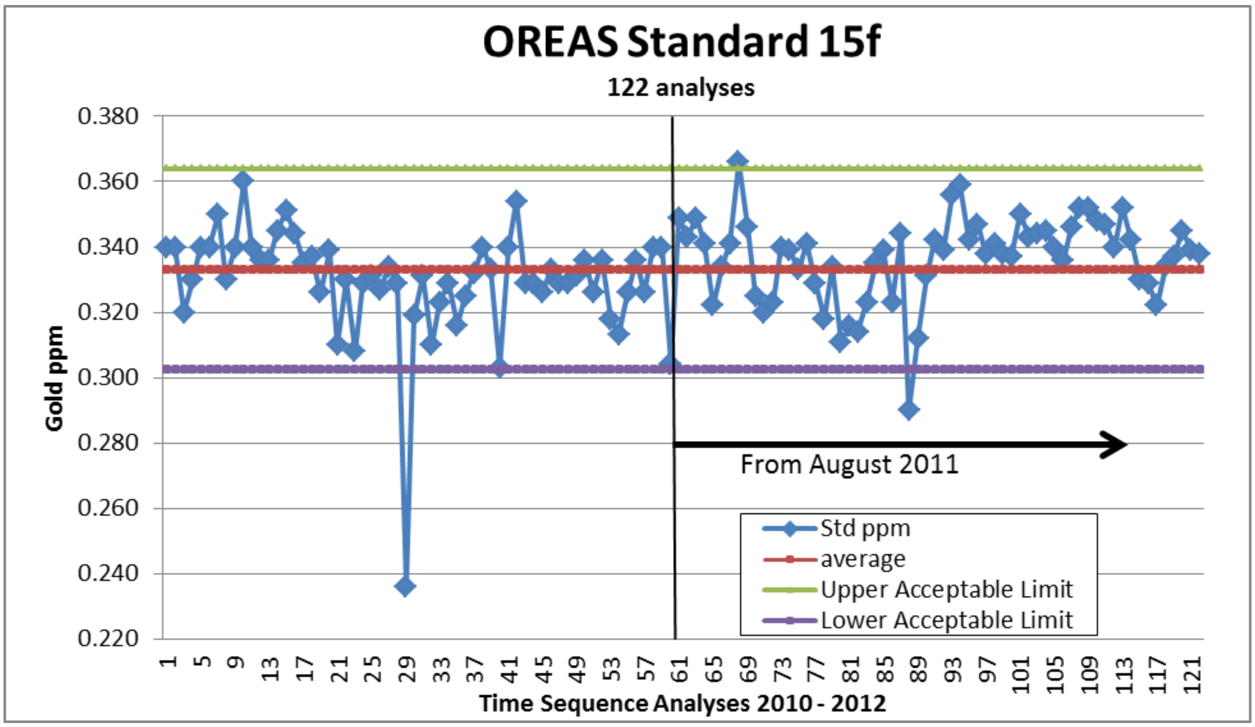
Midway core, having been logged for geotechnical character at the drill site, was transported daily to the secure facility in Ely, Nevada (2011-2012), where it was washed, logged for geology, alteration and mineralization, and marked for sample intervals. Sample intervals were a maximum 5 feet, with more frequent sampling where geologic breaks dictated (but no samples were less than 1 foot in length). The core was photographed before being split, with one-half the core being incorporated into the assay sample, the other retained for record keeping or additional assay/metallurgical work. Splitting techniques employed varied with the character of the core: hard, competent core was cut with a rock saw, less competent or softer rocks were split with a manual/hydraulic splitter, and very soft intervals were cut with a trowel or putty knife. Bagged sample intervals were submitted to the assay lab in batches, including standards and blanks. Duplicate samples were generated by the lab at intervals requested by Midway, by collecting a second split of pulverized material from the original sample. Collectively, standard, duplicate and blank samples constitute 10% of the sample batch, with no less than 4 included with small sample batches.

Each sample was processed according to the following protocol: each drill sample was crushed to 70% passing 6 mm and passed through a riffle splitter to obtain a 250 gram split, then the split was then pulverized to 85% passing 75 microns. These "pulps" were analyzed by a one-assay ton fire assay, with an AA finish. Higher grade samples (>0.291 opt Au) received a gravimetric finish.

11.3.2.1 *Standard Sample Analysis*

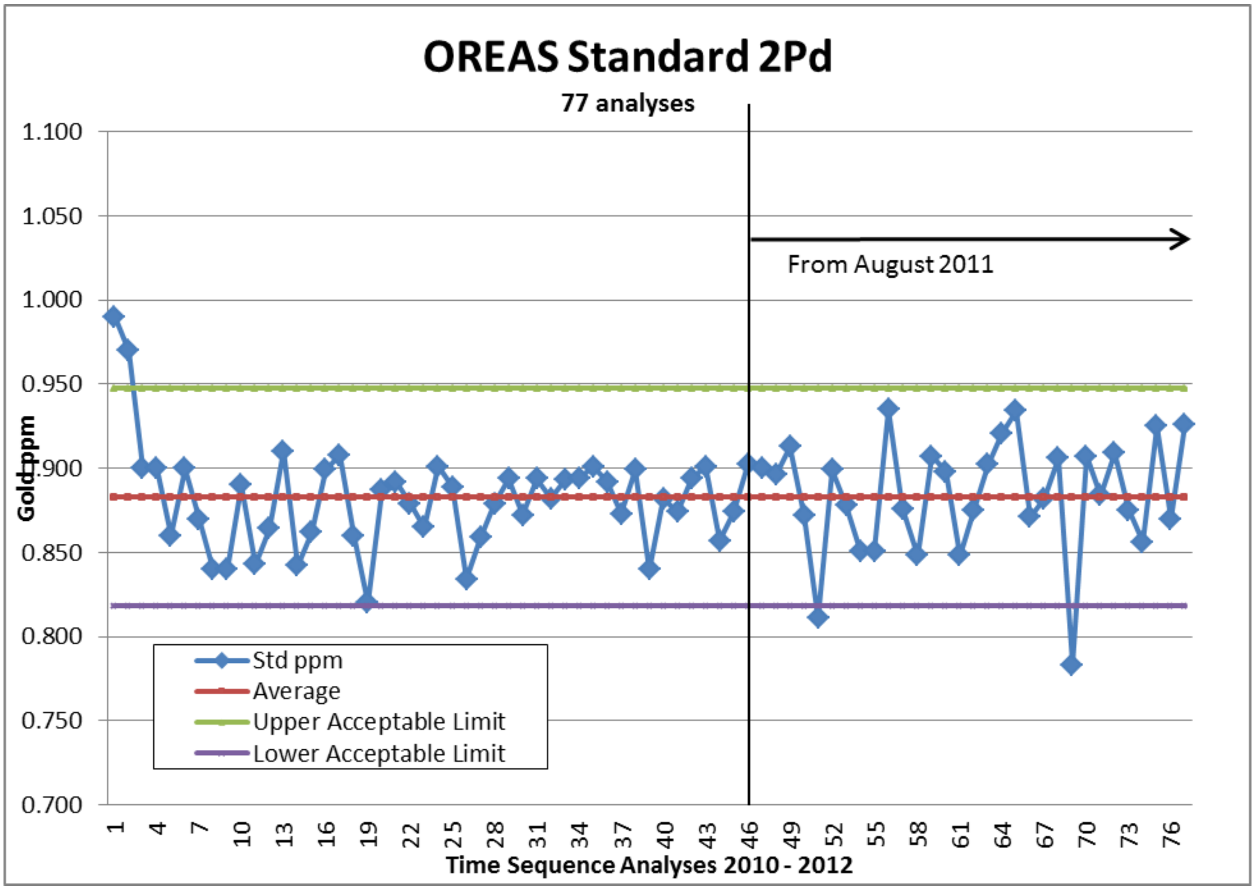
For all samples from the beginning of drilling in 2011, Midway continued with its QA/QC program whereby it inserted standard samples into sample batches to monitor analytical accuracy and precision. Commercial Standard Reference Materials (SRM's) and blanks were acquired from Shea Clark Smith in 2007 and 2008 and from Ore Research & Exploration (Ore Research) of Bayswater North, Australia in 2010 through 2015. SRM's grading 0.010 opt Au, 0.026 opt Au, and 0.044 opt Au were alternated with blanks in the sample stream.

The time sequenced analytical results from the two standards are shown in Figure 11-1 and Figure 11-2, over the full history of their use.



*OREAS standard statistics: Recommended value – 0.334 ppm; 1 std dev – 0.016 ppm; "From August 2011" is new data included in this report

Figure 11-1 OREAS Standard 15f



*OREAS standard statistics: Recommended value – 0.885 ppm; tolerance limits – 0.869 to 0.900 ppm; "From August 2011" is new data included in this report

Figure 11-2 OREAS Sandard 2Pd

The average and upper and lower acceptable limits shown on Figure 11-1 and are derived from the Midway analytical results over time, and outline boundaries of +/- 2 relative standard deviations. Midway has protocols in place for handling analytical results on standards that exceed outside acceptable limits, which ultimately can trigger a re-assay of portions or of an entire sample batch. Analytical results on standards, including the protocols for handling outliers, indicate the ALS Chemex/ALS results are of reasonable accuracy and precision, in the opinion of Gustavson.

11.3.2.2 *Blank Sample Analysis*

Midway utilizes a commercial decorative stone, branded as Vigoro Decorative Stone, in White Marble Chips, as a blank sample material. A 3X detection limit (0.015 ppm) is used as an upper acceptable limit for blank assays. If a blank assay fails/exceeds the limit and occurs within a significant gold intercept interval, 5 samples above and below the blank are re-assayed. If the failure occurs within a zone with insignificant gold values, the failure is analyzed in context with other standards, duplicates and blanks in the sample batch. If only the single blank fails, the failure is ignored.

The time sequence analyses of the blank data are shown in Figure 11-3. From 2011, when the standard was implemented, to the end of 2012 the data show good blank analytical results with only a few above detection limit samples. Beginning in 2015, with the change of labs from ALS to American Assay, there is a substantially greater number of above detection limit samples. American Assay Lab uses a process (FA-PB30-ICP) with a lower detection limit than ALS's process (Au-AA23) (0.003 ppm vs. 0.005 ppm) and it could be argued that the lower detection limit has allowed more precision at the low range values. However, it is equally reasonable to believe the values are less precise and may be the result of some contamination or other error.

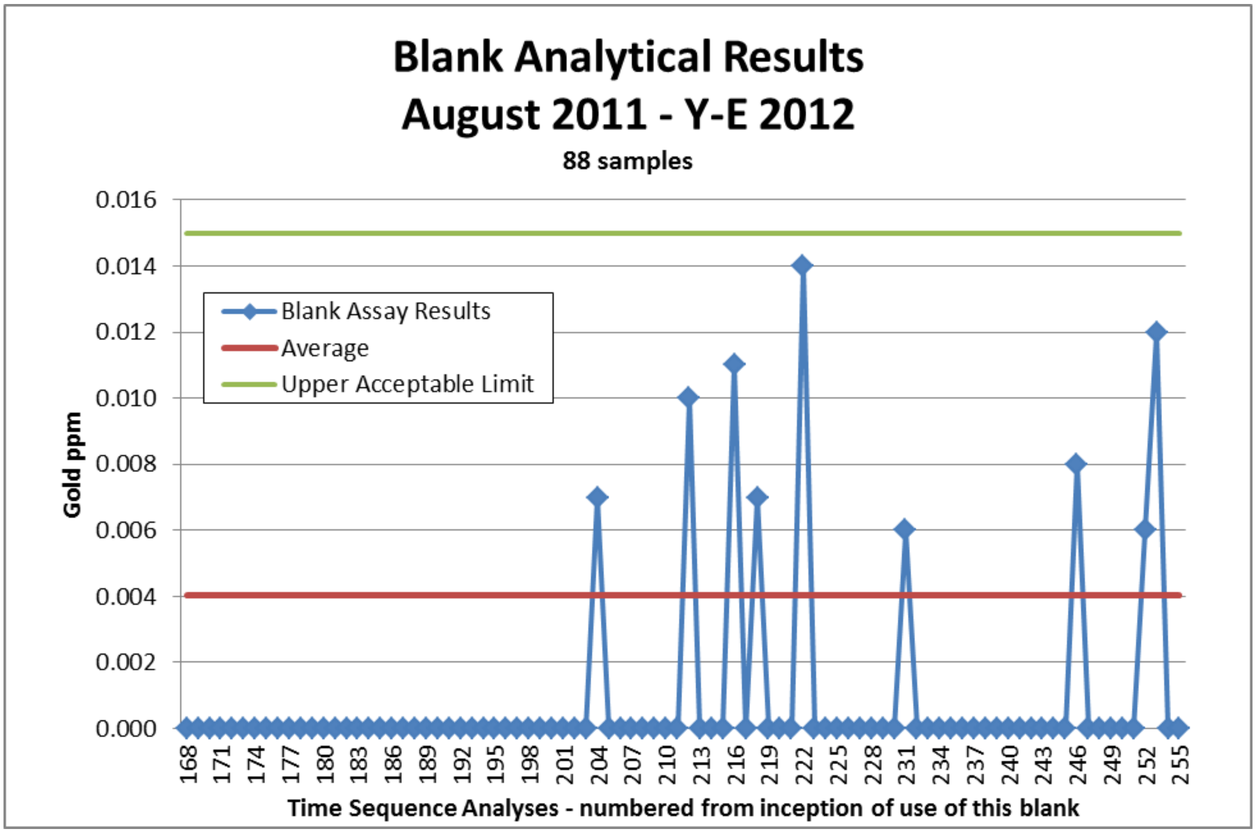


Figure 11-3 Blank Analytical Results

11.3.2.3 *Duplicate Sample Analysis*

Analytical results on duplicate samples processed and analyzed in the same sample batches indicate excellent reproducibility (Figure 11-4). For RC samples, these results indicate the sampling process is not introducing bias, samples are representative, and that the mineralization contained in the Pan system lacks significant nugget effect (a common characteristic of Carlin-style gold deposits). Duplicate core samples are generated by ALS Chemex/ALS by taking a second split of the pulp developed for the sample, and therefore do not document whether the core splitting process generates a representative sample.

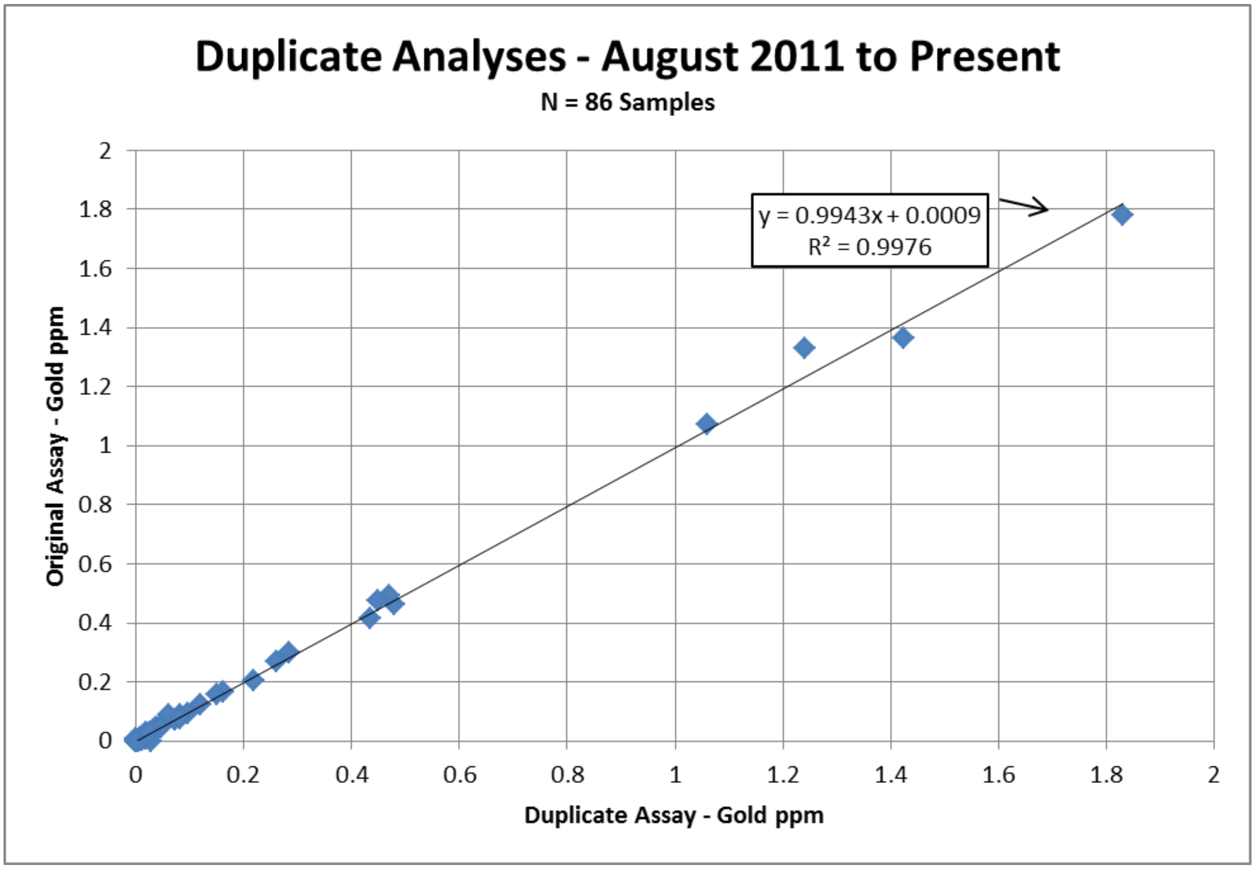


Figure 11-4 Duplicate Analyses - August 2011 to Present

11.3.2.4 *Laboratory QA/QC*

Midway requested and received internal lab QA/QC reports from both ALS and American Assay Labs, and analyzes these results in concert with its own QA/QC program. Typically, the lab results do not include failures, since this would trigger re-analysis within lab protocols. However, in situations where Midway standards, duplicates and/or blanks fail, Midway will more critically review the lab internal data to determine whether results for the entire sample batch may be suspect. If such a case were to be identified, Midway would request re-analysis of the entire sample batch.

11.3.2.5 *Conclusions – Midway Sample Preparation and Analysis Procedures*

Gustavson concludes that the QA/QC protocols in effect for the drilling, logging, sample generation, sample preparation, and analytical procedures at the Pan Project are of high quality, and meet or exceed what Gustavson considers industry standard.

12 DATA VERIFICATION

MDA (2005) and AMEC (2008) verified exploration and drilling data through 2007, and Gustavson continued with verification efforts on historic drilling and exploration data, and current Midway data (Gustavson, 2010, 2011, 2012). Midway personnel (Midway, 2009) verified exploration data collected after January 1, 2008, including checking logs, surveys, and assays. Nearly all of the 2008 data matches the original information, constituting an error of less than 0.01%. Gustavson (2012) independently verified exploration data collected from 2009 through the effective date of the last NI 43-101 report (November 15, 2011), by checking logs and assay data against core samples, field checking survey data, and comparing assay data reported by Midway to laboratory assay certificates. Gustavson found the quality of data collected to September 1, 2011 adequate for use in estimating the mineral resources of the Pan Project for the Feasibility Study. These collective, multi-company verification efforts found the geologic and geotechnical logs, surveys, and assays in the Pan database accurately represent or represented the source documentation at the time of their reviews. Midway did a complete check of the Pan database in 2007; Midway reinterpreted drill logs and created new interpretations of geology on cross sections in 2015. Gustavson generated a new model based on the updated geologic sections including lithology and alteration.

Gustavson has continued data verification with the efforts leading to this report, including:

- A review of approximately 10% of the assay records, randomly selected, of pre-Midway drilling programs, verifying that the Midway database has properly and accurately recorded the results documented on historic assay certificates, assay logs and geologic logs. Gustavson found no errors in this review.
- A review of Midway assay certificates from ALS for drill samples submitted in the second half of 2011 and 2012 to document the extent of drilling and sampling, and to verify that assay results were accurately transferred to the Midway database. In this review, all assay records for the period of interest were reviewed by Gustavson, and no entry errors were found in the Midway database. The ALS assay results are reported to Midway as both electronic files and hard copy reports. Midway enters the assay data into its database by “cutting and pasting” the electronic ALS data. Midway has recognized the potential for errors in this process, and has implemented appropriate protocols to ensure accurate transfer of data.
- A site visit on February 12, 2012, attempted to reach 2012/late 2011 drill sites. The drill site visits proved impossible because of snow conditions, except for a stop at PW-1, a water well drilled in 2012 for a source of production water. Gustavson reviewed original invoices submitted by the two drilling contractors for the more recent drilling, KB Drilling and National Drilling. This review confirmed the drill hole numbers, footage and dates of drilling documented in the Midway database. During the February 11-13, 2013 Ely office visit, Midway reviewed the 2011-2012 drilling, discussing the purpose of each hole, with maps for location reference. These

discussions confirmed locations, purposes and general magnitude of the drilling programs reported during this period.

- Gustavson reviewed, analyzed and verified the QA/QC program employed by Midway in the conduct of its drilling, logging, sampling, and data compilation activities. The compiled QA/QC information involving standards, blank and duplicate samples within the drilling/logging/sampling program is provided in Section 11-3, above.
- Compilation of twin drill holes, core twinning RC holes, completed in later 2011 and 2012 (see Section 12-1 below)
- Collection of 6 gold assay verification samples from drill holes completed in 2012. Samples were collected from mineralized intervals in core holes drilled as twins to previous Midway RC holes (see Section 12-1 below).

12.1 RC-Core Twin Hole Comparisons

In its NI 43-101 Preliminary Economic Assessment report on the Pan Project, Gustavson (2010) completed a search of the historic and recent drill hole database to identify twin drill holes completed at less than 25 foot spacing on the Pan Project, and along the same drill azimuth and angle. These holes were not specifically drilled to generate twin data, but were visually and statistically inspected to ensure good geologic, mineralization, assay, and location comparisons. A total of 30 twinned holes were identified with separation ranging from 0 to 25 feet, and averaging approximately 15 feet. Sample comparison ranges from a low of 8 samples representing 40 feet, to a high of 105 samples representing 525 feet, with an average of 195 feet for sample comparison. A hole by hole comparison is included in Table 12-1.

Table 12-1 RC-RC Twin Comparison for Pan Project

Twin No.	Drill Hole ID	Company	Distance Sep (feet)	No. Samples	AuFA (opt)
1	PR-10	Amselco	14.9	8	0.0205
	PR-10A	Amselco			0.0210
2	AP-113	Alta Bay	6.7	10	0.0314
	AP-113B	Alta Bay			0.0368
3	AP-122	Alta Bay	25.0	28	0.0414
	SP-253	Alta Bay			0.0271
4	NP-138	Alta Bay	8.1	13	0.0092
	NP-225	Alta Bay			0.0140
5	004-23	Castleworth	5.0	40	0.0225
	004-26	Castleworth			0.0345
6	PN08-4	Midway	14.0	68	0.0104
	PN08-4A	Midway			0.0120
7	EP-16	Echo Bay	14.3	23	0.0139
	NP-131	Alta Bay			0.0181
8	EP-07	Echo Bay	22.0	28	0.0351
	NP-127	Alta Bay			0.0295
9	EP-23	Echo Bay	1.0	30	0.0156
	NP-147	Alta Bay			0.0205
10	EP-03	Echo Bay	18.0	40	0.0039
	NP-130	Alta Bay			0.0034
11	EP-19	Echo Bay	10.6	29	0.0166
	NP-265	Alta Bay			0.0168
12	EP-38	Echo Bay	12.5	40	0.0149
	NP-137	Alta Bay			0.0156
13	EP-46	Echo Bay	19.0	30	0.0308
	NP-142	Alta Bay			0.0155
14	EP-49	Echo Bay	15.3	9	0.0142
	NP-184	Alta Bay			0.0148
15	EP-27	Echo Bay	10.4	37	0.0083
	NP-146	Alta Bay			0.0122
16	EP-34	Echo Bay	16.3	30	0.0251
	NP-225	Alta Bay			0.0231
17	EP-34	Echo Bay	23.0	13	0.0242
	NP-138	Alta Bay			0.0092
18	NP-264	Alta Bay	11.0	16	0.0112
	PR-75	Amselco			0.0143
19	NP-148	Alta Bay	12.2	33	0.0201
	PR-37	Amselco			0.0220
20	SP-193	Alta Bay	12.4	53	0.0328
	PN08-10	Midway			0.0271
21	NP-186	Alta Bay	20.9	30	0.0232
	PN07-65	Midway			0.0372
22	AP-124	Alta Bay	21.1	19	0.0282
	PN08-13	Midway			0.0599
23	AP-116C	Alta Bay	0.0	33	0.0233
	LPR-413	Latitude			0.0194
24	AP-124	Alta Bay	20.2	19	0.0282
	06-267	Pan Nevada			0.0266
25	NP-151	Alta Bay	10.9	49	0.0089
	04-60	Castleworth			0.0083
26	EP-087	Echo Bay	24.4	66	0.0110
	PN08-09	Midway			0.0267
27	EP-53	Echo Bay	20.8	20	0.0044
	PN08-07	Midway			0.0535

Twin No.	Drill Hole ID	Company	Distance Sep (feet)	No. Samples	AuFA (opt)
28	EP-100	Echo Bay	13.2	105	0.0131
	PN08-13	Midway			0.0156
31	LPR-510	Latitude	19.8	100	0.0149
	03-02	Castleworth			0.0342

Gustavson (2010) continued with its discussion and analysis of the RC-RC twin compilation: A review of the individual hole results on both a downhole footage basis, average grade, and QQ Plots indicate that the Alta Bay drill hole AuFA assays appear to be biased low when compared to the other operators (Echo Bay, Amselco, Midway, Latitude, and Pan-Nevada). This could be a result of Alta Bay samples being processed through noncertified mine laboratories, and possibly a mixing of AuCN with AuFA data. An effort was made to correctly identify Alta mine lab procedures, but there is a margin of error due to poor documentation. This bias, on average is approximately 14.5% low for Alta Bay AuFA results. For the purposes of this report and justification of use of the Alta Bay drill hole results, its use is considered conservative owing to the bias to the low side compared to a large volume of data from other companies and assay labs.

12.2 RC-Core Twin Hole Comparisons

Gustavson (2012) reported on two twin holes that were drilled by Midway as part of its first half 2011 QA/QC program. Two RC holes, PN11-01 and PN11-02, were drilled as twins to two diamond core holes, PN10-01C and PN10-10C, respectively. To compare the diamond core holes (assayed at varying intervals) with the RC holes (assayed at regular 5 foot intervals), the diamond core hole assay data were composited to 5 foot intervals. Initial comparisons of grade versus depth for each set of holes were dominated by variability over the 5 foot intervals; so all holes were composited sliding downhole at 25 foot intervals to smooth out these effects.

Drill holes PN10-01C and PN11-01 show favorable correlation in a grade versus depth comparison (Figure 12-1). This comparison is useful in showing that higher-grade zones occur at similar depths in both holes. Both holes are lithologically similar, being logged as mostly solution breccia of the Devil's Gate Limestone. The generally higher grades in PN11-01 in the interval from ~140 feet to ~270 feet may be due to lithologic variations or due to the natural variability of grade in the system.

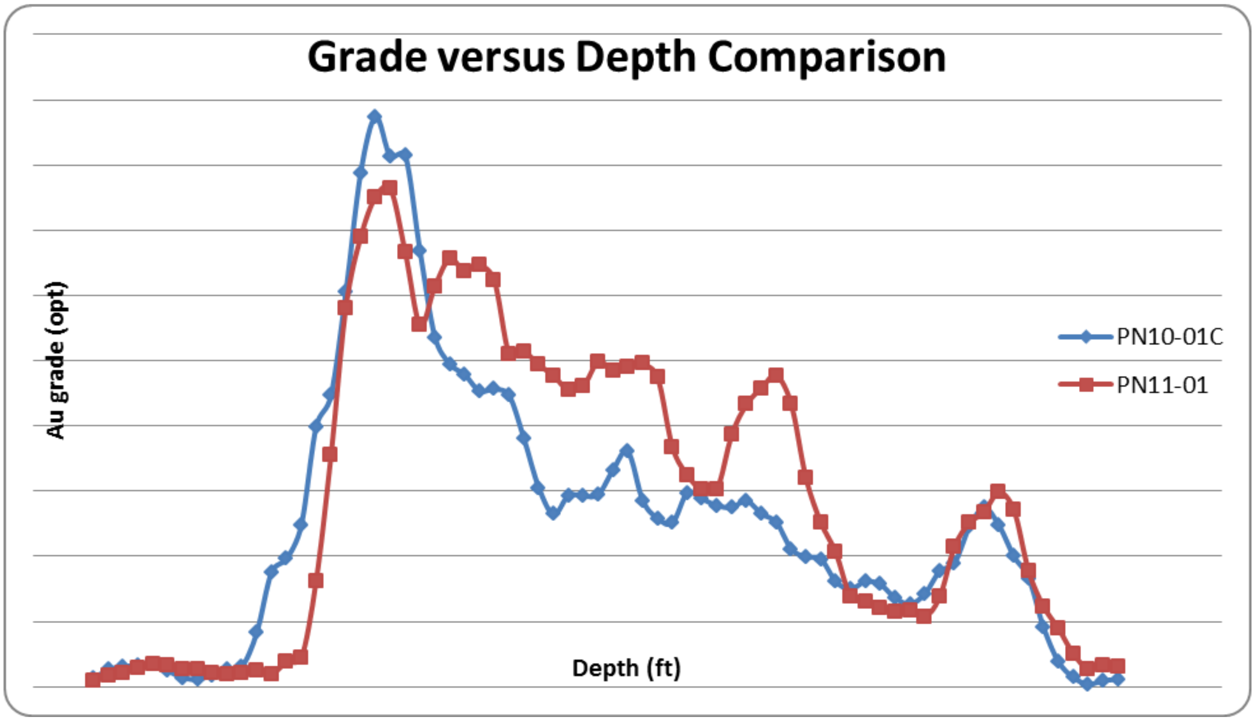


Figure 12-1 Grade vs. Depth Comparison 1

Drill holes PN10-10C and PN11-02 also show good correlation in a grade versus depth comparison (Figure 12-2). Again, both holes are logged as mostly solution breccias of the Devil's Gate Limestone. Higher grading zones occur at similar depth intervals in both holes, suggesting some lateral continuity. Correlation is particularly strong in the ~200 feet to 400 feet interval. The RC hole again shows generally higher assay values.

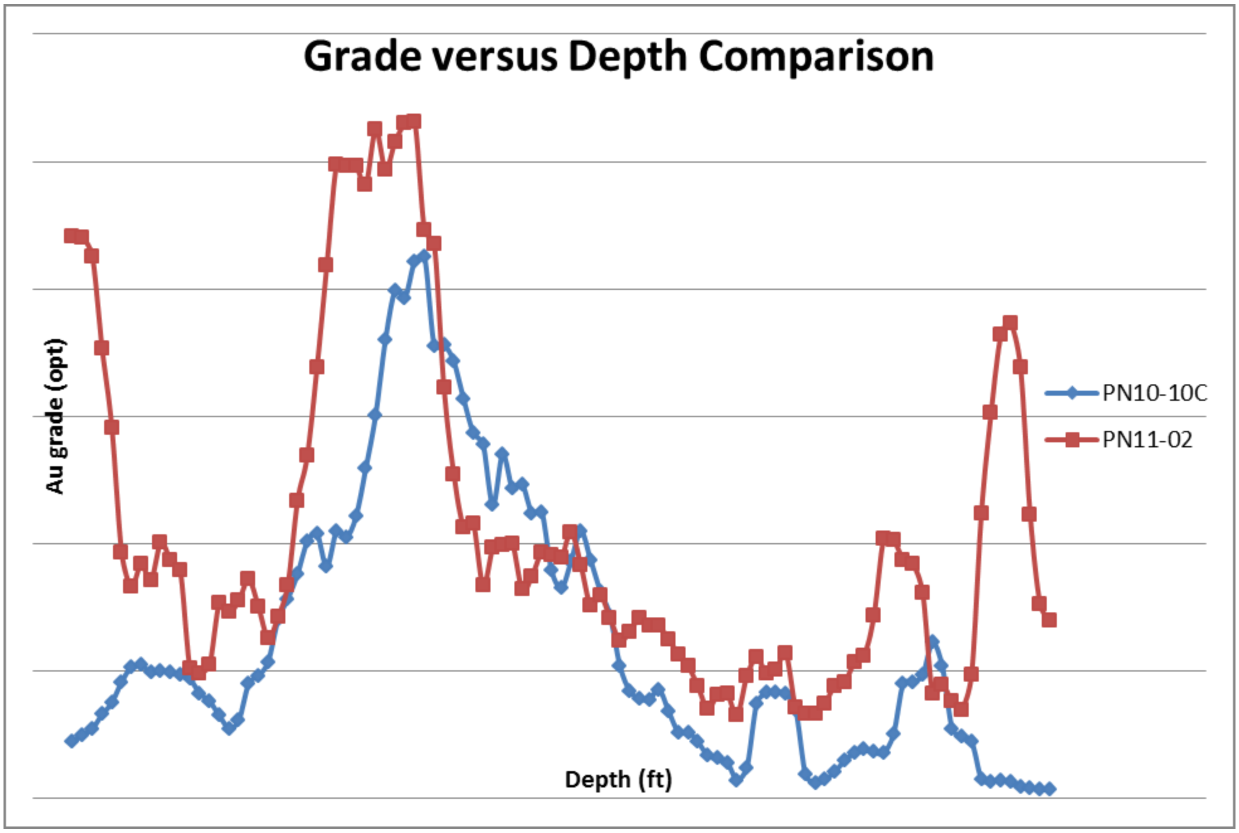


Figure 12-2 Grade vs. Depth Comparison 2

In its second half 2011 and 2012 drilling programs, Midway completed six sets of RC-core twin holes in the Black Stallion deposit, located midway between and to the west of the North and South Pan deposits. One set of twinned holes, holes PN12-21 (RC) and PN12-01C (core) did not encounter significant mineralization and are not discussed further below. Five sets of twins are plotted in Figure 12-3 through Figure 12-7. The raw assay values for the 5 foot intervals in the RC drill holes are plotted against core assay data that has been composited to 5 foot intervals identical to the RC hole.

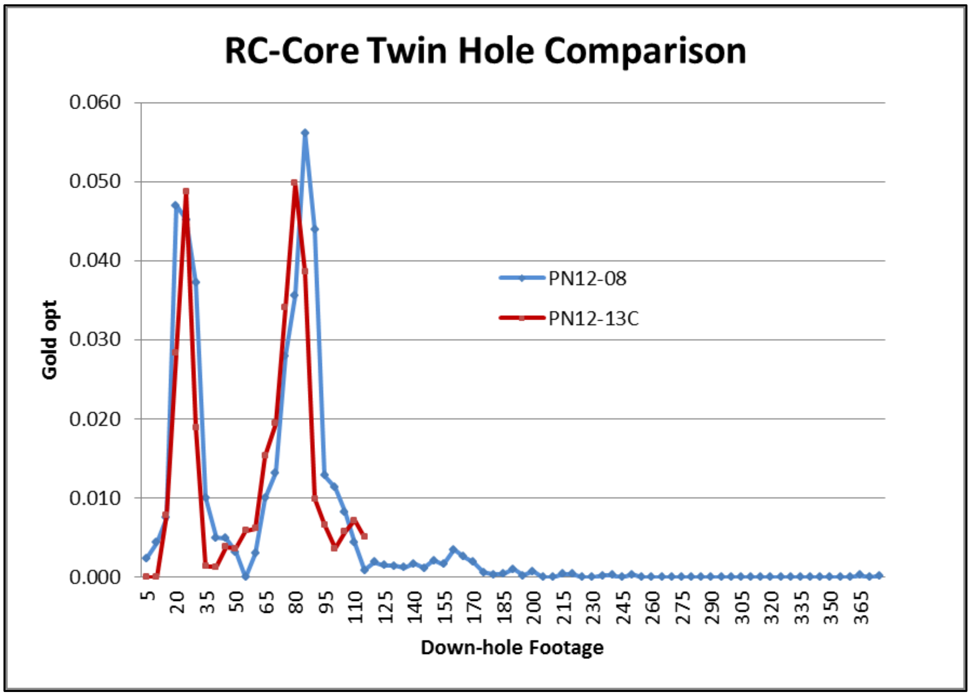


Figure 12-3 RC-Core Twin Hole Comparison

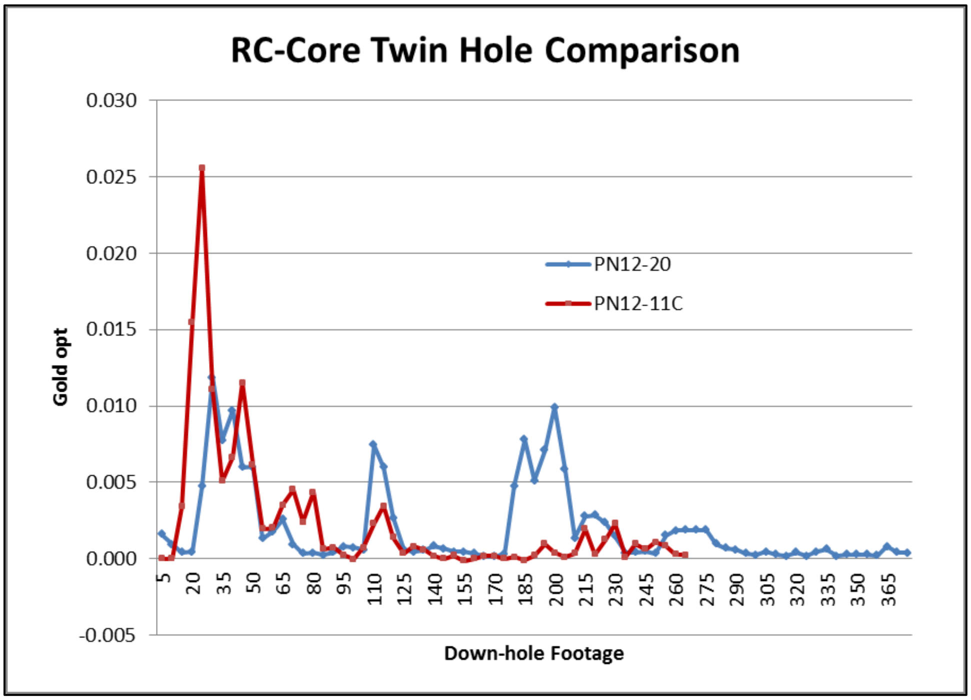


Figure 12-4 RC-Core Twin Hole Comparison

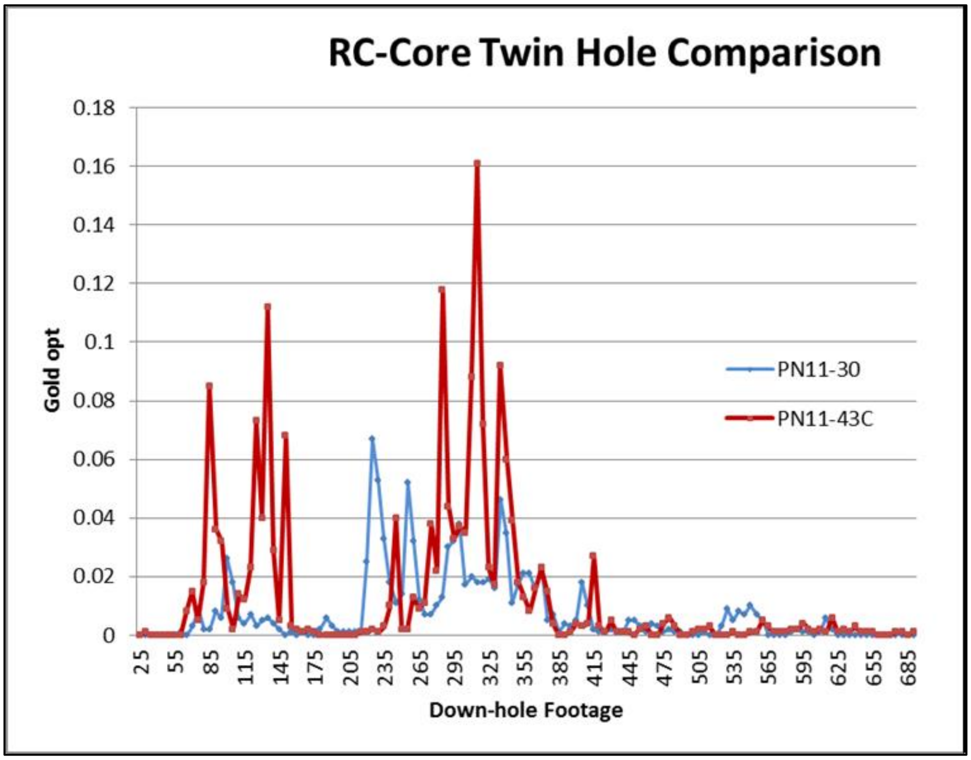


Figure 12-5 RC-Core Twin Hole Comparison

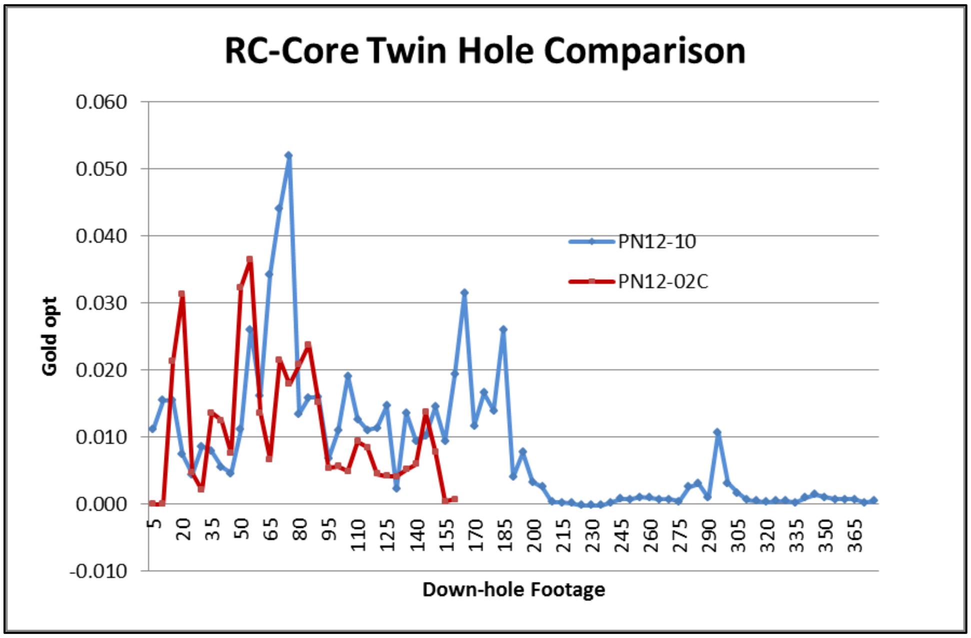


Figure 12-6 RC-Core Twin Hole Comparison

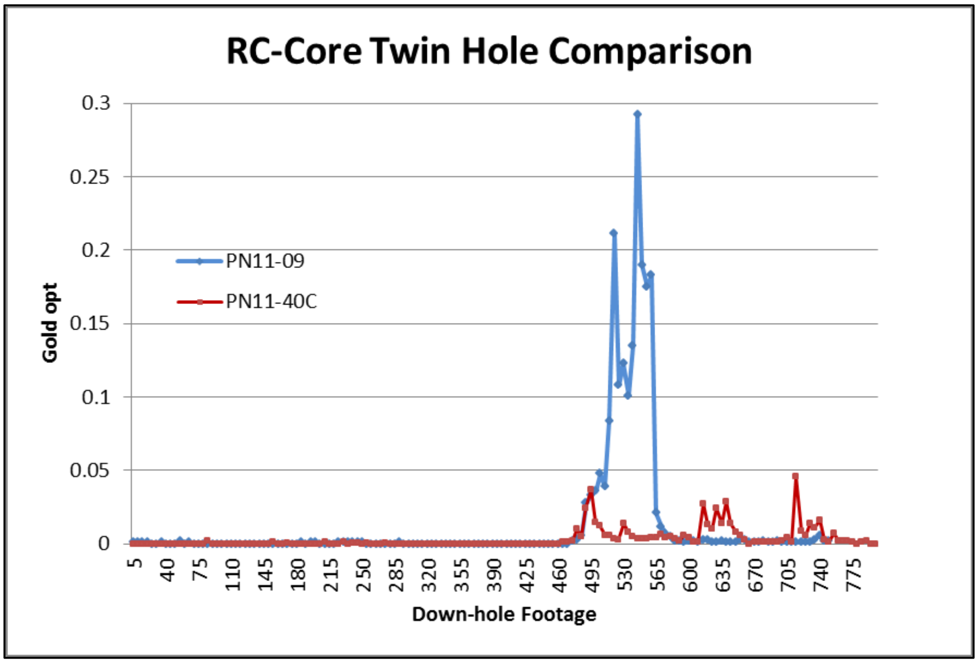


Figure 12-7 RC-Core Twin Hole Comparison

The down-hole comparisons between the RC and core results vary considerably. Figure 12-3 documents a comparison that is excellent between the two drilling methods, with down-hole location and tenor of mineralization in good agreement. Figure 12-4, Figure 12-5 and Figure 12-6 display comparative results that are somewhat more erratic, with gross confirmation of the location of mineralized intervals, but with local contrasts in the grade of gold mineralization. Figure 12-7 depicts a twin hole comparison that contrasts a distinct higher grade intercept in the RC hole with scattered, lower grade mineralization in the corresponding core hole.

Overall, the twin hole program demonstrates that the location of mineralized zones is comparable in the paired holes, but that gold grade may show contrast between holes. There are no systematic differences, with core locally indicating higher gold grades than RC, and vice versa. While there may be rational explanations of the gold grade discrepancy, especially as in Figure 12-7, such as a confluence of mineralized structures/breccia zones, the geologic logging of RC drill cuttings is less than perfect owing to the nature of the breccia and how it might be unrecognizable in RC cuttings

12.3 Gold Assay Verification Samples

Gustavson collected 6 verification samples, 2 each from mineralized intervals in core holes PN12-02C, PN12-11C and PN12-013C; holes drilled as twins to RC holes in the Black Stallion deposit (see RC-Core Twin Hole Comparison section above). The samples were collected as reasonably representative samples, but the previously split core varied from half pieces up to 3 inches in length, to rubble over the majority of the lengths of the intervals. Therefore, the samples collected by Gustavson are more qualitative than quantitative. Gustavson maintained custody of the samples from the time of collection to delivery to ALS in Reno, Nevada. The assays of the Gustavson samples confirm the gross tenor of the original assays (Table 12-2), and verify gold in the Pan system, as documented by many companies over the past 35 years.

Table 12-2 Confirmation of Gross Tenor of the Original Assays

Drill Hole ID	From (feet)	To (feet)	Original Assay Gold ppm	Gustavson Sample Gold ppm
PN12-02C	15	20	1.075	3.41
	48	53	1.780	1.845
PN12-11C	18	22.5	0.970	0.800
	39	44	0.432	0.027
PN12-13C	23	26	1.545	0.829
	60	65	0.525	0.407

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Ore Sampling and Test Work

Extensive metallurgical testing has been undertaken on samples from the Pan Project. Recent studies were performed on fresh core samples and trench samples collected in 2010 and 2012. The studies were initiated in December 2010 by Midway and performed by Resource Development Inc. (RDi), Phillips Enterprises LLC, and Kappas, Cassiday and Associates (KCA). The primary objective of these test programs was to generate sufficient metallurgical data for preparation of Preliminary Feasibility and Feasibility Study. Test data from historical and current test programs indicate that the ore is amenable to heap leaching with economic recoveries. The test results described in this section are limited to the recent test programs.

The following reports were reviewed to prepare this section of the report:

1. Metallurgical Testing of Midway Pan Samples, RDi report dated September 22, 2011
2. Addendum to RDi report Titled "Metallurgical Testing of Midway Pan Samples" dated September 22, 2011, RDi report dated March 19, 2012
3. Column Leach Testing at Coarse Size of South Pan Trench Samples, RDi report dated December 13, 2012
4. Large-Column Leaching Studies for the Pan Project of Midway Gold US, Inc., Phillips Enterprises LLC report dated January 7, 2013
5. Pan Project Report of Metallurgical Test Work, KCA, April 2014
6. Midway Gold Partially Leached Ore, FLSmidth, June 2015

13.2 Recent Metallurgical Test Work

RDi received three surface samples, designated NP 1, NP 2, and SP 1, and a ½ split of HQ (2.5-in diameter) drill core from thirteen drill holes in 2010. Seven of the drill holes are from the South Pan pit while six are from North Pan. A total of twenty nine composites were prepared from the drill hole samples. The composites were prepared to evaluate different lithologies, ore types, and feed grades. Composites 1 to 10 represent North Pan and composites 11 to 29 represent South Pan. The lithology associated with each composite sample is identified in Table 13-1.

Table 13-1 Lithology of Composite Samples

Lithology of Composite Samples		
Pit	**Lithology**	**Composites**
North Pit	Silicified Solution Breccia (Sbs)	1-8, 10, NP-1, NP-2
	Argillicly altered Solution Breccia (SbA)	9
South Pit	Argillicly altered Shale (ShA)	11, 28, 29
	Silicified Shale (ShS)	12, 13
	Argillicly altered Solution Breccia (SbA)	14-18, 22, 24-27, SP-1
	Argillicly altered Solution Breccia (SbA)	19, 23
	Silicified Hydrothermal Breccia (HbS)	20
	Argillicly altered Hydrothermal Breccia (HbA)	21

Additional trench samples were collected for the South Pan area in 2012 for large-scale column tests with coarser feed material. These samples were designated Trench A and Trench D samples. The samples assayed 1.04 gpt Au and 0.49 gpt Ag respectively. ROM samples were also collected in June 2013 and shipped to KCA for test work. The sample assayed 0.76 gpt Au and 0.56 gpt Ag.

Detailed information regarding sample preparation protocols and quality control procedures is presented in reports prepared by RDi, "Midway Gold Corporation, Metallurgical Testing of Midway Pan Samples", dated September 14, 2011 and by Phillips Enterprises LLC "Large-Column Leaching Studies for the Pan Project of Midway Gold US, Inc., dated January 7, 2013 and by KCA, "Pan Project Report of Metallurgical Test Work" dated April 2014.

13.2.1 Head Assays

The results of head analyses conducted on the composite samples are given in Table 13-2. The samples were submitted for gold and silver assay using one-assay-ton fire assay, mercury, and preg robbing analyses.

Table 13-2 Head Analyses of Composite Samples

Composite No.	Assay		
	Au (gpt)	Hg (gpt)	% Preg-Robbing
North Pan			
NP-1	0.814	0.68	-
NP-2	2.446	1.01	-
1	0.271	0.60	<0.6
2	0.267	1.52	<0.6
3	2.153	2.11	<0.6
4	0.377	1.45	1.1
5	0.693	1.38	2.92
6	0.226	3.90	<0.6
7	0.439	1.98	6.8
8	0.720	1.41	2.3
9	0.521	5.63	3.8
10	0.727	0.56	<0.6
South Pan			
SP-1	0.302	3.58	-
11	0.418	2.71	2.92
12	0.401	0.80	3.4
13	0.535	1.38	<0.6
14	0.230	2.58	0.6
15	0.350	3.20	<0.6
16	0.645	3.12	4.68
17	0.504	2.23	<0.6
18	0.826	3.64	<0.6
19	0.384	2.24	1.7
20	0.542	2.13	6.2
21	0.682	1.22	<0.6
22	0.593	1.64	<0.6
23	1.327	1.96	1.5
24	1.265	1.48	4.0
25	0.250	1.35	<0.6
26	1.087	1.30	<0.6
27	0.483	1.41	<0.6
28	1.035	1.60	5.7
29	0.542	0.78	<0.6

The head analyses indicate the following:

- The gold assays range from 0.23 gpt Au to 2.15 gpt Au
- The mercury values in these samples range from 0.56 to 5.63 gpt Hg
- The majority of the composites exhibited negligible preg-robbing properties

13.2.2 XRF Analyses

X-ray fluorescence (XRF) analyses were conducted on selected samples representing the various composite lithologies, and on the surface samples. The XRF test results are presented in Table 13-3 and

Table 13-4. Test results indicate that traces of arsenic were present in the samples, though the major elements present were silica and alumina.

Table 13-3 XRF Analyses of Surface Samples

Element %	Sample			Element ppm	Sample		
	NP1	NP2	SP1		NP1	NP2	SP1
Na_2O	<0.05	0.09	0.11	V	28	56	125
MgO	0.25	0.57	0.8	Cr	133	64	128
Al_2O_3	6.25	10.0	11.7	Co	<10	<10	<10
SiO_2	87.6	75.7	75.1	Ni	<10	13	25
P_2O_5	0.08	0.17	0.29	W	<10	<10	<10
S	1.59	2.84	1.37	Cu	11	19	27
Cl	<0.02	<0.02	<0.02	An	25	31	92
K_2O	1.38	2.72	2.76	As	845	164	1628
CaO	0.17	0.45	1.65	Sn	<50	<50	<50
TiO_2	0.27	0.39	0.44	Pb	48	17	16
MnO	<0.01	<0.01	<0.01	Mo	<10	<10	<10
Fe_2O_3	1.68	3.68	4.63	Sr	56	129	256
BaO	1.72	1.31	0.09	U	<20	<20	<20
				Th	<20	<20	<20
				Nb	<10	12	14
				Zr	157	231	238
				Rb	32	78	63
				Y	11	21	24

Table 13-4 XRF Analysis – Different Rock Types

Element %	Composite No.					
	7	12	15	20	21	28
Na_2O	<0.05	0.14	<0.05	<0.05	<0.05	<0.05
MgO	0.35	0.37	0.89	0.29	0.23	1.11
Al_2O_3	5.23	8.7	9.68	6.26	6.0	8.55
SiO_2	90	82.6	76.3	88.9	82.1	74.3
P_2O_5	0.14	0.19	0.28	0.26	0.24	0.19
S	0.42	1.41	0.33	0.64	1.63	<0.05
Cl	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
K_2O	1.34	1.78	2.62	1.4	1.77	2.35
CaO	0.07	0.14	2.6	0.19	0.15	2.43
TiO_2	0.24	0.37	0.42	0.31	0.32	0.39
MnO	<0.01	<0.01	0.04	<0.01	<0.01	0.04
Fe_2O_3	1.13	2.83	4.12	2.64	2.86	3.23
BaO	0.07	0.03	0.14	0.04	0.18	0.03

13.2.3 XRD Analysis

X-ray diffraction (XRD) analyses provide an indication of major minerals in the samples. The samples analyzed by XRF were also analyzed by XRD. The results of the XRD analyses indicate that the major host rock minerals are quartz, mica/illite, and alunite. The XRD test results are summarized in Table 13-5.

Table 13-5 XRD Test Results

XRD Analysis of Different Rock Types									
Mineral	Approximate Wt. %								
	7	12	15	20	21	28	NP1	NP2	SP1
Quartz	85	74	63	83	79	66	85	70	63
Mica/illite	10	7	24	9	6	21	5	10	16
Kaolinite	-	8	<5	<5	<3	5	-	-	8
K-spar	-	-	-	-	-	3?	-	-	-
Alunite	<3	9	-	<5	10	-	8	14	9
Calcite	-	-	<5		-	10	-	-	<3
Hematite	<2?	<3	<3	<3	<3	-	-	<3	<3
Barite	-	-	-		-	-	<5	<3	-
Unidentified	<5	<5	<5	<5	<5	<5	<3	<5	<5

13.2.4 ICP Analysis

The results of ICP analysis of the composite samples are summarized in Table 13-6. The results of the ICP analyses are similar to the results of XRF analyses of the composite samples.

Table 13-6 ICP Analyses of Composite Samples

Element, %	Composite No.								
	1	2	3	4	5	6	7	8	9
Al	2.46	1.99	1.99	2.14	2.44	4.03	2.20	2.68	3.71
Ca	0.09	0.07	0.09	0.08	0.06	4.49	0.08	0.83	1.90
Fe	0.89	0.68	0.81	1.43	1.44	2.32	0.69	0.69	2.15
K	1.00	0.86	0.69	0.85	0.80	1.70	1.02	1.21	1.50
Mg	0.12	0.14	0.12	0.06	0.06	0.38	0.14	0.23	0.29
Na	0.03	0.05	0.05	0.03	0.06	0.04	0.03	0.08	0.04
Ti	0.08	0.03	0.06	0.06	0.03	0.09	0.05	0.05	0.10
Element, ppm									
As	88	249	179	279	562	342	145	100	436
Ba	417	1995	1955	8020	858	5219	798	2344	7730
Bi	26	<10	<10	22	<10	36	18	20	41
Cd	3	0	1	9	2	14	4	4	13
Co	5	10	<1	9	6	33	17	9	10
Cr	39	31	117	28	33	49	31	35	52
Cu	69	16	20	43	16	52	41	63	53
Mn	13	17	13	13	35	260	18	40	146
Mo	2	4	5	9	8	8	10	2	8
Ni	14	18	23	15	22	152	20	25	61
Pb	78	52	39	185	29	146	64	82	101
Sr	116	81	107	196	168	164	84	137	254
V	105	81	106	60	81	107	84	62	85
W	44	168	<10	77	63	25	105	75	51
Zn	36	62	43	70	76	574	65	227	233

Table 13-6 cont.

Element, %	Composite No.										
	10	11	12	13	14	15	16	17	18	19	20
Al	2.17	5.55	3.72	4.65	3.77	4.41	3.92	3.27	3.89	2.41	3.07
Ca	0.09	6.59	0.11	0.46	16.02	1.43	0.13	0.11	0.12	0.10	0.12
Fe	0.49	2.81	1.65	4.69	1.94	2.28	1.92	1.67	1.85	1.80	1.58
K	0.70	2.33	1.30	1.27	1.60	2.16	1.25	1.17	1.51	0.97	1.16
Mg	0.15	0.79	0.13	0.22	0.32	0.31	0.11	0.12	0.15	0.14	0.13
Na	0.05	0.07	0.13	0.10	0.09	0.07	0.13	0.06	0.04	0.05	0.03
Ti	0.09	0.07	0.08	0.14	0.09	0.11	0.04	0.08	0.10	0.06	0.07
Element, ppm											
As	39	3120	350	1120	451	851	2360	1012	1063	464	302
Ba	295	426	216	273	430	952	332	378	617	1056	328
Bi	<10	27	31	11	32	41	<10	27	29	21	26
Cd	1	6	10	6	12	25	2	27	30	12	8
Co	2	36	3	5	5	11	3	4	4	5	2
Cr	92	59	57	95	43	65	43	52	52	41	52
Cu	20	31	37	34	19	27	11	22	41	24	42
Mn	4	1226	30	73	585	334	15	16	10	18	8
Mo	2	21	20	24	7	9	9	6	9	2	4
Ni	19	148	33	57	52	83	23	31	33	26	14
Pb	28	29	81	34	38	77	24	49	52	30	53
Sr	111	127	194	160	263	270	174	191	211	190	200
V	92	60	211	331	73	100	95	226	171	191	141
W	12	18	19	<10	6	11	28	22	26	37	20
Zn	33	199	92	84	154	351	77	69	108	121	117

Table 13-6 cont.

Element, %	Composite No.								
	21	22	23	24	25	26	27	28	29
Al	3.24	2.88	2.86	1.92	3.16	1.27	2.38	4.25	3.87
Ca	0.16	25.32	15.22	24.20	19.68	8.30	21.13	1.56	0.11
Fe	2.07	1.47	1.31	1.08	2.01	0.63	1.31	2.02	2.19
K	1.45	1.18	1.15	1.03	1.54	0.63	1.26	1.86	1.42
Mg	0.10	0.31	0.38	0.34	1.97	0.23	1.87	0.38	0.38
Na	0.02	0.05	0.05	0.05	0.02	0.01	0.05	0.07	0.06
Ti	0.09	0.09	0.09	0.06	0.09	0.04	0.06	0.11	0.05
Element, ppm									
As	428	752	219	791	527	59	264	458	1165
Ba	2186	5600	10234	6487	18218	21697	4873	286	556
Bi	26	28	<10	22	34	16	22	34	21
Cd	14	21	2	22	18	7	9	14	3
Co	3	7	<1	4	16	8	6	9	6
Cr	58	34	78	28	36	16	31	49	45
Cu	40	19	19	21	77	82	15	31	21
Mn	8	2666	1183	1786	638	492	2418	311	89
Mo	2	10	4	12	9	5	4	17	19
Ni	20	32	24	20	44	12	23	68	76
Pb	34	35	37	26	36	44	29	31	40
Sr	145	163	88	124	200	76	146	178	97
V	138	39	11	27	39	30	35	173	211
W	31	7	<10	7	10	63	8	9	25
Zn	110	235	198	212	140	161	262	183	195

13.2.5 Crushability Work and Abrasion Index

Crusher work index and abrasion index tests were performed on six samples, each representing a different lithology. The test results, summarized in Table 13-7, indicate that the surface samples were relatively hard and abrasive whereas the drill core samples were soft and non-abrasive.

Table 13-7 Crushability and Abrasion Test Results

Crushability Work Index and Abrasion Index for Composite Samples			
Sample	**Lithology**	**Crushability Wi (Kw-hr/st)**	**Ai**
Composite 7	SbS	6.15	0.0450
Composite 12	ShS	6.02	0.0086
Composite 15	SbA	4.92	0.0052
Composite 20	HbS	3.23	0.0022
Composite 21	HbA	7.46	0.0405
Composite 28	ShA	8.91	0.0107
NP-1	SbS	16.94	0.2820
NP-2	SbS	8.22	0.0780
SP-1	SbA	12.44	0.0236

13.2.6 Static Bucket Leach Tests for Surface Samples

The as-received surface samples were screened into six size fractions, and the individual fractions of equal size were combined in order to obtain a sufficient amount of each. The size fractions were placed into a plastic container and covered with a 1 g/L NaCN solution. The material was gently mixed and allowed to stand. A sample of the slurry was taken for pH and free cyanide measurement and gold assay. The pH of solution was adjusted to 11 and NaCN concentration to 1 g/L. Following the completion of the test, the solids were filtered, washed, and dried. The dried material was pulverized and assayed for gold.

Static bucket leach test results are summarized in Table 13-8. The test results indicate the following:

- Gold extraction from the coarsest to the finest size fractions was good for the SP-1 sample; gold recovery is not size dependent for the South Pan samples;
- The gold leaches very quickly, even from the coarse size fractions for the South Pan samples;
- Gold extractions for the two North Pan samples were size dependent; the finer the crush size, the higher the gold extraction, and;
- The gold extraction was acceptable once the North Pan samples were crushed to 0.5-inch or finer.

Table 13-8 Static Bucket Leach Test Results

Static Bucket Leach Tests (21-day duration)									
Size (inches)	Sample SP-1			Sample NP-1			Sample NP-2		
	Extraction % Au	Residue gpt Au	Calc. Feed gpt Au	Extraction % Au	Residue gpt Au	Cal Feed gpt Au	Extraction % Au	Residue gpt Au	Calc. Feed gpt Au
3x4	93.7	0.189	3.013	51	0.399	0.815	52.4	0.547	1.15
2x3	76.7	0.034	0.146	58.3	0.394	0.946	59.2	0.879	2.169
1.5x2	86.4	0.046	0.339	53.3	0.42	0.899	64.2	0.437	1.22
1x1.5	84	0.069	0.432	65.1	0.153	0.438	59.3	0.674	1.656
0.5x1	86.2	0.086	0.622	64.2	0.149	0.416	84	0.233	1.453
-0.5	85.6	0.154	1.072	70.6	0.18	0.612	79.2	0.381	1.832

13.2.7 Bottle Roll Leach Tests

Cyanide bottle roll leach tests were performed on each composite sample at P80 6-mesh and 200-mesh. The test results are summarized in Table 13-9 and Table 13-10. The test results show that gold extraction from the North Pan samples was poor for most composites (28% to 65%) at 6-mesh, but improved significantly (to over 75%) at P80 200-mesh. This suggests that gold extraction is size dependent at North Pan. Gold extraction from the South Pan samples was over 70% at 6-mesh and over 80% at 200-mesh. The extraction of South Pan ROM bulk sample ground to P80 of 200 mesh was 93% for gold and 33% for silver. The NaCN consumptions were reasonable for all the bottle roll leach tests ranging from 0.1 to 0.3 kgpt except for few samples showing higher NaCN consumption.

Table 13-9 Bottle Roll Cyanidation Test Results – Composite Sample, 6-mesh

Bottle Roll Cyanidation Test Results for Composite Samples at 6-mesh						
Test No.	Composite No.	Extraction % Au	Residue gpt Au	Calc. Head	Reagent Consumption, kgpt	
					NaCN	Lime
BR-1	NP-1	82.9	0.12	0.68	0.176	2.542
BR-2	NP-2	85.3	0.38	2.56	0.173	6.094
27	1	71.9	0.09	0.306	0.056	2.607
7	2	48.7	0.12	0.23	0.301	2.723
39	3	28.7	1.41	1.971	0.121	2.549
28	4	65.3	0.15	0.436	0.054	2.008
8	5	52.3	0.43	0.89	0.12	1.749
29	6	74.4	0.1	0.386	Trace	3.597
49	7	33.7	0.34	0.51	0.12	2.688
17	8	34.4	0.45	0.69	0.113	2.942
50	9	85.2	0.11	0.728	0.233	2.978
40	10	60.5	0.32	0.802	0.058	2.489
BR-3	SP-1	89.5	0.06	0.6	0.288	3.523
9	11	58.2	0.17	0.41	0.109	4.335
18	12	72.8	0.14	0.5	0.297	2.995
41	13	91.9	0.07	0.863	0.112	6.922
19	14	78.1	0.06	0.26	0.355	2.926
20	15	82.5	0.06	0.33	0.109	4.424
10	16	65.4	0.23	0.67	0.239	2.581
21	17	72.2	0.16	0.57	0.171	3.067
30	18	73.4	0.32	1.209	0.176	2.91
22	19	59.5	0.18	0.45	0.11	2.644
51	20	81.3	0.09	0.503	0.229	3.363
52	21	76.8	0.18	0.768	0.16	2.533
23	22	76.5	0.14	0.6	0.248	2.755
42	23	63.1	0.53	1.422	Trace	1.905
24	24	70.2	0.39	1.31	0.292	2.423
31	25	77.5	0.08	0.351	0.103	2.404
32	26	45.4	0.66	1.209	Trace	1.917
25	27	81.9	0.1	0.54	0.418	2.745
26	28	93	0.09	1.25	0.231	4.645
11	29	68.5	0.15	0.46	0.296	3.63
Average North Pan		60.3	0.34	0.85	0.127	2.91
Average South Pan		73.9	0.19	0.71	0.189	3.23

Table 13-10 Bottle Roll Cyanidation Test Results – Composite Sample, 200-mesh

Test No.	Composite No.%	Extraction % Au	Residue gpt Au	Calc. Head gpt Au	Reagent Consumption Kgpt	
					NaCN	Lime
BR-4	NP-1	90.8	0.07	0.72	1.309	3.31
BR-5	NP-2	88.6	0.28	2.41	0.465	5.501
33	1	85.4	0.09	0.594	0.115	5.881
12	2	79.8	0.06	0.29	0.159	5.248
43	3	75.2	0.56	2.235	1.279	7.983
34	4	87.4	0.07	0.556	0.125	4.656
13	5	82.6	0.15	0.89	0.125	4.641
35	6	87.5	0.07	0.591	0.597	3.571
36	7	75.6	0.17	0.687	0.116	5.031
45	8	81.5	0.16	0.879	0.34	6.622
37	9	89.1	0.07	0.643	0.112	4.107
48	10	77.2	0.16	0.697	1.125	7.055
BR-6	SP-1	89.7	0.05	0.49	0.153	6.119
14	11	71.9	0.12	0.42	0.111	7.087
44	12	83.2	0.11	0.63	0.221	6.17
53	13	87.3	0.08	0.624	0.222	3.057
54	14	81.8	0.04	0.217	0.227	3.009
55	15	80.6	0.07	0.362	0.157	4.621
15	16	92.9	0.05	0.65	0.229	5.55
56	17	80.8	0.12	0.608	0.168	3.885
38	18	87.8	0.17	1.396	0.108	5.314
57	19	79.1	0.1	0.484	0.282	3.508
58	20	86.8	0.07	0.559	0.28	1.586
59	21	87.8	0.14	1.151	0.104	2.907
60	22	84.2	0.09	0.577	0.097	3.248
61	23	82.4	0.25	1.42	0.098	2.757
62	24	81.8	0.23	1.269	0.046	2.798
46	25	83.6	0.06	0.347	0.15	6.912
47	26	82.3	0.2	1.153	0.11	5.823
63	27	86.7	0.07	0.504	0.095	3.225
64	28	88.0	0.16	1.311	0.088	4.248
16	29	63.2	0.18	0.48	0.102	6.151
Average North Pan		83.4	0.16	0.93	0.489	5.3
Average South Pan		83.1	0.12	0.73	0.152	4.4

After 72 hours of leach, the average gold extraction from the bottle roll leach tests at P80 6-mesh was 60.3% for North Pan samples and 73.9% for South Pan samples. Sodium cyanide consumption averaged 0.127 kgpt for the North Pan samples and 0.189 kgpt for the South Pan samples. The average head grades for the North and South Pan samples are 0.85 gpt and 0.71 gpt, respectively.

The average extractions at P80 200-mesh were almost identical for the North and South Pan samples (83.4% and 83.1%) for 72 hours of leach time. The cyanidation and lime consumption at finer grind was much higher for North Pan samples than for South Pan samples.

13.2.8 Column Leach Tests

A total of 60 plus open-circuit column leach tests were performed on the three surface samples, twenty nine composite drill core samples and a South Pan ROM bulk sample.. At least two column tests are run on each composite, and all columns at RDi are run in standard plexiglas columns of variable diameter. The feeds of P80 0.5-inch, 1.0-inch, and 1.5-inch are processed in 4-inch, 6-inch, and 8-inch diameter columns, respectively.

The two trench samples collected in 2012 were tested at Phillips Enterprises LLC and RDi. Ten large-scale tests in 18-in, 24-in and 36-in diameter columns constructed with double-walled HDPE drainage pipe were run in conjunction with carbon columns so that barren solution was recycled back to the columns. RDi ran four 8-in diameter columns open-cycle tests at the same time large-scale tests were performed.

KCA ran three column leach tests utilizing South Pan Run of Mine (ROM) material in four foot inside diameter columns. The material was leached with NaCN solution for 123 days.

13.2.8.1 *Assay-by-Size Fraction for Gold*

Assay-by-size for gold was determined for the composite feed sample used for running the columns at P80 1.5-inch crush size. Data from select composites is summarized in Table 13-11. The data indicate that the distribution of gold is generally proportional to weight for the North Pan samples, and that the gold tends to distribute preferentially in the finer sizes for the South Pan samples. This was also confirmed by assay-by-size data generated for the South Pan ROM bulk sample by KCA.

Table 13-11 Assay-by-Size Fraction Data

Assay-by-Size Fraction for Gold in Composite Samples												
Size Fraction (inches)	NP-1			SP-1			Composite No. 1			Composite No. 10		
	Assay gpt Au	Distribution %		Assay gpt Au	Distribution %		Assay gpt Au	Distribution %		Assay gpt Au	Distribution %	
		Wt.	Au		Wt.	Au		Wt.	Au		Wt.	Au
+1.5	1.00	16.8	30.7	0.16	17.1	6.9	1.94	10.4	15	0.9	5.8	4.3
1x1.5	0.49	30.5	27.3	0.15	16.5	6.2	1.02	26.2	19.6	0.66	31.2	17.1
0.75x1	0.38	16.3	11.4	0.18	10.5	4.8	1.3	19	18.1	0.69	14.9	8.5
0.5x0.75	0.45	11.6	9.5	0.18	7.2	3.2	1.32	20.6	20	0.82	17.2	11.6
-0.5	0.47	24.8	21.1	0.64	48.7	78.9	1.56	23.8	27.3	2.29	30.9	58.5
Calc. Feed	0.55			0.39			1.36			1.21		

Assay-by-Size Fraction for Gold in Composite Samples												
Size Fraction (inches)	13			16			19			24		
	Assay gpt Au	Distribution %		Assay gpt Au	Distribution %		Assay gpt Au	Distribution %		Assay gpt Au	Distribution %	
		Wt.	Au		Wt.	Au		Wt.	Au		Wt.	Au
+1.5	0.34	14.7	9.4	1.45	31.9	41.8	0.31	36.9	31.8	0.79	34	27.8
1x1.5	0.52	20.4	19.8	0.8	36.8	26.3	0.24	20.8	13.9	1.1	20.5	23.3
0.75x1	0.49	13	12	0.53	13.1	6.2	0.14	8.7	3.3	1.06	10.6	11.7
0.5x0.75	0.33	14.5	9	1.19	7.3	7.9	0.45	9.1	11.3	1.13	8.8	10.3
-0.5	0.71	37.5	49.8	1.83	10.8	17.8	0.58	24.5	39.8	0.99	26.1	26.9
Calc. Feed	0.54			1.11			0.36			0.96		

13.2.8.2 *Test Results*

Column leach test results for the North and South Pan samples are presented in Table 13-12 and Table 13-13, respectively. The test data for all samples (including KCA samples) are averaged for each crush size (0.25, 0.5, 1.0, and 1.5-inch) and for all columns. Test results indicate the following:

Gold extraction for North Pan samples were 60.3 % in 76 days of leach time at P80 of 0.25-inch, 61.1% in 81 days at P80 of 0.5-inch, 78.5% in 61 days at P80 1.0-inch, and 60.8% in 86 days of leach time at P80 1.5-inch crush size.

The average gold extraction for all North Pan samples was 61.4% in 81 days of leach time. The NaCN consumption averaged 1.253 kgpt. However, in actual operation, the NaCN consumption will be 40% to 50% of that reported in the column tests.

Gold extraction for South Pan samples were 85.6% in 54 days of leach time at P80 0.5-inch crush size, 83.2% in 66 days of leach time at P80 1.0-inch crush size, 85.0% in 67 days of leach time at P80 1.5-inch crush size and 92% in 138 days of leach time with ROM ore having P80 of 7.3-inches.

The average gold extraction for all South Pan samples excluding ROM ore was 84.7% in 62 days of leach time. The NaCN consumption averaged 0.701 kgpt. The bulk ROM ore sample from one location gave higher gold extraction (92%) and consumed significantly lower amount of NaCN (± 0.15 kgpt)

Table 13-12 Summary of Column Leach Test Results for North Pan Samples

Summary of Column Leach Test Results for North Pan Samples						
Composite No.	Crush Size P80 ins	Leach Time Days	Extraction % Au	Residue gpt Au	Calc. Head gpt Au	NaCN Consumption Kgpt
NP-1	1.5	41	52.4	0.309	0.649	0.154
NP-1	0.5	41	73.4	0.182	0.637	0.637
NP-2	0.5	41	73.1	0.394	1.462	0.873
NP-2	1.5	41	46.1	0.792	1.470	0.196
2	0.5	31	53.0	0.141	0.300	0.458
3	1.5	62	35.4	0.874	1.353	0.476
5	0.5	31	48.4	0.471	0.913	0.528
8	0.5	90	39.5	0.393	0.649	2.219
9	1.0	61	78.5	0.063	0.587	0.432
10	1.5	108	84.7	0.225	1.474	1.245
1	0.5	142	82.3	0.175	0.987	4.058
1	0.25	93	86.4	0.077	0.568	3.229
2	0.5	67	45.0	0.135	0.245	1.479
4	0.5	112	67.2	0.161	0.491	2.935
4	0.25	69	50.6	0.291	0.589	1.923
5	0.5	137	70.3	0.475	1.601	4.333
6	0.5	35	71.1	0.091	0.315	0.889
6	0.25	71	60.8	0.276	0.704	1.888
7	0.5	69	40.9	0.154	0.260	1.465
7	0.25	71	43.2	0.199	0.351	2.207
8	0.5	71	24.8	0.283	0.376	1.621
KCA32480	0.5	110	73.0	0.218	0.746	0.990
KCA32480	1.5	112	71.0	0.218	0.809	0.415
KCA32481	0.5	110	78.0	0.467	2.084	1.480
KCA32481	1.5	112	73.0	0.559	2.115	0.575
KCA32482	0.5	74	85.0	0.124	0.809	1.270
KCA32482	1.5	77	85.0	0.124	0.840	0.360
KCA32483	0.5	110	58.0	0.467	1.120	0.875
KCA32483	1.5	112	54.0	0.498	1.089	0.430
KCA32484	0.5	110	55.0	0.404	1.151	0.985
KCA32484	1.5	112	46.0	0.467	1.151	0.430
Average	0.25	76	60.3	0.211	0.553	2.312
Average	0.5	81	61.1	0.300	0.832	1.464
Average	1.0	61	78.5	0.063	0.587	0.432
Average	1.5	86	60.8	0.452	1.216	0.476
Average	All	81	61.4	0.312	0.900	1.253

Table 13-13 Summary of Column Leach Test Results for South Pan Samples

Summary of Column Leach Test Results for South Pan Samples						
Composite No.	Crush Size P80 ins	Leach Time Days	Extraction % Au	Residue gpt Au	Calc. Head gpt Au	NaCN Consumption Kgpt
SP-1	0.5	41	95.7	0.015	0.352	0.628
11	0.5	31	74.3	0.125	0.487	0.509
11	1.0	66	77.8	0.204	0.918	0.729
12	0.5	62	86.5	0.069	0.513	1.058
13	1.5	62	95.5	0.039	0.860	0.416
14	0.5	62	91.2	0.024	0.274	1.058
14	1.5	60	91.3	0.031	0.356	0.444
15	0.5	62	85.2	0.026	0.352	0.764
15	1.5	60	95.2	0.026	0.537	0.454
16	0.5	31	85.0	0.098	0.655	0.493
16	1.0	68	83.8	0.158	0.945	0.878
16	1.5	60	90.8	0.091	0.994	0.674
17	0.5	62	86.3	0.072	0.526	0.880
17	1.5	69	79.2	0.082	0.395	0.641
18	1.0	61	87.5	0.120	0.961	0.437
18	0.5	68	75.1	0.192	0.772	1.378
19	0.5	60	92.8	0.034	0.471	0.853
19	1.5	69	92.4	0.043	0.568	0.467
20	1.0	61	54.2	0.398	0.870	0.790
21	1.0	61	85.8	0.098	0.688	0.574
22	0.5	60	75.8	0.149	0.616	0.974
23	1.5	62	76.1	0.370	1.551	0.445
24	0.5	62	83.2	0.171	1.015	0.695
25	1.0	66	78.7	0.110	0.517	0.764
25	1.5	69	76.8	0.177	0.764	0.503
26	1.0	66	94.7	0.031	0.588	0.705
27	0.5	62	94.5	0.031	0.565	0.651
27	1.5	69	78.4	0.209	0.967	0.502
28	0.5	62	98.7	0.022	1.752	0.849
29	0.5	31	74.1	0.117	0.451	0.547
12	1.0	69	90.7	0.036	0.385	0.724
22	1.0	69	84.9	0.069	0.458	0.816
28	1.0	77	96.3	0.033	0.896	0.722
29	1.0	69	81.7	0.082	0.447	0.956
24	1.5	93	73.7	0.291	1.105	0.564
Average	0.5	54	85.6	0.082	0.629	0.81
Average	1.0	66	83.2	0.122	0.697	0.736
Average	1.5	67	85.0	0.136	0.810	0.511
Average	All	62	84.7	0.110	0.702	0.701
ROM Bulk 1	7.3	138	92.0	0.068	0.81	0.12
ROM Bulk 2	7.3	123	93.0	0.059	0.82	0.15
ROM Bulk 3	7.3	123	93.0	0.053	0.77	0.16

13.2.8.3 *% Slump*

The height of the agglomerated material in all the columns was recorded before and after leaching by RDi and by Phillips Enterprises LLC. None of the columns showed much slump, indicating low probability of permeability problems in production heaps. However, large-scale column tests run on unagglomerated ROM ore at KCA indicated a 5% to 6% slump. In addition, a comparison of the head screen and tail screen analyses showed that the material significantly disintegrated during leaching. Hence, there is a possibility of encountering permeability issues on the heap for unagglomerated ores.

13.2.8.4 *Drain Down and Maximum Percolation Rate*

At the conclusion of leaching, all columns were allowed to drain as completely as possible. The columns were then rinsed for several days and monitored for free cyanide. When free cyanide could no longer be detected, the rinse was shut down and the columns were allowed to drain.

Percolation tests were conducted on most of the columns after leaching was completed. Each column was flooded to a level approximately 2 inches above the surface of the material, and the water flow rate adjusted to maintain that level. The amount of solution exiting the bottom of the column was measured to determine the flow rate following stabilization of the water level. Percolation test results are reported in Table 13-14.

Table 13-14 Percolation Test Results

Composite No.	Column Diameter, inches	Percolation Rate, Liters/min		
		Liters/min	gpm/sq. feet	Multiple of Application Rate
3	8	19.36	14.648	2930
9	6	2.362	3.178	636
12	4	4.892	14.806	2961
13	8	18.928	14.321	2864
14	4	0.195	0.59	118
15	4	0.36	1.09	218
17	4	4.936	14.939	2988
18	6	2.641	3.553	711
19	4	4.321	13.078	2616
20	6	1.946	2.618	524
21	6	3.601	4.845	969
23	8	18.475	13.978	2796
24	4	5.01	15.163	3033
27	4	5.052	15.291	3058
28	4	3.875	11.728	2346
25	6	2.835	3.814	763
8	4	2.878	8.711	1742
18	4	4.413	13.357	2671
16	6	2.572	3.46	692
16	8	18.076	13.676	2735
17	8	5.475	4.142	828
19	8	10.116	7.654	1531
25	8	3.063	2.317	463
27	8	5.872	4.443	889
10	8	18.475	13.978	2796
11	6	11.415	15.357	3071
26	6	2.612	3.514	703

13.2.8.5 *Tailing Analyses*

After completion of the percolation tests, the columns were allowed to drain for a period of 48 hours before being dumped and prepared for tailings analysis. A sample of air dried, crushed and split leached residue was wet- and dry-screened and assayed for gold by size fraction. Test results of the residue assay-by-size are summarized in Table 13-15.

Table 13-15 Residue Assay-by-Size Data

Distribution of Gold in Leach Residues by Size									
Size Fraction (inches)	Composite 10			Composite 24			Composite 27		
	Assay gpt Au	Distribution %		Assay gpt Au	Distribution %		Assay gpt Au	Distribution %	
		Wt.	Au		Wt.	Au		Wt.	Au
+1.5	0.11	16.0	11.6	0.04	18.4	11.6	0.13	24.9	18.7
1x1.5	0.15	42.0	42.7	0.07	35.5	42.6	0.17	22.6	21.7
0.75x1	0.14	16.2	14.9	0.05	12.3	10.6	0.12	3.7	2.4
0.5x0.75	0,15	13.3	13.4	0.08	8.8	10.7	0.10	5.8	3.2
-0.5	0.21	12.5	17.4	0.06	25.0	24.4	0.22	43.0	54.0
Calc. Feed	0.15			0.06			0.17		

13.2.8.6 *Pregnant Solution Analysis*

The pregnant solution from the column tests were analyzed during leaching to determine the quality of the solution. The results of the solution analysis are summarized in Table 13-16 (A and B). Test results indicate that no problem-creating components were present in the pregnant solution during carbon loading.

Table 13-16 A Pregnant Solution Analyses

Pregnant Solution Analyses for Surface Samples						
Element ppm	Column No.					
	NP-1		NP-2		SP-1	
	Days 2-6	Days 14-23	Days 2-6	Days 14-23	Days 2-6	Days 14-23
Au	0.27	0.05	0.7	0.09	0.43	0.01
Al	0.05	0.1	0.6	<0.1	0.2	<0.1
As	0.02	<0.1	0.5	0.8	0.1	0.5
Ba	0.4	<0.1	<0.1	<0.1	0.1	<0.1
Bi	<0.1	<0.1	0.6	<0.1	<0.1	<0.1
Ca	47	1.5	5	1.7	134	4
Cd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Co	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cr	0.1	<0.1	0.1	<0.1	0.2	<0.1
Cu	1.7	0.3	1.7	0.3	3.3	0.3
Fe	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
K	14	3.9	7	2.9	4	2.6
Mg	<0.1	<0.1	<0.1	0.1	0.2	<0.1
Mn	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ni	<0.1	<0.1	0.1	<0.1	0.2	<0.1
Pb	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sr	1	0.1	0.3	0.1	1.5	0.2
Ti	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
V	0.1	<0.1	0.2	<0.1	<0.1	0.1
W	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Zn	0.9	<0.1	0.7	<0.1	4.9	0.2

Table 13-16 B Pregnant Solution Analyses

Pregnant Solution Analyses for 0.5-inch Column Tests												
Element ppm	2			11			12			10		
	Days			Days			Days			Days		
	1-5	16-25	29	1-5	16-25	29	2	19	43	1.5	19	43
Au	0.29	0.01	0.4	0.47	0.01		1.1	0.04	0.01	0.18	0.1	0.08
Al	1.2	0.4	0.1	0.2	0.1	0.1	0.9	0.6	0.5	0.8	0.4	0.1
As	0.3	<0.1	<0.1	0.2	0.5	0.7	<0.1	0.6	1.7	<0.1	0.1	0.2
Ba	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1
Bi	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	6.1	<0.1
Ca	0.3	<0.1	118	<0.1	<0.1	<0.1	108	18.6	3.1	1.6	2.2	1.5
Cd	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Co	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cr	0.1	<0.1	0.3	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Cu	2.5	0.3	9.4	<0.1	<0.1	1.9	0.4	0.2	<0.1	0.1	0.1	<0.1
Fe	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
K	17.3	2.5	3.4	2.6	<0.1	0.9	6.9	1.9	1.5	2.6	1.5	1.7
Mg	0.1	<0.1	<0.1	0.9	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1
Mn	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ni	0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.4	0.1	0.1	<0.1	<0.1	<0.1
Pb	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sr	0.3	<0.1	<0.1	1	<0.1	<0.1	2	0.3	0.2	<0.1	0.1	0.1
Ti	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
V	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1
W	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.1	<0.1	<0.1	<0.1	<0.1
Zn	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	23.4	5.7	0.1	<0.1	2.9	3.1

13.2.9 Coarse Ore Bottle Roll Leach Tests on North Pan Samples

Since the majority of the column tests were completed on South Pan samples, additional coarse ore bottle roll leach tests were performed on North Pan samples in order to have sufficient data for North Pan Samples for the 2011 feasibility study report. These test results are summarized in Table 13-17. The results indicate that the average gold extraction for the seven samples at P80 0.5-inch was 49.9% and at P80 0.25-inch was 61.6%. The extraction for composite 2 at P80 0.5-inch was 41.3% as compared to 53% in 31 days of leaching in the column test. The column test data for these samples is given in Table 13-17 and indicates that there is reasonably good correlation between bottle roll and column results.

Table 13-17 Bottle Roll Cyanide Leach Test Results

Bottle Roll Cyanide Leach Test Results						
Composite	**Crush Size P80 inches**	**Extraction % Au**	**Residue (gpt Au)**	**Calc. Head (gpt Au)**	**NaCN Consumption (kgpt)**	**Lime Addition (kgpt)**
1	0.5	51.8	0.18	0.374	0.454	2.657
1	0.25	72.6	0.14	0.493	0.328	2.923
2	0.5	41.3	0.15	0.249	0.148	2.088
2	0.25	77.7	0.05	0.229	0.044	2.427
8	0.5	60.0	0.07	0.172	0.505	3.340
8	0.25	70.2	0.07	0.235	0.096	3.092
4	0.5	43.8	0.25	0.452	0.843	3.968
4	0.25	57.5	0.18	0.419	0.192	2.926
5	0.5	61.4	0.41	1.057	0.721	3.031
5	0.25	53.0	0.78	1.649	0.232	2.761
6	0.5	59.2	0.17	0.417	0.287	3.507
6	0.25	67.5	0.18	0.547	0.191	3.674
7	0.5	59.2	0.17	0.242	0.288	3.090
7	0.25	32.5	0.26	0.388	0.093	2.424
Average	0.5	49.9	0.20	0.423	0.463	3.100
Average	0.25	61.6	0.24	0.566	0.168	2.890
Average	All	55.8	0.22	0.495	0.316	3.000

13.2.10 Agglomeration Tests

Agglomeration tests were conducted on three ore types (SbS, SbA and ShA) to determine if agglomeration of the material is required. A series of five tests were run on each ore type with varied levels of cement addition, including a blank with no cement addition. The agglomeration

GUSTAVSON ASSOCIATES
GEOLOGISTS · ENGINEERS · ECONOMISTS · APPRAISERS

test results are reported in Table 13-18. The SbS tests were completed on ½ inch crush material while the SbA and ShA tests were completed with 1 inch crush material. The agglomeration test procedure was as follows:

1. A 1 kilogram charge of material was placed in a 4,000 ml beaker with the correct amount of lime and cement. The sample was then mixed thoroughly by rotating the beaker.
2. Tap water was then sprayed onto the material as the beaker was rotated to agglomerate the sample. The weight of the water used was recorded once the fines agglomerated and were no longer loose.
3. The material was then placed in a sealed bag and allowed to cure for 36 hours.
4. After 36 hours the cured material was placed in a 10 mesh screen and submerged in a bucket of water. The screen was submerged in the bucket of water 10 times, with a constant rhythmic motion. The +10 mesh material was then dried and weighed to determine the percentage of material that was retained.

Table 13-18 Agglomeration Test Results

Agglomeration Test Results						
Test No.	Composite No.	Size 1 kg, inch	Lime Rate, lb/ton	Cement Rate, lb/ton	% Retained (10-mesh)	% Moisture After Agglomeration
1	SbS	1/2	0	0	93.5	3.9
2	SbS	1/2	2	2.5	98.1	4.6
3	SbS	1/2	2	5	97.1	5.3
4	SbS	1/2	2	7.5	97.5	5.4
5	SbS	1/2	2	10	97.1	5.6
6	SbA	1	0	0	90.1	6.4
7	SbA	1	2	2.5	94.1	6.9
8	SbA	1	2	5	96.7	7.4
9	SbA	1	2	7.5	93.6	7.5
10	SbA	1	2	10	93.7	7.9
11	ShA	1	0	0	95.6	4.5
12	ShA	1	2	2.5	95.0	5.3
13	ShA	1	2	5	96.0	5.4
14	ShA	1	2	7.5	96.5	5.7
15	ShA	1	2	10	97.4	5.8

13.2.11 Carbon Loading Tests

Pregnant solution from one of the column tests was used to conduct a preliminary carbon load test. The objective was to determine the rates of gold to silver on the loaded carbon. A 20 gram carbon sample was reacted with 1 liter of pregnant solution for 4 hours in a bottle roll, and a portion of the carbon was then analyzed for gold and silver. The carbon assayed 99.36 gpt Au and 2 gpt Ag, for an Au/Ag ratio of 50:1.

13.2.12 Large-Scale Column Tests

Two bulk trench samples from the South Pan area were leached in large diameter columns at several coarser sizes to determine the effect of feed size on gold extraction. A total of fourteen column tests were performed; ten tests were performed at Phillips Enterprises LLC (PE) and four tests at RDi. These tests were followed up by collecting a large bulk sample for ROM ore testing at KCA.

The bulk samples from two areas, designated Trench A and Trench D, were received at PE and the samples were screened into different size fractions, namely +6 inch, 4x6 inch, 2x4 inch, 0.5x2 inch, and -½ inch. The size distribution of the feed material to the columns is given in Table 13-19. The feed was nominal 2 inch in 8-inch and 18-inch diameter columns and was nominal 4 inch and +6 inch in 24-inch and 36-inch diameter columns, respectively.

Table 13-19 Size Distribution of Feed to Different Size Columns

Size (inches)	Distribution %			
	8-inch Columns	18-inch Columns	24-inch Columns	36-inch Columns
>6		-	-	3.6
6X4		-	-	4.6
4X2		-	19.6	48.2
2X0.5		54.0	43.4	20.2
<0.5		46.0	37.0	23.3

Note: 8-inch columns were run at RDi and the remaining columns were run at Phillips Enterprises LLC

The results of the open-circuit column tests performed at RDi are summarized in Table 13-20. The test results indicate the following.

- The average gold extraction for Trench A sample was 87.8% in 38 days of leach time from an average feed assaying 0.926 gpt Au. The average cyanide consumption was 0.318 kgpt.
- The average gold extraction for Trench D was 71.9% in 38 days of leach time from an average feed assaying 0.397 gpt Au. The average cyanide consumption was 0.244 kgpt.

Table 13-20 Summary of Column Leach Test Results

Column No.	Composite	Extraction % Au	Residue gpt Au	Calc. Head gpt Au	NaCN Consumption Kgpt
1	A	89.1	0.101	0.929	0.340
2	A	86.5	0.125	0.923	0.296
Average A		87.8	0.113	0.926	0.318
3	D	74.3	0.105	0.409	0.258
4	D	69.4	0.118	0.385	0.229
Average D		71.9	0.112	0.397	0.244

Note: Crush Size: Nominal 2 inch. Leach Time: 38 days.

The results of the locked-cycle column tests performed at PE are summarized in Table 13-21. The test results indicate the following:

- The calculated head for the trench samples were extremely variable for the different size column tests. For example, it varied from 0.482 gpt Au to 0.809 gpt Au for the Trench A sample and 0.265 gpt Au to 0.420 gpt Au for Trench D sample. Therefore gold extractions were calculated based on feed and residue analyses.
- The gold extraction is a function of feed grade. Generally, the higher the feed grade, the higher the recovery.
- The gold extraction for the various feed sizes for Trench A sample indicates that extraction appears to be independent of the size of feed. This is illustrated in Table 13-22 and Figure 13-1 for the various sizes.
- The extraction for Trench D is lower because of lower grade feed material (i.e. 60% to 71% vs. 80% plus).

Three locked-cycle column leach tests were performed utilizing run of mine (ROM) material in four foot inside diameter columns at KCA. These tests were run on “as received” material and without agglomeration. The test results, summarized in Table 13-23, indicate the following:

- The calculated head for the bulk ROM ore was ±0.8 gpt Au which is significantly higher than the average grade of the South Pan deposit.
- The gold extraction was 92% to 93% for the bulk sample with a low cyanide consumption of ±0.15 kgpt.
- The operating moisture content of the columns was as high as ±20% thereby indicating presence of significant amount of water adsorbing clays.
- The columns slumped 5% thereby indicating the possibility of permeability issues.

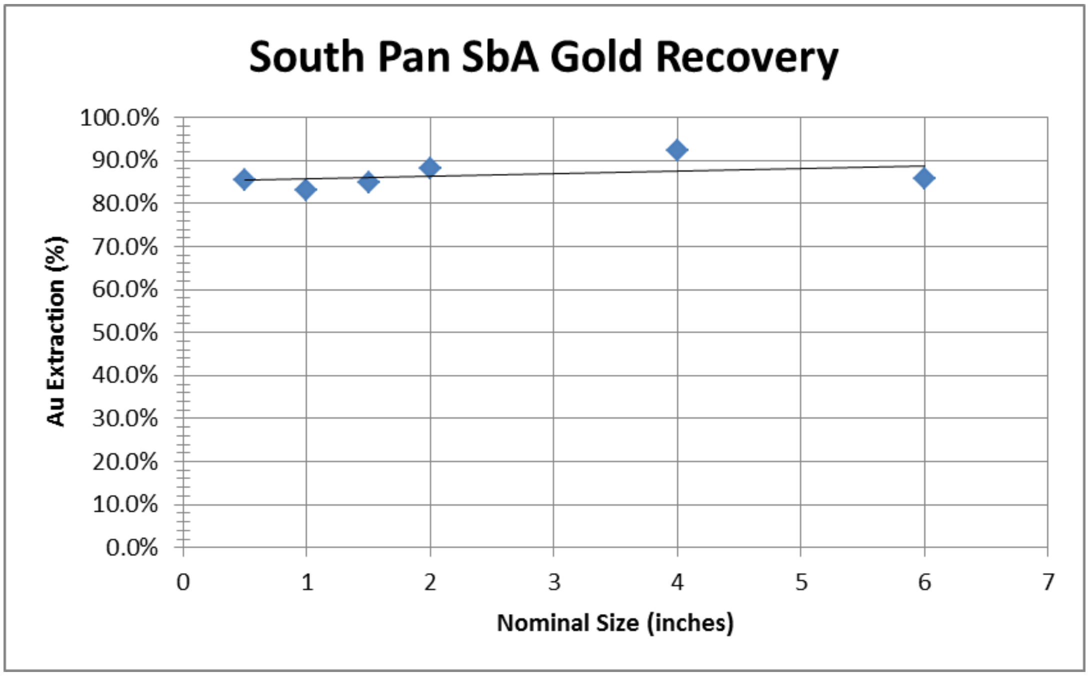


Figure 13-1 South Pan Gold Recovery vs Crush Size

Table 13-21 Summary of Locked-Cycle Column Leach Test Results Performed at PE

Column	Composite	Extraction % Au	Residue gpt Au	Assayed Head gpt Au	NaCN Consumption Kgpt
A 18-7	A	85.7	0.168	0.958	0.21
A 18-8	A	91.0	0.152	0.958	0.205
Average	-	88.4	0.160	0.958	0.208
A 24-3	A	92.1	0.115	0.992	0.28
A 24-4	A	92.6	0.112	0.992	0.285
Average	-	92.4	0.114	0.992	0.283
A 36-3	A	88.6	0.184	1.117	0.24
A 36-4	A	82.9	0.196	1.117	0.265
Average		85.75	0.190	1.117	0.253
D 18-5	D	78.0	0.164	0.473	0.26
D 18-6	D	73.0	0.162	0.473	0.21
Average	-	75.5	0.163	0.473	0.235
D 36-1	D	79.8	0.090	0.289	0.27
D 36-2	D	67.0	0.103	0.289	0.265
Average	-	73. 4	0.097	0.289	0.268

Note: PE Columns extractions are based on high assay values and assayed feed and residue assays

Table 13-22 Gold Extraction as a Function of Feed Size

Nominal Size (inches)	Column Test	Extraction % Au	Comments`
>6	A 36-3 & 4	85.75	PE data
4	A 24-3 & 4	92.4	PE data
2	1, 2 18-7 & 8	87.8 88.4	RDi data PE data
1.5	RDi	85	Average of 10 Column tests
1.0	RDi	83.2	Average of 11 Column tests
0.5	RDi	85.6	Average of 14 Column tests

Table 13-23 Summary of Column Leach Test Results

Column	Extraction % Au	Residue gpt Au	Calc. Head gpt Au	NaCN Consumption kgpt
1	92.0	0.068	0.81	0.12
2	93.0	0.059	0.82	0.15
3	93.0	0.053	0.77	0.16

Note: Feed P80 = 7.3 inches

13.2.13 2013 Phillips Enterprises

In 2013 Phillips Enterprises conducted large column leach tests on Pan mineralized material. The Phillips test work focused on the relationship between the size of the agglomerated ore and the recovery.

The Phillips test was based on two trench samples, A and D. Both samples are characterized as originating from the South Pan area. The conclusions presented are:

- Gold extraction for Trench A at 0.033 oz/st ranged from 85% to 89%.
- Gold extraction for Trench D at 0.016 oz/st ranged from 67% to 74%.
- Solution-to-ore ratios reached 8: 1 for Trench A tests with >6" rock.
- Solution-to-ore ratios reached 5: 1 for Trench D tests with >6" rock

Trench A large rock appeared to leach equally to the fine fractions whereas the larger rock from Trench D showed decreasing gold extraction with greater size. Based on the data for Trench A, Trench A appears to leach equally well for all size fractions examined and leaching of rock sizes greater than 10 inches may be possible. The ore represented by Trench D appeared to leach the best for the <2 inch fractions. Fractions greater than 2 inches showed minimal gold extraction based on assay data.

13.2.14 2014 Kappes Cassidy and Associates (KCA)

In 2014, Kappes Cassidy and Associates (KCA) conducted large column leach tests on Pan mineralized material with the objective to determine if run of mine (ROM) leaching was an option for the Pan project.

The KCA test was based on about 24 short tons of exposed material from the preproduction work at the mine. This material was characterized as “ROM bulk material, with rock particles ranging in size from 24 inches down to fines under 10 mesh Tyler. The fines composed an estimated 20% of the sample. Overall, the sample was light tan in color and was identified as oxide material. The plus 10 mesh material consisted of tan (45%), light grey (10%), and light orange (45%) rocks. The tan rocks contained some red veining, the light grey rocks contained some deep red oxidation staining and veins, and the light orange rocks contained heavy orange oxidation staining. All rocks ranged from slightly hard to easy to break, and broke into angular pieces. No sulfide or organic material was visible.”

This was described as material from the breccia area of South pan and appears to have been relative low in fines. The material was also nearly double the average grade of the South Pan deposit at 0.026 opt. Gustavson believes that this material was representative of the South Pan breccia zone, however may not have been representative of the balance of South Pan ore.

This ROM leach test resulted in an average of 93% gold recovery for the sample tested. Based on the results of this test, the decision was made to move forward with run of mine leaching.

The review of "Partially Leached Ore" conducted by FLSmidth in 2015 tested one sample from the existing leach pad. The sample is described as "...mostly a quartz and calcite rich rock with clay minerals (muscovite/illite + kaolinite + swelling clay) as the secondary phases and minor amounts of dolomite and barite. The grain coatings and the -10 Mesh material have similar mineralogies…" and goes on to state that "Chemical assays show that most of the gold is in the grain coatings (1.1 ppm) and silver is in the coarse grains (6.9 ppm). The water soluble gold accounts for nearly half of the total gold in the sample." As this material was loaded over several months, it can be expected that this is typical of the material to be processed from South Pan.

Based on a review of these results and previous work performed by RDi, it is recommended that the mine proceed with crushing and agglomerating ore as proposed in 2011.

13.2.15 Metallurgical Testing Conclusions

The composite samples assayed 0.23 gpt to 2.153 gpt Au and 0.56 gpt to 5.63 gpt Hg, and did not exhibit preg-robbing properties. The major host rock mineral is quartz; the ore is competent with low clay minerals content. The South Pan samples have low crushability work index compared to North Pan samples, and abrasion index values indicate that the ore is non-abrasive. Static leach tests and bottle roll tests indicate that South Pan samples leach quickly and at relatively coarse size. Gold extraction was independent of crush size up to nominal 6 inch evaluated in the previous test work. A bulk sample was taken in 2013, and run of mine column test work was performed at Kappes Cassidy labs. Test results indicate that recoveries of 90% were achievable with run of mine ore leaching. However, some indications of high clay presence and potential permeability issues were indicated by these tests.

North Pan samples are size dependent and need finer crush to obtain reasonable recoveries.

Average gold extraction in a leach time of 79 days was significantly higher for South Pan samples than for North Pan samples, as was NaCN consumption.

Pregnant solution analyses indicate low probability of problems with carbon loading. The gold recoveries for the commercial operation are projected to be 80% for South Pan using run of mine ore leach and 65% for North Pan ore crushed to 80% < 1 ½ inch

Process engineering and design is shown in Section 17.

14 MINERAL RESOURCE ESTIMATE

14.1 Geologic Model

The geologic model was updated using Leapfrog Geo from drill hole information and sectional interpretations completed by Midway. The sections cover the geology from 14,270,400N through 14,281,200N on 200 foot centers. The following process was used to generate the geologic model:

- Offset surface topography vertically down 10 feet to represent alluvium;
- Import modeled breccia from the feasibility study;
- Develop a 3-dimensional structural model from Midway sectional interpretation and surface geologic model;
- Select basal contacts of each formation;
- Generate geologic surfaces using a linear interpolant based on the contact points within individual fault compartments;
- Adjust surfaces in areas that deviate substantially from Midway interpretation;
- Create geologic solids for each formation.

Figure 14-1 is an oblique view of the final Project geologic model based on the updated data and observations from the south pit mine area.

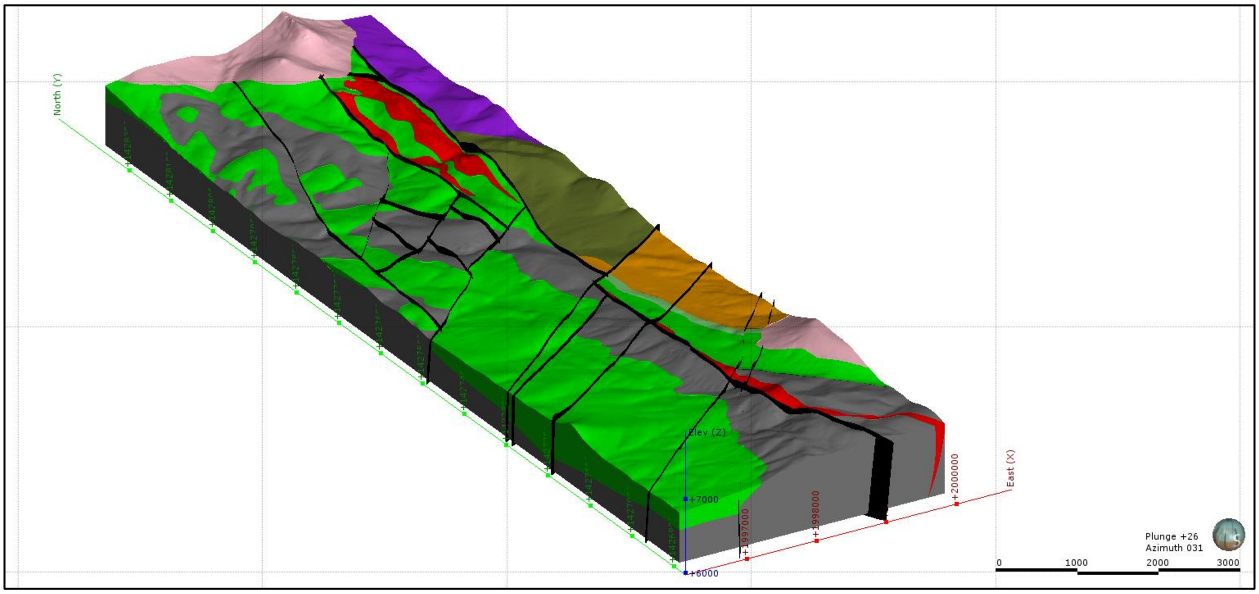


Figure 14-1 Oblique View of the Pan Project Geologic Model with Faults Shown in Black

14.2 Data

14.2.1 Database Audit

Gustavson limited the audit to the Formation, Assay, Collar, and Survey data contained within the database. Gustavson has completed four audits of the Pan Exploration drill hole database in previous studies, including the 2011 Technical Report. For the purpose of this update the validation of assay certificates was limited to drill holes added after the effective date of the previous Technical Report.

The information in the updated database is consistent with the database utilized as the basis of the 2011 Technical Report.

The updated database was then compared to the assay certificates from Midway's 2015 drill hole campaign. A limited number of certificates were provided to Gustavson. Every 5th sample for each drill hole with a certificate was validated. No errors were identified.

A mechanical audit of the database was completed using both Leapfrog Geo Version 2.2.0 and Datamine software version 3.24.25.0. The database was checked for overlaps, gaps, total drill hole length inconsistencies, non-numeric assay values, and negative numbers. All of the negative numbers were set to 0.0001 opt for consistency between drill hole program detection limits; however, Gustavson identified a large number of "0" assay intervals contained within the database. Zero value assays are assumed to be unmineralized and are set to 0.0001 opt for purposes of resource estimation.

Holes which are missing formation data are generally so because complete geologic logs were not completed at the time of drilling. These holes are not used for geologic modelling, but the assay values are used for resource estimation.

Gustavson concludes that the data is adequate for the purposes of preparing an NI 43-101 compliant report on resources.

14.2.2 Cyanide Adjustment Factor

The Pan drill database currently consists of 1,036 RC holes and 45 diamond core holes. Some of these holes drilled by Amselco and Alta Bay are assumed to be cold cyanide assays for the gold. The "Pan Gold Project Updated Technical Report" filed in January 2005 for Castleworth Ventures Inc. preformed an analysis of the historical samples which had both cyanide and fire assays and found a bias to the cyanide data of about 24% below the associated fire assay. At that time and in 2010-2011 these assays were not considered trustworthy and were excluded from estimates for either measured or indicated mineral resources. There were additional fire assay data in the areas where the cyanide assays were ignored, which allowed estimates to be made in those areas with relatively closely spaced data.

With an apparent high bias of the resource model versus the blast holes, it was decided to reevaluate the relationship of these data. In order to determine an appropriate adjustment between cyanide assay gold and fire assay gold data, the exploration data available were first reviewed. The exploration database was the raw lab data in gpt, converted to opt at 4 decimal places accuracy. It is immediately clear from an XY scatterplot that there is influenced variation in the data. There is a larger % difference between cyanide and fire assays at lower grades.

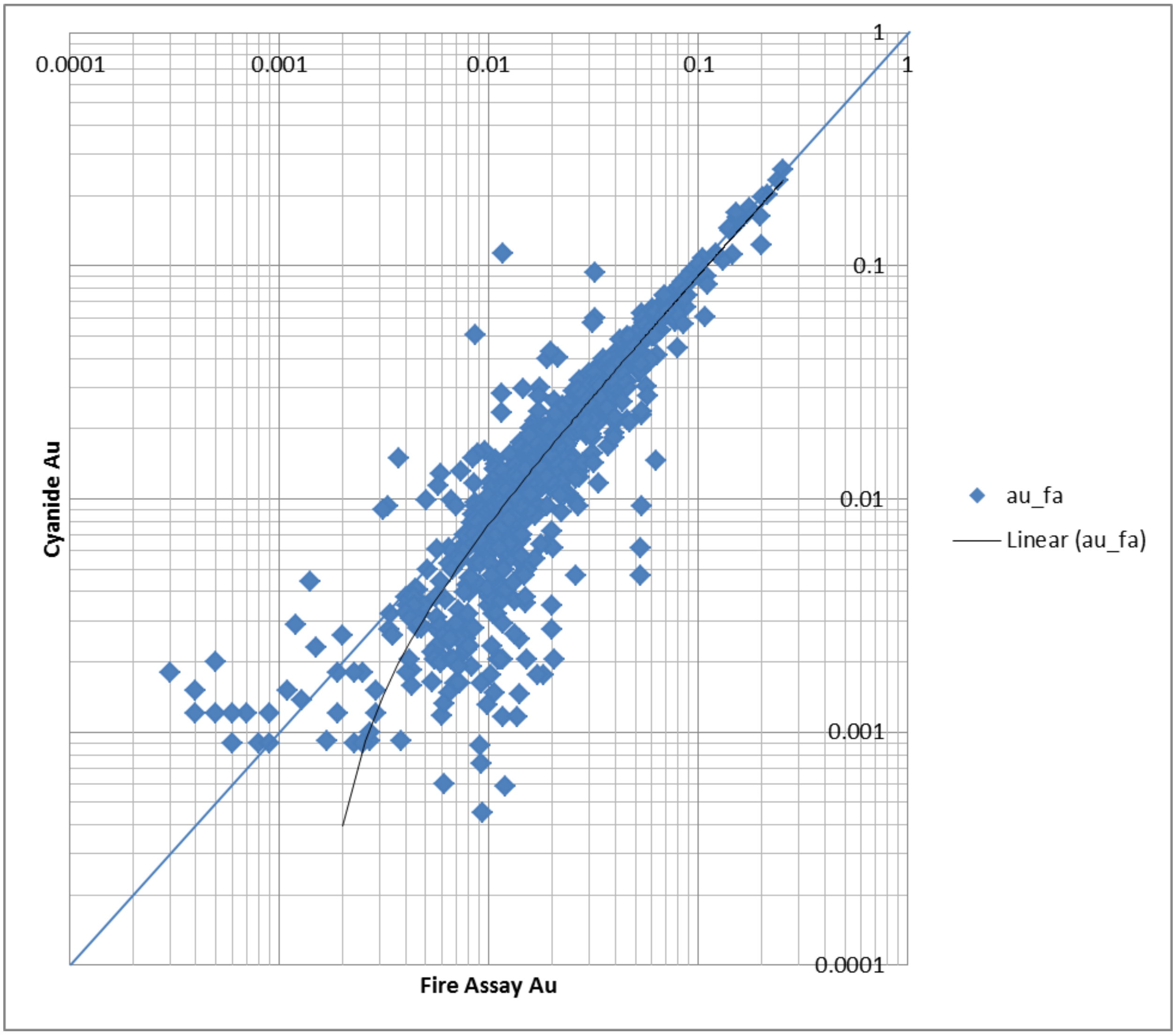


Figure 14-2 Raw Cyanide vs Fire Assay Data Comparison

Given this variation, Gustavson was concerned that using only a percentage factor would tend to overestimate adjusted cyanide grades at the high end, and underestimate adjusted cyanide grades at the low end. Accordingly it was determined that a simple regression would allow for an appropriate level of adjustment.

The factor used is:

Adjusted Cyanide = (Cyanide / .93) + 0.0015

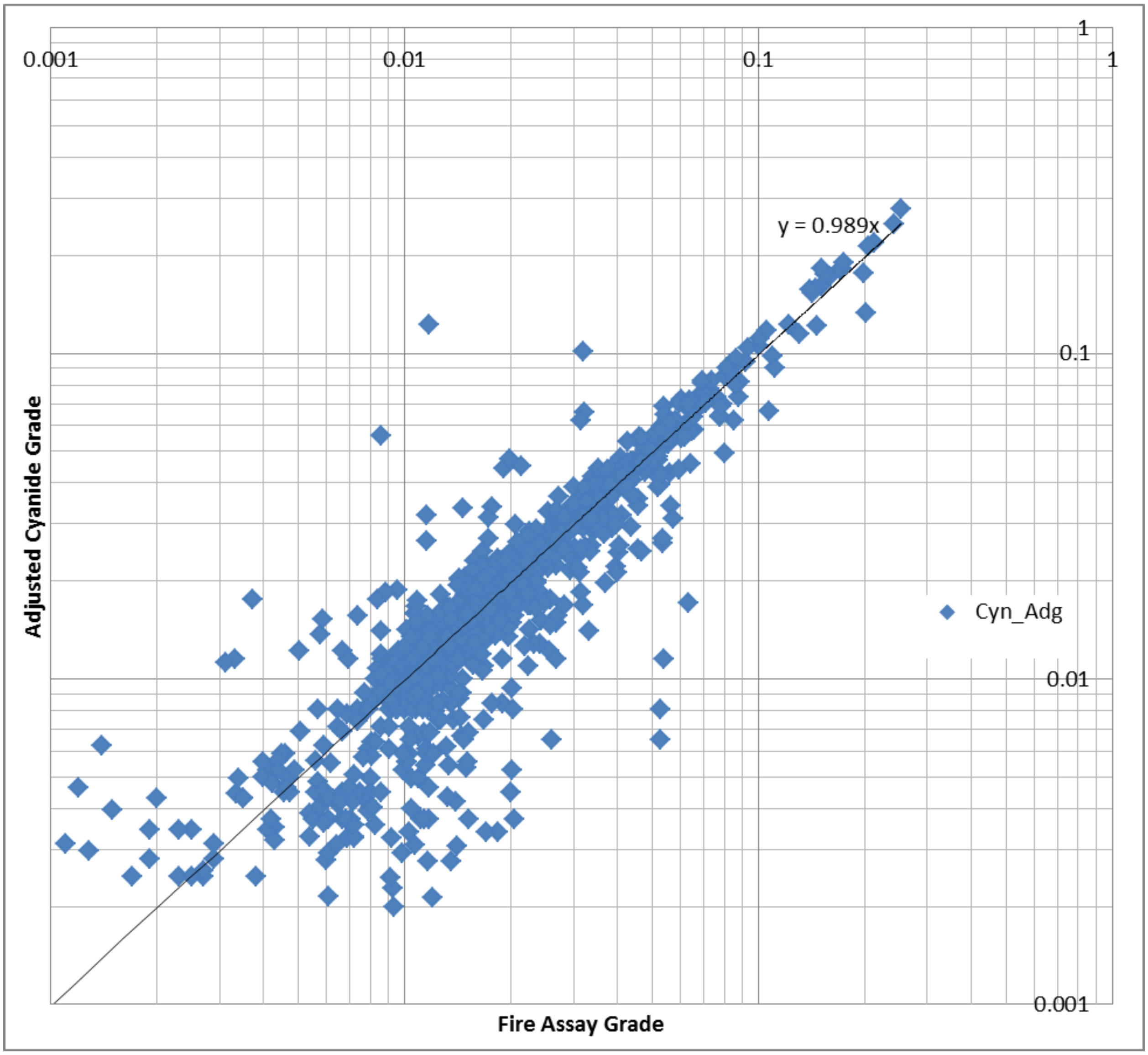


Figure 14-3 Adjusted Cyanide vs. Fire Assay

Overall, the adjusted grades show reasonable agreement, with a few fire assay values in the mid-ranges having higher variability. The mean and median of the adjusted cyanide assays are both highly consistent with the fire assay grades.

Table 14-1 Comparison of Means and Medians of Sample Populations

	Direct Cyanide	Fire Assay	Adjusted Cyanide
Mean	0.0214	0.0249	0.0246
Median	0.0142	0.0170	0.0167
1,115 Exploration Samples			

Gold assays from the database are considered as follows:

- For intervals where fire assay data are available, fire assay data are used.
- For intervals where only cyanide assay data are available, the cyanide data are converted to adjusted cyanide assay data according to the formula given above and the adjusted cyanide value is used in the estimation.

14.3 Block Model

A block model was created for the Pan deposit using blocks that are 20 feet wide, 20 feet long and 20 feet high. Each of the blocks was assigned attributes of gold grade, resource classification, rock density, tonnage factor, lithology, alteration, and a grade domain classification. The blocks were then assigned densities and domain assignments as appropriate to assist in estimation. The block model parameters are given in Table 14-2.

Table 14-2 Block Model Parmeters

	Origin (UTM feet)	Number of Blocks	Block Size (feet)
X	1996200	190	20
Y	14269000	685	20
Z	6000	85	20

14.4 Density

Midway performed density tests on 194 diamond core samples from both North and South Pan. The test procedure included weighing of the core sample in air, weighing the sample in water, and use of the following calculation:

A = mass of dry specimen in air,

B = mass of specimen in water,

$$\gamma = \left(\frac{A}{B}\right) * 0.9970 \frac{g}{cm^3}$$

The results are summarized in Table 14-3.

Table 14-3 Core Sample Density Test Results

Rock Type	Density (t/feet^3)	Tonnage Factor (feet^3/ton)
Argillic Shale	0.0617	16.2
Silicified Shale	0.0740	13.5
Shale	0.0704	14.2
Altered Limestone	0.0704	14.2
Limestone	0.0781	12.8
Argillic Breccia	0.0709	14.1
Silicified Breccia	0.0763	13.1
Breccia	0.0740	13.5
Tertiary Volcanics	0.0592	16.9
Alluvium	0.0562	17.8

14.5 Estimation Domains

In order to accommodate statistical search parameters appropriate for individual mineralization styles and structural orientations, the block model was divided into 3 domains. Domains were delineated based on distinguishing characteristics of one or several target areas grouped together. The three domains of the project area, North, Central, and South Pan, were based on the individual characteristics of the area (Figure 14-4).

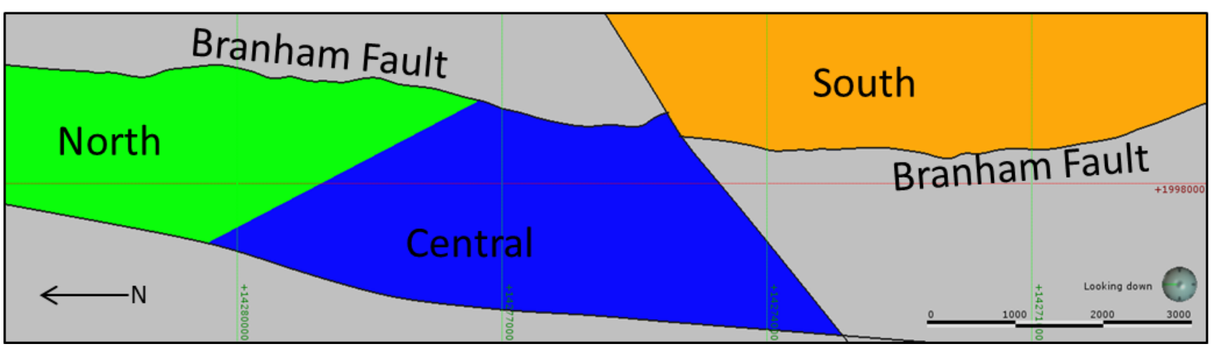


Figure 14-4 Pan Estimation Domains

14.5.1 North Pan

The North Pan domain is delineated by the Branham fault on the east and by a normal fault on the western edge. This domain is dominated by a structurally controlled solution/collapse breccia that occurs adjacent to the Branham fault, and is oriented near-vertically. Mineralization becomes more stratigraphically controlled as it trends west from the Branham fault.

14.5.2 Central Pan

The Central Pan domain is delineated by the same faults used for the North Pan domain. It is split from the North domain by an arbitrary line that separates the less continuous mineralization encountered in the smaller targets from that of the more continuous North domain. Each of the individual target areas in this zone, namely Black Stallion and Syncline, are characterized by sub-horizontal mineralization along the Pilot Shale-Devil's Gate Limestone contact.

14.5.3 South Pan

The South Pan domain is delineated by the Branham fault on the west, with mineralization residing entirely to the east of the Branham fault. The Branham fault in this area was partially defined by the ore/waste boundary identified in the production data (Figure 14-5). The portion of South Pan that is adjacent to the Branham fault and that contains the South Breccia is dominated by a structurally controlled solution/collapse breccia, which is oriented near-vertically with a gentle plunge to the north. As the mineralization trends to the east, it becomes more stratigraphically controlled and grades into the area known as Wendy. The Wendy area mineralization resides along the contact between the Pilot Shale and Devil's Gate Limestone.

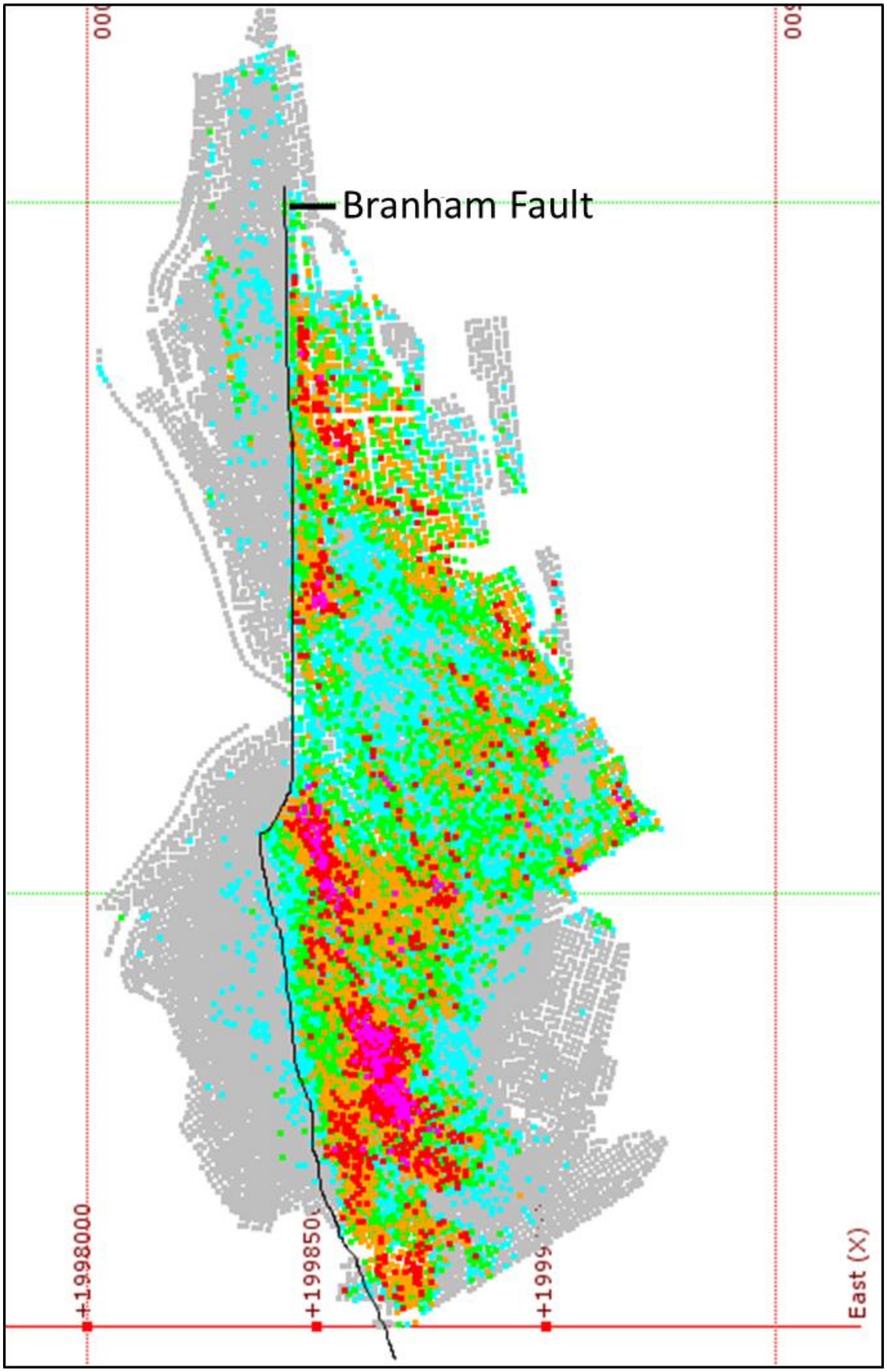


Figure 14-5 Blast Hole data with the approximate location of the Branham fault in the South Domain

14.6 Compositing

Twenty-foot downhole composites were created from the gold assays and confined to each of the domain solids. The composites were then used for grade capping analysis and variography for each domain solid. Table 14-4 presents the composite data for each domain.

Table 14-4 Composite descriptive statistics

Domain	Code	Number	Min	Max	Mean	Std. Dev.	COV
South	20	5,559	0.0001	0.2099	0.0071	0.0115	1.6158
Central	30	2,537	0.0001	0.1519	0.0035	0.0085	2.4079
North	40	5,273	0.0001	0.1703	0.0083	0.0127	1.5355
Total	-	13,369	0.0001	0.2099	0.0069	0.0116	1.6872

14.7 Capping

Grade capping is the practice for replacing any statistical outliers with a maximum value from the assumed sampled distribution. This is done statistically to better understand the true mean of the sample population. The estimation of highly skewed grade distribution can be sensitive to the presence of even a few extreme values. Gustavson utilized a log scale Cumulative Frequency Plot ("CFP") of the composited assay data for gold to identify the presence of statistical outliers (Figure 14-6). Capping for gold within each domain was determined from these plots. The final dataset for grade estimation in the block model consists of composites capped as presented in Table 14-5 with the descriptive statistics.

Table 14-5 Capped Composite Descriptive Statistics

Domain	Code	Cap	Number	Min	Max	Mean	Std. Dev.	COV
South	20	0.1	5,559	0.0001	0.1000	0.0071	0.0112	1.5745
Central	30	0.07	2,537	0.0001	0.0700	0.0035	0.0080	2.2828
North	40	0.15	5,273	0.0001	0.1500	0.0083	0.0127	1.5306
Total	-		13,369	0.0001	0.1500	0.0069	0.0114	1.6590

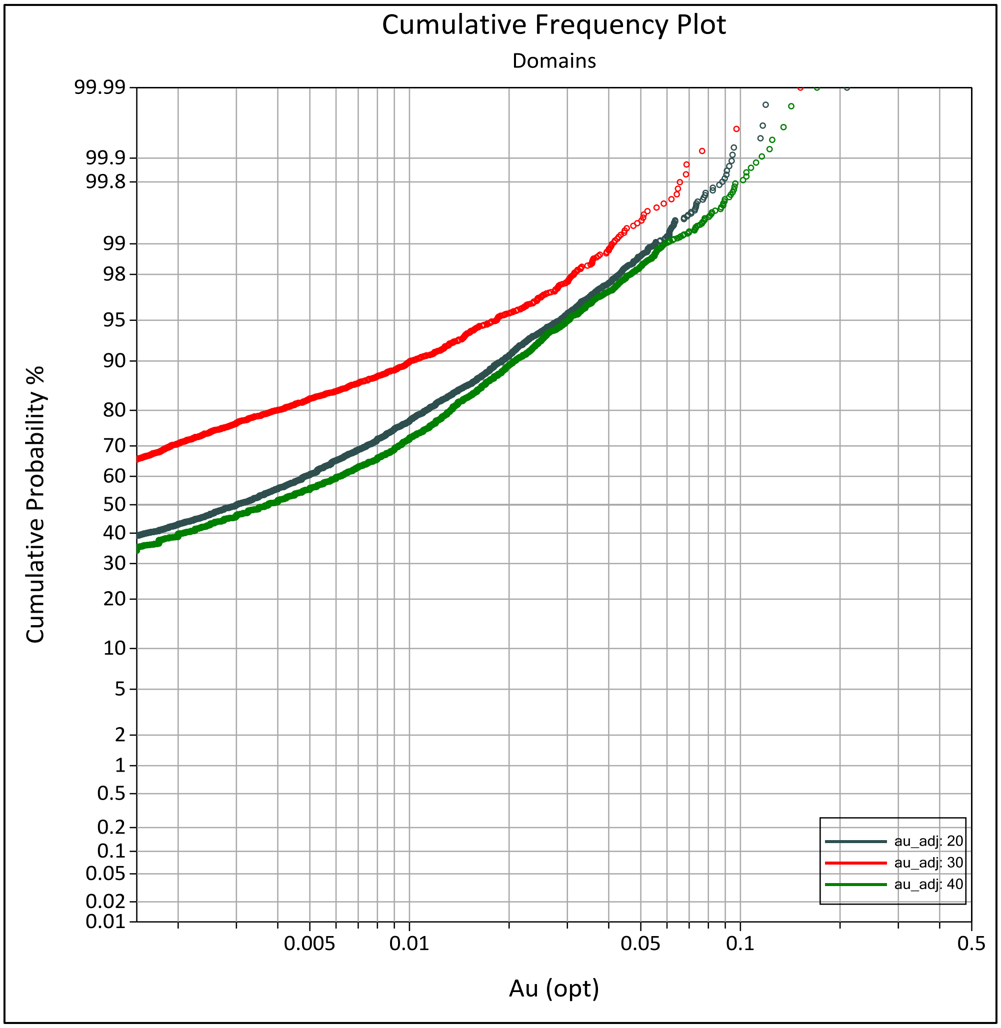


Figure 14-6 Cumulative Frequency Plot for Gold (opt) by Domain

14.8 Variography

A variography analysis was completed to establish spatial variability of gold values in the deposit. Variography establishes the appropriate contribution that any specific composite should have when estimating a block volume value within a model. This is performed by comparing the orientation and distance used in the estimation to the variability of other samples of similar relative direction and distance.

Variography was analyzed using Snowden Supervisor Version 8.4. The continuity is established by analyzing variogram contour fans in the horizontal, across-strike, and dip planes to determine the direction of maximum continuity within each plane. The subsequent variograms defining the maximum continuity were modeled with a spherical variogram (Figure 14-7). Table 14-6 summarizes the variogram parameters used for the estimation of gold.

Table 14-6 Modeled Variogram Parameters

South Domain (20)			
Nugget (C0)		C1	C2
0.17		0.4	0.43
Axis	Rotation	Range 1 (feet)	Range 2 (feet)
Z	70	123	333
X'	70	33	153
Z'	20	19	52
Central Domain (30)			
Nugget (C0)		C1	C2
0.17		0.44	0.39
Axis	Rotation	Range 1 (feet)	Range 2 (feet)
Z	-150	229	297
X'	90	33	66
Z'	180	74	219
North Domain (40)			
Nugget (C0)		C1	C2
0.25		0.43	0.32
Axis	Rotation	Range 1 (feet)	Range 2 (feet)
Z	95	225	319
X'	45	68	358
Z'	-25	64	218

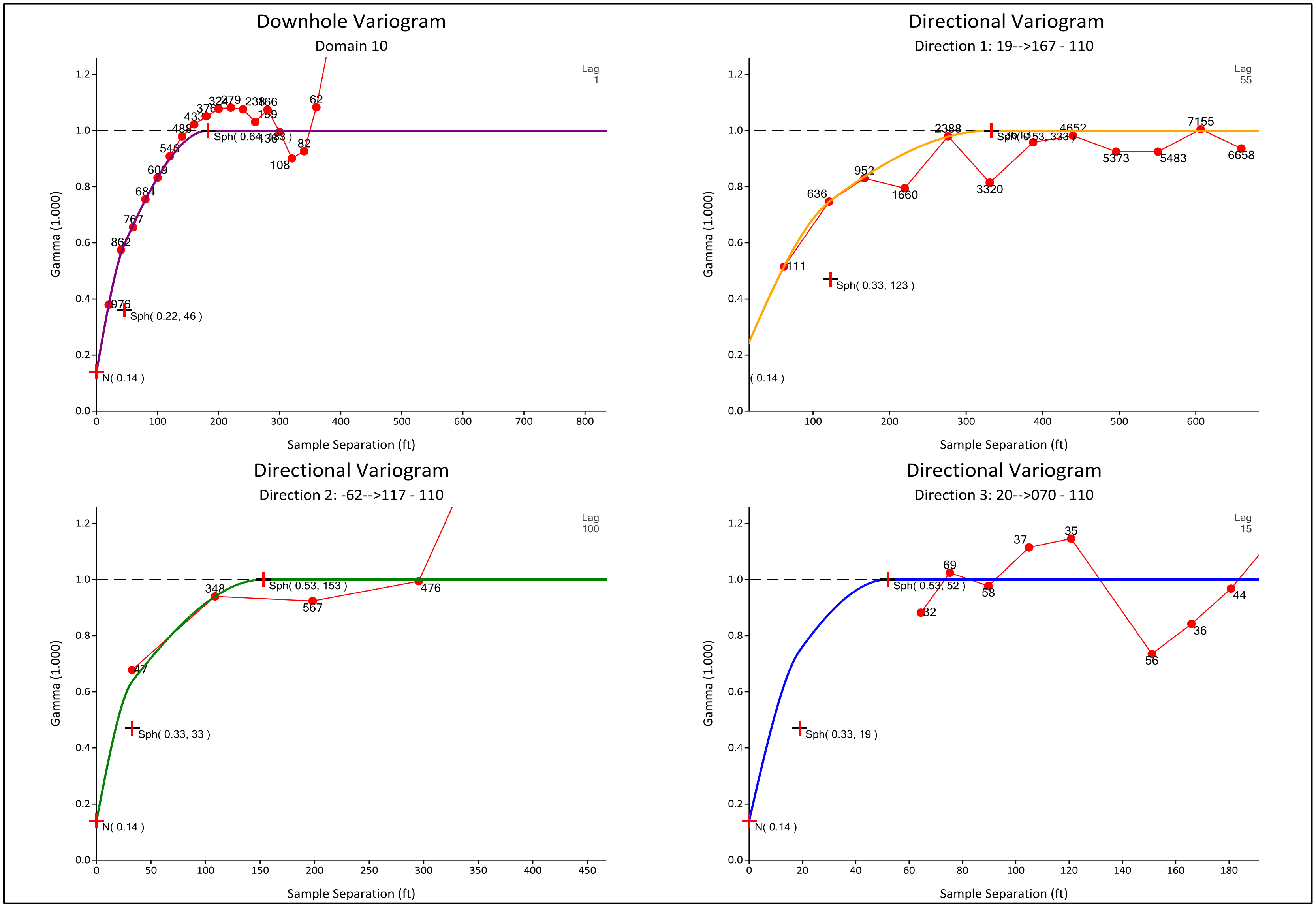


Figure 14-7 South Domain Variogram Models

14.9 Estimation Methodology

Because of the density of drilling in the higher grade zones and the complex interaction between stratigraphic mineralization and solution breccias, an Ordinary Kriging (OK) algorithm using dynamic search ellipses was selected to estimate the gold grades. With this method, the orientation of the search ellipse changes on a block by block basis utilizing wireframe interpretations of the primary orientations. In this model, 7 separate surfaces were created and utilized to model the structural fabric of the geometry associated with the mineralization for each domain. These wireframes were created based on surface geology maps, mine production data, domain bounding faults, and the modeled contact surfaces of the stratigraphy. Areas not defined by a wireframe used the directions established in variography.

The gold grades were estimated from 20-foot down-hole composites using Ordinary Kriging. Composites were coded according to their domain. The search volumes were established based on the second structure of the variogram model for each domain and are summarized in Table 14-7. The estimation was completed in 3 passes of expanding search volumes with the maximum search volume extending to 1 ½ times the range of the second structure from the variogram models. Each block was estimated using a minimum of 4 composites, a maximum of 8 composites, and no more than 2 composites from a single drill hole.

Ordinary Kriging was used to estimate grade for all domains. Estimation parameters for each of the domains are given in Table 14-7.

Table 14-7 Pan Estimation Parameters

Domain	South (20)			Central (30)			North (40)		
# of composites	1st Pass	2nd Pass	3rd Pass	1st Pass	2nd Pass	3rd Pass	1st Pass	2nd Pass	3rd Pass
Min	4	4	4	4	4	4	4	4	4
Max	8	8	8	8	8	8	8	8	8
Max per Hole	2	2	2	2	2	2	2	2	2
Search Ellipsoid Distance									
Primary	150	300	450	75	300	450	75	300	450
Secondary	72.5	145	217.5	15	60	90	75	300	450
Tertiary	25	50	75	50	200	300	50	200	300

14.10 Estimate Validation

Overall, Gustavson utilized several methods to validate the results of the estimation method. The combined evidence from these validation methods verifies the OK estimation model results.

14.10.1 Comparison with Inverse Distance and Nearest Neighbor Models

Inverse Distance (ID) and Nearest Neighbor (NN) models were run to serve as comparison with the estimated results from the OK method. Descriptive statistics for the OK method along with those for the ID, NN, and drill hole composites for the domains are shown in Table 14-8.

Table 14-8 Gold Model Descriptive Statistical Comparison

Gold Model Descriptive Statistics Domain 20						
Type	Count	Min	Max	Mean	Std. Dev.	COV
	n	gpt	gpt	gpt	gpt	
Composite	5,559	0	0.1	0.0071	0.01118	1.5745
ID	303,603	0.000088	0.0992	0.00406	0.00626	1.5416
OK	303,603	0.000095	0.0844	0.00413	0.00575	1.3913
NN	303,603	0.000079	0.1	0.00393	0.00794	2.0175
Gold Model Descriptive Statistics Domain 30						
Composite	2,537	0	0.07	0.00349	0.00798	2.2828
ID	234,614	0.0001	0.06235	0.00169	0.003	1.7746
OK	234,614	0.0001	0.06001	0.00177	0.00291	1.6443
NN	234,614	0.0001	0.07	0.00145	0.00381	2.6286
Gold Model Descriptive Statistics Domain 40						
Composite	5,273	0	0.15	0.00827	0.01265	1.5306
ID	397,708	0.000093	0.10803	0.00309	0.00465	1.5045
OK	397,708	0.000099	0.10544	0.00313	0.00447	1.4289
NN	397,708	0.000079	0.15	0.00296	0.00614	2.0707

The overall reduction of the maximum, mean, and standard deviation within the OK and ID models represent an appropriate amount of smoothing to account for the point to block volume variance relationship. This is confirmed in Figure 14-8, which compares the Cumulative Frequency Plots of each of the models and drill hole composites.

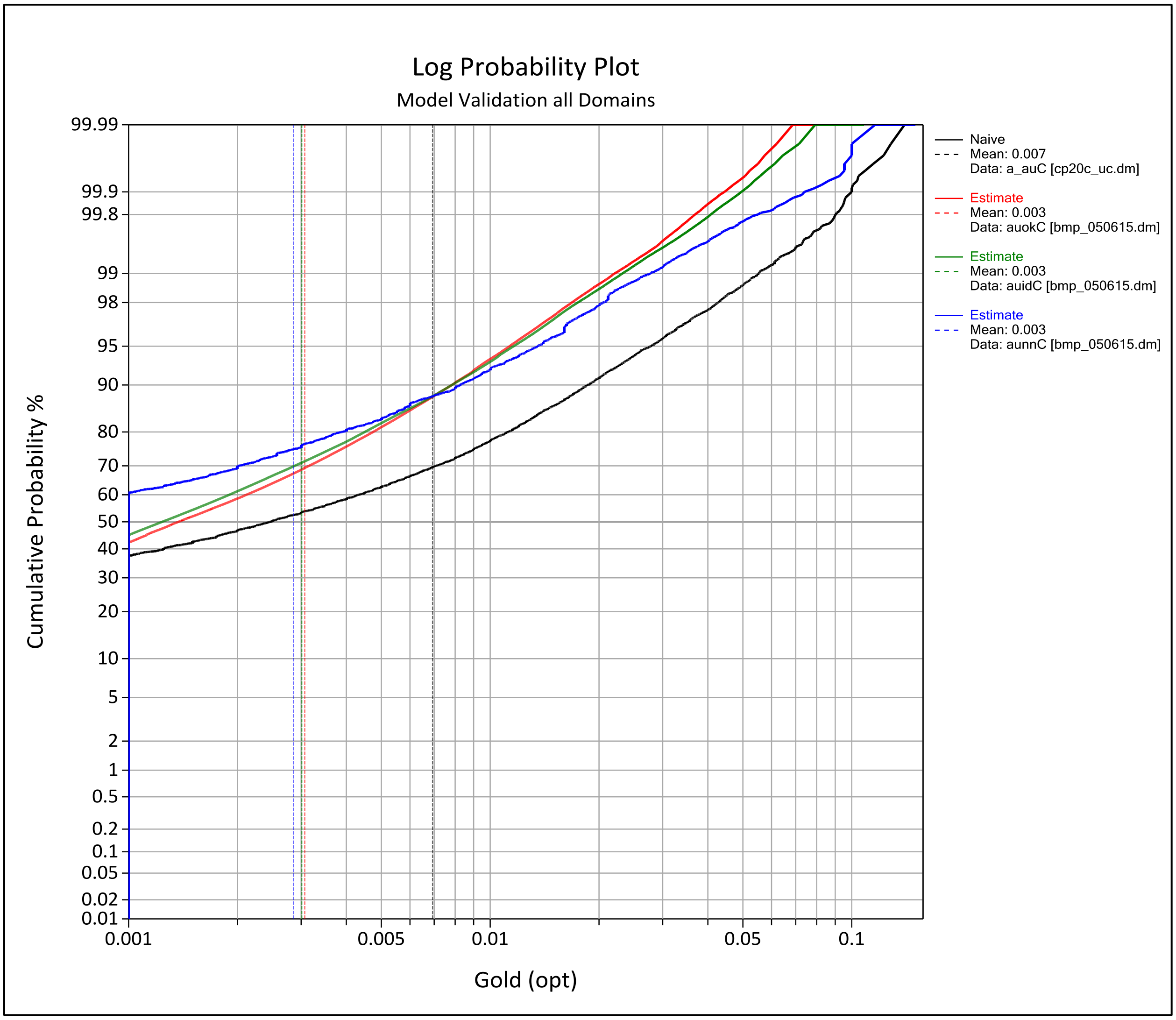


Figure 14-8 Cumulative Frequency Plot - Model Comparison (Capped Composites – Black, NN –Blue, ID – Green, OK – Red)

14.10.2 Swath Plots

Swath plots were generated to compare average estimated gold grade from the OK method to the two validation model methods (ID and NN). The results from the OK model, plus those for the validation ID model method are compared using the swath plot to the distribution derived from the NN model.

Three swath plots were generated: Figure 14-9 shows average gold grade from west to east; Figure 14-10 shows average gold grade from south to north, and Figure 14-11 shows average gold grade from bottom to top.

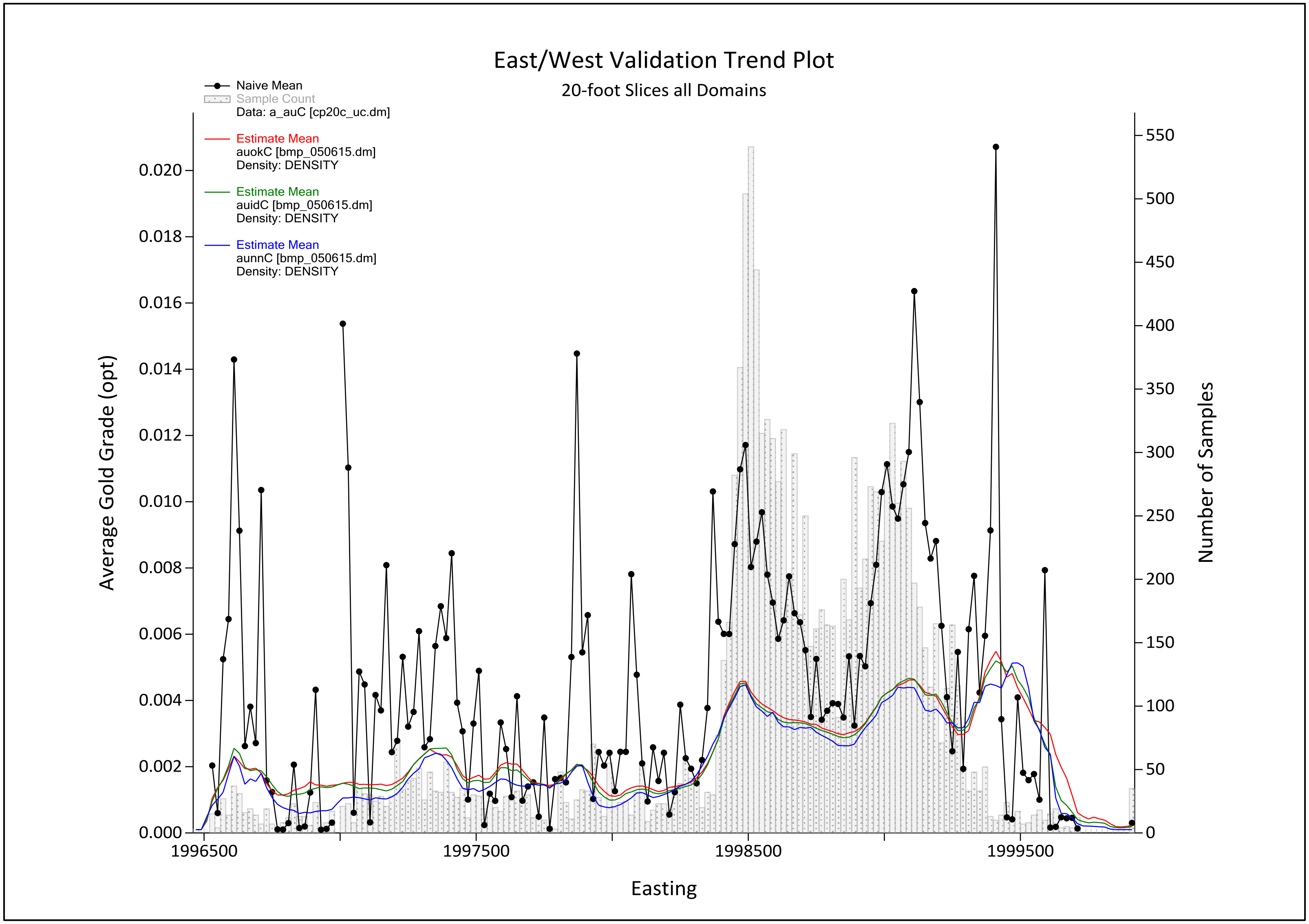


Figure 14-9 East/West Gold swath Plot all Domains

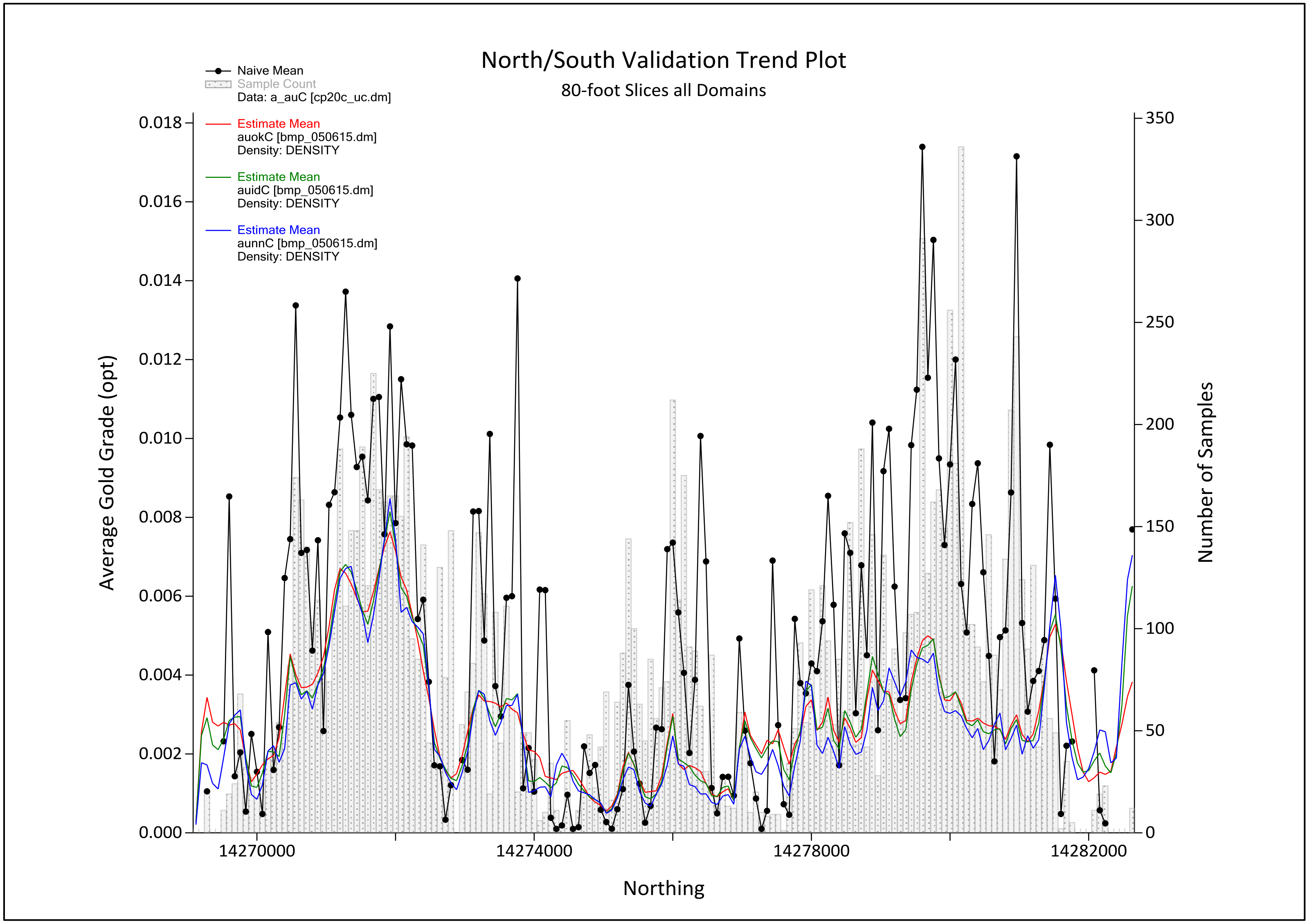


Figure 14-10 North/South Gold swath Plot all Domains

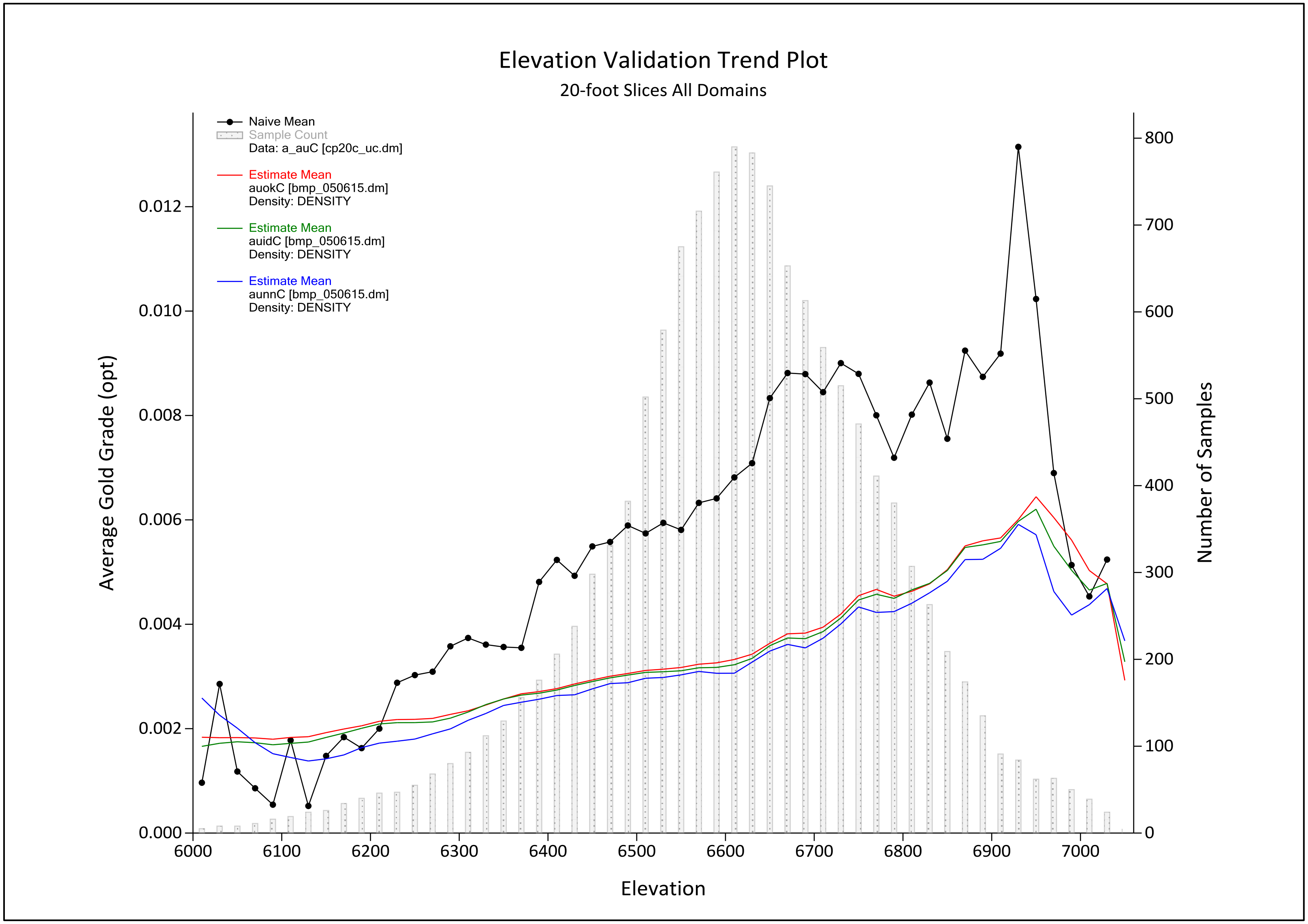


Figure 14-11 Elevation Gold swath Plot all Domains

On a local scale, the nearest neighbor model does not provide a reliable estimate of grade, but on a much larger scale, it represents an unbiased estimation of the grade distribution based on the total data set. Therefore, if the OK model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend should be similar to the distribution of grade from the nearest neighbor.

Overall, there is good correlation between the grade models, although deviations occur near the edges of the deposit and in areas where the density of drilling is less and material is classified as Inferred resources.

14.10.3 Section Inspection

Bench plans, cross-sections, and long sections comparing modeled grades to the 20-foot composites were evaluated. Sections displaying estimated gold grades are shown in Figure 14-12 through Figure 14-14. The figures show good agreement between modeled grades and the composite grades. In addition, the modeled blocks display continuity of grades along strike and down dip.

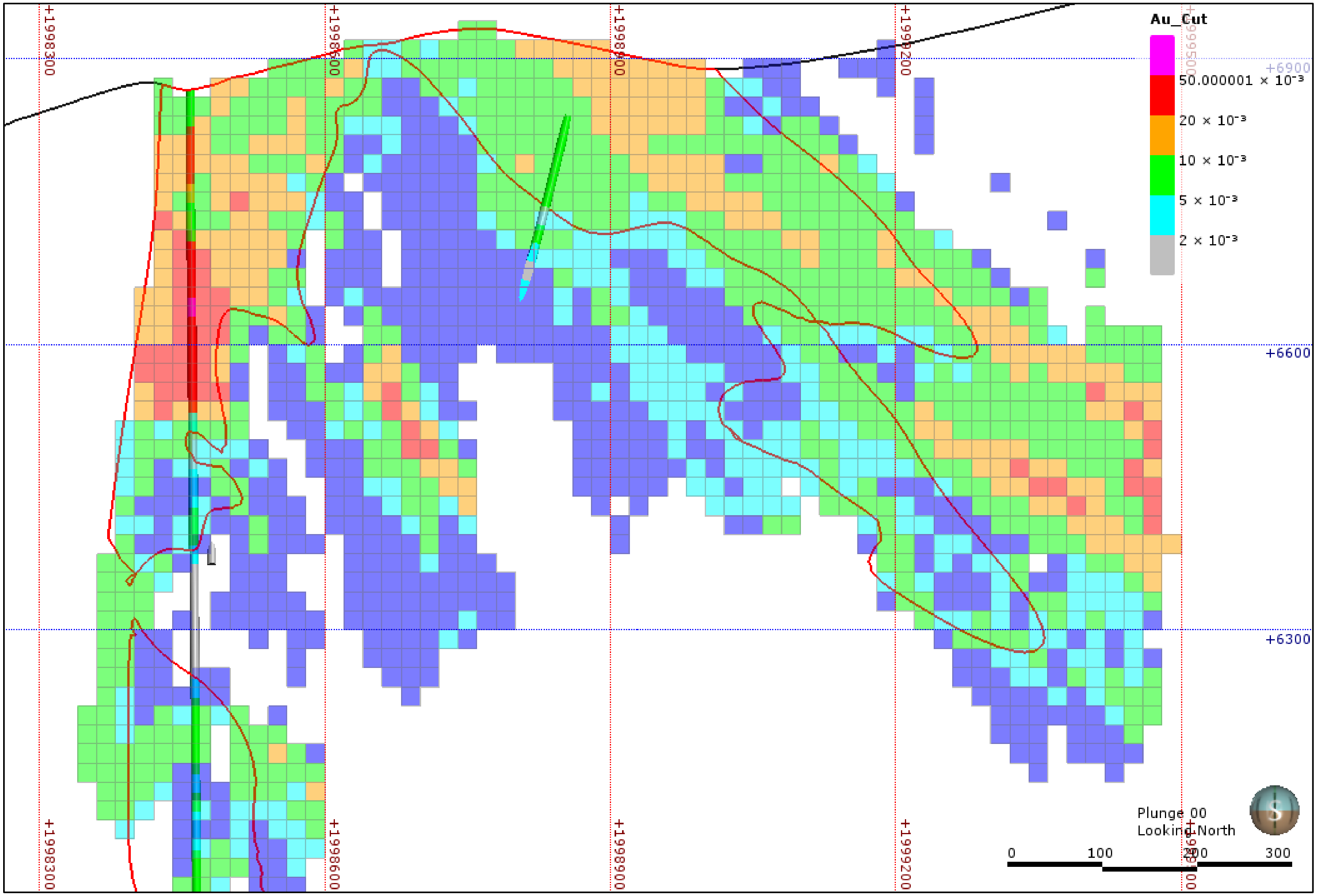


Figure 14-12 South Pan Section 14,271,530E Looking North

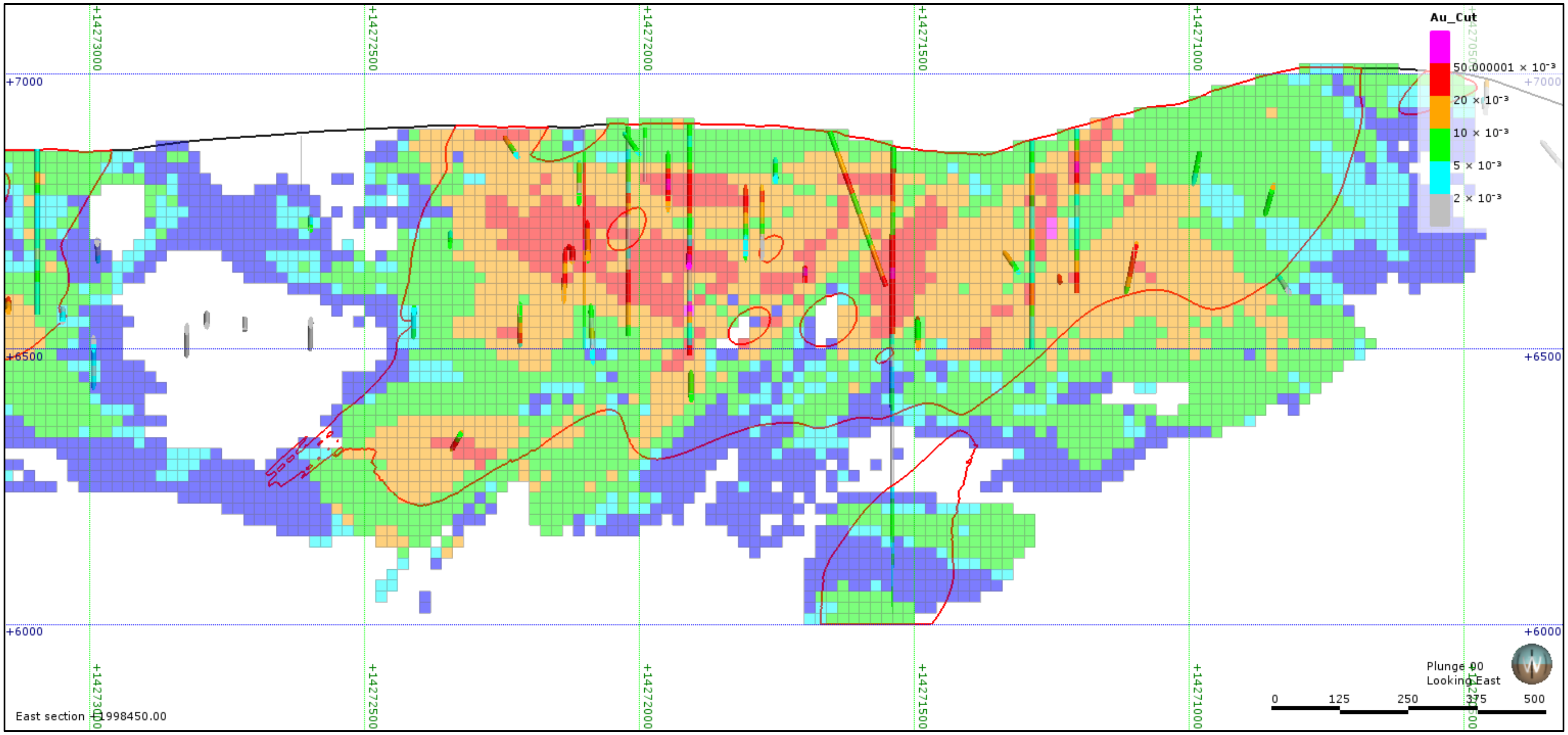


Figure 14-13 South Pan Section 1,998,450N Looking East

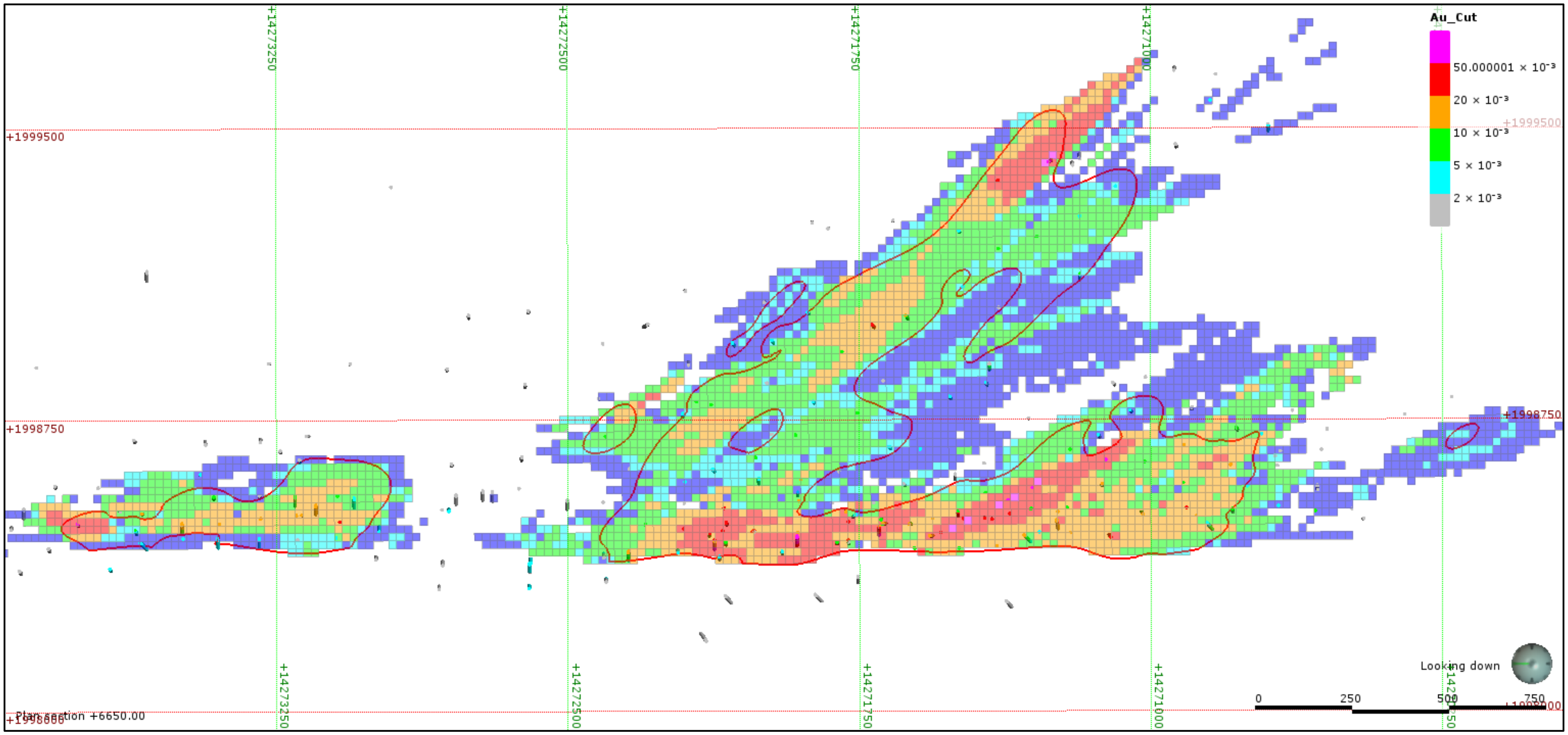


Figure 14-14 South Pan Bench Plan at Elevation 6,650

14.10.4 Comparison to Production Model

Gustavson reviewed the production model currently implemented by Midway at Pan, and proposed an update to the ore control modelling methodology based on current blast hole sampling methodology. Comparisons between the ore control system and the resource model are used to validate the resource model and to demonstrate its applicability to the current mining scenario.

The comparison is made within the mined volume as provided by Midway as of April 30, 2015. The grade control model uses the current density model. The Pan mine indicates that actual densities are averaging somewhat higher than the density model, work is ongoing to assess this. Overall agreement on a bench by bench basis between the resource model at cutoff and the ore control model is excellent, well within acceptable norms for this type of comparison.

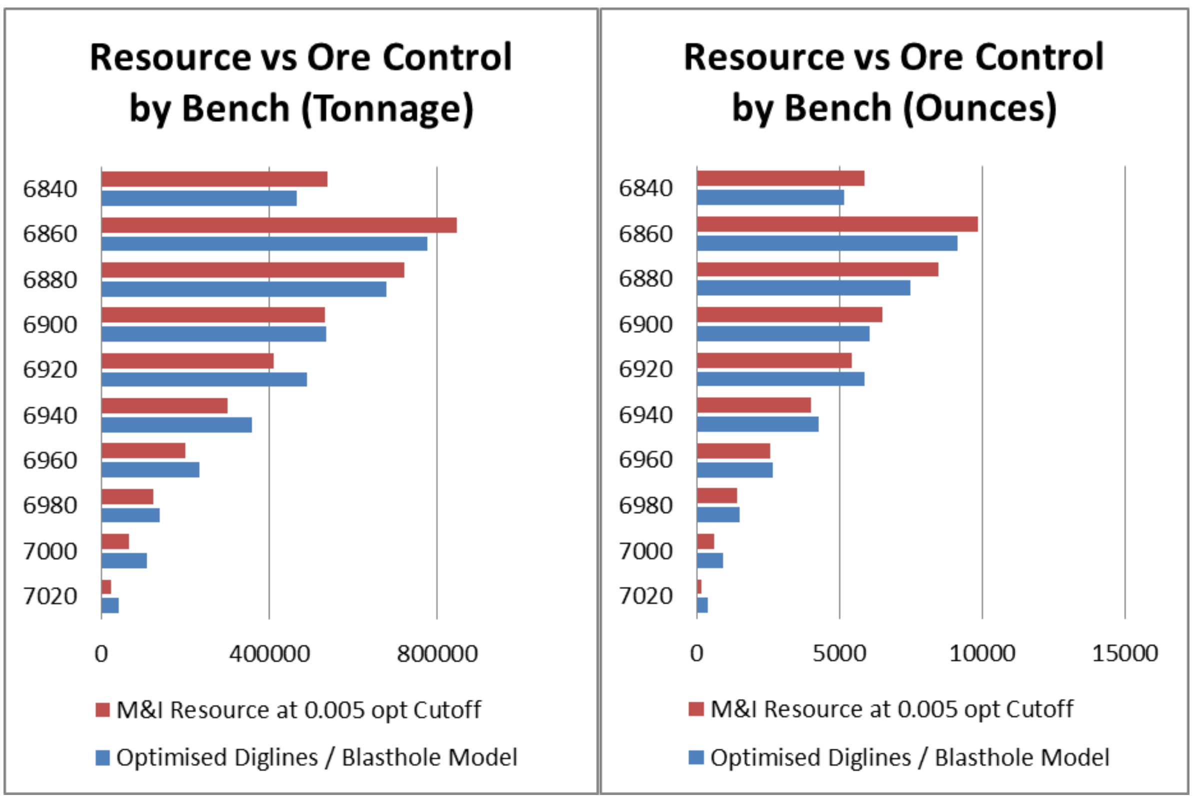


Figure 14-15 Bench by Bench comparison of Resources vs Grade Control Model

14.11 <u>Mineral Resource Tabulation</u>

In order to meet the test of ‘reasonable potential for economic extraction’, Gustavson constructed a Lerchs-Grossmann pit shell at a $1,500 gold price to further constrain the estimated resource. The input parameters for the pit shell are given in Table 14-9.

14.11.1 Economic Parameters Used for Pit Shell

The economic parameters used for this analysis are based upon current operating costs at the Pan mine scaled to reflect designed production rates, expected process operating costs (including agglomeration for material from South Pan as projected in the 2011 Feasibility Study), and upon estimated gold recoveries from metallurgical tests completed to date (including agglomeration). Table 14-9 summarizes the cost and recovery parameters used in the analysis. Although based on observed operations, Gustavson notes that mineral resources are not mineral reserves with demonstrated economic viability; Gustavson has provided updated reserves in this technical report.

Table 14-9 Parameters used for Resource Pit Shell Generation

South Pan Deposit		
Item	**Cost/Rate**	**Units**
Mining Cost	$2.00	US$ per Total ton
Processing Cost	$2.75	US$ per Ore ton
G&A Cost	$0.80	US$ per Ore ton
Process Recovery	85%	
Mining Dilution	0%	
North Pan Deposit		
Item	**Cost/Rate**	**Units**
Mining Cost	$2.00	US$ per Total ton
Processing Cost	$3.00	US$ per Ore ton
G&A Cost	$0.80	US$ per Ore ton
Process Recovery	62%	
Mining Dilution	0%	

14.11.2 Mineral Resource Classification

Gustavson used an indicator solid generated in Leapfrog Geo from the 20-foot downhole composites to delineate the areas where the continuity of the mineralization is similar to what can be achieved in the mining operation. The indicator cutoff value was established at 0.003 opt gold and a probability threshold of 60%. Estimated blocks outside of the indicator shell where classified as Inferred resources, while estimated blocks within the indicator shell were classified based on the pass in which the block was estimated (Table 14-7). Blocks estimated within the first pass and inside the indicator shell are classified as Measured. Blocks estimated within the second pass and inside the indicator shell are classified as Indicated. All other estimated blocks are classified as inferred.

14.11.3 In Pit (Reported) Resources

Table 14-10 Mineral Resource Statement for the Pan Mine, White Pine County, Nevada, Gustavson Associates, LLC, May 1, 2015

	MEASURED			INDICATED			M&I			INFERRED		
Cutoff	Tons	Grade	Contained	Tons	Grade	Contained	Tons	Grade	Contained	Tons	Grade	Contained
(opt)	('000s)	(opt)	('000s oz)	('000s)	(opt)	('000s oz)	('000s)	(opt)	('000s oz)	('000s)	(opt)	('000s oz)
0.008	15,676	0.017	264.7	12,208	0.014	167.4	27,886	0.016	433.3	6,014	0.015	88.4
0.006	18,339	0.015	283.3	15,818	0.012	192.8	34,157	0.014	477.1	9,517	0.012	112.5
0.004	20,430	0.014	293.4	19,185	0.011	210.1	39,614	0.013	503.8	15,400	0.009	141.1

Note: Open pit optimization was used to determine potentially mineable tonnage. Measured, Indicated, and Inferred mineral classification was determined according to CIM Standards. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability. The 2015 Measured, Indicated, and Inferred resource is constrained within a $1,500 Lerchs-Grossmann Pit shell. The base case estimate applies a cutoff grade of 0.004 opt based on the current operating costs, the 2011 Feasibility Study recoveries, and a $1,200 gold price.

15 MINERAL RESERVE ESTIMATE

Gustavson's Feasibility Study demonstrates that the Pan Project is economically viable, based on Measured and Indicated Mineral Resources. The Pan reserve estimate is reported using a 0.005 opt internal cutoff for the North and Central pits and an internal cutoff of 0.004 opt for the South pits. Cutoff grades for both pits were chosen to maximize the economic recoverable ounces within the pit shells. Pit designs were based on geologic criteria provided in the April 2011 Pit Slope Evaluation report produced by Golder Associates. The limestone units were designed with a 70° highwall angle, with three 20 foot high benches followed by a 30 foot catch bench, resulting in a 50° inter-ramp wall angle and assumes pre-split blasting. All other rock units are designed using a 65° highwall angle, with three 20 foot high benches followed by a 30 foot catch bench, resulting in a 45° inter-ramp wall angle, again assuming pre-split blasting.

15.1 MaxiPit Pit Optimization

Gustavson generated a series of pit shells on the South and North resource blocks based on profit factors which calculates the profit of each block within the resource model based on the revenue minus operating costs using Datamine's Maxipit software. A gold price of $1,200 per ounce was used to generate the optimized pit shells. Eighty-five pit shells were generated on the North and eighty-eight for the South resource areas separately. The series of pit optimizations were evaluated and graphed to select appropriate economic phases. The Phase 1 South pit was based on a 33% profit factor optimization shell while the Phase 1 North pit was based on the 19% profit factor optimization shell. Both final Phase 2 pits for the North and South pits were based on the maximum value $1,200 per ounce pit shells.

A heap leach recovery factor of 62% and 85% for North Pan and South Pan, respectively were used in the optimization runs. Operating costs were based upon the current mine Contractors agreement and an estimate of processing operating costs based on recent changes in crushing and agglomeration. Mining costs were estimated to be $2.00 per ton of material moved for the pit optimization. Processing costs for the North Pan area, which includes Central Pan and Red Hill, have been calculated at $3.00 per ore ton and assumes secondary and tertiary crushing with no agglomeration. Processing costs for South Pan, which includes the South Satellite pit, have been calculated at $2.75 per ore ton and assume primary crushing and agglomeration. Processing costs include ADR and leaching costs. General and administration costs were estimated at $0.80 per ore ton. Only Measured and Indicated resources were considered in the evaluation, Inferred resources were treated as waste.

Table 15-1 summarizes the economic and mining parameters used in the pit optimization exercise.

Table 15-1 Pit Optimization Parameters

South Pan & Satellite South Pits		
Item	**Cost/Rate**	**Units**
Mining Cost	$2.00	US$ per Total ton
Processing Cost	$2.75	US$ per Ore ton
G&A Cost	$0.80	US$ per Ore ton
Process Recovery	85%	
Mining Dilution	5%	
North Pan, Central Pan & Red Hill Pits		
Item	**Cost/Rate**	**Units**
Mining Cost	$2.00	US$ per Total ton
Processing Cost	$3.00	US$ per Ore ton
G&A Cost	$0.80	US$ per Ore ton
Process Recovery	62%	
Mining Dilution	5%	

15.1.1 Cutoff Grade

Table 15-2 shows the calculated cutoffs based on estimated operating costs and a gold price from recent price forecasts from numerous lending institutions.

The mineral reserve estimate for the Pan Project is based on designed open pits to maximize gold ounces at an average gold price of $1,200 per ounce. Internal cutoff grades of 0.004 opt (0.14 gpt) in the South pit and 0.005 opt (0.17 gpt) in the North and Central pits were used in determining reserves.

Table 15-2 Calculated Cutoffs

South Pan and South Satellite Pits						
Economic Cutoff @		**$1,200**		**Milling Cutoff @**		**$1,200**
Cost Center				**Cost Center**		
Mining	$/mined ton	**$2.00**		Mining	$/mined ton	**$0**
Processing	$/ore ton	**$2.75**		Processing	$/ore ton	**$2.75**
G&A	$/ore ton	**$0.80**		G&A	$/ore ton	**$0.80**
Recoveries	%	**85**		Recoveries	%	**85**
Royalties	%	**4**		Royalties	%	**4**
refining cost	$/oz	**$3.48**		refining cost	$/oz	**$3.48**
Gold Selling Price	$/oz	**$1,200**		Gold Selling Price	$/oz	**$1,200**
Cutoff Grade	opt	**0.0057**		**Cutoff Grade**	opt	**0.0036**
North, Central Pan and Red Hill Pits						
Economic Cutoff @		**$1,200**		**Milling Cutoff @**		**$1,200**
Cost Center				**Cost Center**		
Mining	$/ore ton	**-**		Mining	$/ore ton	**$0**
Processing	$/ore ton	**$3.00**		Processing	$/ore ton	**$3.00**
G&A	$/ore ton	**$0.80**		G&A	$/ore ton	**$0.80**
Recoveries	%	**62**		Recoveries	ton	**62**
Royalties	%	**4**		Royalties	gross	**4**
refining cost	$/oz	**$3.48**		refining cost	per/oz	**$3.48**
Gold Selling Price	$/oz	**$1,200**		Gold Selling Price	$/oz	**$1,200**
Cutoff Grade	opt	**0.0081**		**Cutoff Grade**	opt	**0.0053**

15.2 Mineral Reserve Estimate

Proven and Probable Reserves of 21.2 million tons at a grade of 0.0143 opt are contained within the NI 43-101 updated mineral resource estimate for a total of 302,400 ounces of contained gold. Table 15-3, Table 15-4, and Table 15-5 show the contained reserves by pit at Pan.

Table 15-3 South Pan and South Satellite Pit Mineral Reserves

South Pan and South Satellite	Tons	Gold	
Cutoff Grade: 0.004 opt (0.14 gpt)	(x1000)	opt	ounces (x1000)
South Pan			
Proven Reserves	6,304	0.0142	89.6
Probable Reserves	2,969	0.0108	32.0
Proven & Probable Reserves	9,273	0.0131	121.6
Waste within Designed Pit	9,264		
Total Tons within Designed Pit	18,537		
South Satellite			
Proven Reserves	351	0.0135	4.7
Probable Reserves	195	0.0090	1.8
Proven & Probable Reserves	546	0.0119	6.5
Waste within Designed Pit	772		
Total Tons within Designed Pit	1,318		

Table 15-4 North, Central Pan and Red Hill Pit Mineral Reserves

North, Central Pan and Red Hill	Tons	Gold	
Cutoff Grade: 0.005 opt (0.17 gpt)	(x1000)	opt	ounces (x1000)
North Pan			
Proven Reserves	6,889	0.0159	109.8
Probable Reserves	3,797	0.0128	48.5
Proven & Probable Reserves	10,685	0.0148	158.3
Waste within Designed Pit	8,038		
Total Tons within Designed Pit	18,724		
Red Hill			
Proven Reserves	327	0.0342	11.2
Probable Reserves	10	0.0159	0.2
Proven & Probable Reserves	337	0.0337	11.4
Waste within Designed Pit	958		
Total Tons within Designed Pit	1,295		
Central Pan			
Proven Reserves	134	0.0152	2.0
Probable Reserves	222	0.0120	2.7
Proven & Probable Reserves	355	0.0132	4.7
Waste within Designed Pit	256		
Total Tons within Designed Pit	612		

Table 15-5 Total Pan Mineral Reserves

Total Reserves	Tons	Gold	
All Pits	(x1000)	opt	ounces (x1000)
Proven Reserves	14,004	0.0155	217.4
Probable Reserves	7,192	0.0118	85.1
Proven & Probable Reserves	21,196	0.0143	302.4
Waste within Designed Pits	19,289		
Total Tons within Designed Pits	40,486		

16 MINING METHOD

16.1 Open Pit Mine Plan

The Pan gold deposit contains mineralization at or near the surface and spatially distributed in a manner that is suitable for open pit mining methods. Gold grade distribution and the results of preliminary mineral processing testing indicate that ore from the Pan deposit can be processed by conventional heap leaching methods. The method of material transport evaluated for this study is open pit mining using CAT 992 loaders as the main loading units with 100-ton haul trucks.

Metallurgical test work has indicated that the South and Central Pit ores can be leached after primary crushing and agglomeration using lime and cement due to the presence of clay minerals. At the time of this writing, 4.0 million tons of run of mine ore has been loaded onto the Phase 1A leach pad and will continue to recover gold within the mine schedule and cash flow of this report. The gold recovery curve has been scaled from the previous test work and current leach pad flow and recovery characteristics.

Ore from the North pit will require three stages of crushing, but no agglomeration due to the absence of clay minerals. The ore mined from the North pit will be transported to the primary jaw crusher, which will be set up near the mouth of the pit. The primary jaw crusher will be a semi-mobile unit mounted on skids. The crushed North Pit ore material will be conveyed to the secondary crushing site, crushed to P80 minus ½ inch, and conveyed to the heap leach pad. Waste material from both pits will be loaded into the 100-ton haul trucks and hauled directly to the waste dumps.

Midway will own, operate, and maintain all equipment on site, excluding the mobile mining equipment, which will be operated by the mining contractor (Ledcor). The general site layout, including pits, waste dumps, secondary crusher site, infrastructure, ponds, and heap leach pads is shown on Figure 16-1.

Ore production is planned at a nominal rate of 19,700 tpd, equivalent to 7.0 million tons per annum with a 3 year mine life. Mining is planned on a 7 day per week schedule, with two 12 hour shifts per day, 355 days per annum. Peak ore and waste production is estimated at 46,700 tpd. The average life of mine stripping ratio is 0.91:1 waste-to-ore, using a 0.004 opt internal cutoff for the South and Central pits and a 0.005 opt internal cutoff on the North pit. The change in cutoff grade from one pit to the next is a result of the metallurgical recovery testing which showed the South and Central pits have an expected average recovery of 85% and the North pit has an expected recovery of 62%.

16.1.1 Pit Design

Optimized pit surfaces were generated using the Lerchs-Grossmann method, which maximized economic gold ounces, based on the pit optimization parameters of Table 15-1, the pit design criteria of Table 16-1, and Gustavson's latest Pan resource model. Haul roads and catch benches for North, Central, and South pits were subsequently designed in the optimized pit surfaces based on Golder Associates's April 2011 Pit Slope Evaluation report. The limestone units were designed with a 50° inter-ramp wall angle assuming pre-split blasting in these units; all other lithological units were designed at a 45° inter-ramp wall angle. Haul roads are designed at a width of 90 feet and a maximum gradient of 10% in order to provide safe two-way haulage traffic. In some cases, the lowermost benches had the road grade increased to 12% and the haul road width narrowed to 50 feet to minimize excessive waste stripping. Pan's pit design criteria are presented in Table 16-1.

Table 16-1 Pit Design Criteria

Mine Design Criteria		
Pit Design Criteria	**Limestone Units**	**All Other Rock Units**
Inter-Ramp Angles	50°	45°
Face Angles	70°	63°
Catch Bench Berm	30 feet	30 feet
Catch Bench Vertical Spacing	60 feet	60 feet
Road Widths	90 feet	90 feet
Road Grade	10%	10%
Road Widths Pit Bottom	50 feet.	50 feet.
Road Grade Pit Bottom	12%	12%

Approximately 320,000 tons were mined from the central portion of the North Pan pit to provide over liner cover for the Phase 1A leach pad. Gustavson's mine plan begins in July of 2015 at a nominal mining rate of 19,700 tons of ore per day. Ore from the North Pan pit will be placed on Phase 1 of the leach pad in the third quarter of 2015. In the fourth quarter, both the North and South Pan pits will be mined simultaneously and placed on Phase 2 of the leach pad. The South pit will be mined throughout 2016 and into the third quarter of 2017, after which North Pan will complete mining in year 4. Central Pan and Red Hill will be mined with North Pan. The mine life is estimated to be 3 ½ years long. Pit designs are by month in year 2015 and quarterly thereafter as shown in Appendix B.

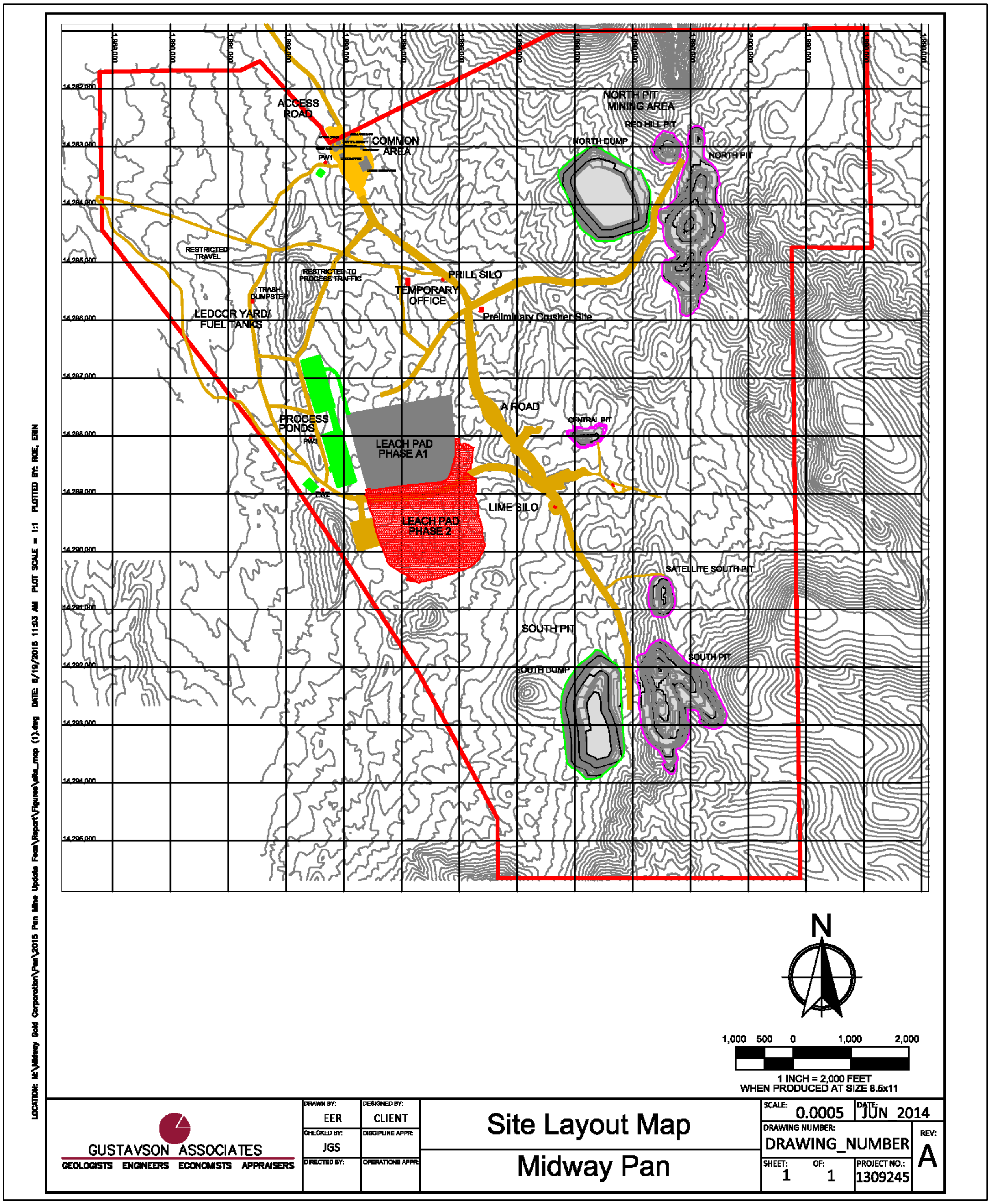


Figure 16-1 Final Pit, Waste Dumps and Heap Configuration

16.1.2 Waste Dumps

The waste dumps were designed to represent typical haul and end dump facilities. The maximum slope angle of the reclaimed waste dumps is limited to 3H:1V. The South Pan waste dump is designed with a capacity of 10.1 million tons and has additional space for expansion of the South pit in the future. The North and Central Pan waste dump has a design capacity of 9.3 million tons with extra space available for additional waste tons.

The North Pan waste dump will be covered with a vegetated soil cover to minimize the long-term potential for metals leaching. A 12-inch thick growth media cover will be placed in steep areas. Current humidity cell test (HCT) data indicate that the North Pan waste rock material is not potentially acid generating (PAG). However, prior to North Pan mining, the results from the currently running HCTs will be reviewed, and if necessary additional waste rock from the North Pan Pit will be tested further to verify its character. If this material is determined to be PAG, and if the material is in manageable pods in the pit, then the material will be isolated in the central portion of the North Pan waste dumps. No PAG material is anticipated to be placed in the South Pan waste dump.

The final lift over the isolated PAG material in the North Pan waste dump will consist of approximately 2.5 feet of high-carbonate material using waste rock set aside during mining, with an overlying vegetated growth media cover of 12 inches thick to minimize the long-term potential for acid generation and metals leaching. Midway will commit to covering the PAG material within the North Pan waste dump with 6.5 feet of non-PAG run of mine waste in addition to the 2.5 feet of high carbonate material and 12 inches of growth media, for a total cover thickness of 10 feet if PAG material is identified in future testing. The PAG material will be placed away from the sides of the waste dump.

The configurations of the North Pan and South Pan waste dumps are shown on Figure 16-1.

16.1.3 Annual Mine Plans

The mine plan begins in July 2105 with mining in the North Pan pit for the third quarter, followed by North and South Pan in the fourth quarter of 2015. Mining in 2016 is from the South Pan pit followed by mining both North and South Pan in 2017 and North Pan for half of 2018 until both pits are completed. The end of year mine layouts are shown in Appendix B.

16.1.4 Mining Equipment

Mine production equipment provided by Ledcor as part of the mining contract includes CAT 992G/K loaders and CAT 777 and Hitachi EH1700 off highway haulage trucks. The contractor utilizes two Atlas Copco DM45 drills and one Atlas Copco DML drill for blast hole drilling. Table 16-2 lists the fleet equipment on site as of the date of this report.

Table 16-2 Mine Production Equipment

Category	Make	Model	# of Units
Truck	Hitachi	EH1700	6
Truck	CAT	777F	6
Water Truck	CAT	773F	1
Water Truck	CAT	777D	1
Water Truck	Kenworth		1
Grader	CAT	16G	1
Grader	CAT	16H	1
Grader	CAT	14M	1
backhoe	CAT		1
Front End Loader	CAT	IT28	1
Front End Loader	CAT	992K or G	5
Hydraulic Excavator	CAT	330D	1
Dozer	CAT	D10T	2
Dozer	CAT	D10R	1
Dozer	CAT	D6	1
Blast Hole Drill	Atlas Copco	DM45	2
Blast Hole Drill	Atlas Copco	DML	1
Lube/Fuel Truck	Kenworth	N/A	3

16.1.5 Support Equipment

Support equipment will consist of three CAT D10 track dozers as the main dozing units and one CAT D6 utilized for the leach pad. Three CAT road graders will service the haul roads along with two CAT water trucks. Mobile light plants will be utilized for lighting the working areas during night-time production. A maintenance service truck will be used for field maintenance

Mine support equipment is summarized in Table 16-2.

16.2 Geotechnical Design – Heap Leach, Ponds, Storm Water Diversions

SRK prepared a complete Engineering Design Report (EDR) for the heap leach pads, ponds, and storm water diversion facilities in July of 2012 for project development which has also been used in discussions with regulatory agencies (NDEP and BLM). The major components of SRK's engineering and design are discussed below.

16.2.1 Heap Leach Pad

The size and configuration of the Heap Leach Pad (HLP) was based on the detailed design operational criteria shown in Table 16-3. The mine plan calls for crushing and agglomeration of the South Pan and Central Pan ores, followed by transport to the HLP via off-highway trucks. Ores from the North Pan area will be crushed and may be agglomerated.

Table 16-3 Summary of HLP Design Parameters

Design Parameter	Required Value
Ore stacking rate	19,700 tpd
Dry ore unit weight (average under load)	110 pounds per cubic foot
Ore lift height	15 to 45 feet
Solution application rate	Up to 0.004 gallons per minute per square foot
Ore leach cycle	90 days
Nominal area under leach	1,250,000 sf
Maximum application flow rate to pad	5,000 gallons per minute
HLP overall slope	3H:1V
HLP maximum height	160 feet

The HLP is designed for the life of the operation. The initial pad was constructed at 2.5 million sf, and will provide leach pad space for 8 million tons of ore. The leach pad will be expanded in 2015, 2016, and 2017, allowing for the total tonnage of the ore reserve. (Note: tonnage estimates based on an average dry density of stacked ore of 110 pounds per cubic foot).

The HLP will be operated at a maximum rate of 5,000 gpm of barren solution applied to fresh ore. Leachate will be collected by a system of perforated pipes at the base of the pad and report to the pregnant pond. Solution will be pumped from the pregnant pond to the processing plant by two submersible pumps. Plant barren solution will flow to the barren pond after extraction of gold and silver. After addition of sodium cyanide solution, barren solution will be pumped from the barren pond with submersible pumps to booster pumps to maintain solution application to the ore. The two ponds (double lined with HDPE) have been designed to contain the 100-year/24-hour storm event. Under these conditions, this design very conservatively accommodates the regulated minimum 25-year, 24-hour design storm criterion for process pond storage capacity determinations under NAC, and also precludes the need for a single lined storm water pond, as is sometimes implemented in Nevada.

16.2.2 Pregnant and Barren Process Ponds

The process ponds were constructed based on the following design parameters:

1. Pond side slope angle: 3H:1V
2. Pregnant and barren ponds each have an operating capacity of 12 million gallons
3. A backup generator, large enough to run all leach solution pumps, is installed to provide power in the event of power outages
4. Storm storage: the process solution ponds are designed to contain a 100 year, 24 hour storm runoff from all process facilities
5. Both the pregnant and barren ponds have a minimum operating freeboard of 2 feet; and
6. Liner System: 80-mil HDPE primary liner, LCRS, 60-mil HDPE secondary liner.

The pregnant and barren solution ponds are sized to the same dimensions and have the same storage characteristics.

The internal spillway from the pregnant to the barren pond was constructed to connect the two process ponds so to enhance the system's capacity to accommodate the peak flow generated by a 100-year, 24-hour storm (minimum design storm). An external spillway from the barren pond was also constructed to accommodate peak flows generated by storms up to and including the probable maximum precipitation event (i.e., will easily pass the minimum design storm peak flows). The spillway depth is 2 feet. Wave action calculations indicate that the maximum wave height expected for the existing wave run-up is less than one foot.

Both ponds have a perimeter fence and are covered with floating "bird" balls to prevent wildlife from entering the solution ponds.

The water balance assumed the following HLP construction, loading and closure schedule:

1. Construct Phase 1A in 2014
2. Construct Phase 2 expansion in June-September 2015
3. Construct Phase 3 expansion in 2016
4. Leaching ends and active evaporation begins in 2020
5. Closure of the HLP occurs in June-August 2021, and
6. Construction of the ET Cell (using the pregnant process pond) and closure of the barren process pond in June-August 2023.

16.2.3 Liner System

The HLP liner system consists of a 12 inch-thick (minimum) low permeability compacted soil underliner layer with a maximum permeability of 1x10-6 centimeters per second (cm/s) overlain by an 80 mil high-density polyethylene (HDPE) primary liner. The soil underliner was sourced from both in-place soil (where present) and local borrow sources. Based on field QA/QC testing during construction (SRK, 2014), the underliner soils met the maximum allowable permeability of 1 x 10-6 cm/s without any amendments such as bentonite, and with compaction in layers to 95 % of maximum dry density as determined by ASTM D1557.

16.2.4 Solution Collection System

The system of perforated collection piping conveys pregnant solutions into a 24 inch-diameter, solid, corrugated HDPE pipe, installed along the inside of HLP perimeter berms, and continuing in a channel near the northwest corner of the Phase 1 HLP, ultimately discharging into the north-west section of the pregnant pond. Solution from each cell is monitored through monitoring ports located along the main leachate collection pipe. The following sections discuss the design and calculations for the solution piping and the solution channel.

16.2.5 Solution Piping

Manning's equation was utilized to size each solution collection pipe. Design flow rates were approximated by distributing the ore solution application rate (0.004 gpm/sf) over the tributary area supplied by for each pipe. An allowance for pipe crushing was included in the calculations by assuming maximum flow depth of 70% the pipe diameter.

16.2.6 Solution Channel

The solution channel extends approximately 960 feet from the northwest corner of the Phase 1 HLP, northeast along the inside of the Phase 2 perimeter berm. The solution channel consists of a lined trapezoidal channel, which conveys any storm water as open channel flow, and process solution within a single, 24 inch diameter corrugated HDPE pipe to the pregnant pond bedded in the same crushed rock as used for the pad overliner.

16.2.7 HLP Slope Stability

Stability analyses for the HLP were completed using random circular surface generation and block failure surface generation. For the block failure search, the surfaces with the lowest factors of safety were assumed to propagate from the heap toe along the liner-low permeability soil layer (LPSL) interface zone and then up to the heap slope. Spencer's method was used for stability analysis as it returns the lowest factor of safety of the methods available in SLIDE.

The HLP materials and their properties required for input into the slope stability analysis are presented in Table 16-4, from top to bottom.

Table 16-4 Material Properties for HLP Slope Stability Evaluation

Material	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (degrees)
Ore (thickness varies)	120	0	37
Overliner (0- 3' bgs)	94	0	37
GM/LPSL (0- 1' bgs)	114	Shear/Normal Function 1	
Sandy Silt (1 -20' bgs)	89	360	27
Clayey Sand (20-25' bgs)	96	20	29
Shale (underlying clayey sand)	140	Generalized Hoek-Brown Function 2	

Note:

1. Shear/Normal Function is based on the lab result tested for AH-15a and 80 mil Smooth HDPE liner at 60 mm displacement.
2. Intact UCS: 500 ksf ; Geological Strength Index: 49; Intact Rock Constant mi: 6; Disturbance Factor: 0

Material properties for the HLP stability analysis were derived from laboratory testing results and engineering judgment.

Seismic design parameters used for the pseudo-static evaluation were developed based on seismic hazard maps of the region developed by the United States Geological Survey (USGS, 2008). The peak horizontal ground acceleration (PGA), with 10% probability of exceedance in 50 years is 0.09 g, and it is used as the pseudo-static seismic coefficient in the slope stability analysis.

Both native and borrow material were evaluated during the HLP geotechnical investigation as potential sources of underliner material. Among five native soil samples, a range of interface shear strengths were determined; interface shear is typically the weak link with respect to stability on a leach pad. The soil with the lowest interface shear strength returned sections with factors of safety of less than 1.05 under seismic loading. The soil with the second lowest shear strength (AH15a-0.5' to 1.5') returned acceptable factors of safety and is considered the lowest acceptable shear strength for soil used as underliner for this leach pad. A gradation specification for underliner material was determined by plotting the gradations for all the soil samples tested for shear strength, and specifying a gradation that envelops the acceptable shear strength material. Any native soil that falls outside the gradation envelope was removed and replaced with an approved borrow material unless testing demonstrated adequate interface shear strength.

The slope stability results are summarized in Table 16-5 below. These factors of safety are based on the use of the native soil with the second lowest interface shear strength (AH-15a).

Table 16-5 Summary of Slope Stability Analyses and Results for HLP

Cross-Section	Circular Failure Surface		Noncircular Failure Surface	
	FS-Static	FS - Seismic	FS- Static	FS -Seismic
A	2.05	1.58	1.51	1.14
B	2.27	1.72	1.76	1.26
C	2.19	1.67	1.52	1.09
D	2.21	1.68	1.79	1.36

16.2.8 Waste Rock Disposal Areas (WRDA)

Mining is anticipated to generate approximately 19.3 million tons of waste rock which will be placed in two WRDAs at an overall reclaimed slope of 3H:1V (18.4°). Approximately 9.3 million tons will go to the North and Central WRDA and approximately 10.1 million tons will go to the South WRDA. Both WRDAs are located along the western perimeters of their respective pits as shown on Figure 16-1. A summary of basic design parameters and dimensions for the proposed WRDAs is shown in Table 16-6.

Vegetation will be cleared from the WRDA footprints; coarse woody debris and plant growth medium will be salvaged and placed in separate stockpiles. The final surfaces of the WRDAs will be constructed by end dumping to create typical waste rock facilities. On sloped terrain, where safe and practicable, some weathered geologic materials below the plant growth medium may be pushed downhill to construct toe berms to prevent rocks from scattering on the hillside below the toes of the WRDAs.

Table 16-6 WRDA Design Parameters and Dimensions Summary

WRDA	As-built slope (degrees)	Height (feet)	Footprint (acres)
North & Central WRDA	18.4	175	42
South WRDA	18.4	240	42

16.3 Hydrology

Site-scale hydrogeologic data are available from on-site boreholes and from a few existing and historical wells in the Pan Project vicinity. Four shallow monitoring wells were installed downgradient of the heap leach pad and process ponds to detect leakage from any of the facilities. Two of these wells were and have remained dry, but are checked and will be sampled quarterly if water occurs. The other two have occasionally had water and are sampled for water quality when they have water in them. Two deep groundwater monitoring wells have been installed into the carbonate aquifer approximately 800 feet below ground surface north and south of the facilities. These wells are sampled quarterly.

Based on existing data and the installation of three water wells, groundwater at the project site occurs in a deep, carbonate aquifer and a narrow, shallow alluvial aquifer along the normally dry stream channel west of the mine area. Shallow alluvial groundwater west of the mine area occurs at elevations that are approximately 500 feet higher than the deep carbonate aquifer. The deep carbonate aquifer is approximately 650 to 800 feet below the heap leach facility and approximately 600 feet below the bottom of the south pit.

Three production water wells have been drilled and completed at the site, two of which are operating with pumps installed. Based upon hydrologic testing of these wells, they are sufficient to provide the current quantity of water needed for production. The water quality is well within the needs and requirements of the operation.

16.4 Production Schedule

The yearly mine production schedule is presented in Table 16-7, beginning in the second half of 2015 and ending in mid-2018 for a total of 3 years. The schedule below is done monthly for year 2015 and annually for years 2016 to 2018. It is important to note that the cash flow in Appendix C has been done monthly in order to calculate the Net Present Value. The production schedule is driven by the nominal rate of 19,700 tpd (7.0 million tpa). Peak ore and waste production is 46,700 and occurs in the third quarter of 2016.

Scheduling was carried out using the reserve output by bench from each phase of mining for each open pit. An Excel spreadsheet was used targeting 7.0 million tons per annum and a reasonable number of benches mined per time period. Gustavson checked the number of haulage trucks and loaders needed from the centroid of the top, middle of bottom of each pit phase to the waste dumps and processing facility to ensure that the contractor’s equipment list was sufficient to meet the planned production rate. In each case the contractor’s equipment was sufficient for the current mine plan.

Table 16-7 Yearly Production Schedule

PRODUCTION SCHEDULE	*Units*	July 2015	August 2015	Sept. 2015	Oct. 2015	Nov. 2015	Dec. 2015	2016	2017	2018	TOTAL
TOTAL MINE PRODUCTION											
Pit Ore	*tons (000s)*	611.3	611.3	591.6	611.3	591.6	611.3	7,126.9	7,158.4	3,282.3	21,196.0
Grade: Au	*ounces/ton*	0.012	0.013	0.013	0.011	0.012	0.012	0.013	0.016	0.017	0.014
Pit Waste - Rock	*tons (000s)*	406.5	463.0	415.0	365.4	499.2	493.4	8,183.1	6,950.8	1,512.5	19,288.9
Total Tons Mined	*tons (000s)*	**1,017.8**	**1,074.4**	**1,006.6**	**976.7**	**1,090.8**	**1,104.7**	**15,310.0**	**14,109.2**	**4,794.8**	**40,484.9**
Strip Ratio		0.66	0.76	0.70	0.60	0.84	0.81	1.15	0.97	0.46	0.91
Tons ore mined/day*	*tons (000s)*	19.7	19.7	19.7	19.7	19.7	19.7	20.1	20.1	18.5	
Total Tons mined per day*	*tons (000s)*	32.8	34.7	33.6	31.5	36.4	35.6	43.1	39.7	27.0	
PIT GOLD OUNCES MINED											
Total Contained Oz	*Ounces*	**7,609**	**7,904**	**7,853**	**6,938**	**6,931**	**7,398**	**90,713**	**111,949**	**55,109**	**302,405**
Total Recovered Oz.	*Ounces*	**4,717**	**4,900**	**4,869**	**5,048**	**5,045**	**5,379**	**77,106**	**75,714**	**34,168**	**216,945**

*Based on 355 days per annum mining schedule

16.4.1 Pit Schedule Sequence

The Pan mine schedule begins in July 2015 with mining starting from the North Pan open pit as ROM ore to Phase 1 of the leach pad until the end of third quarter 2015. Mining into the fourth quarter of 2015 will be a blend of crushed ore from both the North and South Pan area to Phase 2 of the leach pad.

Mining in 2016 will focus on the South Pan only; as this pit becomes unable to maintain 7.0 million tpa, North Pan will make up the remaining ore production and ultimately exhaust the reserve in the middle of 2018.

During the mining phase, some material will be mined from nearby borrow pits for heap leach pad underliner while material for the overliner will be from the North Pan pits; tonnages are 140,000 tons for underliner and 320,000 tons for the overliner for the Phase 2 pad expansion and are representative of the tonnages required by pad area for future expansions. The cost for the overliner and underliner material is included in the Leach Pad Expansion costs.

The production schedule by pit is presented in Table 16-8.

Table 16-8 Pan Production Schedule by Pit

PRODUCTION SCHEDULE	*Units*	July 2015	August 2015	Sept. 2015	Oct. 2015	Nov. 2015	Dec. 2015	2016	2017	2018	TOTAL
NORTH, CENTRAL & RED HILL PIT PRODUCTION											
Pit Ore	*tons (000s)*	611.3	611.3	591.6	298.9	296.6	305.5	0	5,380.2	3,282.3	11,377.7
Grade: Au (opt)	*opt*	0.012	0.013	0.013	0.012	0.012	0.013	0	0.016	0.017	0.015
Pit Waste - Rock	*tons (000s)*	372.0	463.0	415.0	216.9	349.2	193.4	0	5,730.8	1,512.5	9,252.8
Total Tons Mined	*tons (000s)*	**983.3**	**1,074.4**	**1,006.6**	**515.8**	**645.8**	**498.9**	**0**	**11,111.0**	**4,794.8**	**20,630.5**
Strip Ratio		0.61	0.76	0.70	0.73	1.18	0.63	0	1.07	0.46	0.81
SOUTH AND SATELLITE SOUTH PIT PRODUCTION											
Pit Ore	*tons (000s)*	0	0	0	312.4	295.0	305.8	7,126.9	1,778.2	0	9,818.4
Grade: Au (opt)	*opt*	0.0	0.0	0.0	0.010	0.011	0.011	0.013	0.015	0	0.013
Pit Waste - Rock	*tons (000s)*	34.5	0	0	148.5	150.0	300.0	8,183.1	1,220.0	0	10,036.0
Total Tons Mined	*tons (000s)*	**34.5**	**0**	**0**	**460.9**	**445.0**	**605.8**	**15,310.0**	**2,998.2**	**0**	**19,854.4**
Strip Ratio		0	0	0	0.48	0.51	0.98	1.15	0.69	0	1.02

16.4.2 Production Schedule Parameters

The mine production schedule is based on a 7 day per week schedule, with two 12 hour shifts per day. There are four crews planned to cover the rotating schedule. Each 12 hour shift contains a half-hour down for blasting and miscellaneous delays, a half-hour for shift start up and shutdown and an hour for lunch breaks for a total of 10 effective working hours. Each year contains unscheduled time for nine holidays and two non-productive weather shifts, equivalent to 355 days of mine operation per year.

Because the mine contract is based on production targets, Gustavson has not included any equipment availabilities nor utilization rates for any mine equipment in this report.

16.4.3 Drill and Blast Parameters

Production drilling is covered in the mine contract, while a separate blasting sub-contract under the contract miner is in place at Pan. Midway is responsible for diesel fuel as it is applied to ammonium nitrate and fuel oil (ANFO) blasting agents.

16.4.4 Loading and Haulage

The main loading units at Pan are CAT 992K front end loaders. Cat 777G and Hitachi EH1700 haul trucks with 100-ton capacity are the main hauling units; the loaders will require 4 to 5 passes to load the trucks. Gustavson completed a haulage study to ensure that the mining fleet was sufficient to meet production targets in the mine schedule. Ancillary equipment appears reasonable for an operation of this size and scale.

17 RECOVERY METHODS

17.1 Process Engineering and Design

17.1.1 Production Rate and Products

The initial operation of the heap leach with South Pan ore indicates permeability problems due to the presence of clayey material. As a result, Pan management is evaluating the potential of the addition of a primary crusher, screen and agglomerating drum system to possibly re-handle the existing ore on the leach pad and to process fresh ore which is to be mined from the South Pan area pits in the future.

The current process is designed for a throughput of 19,700 tons of ore per day, or 7.0 million tons of ore per year. The ADR plant is designed for a solution flow rate of 5,000 gpm, and is expected to produce approximately 76,000 ounces of gold per year.

17.1.2 Process Description

Material from the South Pan and North Pan pits will be processed using conventional heap leaching methods. Ore was first mined and processed from the South Pan pit as run of mine material. The low permeability of this ore has prompted the plan to mine, crush and process the higher permeability North Pit ore concurrent with the production of overliner material for the construction of the Phase 2 leach pad expansion. This activity will utilize a rented 2-stage crushing and screening plant until a permanent crushing and screening plant and agglomeration system is sourced. Ore will be mined and placed on the Phase 1A leach pad solely from the North Pan pit until the Phase 2 expansion of the leach pad is complete. At that time crushed North Pan ore will be blended with run of mine South Pan ore and placed on the Phase 2 leach pad until the permanent primary crushing plant and agglomeration system are installed. Once the permanent crushing and agglomeration facilities are commissioned all production will be sourced from the South Pan series of pits till they are depleted.

As ore is mined and processed from the South Pan pits, the single stage crushing and screening plant will be augmented with secondary and tertiary crushers ready to process North Pan ores once all South Pan pit ores are mined out.

North Pan Ore will be 3-stage crushed to a P80 minus ½ inch prior to agglomeration (if required). Crush size, leach kinetics, and recoveries are based on current metallurgical testing. Ongoing test work will be needed as operation progresses. Figure 17-1 illustrates the processing and mining flow at Pan.

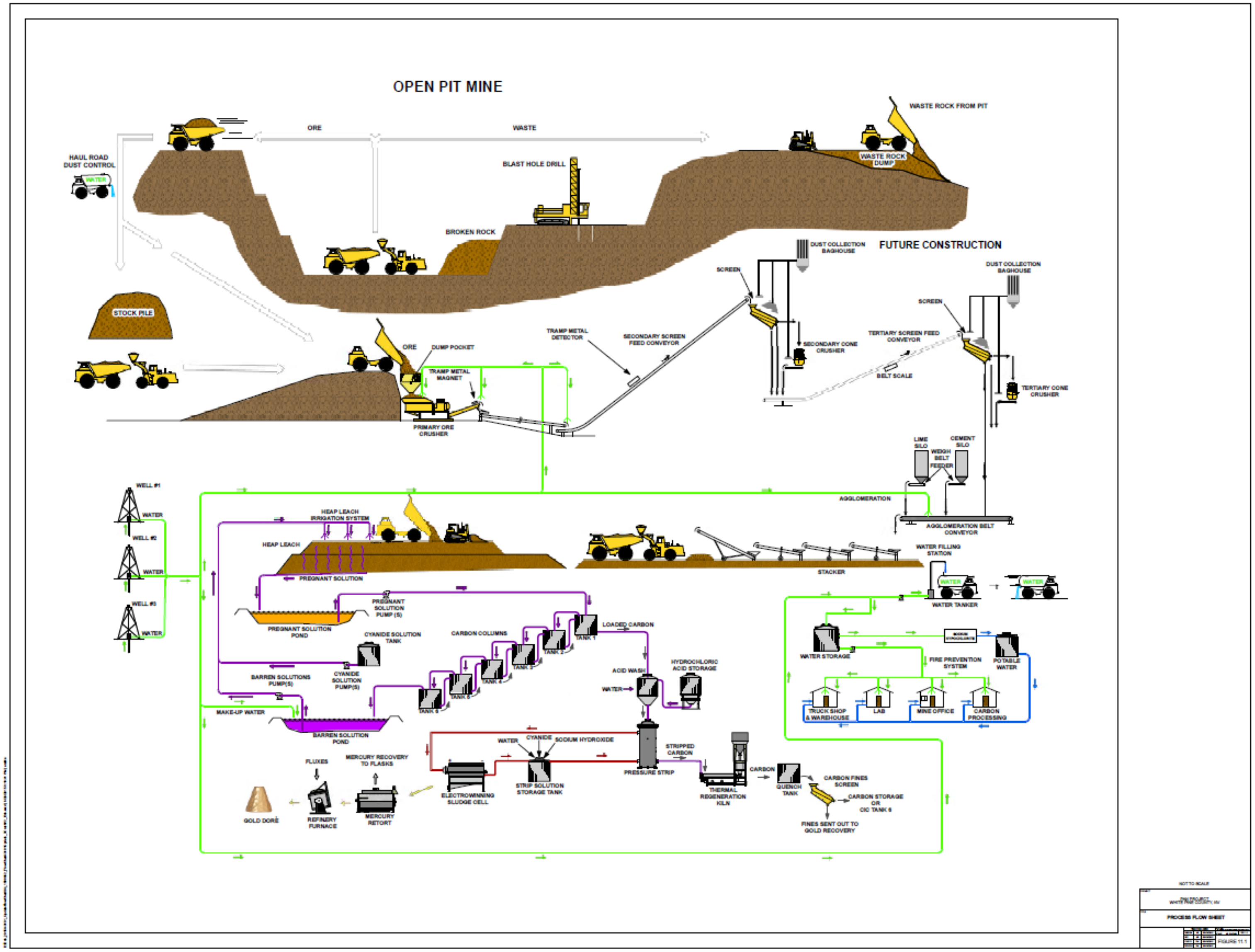


Figure 17-1 Processing and Mining Flow Diagram at Pan

GUSTAVSON ASSOCIATES
GEOLOGISTS · ENGINEERS · ECONOMISTS · APPRAISERS

17.1.3 Primary Crushing

As stated above, South Pan ores will be mined conventionally with drilled and blasted ore loaded and hauled using loaders and off highway trucks and heap leached following primary crushing and agglomeration. North Pan ores will also be mined conventionally with drilled and blasted ore loaded and hauled using loaders and off highway trucks and heap leached following three-stage crushing and possibly agglomeration.

As metal recoveries from South Pan are not dependent on ore size, only primary crushing is required to allow for material handling on conveyor belts. Run of mine ore will be direct dumped into an ore bin and be fed by way of a vibrating grizzly to a primary jaw crusher (Figure 17-2). The grizzly undersize would then be agglomerated with agglomerates recombined with the crushed ore before being truck transported to the leach pad. Lime and cement would be added to grizzly undersized material prior to agglomeration. It is estimated that approximately 60% of the run of mine ore is minus 2 inches.

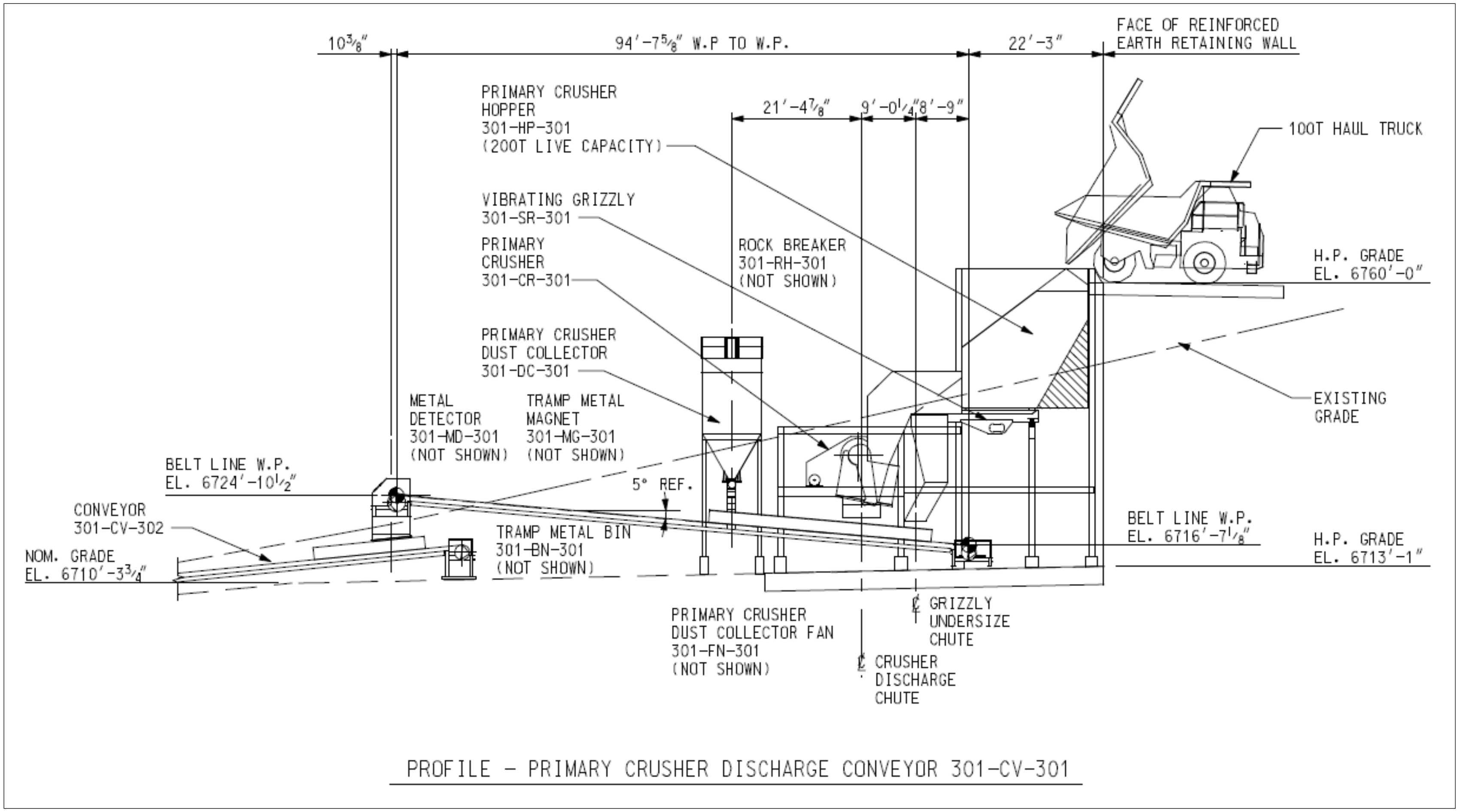


Figure 17-2 Primary Jaw Crusher

17.1.4 Secondary and Tertiary Crushing (North Pan and Central Pan only)

Once the South Pan pits are mined out, all production will come from the North Pan pits. At that time the crushing and screening plant will have been augmented with a secondary and tertiary cone crusher, screens and additional conveying systems to reduce ore feed to a P80 minus ½ inch. Lime and cement will be added to the final product prior to agglomeration (if agglomeration is required). The crushed ore will be transported and stacked on the leach pad with off highway trucks.

Typical for most Carlin type ores, the reagent consumption is relatively low (Table 17-1). Based on the metallurgical test work, RDi recommended using 0.4 to 0.6 pounds sodium cyanide per ore ton. However, current sodium cyanide consumption is estimated at 0.35 pounds per ore ton and between 2 and 3 pounds of lime per ore ton. With agglomeration, cement will be added reducing the lime consumption as per Table 17-1.

Table 17-1 Estimated Reagent Consumption

Reagent	Consumption
Lime	2 to 3 Pounds per ore ton
Cement	5 pounds per ore ton
Cyanide ½" Crush	0.35 pounds per ore ton

17.1.5 Ore Delivery to the Leach Pad

North Pan Ore which has been crushed will be delivered to the leach pad by 100-ton haul trucks. Ore will be stacked in 15 to 45 foot lifts.

17.1.6 Heap Leach

The pregnant and barren solution ponds constitute a solution management system that will accommodate all process solutions including meteoric waters that enter the system as a result of the 25-year, 24 hour storm event. Barren solution is pumped from the barren pond via submersible and booster pumps to the top of the ore on the heap leach pad and the ore irrigated using drip tube emitters. Pregnant solutions report to the pregnant collection pond, and are subsequently treated in a conventional adsorption-desorption-recovery (ADR) plant.

17.1.7 ADR Gold Recovery Plant

A general arrangement drawing for the ADR plant and refinery is shown on Figure 17-3.

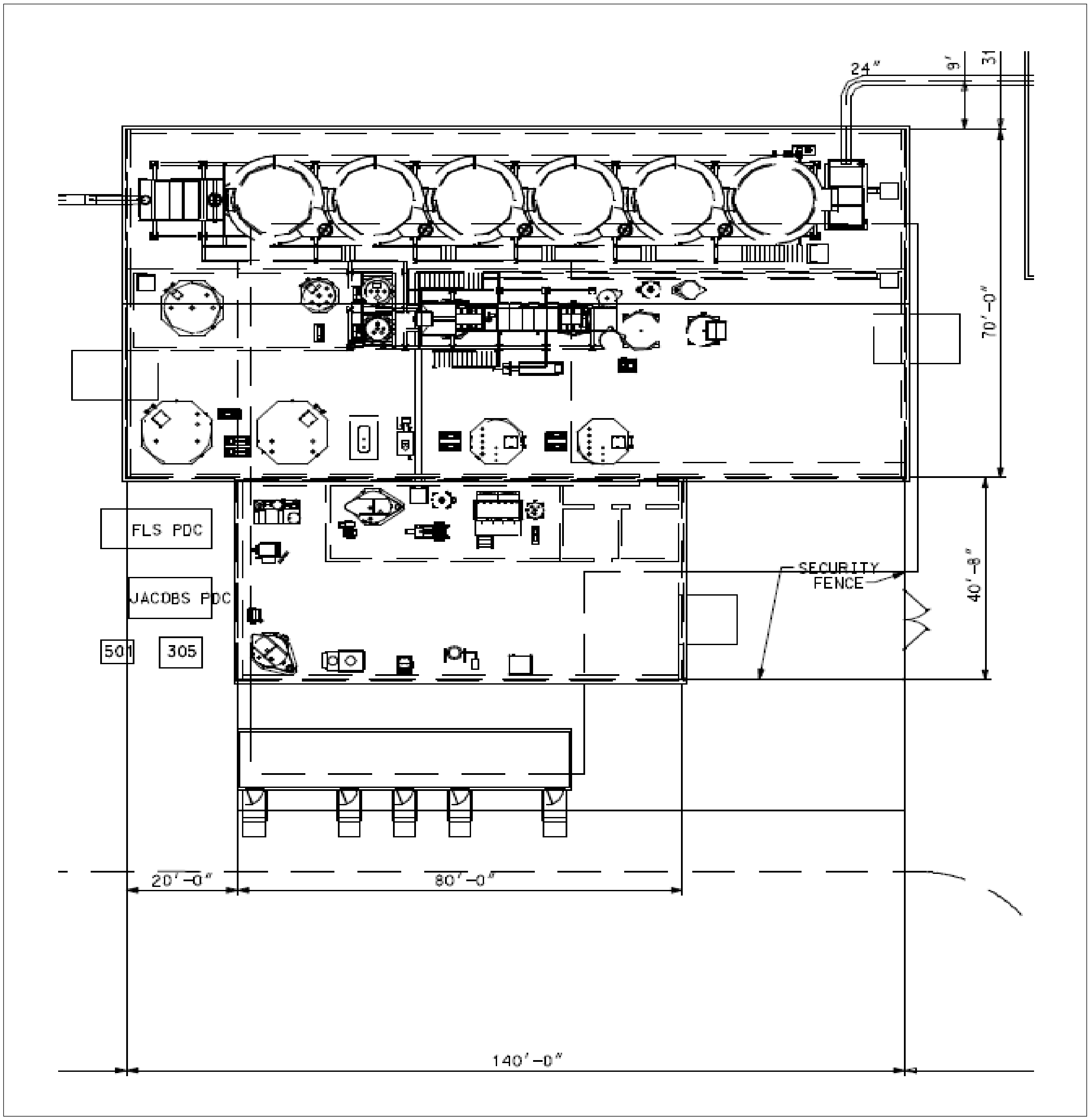


Figure 17-3 ADR Processing Facility General Arrangement

17.1.8 Equipment List

A complete equipment list for the project is included in the table below.

Plant energy and water requirements are discussed in the following section.

Table 17-2 ADR Plant Equipment Listing

Section 2 (Steel and Tankage)	
Carbon Adsorption Columns	Lot
Support Steel	Lot
Tank, Acid Wash Column, 2 Ton w/internal	1
Spray, Acid Wash Tank Internal	1
Screen, Acid Wash Tank Top Johnson	2
Tank, Concentrate Acid	1
Tank, Dilute Acid	1
Tank, Strip Vessel, 2 Ton	1
Spray, Strip Vessel Internal	1
Screen, Strip Vessel Top Johnson	2
Tank, Strip Vessel Blow-off Protection Coll.	1
Tank, Barren Strip Solution	1
Tank, E/W Barren Pump Box	1
Tank, Carbon Fines	1
Tank, Quench	1
Tank, NaOH (Caustic) Storage	1
Tank, NaCN (Cyanide) Storage	1
Raw Water Tank	1
Trash Screen	1
Carbon Safety Screen	1
Tank, Carbon Holding	1
Tank, Carbon Attrition	1
Spray, Carbon Tanks	5
Section 3 (Pumps, Valves & Piping)	
Pump, Carbon Transfer (CIC)	1
Pump, Strip Sump	1
Pump, Carbon Transfer (AW)	1
Pump, Acid Wash Circulation	1
Pump, Acid Wash Sump	1
Pump, Concentrated Acid transfer	1
Pump, Strip Solution (2)	2
Pump, Carbon Transfer, Strip	1
Pump, E/W Barren Return	1
Pump, EW Sludge, Air-Driven Diaphragm	1
Pump, Carbon Transfer	1
Pump, Caustic Transfer	1
Pump, NaCN Distribution	2
Raw Water Distribution Pump	1
Process Water Distribution Pump	1
Piping	Lot
Carbon Transfer Piping	Lot
Pipe Support Material	Lot
Gaskets, Studs and Nuts	Lot
Ventilation Piping	Lot
Valves, Process	Lot
Pump, Heater Circulation	1
Pump, Sump (Refinery)	1
Pump, Carbon Fines	1

Section 4 (Proprietary and Heater Skid)	
Heater Skid	1
Heat Exchanger, Primary	1
Heat Exchanger, Recovery I	1
Heat Exchanger, Recovery II	Lot
Filter, Carbon Fines Strainer	Lot
Skid Assembly	Lot
Instrumentation & Valves	1
Boiler Expansion Tank and Air Scoop	1
Hot Water Boiler	1
Electronic Control Panel	1
Heat Exchanger, Trim	1
Electrowinning Cell	1
Structural Steel	Lot
Rectifier	1
Rectifier-Cell Cables & Lugs	Lot
Kiln, Carbon Regeneration	1
Mercury Retort	1
Retort HEPA/Coalescing Filters	Lot
Section 5 (Mercury System)	
Carbon	Lot
Bed	1
Demister	1
Exhaust Fan & Duct	Lot
Carbon	Lot
Bed	1
Heat Exchanger	1
K.B	1
Demister and Trap	1
Pipe and Steel	Lot
Hg Abatement (Melt Furnace)	Lot
Hg Abatement (Melt Furnace)	Lot
Carbon, Hg Abatement (Furnace)	Lot
Section 6 (Electrical)	
Cable, Conduit, Tray, Start/Stops	Lot
Tray Support Material	Lot
MCC	Lot
MCC Power Factor Correction	Lot
Mount MCC Into Ocean Container	Lot
AC/Heater Unit for MCC	Lot
Ocean Freight Contain Purchase	Lot
Section 7 (Instruments and Data logging)	
Instrumentation, pH Meter & Probe, level	Lot
Instrumentation, Includes Relief Valve & R	Lot
Sampler, Wire	2
Instrumentation, Miscellaneous	Lot
Data Logging System	Lot
Section 8 (Refining and Misc.)	
Fan, Exhaust	1
Exhaust Fan	1
High Pressure Sprayer	1
Filter, Basket	1
Screen, Carbon Sizing	1
Agitator, Carbon Fines	1
Filter, Carbon Fines	1
Agitator, Carbon Attrition	1
Dewatering Screen	1
Melt Furnace	1
Baghouse, Cartridge Type, w/hepa filter	1
Blower, Melt Furnace Baghouse & Scrubber	Lot
Melt Furnace Hood, Duct, Curtains	Lot
Conical molds (5), Conical mold cart	Lot
Mixer, Flux	1
Filter, EW Sludge	1

18 PROJECT INFRASTRUCTURE

The Pan project has excellent infrastructure. US Highway 50, connecting the towns of Ely and Eureka, is a paved 2 lane road running adjacent to the property and connects to the mine site via a 5 mile gravel road providing year round access to the project site.

The project is connected via a 69kV utility power line to the mine substation with two 5/6.66/8.33 MVA transformers installed for 100% redundancy and being more than able to support all anticipated load additions and project expansions.

Three wells have been constructed and are able to supply all expected water needs.

Air links are within easy driving distance with regular air services available in Elko, and further afield; Salt Lake City , Reno and Las Vegas. A general aviation airstrip is also located at Eureka some 25 miles from the mine site.

A microwave tower on site provides link for all voice and data communications. Additionally, the plant site has good cell phone coverage.

The project is located in a well-established mining district that is able to provide a broad spectrum of mining and equipment support services as well as an experienced labor pool.

18.1 Facilities

The major buildings constructed at the Pan Project include:

18.1.1 Office Building

The office building is a single-story, 4,320 square foot modular building to house all administrative, and technical staffs (Figure 18-1). Building space is also allocated for meetings and training.

18.1.2 Warehouse/Truck Maintenance Facility

Warehousing will be a combination of sea-containers and a fenced cold storage area. Selected sea containers will be air-conditioned/heated to protect sensitive equipment.

The truck maintenance facility as used by the mining contractor will be composed of a number of sea containers outlining a rectangular foot-print over which will be constructed a reinforced membrane canopy. A separate truck wash pad with high pressure monitors and oil separator augments the maintenance facilities. Adjacent to the wash pad is a reinforced concrete pad for tire and large component maintenance work.

18.1.3 Laboratory

The laboratory is a pre-built modular building that is sized and fully equipped to handle all blast hole and process samples with ore sample preparation and assaying, with drying oven, fire and atomic absorption analysis.

18.1.4 Guard house/Security and First Aid Building

The security and first aid building is a 240 square foot modular building which is located at the main gate (Figure 18-2).

18.1.5 Emergency Vehicle Garage

The emergency vehicle garage is a 1,200 square foot pre-engineered building to house the emergency and rescue vehicles (Figure 18-2).

18.1.6 Process Building

The process building is a pre-engineered 13,000 square foot high-bay/low-bay steel building, with the 30-foot high-bay housing all the ADR process equipment, including the C-I-C train, plant air system and reagent storage tanks and the low-bay housing the vault, refinery, and two security offices. The refinery is constructed with concrete filled and steel reinforced concrete blocks.

18.1.7 Mining Contractor Administration Building

The mining contractor has a single-story, 2,880 square foot modular building for all of the contractor's administrative staff, crew line out area, and training and safety rooms.

18.1.8 Hazardous Materials Storage Building

A small pre-engineered steel building provides short-term storage for hazardous materials before their being shipped off-site to approved hazardous waste storage/disposal facilities

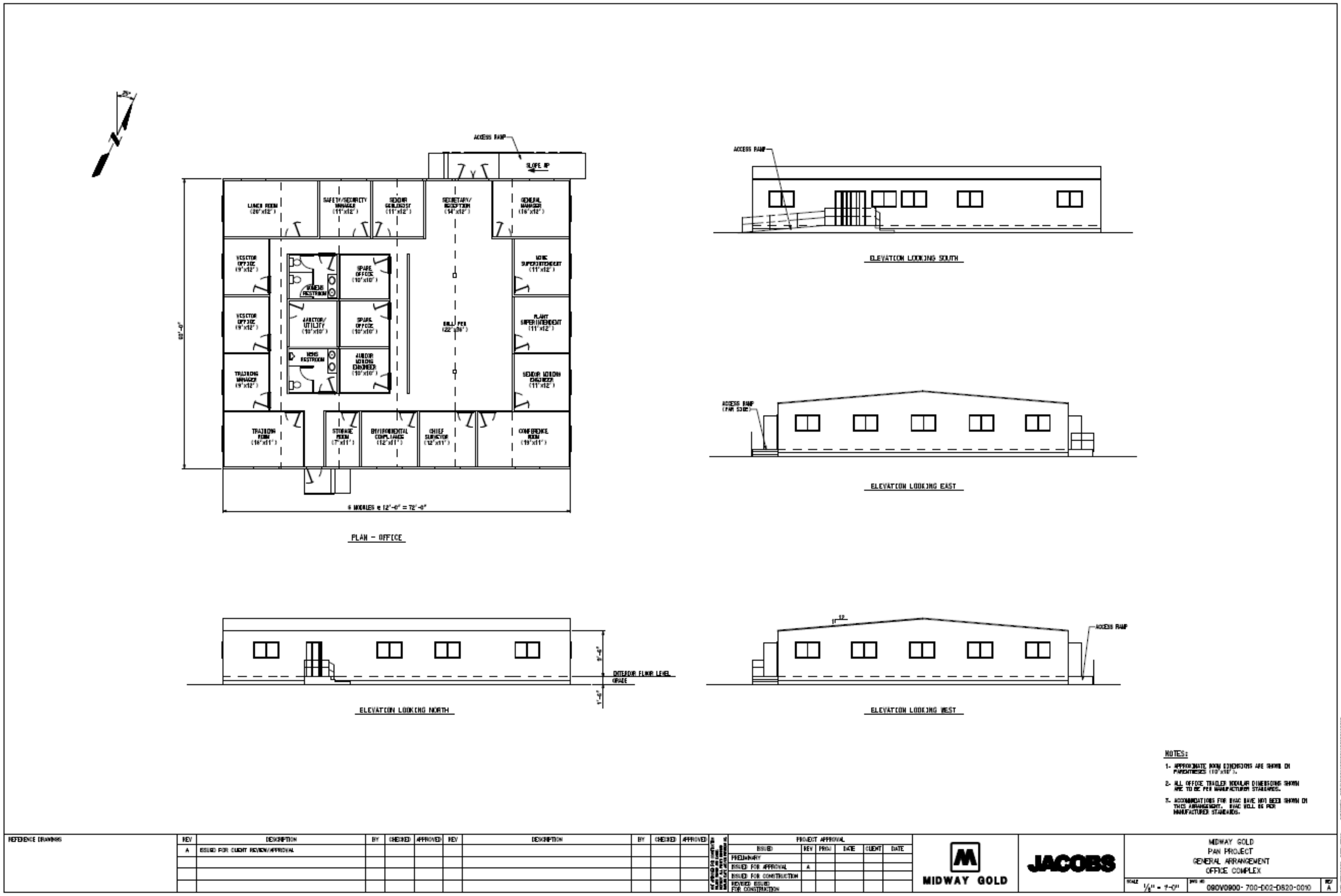


Figure 18-1 Office Building

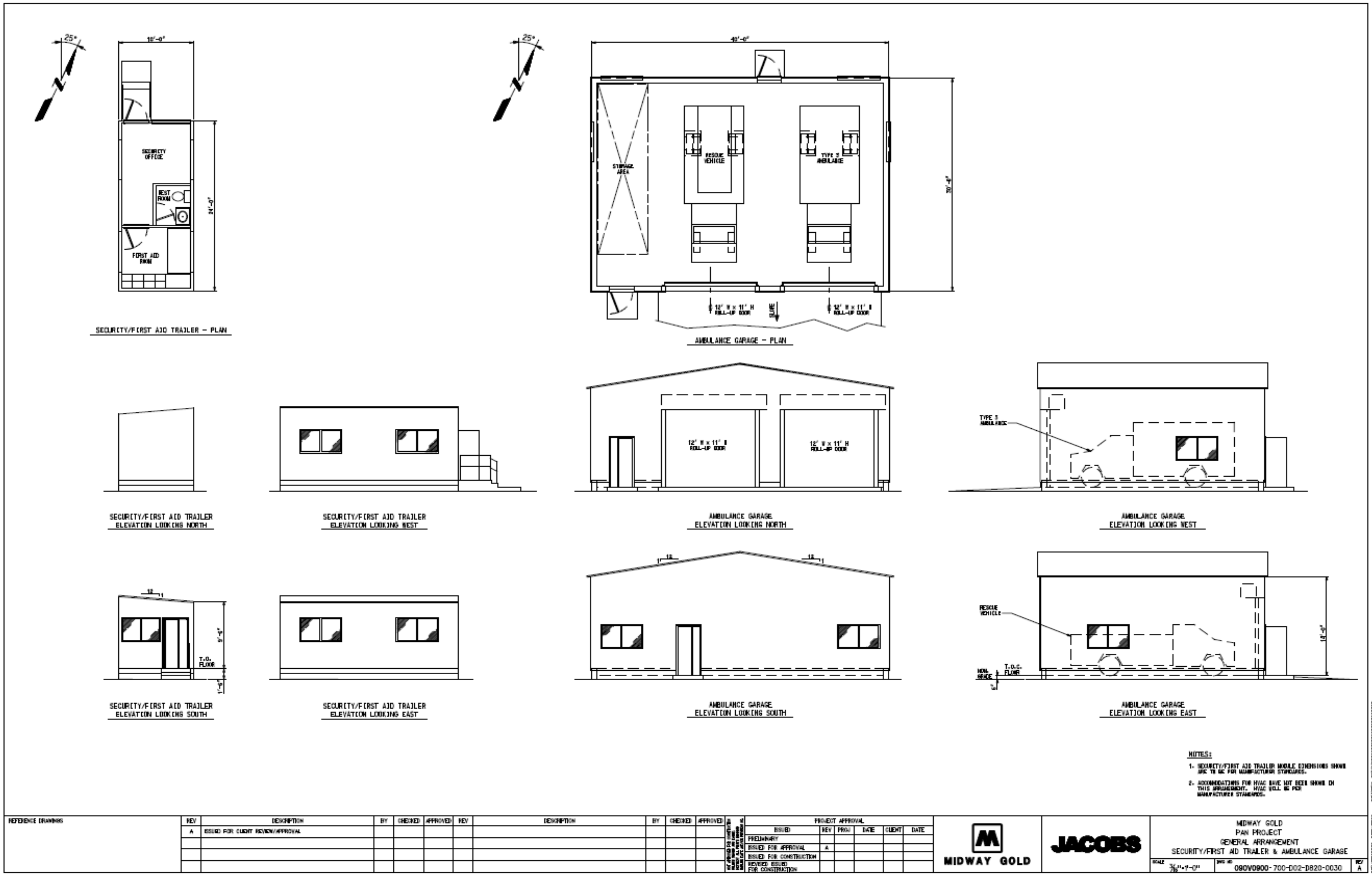


Figure 18-2 Guard House / First Aid / Emergency Vehicles Bldgs

18.2 Roads

The mine access road connects the project site to US Highway 50, approximately 5 miles from the front gate of the property. The road is constructed as a gravel embankment.

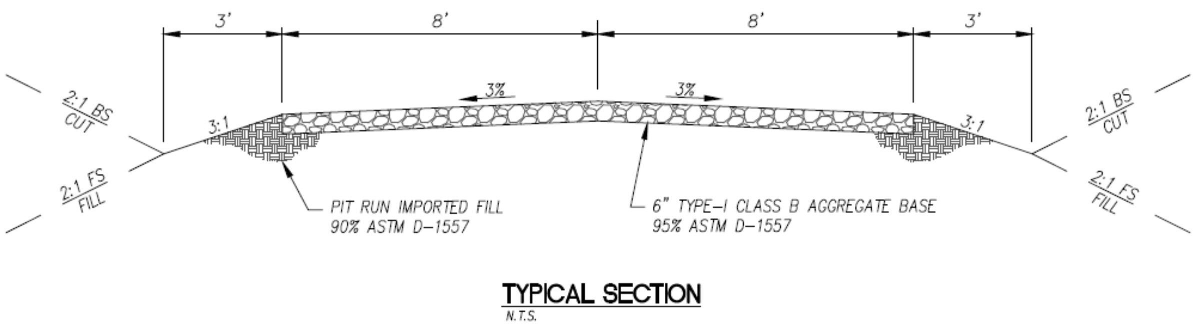


Figure 18-3 Typical Access Road Section

18.3 Security

The guard-house at the main gate to the mine site is manned around the clock. Standard security measures and operating procedures are established to ensure the security of the site and gold product. The perimeter of the mine site is fenced with 3-strand barbed wire to keep grazing cattle out. A security chain link fence with a barbed wire top is installed around the two leach ponds. The security fence around the ADR plant and refinery will be constructed once final grading is completed.

18.4 Septic Systems

Two septic systems will be constructed: one for the "common area" serving Midway's and the mining contractor's administration offices, assay laboratory and guard-house/safety building; and a second system for the process plant. Portable toilets will be placed at the mining and crushing areas as necessary.

18.5 Water

Midway leases water rights with a total consumptive use limitation of 1,200.69 acre-feet annually. The peak diversion rate under all permits is 4.469 cfs (2,005 gpm). This is equivalent to a continuous annual pumping rate of 744 gpm and is sufficient for all of the Pan Project's needs, including peak requirements for construction of leach pad expansions. Leach pad expansion time-lines when more water will be consumed are limited to four months or less, averaging 174 gpm over a 12 month period assuming a peak demand of 1.0 million gallons per day during major earthworks.

Water is currently extracted from two wells, PW-1 and PW-2A, which were constructed to depths of approximately 900 feet and have static water levels at approximately 640 feet. Both wells are fully equipped and operational. The well PW-1 is equipped with a 125 HP pump and can deliver approximately 500 gpm. Well PW-2A is equipped with a 250 HP pump and is capable of delivering approximately 800 gpm. PW-3 is constructed and may be equipped with a 300 HP pump and be capable of delivering approximately 800 gpm.

Well PW-1's water meets drinking water standards and will feed the potable water system as well as the process water distribution system.

A full suite of periodic water samples has yet to be taken from wells PW-2A and PW-3. These wells may have slightly elevated arsenic levels, and if they exceed drinking water standards they will be isolated from the potable water system.

The wells feed into water distribution systems that deliver water for potable use, process areas, fire suppression systems (sprinklers and fire hydrants) for all facilities, and meet all process and construction needs.

Table 18-1 Maximum Water Usage

	Required Makeup GPM
Leach Pad	350
Roads	50
Conveyor	50
Agglomeration	250
Total	700

A chlorination system is installed to condition potable water to supply the administration offices, security and safety building, assay laboratory and process plant.

Fire water is supplied to Midway's and mining contractor's offices, assay laboratory, security/safety building, ADR plant, and refinery. The fire suppression system is automated with the diesel powered firewater pump located in the pump-house adjacent to the raw water storage tank located in the "common area". Fire water is reserved and physically separated in the bottom half of the tank. In addition to the fire water pumps the pump-house also accommodates the process water distribution pumps, the truck wash pump, the potable water chlorination unit and potable water distribution pump.

18.6 Power

The project is connected via a 69 kV utility power line to the mine substation with two 5/6.66/8.33 MVA transformers installed for 100% redundancy and being more than able to support all anticipated load additions and project expansions. The initial connected electrical load for the current operation is approximately 2.4 megawatts. The normal operating demand load is estimated to be 2.1 megawatts. When crushing screening and agglomeration equipment are added, the demand load will increase to approximately 3.6 megawatts. Current power cost is 7.3 cents per kWh under a contract that limits power demand to 2.5 megawatts. When the anticipated load exceeds this level a new contract will need to be negotiated with the utility company.

Table 18-2 Pan Project Estimated Electrical Load with Crushing, Conveying and Agglomeration

DESCRIPTION	CURRENT STATUS		PRIMARY CRUSHING & AGGLOMERATION AT SOUTH PAN PITS		3-STAGE CRUSHING & AGGLOMERATION[1] AT NORTH PAN PITS	
	Total Connected Load (kVA)	Demand Load (kVA)	Total Connected Load (kVA)	Demand Load (kVA)	Total Connected Load (kVA)	Demand Load (kVA)
Common Area	922.82	626.23	922.82	626.23	922.82	626.23
Mine Contractor Admin Bldg	43.88	35.11	43.88	35.11	43.88	35.11
Mine Mtce facility	144.00	115.20	144.00	115.20	144.00	115.20
Well PW-1	137.11	109.68	137.11	109.68	137.11	109.68
Well PW-2	249.41	199.52	249.41	199.52	249.41	199.52
ADR, Refinery and Leach Pad[2]	1654.22	1465.71	1654.22	1465.71	1654.22	1465.71
Primary Crusher Area			878.13	465.43	878.13	465.43
Lime and Cementr Silos			133.44	61.04	133.44	61.04
Agglomeration Belts			162.12	126.69	162.12	126.69
Tertiary Crusher Area			869.92	698.93	869.92	698.93
Future Pump at PW-3					299.29	149.65
Totals	3151.44	2551.45	5195.05	3903.54	5494.34	4053.19
Power Factor	0.9	0.9	0.9	0.9	0.9	0.9
KW	2836.30	2296.31	4675.55	3513.19	4944.91	3647.87

[1] *Assuming agglomeration is required for North Pan Pits*

[2] *This includes the barren and pregnant leach solution pumps at 100% demand. This only will be at maximum pad height. Current demand is less than half of the peak.*

In the event of utility power interruption, back-up power is provided by a 1.5 MW diesel powered generator sized to run the pregnant and barren solution leach pumps thereby ensuring continuous control of process solutions and the maintaining of minimum freeboards in both process solution ponds. Back-up power is also available for critical pumps and processes in the ADR plant and communications systems.

18.7 Fuel Depot

Diesel (both on- and off-highway) and gasoline are purchased in bulk and stored on site at two refueling depots. Both have been constructed with full containment systems in the event of tank rupture. Mining and on-site diesel powered mobile equipment are fueled at the 30,000 gallon storage tank. Over-the-highway diesel vehicles and gasoline powered vehicles refuel at the split tank having a capacity of 6,000 gallons of diesel and 2,000 gallons of gasoline. .

Propane is used for heating and is used in the process for the carbon regeneration kiln and gold melt furnace. Propane is stored in two tanks; one located in the common area and one in the process plant area.

18.8 Communications

A microwave-based communication system is on site to support internet, VOIP, and data communications necessary for daily operation of the mine, plant, and office. The mine site also has good cell phone coverage.

Plant operators, survey crews, supervisors, and the mine contractor all have portable hand-held radios for operational communications.

19 MARKET STUDIES AND CONTRACTS

For the economic analysis, a gold price of $1,200 per ounce was used based on a recent price forecast from various lending institutions.

Midway has signed refining agreement with Metalor USA refining Corporation with the following terms:

- Treatment Charge: $0.45 per ounce, net weight received
- Transportation charge: $400 per shipment plus $0.21 per ounce
- Gold Return: 99.95% of assayed content
- Silver Return: 99.00% of assayed content
- No assay fee

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 List of BLM Claims and Serial Numbers

The Pan Project is conducted on unpatented lode claims owned, leased, or controlled by Newark and Midway on BLM-administered public lands. The claim names and BLM serial numbers are provided in the Appendix A. The Pan property consists of 550 contiguous, active, unpatented lode mining claims covering portions of Sections 12 through 15, 22 through 27, and 34 through 36, T17N, R55E; portions of Sections 19, 30, and 31, T17N, R56E; portions of Sections 1 through 3, 10, 11, 12, 14, 15, 22, and 23, T16N, R55E; and portions of Sections 6 and 7, T16N, R56E.

Figure 20-1 shows the general layout of the planned facilities.

20.2 Land Status

The BLM Ely District Office – Egan Field Office (BLM-EFO) administers all public lands within the project area. There are no private, U.S. Forest Service, or State-owned lands within Pan property boundaries, and no surface water within more than one mile down gradient.

20.3 Disturbance from Past and Present Operators

Within the Mine area, Midway will be responsible for reclaiming areas disturbed by other operators not previously reclaimed. In the event Midway re-occupies previously disturbed or reclaimed areas outside of the mine fence and within the Plan area, such disturbance will be considered new disturbance, and Midway will provide financial assurance to reclaim such areas under the provisions of this Plan.

20.4 Existing and Authorized Operations

20.4.1 History

Since Lyle Campbell's discovery in 1978, the Pan deposit has been explored by several exploration and/or mining companies, including Amselco Minerals, Hecla Mining Company, Homestake Mining, Echo Bay Exploration Inc., Alta Gold Company, Southwest Gold Inc., Latitude Minerals Corporation, Castleworth Ventures Inc., Pan Nevada Gold Corporation, and Midway. Mining activity has taken place in the general region since 1876 but historic mining of the Pan deposit has not occurred (Harris 2009). Historic exploration activities have resulted in existing surface disturbance, some of which has been reclaimed.

An Exploration Plan of Operations and Reclamation Permit Application NVN-078305 were submitted on behalf of Castleworth Ventures, Inc. for exploration drilling at the Project site in 2004. The Environmental Assessment (EA), Castleworth Ventures, Inc. Pan Exploration Project Environmental Assessment NV-040-04-010, was undertaken as part of the permitting process culminating in a Decision Record/Finding of No Significant Impact (DR/FONSI) and approval to disturb up to 25 acres for drill pads and drill roads. The FONSI was signed in April 2004. The NDEP issued reclamation permit No. 0228 in 2004 which was transferred to Midway, successor in interest to Castleworth, in 2007.

An amendment to the 2004 exploration plan was submitted in 2010 on behalf of Midway, which proposed an additional 75 acres of disturbance to develop a new access road and construct additional drill pads and drill roads. An EA for this amendment, Midway Gold Pan Project Exploration Amendment Environmental Assessment, resulted in a DR/FONSI and approval in July, 2011 (BLM 2011b). The amended reclamation permit was approved by NDEP on October 3rd, 2011. Drilling occurred during the 2011, 2012 and 2013 drilling seasons under this approval.

Table 20-1 summarizes the proposed disturbance acreage for each component of the Pan Project.

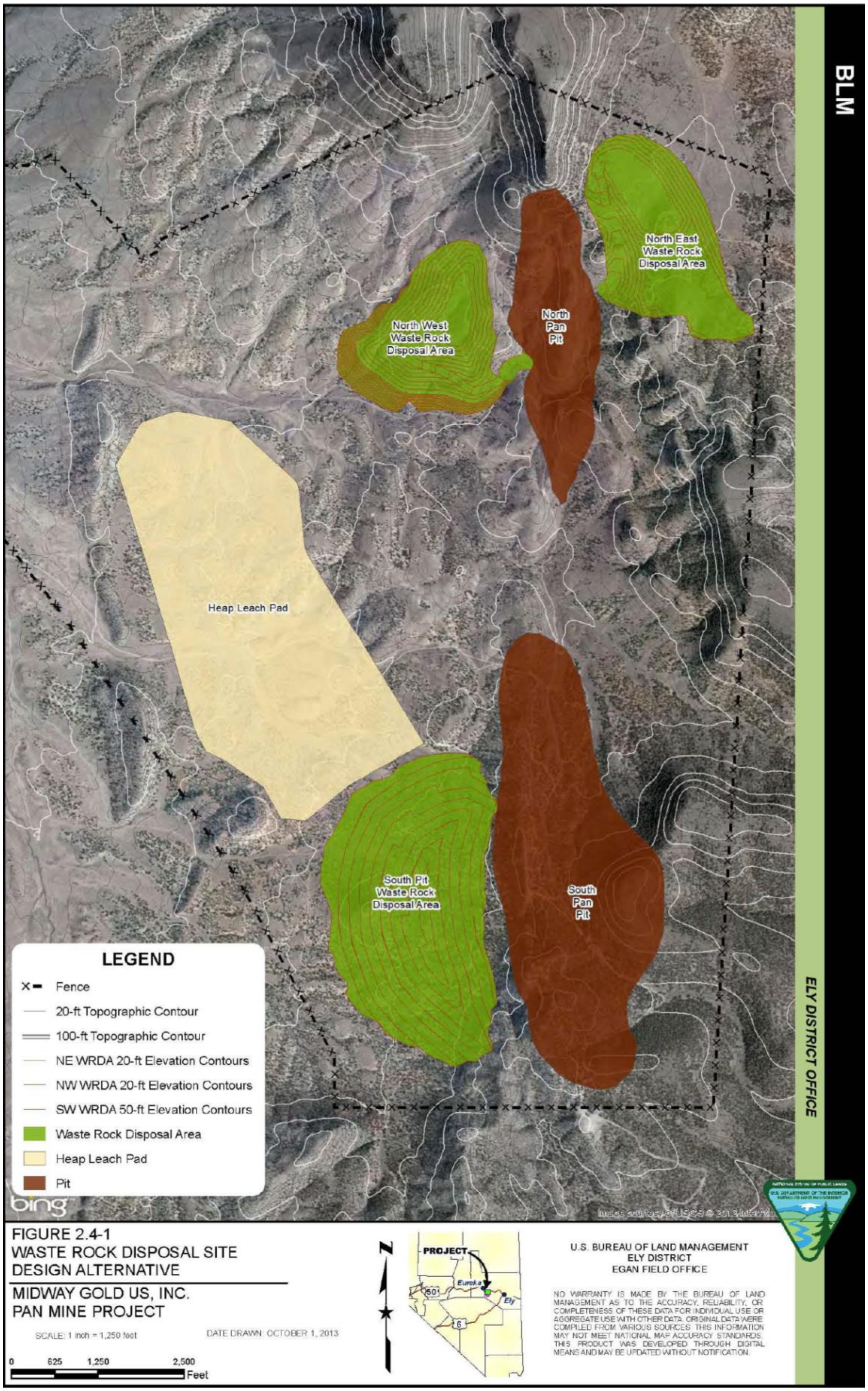


Figure 20-1 Mine Layout included in POO

Table 20-1 Summary of Proposed Disturbance with the Project Area

Component	Authorized Disturbance (acres)	Proposed Action Disturbance (acres)	Re-Categorized Acres[1]	Total Disturbance (acres)
Open Pits				
South Pan Pit	0	247	-	247
North Pan Pit	0	92	-	92
Black Stallion Pit	0	13	-	13
South Syncline Pit	0	3	-	3
Syncline Pit[2]	0	0	-	0
North Syncline Pit[2]	0	0	-	0
WRDAs				
South	0	216	-	216
North	0	264	-	264
Other				
Roads[3]	21	160	-	181
Heap Leach Facility	0	321	-	321
Process Facilities	0	18	-	18
Process Ponds	0	15	-	15
Yards	0	15	-	15
Exploration	79	217	66	230
Ancillary Facilities	0	359	-	359
Inter-facility Disturbance	0	1,214	-	1,214
Transmission Line[4]	0	-	-	16
Total	**100**	**3,154**	**66**	**3,204**

WRDA = Waste Rock Disposal Area
[1] "Re-categorized" refers to acres that were originally carried in one disturbance category, and were transferred to another disturbance category. Most of the re-categorized acres were in the areas of the North Pan Pit, South Pan Pit, and the North and South WRDAs. Other disturbance acres re-categorized include roads, crushing facilities, laydown areas, and ancillary facilities, etc.
[2] These pits would be covered with other facilities by the end of mining, so the total disturbance presented in this table does not include these pits.
[3] Includes the access, haul, and secondary roads.
[4] Transmission line acres accounted for in a Plan of Development submitted by Mr. Wheeler Power.

20.4.2 Overview

The 2011 exploration plan area includes 100 acres of existing and authorized surface disturbance. This acreage, plus an additional 200 acres, has been rolled into the approved Pan Mine plan approved in December 2013. The authorized exploration operations for the Project are ongoing and include the following:

- Road building (main access road and drill roads)
- Reverse circulation (RC) and core exploration drilling and drill pad construction
- Trench excavation and borehole augers for obtaining bulk metallurgical samples and soil samples
- Construction and monitoring of groundwater monitoring wells
- Development of a staging area for temporary storage of drilling materials and equipment
- Provision of temporary portable sanitation facilities

20.4.3 Access

The original access road to the site was an existing road, which had been used by the public since prior to authorization of the 2004 Pan Exploration Project Plan of Operations and Reclamation Permit Application. The BLM authorized the previous operators' use of this road in conjunction with the 2004 plan. Although this road was initially believed to be an unimproved 1913 segment of the Lincoln Highway, subsequent investigations suggest that at least a part of this road is not a segment of the Lincoln Highway. The original access road was also located in proximity to two active sage grouse leks. In response to these two issues, Midway proposed a new location for the access road, which BLM authorized in the 2011 Pan Project Exploration Plan Amendment (NVN-078305). In addition, this new access road was also authorized under a BLM right-of-way.

Midway constructed this road, within a 200- to 400-foot wide corridor, in December of 2012 and January 2013. The variable width of the corridor allowed for field siting in response to site-specific conditions. The alignment maintains moderate grades and is largely out of sight of active leks. The road alignment was selected in conference with BLM and NDOW and minimizes noise and dust by avoiding steep climbs; visibility by being located behind shielding ridges; and is located further away from the leks than the original route. For the authorized exploration activities, the access road had a running surface of 16 feet wide, with an average disturbance of 32 feet wide and 5 miles in length totaling about 21.1 acres of disturbance. As described in Section 2.5.7, the access road was widened for the mining operation and now has a 32-foot wide running surface and a 90-foot total disturbance width.

20.4.4 Exploration Drill Roads and Drill Sites

Existing improved and unimproved roads and overland travel provide access to the drill sites. Exploration roads and spurs are bladed to an average width of 15 feet including side cast material, with waterbars installed as needed. Care is taken to keep road grades at ten % or less, but steeper grades are necessary for short pitches. Growth media is sidecast for later use in reclamation.

Drill pads are constructed or graded as needed. Drill pads approved under the 2004 POO are 50 feet by 25 feet (0.03 acres) in size and drill pads approved under the 2011 amendment are 30 feet by 70 feet, (0.05 acres) in size. A sump is used at each drill site to contain drill cuttings and control drilling fluids. Where possible, existing trenches are partially backfilled and used as sumps to minimize surface disturbance. A drill pad and sump may be used for more than one drill hole.

A maximum of four buggy-, truck-, or track-mounted RC and core drill rigs are used during exploration, and each drill rig requires two support vehicles. Drilling is authorized to depths of up to 1,500 feet per hole. Water was encountered during drilling at a depth of approximately 800 feet below the heap leach pad area. Drilling mud and cuttings from holes drilled using water are collected in a sump located within the drill pad perimeter. Water encountered during drilling is evaluated for flow, recovery, and quality. No water has been encountered in the exploration drilling to date.

Each drill hole is abandoned per NRS 534 prior to development of the next site. Up to four holes may be open at any time. All exploration drill holes are reclaimed.

20.4.5 Groundwater Monitoring Wells

The Project was also authorized through the DR/FONSI issued for the Midway Gold Pan Project Exploration Amendment, dated July 2011, to install 4 shallow and 2 deep groundwater monitoring wells and all necessary state regulatory approvals for such wells were obtained before they were drilled (BLM 2011b). When no longer needed for monitoring purposes, they will be plugged and abandoned according to the regulatory and permit requirements imposed by the Nevada Division of Water Resources, and the area will be reclaimed by grading, scarifying, and seeding.

20.5 Developed Operations

Midway has developed an open pit gold mine plan within the Project Area with multiple pits. Ore will be crushed on site, agglomerated and processed using a central heap leach facility. The permitted mining period is 13 years, with associated construction, closure, reclamation and post-closure monitoring periods extending the Project life to approximately 38 years. The actual mine plan in this report is for 3 ½ years.

The pits, waste rock disposal areas, heap leach facility, roads, and ancillary facilities will result in about 3,204 acres of total disturbance. Upon completion of mining, the operation will be closed and reclaimed.

This Plan considers the authorized exploration disturbance in evaluating the following proposed activities and mine components.

Construct, operate, close, and reclaim the following:

- Two main open pits: the North Pan Pit and the South Pan Pit
- Three satellite pits: Red Hill, Central Pan and South Satellite
- Crushing facilities and associated stockpiles
- Two waste rock disposal areas (WRDA)
- Heap leach pad, conveyors, processing facilities, and ponds
- Water supply wells and delivery/storage system
- Widened existing access road
- Haul and secondary roads
- Exploration within the Mine area
- Ancillary facilities including: power supply; storm water controls; reagent, fuel, and explosives storage; buildings including administration, laboratory, security, warehouse, core shed, and parking; potable water supply and septic systems; maintenance shop; ready line; light vehicle wash; communications facilities; helicopter pad; plant growth medium and woody debris stockpiles; class III-waivered landfill; area for petroleum contaminated soils; monitoring wells; borrow areas; fencing; and yards and inter-facility disturbance.

Mining activities will be conducted within the mine area, while exploration may occur anywhere within the plan area. For permitting purposes, the mine area is sufficient in size to accommodate projected mining disturbance and buffer zones, as well as potential variations resulting from design modifications such as engineering adjustments to the open pit perimeter, haul and secondary roads, and growth media stockpiles. All land surfaces within the mine area will be subject to potential disturbance from pit construction, waste rock disposal, heap leach activities, exploration activities, and/or road, water supply or ancillary facilities construction. The mine area will be fenced to preclude access by the public and livestock.

20.5.1 Period of Operations

Mining began in May of 2014 with pre-stripping and road construction, construction of the south WRDA and Phase 1 leach pad construction and will last about 3 years. Ore was placed on the heaps beginning in late Q3 2014 with first leach solution being applied in Q1 2015. Mining and leaching operations will continue for 3 ½ years from the date of this report. Heap leach drain down, closure and reclamation will require approximately four years, ending in about Year 8. The closure and reclamation of supporting facilities and post-closure monitoring will require approximately 30 years, bringing the entire Project life to about 38 years. Monitoring of heap leach drain down will continue until flows diminish, which may be up to 30 years following closure. Concurrent reclamation during active mining, has been planned to begin as soon as practicable on areas where no further disturbance will occur minimizing the need for post-mining reclamation.

20.6 Environmental Impact Statement

Based on the results of the 2004 and 2011 EAs, an Environmental Impact Statement (EIS) was determined to be necessary to address the following issues prior to project development.

20.6.1 Potential impacts to local sensitive species:

- Sage Grouse – The Pan Project area is situated where there are few or no springs and seeps and is high enough on the mountainside to not be located in primarily sagebrush habitat. However, two active sage grouse leks have been identified in the area and are recognized by the BLM and NDOW. The power line and access road route was relocated to avoid these leks. There are other leks further away that are either sufficiently far away from proposed activities to not pose a threat to the birds' well-being or are inactive. There were no timing limitations required during construction, and normal mining activities should not be impacted. Construction activities were scheduled to occur in the Fall and Winter, when no restrictions would be required, to the degree possible. However, monitoring of noise at the lek locations during the lekking period (March 1^{st} to May 15^{th}) was required in the EIS and ROD.
- Sagebrush cholla – three specimens of sage brush cholla were found west of the site, outside of the proposed project area (JBR 2010). Sagebrush cholla is a Nevada Natural Heritage Program special status species. Identification and relocation of plants found in disturbance areas was required in the EIS and ROD.
- Pygmy Rabbits – No pygmy rabbits were found on the project site during baseline studies, though habitat is present (JBR 2010). Minor losses and loss of up to 312 acres of habitat have not been expected to contribute to a trend toward listing on other projects. A similar finding was determined for the Pan Project. Surveys and avoidance if detected were required in the EIS and ROD.
- Migratory Birds and Bats – Several migratory bird and raptor species were found at the Pan Project site during baseline surveys (JBR 2010). Nevada BLM considers all bat species sensitive, however, no nesting or roosting habitat was found on-site and no further evaluation will be required by the NEPA process.

20.6.2 Potential impacts to segments of the Lincoln Highway/Hamilton Stage Road, Carbonari sites, and other historic/archaeological sites.

- A Programmatic Agreement (PA) has been developed between the BLM, SHPO and Midway that directs all activities associated with identifying and mitigating archaeological sites. This PA, which has been completed, facilitates future archaeological work on site.
- Lincoln Highway/Hamilton Stage Road – US Highway 50 was developed over the Lincoln Highway route in the Pan area. The dirt road which accesses the Pan Project site and traverses the south end of the proposed North Pit may have been an alternative route for the Lincoln Highway from 1913 to 1926, prior to the development of US Highway 50. Studies of this section of the route have determined that parts of it are eligible, and some parts are not eligible, for listing on the National Register of Historic Places (NRHP). A treatment plan was prepared, submitted to the BLM, and all required mitigation of segments within the mine disturbance area has been completed. The plan included designating another similar road in the area as a mitigation route, providing signage to inform and direct travelers to the new route, and installing two culverts on the road. Concurrence from the BLM was obtained in January, 2013 and the completion of the mitigation was completed in early Spring, 2013.
- The Hamilton Stage Road was a Pony Express, stage and freight route between Elko and Hamilton, Nevada. It was likely constructed, or became used, in the late 1800s and was outdated by the early 1900s. The exact routing in the area of the Pan Project is unknown. It is believed to be in the Newark Valley, and not in the area of the Pan Project.
- Historic and visual impacts can generally be mitigated and aren't often considered project stopping occurrences. In this case, the historic impacts can likely be mitigated. The project site is located far enough away from Key Observation Points (KOPs), and the topography is such that visual impacts from KOPs should not be a major issue.
- Carbonari Sites – Carbonari sites, burn piles and habitations from Swedish/Italian charcoal producers, have been identified within and near the Pan Project area. Cultural surveys have been conducted to identify, locate, and record the Carbonari sites. Approximately 300 sites were identified. Of these, approximately 150 were determined eligible for listing. Fifteen sites (10%) were determined to require mitigation due to their ability to provide knowledge about the Carbonari in the area. A plan to mitigate the sites through recordation prior to disturbance was developed and submitted to the BLM in January, 2013. The sites were mitigated during the early Spring of 2013.
- Historic sheep grazing took place in the area around the proposed Pan Project site. Old wells and residual troughs are commonly associated with these sites. No mitigation was required for these sites.

20.6.3 Geochemistry

Gold mineralization in the Pan deposit occurs as sub-microscopic particles disseminated in carbonate and clastic sedimentary rocks. All known mineralization is non-sulfur bearing oxide, and clay and silica alteration are the dominant styles of alteration. Acid rock drainage (ARD) is unlikely based on these conditions, but given the importance of the issue and according to current regulatory requirements, geochemical evaluations of waste materials were conducted. The results of geochemical testing, which included Humidity Cell testing, concluded that the material is non-acid generating and very low in metals leaching. No special handling of waste is currently anticipated. Further testing is being done during mining and a plan is in place to handle any material that does show a potential for acid generation or elevated metals leaching.

20.6.4 Air permitting

Mercury and fugitive dust are the main issues regarding air permitting of mines in Nevada. However, there were no particular difficulties to overcome in obtaining permitting for the project with regard to air quality. Modeling of air quality was completed for both the permitting and NEPA process. Neither of these modeling efforts indicated an issue for air permitting, and the project was fully air permitted through the state of Nevada in 2014. Modifications to the air permit were completed in 2015 to allow additional equipment for run of mine dumping on the heap. This process included an evaluation of the modeling for the NEPA process, and impacts were determined to within those evaluated previously.

The permitting schedule for the Pan Project was dictated by the NEPA process requirements, which typically include at least one year of baseline studies followed by a scoping process and production of Draft and Final EIS documents. Public review periods are required at the scoping, Draft and Final EIS stages. The Pan Project baseline studies were completed in 2011, and the project went through the scoping process in 2012. The Draft EIS was released for public review in early 2013. The Final EIS and Record of Decision were completed in December of 2013, with a date for beginning of construction January, 2014. The permitting phase of the project was completed within a few months of the schedule set in 2011. The NEPA and permitting processes required approximately 36 months from initiation of baseline studies, which began in late 2010, to the receipt of the ROD in late 2013.

20.6.5 Permits Required

All permits required for operations have been obtained. Though not a comprehensive list, permits for the project include the following:

- Hazardous Materials Storage Permit
- Liquefied Petroleum Gas License
- Pressure Vessel Permit
- Radioactive Material License
- Building permits
- Potable water permit
- Reclamation permit.

20.7 Planned Operating Procedures

Midway has committed to the following practices to prevent undue and unnecessary degradation during the life of the Project. These practices described briefly below, are part of the operating procedures included in the Plan of Operations.

20.7.1 Air Emissions

Appropriate air quality permits have been obtained from the NDEP Bureau of Air Pollution Control (BAPC) for the new Project facilities and land disturbance.

Committed air quality practices include dust control for mine unit operations as described by the BAPC required Fugitive Dust Control Plan. In general, the Fugitive Dust Control Plan provides for speed limits; water application on haul roads and other disturbed areas; chemical dust suppressant application (such as magnesium chloride or lignin sulfonate) where appropriate; seeding plant growth medium and other stockpiles; and other dust control measures as accepted and reasonable industry practice. Also, disturbed areas will be seeded with an interim seed mix to minimize fugitive dust emissions from un-vegetated surfaces where appropriate. Appropriate emission control equipment has been installed and operated in accordance with the construction and operating air permits. As the project moves forward with additional crushing equipment the needed air emissions controls will need to by reviewed.

Midway has acquired Nevada Mercury Control Program air quality operating permits from the NDEP/BAPC for mercury control devices installed on thermal units in the process building.

20.7.2 Cultural Resources

A Class III cultural resources survey of a 5,530-acre area including the Mine area has been completed.

A Programmatic Agreement (PA) was completed for the project. According to the PA; *"avoidance is the BLM-preferred treatment for preventing effects to any prehistoric or historic site eligible to the National Register of Historic Places and ethno-historic properties or unevaluated cultural resources. If avoidance is not feasible because an area is needed for mine facilities or project operations or is not adequate to prevent adverse effects, Midway will undertake mitigation such as data recovery at the affected historic properties in accordance with the Programmatic Agreement between BLM, Nevada State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation which is currently in place. Development of a treatment plan, data recovery, archaeological documentation, and report preparation will be based on the "Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation," 48 FR 44716 (September 29, 1983), as amended and annotated.*

If an unevaluated site cannot be avoided, additional information will be gathered and the site will be evaluated. If the site does not meet eligibility criteria as defined by the Nevada SHPO, no further cultural work will be performed. If the site meets eligibility criteria, a data recovery plan or appropriate mitigation will be completed under the Programmatic Agreement."

A portion of an alternative route of the Lincoln Highway and numerous Carbonari sites were found to be eligible for listing. A treatment plan was accepted and these sites have now been fully mitigated. No further archaeological mitigation, or avoidance, is required for the development of the site.

20.7.3 Erosion and Sediment Control

Best management practices are being used to limit erosion and reduce sediment in precipitation runoff from proposed Project facilities and disturbed areas during construction, operations, and initial stages of reclamation.

Best management practices utilized during construction and operations are designed to minimize erosion and control sediment runoff include:

- Surface stabilization measures – dust control, mulching, riprap, temporary gravel construction access, temporary and permanent revegetation/reclamation, and placing plant growth medium
- Runoff control and conveyance measures – hardened channels, runoff diversions
- Sediment traps and barriers – check dams, grade stabilization structures, sediment detention basins, sediment/silt fence and straw bale barriers, and sediment traps

Revegetation of disturbed areas will reduce the potential for wind and water erosion. Following construction activities, areas such as cut-and-fill embankments and plant growth medium/cover stockpiles are being seeded as soon as practicable and safe. Concurrent reclamation is being maximized to the extent practicable to accelerate revegetation of disturbed areas. Sediment and erosion control measures will be inspected periodically, and repairs performed as needed.

20.7.4 Waters of the State and Waters of the United States

Process components were constructed, and are operated in accordance with NAC 445A. The process facilities are zero discharge, and the heap leach facilities have engineered liner and leak detection systems in accordance with NAC 445A design criteria.

As of the date of this report, no PAG materials have been mined. In the event PAG material is encountered a waste rock management plan has been prepared. This plan describes the management of any identified PAG materials and materials with the potential to mobilize deleterious constituents. The water pollution control permit and engineering design documents also provide detail on methods to manage and monitor waste rock.

Midway has a storm water management plan which identifies specific control measures and monitoring requirements. Actual locations and the number of sediment controls will be determined during final design and where appropriate during operations. In either case, the controls will be in accordance with the storm water plan and engineering design documents included in the water pollution control permit. A dam safety permit was acquired from the Nevada Division of Water Resources (NDWR) for the process ponds which are over 20 foot in height above natural ground surface and impound over 20 acre-feet of water above the natural ground surface.

A survey to identify waters of the United States or areas where waters could be discharged into waters of the United States was conducted within the proposed Plan area. No waters of the United States or areas where waters could be discharged into waters of the United States were identified (JBR 2011).

20.7.5 Hazardous Materials

Hazardous materials are being transported, stored, and used in accordance with federal, state, and local regulations. Employees have been trained in the proper transportation, use, and disposal of hazardous materials.

Midway contracts with EnviroCare for emergency hazardous response. They are available 24 hours per day, 7 days per week to manage potential spills of regulated materials at the site.

20.7.6 Solid Waste

Midway has constructed, is operating, and will close the Class III Solid waste Landfills in accordance with NAC 444.731 through 444.747. Employee training includes appropriate landfill disposal practices such as the allowable wastes that can be placed in the landfills. Used solvent, liquids drained from aerosol cans, accumulations of mercury fluorescent lights and used antifreeze will be accumulated, labeled, and shipped off-site in compliance with applicable state and federal regulations. Midway anticipates, and has permitted the site as a "small quantity generator". However, the appropriate licensing will be determined during the first few years of operations and if necessary a "small quantity generator" license will be obtained based on quantities actually generated. Signs have been installed at the landfill sites reminding employees of appropriate disposal practices.

20.7.7 Monitoring

During operations, annual qualitative monitoring of multiple key indicators of site stability of concurrently reclaimed areas are being conducted. These key stability indicators include revegetation and noxious/invasive weeds, surface erosion, sedimentation, slope stability, and wildlife parameters. If specified performance guidelines are not satisfied then appropriate maintenance activities will be implemented.

20.7.8 Plant Growth Medium and Woody Debris Storage

Plant growth medium and woody debris stockpiles were located such that mining operations will not disturb them. The surfaces of inactive stockpiles have been shaped to reduce erosion. To further minimize wind and water erosion, these inactive plant growth medium stockpiles will be seeded with an interim seed mix developed in conjunction with BLM.

20.7.9 Wildlife Including Migratory Birds

Land clearing and surface disturbance are timed to prevent destruction of active bird nests or chicks during the avian breeding season as determined by the BLM to comply with the Migratory Bird Treaty Act (16 US Code 703-712 as amended). If surface disturbing activities are unavoidable during the avian breeding and nesting season (April 15 to July 15), Midway will have a qualified biologist survey areas proposed for disturbance for the presence of active nests immediately prior to the disturbance. If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), an appropriate buffer will be identified by the BLM and NDOW and be placed around the nest to prevent destruction or disturbance of nests until the birds are no longer present.

Operators are trained to monitor the mining and process areas for the presence of larger wildlife such as deer and sensitive species such as sage grouse. Mortality information will be collected and reported immediately when required or on a quarterly basis in accordance with the NDOW industrial artificial pond permit. Midway has established wildlife protection policies that will prohibit hunting, feeding, or harassment of wildlife unless attempting to move wildlife off the site. Power poles were built with anti-perch devices to protect raptors from electrocution.

20.7.10 Protection of Survey Monuments

To the extent practicable, Midway will protect all survey monuments, witness corners, reference monuments, bearing trees, and line trees against unnecessary or undue destruction or damage. If, in the course of operations, any monuments, corners, or accessories are destroyed, Midway will immediately report the matter to the BLM-authorized officer. Prior to destruction or damage during surface disturbing activities, Midway will contact the BLM to develop a plan for any necessary restoration or re-establishment activity of the affected monument in accordance with Nevada Instruction Memorandum No. NV-2007-003 and Nevada law. Midway will bear the cost for the restoration or re-establishment activities including the fees for a Nevada professional land surveyor.

20.7.11 Noxious Weeds and Invasive Non-Native Species

Midway recognizes the economic and environmental impact that can result from the establishment of noxious weeds and has committed to a proactive approach to weed control. A noxious weed monitoring and control plan was implemented during construction and is continuing through operations. The plan contains management strategies, provisions for annual monitoring, treatment, and treatment evaluation. The results from annual monitoring will be the basis for updating the plan and developing annual treatment programs.

20.7.12 Reclamation Plan

Reclamation of disturbed areas resulting from activities outlined in the Reclamation Plan have and will continue to be completed in accordance with BLM and NDEP regulations. The purpose of Subpart 43 CFR 3809 – Surface Management, is to prevent unnecessary or undue degradation of public lands by operations authorized under the mining laws. This subpart establishes procedures and standards to ensure that operators and mining claimants meet this responsibility and provide for the maximum possible coordination with appropriate state agencies. The State of Nevada requires that a reclamation plan be developed for any new exploration or mining projects and for expansions of existing operations (NRS and NAC Chapters 519A).

Midway anticipates that, with the exception of the open pits for which reclamation exemption under NAC 519A.250 was obtained, surface mine components will be reclaimed and revegetated according to the Reclamation Plan approved for the project. Disturbance associated with exploration plan activities that occurred within the Plan area will be reclaimed as described in this Plan. The goals of the reclamation plan are to:

- Minimize surface disturbance and environmental impact to the extent practicable
- Create diverse, reclaimed landscapes to promote vegetation and habitat diversity and hydrologic stability over time
- Return Project-related disturbances to productive post-mining land uses that emphasize livestock grazing, sage grouse habitat, wild horse use, and wildlife use with dispersed recreation and mineral exploration usage
- Comply with applicable state and federal environmental rules and regulations
- Limit visual impacts

- Limit and/or eliminate long-term maintenance following reclamation to the extent practical.

These goals will be achieved by meeting the primary objectives listed below:

- Establish stable surface topographic and hydrologic conditions during mining and after reclamation that are compatible with the surrounding landscape by designing stable fill and cut slopes, controlling erosion, and managing surface water and earthen materials to minimize water quality impacts
- Establish a stable, diverse and self-sustaining plant community through removing (either direct replacement or stockpiling) and redistributing suitable plant growth medium on disturbed areas and by the seeding and planting of native and adapted plant species
- Reclaim facilities that are no longer needed for operations as soon as practicable during the production period ('concurrent reclamation')
- Integrate mining plans with soil, water and waste management and reclamation plans
- Separate process water and contact water from non-contact (i.e. un-impacted) water
- Incorporate operational storm water management facilities into the design of closure storm water management systems

Midway is committed to operating in a manner which protects, and where possible enhances, the environmental and social values of the ecosystems and communities within which it operates. To this end, Midway has proposed a reclamation plan to reclaim the land to productive post-mining land uses. Such voluntary measures include:

- Live-handling of plant growth medium (removal and direct placement of plant growth medium on surfaces that have been prepared for reclamation without stockpiling)
- Construction of WRDAs using stable design principles
- Salvage and redistribution of woody debris for final reclamation
- Contouring the top of the spent heap leach pad to create more natural forms and lines
- A revegetation plan that includes sowing seed and planting shrub seedlings according to landscape position and aspect.

21 CAPITAL AND OPERATING COSTS

21.1 Capital Cost Estimate

The Pan Mine has been constructed and for the purposes of this Technical Report all capital spent to date is considered a sunk cost. Additional capital is now needed to build the Phase 2 leach pad expansion and to source a crushing, screening, and agglomeration plant to process Pan ores. These project additions are required to sustain operations. Due to the relatively small Phase 1A leach pad footprint and the longer leach cycles now anticipated due to lower than expected ore permeability, additional leach pad area is required. The leach pad expansion is scheduled to commence in July 2015 and will have duration of approximately four months at a cost of $11.5 million. This includes haul road construction, QA/QC and liner costs. The design and necessary regulatory approvals for expanding the leach pad are in place to add another 2.2 million square feet of pad. This expansion will also require the construction of an elevated haul road, Road “A”, to provide access to the expanded pad and to control storm water flows upstream of the pad footprint.

The original assumptions for processing ores from the South pan pits were predicated on the metallurgical responses achieved in the April 2014 laboratory testing that indicated high recoveries for run of mine ore with standard solution application rates. However, commercial operations determined that the ore had lower permeability than originally presumed. This led Pan management to conclude that agglomeration was necessary to achieve acceptable ore permeability.

Ore permeability will be addressed in several ways. Revenues need to be maintained while leach pad construction and plant design engineering and installation are ongoing to provide the wherewithal to crush and agglomerate South Pan pits’ ores. This will be achieved initially using the temporary crusher to produce over liner for the pad expansion to generate as much crushed North Pan ores as possible and augment such production with run of mine North Pit ores. Drilling and blasting test work in the North Pan pit will help generate optimum drilling and blasting practices to produce acceptably sized run of mine ore. Once all the over liner is produced for the leach pad expansion the temporary crushing plant will be retained to crush all of North pan ore and to blend it 50:50 with South Pan ore hence achieving acceptable permeability. This practice will be continued until the primary crusher and agglomeration plant is installed – such installation to be completed by January of 2016. Once the plant is operational it will process South Pan are ores only and production from the North pan area will be held in abeyance.

The first phase for the crushing plant will include a 200 ton dump pocket, vibrating grizzly, primary jaw crusher cement and lime silos and conveying systems. Agglomeration will be achieved using a series of conveyors. This plant will be used to crush and agglomerate all of South Pan area ores until they are exhausted and North Pan area ores come on line. As North Pan area ores require crushing to a P80 minus ½ inch, secondary and tertiary crushers will be installed as part of the second phase to augment the then existing plant.

The capital cost estimates are shown in Table 21-1. South Pan capital includes metallurgical testing for both South and North Pan pits, engineering design for both phases of the crushing plant; a primary crusher and agglomeration circuit for South Pan pits and the addition of secondary and tertiary crushers for North Pan pits' ores.

Table 21-1 Pan Project Capital Cost Estimate

Pan Project Estimated Capital Cost	
South Pan and Satellite South Pits	
Description	**Cost ($000s)**
Metallurgical Testing	$500
Engineering Design[1]	$3,500
Construction Permits	$200
200 ton Dump Hopper	$400
Vibrating Grizzly Feeder	$200
Primary Crusher (Jaw)	$2,000
Vibrating Screen	$400
Cement Silo	$200
Relocation of lime silo	$75
Conveyor	$800
Agglomeration Conveyor Belts (3)	$450
Conveyor and Stackers	$1,000
Installation	$5,000
Subtotal	*$14,725*
Contingency	$2,000
Total South Pits	**$16,725**
North Pan and Central Pan and Red Hill Pits	
Secondary Crusher	$1,500
Terrtiary Crusher	$1,500
Vibrating Screens	$400
Conveyors	$400
Installation	$3,000
Subtotal	*$6,800*
Contingency	$1,000
Total North Pan	**$7,800**
TOTAL PROJECT COST	**$24,525**

[1] Engineering Design is for the South and North Pan facilities

21.2 Operating Cost Estimate

21.2.1 Project Cost and Basis

The Pan Project's cash operating costs are estimated to be $7.98 per ton of ore processed including mining, processing and general and administrative. The unit costs summarized in Table 21-2 are based on annual ore production of 7 million tons (19,700 tpd) assuming 355 days of mine operation. Table 21-3 details the processing cost at Pan.

Table 21-2 Pan Operating Cost Summary by Cost Type

Operating Cost	Cost/ Ore ton	Cost/Total ton mined	Cost/oz. Au Recovered
Mine - Open Pit Contractor costs	$3.82	$ 2.00	$347.80
Total Processing	**$2.88**		**$262.60**
General & Administrative	$0.80		$72.84
Net Proceeds Tax	$0.48		$44.09
Total Operating Cost	**$7.98**		**$727.33**

Table 21-3 Processing Cost Breakdown for North and South Pan

Category	Cost ($/Ore ton)	
	South Pan	North & Central Pan
Operating Labor	0.71	0.71
Reagents (NaCN etc.)	1.18	1.18
Repair & Maintenance Supplies	0.23	0.37
Wear Items	0.05	0.06
Electric Power	0.35	0.45
Heavy Mobil Equipment Operation	0.03	0.03
Staff/Supervision	0.20	0.20
TOTAL	**2.75**	**3.00**

The yearly cash operating costs are estimated to average a little over $60 million per year during normal operations.

21.2.2 Project Manpower

Project wages for Pan salary and hourly employees are shown in Table 21-4 and Table 21-5 (respectively) based on figures supplied by Midway, as the project is in operation. Mine operations costs are part of the mine contractor's contract and are not listed.

Table 21-4 Pan Labor List and Wages for Salary Employees

Category	# Personnel	Annual Salary ($)
VP/General Manager Nevada	1	175,000.00
Process Manager	1	140,000.00
Administration Manager	1	120,000.00
Environmental Manager	1	120,000.00
Mine Planning Manager	1	120,000.00
Safety & Health Manager	1	100,000.00
HR Manager	1	120,000.00
Mine Production Manager	1	100,000.00
Accountant III (Senior)	1	75,000.00
IT Administrator	1	100,000.00
Materials Specialist	1	70,000.00
Safety & Health Specialist	1	85,000.00
Process General Supervisor	1	105,000.00
Maintenance Supervisor	1	85,000.00
Process Operations Supervisors	4	80,000.00
Open Pit Operations Supervisors	0	80,000.00
Chief Metallurgist	1	110,000.00
Sr. Mine Engineer	1	110,000.00
Ore Control Geologist	2	70,000.00
Process Trainer	0	70,000.00
HR Generalist	1	60,000.00
Env Specialist	1	85,000.00
TOTAL	**24**	**2,180,000.00**

Table 21-5 Pan Labor List and Wages for Hourly Employees

Category	# Personnel	Annual Salary ($)
AP/Payroll Tech	1	37,440.00
Survey Tech	2	62,920.00
Sampling Tech	2	43,513.60
Laboratory Tech	6	45,760.00
ADR Operator	4	63,564.80
Heap Leach Tech	4	55,785.60
Process Maintenance Tech	2	68,224.00
Electrical & Instrumentation Tech	2	65,582.40
Roving Security/EMS Technician	4	47,840.00
Refiner	0	63,564.80
TOTAL SALARY	**27**	**554,195.20**

21.2.3 Mine Operating Costs

The estimated yearly mine department operating costs are listed by cost center in Table 21-6.

Table 21-6 Pan Yearly Plant Operating Costs

OPERATING COSTS	2015	2016	2017	2018	TOTALS
Mining	$ 12,541,885	$ 30,620,087	$ 28,218,314	$ 9,589,577	**$ 80,969,864**
Processing (South Pit & Black Stallion)	$ 2,511,418	$ 19,599,026	$ 4,890,067	$ -	**$ 27,000,511**
Processing (North Pit & Syncline)	$ 8,145,711	$ -	$ 16,140,462	$ 9,846,943	**$ 34,133,116**
General & Administration	$ 2,902,784	$ 5,701,535	$ 5,726,688	$ 2,625,852	**$ 16,956,859**
Net Proceeds of Mines/Property Tax	$ 1,582,911	$ 3,465,477	$ 3,010,097	$ 2,205,838	**$ 10,264,322**
TOTAL OPERATING COSTS	**$ 27,684,709**	**$ 59,386,125**	**$ 57,985,628**	**$ 24,268,210**	**$ 169,324,672**

21.2.4 General and Administration Costs

The life of mine general & administration cost per ton processed is projected at $0.80 per ore ton based on Pan's 2015 budget. The yearly cost per ton by category is shown on Table 21-7.

Table 21-7 Yearly G&A Cost Statistics

Category	G&A ($/ore ton)
Labor	$0.24
Consumables & Utilities	$0.03
Contract Services	$0.04
General & Admin.	$0.26
Human Resources	$0.05
Environmental	$0.17
Health & Safety	$0.01
Total	**$0.80**

21.2.5 Insurance

General liability and property insurance is based off the most recent premium and is expected to remain relatively constant at $27,000/month, which includes property, umbrella and general liability coverage.

21.2.6 Transportation

All Midway personnel are transported to and from site in company owned or leased vehicles. Transportation costs are included in the $0.80 per ore ton G&A Cost.

21.2.7 Net Proceeds of Minerals/Property Tax

The State of Nevada imposes a yearly tax on the net proceeds of all mining operations conducted within the state, plus a yearly property tax on all land and real property, as well as fixed and mobile equipment employed by the mining operations. The net proceeds of minerals tax is based on the income derived from sales of all mineral products from the mine less A) production royalties; B) certain direct mine, plant, and administration expenses sourced in the state of Nevada; C) development expenses incurred during the year; D) prescribed depreciation of tangible assets according to set, pre-defined classifications contained in state regulations; and E) reclamation expenditures incurred during the year of the tax. The tax rate for the net proceeds of mines tax is set by law at a maximum of 5%. Where the net proceeds are less than $4 million, a lower rate may apply, with the minimum rate being the county ad valorem rate, currently 3.66%.

Land, real property, and personal property is subject to a yearly property tax at the rate imposed by White Pine County, the jurisdiction of the mining operations. The Taxable Value of the property, which includes replacement cost new, less depreciation on all but the land, is multiplied by 35% to arrive at the Assessed Value. The current tax rate of 3.66% is applied to the Assessed Value to arrive at the property tax. (It is equivalent to 1.281% of property replacement value, less depreciation).

21.2.8 Income Tax

Income taxes for the Pan Project were based on US Federal Income Tax rules and regulations, since Nevada imposes no state income tax. From the operating revenues minus operating expenses (the operating margin), a deduction was calculated for depreciation of fixed, mobile and mine development cost assets. Fixed plant equipment and mobile equipment was depreciated over 10 years at straight line rates. Mine development costs were depreciated using a 70% deduction for the year placed into service and 30% depreciated over 5 years at straight line rates.

Federal law allows a mining operation to deduct either cost depletion (the charging of the cost of the acquisition of reserves over the life of the mine) or percentage depletion (the application of a percentage to the gross income less royalties to determine an allowed deduction against taxable income), which represents a significant deduction. The allowed rate for gold projects is 15%. In 2015 and 2018 percentage depletion caused a minimum tax to be applicable. After the inclusion of the minimum tax, the income tax yielded an effective tax rate above 15% of the operating margin less allowable depreciation.

22 ECONOMIC ANALYSIS

22.1 Analysis

The economic evaluation for the Pan Project is based upon the design for mining, processing and operations activities completely contained in Midway ground mining proven and probable reserves of 21.2 million tons grading 0.014 opt Gold in an open pit, with an overall Strip Ratio for both pits of 0.91:1. All ores will be processed in a 19,700-ton per day heap leach process. Mining will occur in 2 separate pits and 3 satellite pits, the South Pit and the North Pit, with metal recoveries expected to average 85% in ores from the South Pit, satellite pits, and 62% in ores from the North Pit.

For the pit optimization study, the cutoff grade for the design of the South Pit is 0.004 opt, while the cutoff grade for the design of the North Pit is 0.005 opt.

The mine operates on two twelve-hour shift per day basis 355 days per year, while the plant would operate 365 days per year on two twelve-hour shifts per day.

Cash flows were calculated on an after-tax basis, utilizing a federal income tax rate of 35% and including the deductions for percentage depletion as allowed by federal law. Nevada has no state income tax. A 15% contingency was included in the capital costs.

22.2 Commodity Price(s)

A gold price of $1,200/troy ounce was used as the basis for this study based on a gold price forecast from several lending institutions in the US and Canada.

22.3 Royalties and Taxes

Based upon a review of the underlying property agreements by the Midway, a 4% royalty was calculated and used in the derivation of net revenues.

22.4 Cash Flow Analysis

An analysis of the projected capital expenditures, revenues net of royalties, operating expenses, and income taxes was prepared on a monthly basis to determine the estimated after-tax cash flows from the project. Federal income tax depreciation and percentage depletion rules were applied to the appropriate capital asset and income categories to calculate the regular income tax burden.

Projected economic outcomes were prepared on an annual basis, utilizing a 5%, 8% and 10% discount factor per annum. The cash operating cost per recover ounce of gold is $727.

22.5 Economic Projection

The results of the economic analysis are shown in an annualized cash flow forecast, as presented in Appendix C.

The project is projected to have a total lifespan of 3 years. During the life of mine about 302,400 ounces of gold are projected to be mined and about 215,400 ounces of gold recovered and produced for sale. An additional 17,381 ounces is expected to be recovered from ore placed on the leach pad prior to June 25, 2015. The timing of the ounces recovered is based on a gold recovery curve developed from the actual recovered metal from the lower than anticipated ore permeability.

An additional capital investment of $60.57 million, including contingency is expected to be required including reclamation, leach pad expansion and sustaining capital for the process plant. The cash operating cost is projected to be $727 per ounce of gold.

22.6 Sensitivity Analysis

Consistent with almost all gold projects, the Pan Project is very sensitive to changes in the price of gold. For this study, an increase in the average gold price from $1,200 to $1,920 per ounce increases the NPV @ 5% from $25.6 million to $174.0 million.

Second to gold price sensitivity, the Pan project is most sensitive to gold recovery as shown in Table 22-1 and Figure 22-1 below.

Table 22-1 Economic Projection at Varying Gold Price ($x1000)

	Base Case	40%	60%	80%	100%	120%	140%	160%
Operating Costs								
NPV @5%	25,578	119,853	88,428	57,003	25,578	(5,847)	(37,272)	(68,697)
Capital Costs								
NPV @5%	25,578	59,750	48,359	36,969	25,578	14,187	2,797	(8,594)
Au Price								
NPV @5%	25,578	(125,217)	(74,909)	(24,666)	25,578	75,822	123,655	173,971
Au Recovery								
NPV @5%	25,578	(97,573)	(52,187)	(9,130)	25,578	58,816	89,503	120,190

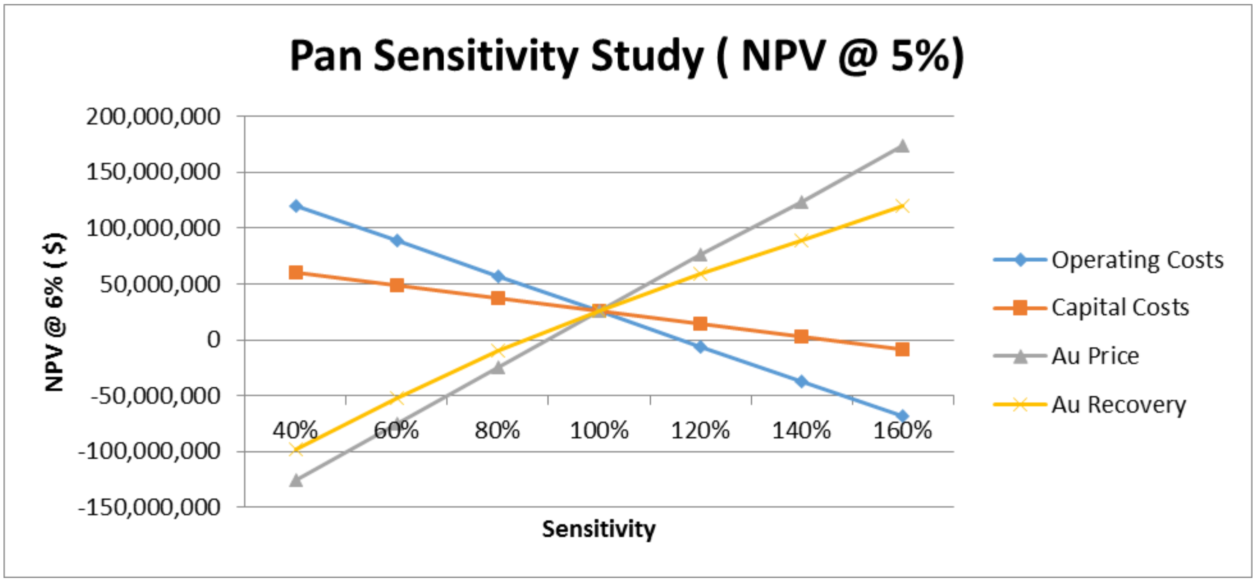


Figure 22-1 Price and cost Sensitivity

23 ADJACENT PROPERTIES

Adjacent properties have no known existing, potential, or reasonable future material impact on the Pan Project. Midway's Gold Rock Project is located 8 miles to the southeast of Pan, and could offer opportunities for synergistic development.

24 OTHER RELEVANT DATA AND INFORMATION

Gustavson knows of no additional information or explanation necessary to make this report more understandable. This Technical Report has been prepared to accurately and independently reflect the information contained in the Feasibility Study prepared by Gustavson Associates.

25 INTERPRETATION AND CONCLUSIONS

25.1 Conclusions

This study demonstrates that a profitable operation of the Pan Project is feasible. Past errors have impacted the project and its cash flows. Gustavson believes that this is a reasonable presentation of the project potential. As such it is not without risks. Gustavson believes that these can be mitigated.

25.2 Risk Assessment

A summary of the project risks at this stage include:

Resource – Drilling will continue on the North Pan and Deep Wendy areas. This may result in changes to the mineral resource, both negative and positive. In this study, the mineral resource model has been modified to correlate with a small area of the South Pan pit. If this area is not representative of the North Pan or Wendy areas, there may be further changes. As mining is scheduled to begin at North Pan, there may be additional information within 2015.

Recovery – Although the expected performance of the leach pads and gold recovery appear reasonable given current experience, knowledge and previous test work, there still exist elements which have no specific test work to address. Ongoing metallurgical test work will be needed.

Midway's current operation plan is to continue leaching the existing ore on the heap leach pad at the rate that it will accept solution. There is a risk that the current permeability cannot be maintained and that the time for recovery of these ounces will be extended. The kinetics of leaching mixed North Pan and South Pan ore as proposed for the last quarter of 2015 are also unknown. This material may also have the risk of slow or reduced gold recovery.

Rock Density- Based on several samples taken at the Pan Project site, a decision to adjust the bulk densities of the rock in the block model was undertaken. Specifically the Argillic Shale (containing much of the ore in South Pan and the Wendy Zone) was reduced by 9.9% while the Breccia and Argillic Breccia (containing some of the higher grade ore) was reduced by 6.8% and 6.5% respectively. The result of this is the reduction in ore tons and in contained ounces of gold. Current site work for bulk material testing may adjust density values.

Gold Price - The Company has no plans to hedge the gold production from the Pan Project. Therefore, the project will be fully exposed to the risk and reward associated with the market fluctuations in the price of gold.

Financing and Liquidity - In order to develop and operate the project the company will have to raise the required financing. There is risk associated with an inability to raise the funds necessary to upgrade and continue the Pan operation.

Predicted NPV – The predicted NPV is a direct function of most of the factors included in the feasibility study. The aggregate risk to the NPV is deemed to be low as there is not a compendium of low risk factors, or of medium to high risk factors.

26 RECOMMENDATIONS

The Pan Project shows positive economic potential, and should continue in operation with new mining beginning in July 2015.

Gustavson recommends the following:

- Assess the block model to determine if there are regions within the resource area limits that are overly influenced by fire assays from the Alta Bay generation drilling. Analysis of the historic data indicates these fire assays are typically bias low relative to multiple other lab results. Significant areas dominated by these earlier results could potentially be upgraded for gold grade with additional drilling.
- Assess the block model to determine if there are regions within the resource area limits, currently defined as inferred resource owing to the influence of AuCN assays that could potentially be upgraded for gold grade and confidence levels by additional drilling. Positive upgrades may result in addition to the measured and indicated resources, if areas of significance are identified.
- Exploration drilling to upgrade inferred material in and near the pits.
- Near pit exploration drilling where mineralization is open along trend to add resource to the model.
- Continuing work on refinement of bulk density estimate of ore.
- Conduct a significant check assay program utilizing a number of labs in addition to ALS. While standard and blank analysis results of Midway's QA/QC program do not raise questions relative to ALS's results, the check assay program ensures a test of any potential bias in the existing results. This recommendation applies to production sampling as well as for exploration data.
- Metallurgical test work is needed for both South and North Pan material. This will include bulk samples in large columns investigating crush size, agglomeration and leach rates as the mine advances.
- The development and implementation of a 3 dimensional ore control system and a cost benefit analysis of using reverse circulation drilling to reduce dilution and improve head grade to the plant.

The recommended budget to complete these recommendations is shown in Table 1-6. This work can be completed in one phase.

Table 26-1 Estimated Recommendations Budget

Task	Cost
Analysis of cyanide assay impacts	$25,000
Analysis and drilling to upgrade inferred resource.	$2,500,000
Near pit exploration drilling	$2,500,000
In Situ Bulk Density Sampling	$10,000
Assay QA/QC program	$10,000
Metallurgical test work	$500,000
Ore control upgrade	$60,000
Total	$5,605,000

27 REFERENCES

Adair, D.H. and Stringham B.F., 1960, Intrusive Igneous Rocks of East Central Nevada, in Guidebook to the Geology of East-Central Nevada, Intermountain Association of Petroleum Geologists and Eastern Nevada Geological Society, 11th Annual Field Conference, Salt Lake City, Utah, 1960

AMEC, 2008, T. Wakefield and E.J.C. Orbock, E. Pan Mineral Resource Estimate and Data Review, File No. 158964. Prepared by AMEC for Midway, May 9th, 2008.

Armstrong, 1970, Geochronology of Tertiary Igneous Rocks, Eastern Basin and Range Province, Western Utah, Eastern Nevada, and Vicinity, Geochem. Et Cosmochim Acta, v34, no2.

Ashleman, J. and Bernardi, M., 2001, Pan Prospect, White Pine County, Nevada, Geologic Map, Unpublished Geologic Mapping of the Pan Project Area, Degerstrom and Latitude Minerals.

Bradbury, J.A., 2000, Column Leach Test work, Pan Core Samples, NA Degerstrom Inc., report to Latitude Minerals Corp.

Gathje, J.C., 1988, HRI Project 005-851, Cyanide Leach Tests of Three Pan Gold Ore Samples, Hazen Research Inc for Echo Bay Management Corp.

Golder Associates, Inc., 2010, Pan Project White Pine County, NV Draft Report on Scoping Level Pit Slope Evaluation for Midway Gold Corp Resources, Inc.

Golder Associates, Inc., 2011, Pan Project White Pine County, Nevada, Pre-Feasibility Level Pit Slope Evaluation for Midway Gold Corp Resources, Inc., April 2011.

Gustavson Associates, LLC, 2010, NI 43-101 Preliminary Economic Assessment of the Pan Gold Project, White Pine County, Nevada, July 20, 2010.

Gustavson Associates, LLC, 2011, NI 43-101 Preliminary Feasibility Study of the Pan Gold Project, White Pine County, Nevada, April 4, 2011.

Gustavson Associates, LLC, 2011, NI 43-101 Updated Mineral Resource Estimate for the Pan Gold Project, White Pine County, Nevada, September 1, 2011.

Harris, D., 2007, Pan Project Geology Map, Unpublished Geologic Map of the Pan Property, Midway Gold Corp Resources, Inc. (Midway Gold US Inc.).

Harris, D., 2009, Pan Project White Pine County, Nevada NI 43-101 Technical Report, Midway Gold Resources, Inc. for Midway Gold Corp (Midway Gold US Inc.)

Hose, R.K and Blake, M.C., 1976, Part II, Mineral Resources, in Geology and Mineral Resources of White Pine County, Nevada, Nevada Bureau of Mines and Geology, Bulletin 85.

Jeanne, R.A., 1988, Pan Project, Operations Conducted in 1987, Echo Bay Exploration Inc., report to Lyle F. Campbell Trust.

Jeanne, R.A., 1988, Report on Exploration, Pan Project, White Pine County, Nevada, Echo Bay Exploration, Inc., Internal Report.

KCA, 2004, T. Albert, Pan Metallurgical Program, Kappes, Cassidy, & Associates, for Castleworth Ventures.

McClelland, G.E., 1987, Report on Column Percolation Leach Tests on Pan Jasperoids, ML Job No. 1049, McClelland Laboratories, Inc, memorandum to Echo Bay Management Corp.

McClelland, G.E., 1987, Interim Report on Preliminary Cyanidation Test work on Pan Jasperoids, MLI Job No. 1049, McClelland Laboratories Inc. memorandum to Echo Bay Management Corp.

MDA, 2005, M. Gustin. Pan Gold Project, Updated Technical Report, White Pine County, Nevada USA, Prepared by Mine Development Associates Mine Engineering Services for Castleworth Ventures Inc. January 2005.

Muerhoff, C.V., 2003, Technical Report, Pan Gold Project, White Pine County, Nevada, USA, Mine Development Associates, Inc, Independent technical report prepared for Castleworth Ventures Inc.

Myers, I.A., 1990, Status of Pan Project, Alta Gold Co., internal memorandum**.**

Myers, I.A., 1990, Update of Metallurgical Study of the Pan Deposits, Alta Gold Co. internal memorandum.

Myers, I.A., 1990, Final Review of Metallurgical Study Conducted for the Pan Project, Alta Gold internal memorandum.

Myers, I.A., 1990, Metallurgical Study, Pan Project, Alta Gold Co internal memorandum.

Myers, I.A., 1990, Pan Mineral Lease, 1989 Activities Report, Alta Bay Joint Venture, Alta Bay Venture Report to LFC Trust**.**

Myers, I.A., 1991, Pan Project, 1990 Annual Report, Alta Bay Joint Venture, Alta Bay Venture Report to LFC Trust.

Resource Development Inc., 2011, Metallurgical Testing of Midway Pan Samples, September 28, 2011.

Sherrin, C.H., 1988, Report on Agitate Cyanidation Tests - Pan Cuttings Composites, MLI Job No. 1140, McClelland Laboratories for Echo Bay Exploration.

Shrake, T., 1984, Geology and Hydrothermal Alteration of the Pan Disseminated Gold Occurrence, White Pine County, Nevada, M.S. Thesis, University of Idaho.

Smith, R.M., 1976, Part II, Mineral Resources, in Geology and Mineral Resources of White Pine County, Nevada, Nevada Bureau of Mines and Geology, Bulletin 85.

SRK, 2009, Draft Report, Pan Gold Project, White Pine County, Nevada, prepared for Confidential Client by SRK Consulting.

SRK, 2014, Pan Mine Heap Leach Pad – Stage 1 Phase 1A & Process Water Ponds As-Built Report for 2014 Construction, prepared by SRK Consulting (US) Inc.

Thompson, P., 1987, Results of Assay Screen and Cyanide Leach Testing 3 Each Composite Ore Samples, Project o. P-1349, Dawson Metallurgical Laboratories, Inc, memorandum to Echo Bay Mines.

White, R. and Buxton, C., 1999, Resource Estimation and Exploration Potential for the Pan Gold Deposit, White Pine County, Nevada, Lynn Canal Geological Services report to Latitude Minerals Corp.

Western Regional Climate Website, 2008, Desert Research Institute (www.wrcc.dri.edu)

Wright, J.L., 2008, Pan Property Gravity Survey Phase II, GIS Database, Report to Midway Gold Corp, 16p

Appendix A

Pan Project List of Claims

BLM Serial Number	Claim Name	Type	Status	Projects
NMC37169	PAN # 37	LD	Active	Pan
NMC37170	PAN # 38	LD	Active	Pan
NMC37172	PAN # 63	LD	Active	Pan
NMC37173	PAN # 65	LD	Active	Pan
NMC37174	PAN # 67	LD	Active	Pan
NMC37175	PAN # 69	LD	Active	Pan
NMC57946	PAN # 71	LD	Active	Pan
NMC57947	PAN # 72	LD	Active	Pan
NMC57948	PAN # 73	LD	Active	Pan
NMC57949	PAN # 74	LD	Active	Pan
NMC61102	PAN # 22	LD	Active	Pan
NMC61103	PAN # 23	LD	Active	Pan
NMC61104	PAN # 24	LD	Active	Pan
NMC61105	PAN # 25	LD	Active	Pan
NMC61106	PAN # 26	LD	Active	Pan
NMC61107	PAN # 27	LD	Active	Pan
NMC61108	PAN # 28	LD	Active	Pan
NMC61114	PAN # 34	LD	Active	Pan
NMC61115	PAN # 35	LD	Active	Pan
NMC61116	PAN # 36	LD	Active	Pan
NMC205565	PAN #119	LD	Active	Pan
NMC427129	PE #50	LD	Active	Pan
NMC427131	PE #52	LD	Active	Pan
NMC427133	PE #54	LD	Active	Pan
NMC630283	PA 8A	LD	Active	Pan
NMC630284	PA 10	LD	Active	Pan
NMC630285	PA 12	LD	Active	Pan
NMC630286	PA 13	LD	Active	Pan
NMC630287	PA 14	LD	Active	Pan
NMC630288	PA 15	LD	Active	Pan
NMC630289	PA 16	LD	Active	Pan
NMC630290	PA 17	LD	Active	Pan
NMC630291	PA 18	LD	Active	Pan
NMC630323	PA 49A	LD	Active	Pan
NMC815131	LAT 9	LD	Active	Pan
NMC815132	LAT 10	LD	Active	Pan
NMC815133	LAT 11	LD	Active	Pan
NMC815134	LAT 12	LD	Active	Pan
NMC815135	LAT 13	LD	Active	Pan
NMC815136	LAT 14	LD	Active	Pan
NMC815137	LAT 15	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC815138	LAT 16	LD	Active	Pan
NMC815139	LAT 17	LD	Active	Pan
NMC815140	LAT 18	LD	Active	Pan
NMC815141	LAT 19	LD	Active	Pan
NMC815142	LAT 20	LD	Active	Pan
NMC815143	LAT 21	LD	Active	Pan
NMC815144	LAT 22	LD	Active	Pan
NMC815145	LAT 23	LD	Active	Pan
NMC815146	LAT 24	LD	Active	Pan
NMC815147	LAT 25	LD	Active	Pan
NMC815148	LAT 26	LD	Active	Pan
NMC815149	LAT 27	LD	Active	Pan
NMC815150	LAT 28	LD	Active	Pan
NMC815151	LAT 29	LD	Active	Pan
NMC815152	LAT 30	LD	Active	Pan
NMC815153	LAT 31	LD	Active	Pan
NMC815154	LAT 32	LD	Active	Pan
NMC815155	LAT 33	LD	Active	Pan
NMC815156	LAT 34	LD	Active	Pan
NMC815157	LAT 35	LD	Active	Pan
NMC815158	LAT 36	LD	Active	Pan
NMC815159	LAT 37	LD	Active	Pan
NMC815160	LAT 38	LD	Active	Pan
NMC815161	LAT 40	LD	Active	Pan
NMC815162	LAT 42	LD	Active	Pan
NMC815163	LAT 44	LD	Active	Pan
NMC815164	LAT 46	LD	Active	Pan
NMC815166	LAT 49	LD	Active	Pan
NMC815167	LAT 50	LD	Active	Pan
NMC815168	LAT 51	LD	Active	Pan
NMC815169	LAT 52	LD	Active	Pan
NMC815170	LAT 53	LD	Active	Pan
NMC815171	LAT 54	LD	Active	Pan
NMC815172	LAT 55	LD	Active	Pan
NMC815173	LAT 56	LD	Active	Pan
NMC815174	LAT 57	LD	Active	Pan
NMC815175	LAT 58	LD	Active	Pan
NMC815176	LAT 59	LD	Active	Pan
NMC815177	LAT 60	LD	Active	Pan
NMC815178	LAT 47	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC815179	LAT 61	LD	Active	Pan
NMC815180	LAT 62	LD	Active	Pan
NMC815181	LAT 63	LD	Active	Pan
NMC815182	LAT 64	LD	Active	Pan
NMC815183	LAT 65	LD	Active	Pan
NMC958517	NC 1	LD	Active	Pan
NMC958518	NC 2	LD	Active	Pan
NMC958519	NC 3	LD	Active	Pan
NMC958520	NC 4	LD	Active	Pan
NMC958521	NC 5	LD	Active	Pan
NMC958522	NC 6	LD	Active	Pan
NMC958523	NC 7	LD	Active	Pan
NMC958524	NC 8	LD	Active	Pan
NMC958525	NC 9	LD	Active	Pan
NMC958526	NC 10	LD	Active	Pan
NMC958527	NC 11	LD	Active	Pan
NMC958528	NC 12	LD	Active	Pan
NMC958529	NC 13	LD	Active	Pan
NMC958530	NC 14	LD	Active	Pan
NMC958531	NC 15	LD	Active	Pan
NMC958532	NC 16	LD	Active	Pan
NMC958533	NC 17	LD	Active	Pan
NMC958534	NC 18	LD	Active	Pan
NMC958535	NC 19	LD	Active	Pan
NMC958536	NC 20	LD	Active	Pan
NMC958537	NC 21	LD	Active	Pan
NMC958538	NC 22	LD	Active	Pan
NMC958539	NC 23	LD	Active	Pan
NMC958540	NC 24	LD	Active	Pan
NMC958541	NC 25	LD	Active	Pan
NMC958542	NC 26	LD	Active	Pan
NMC958543	NC 27	LD	Active	Pan
NMC958544	NC 28	LD	Active	Pan
NMC958545	NC 29	LD	Active	Pan
NMC958546	NC 30	LD	Active	Pan
NMC958547	NC 31	LD	Active	Pan
NMC958548	NC 32	LD	Active	Pan
NMC958549	NC 33	LD	Active	Pan
NMC958550	NC 34	LD	Active	Pan
NMC958551	NC 35	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC958552	NC 36	LD	Active	Pan
NMC958553	NC 37	LD	Active	Pan
NMC958554	NC 38	LD	Active	Pan
NMC958555	NC 39	LD	Active	Pan
NMC958556	NC 40	LD	Active	Pan
NMC958557	NC 41	LD	Active	Pan
NMC958558	NC 42	LD	Active	Pan
NMC958559	NC 43	LD	Active	Pan
NMC958560	NC 44	LD	Active	Pan
NMC958561	NC 45	LD	Active	Pan
NMC958562	NC 46	LD	Active	Pan
NMC958563	NC 47	LD	Active	Pan
NMC958564	NC 48	LD	Active	Pan
NMC958565	NC 49	LD	Active	Pan
NMC958566	NC 50	LD	Active	Pan
NMC958567	NC 51	LD	Active	Pan
NMC958568	NC 52	LD	Active	Pan
NMC958569	NC 53	LD	Active	Pan
NMC958570	NC 54	LD	Active	Pan
NMC958571	NC 55	LD	Active	Pan
NMC958572	NC 56	LD	Active	Pan
NMC958573	NC 57	LD	Active	Pan
NMC958574	NC 58	LD	Active	Pan
NMC958575	NC 59	LD	Active	Pan
NMC958576	NC 60	LD	Active	Pan
NMC958577	NC 61	LD	Active	Pan
NMC958578	NC 62	LD	Active	Pan
NMC958579	NC 63	LD	Active	Pan
NMC958580	NC 64	LD	Active	Pan
NMC958581	NC 65	LD	Active	Pan
NMC958582	NC 66	LD	Active	Pan
NMC958583	NC 67	LD	Active	Pan
NMC958584	NC 68	LD	Active	Pan
NMC958585	NC 69	LD	Active	Pan
NMC958586	NC 70	LD	Active	Pan
NMC958587	NC 71	LD	Active	Pan
NMC958588	NC 72	LD	Active	Pan
NMC958589	NC 73	LD	Active	Pan
NMC958590	NC 74	LD	Active	Pan
NMC958591	NC 75	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC958592	NC 76	LD	Active	Pan
NMC958593	NC 77	LD	Active	Pan
NMC958594	NC 78	LD	Active	Pan
NMC958595	NC 79	LD	Active	Pan
NMC958596	NC 80	LD	Active	Pan
NMC958597	NC 81	LD	Active	Pan
NMC958598	NC 82	LD	Active	Pan
NMC958599	NC 83	LD	Active	Pan
NMC958600	NC 84	LD	Active	Pan
NMC958601	NC 85	LD	Active	Pan
NMC958602	NC 86	LD	Active	Pan
NMC958603	NC 87	LD	Active	Pan
NMC958604	NC 88	LD	Active	Pan
NMC958605	NC 89	LD	Active	Pan
NMC958606	NC 90	LD	Active	Pan
NMC958607	NC 91	LD	Active	Pan
NMC958608	NC 92	LD	Active	Pan
NMC958609	NC 93	LD	Active	Pan
NMC958610	NC 94	LD	Active	Pan
NMC958611	NC 95	LD	Active	Pan
NMC958612	NC 96	LD	Active	Pan
NMC958613	NC 97	LD	Active	Pan
NMC958614	NC 98	LD	Active	Pan
NMC958615	NC 99	LD	Active	Pan
NMC958616	NC 100	LD	Active	Pan
NMC958617	NC 101	LD	Active	Pan
NMC958618	NC 102	LD	Active	Pan
NMC958619	NC 103	LD	Active	Pan
NMC958620	NC 104	LD	Active	Pan
NMC958621	NC 105	LD	Active	Pan
NMC958622	NC 106	LD	Active	Pan
NMC958623	NC 107	LD	Active	Pan
NMC958624	NC 108	LD	Active	Pan
NMC958625	NC 109	LD	Active	Pan
NMC958626	NC 110	LD	Active	Pan
NMC958627	NC 111	LD	Active	Pan
NMC958628	NC 112	LD	Active	Pan
NMC958629	NC 113	LD	Active	Pan
NMC958630	NC 114	LD	Active	Pan
NMC958631	NC 115	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC958632	NC 116	LD	Active	Pan
NMC958633	NC 117	LD	Active	Pan
NMC958634	NC 118	LD	Active	Pan
NMC958635	NC 119	LD	Active	Pan
NMC958636	NC 120	LD	Active	Pan
NMC958637	NC 121	LD	Active	Pan
NMC958638	NC 124	LD	Active	Pan
NMC958640	NC 126	LD	Active	Pan
NMC958641	NC 127	LD	Active	Pan
NMC958642	NC 128	LD	Active	Pan
NMC958643	NC 129	LD	Active	Pan
NMC958644	NC 130	LD	Active	Pan
NMC958645	NC 133	LD	Active	Pan
NMC958647	NC 135	LD	Active	Pan
NMC958648	NC 136	LD	Active	Pan
NMC958649	NC 137	LD	Active	Pan
NMC958650	NC 138	LD	Active	Pan
NMC958651	NC 139	LD	Active	Pan
NMC958652	NC 142	LD	Active	Pan
NMC958653	NC 143	LD	Active	Pan
NMC958654	NC 144	LD	Active	Pan
NMC958655	NC 145	LD	Active	Pan
NMC958656	NC 146	LD	Active	Pan
NMC958657	NC 149	LD	Active	Pan
NMC958658	NC 150	LD	Active	Pan
NMC958659	NC 151	LD	Active	Pan
NMC958660	NC 152	LD	Active	Pan
NMC958661	NC 153	LD	Active	Pan
NMC958662	NC 154	LD	Active	Pan
NMC958663	NC 157	LD	Active	Pan
NMC958664	NC 158	LD	Active	Pan
NMC958665	NC 159	LD	Active	Pan
NMC958666	NC 160	LD	Active	Pan
NMC958667	NC 161	LD	Active	Pan
NMC958668	NC 162	LD	Active	Pan
NMC958669	NC 165	LD	Active	Pan
NMC958670	NC 166	LD	Active	Pan
NMC958671	NC 167	LD	Active	Pan
NMC958672	NC 168	LD	Active	Pan
NMC958673	NC 169	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC958674	NC 170	LD	Active	Pan
NMC965337	GWEN 1	LD	Active	Pan
NMC965338	GWEN 2	LD	Active	Pan
NMC965339	GWEN 3	LD	Active	Pan
NMC965340	GWEN 4	LD	Active	Pan
NMC965341	GWEN 5	LD	Active	Pan
NMC965342	GWEN 6	LD	Active	Pan
NMC965343	GWEN 7	LD	Active	Pan
NMC965344	GWEN 8	LD	Active	Pan
NMC965345	GWEN 9	LD	Active	Pan
NMC965346	GWEN 10	LD	Active	Pan
NMC973536	REE-81	LD	Active	Pan
NMC973537	REE-82	LD	Active	Pan
NMC977345	GWEN 49	LD	Active	Pan
NMC977346	GWEN 50	LD	Active	Pan
NMC977347	GWEN 51	LD	Active	Pan
NMC977350	GWEN 54	LD	Active	Pan
NMC977351	GWEN 55	LD	Active	Pan
NMC977352	GWEN 58	LD	Active	Pan
NMC977353	GWEN 59	LD	Active	Pan
NMC977354	GWEN 60	LD	Active	Pan
NMC977355	GWEN 61	LD	Active	Pan
NMC977356	GWEN 62	LD	Active	Pan
NMC977357	GWEN 63	LD	Active	Pan
NMC977358	GWEN 64	LD	Active	Pan
NMC977359	GWEN 65	LD	Active	Pan
NMC980710	CT 30	LD	Active	Pan
NMC980711	CT 31	LD	Active	Pan
NMC980712	CT 32	LD	Active	Pan
NMC980713	CT 33	LD	Active	Pan
NMC980714	CT 34	LD	Active	Pan
NMC980715	CT 35	LD	Active	Pan
NMC980716	CT 38	LD	Active	Pan
NMC980717	CT 39	LD	Active	Pan
NMC980718	CT 40	LD	Active	Pan
NMC980719	CT 41	LD	Active	Pan
NMC980720	CT 42	LD	Active	Pan
NMC980721	CT 43	LD	Active	Pan
NMC980722	CT 46	LD	Active	Pan
NMC980723	CT 47	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC980724	CT 48	LD	Active	Pan
NMC980725	CT 49	LD	Active	Pan
NMC980726	CT 50	LD	Active	Pan
NMC980727	CT 51	LD	Active	Pan
NMC980728	PETER 1	LD	Active	Pan
NMC980729	PETER 2	LD	Active	Pan
NMC980730	PETER 3	LD	Active	Pan
NMC980731	PETER 4	LD	Active	Pan
NMC980732	PETER 5	LD	Active	Pan
NMC980733	PETER 6	LD	Active	Pan
NMC980734	PETER 7	LD	Active	Pan
NMC980735	PETER 8	LD	Active	Pan
NMC980736	PETER 9	LD	Active	Pan
NMC980737	PETER 10	LD	Active	Pan
NMC980738	PETER 11	LD	Active	Pan
NMC980739	PETER 12	LD	Active	Pan
NMC980740	PETER 13	LD	Active	Pan
NMC980741	PETER 14	LD	Active	Pan
NMC980742	PETER 15	LD	Active	Pan
NMC980743	PETER 16	LD	Active	Pan
NMC980744	PETER 17	LD	Active	Pan
NMC980745	PETER 18	LD	Active	Pan
NMC980746	PETER 19	LD	Active	Pan
NMC980747	PETER 20	LD	Active	Pan
NMC980748	PETER 21	LD	Active	Pan
NMC980749	PETER 22	LD	Active	Pan
NMC980750	PETER 23	LD	Active	Pan
NMC980751	PETER 24	LD	Active	Pan
NMC980752	PETER 25	LD	Active	Pan
NMC980753	PETER 26	LD	Active	Pan
NMC980754	PETER 27	LD	Active	Pan
NMC980755	PETER 28	LD	Active	Pan
NMC980756	PETER 29	LD	Active	Pan
NMC980757	PETER 30	LD	Active	Pan
NMC980758	PETER 31	LD	Active	Pan
NMC980759	PETER 32	LD	Active	Pan
NMC980760	PETER 33	LD	Active	Pan
NMC980761	PETER 34	LD	Active	Pan
NMC980762	PETER 35	LD	Active	Pan
NMC980763	PETER 36	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC980764	PETER 37	LD	Active	Pan
NMC980765	PETER 38	LD	Active	Pan
NMC980766	PETER 39	LD	Active	Pan
NMC980767	PETER 40	LD	Active	Pan
NMC980768	PETER 41	LD	Active	Pan
NMC980769	PETER 42	LD	Active	Pan
NMC980770	PETER 43	LD	Active	Pan
NMC980771	PETER 44	LD	Active	Pan
NMC980772	PETER 45	LD	Active	Pan
NMC980773	PETER 46	LD	Active	Pan
NMC980774	PETER 47	LD	Active	Pan
NMC980775	PETER 48	LD	Active	Pan
NMC980776	PETER 49	LD	Active	Pan
NMC980777	PETER 50	LD	Active	Pan
NMC980778	PETER 51	LD	Active	Pan
NMC980779	BSW 38	LD	Active	Pan
NMC980780	BSW 39	LD	Active	Pan
NMC980781	BSW 40	LD	Active	Pan
NMC980782	BSW 41	LD	Active	Pan
NMC980783	BSW 42	LD	Active	Pan
NMC980784	BSW 43	LD	Active	Pan
NMC980785	BSW 44	LD	Active	Pan
NMC980786	BSW 45	LD	Active	Pan
NMC980787	BSW 1	LD	Active	Pan
NMC980788	BSW 2	LD	Active	Pan
NMC980789	BSW 3	LD	Active	Pan
NMC980790	BSW 4	LD	Active	Pan
NMC980791	BSW 5	LD	Active	Pan
NMC980792	BSW 6	LD	Active	Pan
NMC980793	BSW 7	LD	Active	Pan
NMC980794	BSW 8	LD	Active	Pan
NMC980795	BSW 9	LD	Active	Pan
NMC980796	BSW 10	LD	Active	Pan
NMC980797	BSW 11	LD	Active	Pan
NMC980798	BSW 12	LD	Active	Pan
NMC980799	BSW 13	LD	Active	Pan
NMC980800	BSW 14	LD	Active	Pan
NMC980801	BSW 15	LD	Active	Pan
NMC980802	BSW 16	LD	Active	Pan
NMC980803	BSW 17	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC980804	BSW 18	LD	Active	Pan
NMC980805	BSW 19	LD	Active	Pan
NMC980806	BSW 20	LD	Active	Pan
NMC980807	BSW 21	LD	Active	Pan
NMC980808	BSW 22	LD	Active	Pan
NMC980809	BSW 23	LD	Active	Pan
NMC980810	BSW 24	LD	Active	Pan
NMC980811	BSW 25	LD	Active	Pan
NMC980812	BSW 26	LD	Active	Pan
NMC980813	BSW 27	LD	Active	Pan
NMC980814	BSW 28	LD	Active	Pan
NMC980815	BSW 29	LD	Active	Pan
NMC980816	BSW 30	LD	Active	Pan
NMC980817	BSW 31	LD	Active	Pan
NMC980818	BSW 32	LD	Active	Pan
NMC980819	BSW 33	LD	Active	Pan
NMC980820	BSW 34	LD	Active	Pan
NMC980821	BSW 35	LD	Active	Pan
NMC980822	BSW 36	LD	Active	Pan
NMC980823	BSW 37	LD	Active	Pan
NMC980824	BSW 46	LD	Active	Pan
NMC980825	BSW 47	LD	Active	Pan
NMC980826	PA 19	LD	Active	Pan
NMC980827	PA 21	LD	Active	Pan
NMC980828	PA 44	LD	Active	Pan
NMC980829	PA 46	LD	Active	Pan
NMC980830	PA 48	LD	Active	Pan
NMC980831	PE 56	LD	Active	Pan
NMC980832	NP 1	LD	Active	Pan
NMC980833	NP 2	LD	Active	Pan
NMC980834	NP 3	LD	Active	Pan
NMC980835	NP 4	LD	Active	Pan
NMC980836	NP 5	LD	Active	Pan
NMC980837	NP 6	LD	Active	Pan
NMC980838	NP 7	LD	Active	Pan
NMC980839	NP 8	LD	Active	Pan
NMC980840	NP 9	LD	Active	Pan
NMC980841	NP 10	LD	Active	Pan
NMC980842	NP 11	LD	Active	Pan
NMC980843	NP 12	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC980844	NP 13	LD	Active	Pan
NMC980845	NP 14	LD	Active	Pan
NMC980846	NP 15	LD	Active	Pan
NMC980847	NP 16	LD	Active	Pan
NMC980848	NP 17	LD	Active	Pan
NMC980849	NP 18	LD	Active	Pan
NMC980850	NP 19	LD	Active	Pan
NMC980851	NP 20	LD	Active	Pan
NMC980852	NP 21	LD	Active	Pan
NMC980853	NP 22	LD	Active	Pan
NMC980854	NP 23	LD	Active	Pan
NMC980855	NP 24	LD	Active	Pan
NMC980856	NP 25	LD	Active	Pan
NMC980857	NP 26	LD	Active	Pan
NMC980858	NP 27	LD	Active	Pan
NMC980859	NP 28	LD	Active	Pan
NMC980860	NP 29	LD	Active	Pan
NMC980861	NP 30	LD	Active	Pan
NMC980862	NP 31	LD	Active	Pan
NMC980863	NP 32	LD	Active	Pan
NMC980864	NP 33	LD	Active	Pan
NMC980865	NP 34	LD	Active	Pan
NMC980866	NP 35	LD	Active	Pan
NMC980867	NP 36	LD	Active	Pan
NMC980868	NP 37	LD	Active	Pan
NMC980869	NP 38	LD	Active	Pan
NMC980870	NP 39	LD	Active	Pan
NMC980871	NP 40	LD	Active	Pan
NMC980872	NP 41	LD	Active	Pan
NMC980873	ET 1	LD	Active	Pan
NMC980874	ET 2	LD	Active	Pan
NMC980875	ET 3	LD	Active	Pan
NMC980876	ET 4	LD	Active	Pan
NMC980877	ET 5	LD	Active	Pan
NMC980878	ET 6	LD	Active	Pan
NMC980879	ET 7	LD	Active	Pan
NMC980880	ET 8	LD	Active	Pan
NMC980881	ET 9	LD	Active	Pan
NMC980882	ET 10	LD	Active	Pan
NMC980883	ET 11	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC980884	ET 12	LD	Active	Pan
NMC980885	ET 13	LD	Active	Pan
NMC980886	ET 14	LD	Active	Pan
NMC980887	ET 15	LD	Active	Pan
NMC980888	ET 16	LD	Active	Pan
NMC980889	ET 17	LD	Active	Pan
NMC980890	ET 18	LD	Active	Pan
NMC980891	ET 19	LD	Active	Pan
NMC980892	ET 20	LD	Active	Pan
NMC980893	ET 21	LD	Active	Pan
NMC980894	ET 22	LD	Active	Pan
NMC980895	ET 23	LD	Active	Pan
NMC980896	ET 24	LD	Active	Pan
NMC980897	ET 25	LD	Active	Pan
NMC980898	ET 26	LD	Active	Pan
NMC980899	ET 27	LD	Active	Pan
NMC980900	ET 28	LD	Active	Pan
NMC980901	ET 29	LD	Active	Pan
NMC980902	ET 30	LD	Active	Pan
NMC980903	ET 31	LD	Active	Pan
NMC980904	ET 32	LD	Active	Pan
NMC980905	ET 33	LD	Active	Pan
NMC980906	ET 34	LD	Active	Pan
NMC980907	ET 35	LD	Active	Pan
NMC980908	ET 36	LD	Active	Pan
NMC980909	ET 37	LD	Active	Pan
NMC980910	ET 38	LD	Active	Pan
NMC980911	ET 39	LD	Active	Pan
NMC980912	ET 40	LD	Active	Pan
NMC980913	ET 41	LD	Active	Pan
NMC984556	GWEN 19	LD	Active	Pan
NMC984557	GWEN 20	LD	Active	Pan
NMC984558	GWEN 21	LD	Active	Pan
NMC984559	GWEN 22	LD	Active	Pan
NMC984560	GWEN 23	LD	Active	Pan
NMC984561	GWEN 24	LD	Active	Pan
NMC984562	GWEN 25	LD	Active	Pan
NMC984563	GWEN 26	LD	Active	Pan
NMC984564	GWEN 27	LD	Active	Pan
NMC984565	GWEN 28	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC984566	GWEN 29	LD	Active	Pan
NMC984567	GWEN 30	LD	Active	Pan
NMC984568	GWEN 31	LD	Active	Pan
NMC984569	GWEN 32	LD	Active	Pan
NMC984570	GWEN 33	LD	Active	Pan
NMC984571	GWEN 34	LD	Active	Pan
NMC984572	GWEN 35	LD	Active	Pan
NMC984573	GWEN 36	LD	Active	Pan
NMC984574	GWEN 37	LD	Active	Pan
NMC984575	GWEN 38	LD	Active	Pan
NMC984576	GWEN 39	LD	Active	Pan
NMC984577	GWEN 40	LD	Active	Pan
NMC984578	GWEN 41	LD	Active	Pan
NMC984579	GWEN 42	LD	Active	Pan
NMC984580	GWEN 43	LD	Active	Pan
NMC984581	GWEN 44	LD	Active	Pan
NMC984582	GWEN 45	LD	Active	Pan
NMC984583	GWEN 46	LD	Active	Pan
NMC984584	GWEN 47	LD	Active	Pan
NMC984585	GWEN 48	LD	Active	Pan
NMC984635	GWEN 17	LD	Active	Pan
NMC984636	GWEN 18	LD	Active	Pan
NMC984637	PAN 111	LD	Active	Pan
NMC984638	PAN 112	LD	Active	Pan
NMC984640	PAN 120	LD	Active	Pan
NMC984642	PAN 122	LD	Active	Pan
NMC1031802	PR 1	LD	Active	Pan
NMC1031803	PR 2	LD	Active	Pan
NMC1031804	PR 3	LD	Active	Pan
NMC1031805	PR 4	LD	Active	Pan
NMC1031806	PR 5	LD	Active	Pan
NMC1031807	PR 6	LD	Active	Pan
NMC1031808	PR 7	LD	Active	Pan
NMC1031809	PR 8	LD	Active	Pan
NMC1031810	PR 9	LD	Active	Pan
NMC1057236	PC 1	LD	Active	Pan
NMC1057237	PC 2	LD	Active	Pan
NMC1057238	PC 3	LD	Active	Pan
NMC1057239	PC 4	LD	Active	Pan
NMC1057240	PC 5	LD	Active	Pan

BLM Serial Number	Claim Name	Type	Status	Projects
NMC1057241	PC 6	LD	Active	Pan
NMC1057242	PC 7	LD	Active	Pan
NMC1057243	PC 8	LD	Active	Pan
NMC1057244	PC 9	LD	Active	Pan
NMC1057245	PC 10	LD	Active	Pan
NMC1057246	PC 11	LD	Active	Pan
NMC1057247	PC 12	LD	Active	Pan
NMC1057248	PC 13	LD	Active	Pan
NMC1057249	PC 14	LD	Active	Pan
NMC1057250	PC 15	LD	Active	Pan
NMC1057251	PC 16	LD	Active	Pan
NMC1057252	PC 17	LD	Active	Pan
NMC1057253	PC 18	LD	Active	Pan
NMC1057254	PC 20	LD	Active	Pan
NMC1057292	PC 19	LD	Active	Pan
NMC1057293	PC 21	LD	Active	Pan
NMC1057294	PC 22	LD	Active	Pan
NMC1057295	PC 23	LD	Active	Pan
NMC1057296	PC 24	LD	Active	Pan
NMC1057297	PC 25	LD	Active	Pan
NMC1057298	PC 26	LD	Active	Pan
NMC1057299	PC 27	LD	Active	Pan
NMC1057300	PC 28	LD	Active	Pan
NMC1057301	PC 29	LD	Active	Pan
NMC1102847	NC 125	LD	Active	Pan
NMC1102848	NC 134	LD	Active	Pan
NMC1102849	PAN 114	LD	Active	Pan
NMC1102850	PAN 121	LD	Active	Pan
NMC1102851	LAT 48	LD	Active	Pan

Appendix B

Pan End of Month & Quarter Pit Maps

Appendix C

Pan Cash Flow